DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

RIN 1018–AD62

Endangered and Threatened Wildlife and Plants: Establishment of a Nonessential Experimental Population of California Condors in Northern Arizona

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: The U.S. Fish and Wildlife Service (Service), in cooperation with the Arizona Game and Fish Department, and the U.S. Bureau of Land Management, plans to reintroduce California condors (*Gymnogyps californianus*) into northern Arizona/southern Utah and to designate these birds as a nonessential experimental population under the Endangered Species Act. This reintroduction will achieve a primary recovery goal for this endangered species, the establishment of a second non-captive population, spatially disjunct from the non-captive population in southern California. This California condor reintroduction does not conflict with existing or anticipated Federal or State agency actions or current and future land, water, or air uses on public or private lands.

EFFECTIVE DATE: This rule becomes effective on October 16, 1996.

ADDRESSES: The complete file for this rule is available for public inspection, by appointment, during normal business hours at the following Service offices:

—Field Supervisor, U.S. Fish and Wildlife Service, Ecological Services, Arizona Field Office, 2321 W. Royal Palm Road, Suite 103, Phoenix, Arizona 85021; Telephone: (602) 640–2720; Facsimile: (602) 640–2730.

—Field Supervisor, U.S. Fish and Wildlife Service, Ecological Services, Ventura Field Office, 2493 Portola Road, Suite B, Ventura, California 93003; Telephone: (805) 644–1766; Facsimile: (805) 644–3958.

FOR FURTHER INFORMATION CONTACT: Mr. Bruce Palmer (602/640–2720) at the Arizona Field Office address or Robert Mesta (805/644–1766) at the Ventura Field Office address above.

SUPPLEMENTARY INFORMATION:

Background

1. Legislative

Section 10(j) of the Endangered Species Act of 1973, as amended (Act) enables the Service to designate certain populations of federally listed species that are released into the wild as ''experimental.'' The circumstances under which this designation can be applied are: (1) The population is geographically disjunct from nonexperimental populations of the same species (e.g., the population is reintroduced outside the species' current range but within its probable historic range); and (2) the Service determines the release will further the conservation of the species. This designation can increase the Service's flexibility to manage a reintroduced population, because under section 10(j) an experimental population is treated, in certain instances, as a threatened species regardless of its designation elsewhere in its range, and under section 4(d) of the Act, the Service has greater discretion in developing management programs for threatened species than it has for endangered species.

Section 10(j) of the Act requires that when an experimental population is designated, the Service determine whether that population is either essential or nonessential to the continued existence of the species, based on the best available information. Nonessential experimental populations located outside National Wildlife Refuge System or National Park System lands are treated, for the purposes of section 7 of the Act, as if they are proposed for listing. Thus, for nonessential experimental populations, only two provisions of section 7 would apply outside National Wildlife Refuge System and National Park System lands; section 7(a)(1), which requires all Federal agencies to use their authorities to conserve listed species, and section 7(a)(4), which requires Federal agencies to informally confer with the Service on actions that are likely to jeopardize the continued existence of a proposed species. Section 7(a)(2) of the Act, which requires Federal agencies to ensure that their activities are not likely to jeopardize the continued existence of a listed species, would not apply except on National Wildlife Refuge System and National Park System lands. Experimental populations determined to be ''essential'' to the survival of the species would remain subject to the consultation provisions of section 7 of the Act. Activities undertaken on private lands are not affected by section 7 of the Act unless the activities are authorized, funded, or carried out by a Federal agency.

Section 9 of the Act prohibits the take of a listed species. ''Take'' is defined by the Act as harass, harm, pursue, hunt, shoot, wound, trap, capture, or collect, or attempt to engage in any such conduct. However, in accordance with this special rule issued under section 10(j), throughout the entire California condor experimental population area, you will not be in violation of the Act if you unavoidably and unintentionally take (including killing or injuring) a California condor, provided such take is non-negligent and incidental to a lawful activity, such as hunting, driving, or recreational activities, and you report the take as soon as possible.

Individual animals that comprise a designated experimental population may be removed from an existing source or donor population only after it has been determined that such a removal is not likely to jeopardize the continued existence of the species; the removal must be conducted under an existing permit issued in accordance with the requirements of 50 CFR 17.22. The Service evaluated this project under section 7 of the Act in a biological evaluation and concurrence memorandum dated August 19, 1996; the Service determined that the removal of birds from captive flocks and establishing a second wild flock would not jeopardize the continued existence of this species.

2. Biological

The California Condor (*Gymnogyps californianus*) was listed as endangered on March 11, 1967, in a final rule published by the Service (32 FR 4001). The Service designated critical habitat for the California condor in California, on September 24, 1976 (41 FR 41914). Long recognized as a vanishing species (Cooper 1890, Koford 1953, Wilbur 1978), the California condor remains one of the world's rarest and most imperiled vertebrate species.

The California condor is a member of the family Cathartidae, the New World vultures, a family of seven species, including the closely related Andean condor (*Vultur gryphus*) and the sympatric turkey vulture (*Cathartes aura*). California condors are among the largest flying birds in the world (U.S. Fish and Wildlife Service 1996). Adults weigh approximately 10 kilograms (22 pounds) and have a wing span up to 2.9 meters (9½ feet (ft)). Adults are black except for prominent white underwing linings and edges of the upper secondary coverts. The head and neck are mostly naked, and the bare skin is gray, grading into various shades of yellow, red, and orange. Males and females cannot be distinguished by size or plumage characteristics. The heads of juveniles up to 3 years old are grayish-black, and their wing linings are

variously mottled or completely dark. During the third year the head develops yellow coloration, and the wing linings become gradually whiter (N.J. Schmitt *in litt.* 1995). By the time individuals are 5 or 6 years of age, they are essentially indistinguishable from adults (Koford 1953, Wilbur 1975, Snyder *et al.* 1987), but full development of the adult wing patterns may not be completed until 7 or 8 years of age (N.J. Schmitt *in litt.* 1995).

The fossil record of the genus *Gymnogyps* dates back about 100,000 years to the Middle Pleistocene Epoch (Brodkorb 1964). Fossil records also reveal that the species once ranged over much of the southern United States, south to Nuevo Leon, Mexico, and east to Florida (Brodkorb 1964). Two well preserved fossil bones were reported from a site in upstate New York (Steadman and Miller 1987). Evidence indicates that California condors nested in west Texas, Arizona, and New Mexico during the Late Pleistocene. The disappearance of the California condor from much of this range occurred about 10,000–11,000 years ago, coinciding with the late Pleistocene extinction of the North American megafauna (Emslie 1987).

By the time European man arrived in western North America, California condors occurred in a narrow Pacific coastal strip from British Columbia, Canada, to Baja California Norte, Mexico (Koford 1953, Wilbur 1978). California condors were observed until the mid-1800's in the northern portion of the Pacific Coast region (Columbia River Gorge) and until the early 1930's in the southern extreme, northern Baja California (Koford 1953, Wilbur 1973, Wilbur and Kiff 1980). There is evidence indicating that condors returned to the southwest as early as the 1700's in response to the introduction of large herds of cattle, horses, and sheep that replaced the extinct Pleistocene megafauna as a source of carrion (Emslie 1986). By 1987, the California condor's range was reduced to a wishbone-shaped area encompassing six counties: Los Angeles, Ventura, Santa Barbara, San Luis Obispo, Monterey, and Kern, California (U.S. Fish and Wildlife Service 1996).

Courtship and nest site selection occurs from December through the spring. Breeding California condors normally lay a single egg between late January and early April. The egg is incubated by both parents and hatches after approximately 56 days. Both parents share responsibilities for feeding the nestling. Feeding usually occurs daily for the first 2 months, then gradually diminishes in frequency. At 2 to 3 months of age, condor chicks leave the nest cavity but remain in the vicinity of the nest where they are fed by their parents. The chick takes its first flight at about 6 to 7 months of age, but may not become fully independent of its parents until the following year. Parent birds occasionally continue to feed a fledgling even after it has begun to make longer flights to foraging grounds (U.S. Fish and Wildlife Service 1996).

Because of the long period of parental care, it was formerly assumed that successful California condor pairs normally nested successfully every other year (Koford 1953). However, this pattern seems to vary, possibly depending mostly on the time of year that the nestling fledges. If a nestling fledges relatively early (in late summer or early fall), its parents may nest again in the following year, but late fledging probably inhibits nesting in the following year (Snyder and Snyder 1989).

The only wild California condor (a male) of known age that bred successfully in the wild in 1986 was 6 years old. Recent data collected from captive birds, however, demonstrates that reproduction may occur, or at least be attempted, at earlier ages. A 4 year old male was the youngest condor observed in courtship display, and the same bird subsequently bred successfully at the age of 5 years (M. Wallace, Los Angeles Zoo, *in litt.* 1993). California condors nest in various types of rock formations including crevices, overhung ledges, potholes, and more rarely, in cavities of giant sequoia trees (*Sequoia giganteus*) (Snyder *et al.* 1986).

California condors are opportunistic scavengers, feeding only on carcasses. Typical foraging behavior includes long-distance reconnaissance flights, lengthy circling flights over a carcass, and hours of waiting at a roost or on the ground near a carcass (U.S. Fish and Wildlife Service 1996). Condors may feed immediately, or wait passively as other California condors or golden eagles (*Aquila chrysaetos*) feed on the carcass (Wilbur 1978). Most California condor foraging occurs in open terrain. This ensures easy take-off and approach and makes food finding easier. Carcasses under brush are hard to see, and California condors apparently do not locate food by olfactory cues (Stager 1964). Condors maintain wide-ranging foraging patterns throughout the year, an important adaptation for a species that may be subjected to unpredictable food supplies (Meretsky and Snyder 1992).

Prior to the arrival of European man, California condor food items within interior California probably included mule deer (*Odocoileus hemionus*), tule elk (*Cervus elaogus nannoides*), pronghorn antelope (*Antilocapra americana*), and smaller mammals. Along the Pacific shore the diet may have included whales, sea lions, and other marine species (Emslie 1987, U.S. Fish and Wildlife Service 1984). Koford (1953) listed observations of California condors feeding on 24 different mammalian species within the last two centuries. He estimated that 95 percent of the diet consisted of the carcasses of cattle, domestic sheep, California ground squirrels (*Spermophilus beechyi),* mule deer, and horses. Although cattle may be the most available food within the range of the condor, deer appear to be preferred (Koford 1953, Wilbur 1972, Meretsky and Snyder 1992). California condors appear to feed only 1 to 3 days per week, but the frequency of adult feeding is variable and may show seasonal differences (U.S. Fish and Wildlife Service 1996).

Depending upon weather conditions and the hunger of the bird, a California condor may spend most of its time perched at a roost. California condors often use traditional roosting sites near important foraging grounds (U.S. Fish and Wildlife Service 1984). Although California condors usually remain at roosts until mid-morning, and generally return in mid- to late afternoon, it is not unusual for a bird to stay perched throughout the day. While at a roost, condors devote considerable time to preening and other maintenance activities. Roosts may also serve some social function, as it is common for two or more condors to roost together and to leave a roost together (U.S. Fish and Wildlife Service 1984). Cliffs and tall conifers, including dead snags, are generally used as roost sites in nesting areas. Although most roost sites are near nesting or foraging areas, scattered roost sites are located throughout the range. There may be adaptive as well as traditional reasons for California condors to continue to occupy a number of widely separated roosts, such as reducing food competition between breeding and non-breeding birds (U.S. Fish and Wildlife Service 1984).

Condor censusing efforts through the years have varied in intensity and accuracy. That has led to conflicting estimates of historical abundance, but all have indicated an ever-declining California condor population. Koford (1953) estimated a population of about 60 individuals in the late 1930s through the mid-1940s, apparently based on flock size. A field study by Eben and Ian McMillan in the early 1960s suggested a population of about 40 individuals,

again based in part on the validity of Koford's estimates of flock size (Miller *et al.* 1965). An annual October California condor survey was begun in 1965 (Mallette and Borneman 1966) and continued for 16 years. Its results supported an estimate of 50 to 60 California condors in the late 1960s (Sibley 1969, Mallette 1970). Wilbur (1980) continued the survey efforts into the 1970s and concurred with the interpretations of the earlier October surveys. He further estimated that by 1978 the population had dropped to 25 or 30 individuals.

In 1981, the Service, in cooperation with California Polytechnic State University at San Luis Obispo, began census efforts based on individual identifications of birds through flight photography (Snyder and Johnson 1985). Minimum summer counts from these photo-censusing efforts showed a steady decline from an estimated minimum of 21 wild condors in 1982, 19 individuals in 1983, 15 individuals in 1984, and 9 individuals in 1985. Although the overall condor population increased slightly after 1982 as a result of establishing a captive flock and double clutching in the wild, and the establishment of a captive flock, the wild population continued to decline. By the end of 1986, all but two California condors were captured for safe keeping and genetic security (U.S. Fish and Wildlife Service 1996).

On April 19, 1987, the last wild condor was captured and taken to the San Diego Wild Animal Park (SDWAP). Beginning with the first successful captive breeding of California condors in 1988, the total population has increased annually and now stands at 121 individuals, including 104 in the captive flock and 17 in the wild (U.S. Fish and Wildlife Service 1996).

Causes of the California condor population decline have probably been numerous and variable through time (U.S. Fish and Wildlife Service 1984). However, despite decades of research, it is not known with certainty which mortality factors have been dominant in the overall decline of the species. Relatively few dead condors have been found, and definitive conclusions on the causes of death were made in only a small portion of these cases (Miller *et al.* 1965, Wilbur 1978, Snyder and Snyder 1989). Poisoning, shooting, egg and specimen collecting, collisions with man-made structures, and loss of habitat have contributed to the decline of the species (U.S. Fish and Wildlife Service 1984).

3. Recovery Efforts

The primary recovery objective as stated in the California Condor Recovery Plan (Plan) (U.S. Fish and Wildlife Service 1996), is to reclassify the condor from endangered to threatened status. The minimum criterion for reclassification to threatened is the maintenance of at least two non-captive populations and one captive population. These three populations must: (1) Each number at least 150 individuals, (2) each contain at least 15 breeding pairs, and (3) be reproductively self-sustaining and have a positive rate of population growth. The non-captive populations also must (4) be spatially disjunct and non-interacting, and (5) contain individuals descended from each of the 14 founders. When these five conditions are met, the species should be considered for reclassification to threatened status. The reclassification to threatened status will only apply to those populations (California) that are listed as endangered. The status of the established nonessential experimental population in northern Arizona/ southern Utah will not change if the species is downlisted to threatened.

The recovery strategy to meet this goal is focused on increasing reproduction in captivity to provide condors for release, and the release of condors to the wild. (U.S. Fish and Wildlife Service 1996).

a. *Captive Breeding:* The years 1983 and 1984 were critical in formation of the captive California condor flock at the SDWAP and Los Angeles Zoo (LAZ). In 1983, two chicks and four eggs were brought in from the wild. The chicks went to the LAZ, and the eggs were hatched successfully at the San Diego Zoo (SDZ). Three of the chicks were taken to the SDWAP and one to the LAZ to be reared. In 1984, one chick and eight eggs were taken from the wild. The chick went to the LAZ and six of the eight eggs were successfully hatched at SDZ. Five of the chicks went to the LAZ and one went to the SDWAP to be reared. In 1985, two eggs were taken from the wild and hatched successfully, one at the SDZ and the other at the SDWAP. Both of these chicks were taken to the LAZ to be reared. In 1986, the last egg was brought in from the wild and hatched at the SDWAP, where it was kept for rearing. By 1986, only one pair of condors existed in the wild and the last free-flying condor was captured on April 19, 1987, bringing the captive population to 27. The first successful breeding in captivity occurred in 1988, when a chick was produced at the SDWAP by a pair of wild-caught condors. Four more chicks were produced in 1989. The number of chicks produced by captive condors continues to increase annually and the captive population has grown from the original 27 in 1987 to 104 in 1996. In 1993, the captive breeding program was expanded to include a facility at The Peregrine Fund's World Center for Birds of Prey (WCBP) in Boise, Idaho (U.S. Fish and Wildlife Service 1996).

b. *Releases:* In October 1986, the California Condor Recovery Team (Team) recommended that criteria be satisfied before a release of captive-bred California condors could take place. These included having three actively breeding pairs of condors, three chicks behaviorally suitable for release, and retaining at least five offspring from each breeding pair contributing to the release. The Team added a provision to the third criterion to retain a minimum of seven progeny in captivity for founders that were not reproductively active (U.S. Fish and Wildlife Service 1996).

The 1991 breeding season produced two condor chicks that met the Team's criteria for release, a male from the SDWAP and a female from the LAZ. However, attempting to apply the Team's third criterion to the 1991 chicks also revealed that it would not be practical in the future, because several founders had died without producing five progeny. The Team, therefore, recommended choosing genetically appropriate chicks for future releases based on pedigree analyses developed for genetic management of captive populations (U.S. Fish and Wildlife Service 1996).

Prior to capture of the last wild California condor in 1987, the Team recognized that anticipated future releases of captive-reared condors would pose the problem of reintroducing individuals of an altricial (helpless at birth) bird into habitat devoid of their parents and other members of their own species. Thus, the Team recommended initiation of an experimental release of Andean condors. Research objectives for the experimental release were to refine condor release and recapture techniques; test the criteria being used to select condor release sites; develop written protocols for releases, monitoring, and recapture of condors; field test rearing protocols being used, or proposed for use to produce condors suitable for release; evaluate radiotelemetry packages; supplemental feeding strategies; train a team of biologists for releasing condors; and identify potential problems peculiar to the California environment. The Andean condor experiment began in August 1988 and concluded in December 1991.

During that period, three release sites where tested and a total of 13 female Andean condors were released. Only one mortality occurred in the field when an Andean condor collided with a power line (U.S. Fish and Wildlife Service 1996).

In 1991, a pair of California condor chicks were released into Sespe Condor Sanctuary, Los Padres National Forest, Ventura County, on January 14, 1992. The male died from ingesting ethylene glycol (antifreeze) in October of the same year. The next release of California condors occurred on December 1, 1992, when six more captive-produced California condors chicks were released at the same Sespe Condor Sanctuary site. Socialization with the remaining female from the first release proceeded well, and the ''flock'' appeared to adjust well to the wild conditions. However, there was continuing concern over the tendency of the birds to frequent zones of heavy human activity. Indeed, three of these birds eventually died from collisions with power lines between late May and October 1993 (U.S. Fish and Wildlife Service 1996).

Because of the tendency for the remaining condors to be attracted to the vicinity of human activity and man-made obstacles, especially power lines, another California condor release site was constructed in a more remote area, Lion Canyon, in the Los Padres National Forest near the boundary of the San Rafael Wilderness Area in Santa Barbara County. Five hatch-year condors were released at the new site on December 8, 1993. In addition, the four condors that had been residing in the Sespe area were moved to the new site. They were re-released over a period of several weeks in hopes that this approach would reduce the probability that they would return to the Sespe area. Nevertheless, three of these condors eventually moved back to the Sespe area in March 1994, where they resumed the high risk practice of perching on power poles. Because of general concern about the tameness of these birds and the possibility that their undesirable behavior would be mimicked by younger California condors, these condors were retrapped on March 29, 1994, and added to the captive breeding population. On June 24, 1994, one of the 1993 California condors died when it collided with a power line. A second condor that was in the company of this condor at the time of its death, was trapped and returned to the LAZ. The three remaining wild condors continued to frequent areas of human activity and were trapped and returned to the LAZ (Fish and Wildlife Service 1996).

As a result of the deaths due to collisions with power lines and the attraction of newly released young condors to humans and their activities, the 14 young California condors scheduled for release in 1995 were subjected to aversion training at the LAZ. An electrified mock power pole and natural snag perches were constructed in a large flight pen holding the release candidates. When the young condors landed on the electrified pole they were given negative reinforcement in the form of a mild shock. When they landed on the natural snag perches they received no shock. After only a few attempts at landing on the electrified power pole and receiving a mild shock, they all avoided the power pole and used the natural perches exclusively (M. Wallace, Los Angeles Zoo, *in litt.* 1995).

This group of California condors was also subjected to a series of human aversion exercises. Aversion maneuvers were staged in which a person would appear in view of a group of condors at a distance of approximately 100 meters (300 yds). Once it was determined that the condors spotted the person, the condors would be ambushed and captured by a hidden group of biologists. These condors were then placed in sky kennels, and later released after nightfall (M. Wallace, The Los Angeles Zoo, *in litt.* 1995). The goals of this exercise were to condition the condors to associate this negative experience with humans and increase the distance in which they would flush in future encounters with humans.

On February 8, 1995, six of the trained condors were released at Lion Canyon. On August 29, the remaining eight California condors of this group were released at the Lion Canyon Site. The 1995 release candidates were split into two groups in order to keep the releases at more manageable numbers. To date none of these condors have attempted to land on a power pole and, although they have roosted near campgrounds, they have not approached humans. The one exception was a young condor of this group that was lured into a campground by campers that placed food and water out for it. This condor was subsequently trapped and brought into the LAZ. The remaining 13 continue to avoid both power poles and human activities.

On March 1, 1995, the three condors remaining in the wild from the December 8, 1993, release were trapped and brought into captivity. This was done so they would not negatively influence the newly released birds that underwent the aversion training.

The 1995 breeding season produced 13 condors eligible for release, 4 of which were parent hatched and reared. At approximately 3 months of age the four parent hatched and reared condors were transferred to a newly constructed rearing facility at the Hopper Mt. National Wildlife Refuge System. This group was released to the wild on February 13, 1996, at the Castle Crags release site located approximately 64 km (40 mi) northwest of Lion Canyon on the western border of San Luis Obispo County. An objective of this release is to try and determine if parent hatched and reared chicks taken from LAZ at the earliest possible date and placed in a natural environment to be reared will be more successful in their adjustment to the wild. There are now 17 condors flying free in southern California and all have undergone aversion training. Of 14 release candidates produced in the spring of 1996, 6 parent-reared birds are being held for release at the Vermilion Cliffs in northern Arizona.

4. Reintroduction Sites

To satisfy the objectives of the Plan, at least one subpopulation of non-captive California condors must be established in an area disjunct from the subpopulation already being reestablished in the recent historical range in California. Following a widely publicized solicitation for suggestions for suitable condor release sites outside of California, the Team recommended in December 1991 that California condor releases be conducted in northern Arizona. Because this area once supported California condors, still provides a high level of remoteness, ridges and cliffs for soaring, and caves for nesting, the probability of a successful reintroduction is very good. The Service endorsed this recommendation on April 2, 1992. In collaboration with the Federal initiative to designate a release site in Arizona, the Arizona Game and Fish Department began evaluating a possible California condor reintroduction in 1989. The Arizona Game and Fish Department determined the reestablishment as appropriate and feasible in steps 1 and 2 of the Department's ''Procedures for Nongame Wildlife and Endangered Species Re-establishment Projects,'' a 12-step process specifying the protocol for a nongame reintroduction to take place (U.S. Fish and Wildlife Service 1995b).

a. *Site Selection Process:* Potential release sites in northern Arizona were evaluated through aerial reconnaissance, site visits, and discussions with agency personnel familiar with the areas. This evaluation process resulted in selection of four potential release sites. As required by

the National Environmental Policy Act of 1969 (NEPA), the Service, in cooperation with the Arizona Game and Fish Department and the Bureau of Land Management, produced an Environmental Assessment titled ''Experimental Release of California Condors at the Vermilion Cliffs (Coconino County, Arizona)'' in which the potential release sites and adjacent lands (for population expansion) were thoroughly examined and objectively evaluated. The NEPA process resulted in selection of a preferred release site at the Vermilion Cliffs located on Bureau of Land Management lands (U.S. Fish and Wildlife Service 1995b).

The suitability of the Vermilion Cliffs as a California condor release site was further evaluated using the Service's ''The Condor Release Site Evaluation System.'' This system uses 25 working criteria divided into three priority classes: Priority 1 includes features critical to releasing and establishing condors in the wild; priority 2 includes features that are necessary but not critical; and priority 3 includes features that would add or detract from suitability but are not critical. The working criteria are grouped into working factors that include site suitability, logistics, man-made threats/hazards, and suitability of adjacent lands (for population expansion). Each working criterion is assigned a quantitative value and weighted according to assigned priority criteria. The sum from the three priority classes gives the total value for a site. This rating system verified the Vermilion Cliffs (the preferred alternative) as a suitable release site (U.S. Fish and Wildlife Service 1995b).

b. *Vermilion Cliffs Release Site:* The Vermilion Cliffs release site is on the southwestern corner of the Paria Plateau approximately 100 meters from the edge of the Vermilion Cliffs, Coconino County, Arizona. The Paria Plateau is characterized by relatively flat, undulating topography dominated by pinyon-juniper/blue grama grass (*Pinus edulis-Juniperus osteosperma/Bouteloua gracilis*) communities and mixed shrub communities dominated by sagebrush (*Artemesia* spp.) on sandy upland soils. To the south and east of the Plateau lies the steep precipice of the Vermilion Cliffs, rising over 1,000 feet from the floor of House Rock Valley. Uplifting and differential erosion has created complex geologic structures and a diverse variety of habitats in a small geographic area. The cliffs are sharply dissected by canyons and arroyos and the lower slopes are littered with enormous boulders. Numerous springs emerge from the sides of the cliffs (U.S. Bureau of Land Management and Arizona Game and Fish Department 1983).

5. Reintroduction Protocol

In general, the reintroduction protocol will involve an annual release of captive-reared California condors until recovery goals, as outlined in the Plan, are achieved (U.S. Fish and Wildlife Service 1995b). These reintroduction protocols were developed and tested in the current southern California condor release project.

a. *Condor Release:* The reintroduction project is designed to release a group of captive-reared California condors once each year. Condors may be moved to the release site in the fall of 1996 and released in late 1996. Three captive breeding facilities (LAZ, SDWAP, and WCBP), are producing condors for release to the wild. The size of each release group will depend on the number of hatch-year condors produced during the late winter to early spring of that year, but releases will likely involve up to 10 hatch-year condors. These condors will be hatched in captivity and raised by a condor look-alike hand puppet, or by their parents, until they are approximately 4 months of age. They will then be placed together in a single large pen so they will form social bonds. At approximately 6 months of age they will be moved to a large flight pen and undergo aversion training to humans and power poles for 1 to 2 months. After the training has been completed the young condors will be transported by helicopter to the release site at the Vermilion Cliffs (U.S. Fish and Wildlife Service 1995b).

At the release site they will be placed in a temporary release pen and, depending on the age of the birds, will remain there for an acclimation period of approximately 1 week to 3 months, depending upon the age of the condors and other factors. This structure will be approximately 16 ft by 8 ft and 6 ft high. Netting will cover the front of the pen, allowing the young condors to view and become accustomed to the surrounding area. The release pen will be pre-fabricated, delivered to the release site by vehicle or helicopter, and removed from the site after the young condors have fledged (U.S. Fish and Wildlife Service 1995b).

Meanwhile, biologists will remain near the release pen 24 hours a day observing the young condor's behavior and guarding against predators or other disturbance. After the initial adjustment period and when all the young condors can fly, the release will take place. Any release candidate showing signs of physical or behavioral problems will not be released. Release is accomplished by removing the net at the front of the pen allowing the birds to exit. The young condors will likely remain in the immediate area of the pen for some time before beginning exploratory forays along the cliffs. A small area of approximately 10 acres of BLM land will be posted temporarily closed to recreational activity to protect the newly released condors and will remain closed until they have dispersed from the release area (U.S. Fish and Wildlife Service 1995b).

b. *Supplemental Feeding:* Condors are dependent on carrion and must be fed until they learn to locate carcasses independently. Newly released young condors will be dependent on carrion provided by biologists, making it necessary to maintain a supplemental feeding program. However, older condors (sub-adults and adults), will probably be locating carcasses on their own and would not be dependent on the supplemental feeding program for their survival. Supplemental feeding should reduce the likelihood of deaths of young condors from accidental poisoning insofar as it prevents them from feeding on contaminated carcasses. The diet provided to the condors will consist primarily of livestock carcasses and road-killed animals. Field biologists will deliver carcasses to the condors every 4 to 5 days by carrying carcasses to the edge of the cliffs at night, to avoid detection by the condors. A network of feeding stations on prominent points with high visibility will be identified in the general area of the release. Carcasses will be placed on the ground or, if predators become a problem, placed off the ground atop natural rock outcrops less accessible to ground predators (U.S. Fish and Wildlife Service 1995b).

c. *Monitoring:* All California condors released to the wild will be equipped with two radio transmitters: one on each patagium (the fold of skin in front of the main segments of a bird's wing); or one patagial placement, and one mounted on the tail. In addition, they will wear bold colored patagial markers on each wing with code numbers to facilitate visual identification. The movements and behavior of each condor will be monitored for at least the first 2 to 3 years of its life. Ground triangulation will be the primary means of radio tracking. Aerial tracking will be used to find lost birds or when more accurate locations are desired.

Telemetry flights will be coordinated with the appropriate land management agencies (U.S. Fish and Wildlife Service 1995b).

Status of Reintroduced Population

In accordance with section 10(j) of the Act, California condors reintroduced into northern Arizona will be designated as a nonessential experimental population for the following reasons: the principal population exists in the safe environment of three captive breeding facilities; the existing wild population in southern California will not be adversely affected by this reintroduction; and establishing a second wild population will further enhance the recovery of this species. The conditions under which a population can be designated as experimental are: the population must be geographically disjunct from any other wild populations of the same species, and the Service determines that the release will further the conservation and recovery of the species.

Section 10(j) is designed to increase the Service's flexibility to manage an experimental population by treating it as a threatened species regardless of its designation in other parts of its range. This is because section 4(d) of the Act gives the Service greater flexibility in the development and implementation of regulations to manage threaten species than it does for endangered species. This flexibility allows the Service to manage the experimental population in a manner that will ensure that current and future land, water or air uses and activities should not be restricted and the population can be managed for recovery purposes.

Before an experimental population can be released, section 10(j) requires that a determination be made by the Service whether the population is either ''essential'' or ''nonessential'' to the continued existence of the species. An experimental population determined to be essential is treated as a threatened species. An experimental population determined to be nonessential is treated as a species proposed for listing as threatened. The exception is a nonessential population located within the National Park System or National Wildlife Refuge System lands will be treated as a threatened species for purposes of section 7(a)(2) of the Act. If those same condors leave the National Park System or National Wildlife Refuge System, they will be considered as a species proposed for listing.

Section 7(a)(2) of the Act prohibits Federal agencies from authorizing, funding, or carrying out any activity that would likely jeopardize the continued existence of a listed species or adversely modify their critical habitats. All Federal agencies must consult with the Service to insure that any activity that is authorized, funded, or carried out by such agency is not likely to jeopardize the continued existence of a listed species. A nonessential experimental population is treated as a threatened species on National Park System and National Wildlife Refuge System lands, and would be subject to the consultation requirements of section 7(a)(2) on those lands. In addition, on all other lands, two provisions of section 7 apply to nonessential experimental populations; section 7(a)(1), which requires all Federal agencies to use their authorities to conserve listed species, and section 7(a)(4), which requires Federal agencies to informally confer with the Service on actions that are likely to jeopardize the continued existence of a proposed species.

Currently, the captive California condor population (104 individuals) exists in the safe environment of three captive breeding facilities located at the SDWAP, LAZ, and WCBP. The captive breeding facilities are not included in exhibits, are closed to the public and are under 24 hour surveillance by condor keepers or video cameras. Only essential program personnel are granted access to the captive population. The captive population is given excellent care and since 1982 there have been no deaths of adults or sub-adults. In addition, the geographic separation of the three breeding facilities protects these subpopulations from the threat of extinction due to a single catastrophic event.

The reproductive rate of the captive population dramatically exceeds the mortality rate of the wild population. All condors lost in the reintroduction efforts can be replaced by current chick production, while the captive population continues to increase. The wild population will not be adversely affected by the reintroduction since it is hundreds of miles away (see below).

By mid-1987, every surviving individual of the species was held in captivity following agreement that the decline of the wild population to eight surviving adults had demonstrated that the wild population was destined for likely extinction (Geyer *et al.* 1993). Genetic management, which includes control of all matings, has maximized the potential genetic viability of the wild captive population. No California condor hatched in captivity is considered for release to the wild unless its founder line is well-represented in the captive population. All release candidates are genetically redundant and their loss will not jeopardize the diversity of the existing condor gene pool.

The reintroduction project will further the conservation and recovery of the species by establishing a second wild population, ensuring the existence of a wild population if a catastrophic event eliminates the southern California population, enhancing the opportunity to manage the genetic diversity of the wild population, and avoiding the potential risks inherent in overcrowding the captive population.

Location of Reintroduced Population

Under section 10(j)(1) of the Act, an experimental population must be geographically separate from nonexperimental populations of the same species. The last recorded sighting of a California condor in the experimental population area occurred in 1924, when Edouard Jacot observed a condor feeding on a carcass with golden eagles near the town of Williams, Arizona (Rea 1983). Condor researchers are confident that there are no undocumented wild condors in the release area or anywhere else in their historic range outside of California. Currently, 17 endangered California condors are located in the wild back country of Santa Barbara County, California. This non-captive population is located approximately 720 kilometers (km) (450 miles (mi)) west of the release site, and 480 km (300 mi) west of the western boundary of the reintroduction area. The longest distance covered by one of these recently reintroduced condors has been approximately 240 km (150 mi) over a period of 1 week, with typical daily flights from 8 km (5 mi) to 16 km (10 mi). According to Meretsky and Snyder (1992) the foraging flights by breeding California condors in the 1980's were from 70 km (44 mi) to 180 km (112 mi). Based on this information, the Service does not expect any immigration/emigration between the extant non-captive and the nonessential experimental populations.

The California condor reintroduction site in northern Arizona is located on the Vermilion Cliffs, in the southwestern corner of the Paria Plateau. However, the designated nonessential experimental population area will be larger and include portions of three states, Arizona, Nevada, and Utah. The southern boundary is Interstate Highway 40 in Arizona from its junction with Highway 191 west across Arizona to Kingman; the western boundary starts at Kingman, goes northwest on Highway 93 to Interstate Highway 15, continues northeasterly on Interstate Highway 15 in Nevada and Utah, to Interstate Highway 70 in Utah; where the northern boundary starts and goes across Utah to Highway 191; where

the eastern boundary starts and goes south through Utah until Highway 191 meets Interstate Highway 40 in Arizona (See map at end of this rule). The Service has designated this experimental population area to accommodate any potential future movements by condors and to include wild canyon habitat that stretches from the eastern Utah southwest through Arizona to the eastern border of Nevada that will provide this population of condors with a natural refugium in which to raise future generations of condors. In the experimental population area, condors will maintain the status of nonessential experimental. Any condors that leave the experimental population area will be considered as endangered. However, this special rule includes provisions for the capture and return of condors to the experimental population area should the birds stray out of the experimental population area.

Management

Service regulations require that, to the extent practicable, a regulation promulgated under section 10(j) of the Act, represent an agreement between the Service, the affected State and Federal agencies, and persons holding any interest in land that may be affected by the establishment of the experimental population (see 50 CFR § 17.81 (d)). The Vermilion Cliffs reintroduction project will be undertaken by the Service and its primary cooperators, the Arizona Game and Fish Department and the Bureau of Land Management. Other cooperators that will provide support on an as-needed basis include: Utah State Department of Natural Resources, Grand Canyon National Park, Glen Canyon National Recreation Area, Kaibab National Forest, the Hualapai Tribe, the Navajo Nation, Los Angeles Zoo, Zoological Society of San Diego (the Zoological Society includes the SDWAP and SDZ), The Phoenix Zoo, and The Peregrine Fund. This nonessential experimental population will be managed in accordance with the provisions of a Memorandum of Understanding (MOU) among the cooperators (noted above), an Agreement between the Service and a coalition of county and local governments (Coalition) in the California condor experimental population area, and this final rule. At this time, the MOU and Agreement are in final form, and will be signed soon after publication of this rule. A separate agreement between the Service and the State of Utah is under development. This rule to the maximum extent practicable represents an agreement between the Service, the affected state and Federal agencies and persons holding an interest in land which may be affected by the establishment of this experimental population. The purpose of the MOU is to establish a general framework for cooperation and participation among the cooperators to establish a long-term program to release captive reared California condors and achieve the recovery goals for this species as cited in the California Condor Recovery Plan (U.S. Fish and Wildlife Service 1996). In order to accomplish these goals each cooperator will designate a principal contact to interface with the field program and participate on a working team to develop annual work plans, provide facilities, equipment, logistical support, and land access, as needed and when available, to the field program and provide ongoing review of and feedback on the progress of the reintroduction program. The purposes of the Agreement are to ensure to the maximum extent practicable that current and future land, water, or air uses within the experimental population area are not affected as a consequence of the release of California condors in northern Arizona/southern Utah, and to promote the recovery of the California condor. This will be accomplished through annual coordination meetings with local governments and communities to review the status of the reintroduction effort.

The reintroduction area consists of remote Federal or Native American Reservation lands with limited private lands. The management scheme for these lands (e.g., BLM, Kaibab National Forest, Grand Canyon National Park, Glen Canyon National Recreation Area, and Navajo Indian Reservation) is consistent with the reintroduction of condors into this area. Furthermore, the designation of this population as nonessential experimental will encourage local cooperation as a result of the management flexibility allowed under this designation. The Service considers the nonessential experimental population designation, MOU, Agreement, and associated reintroduction plan (an appendix to the Environmental Assessment) necessary to receive cooperation of the affected landowners, agencies, and recreational interests in the experimental population area.

A designation of nonessential experimental limits the application of section 7(a)(2) of the Act. For the purposes of section 7, the nonessential experimental population is treated as a proposed species except on National Wildlife Refuge System and National Park System lands. Current and future land, water, or air uses such as, but not limited to: commercial and business development; forest management; agriculture; mining and energy resource exploration and development (e.g. coal); livestock grazing; development of transportation and utility corridors (e.g. power transmission lines); communication facilities; water development projects; sport hunting and fishing; air tour operations and outdoor recreational activities (e.g. jeep tours, hiking, biking, boating) should not be restricted due to the designation of the nonessential experimental population of California condors. In addition, no operational restrictions due to the presence or potential presence of California condors will be placed on currently permitted activities on Bureau of Land Management grazing allotments located in proximity to the release site at the Vermilion Cliffs. Further, if any modifications of existing structures are needed to protect condors they will be made or financed by the appropriate MOU cooperator with the approval of the land manager and/or private operator, in accordance with applicable procedures.

The progress of the reintroduction project will receive an informal review on an annual basis and a formal evaluation by all cooperators and the Coalition within the first 5 years after the first release to evaluate the reintroduction project and determine future management needs. All reviews will include, but not be limited to: a review of management issues; compliance with agreements; assessment of available carrion; dependence of older condors on supplemental food sources; post release behavior; causes and rates of mortality; alternative release sites; project costs; and public acceptance. Once recovery goals are met for downlisting the species, and tasks in the recovery plan are accomplished, a proposed rule to reclassify the species from endangered to threatened would be developed. The Service has determined that the establishment of this nonessential experimental population will further the conservation and recovery of the California condor. The number of variables that could affect this reintroduction project make it difficult to develop criteria for success or failure after 5 years. However, if after 5 years the condor population is experiencing a 40 percent or greater mortality rate or released condors are not finding food on their own, serious consideration will be given to terminating the project.

Summary of Comments and Recommendations

On November 13, 1990, the Service conducted its first public meeting to discuss the feasibility of reintroducing California condors in the Grand Canyon area, the Grand Canyon National Park hosted the meeting. Represented at the meeting were Federal, State, and Tribal agencies, local industries, conservation organizations, and interested private citizens. After this meeting and before the National Environmental Policy Act (NEPA) process was initiated in May 1995, approximately 16 scoping/ reconnaissance meetings on the reintroduction were held with interested Federal, State, and Tribal agencies. On May 15, 1995, a NEPA scoping letter was sent out to approximately 200 Federal and State agencies, tribal, county, and city governments, private industries, conservation groups, and other interested parties. It announced the Service's intent to prepare an Environmental Assessment on a proposal to establish a long term project to reintroduce California condors into northern Arizona and requested comments on the proposal. On August 14, 1995, the Service mailed out approximately 300 copies of the draft Environmental Assessment for the ''Experimental Release of California Condors at the Vermilion Cliffs, Coconino County, Arizona'' for review and comment. On February 29, 1996, the Service completed a Finding of No Significant Impact (FONSI) for the reintroduction project. A revised version of the FONSI was signed on September 23, 1996. The Service mailed out approximately 300 letters announcing that the FONSI and the final Environmental Assessment were available upon request. The revised FONSI is also available to the public (see **ADDRESSES** section). The development of this NEPA document included a combination of 16 meetings and presentations to explain the proposal and accept comments.

On January 2, 1996, the Service published (61 FR 35) a proposed rule to establish a nonessential experimental population of California condors in northern Arizona/southern Utah with a comment period that closed on February 1, 1996. The proposed rule included the announcement of two public hearings, one in Flagstaff, Arizona, the other in Kanab, Utah. A legal notice, announcing the proposed rule, the two hearings, and inviting public comment was published in the Southern Utah News, The Richfield Reaper, The Times Independent, The Beaver Press, The San Juan Recorder, The Salt Lake Tribune, Desert News, The Spectrum, Arizona Daily Sun, Kingman Daily Miner, The Arizona Republic, The Phoenix Gazette, Williams Grand Canyon News, Holbrook Tribune News, Las Vegas Review Journal, and The Las Vegas Sun, between January 9 and 14, 1996.

On February 6, 1996, the Service published a notice in the Federal Register (61 FR 4394) reopening the comment period until February 29, 1996, and on February 29, 1996, published a second notice (61 FR 7770) extending the comment period until April 1, 1996. The proposed rule and two comment extensions were announced in published legal notices, press releases, and a special mailing to interested parties. Pursuant to 50 CFR 424.16(c)(2), the Service may extend or reopen a comment period upon finding that there is good cause to do so. Full participation of the affected public in the rulemaking process and allowing the Service to consider the best scientific and commercial data available in making a final determination on the proposed action, is deemed as sufficient cause. The extensions were made to address the comments and concerns of the communities located within the proposed experimental population area. During the extension period a series of eight meetings were conducted with State, County, and local governments and industry representatives located within the proposed experimental population area to address their specific concerns.

Changes in the final rule as a result of public comments: Two paragraphs (10 and 11) have been added to the special rule based on public comments on the proposed rule. The Service also made minor wording changes to other paragraphs in the special rule to provide more clarity. These additions and minor modifications do not alter the predicted impact or effect of the final rule:

1. Paragraph (1) has been amended to clearly indicate that this release will further the conservation of the California condor.

2. The language describing allowable take has been clarified to indicate that throughout the entire California condor experimental population area, you will not be in violation of the Act if you unavoidably and unintentionally take (including killing or injuring) a California condor, provided such take is non-negligent and incidental to a lawful activity, such as hunting, driving, or recreational activities, and you report the take as soon as possible.

3. According to paragraph 10 in the special rule, the status of the reintroduction project will receive an informal evaluation on an annual basis and a formal evaluation within the first 5 years after the initial release, and every 5 years thereafter. The evaluation will include, but not be limited to, a review of management issues, compliance with agreements, assessment of available carrion, dependence of older condors on supplemental food sources, post release behavior, causes and rates of mortality, alternative release sites, project costs, and public acceptance. Paragraph 10 in the special rule also includes conditions under which the Service would consider termination of the project. If after 5 years the project is experiencing a 40 percent or greater mortality rate or released condors are not finding food on their own, serious considerations will be given to terminating the project.

4. According to special rule paragraph 11, the Service does not intend to pursue a change in the nonessential experimental population designation to experimental essential, threatened, or endangered, or to modify the experimental population area boundaries without consulting with and obtaining the full cooperation of (1) affected parties located within the experimental population area, (2) the reintroduction program cooperators identified in the Memorandum of Understanding (MOU) for this program, and (3) the cooperators identified in the Agreement for this program. The Service does not intend to change the status of this nonessential population until the California condor is recovered and delisted in accordance with the Act or if this reintroduction is not successful and the rule is revoked. No designation of critical habitat will be made for nonessential populations (16 U.S.C. § 1539(j)(2)(C)(ii)). If legal actions or other circumstances compel a change in this nonessential experimental population's legal status to essential, threatened, or endangered, or compel the Service to designate critical habitat for the California condors within the experimental population area defined in this rule, then, unless the parties to the MOU and Agreement existing at that time agree that the birds should remain in the wild, all California condors will be removed from such area and this experimental population rule will be revoked. Changes in the legal status and/or removal of this population of California condors will be made in compliance with any applicable Federal rulemaking and other procedures.

To date, the Service has conducted a minimum of 59 meetings, which included 2 public hearings, published 42 legal notices in newspapers in Arizona, Utah, and Nevada, and

developed a mailing list approaching 400 in an attempt to inform all interested parties and address their concerns. A total of 206 written and 33 oral comments were received during the comment period. Analysis of the comments revealed 19 issues that are identified and discussed below.

Issue 1: The goal of this reintroduction project needs to be clearly stated. Is it to establish a self-sustaining or artificially maintained population?

Service Response: The goal of this reintroduction project is to establish a self-sustaining population of 150 individuals, with at least 15 breeding pairs. In order to accomplish this goal it will be necessary to provide supplemental food as long as young inexperienced condors are being released to the wild. In order for these condors to survive the transition from captivity to the wild they must be provided food until they learn to locate carcasses on their own. For condors this ability develops over an extended period of time; first they must build strength to sustain long foraging flights, then they must learn how to utilize local wind patterns, and finally become familiar with their new environment. This phase is prolonged because there are no adults to guide them through these steps. Over time these condors will attain the knowledge and skill to find carcasses on their own and will become independent of the supplemental food.

Supplemental feeding is an integral component of proven avian release strategies. The successful recovery of the American peregrine falcon (peregrine) was due in part to the reintroduction programs that released young captive-reared peregrines into unoccupied habitats throughout most of its range in North America. When this release program began in 1974 they provided food to young captive-reared peregrines released to the wild. Today, 22 years later, food is still being provided to newly released captive-reared peregrines making the transition to the wild. The peregrine wild population is approaching 1,300 pairs. The Service published a notice of intent to propose the peregrine for delisting on June 30, 1995 (60 FR 34406).

Issue 2: The large number of road kills in Utah could result in condor mortalities, particularly along Highway 89 between Kanab and Big Water, which bisects a major migration route for the Paunsaugunt mule deer herd. Large numbers of deer are killed along this highway every year that could attract condors which could be injured or killed by highway traffic.

Service Response: California condors have never been observed to come down to a highway to feed on road killed carrion (Jan Hamber, Santa Barbara Museum of Natural History, pers. comm. 1996). To ensure that condors released at the Vermilion Cliffs are not attracted to any road kill, the operational plan for this release requires that Highway 89 and others in the area be monitored on a regular basis for road kills, particularly during the spring and fall mule deer migrations when the number of road kills is highest.

All road kills will either be collected and stored in large freezers as a source of future food for condors or moved well off the highway so condors and other scavenging species can feed safely.

Issue 3: Will the power lines located in the release area threaten this population?

Service Response: Early in 1995, a program to teach condors to avoid power poles/lines was developed and initiated at the Los Angeles Zoo. Power pole aversion training was accomplished by constructing an electrified mock power pole in the large flight pen holding young condors scheduled for release to the wild. This pole was designed to give the condors that landed on it a mild but uncomfortable shock. Natural tree snags were also placed in the flight pen to reward the condors who perched on them with a positive experience, no shock. In less than 2 weeks the condors being trained attempted to land on the pole and received a mild shock. It only took one such experience to teach the condors to avoid the pole.

The group of condors that underwent the power pole aversion training have been in the wild for over 1 year and have not been observed landing on power poles. Although only one power pole configuration was used, this group of condors has avoided all types of power poles. In order to ensure the success of this training method, mock electrified power poles will be erected near the release site, these poles will mimic the configurations in the area. This was done in southern California as a means of continuing the training in the field; however, this group of condors has yet to attempt to land on them.

Issue 4: Reintroduction projects can be very expensive, how much is this costing the taxpayer?

Service Response: The Service and its cooperators have entered into a partnership with The Peregrine Fund (Fund), a nonprofit conservation organization devoted to the conservation and study of raptors and other birds. The Service approached the Fund to participate in this reintroduction project because of their extensive experience and success in the captive breeding and releasing of endangered bird species throughout the world. The Fund will be managing the reintroduction project in the field under the direction of the Service and its cooperators. The Fund will also be raising the money to finance the reintroduction project at the Vermilion Cliffs. This extremely important recovery objective will take the condor a significant step closer to recovery, creates little if any landowner burden, and is undertaken with a partner so little cost is borne by the Service.

Issue 5: How will the operation of the California condor reintroduction project at the Vermilion Cliffs affect hunting in the area?

Service Response: Mule deer, desert bighorn sheep, bison, pronghorn antelope, coyotes, rabbits, and game birds are hunted in the area. The field operation of the reintroduction project will have no impact on these hunts. With the exception of a small [4 hectares (10 acres)] temporary closure at the release site while the condors are being held for release, no restrictions are being placed on public hunting opportunities or any other outdoor recreational activities. The issue of condor deaths attributed to lead poisoning resulting from hunting is addressed under Issue 11.

Issue 6: California condors should not be released in northern Arizona because *Gymnogyps californianus* did not occur in northern Arizona prehistorically, the Pleistocene condor was actually *G. amplus.*

Service Response: The California Condor was more widespread during the late Pleistocene epoch (Wetmore 1931a, 1931b, Brodkorb 1964, Lundelius *et al.* 1983, Steadman and Miller 1987). In the southwestern United States, condor fossils have been reported from at least 14 caves in the northern Arizona region (deSaussure 1956, Miller 1960, Parmalee 1969, Mead and Phillips 1981, Rea and Hargrave 1984, Emslie 1987, 1988), Nevada (Miller 1931, Howard 1952), New Mexico (Wetmore 1931a, 1932, Howard and Miller 1933, Howard 1962a, 1971, Emslie 1987), and Texas (Wetmore and Friedmann 1933, Emslie 1987). The Arizona specimens are between 9,580–22,110 years before present, based on radiocarbon dating (Emslie 1987, 1990). The disappearance of the condor and other large scavenging birds from these regions coincided with the extinction of the Pleistocene mammalian megafauna, an event that may have been related to climatic changes (Mehringer 1967), to the effects of over hunting by aboriginal man

(Martin 1967), or to a combination of these factors.

Most authors have arbitrarily assigned all Pleistocene *Gymnogyps* fossils to the form *G. amplus,* described from a large tarsometatarsus found in Pleistocene deposits in a northern California cave (Miller 1911), on the recommendation of Fisher (1944, 1947). However, aside from their generally larger size and slight differences in skull structure (Fisher op cit., cf Emslie 1988), there appear to be no features that distinguish Pleistocene *Gymnogyps* fossils from the bones of modern condors. Furthermore, certain Pleistocene condor bones, including some from Arizona, have been as small as those of present day condors (Miller 1957, Parmalee 1969, Rea and Hargrave 1984).

All avian paleontologists, including Miller (1957) (the original describer of *G. amplus*), Howard (1947, 1962b), Wetmore (1956, 1959), Brodkorb (1964) and Emslie (1987), who have considered the matter have remarked that ''amplus'' is merely a temporal subspecies of present day *G. californianus* and thus its progenitor. As a means of resolving nomenclatural ambiguity and to reflect the presumed relationships among condors old and new, Emslie (1988) recommended that the Pleistocene Gymnogyps fossils and present day California condors all be treated as representatives of the species *G. californianus,* restricting the trinomial *G. californianus amplus* for Pleistocene fossils and the name *G.c. californianus* for the modern birds.

Issue 7: The proposed reintroduction location is not within the probable historic range of the California condor.

Service Response: Although earlier authors, including Swarth (1914), Harris (1941), Koford (1953), and Wilbur (1978), did not accept historical records of California condors east of California, or regarded such reports as equivocal, several recent authorities have treated these records as authentic (Phillips *et al.* 1964, Rea 1981, Emslie 1986, 1987, Snyder and Snyder in press). Historical sightings of condors in Arizona mentioned by these authors include those of Coues (1866), F. Stephens (in Brewster 1882), Rhoads (1892), Brown (1899), Jacot (ms), and Mearns (ms). A purported sighting of a condor in Utah (Henshaw 1875) and other Utah reports (Hayward *et al.* 1976) seem to be less convincing.

The California condor survived the late Pleistocene extinction by retreating to the coastal mountain ranges of the Pacific Ocean. There it was able to survive by supplementing its diet with fish and marine mammal carcasses that washed onto the beaches (Emslie 1986). Emslie (1986, 1987) and Snyder and Snyder (in press) suggest that the California condor moved back into Arizona as early as the 1700's in response to the introduction of large herds of cattle, horses, and sheep, which would explain sightings recorded in the 1800's. Emslie (1986, 1987) and Snyder and Snyder (in press) also suggest that the species was eliminated by shooting and other forms of human persecution before it could become reestablished throughout the region.

Issue 8: Some expressed concern about the effect the status of California condors could have on the National Recreation Areas located within the experimental population area and how the threatened status of these birds might affect ongoing activities at the National Recreation Areas such as mining, hunting, and grazing, that are of special interest to surrounding communities. A similar concern was expressed with respect to the air tour industry in Grand Canyon National Park and whether future restrictions on this activity could occur.

Service Response: Glen Canyon and Lake Mead National Recreation Areas and Grand Canyon National Park are located within the experimental population area; these areas are administered by the Secretary of the Interior, and are included in the National Park System (see 16 U.S.C. § 1c(a)), and are subject to the 1916 Organic Act and other laws applicable to National Parks and Monuments.

Condors located in National Recreation Areas and National Parks within the experimental population area would be treated as a threatened species for purposes of Section 7 consultation. Although enabling legislation for each recreation area authorizes activities unique to the area, they are still managed as units of the National Park System.

The Service does not foresee that activities in the California condor experimental population area, including activities in the National Recreation Areas, would jeopardize the continued existence of the California condor. Additionally, the Service does not foresee that any ongoing or future land, water, or air will be restricted due to this reintroduction project. That is demonstrated by: (1) Condors utilize remote, canyon habitat; (2) the Service has never determined that an activity may cause jeopardy of the condor during the time (29 years) that condors have been listed and fully protected in California; (3) the size of the California condor population is expected to increase in the future; (4) existing land management is compatible with condors; and (5) the management strategies identified in the experimental population rule virtually eliminate the possibility of impacts to condors or existing and future activities in the experimental population area.

A significant portion of the California condor experimental population area includes remote wild canyon back country habitat that will provide this population with a natural refugium in which to raise young and will minimize the opportunity for condor conflicts with any ongoing or proposed activities. Also, the condor's requirement for remote inaccessible cliff nesting habitat, wide-ranging foraging patterns, and carrion prey base make them less susceptible to impacts from most human related activities. Consequently, condors released into the experimental population area should be able to co-exist with the current and anticipated land, water, or air uses in the area in a compatible manner without conflict.

Since the California condor was listed as endangered in 1967, the Service has never rendered a jeopardy determination on the wild fully protected condor population in southern California, clearly demonstrating the benign nature of this species and the likelihood that a jeopardy opinion would ever be rendered on this experimental population.

For the purposes of section 7(a)(2), the Service would consider the effects a proposed project would have on the entire species. Thus, in analyses under section 7(a)(2), the Service would evaluate the effects a project located on a National Recreation Area against the entire condor population, and not solely against the nonessential experimental population.

As part of the management strategy for this population the Service will relocate any condor within the experimental population area, including the National Park System, to avoid conflicts with ongoing or proposed activities, or when relocation is requested by an adversely affected landowner (see special rule 4(ii)). This provision of the Service's management strategy virtually eliminates any possibility of conflict by allowing the Service or permitted cooperator to remove a condor in order to resolve potential conflict. It is evident that the Service and its Cooperators are committed to do all they can to resolve any problems in an expedient manner in order to avoid conflicts between condors and any current or proposed activities.

Formal consultation with the Service may be required for activities such as

mining, hunting, and grazing in these National Recreation Areas. However, as explained above, based on the best available information at the time of this rulemaking, the Service does not foresee that any of these ongoing (or currently proposed) activities is likely to cause jeopardy to the condor.

Issue 9: Air Tour Operators in the Grand Canyon National Park (Park) do not believe that condors should be introduced into northern Arizona unless it can be demonstrated that there is an acceptably low impact to air safety.

Service Response: The Federal Aviation Administration (FAA), Information Management Section's National Data Base has been collecting voluntary reports on aircraft bird strikes nationwide since 1973 (23 yrs). To date, no bird strikes have been reported within the Grand Canyon National Park (Park) boundary. An estimate of the current number of scenic overflights in the Park is approximately 80,000 annually, an average of 219 flights per day, with the number of flights per day increasing dramatically during the peak summer months. According to the FAA's data base only 11 bird strikes were recorded for the entire State of Arizona during this 23-year period and none resulted in a plane crash or injuries to pilots or passengers. Interviews with pilots operating in the Park indicate that bird strikes have occurred, but were not considered significant enough to report to the FAA.

Dolbeer, Wright, and Cleary (1995) summarized all wildlife strike incidents reported to the FAA in 1994 and, of the 2,220 strike reports analyzed, 2,150 (97 percent) involved birds. Most bird strikes occurred during the approach/landing (54 percent) and take-off (34 percent) phases of flight (Dolbeer, Wright, and Cleary 1995). This would put most bird strikes in close vicinity to airports and at very low elevations. Condors are not expected to utilize this airspace. In the unlikely event that a condor would fly or perch within the operating space of an airport, it would be captured and moved for its safety and the safety of those utilizing the airport.

California condors soaring in the Grand Canyon will be utilizing the updrafts and deflected winds generated by large cliff walls. Their flights along these walls will be to forage, to fly to and from nests, or down to water, all of which will take place well below the Grand Canyon rim. The advantage of this air lift is lost above the Grand Canyon rim, therefore, condors should be expected to soar at or below the rim when in the Grand Canyon, well below the air traffic. Some comparisons have been made between eagles and condors relative to the potential for collisions with planes. Eagles are aggressive, fast, and able to change directions instantaneously. Also, they are not dependent on winds, like condors to gain elevation. They would be more likely to utilize the airspace above the Grand Canyon and pose a threat to air traffic and yet, there has never been a substantiated aircraft eagle strike to date. Condors on the other hand, are dependent on winds generated by the topography of the Grand Canyon, their soaring flights are slow, deliberate, and predictable. Pilots flying at or below 200 miles per hour (mph) should be able to see and avoid bird strikes. The commercial air carriers operating in the Grand Canyon fly at speeds of approximately 120 to 150 mph (Mike Ebersole, Grand Canyon National Park, pers. comm. 1996).

Wilbur (1978) investigated over 300 California condor mortalities recorded between 1806 and 1976, and none involved a collision with an aircraft. There is no known record of an aircraft-condor strike or near miss (Jan Hamber, Santa Barbara Museum of Natural History, pers. comm. 1996). The Service is confident that condors and the air tour operators can co-exist to the mutual benefit of one another and plans to work closely with air tour operators to ensure the safety of condors and air tours.

Issue 10: What will the food source for condors be and is it adequate to support a self-sustaining population of condors?

Service Response: California condors feed on the carcasses of dead animals, primarily mammals (Wilbur 1978). Koford (1953) listed observations of California condors feeding on 24 different mammalian species over the last two centuries. However, ungulates including the carcasses of domestic livestock are expected to be the primary sources of food for condors released at the Vermilion Cliffs. The Kaibab Plateau supports a large population of mule deer and a small population is resident on the Paria Plateau. Desert bighorn sheep (*Ovis canadensis nelsoni*) are found on the Paria Plateau, the west side of the Kaibab Plateau, and the Grand Canyon. House Rock Valley supports a small population of pronghorn antelope. These ungulates become available to condors as natural mortalities, hunter kills and road kills. Road kills removed from Highway 89 could be a significant source of supplemental food, particularly during the spring and fall deer migration, when as many as 20 road kills have been recorded in a single night. Mortality in the bison (*Bison bison*) herd managed by the Arizona Game and Fish Department located in House Rock Valley could provide a source of carcasses for supplemental feeding of young California condors (Vashti Supplee, Arizona Game and Fish Department, pers. comm. 1995). There are eight Bureau of Land Management and seven Forest Service livestock grazing allotments on the Paria Plateau, eastern Kaibab Plateau, and House Rock Valley. In addition to these public allotments there are private and State-owned inholdings in House Rock Valley and the Paria Plateau that are being grazed (U.S. Fish and Wildlife 1995b). Because of their ability to forage over large areas, it is difficult to predict exactly what condors will feed on and where, once they start dispersing from the release site.

As a survival strategy, condors have a very efficient lifestyle. When they are not looking for carcasses or attending eggs or young, they spend most of their time perched on a roost. In flight they soar on thermals and updrafts which requires little energy expenditure, and they are often airborne all day. Despite their large size, their efficient flight allows them to cover large areas in search of food with little physical effort. Having evolved this foraging strategy, condors can survive in a landscape that does not appear to provide the density of carrion necessary to sustain such a large bird. In addition, condors have no known natural predators in the wild and therefore, do not expend energy avoiding predators.

As the California condor population becomes established in the experimental area, the Service will be able to better evaluate whether the area's carrying capacity is less than or greater than the stated target of 150 condors and 15 breeding pairs.

Issue 11: Lead poisoning could be a problem once young condors learn to find carrion on their own. How does the Service plan to address this potential threat to condors?

Service Response: Three California condor deaths have been attributed to lead poisoning since 1983 (Janssen *et al.* 1986, Wiemeyer *et al.* 1988). Uncovered carcasses and gut piles resulting from ungulate or small mammal hunting were the probable sources of the lead (Pattee *et al.* 1990). Limited hunting takes place on the Paria Plateau, so the opportunity for condors to encounter unrecovered hunter kills or gut piles is relatively low. However, the Kaibab Plateau is heavily hunted and represents a threat to condors once they disperse from the release site and learn to locate food on their own. This process could take 1 or more years. The Service in cooperation with the Department, Bureau of Land Management, and the Forest Service,

plans to utilize this window of time to address the potential threat of lead poisoning by initiating a hunter education program on the danger of lead to condors and suggesting ways that hunters can help (e.g., bury gut piles), and investigating potential non-toxic sources of ammunition that could be substituted for lead bullets on a voluntary basis. The Service does not intend to request modifications or restrictions to the current hunting regulations anywhere in the vicinity of the Vermilion Cliffs release site or in the experimental population area. Issue 5 also addresses the concern on the affects of this reintroduction on hunting.

Some condor deaths from this and other sources of mortality are to be expected, but will presumably be more than compensated by natural and captive reproduction.

Issue 12: There is a concern that the increase in recreational activity due to bird-watchers and other visitors coming to the Vermilion Cliffs area to view the condors could result in impacts to the local environment (e.g., off-road travel, littering, trespass).

Service Response: Highway 89A parallels the Vermilion Cliffs for approximately 45km (28mi), affording excellent opportunities to view condors (U.S. Fish and Wildlife Service 1995b). The interpretive centers at the Navajo Bridge and Jacob Lake will be supplied with information on the natural history and status of the condors. The Dominguez-Escalante interpretive pullout and the House Rock Overlook will provide excellent panoramic views of the Vermilion Cliffs (U.S. Fish and Wildlife Service 1995b). With these opportunities available and the unpaved roads unsuitable for most passenger vehicles, it is anticipated that virtually all wildlife viewing will be done from the paved highway.

Issue 13: There is a concern that the use of the ''nonessential experimental'' designation will not provide adequate protection for this population.

Service Response: A Memorandum of Understanding (MOU) developed by the Service, Arizona Game and Fish Department, State of Utah Department of Natural Resources, Division of Wildlife Resources, Bureau of Land Management, Grand Canyon National Park, Glen Canyon National Recreation Area, Kaibab National Forest, The Peregrine Fund, Hualapai Tribe, The Navajo Nation, The Los Angeles Zoo, Zoological Society of San Diego, and The Phoenix Zoo is in final form. This MOU is designed to achieve conservation of the California condor through voluntary agreement to manage this population according to the recovery goals for this species as cited in the California Condor Recovery Plan (U.S. Fish and Wildlife Service 1996).

Issue 14: It was suggested that the nonessential population area (area) be enlarged to include the entire State of Utah. This suggestion was based on the concerns that the condors could easily travel outside the designated area and relocating condors would be logistically difficult and potentially harmful to the birds.

Service Response: Although wide ranging in their foraging patterns, flights by recently reintroduced condors and movement data collected in the 1980s by Meretsky and Synder (1992), suggest that the designated area will adequately contain this population for the life of the project. Possible stress or injury associated with relocating condors that have left the area will be avoided. However, inconsistent food supplies make it impossible to predict with certainty the future foraging patterns of this population. Should the designated area prove to be inadequate, the Service has the option to revise this rule to increase the designated area or change its configuration based on the movements of the birds.

Issue 15: Several points concerning compliance with the National Environmental Policy Act (NEPA) were raised. These were: inadequate public notice was provided for the proposed project; that an environmental impact statement, not an environmental assessment, is necessary due to the large area of the nonessential experimental designation; and there is a perceived conflict of interest with the Peregrine Fund who was the contractor that prepared the environmental assessment.

Service Response: The California condor recovery effort in northern Arizona/southern Utah represents the culmination of over 6 years of work with State, Federal, Tribal, and Municipal agencies, and the general public. The Service has sponsored or participated in public meetings and provided public comment periods on both the draft EA and this rulemaking in an attempt to inform all interested parties throughout the experimental population area of the proposed project. Refer to the above introductory paragraphs of the ''Summary of Comments and Recommendations'' section of this rule for a more detailed account of announcements and legal notices, meetings, and comment periods. The Service believes that it has fully met the requirements and intent of NEPA for full public involvement and the disclosure of the effects of the proposed action.

An environmental impact statement is required for any given project when that major Federal action may significantly affect the quality of the human environment. The analysis of effects of the proposed action on existing land uses and human activities completed as part of the environmental assessment did not demonstrate any significant impacts to the natural or physical environment, or the relationship of people with that environment. The provisions of the nonessential experimental designation under section 10(j) of the Act are intended to relax regulations governing the protection of reintroduced populations of endangered species. This action does not impose land use restriction or otherwise affect land management activities. Throughout the entire California condor experimental population area, you will not be in violation of the Act if you unavoidably and unintentionally take (including killing or injuring) a California condor, provided such take is non-negligent and incidental to a lawful activity, such as hunting, driving, or recreational activities, and you report the take as soon as possible. Therefore, neither the ''context'' nor ''intensity'' test of significance of affect of the proposed action under NEPA would trigger the preparation of an environmental impact statement.

NEPA specifically provides that the lead Federal agency, a project applicant, or a contractor may prepare the required environmental documentation. However, regardless of who prepares these documents, it does not diminish the lead agency's responsibilities to provide guidance and participate in the preparation of the environmental assessment, independently evaluate the information included in the documents, make its own evaluation of the environmental issues, and take responsibility for the scope and content of the environmental assessment. The Service reviewed and evaluated information in the EA while it was being developed and believes the conclusions drawn through the EA process are appropriate and fully supportable as demonstrated by adopting the EA, distributing the EA as a Service document and preparing a Finding of No Significant Impact based upon that EA.

Issue 16: The release of a nonessential experimental population of California condors was opposed because it was seen by some as facilitating the designation of the reintroduction area as a wilderness area.

Service Response: As discussed earlier in this final rule, the reintroduction area was selected as the

area for reintroduction because of its remoteness and because it contained habitat features used by condors. The Service's decision to issue this final rule to establish a nonessential experimental population of California condors and to reintroduce condors is not intended to support or to oppose the designation of any wilderness areas. Wilderness areas are designated via an Act of Congress after extensive review by the Federal land manager and other interested parties.

Issue 17: The Service's definition of take is too broad. The Service could interpret take incidental to otherwise lawful activities (e.g., road building or widening, farming, construction projects such as housing developments) to constitute avoidable take. The terms ''unavoidable'' and ''accidental'' were seen as being too vague, and impossible for a defendant to prove in court.

Service Response: Take of an endangered or threatened species is prohibited by the Act, and carries criminal penalties for knowing violation. In this rule, take is prohibited except where such take is unavoidable and unintentional (including killing or injuring), provided such take is non-negligent and incidental to a lawful activity, such as hunting, driving, or recreational activities and the take is reported as soon as possible. Thus activities such as shooting, or intentionally harassing, or attempting to run over a condor with a motor vehicle are prohibited, and subject to criminal prosecution.

As noted above, the rule also provides that take that is ''non-negligent and incidental to an otherwise lawful activity'' is not prohibited. Thus, construction activities, road building or widening, and farming, if performed in the above described manner, would not constitute take.

Issue 18: The Service should provide a 100 percent guarantee that the release of California condors will not in any way restrict the use of private property, including use of water rights.

Service Response: As discussed under Issue 17 above, otherwise lawful activities such as farming, ranching, road building, and construction projects on private land should not be restricted. Activities such as the intentional killing of condors are prohibited and subject to criminal prosecution.

Issue 19: The Service should explain whether or not any interaction is expected between California condors and Mexican spotted owls.

Service Response: The Service does not expect any interaction between condors and Mexican spotted owls. Condors prefer relatively open areas, whereas owls prefer denser forests.

National Environmental Policy Act

A final environmental assessment as defined under authority of the National Environmental Policy Act (NEPA), has been prepared and is available to the public at the Service office identified in the **ADDRESSES** section. This assessment formed the basis for the decision that the California condor reintroduction is not a major Federal action which would significantly affect the quality of the human environment within the meaning of section 102(2)(C) of NEPA.

Migratory Bird Treaty Act

The final rule will not affect protection provided to the California condor by the Migratory Bird Treaty Act (MBTA). The take of all migratory birds, including the California condor, is governed by the MBTA. The MBTA regulates the taking of migratory birds for educational, scientific, and recreational purposes.

Required Determinations

This final rule was subject to Office of Management and Budget review under Executive Order 12866. The rule will not have a significant economic effect on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*). Based on the information discussed in this rule concerning public projects and private activities within the experimental population area, the rule will not cause significant economic impacts. Also, no direct costs, enforcement costs, information collection, or record-keeping requirements are imposed on small entities by this action and the rule contains no record-keeping requirements, as defined in the Paperwork Reduction Act of 1980 (44 U.S.C. 350 *et seq.*). This rule does not require a federalism assessment under Executive Order 12612 because it would not have any significant federalism effects as described in the Order.

The 30-day delay between publication of a final rule and its effective date as provided by the Administrative Procedure Act (5 U.S.C. 553(d)(3)) has been waived. The prompt reintroduction of the current release candidates is desirable for the following reasons: The space currently utilized by this year's condor cohort will soon be needed to house next year's release candidates; and the longer young condors are held in captivity beyond the optimal release window of 6 to 10 months, the more difficult they are to manage at release time, increasing the risk to the birds. Therefore, good cause exists for this rule to be effective immediately upon publication.

References Cited

A complete list of all references cited herein is available upon request from the Arizona Field Office or Ventura Field Office. (See **ADDRESSES** section.)

Author

The primary author of this rule is Robert Mesta, U.S. Fish and Wildlife Service, Ecological Services, Ventura Field Office. (See **ADDRESSES** section.)

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and Record Keeping requirements, and Transportation.

Regulation Promulgation

PART 17—[AMENDED]

Accordingly, the Service hereby amends part 17, subchapter B of Chapter I, Title 50 of the Code of Federal Regulations as set forth below:

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

Authority: 16 U.S.C. 1361–1407; 16 U.S.C. 1531–1544; 16 U.S.C. 4201–4245; Pub. L. 99–625, 100 Stat. 3500, unless otherwise noted.

2. In Section 17.11(h), the table entry ''Condor, California'' under BIRDS is revised to read as follows:

§ 17.11 Endangered and threatened wildlife.

* * * * *

(h) * * *

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
*	*	*	*	*	*		*
BIRDS							

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
*	*	*	*	*	*		*
Condor, California	Gymnogyps californianus.	U.S.A. (AZ, CA, OR, UT), Mexico (Baja California).	U.S.A. only, except where listed as an experimental population below..	E	1,597	17.95(b)	NA
Do	.....do	.....do	U.S.A. (specific portions of Arizona, Nevada, and Utah).	XN	597	NA	17.84(j)
*	*	*	*	*	*		*

3. Section 17.84 is amended by adding paragraph (j) to read as follows:

§ 17.84 Special rules—vertebrates.

* * * * *

(j) California condor (*Gymnogyps californianus*).

(1) The California condor (*Gymnogyps californianus*) population identified in paragraph (j)(8) of this section is a nonessential experimental population, and the release of such population will further the conservation of the species.

(2) You must not take any California condor in the wild in the experimental population area except as provided by this rule:

(i) Throughout the entire California condor experimental population area, you will not be in violation of the Endangered Species Act (Act) if you unavoidably and unintentionally take (including killing or injuring) a California condor, provided such take is non-negligent and incidental to a lawful activity, such as hunting, driving, or recreational activities, and you report the take as soon as possible as provided under paragraph 5 below.

(3) If you have a valid permit issued by the Service under § 17.32, you may take California condors in the wild in the experimental population area, pursuant to the terms of the permit.

(4) Any employee or agent of the Fish and Wildlife Service (Service), Bureau of Land Management or appropriate State wildlife agency, who is designated for such purposes, when acting in the course of official duties, may take a California condor from the wild in the experimental population area and vicinity if such action is necessary:

(i) For scientific purposes;

(ii) To relocate California condors within the experimental population area to improve condor survival, and to address conflicts with ongoing or proposed activities, or with private landowners, when removal is necessary to protect the condor, or is requested by an adversely affected landowner or land manager, or other adversely affected party. Adverse effects and requests for condor relocation will be documented, reported and resolved in as an expedient manner as appropriate to the specific situation to protect condors and avoid conflicts. Prior to any efforts to relocate condors, the Service will obtain permission from the appropriate landowner(s);

(iii) To relocate California condors that have moved outside the experimental population area, by returning the condor to the experimental population area or moving it to a captive breeding facility. All captures and relocations from outside the experimental population area will be coordinated with Service Cooperators, and conducted with the permission of the landowner(s) or appropriate land management agency(s).

(iv) To aid a sick, injured, or orphaned California condor;

(v) To salvage a dead specimen that may be useful for scientific study; or

(vi) To dispose of a dead specimen.

(5) Any taking pursuant to paragraphs (j)(2), (j)(4)(iv), (j)(4)(v), and (j)(4)(vi), of this section must be reported as soon as possible to the Field Supervisor, U.S. Fish and Wildlife Service, Ecological Services, Arizona Field Office, Phoenix, 2321 W. Royal Palm Road, Suite 103, Arizona (telephone 602/640–2720) who will determine the disposition of any live or dead specimens.

(6) You must not possess, sell, deliver, carry, transport, ship, import, or export by any means whatsoever, any California condor or part thereof from the experimental population taken in violation of this paragraph (j) or in violation of applicable State or Tribal laws or regulations or the Act.

(7) It is unlawful for you to attempt to commit, solicit another to commit, or cause to be committed, any offense defined in paragraphs (j)(2) and (j)(6) of this section.

(8) The designated experimental population area of the California condor includes portions of three states—Arizona, Nevada, and Utah. The southern boundary is Interstate Highway 40 in Arizona from its junction with Highway 191 west across Arizona to Kingman; the western boundary starts at Kingman, goes northwest on Highway 93 to Interstate Highway 15, continues northeasterly on Interstate Highway 15 in Nevada and Utah, to Interstate Highway 70 in Utah; where the northern boundary starts and goes across Utah to Highway 191; where the eastern boundary starts and goes south through Utah until Highway 191 meets Interstate Highway 40 in Arizona (See map at end of this paragraph (j)).

(i) All California condors released into the experimental population area, and their offspring, are to be marked and visually identifiable by colored and coded patagial wing markers.

(ii) The Service has designated the experimental population area to accommodate the potential future movements of a wild population of condors. All released condors and their progeny are expected to remain in the experimental area due to the geographic extent of the designation.

(9) The nonessential experimental population area includes the entire highway rights-of-way of the highways in paragraph (j)(8) of this section that constitute the perimeter boundary. All California condors found in the wild within these boundaries will comprise the experimental population.

(i) The experimental population is to be monitored during the reintroduction project. All California condors are to be given physical examinations before being released.

(ii) If there is any evidence that the condor is in poor health or diseased, it will not be released to the wild.

(iii) Any condor that displays signs of illness, is injured, or otherwise needs special care may be captured by authorized personnel of the Service, Bureau of Land Management, or appropriate State wildlife agency or their agents, and given the appropriate care. These condors are to be re-released into the reintroduction area as soon as possible, unless physical or behavioral problems make it necessary to keep

them in captivity for an extended period of time, or permanently.

(10) The status of the reintroduction project is to receive an informal review on an annual basis and a formal evaluation within the first 5 years after the initial release, and every 5 years thereafter. This evaluation will include, but not be limited to: a review of management issues; compliance with agreements; assessment of available carrion; dependence of older condors on supplemental food sources; post release behavior; causes and rates of mortality; alternative release sites; project costs; public acceptance; and accomplishment of recovery tasks prescribed in California Condor Recovery Plan. The number of variables that could affect this reintroduction project make it difficult to develop criteria for success or failure after 5 years. However, if after 5 years the project is experiencing a 40 percent or greater mortality rate or released condors are not finding food on their own, serious consideration will be given to terminating the project.

(11) The Service does not intend to pursue a change in the nonessential experimental population designation to experimental essential, threatened, or endangered, or modify the experimental population area boundaries without consulting with and obtaining the full cooperation of affected parties located within the experimental population area, the reintroduction program cooperators identified in the memorandum of understanding (MOU) for this program, and the cooperators identified in the agreement for this program.

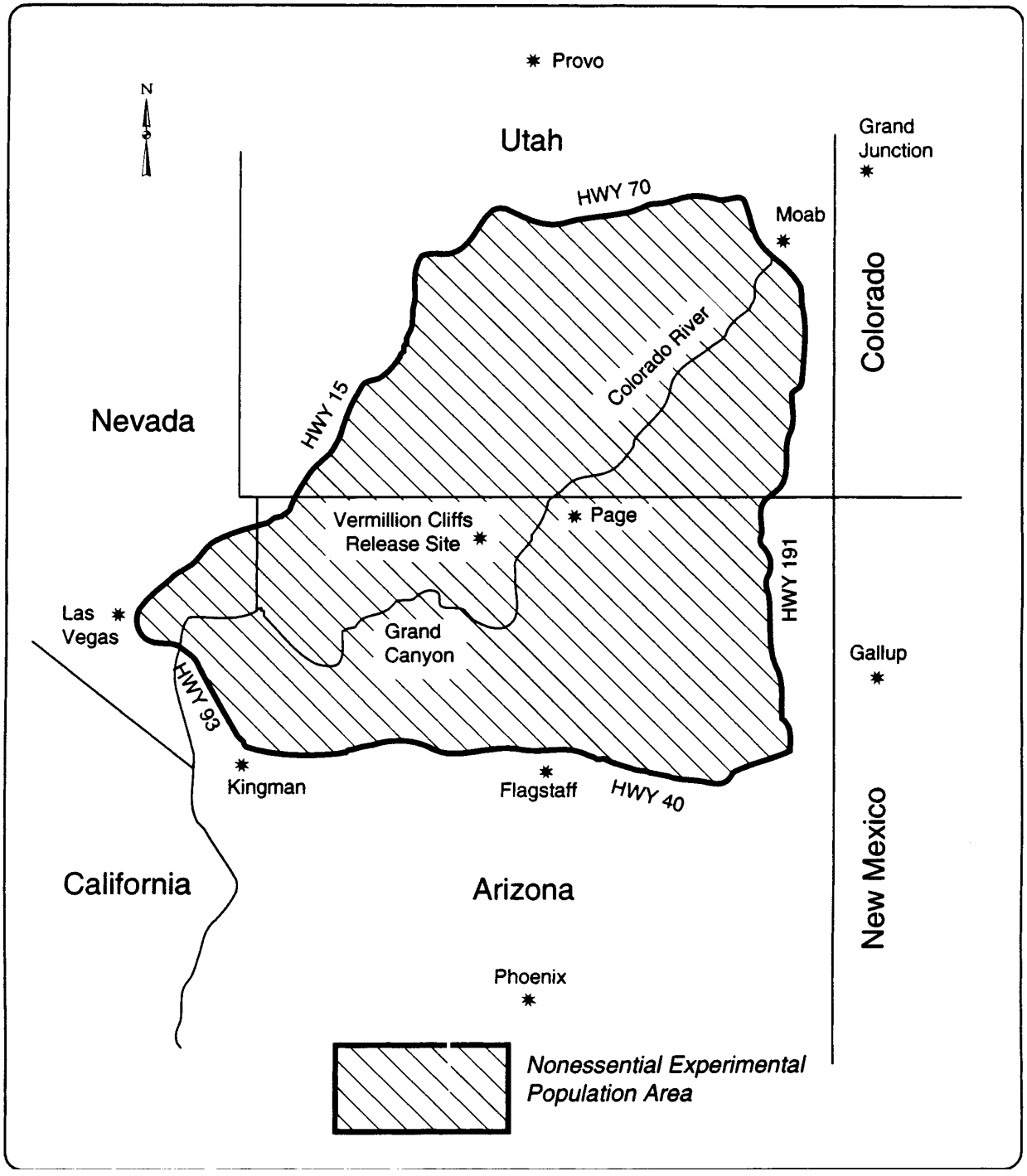
(i) The Service does not intend to change the status of this nonessential population until the California condor is recovered and delisted in accordance with the Act or if the reintroduction is not successful and the rule is revoked. No designation of critical habitat will be made for nonessential populations (16 U.S.C. § 1539(j)(2)(C)(ii).

(ii) Legal actions or other circumstances may compel a change in this nonessential experimental population's legal status to essential, threatened, or endangered, or compel the Service to designate critical habitat for the California condors within the experimental population area defined in this rule. If this happens, all California condors will be removed from the area and this experimental population rule will be revoked, unless the parties to the MOU and agreement existing at that time agree that the birds should remain in the wild. Changes in the legal status and/or removal of this population of California condors will be made in compliance with any applicable Federal rulemaking and other procedures.

BILLING CODE 4310–55–P

CALIFORNIA CONDOR

Nonessential Experimental Population Area And Release Site



Dated: October 8, 1996.

George T. Frampton, Jr.,

Assistant Secretary for Fish and Wildlife and Parks.

[FR Doc. 96–26535 Filed 10–15–96; 8:45 am]

BILLING CODE 4310–55–C