

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

[Docket No. FWS-R2-ES-2020-0123;  
FXES1113020000-212-FF02ENEH00]

RIN 2018-BD61

**Endangered and Threatened Wildlife and Plants; Revision of a Nonessential Experimental Population of Black-Footed Ferrets (*Mustela nigripes*) in the Southwest**

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Proposed rule; announcement of a draft environmental assessment.

**SUMMARY:** We, the U.S. Fish and Wildlife Service (Service and USFWS), propose to revise the regulation for the nonessential experimental population of the black-footed ferret (*Mustela nigripes*) (ferret) in Arizona. We established the Aubrey Valley Experimental Population Area (AVEPA) in 1996 in accordance with section 10(j) of the Endangered Species Act of 1973, as amended (ESA). This proposed rule would allow the reintroduction of ferrets across a larger landscape as part of a nonessential experimental population and include the AVEPA within a larger “Southwest Experimental Population Area” (SWEPA), which includes parts of Arizona and identified contiguous Tribal land in New Mexico and Utah. This proposed revision provides a framework for establishing and managing reintroduced populations of ferrets that will allow greater management flexibility and increased landowner cooperation. The best available data indicate that reintroduction of the ferret into suitable habitat in the proposed SWEPA is biologically feasible and will promote the conservation of the species. We are seeking comments on this proposal and on our draft environmental assessment (EA) that analyzes the potential environmental impacts associated with the proposed regulatory revisions.

**DATES:** We will accept comments received or postmarked on or before August 24, 2021. If you are using the Federal eRulemaking Portal (see **ADDRESSES**), the deadline for submitting an electronic comment is 11:59 p.m. Eastern Time on this date.

**ADDRESSES:** You may submit comments on the proposed rule and draft EA by one of the following methods:

*Electronically:* Go to the Federal eRulemaking Portal: <http://www.regulations.gov>. In the Search box,

enter the Docket Number for this rulemaking: FWS-R2-ES-2020-0123. Then, in the Search panel on the left side of the screen, under the Document Type heading, click on the Proposed Rules link to locate this document. You may submit a comment by clicking on “Comment Now!”

*By hard copy:* Submit by U.S. mail to: Public Comments Processing, Attn: FWS-R2-ES-2020-0123, U.S. Fish and Wildlife Service, MS: PRB/3W, 5275 Leesburg Pike, Falls Church, VA 22041-3803.

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

*Copies of Documents:* The proposed rule, draft EA, and supporting documents are available at the following website: <http://www.regulations.gov> in Docket No. FWS-R2-ES-2020-0123. Persons who use a telecommunications device for the deaf (TDD) may call the Federal Relay Service (FRS) at 1-800-877-8339.

**FOR FURTHER INFORMATION CONTACT:** Jeff Humphrey, Field Supervisor, Phone: 602-242-0210. Direct all questions or requests for additional information to: BLACK-FOOTED FERRET QUESTIONS, U.S. Fish and Wildlife Service, Arizona Ecological Services Office, 9828 North 31st Avenue, Suite C3, Phoenix, AZ 85051. Individuals who are hearing-impaired or speech-impaired may call the FRS at 1-800-877-8337 for TTY assistance.

**SUPPLEMENTARY INFORMATION:****Public Comments**

We want to ensure that any final rule developed from this proposed revision to the 1996 rule is as effective as possible. Therefore, we invite Tribal and other governmental agencies, the scientific community, industry, and other interested parties to submit comments (including recommendations and information) concerning any aspect of this proposed revision. Your comments should be as specific as possible.

To issue a final rule implementing this revision, we will take into consideration all comments and information we receive. Such communications may lead to a final rule that differs from this proposed revision. All comments, including commenters’ names and addresses, if provided to us, will become part of the supporting record.

You may submit your comments concerning the proposed revision by

one of the methods listed in **ADDRESSES**. You must submit comments to <http://www.regulations.gov> before 11:59 p.m. (Eastern Time) on the date specified in **DATES**. We will not consider hardcopy comments not postmarked by the date specified in **DATES**.

We will post your entire comment—including your personal identifying information—on <http://www.regulations.gov>. If you provide personal identifying information in your comment, you may request at the top of your document that we withhold this information from public review. However, we cannot guarantee that we will be able to do so.

The comments we receive and any supporting documentation we used in preparing this proposal will be available for public inspection at <http://www.regulations.gov>, or by appointment, during normal business hours at the U.S. Fish and Wildlife Service, Arizona Ecological Services Office (see **FOR FURTHER INFORMATION CONTACT**).

We specifically seek comments on:

- The appropriateness of revising the current AVEPA, and establishing new boundaries for the nonessential experimental population area to encompass all potential ferret habitat within Arizona and identified Tribal lands in New Mexico and Utah, for reintroduced populations of black-footed ferrets;

- Threats to ferrets in the proposed nonessential experimental population area that we have not considered in this revision that might affect a reintroduced population;

- The suitability of the proposed boundaries for this nonessential experimental population;

- The effects of reintroducing ferrets on public, private, and Tribal lands and activities such as ranching, recreation, residential development, and other land uses; and

- The compatibility of this proposal with ongoing implementation of the programmatic ferret Safe Harbor Agreement (SHA) in cooperation with non-Federal landowners.

**Background***Statutory and Regulatory Framework*

The 1982 amendments to the ESA (16 U.S.C. 1531 *et seq.*) included the addition of section 10(j) that allows for the designation of reintroduced populations of listed species as “experimental populations.” Our implementing regulations for section 10(j) are in title 50 of the Code of Federal Regulations in part 17 (specifically at 50 CFR 17.81); hereafter,

we refer to species-specific rules under section 10(j) of the ESA as “10(j) rules.” These regulations state that the Service may designate a population of endangered or threatened species that we have released or will release into suitable natural habitat outside the species’ current natural range, but within its probable historical range, as an experimental population.

Under 50 CFR 17.81(b), before authorizing the release as an experimental population of any population of an endangered or threatened species, the Service must find by regulation that such release will further the conservation of the species. In making such a finding, the Service shall use the best scientific and commercial data available to consider:

(1) Any possible adverse effects on extant populations of a species as a result of removal of individuals, eggs, or propagules for introduction elsewhere (see “*Possible Adverse Effects on Wild and Captive-Breeding Populations*” below);

(2) The likelihood that any such experimental population will become established and survive in the foreseeable future (see “*Likelihood of Population Establishment and Survival*” below);

(3) The relative effects that establishment of an experimental population will have on the recovery of the species (see “*Effects of the SWEPA on Recovery Efforts for the Species*” below); and

(4) The extent to which the introduced population may be affected by existing or anticipated Federal, Tribal, or State actions or private activities within or adjacent to the experimental population area (see “*Actions and Activities that May Affect the Introduced Population*” below).

Furthermore, under 50 CFR 17.81(c), any regulation designating experimental populations under section 10(j) of the ESA shall provide:

(1) Appropriate means to identify the experimental population, including, but not limited to, its actual or proposed location, actual or anticipated migration, number of specimens released or to be released, and other criteria appropriate to identify the experimental population(s) (see “*Identifying the Location and Boundaries of the SWEPA*” below);

(2) a finding, based solely on the best scientific and commercial data available, and the supporting factual basis, on whether the experimental population is, or is not, essential to the continued existence of the species in the wild (see “Is the Proposed Experimental

Population Essential or Nonessential?” below);

(3) management restrictions, protective measures, or other special management concerns of that population, which may include but are not limited to, measures to isolate and/or contain the experimental population designated in the regulation from natural populations (see “Management Restrictions, Protective Measures, and Other Special Management” below); and

(4) a process for periodic review and evaluation of the success or failure of the release and the effect of the release on the conservation and recovery of the species (see “Review and Evaluation of the Success or Failure of the SWEPA” below).

Under 50 CFR 17.81(d), the Service shall consult with appropriate State fish and wildlife agencies, local governmental entities [including Tribal governments], affected Federal agencies, and affected private landowners in developing and implementing experimental population rules. To the maximum extent practicable, 10(j) rules represent an agreement between the Service, affected Tribes, State and Federal agencies, and persons holding any interest in land that the establishment of an experimental population may affect.

Under 50 CFR 17.81(f), the Secretary may designate critical habitat as defined in section 3(5)(A) of the ESA for an essential experimental population. The Secretary will not designate critical habitat for nonessential populations. The term essential experimental population means an experimental population whose loss would be likely to appreciably reduce the likelihood of the survival of the species in the wild. We classify all other experimental populations as nonessential (50 CFR 17.80).

Under 50 CFR 17.82, we treat any population determined by the Secretary to be an experimental population as if we had listed it as a threatened species for the purposes of establishing protective regulations with respect to that population. The protective regulations adopted for an experimental population will contain applicable prohibitions, as appropriate, and exceptions for that population, allowing us discretion in devising management programs to provide for the conservation of the species.

Under 50 CFR 17.83(a), for the purposes of section 7 of the ESA, we treat nonessential experimental populations as threatened when located in a National Wildlife Refuge or unit of the National Park Service (NPS), and Federal agencies follow conservation

and consultation requirements per subsections 7(a)(1) and 7(a)(2), respectively. We treat nonessential experimental populations outside of a National Wildlife Refuge or NPS unit as species proposed for listing, and agencies only follow subsections 7(a)(1) and 7(a)(4). In these cases, nonessential experimental population designation provides additional flexibility, because it does not require Federal agencies to consult under section 7(a)(2). Instead, section 7(a)(4) requires Federal agencies to confer (not consult) with the Service on actions that are likely to *jeopardize* the continued existence of a species proposed to be listed. A conference results in conservation recommendations, which are discretionary. Because the nonessential experimental population is, by definition, not essential to the continued existence of the species, the effects of proposed actions on the population will generally not rise to the level of “jeopardy.” As a result, Federal agencies will likely never request a formal conference for actions that may affect ferrets established in the proposed SWEPA. Nonetheless, some Federal agencies voluntarily confer with the Service on actions that may affect a proposed species.

#### Legal Status

We listed the black-footed ferret as an endangered species in 1967 under the Endangered Species Preservation Act of 1966 (32 FR 4001, March 11, 1967). We later codified this list in part 17 of title 50 in the U.S. Code of Federal Regulations (CFR) (35 FR 8491, October 13, 1970). With the passage of the ESA in 1973 (16 U.S.C. 1531 *et seq.*), we incorporated those species previously listed in the CFR into the Lists of Endangered and Threatened Wildlife and Plants under the ESA, found at 50 CFR 17.11 and 17.12 (39 FR 1175, January 4, 1974).

In 1996, we designated the population of black-footed ferrets established via reintroduction in Aubrey Valley as a nonessential experimental population (61 FR 11320, March 20, 1996). The Aubrey Valley Experimental Population Area (AVEPA) includes parts of Coconino, Mohave, and Yavapai Counties in northwestern Arizona. At the time of its designation, the AVEPA consisted of 22 percent State lands, 45 percent Tribal lands (Hualapai Reservation), and 33 percent deeded lands (owned by the Navajo Nation).

In 2013, the USFWS developed a range-wide programmatic Safe Harbor Agreement (SHA) to encourage non-Federal landowners to voluntarily undertake conservation activities on

their properties to benefit the ferret (USFWS 2013b, entire) (see “*Historical Range*” below). Through Certificates of Inclusion, we enroll willing landowners in our SHA section 10(a)(1)(A) Enhancement of Survival Permit. We treat ferrets as endangered outside of the AVEPA, and the provisions and exceptions of the experimental population designation do not apply; however, through the SHA, incidental take of ferrets by participating landowners and nonparticipating neighboring landowners is permissible. Also, through their certificates, we provide participating landowners assurances we will not require additional restrictions provided they follow provisions outlined in the SHA and detailed in a Reintroduction Plan developed by the landowner for the enrolled lands. The Service tailors conservation activities to each specific site under the SHA.

General provisions of Arizona Revised Statutes, Title 17, protect all of Arizona’s native wildlife, including federally listed threatened and endangered species. Under Navajo Nation law, it is unlawful for any person to take ferrets. All wildlife on the Hopi Reservation is the property of the Hopi Tribe, and Tribal law provides for take (see “Management Restrictions, Protective Measures, and Other Special Management” below, for more information on State and Tribal legal status).

## Biological Information

### Species Description

The black-footed ferret (*Mustela nigripes*) is a medium-sized member of the weasel family (Mustelidae) weighing 1.4 to 2.5 pounds (645 to 1125 grams) and measuring 19 to 24 inches (480 to 600 millimeters) in total length. Its body color includes yellowish-buff, occasionally whitish, upper parts, and black feet, tail tip, and “mask” across the eyes (Hillman and Clark 1980, p. 30).

### Ecology/Habitat Use/Movement

Black-footed ferrets are carnivorous, extremely specialized predators highly dependent on prairie dogs (*Cynomys* spp.) (Hillman 1968, p. 438; Biggins 2006, p. 3). Ferrets prey predominantly on prairie dogs (Sheets *et al.* 1972, entire; Campbell *et al.* 1987, entire), occupy prairie dog burrows, and do not dig their own burrows (Forrest *et al.* 1988, p. 261). Ferrets select areas within prairie dog colonies that contain high burrow densities and thus high densities of prairie dogs (Biggins *et al.* 2006, p. 136; Eads *et al.* 2011, p. 763;

Jachowski *et al.* 2011a, pp. 221–223; Livieri and Anderson 2012, pp. 201–202). Given their obligate tie to prairie dogs, ferret populations associated with larger, less fragmented prairie dog colonies are more likely to be resilient and less likely to be extirpated by stochastic events compared to those associated with smaller, fragmented colonies (Miller *et al.* 1994, p. 678; Jachowski *et al.* 2011b, entire). Resiliency is the ability of populations to tolerate natural, annual variation in their environment and to recover from periodic or random disturbances (USFWS 2019, p. 2). Such stochastic events include epizootics, such as sylvatic plague (plague), and extreme weather or climate, including drought.

The last naturally occurring wild ferret population, in Wyoming, averaged approximately 25 breeding adults throughout intensive demographic studies from 1982 to 1985 (USFWS 2019, p. 10). Based on this and population modeling, the Service considers 30 breeding adults a minimum for a population of ferrets to be self-sustaining (USFWS 2013a, p. 70). Ferrets require large, contiguous prairie dog colonies to meet their individual needs, with colonies no more than 4.35 miles (7 kilometers [km]) apart. A conservative estimate of habitat requirements to support one female ferret is 222 acres (ac) (90 hectares [ha]) of black-tailed prairie dog (*C. ludovicianus*) colonies, or 370 ac (150 ha) of Gunnison’s prairie dog (*C. gunnisoni*) colonies (USFWS 2013a, p. 73). Assuming a two-to-one female-to-male sex ratio and overlapping male and female home ranges (Biggins *et al.* 1993, p. 76), a population of 30 breeding adult ferrets would require 4,450 ac (1,800 ha) of black-tailed prairie dog colonies, or 7,415 ac (3,000 ha) of Gunnison’s prairie dog colonies.

Natal dispersal, defined as a permanent movement away from the birth area, occurs in the fall months among the young-of-the-year, although adults occasionally make permanent moves (Forrest *et al.* 1988, p. 268). Newly released captive-born ferrets have dispersed up to 30 miles (49 km) (Biggins *et al.* 1999, p. 125), and wild-born ferrets more than 12 miles (20 km) (USFWS 2019, p. 7). Males tend to move greater distances than females.

### Historical Range

The black-footed ferret is the only ferret species native to the Americas (Anderson *et al.* 1986, p. 24). Before European settlement, ferret occurrence coincided with the ranges of three prairie dog species (black-tailed, white-tailed [*C. leucurus*], and Gunnison’s),

which collectively covered about 100 million ac (40.5 million ha) of Great Plains, mountain basins, and semi-arid grasslands extending from Canada to Mexico (Anderson *et al.* 1986, pp. 25–50; Biggins *et al.* 1997, p. 420). This amount of habitat could have supported one-half to one million ferrets (Anderson *et al.* 1986, p. 58). We have records of ferret specimens from Arizona, Colorado, Kansas, Montana, Nebraska, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, Utah, and Wyoming in the United States (U.S.) and from Saskatchewan and Alberta in Canada (Anderson *et al.* 1986, pp. 25–50). A rancher discovered the last wild population of ferrets (from which all existing ferrets descend) near Meeteetse, Wyoming, in 1981, after we had presumed the species extinct (Clark *et al.* 1986, p. 8; Lockhart *et al.* 2006, p. 8). By 1987, the Service and partners removed all known surviving wild ferrets (18 individuals) from this area to initiate a captive-breeding program following disease outbreaks (Lockhart *et al.* 2006, p. 8). Since then, we have not located any wild populations, despite extensive and intensive rangewide searches; it is unlikely any undiscovered natural wild populations remain. For these reasons, the Service considers the ferret extirpated throughout its historical range, except for reintroduced populations (USFWS 2017, p. 2).

In the Southwest, ferrets occurred in Arizona, Colorado, New Mexico, and Utah, within the historical range of Gunnison’s prairie dogs, and in New Mexico and likely southeastern Arizona and Mexico, within the historical range of black-tailed prairie dogs (Hillman and Clark 1980, entire). In Arizona, historical ferret collections (1929–1931) come from three locations in Coconino County (Belitsky *et al.* 1994, p. 29). In 1967, Federal Animal Damage Control personnel (now known as Wildlife Services) reported seeing ferret sign while poisoning prairie dogs (pers. com. 1993, as cited in Belitsky *et al.* 1994, p. 2). Anderson *et al.* (1986, p. 25) speculated that prairie dog populations of sufficient size to support ferrets may have existed in northeastern Arizona on lands of the Navajo Nation, a sovereign Indian tribe. However, the Navajo Nation has determined that the ferret no longer occurs on their lands (Navajo Nation 2020). Prairie dogs also occur in significant numbers on the lands of two other sovereign Indian tribes, the Hopi Tribe (Johnson *et al.* 2010, entire) and the Hualapai Tribe, the latter of which the AVEPA partially overlaps.

Dramatic historical declines in prairie dogs, coupled with prevalence of plague

throughout the ferret's historical range, and the failure to locate new wild ferrets, suggests the species is extirpated in Arizona, except where it has been reintroduced (USFWS 2017, p. 2). The date of ferret extirpation in the Southwest is unknown; in Arizona, we have no verified reports for ferrets from 1931 through 1995, after which we initiated reintroduction efforts in the AVEPA. We consider the historical range of the ferret to coincide with the historical ranges of the Gunnison's and black-tailed prairie dogs.

#### Threats/Causes of Decline

Black-footed ferret populations decreased historically for three main reasons. First, major conversion of native range to cropland, primarily in the eastern portion of the species' range, began in the late 1800s. Second, widespread poisoning of prairie dogs to reduce perceived competition with domestic livestock for forage began in the early 1900s. Third, in the 1930s, plague began to significantly adversely affect both prairie dogs and ferrets (Eskey and Hass 1940, p. 62). By the 1960s, prairie dog occupied habitat reached a low of about 1.4 million ac (570,000 ha) in the U.S. (Bureau of Sport Fisheries and Wildlife 1961, n.p.). For these reasons, ferret numbers declined to the point of perceived extinction. These threats resulted in a substantial loss of prairie dogs, which in turn led to an even greater decline in ferret populations due to the species' dependence on prairie dog colonies (Lockhart *et al.* 2006, p. 7). Such population bottlenecks can result in loss of genetic diversity and fitness and can manifest following even a temporary loss of habitat (USFWS 2013a, p. 23).

In Arizona, the combined effects of prairie dog poisoning and plague decreased the area occupied by Gunnison's prairie dogs from about 6.6 million ac (2.7 million ha) historically to about 445,000 ac (180,000 ha) in 1961 (Bureau of Sport Fisheries and Wildlife 1961, n.p.; Oakes 2000, pp. 169–171). Estimates of historical black-tailed prairie dog habitat in Arizona range from 650,000 ac (263,000 ha) to 1,396,000 ac (565,000 ha) (Van Pelt 1999, p. 1; Black-footed Ferret Recovery Foundation 1999, p. 4). Extirpation of black-tailed prairie dogs in Arizona probably occurred prior to 1960. As with the rangewide effects, these prairie dog losses also resulted in the loss of ferrets; by the 1960's, we thought ferrets were extirpated in Arizona (Lockhart *et al.* 2006, pp. 7–8).

#### Cropland Conversion

Major conversion of native range to cropland eliminated millions of acres of ferret habitat in the eastern portion of the ferret's range, particularly black-tailed prairie dog colonies (USFWS 2013a, p. 23). Land conversion caused far less physical loss of Gunnison's prairie dog habitat because, outside of riparian corridors and proximate irrigated lands, much of the habitat occupied by this species is not suitable for crops (Lockhart *et al.*, 2006, p. 7). Knowles (2002, p. 12) noted displacement of prairie dogs from the more productive valley bottomlands in Colorado and New Mexico, but not in Arizona. Instead of converting native rangeland to irrigated crop and pasture lands, land-use of the range in Arizona was and continues to be primarily cattle grazing, with relatively minimal crop development. Cropland conversion in Arizona, while affecting ferrets locally, was not a major cause of decline in the State.

#### Prairie Dog Poisoning

Poisoning was a major cause of the historical declines of prairie dogs and subsequently black-footed ferrets (Forrest *et al.* 1985; Cully 1993, p. 38; Forrest and Luchsinger 2005, pp. 115–120). Similar to other threats limiting ferret recovery, poisoning affects ferrets through inadvertent secondary effects, poisoning caused by consumption of poisoned prairie dogs, or indirectly, through the loss of prairie dog prey base.

In Arizona, from 1916 to 1933, rodent control operations treated 4,365,749 ac (1,766,756 ha) of prairie dog colonies (Oakes 2000, p. 179). A 1961 Predator and Rodent Control Agency report showed a 92 percent decline in occupied prairie dog habitat in Arizona since 1921, with Gunnison's prairie dogs occupying 445,370 ac (180,235 ha). Only 9,956 ac (4,029 ha) of prairie dog colonies in the 1961 surveys were located on non-Tribal lands. The 1961 Predator and Rodent Control Agency report also documented the extirpation of black-tailed prairie dogs from Arizona. Historical prairie dog poisoning was a major cause of decline of ferrets in Arizona.

#### Plague

Sylvatic plague is the most significant challenge to ferret recovery (USFWS 2019, p. 21), with the USFWS classifying it as an imminent threat of high magnitude (USFWS 2020, p. 5). Plague is an exotic disease, caused by the bacterium *Yersinia pestis*, transmitted by fleas, that steamships

inadvertently introduced to North America in 1900. Because it was foreign and unknown to their immune systems, both ferrets and prairie dogs were and continue to be extremely susceptible to mortality from plague (Barnes 1993, entire; Cully 1993, entire; Gage and Kosoy 2006, entire). Plague can be present in a prairie dog colony in an epizootic (swift, large-scale die-offs) or enzootic (persistent, low level of mortality) state. Most of the information we have about the effects of plague is from epizootic events. Although its effects are not as dramatic as an epizootic outbreak, enzootic plague may result in negative growth rates for prairie dog and ferret populations and hinder ferret recovery (USFWS 2013a, pp. 33, 100).

The first confirmation of plague in Gunnison's prairie dog in Arizona was in 1932, but we have limited historical data on the extent of its effects. In 2003, Wagner and Drickamer reported that in the previous 7 to 15 years, there had been a large reduction in the number of active Gunnison's prairie dog colonies in Arizona, primarily due to outbreaks of plague, which they said was the dominant negative effect on Arizona prairie dog populations. Prairie dogs in northern Arizona will likely continue to experience regular plague outbreaks (Wagner *et al.* 2006, p. 337).

#### Other Impediments to Recovery

To successfully recover black-footed ferrets we need purposeful management of prairie dog populations to provide habitat of sufficient quality and in a stable, spatial configuration suitable to support and maintain new populations of reintroduced ferrets. Unfortunately, current management efforts for the species are failing to meet these conservation objectives (USFWS 2013a, pp. 46, 58, Table 6; USFWS 2020 p. 5). The keys to correcting current management inadequacies are active plague management (discussed above), and ongoing, widespread partner involvement (USFWS 2013a, pp. 46–48) to facilitate establishment of new reintroduction sites and appropriately manage the quality and configuration of ferret habitat within the species range.

In addition, consideration of other factors that may act alone or in concert with threats are necessary when planning and implementing recovery efforts. For example, canine distemper, a disease endemic to the U.S., posed a challenge to early ferret reintroduction efforts (Wimsatt *et al.* 2006, pp. 249–250). Today, however, we have minimized the threat of catastrophic population losses from canine distemper by the use of commercial

vaccines deployed in captive and wild ferret populations (USFWS 2013a, pp. 29–30). As discussed in the Black-footed Ferret Recovery Plan (USFWS 2013a, pp. 53–55), we anticipate that climate change will alter and reduce prairie dog habitat and influence plague outbreaks. We also discuss prairie dog hunting and Federal and non-Federal actions and activities in the “*Actions and Activities that May Affect the Introduced Population*” section below.

### Recovery, Captive Breeding, and Reintroduction Efforts to Date

The goal of the Black-footed Ferret Recovery Plan (Recovery Plan) is to recover the ferret to the point at which it can be reclassified to threatened status (downlisted) and ultimately removed (delisted) from the List of Endangered and Threatened Wildlife (USFWS 2013a, pp. 5, 59). The strategy of the Recovery Plan is to involve many partners across the historical range of the species in order to establish multiple, widely spaced populations, within the range of all three prairie dog species. Such distribution will safeguard the species, as a whole, from the widespread chronic effects of plague as well as other periodic or random disturbances that may result in the loss of a population in one or more given areas. Partner involvement is critical for the development of new sites and their long-term management. Although ferret habitat is significantly less than historical times, a sufficient amount remains if we can appropriately manage its quality and configuration to support reintroductions (USFWS 2013a, p. 5). The Recovery Plan provides objective, measurable criteria to achieve downlisting and delisting of the ferret.

Recovery Plan downlisting and delisting criteria include managing a captive breeding population of at least 280 adults as the source population to establish and supplement free-ranging populations and repopulate sites in the event of local extirpations. Downlisting criteria include establishing at least 1,500 free-ranging breeding adults in 10 or more populations, in at least 6 of 12 States in the species’ historical range, with no fewer than 30 breeding adult ferrets in any population, and at least 3 populations in colonies of Gunnison’s and white-tailed prairie dogs. Delisting criteria include at least 3,000 free-ranging breeding adults in 30 or more populations, in at least 9 of 12 States in the species’ historical range. There should be no fewer than 30 breeding adults in any population, and at least 10 populations with 100 or more breeding adults, and at least 5 populations in Gunnison’s and white-tailed prairie dog

colonies. We must meet these population objectives for at least 3 years prior to downlisting or delisting. Habitat criteria include maintaining 247,000 ac (100,000 ha) of prairie dog colonies at reintroduction sites for downlisting, and 494,000 ac (200,000 ha) for delisting (USFWS 2013a, pp. 61–62).

Additionally, for each State in the historical range of the species, the Recovery Plan suggests recovery guidelines proportional to the amount of prairie dog habitat historically present to equitably help support and achieve the recovery strategy and criteria (USFWS 2013a, p. 69). Guidelines for Arizona’s contribution to downlisting are 74 free-ranging breeding adult ferrets on 17,000 ac (6,880 ha) of Gunnison’s prairie dog-occupied habitat; delisting guidelines are 148 breeding adults on 34,000 ac (13,760 ha) (USFWS 2013a, Table 8). The guidelines for New Mexico and Utah are 220 and 25 breeding adult ferrets for downlisting, respectively, and 440 and 50 breeding adults for delisting; most of these guidelines are for black-tailed or white-tailed prairie dog habitat.

### Captive Breeding

The Service and partners established the black-footed ferret captive-breeding program from 18 ferrets captured from the last known wild population at Meeteetse, Wyoming, in 1985 to 1987 (Lockhart *et al.* 2006, pp. 11–12). Of those 18 ferrets, 15 individuals, representing the genetic equivalent of seven distinct founders (original genetic contributor, or ancestor), produced a captive population that is the foundation of present recovery efforts (Garelle *et al.* 2006, p. 4). All extant ferrets, both captive and reintroduced, descended from those seven founders. The purpose of the captive-breeding program is to maintain a secure and stable ferret population with maximum genetic diversity, to provide a sustainable source of ferrets for reintroduction to achieve recovery of the species (USFWS 2013a, pp. 6, 81). The captive-breeding population of ferrets is the primary repository of genetic diversity for the species. There are currently six captive-breeding facilities maintained by the Service and its partners: The Service’s National Black-footed Ferret Conservation Center near Wellington, Colorado; the Cheyenne Mountain Zoological Park, Colorado Springs, Colorado; the Louisville Zoological Garden, Louisville, Kentucky; the Smithsonian Biology Conservation Institute, Front Royal, Virginia; the Phoenix Zoo, Phoenix, Arizona; and the Toronto Zoo, Toronto, Ontario, Canada. The

combined population of all 6 facilities is currently about 300 ferrets (USFWS 2020, p. 2).

We manage the demography and genetics of the captive population consistent with guidance from the Association of Zoos and Aquariums (AZA) Black-footed Ferret Species Survival Plan (SSP®). This includes maintaining a stable breeding population of at least 280 animals with a high level of genetic diversity and providing a sustainable source of ferrets for reintroduction. The captive-breeding facilities produce about 250 juvenile ferrets annually and have produced about 9,300 ferrets in total (Graves *et al.* 2018, p. 3; Santymire and Graves 2020, p. 12). The distribution of ferrets across six widespread facilities protects the species from catastrophic events. Currently, we retain about 80 juveniles annually in AZA SSP® facilities for continued captive-breeding purposes. We consider the remaining juveniles genetically redundant and excess to the AZA SSP®, and available for reintroductions (USFWS 2013a, p. 81).

Each year the Service solicits proposals for allocations of ferrets to establish new sites or augment existing sites, or for educational or scientific purposes (*e.g.*, plague vaccine research). The limited number of ferrets available for release each year requires that we efficiently allocate them to the highest priority sites first. The Service uses a ranking procedure for allocating ferrets to reintroduction sites (Jachowski and Lockhart 2009, pp. 59–60). Ranking criteria include project background and justification, involved agencies/parties, habitat conditions, ferret population information, predator management, disease monitoring and management, contingency plans, potential for pre-conditioning of released ferrets, veterinary and husbandry support, and research contributions. Members of the Black-footed Ferret Recovery Implementation Team review the proposals and the Service’s rankings of the proposals (USFWS 2013a, pp. 87–88).

Each year, we allocate 150 to 220 ferrets for reintroduction into the wild from the captive-breeding population; as of 2020 we had allocated 5,544 ferrets rangewide (T. Tretten, USFWS, pers. comm. 12/10/20). The number of ferrets we allocate to a site depends on site size and prey density (USFWS 2016, pp. 1, 21). It also depends on purpose and needs; for example, whether the purpose is to initiate establishment of a population or augment a site, which may entail multiple releases in a year. A release can involve a single ferret, but for initial releases, in general, the

Service recommends releasing 20 to 30 individuals (P. Gober, USFWS, pers. comm., March 4, 2018).

#### *Rangewide Reintroduction Efforts to Date*

The Service and partners have reintroduced ferrets at 30 sites in the western U.S., Canada, and Mexico. In the United States, 12 ferret reintroductions have occurred through experimental population designations under section 10(j) of the ESA, 15 under SHA Enhancement of Survival permits under section 10(a)(1)(A), and one under section 7 of the ESA (John Hughes, USFWS, pers. comm., January 28, 2018). Additionally, there has been one reintroduction each in Chihuahua, Mexico, and in Saskatchewan, Canada. As of December 9, 2019, 13 of 29 reintroduction sites were active, with a total estimated wild population of about 325 individuals (USFWS 2020, p. 2), 254 of which are on only 4 sites (USFWS 2019, Table 3). The Service recently determined 2 reintroduction sites were in high condition (high resiliency), 8 were in moderate condition (moderate resiliency), 4 were in low condition (low resiliency), and 15 were extirpated, primarily due to the plague (USFWS 2019, p. ii). We did not include the most recent reintroduction site, the thirtieth, in our analysis. There are 240,173 ac (97,197 ha) of active prairie dog colonies on all sites combined (USFWS 2019, p. 45).

#### *Arizona-Specific Reintroduction Efforts to Date*

The Arizona Game and Fish Department (AGFD) and Service have carried out multiple ferret reintroductions and augmentations in northern Arizona. In 1996, we reintroduced ferrets to the AVEPA in cooperation with the Hualapai Tribe and the Navajo Nation (61 FR 11320, March 20, 1996). AVEPA was the fifth ferret reintroduction site in the U.S. and the first reintroduction site in a Gunnison's prairie dog population (USFWS 2013a, Figure 1). In 2011, AGFD personnel observed ferrets outside of the AVEPA, including on the adjacent Double O Ranch, presumably dispersing from the AVEPA. In 2012, the number of breeding adults in the AVEPA was 123, which exceeded the recommended State guidelines for downlisting (USFWS 2013a, Table 2, Table 8). Since then, AGFD has documented significantly fewer ferrets over several years (AGFD 2016, p. 3; USFWS 2019, p. 45). We suspect that enzootic plague may have caused this decline, but we do not know the long-term trend or whether it is cyclical.

Despite lower numbers, we consider the AVEPA to be a persistent reintroduction site (P. Gober, USFWS, pers. comm., March 4, 2018).

In 2007, we established the Espee Ranch (a.k.a. Allotment) reintroduction site under a section 10(a)(1)(A) research and recovery permit. The status of the Espee population is currently unknown but likely extirpated due to plague (AGFD, unpub. data).

The Babbitt Ranches, LLC, for the Espee Allotment (the existing Espee Ranch reintroduction site), and Seibert Land Company LLC, for the Double O Ranch, enrolled in the programmatic SHA with the Service in 2014 and 2016, respectively. The figure at the end of this proposed rule identifies these SHA lands in the proposed SWEPA. The AVEPA and adjacent Double O Ranch contain the only known ferrets in the proposed SWEPA, and we consider them to be one population and reintroduction site.

#### *Plague Mitigation Efforts*

We continue making advances to address plague, even as it remains the most significant challenge to ferret recovery. Roche *et al.* (2006, entire) developed a vaccine (F1-V) to prevent plague in ferrets, which we now use operationally, vaccinating all ferrets provided for reintroduction (Abbott and Roche 2012, p. 54). Another vaccine under development is the sylvatic plague vaccine (SPV), which we deliver via treated baits to wild prairie dogs and may eventually protect ferrets from habitat reduction due to plague. SPV has been effective in a laboratory setting (Roche *et al.* 2010, entire; Abbott and Roche 2012, pp. 54–55), and a recent broad-scale experiment to test efficacy in the field found it prevented colony collapse where plague epizootics were documented (Roche *et al.* 2017, p. 443). In addition, we have managed both enzootic and epizootic plague by application of the insecticide deltamethrin, in powder form, into prairie dog burrows to control fleas (Seery *et al.* 2003, p. 443; Seery 2006, entire; Matchett *et al.* 2010, pp. 31–33; USFWS 2013a, p. 101). However, the application of insecticidal dust is costly and labor-intensive, and there are concerns about the development of deltamethrin-resistance in fleas. Therefore, we continue working to improve the application and efficacy of the insecticide deltamethrin and are researching other pesticides, such as fipronil, a systemic pulicide (flea-specific insecticide) that is incorporated into grain baits for prairie dog consumption (Poché *et al.* 2017, entire; Eads *et al.* 2019, entire).

#### *Summary*

Ferret recovery will be a dynamic process, requiring long-term active management (*e.g.*, plague control) and involving reintroduced populations rangewide in various stages of suitability and sustainability—with some undergoing extirpation concurrently as others establish or reestablish after extirpation. The dynamic nature of ferret recovery and conservation is illustrated by the Service's experience with the AVEPA population, which at one point was self-sustaining with ferrets dispersing outside the experimental population area, but then experienced a significant population decline, presumably due to plague, in 2013. Therefore, future ferret recovery is dependent on establishment of multiple, spatially spread populations of reintroduced ferrets in Arizona to contribute to species recovery, which establishment of the SWEPA will help achieve.

#### **Proposed Experimental Population**

We propose to revise and replace the existing nonessential experimental population designation for black-footed ferrets in Arizona (the AVEPA) with the SWEPA, under section 10(j) of the ESA. We based the proposed boundaries of the 40,905,350-ac (16,554,170-ha) SWEPA on the historical range of Gunnison's and black-tailed prairie dogs, which coincides with the presumed historical range of black-footed ferret in Arizona. The only ferrets occurring within the proposed SWEPA are within the AVEPA and adjacent areas and constitute a single population. Therefore, the SWEPA, which will encompass the AVEPA, would be wholly geographically separate from other populations. Currently, scattered throughout the SWEPA there are approximately 358,000 ac (144,880 ha) of prairie dog colonies (H. Hicks, AGFD, pers. comm., January 26, 2018; Johnson *et al.*, 2010, p. iv) inhabiting about 0.875 percent of the area. Establishment of the SWEPA allows the Service to reintroduce ferrets as a nonessential experimental population within the SWEPA area that encompasses all potential ferret habitat within the boundaries of the State of Arizona, including the Hopi Reservation, the Hualapai Reservation, and the Navajo Nation in its entirety, which includes the Nation's contiguous areas in New Mexico and Utah (see the figure entitled "Southwest Nonessential Experimental Population Area (SWEPA) for the black-footed ferret" below). Land ownership within the SWEPA is Federal, private, State, and Tribal.

*Potential Release Sites*

The Service selects ferret reintroduction sites and conducts reintroductions based on the Black-footed Ferret Field Operations Manual (Operations Manual) (USFWS 2016, entire), and other site-specific plans and procedures. We propose all suitable habitat, meeting the minimum acreage requirements to support a population of ferrets within the SWEPA, as possible experimental population reintroduction locations as we currently lack information about the distribution of habitat, to appropriately identify all prospective reintroduction sites. Some SWEPA areas may become suitable in the future with appropriate management, and ferrets may also disperse from successful reintroduction sites as observed previously with the AVEPA 10(j). By including all suitable habitat within the SWEPA, where ferrets may be reintroduced or disperse as potential reintroduction sites, this experimental population designation will extend regulatory flexibility to any adjacent non-participating landowners to alleviate potential concerns.

Currently, the Service anticipates reintroducing ferrets only into a small portion of the SWEPA that meets criteria for reintroductions. Six reintroduction areas have been identified by AGFD in their Management Plan for the Black-footed Ferret in Arizona (Management Plan) (AGFD 2016) based on prairie dog population estimates. Within the Management Plan, the areas are organized into Active Management Areas (MA), Suitable MAs, and Potential MAs. The AGFD currently manages Active MAs for ferrets. Suitable MAs have sustained minimum prairie dog-occupied acreage for 3 years and are ready to receive ferrets to establish new populations (see “*Ferret Allocations*” below). Potential MAs do not meet the minimum prairie dog-occupied acreage and need management to improve prairie dog populations (e.g., translocations or plague control) (AGFD 2106, pp. 8–10). Two sites within the SWEPA currently are Active MAs: (1) AVEPA/Double O Ranch and (2) Espee Ranch, respectively. There are four Potential MAs. These areas are located in: (1) Kaibab National Forest, Williams/Tusayan Ranger Districts; (2) CO Bar Ranch; (3) Petrified Forest National Park; and (4) Lyman Lake (see “*Identifying the Location and Boundaries of the SWEPA*” below for more information on these sites).

*Ferret Allocations*

The Service allocates ferrets through an annual process (see “*Captive Breeding*” above). To qualify for the annual application and ranking process, AGFD, Tribes, and/or other land managers develop annual site-specific reintroduction plans and submit them to the Service by mid-March for consideration. The site manager of the proposed reintroduction site may be required to implement plague management at the site (e.g., applying Delta Dust® [deltamethrin]), prior to and after ferret reintroduction.

Typically, the Service only considers ferret allocations to proposed reintroduction sites that contain enough prairie dog-occupied habitat to support at least 30 breeding adult ferrets. For Gunnison’s prairie dogs this typically equates to 7,415 acres (3,000 ha), and for black-tailed prairie dogs, typically 4,450 acres (1,800 ha); however, these amounts vary depending on site conditions, such as the density of prairie dogs (USFWS 2019, p. 10). In addition, AGFD requires a minimum of 5,540 acres of Gunnison’s prairie dog-occupied habitat for 3 years to consider it a ferret reintroduction site on AGFD lands (AGFD 2016, p. 15). For more information about allocations, see “*Possible Adverse Effects on Wild and Captive-Breeding Populations*” below.

*Release Procedures*

The Service and ferret reintroduction managers follow the Operations Manual, allowing for adjustments to the techniques according to Service-approved management plans (e.g., AGFD 2016). All captive-reared ferrets receive adequate preconditioning in outdoor pens at the National Black-footed Ferret Conservation Center, or other Service-approved facility, prior to release. Ferrets exposed to preconditioning exhibit higher post-release survival rates than non-preconditioned ferrets (Biggins *et al.* 1998, pp. 651–652; Vargas *et al.* 1998, p. 77). We vaccinate ferrets for canine distemper and plague, and implant passive integrated transponder (PIT) tags for later identification, prior to release. The Service makes arrangements with reintroduction site managers for a release date from August to November, which is when young-of-the-year ferrets disperse (USFWS 2016, p. 16). Typically, the Service transports the ferrets to the site and releases them directly into suitable habitat without protection from predators, known as a “hard release.”

*Reintroduction Site Management*

Field managers use the Operations Manual and Arizona’s Management Plan to manage reintroduction sites on non-Tribal lands. Field managers use the Operations Manual and any appropriate Tribal ferret management plan and other site-specific plans and procedures for reintroductions on Tribal lands. The field manager conducting the reintroduction develops a site-specific management plan in conjunction with the landowner or manager and the Service. For most Federal, State, and private land sites, the field manager would be AGFD, and on Tribal lands, the field manager would be the appropriate Tribal wildlife authority. The Service is an active cooperater in the management of all sites. All involved parties follow all applicable laws regulating the protection of ferrets (see “*Management Restrictions, Protective Measures, and Other Special Management*” below). AGFD’s Management Plan (AGFD 2016) outlines procedures for prairie dog and ferret population monitoring; health and disease monitoring and management; prairie dog translocation; seasonal hunting closures; and supplemental feeding; captive-bred ferret releases and captive breeding; and predator management. It also includes protocols for ferret monitoring, capture, and handling (AGFD 2016, Appendices G and H).

**How will the experimental population (SWEPA) further the conservation of the species?**

As cited above, under 50 CFR 17.81(b), before authorizing the release as an experimental population, the Service must find by regulation that such release will further the conservation of the species. We explain our rationale for making our finding below.

*Possible Adverse Effects on Wild and Captive-Breeding Populations**Wild Populations*

We know of no naturally occurring wild populations of black-footed ferrets throughout the historical range of the species (see “*Historical Range*” above). The Service considers the ferret extirpated in the wild except for reintroduced populations (i.e., all ferrets in the wild are the result of reintroductions). We consider as surplus all ferrets used to establish populations at reintroduction sites that come from the captive-bred population or, occasionally, from self-sustaining reintroduced populations. If animals are translocated from other reintroduction

sites, only wild-born kits from self-sustaining reintroduced populations are considered for translocation into new or non-self-sustaining reintroduction sites (Lockhart, pers. comm., 2000–2007, as cited in USFWS 2013a, p. 26, S. Larson, USFWS, pers. comm. April 22, 2008).

#### Captive-Breeding Population

In order to understand the effects of the proposed SWEPA on the captive population of ferrets, it is important to understand how the Service manages the black-footed ferret captive-breeding program (see “*Captive Breeding*” above).

In Arizona, we initially released 40 ferrets at AVEPA in 1996, 45 at Espee Ranch in 2007 and six at Double O Ranch in 2016. As of 2019 we have released 466 ferrets at AVEPA, 99 at Espee, and 41 at Double O (AGFD 2016, p. 5; J. Cordova, AGFD, pers. comm., October 10, 2019).

We would use ferrets from the captive-bred population or a self-sustaining wild population to establish a population at reintroduction sites in the proposed SWEPA. In conformance with the Service’s allocation process, we anticipate the release of 20 to 30 captive-raised or wild-translocated ferrets at any reintroduction site during the first year of the project. Subsequent annual supplemental releases are expected until the population becomes self-sustaining.

We anticipate no adverse effects on existing populations of ferrets, whether captive or wild, due to the removal of individuals from those populations for the purpose of reintroducing and establishing new populations in the proposed SWEPA. We base this conclusion on the purpose for and the management of the captive-bred population (see “*Captive Breeding*” above), the management of other sites to achieve and maintain self-sustaining status for recovery purposes, and the allocation process, which prioritizes the limited number of ferrets available for reintroduction.

#### Likelihood of Population Establishment and Survival

In this section we address the likelihood that populations introduced into the proposed SWEPA will become established and survive in the foreseeable future.

#### Addressing Causes of Extirpation Within the Experimental Population Area

Investigating the causes for the extirpation of black-footed ferrets is necessary to understand whether we are sufficiently addressing threats to the species in the proposed SWEPA so that

reintroduction efforts are likely to be successful. Ferrets depend on prairie dog populations for food, shelter, and reproduction. Historical ferret declines resulted from: (1) Widespread prairie dog poisoning; (2) adverse effects of plague on prairie dogs and ferrets; and (3) major conversion of habitat (see “*Threats/Causes of Decline*” above).

#### Widespread Poisoning of Prairie Dogs

Poisoning of prairie dogs no longer occurs to the extent and intensity that it did historically; the current use of poison to control prairie dogs occurs in limited and selective ways. Although land-use and ownership patterns have not changed significantly since past poisoning campaigns, poisoning became less common in the 1970s because prairie dog populations had been reduced by over 90 percent and use of rodenticides became more closely regulated than it was historically (USFWS 2013a, pp. 49–51). State and Federal agencies have limited involvement in prairie dog control unless they pose a threat to human safety or health (e.g., plague transmission in an urban setting). Attitudes about control have also shifted to nonlethal methods. Translocation as a method of prairie dog control is becoming more common, while lethal control seems to be declining (Seglund *et al.* 2006, p. 49). In addition, landowners and managers have expressed interest in managing prairie dogs, specifically for ferret reintroductions, as evidenced by the number of current and potential reintroduction sites (see “*Identified Reintroduction Sites*” below).

Landowners and managers have used zinc phosphide as a registered rodenticide for prairie dog control since the 1940s (Erickson and Urban 2004, p. 12). In the early 2000s, manufacturers started promoting use of the anticoagulant rodenticides chlorophacinone (Rozol®) and diphacinone (Kaput®). These chemicals pose a much greater risk than zinc phosphide of secondary poisoning to nontarget wildlife that prey upon prairie dogs, such as ferrets (Erickson and Urban 2004, p. 85). In 2009, the U.S. Environmental Protection Agency (EPA) authorized use of Rozol® throughout much of black-tailed prairie dog range via a Federal Insecticide, Fungicide, and Rodenticide Act Section 3 registration. EPA labeled Rozol® and Kaput-D® only for control of black-tailed prairie dogs, not Gunnison’s, and the labels do not allow use in Arizona or the taking of “endangered species.” The EPA has also established additional restrictions through the Endangered Species

Protection Bulletins that ban the use of Rozol® in ferret recovery sites. These bulletins are an extension of the pesticide label, and it is a violation of Federal and State law to use a pesticide in a manner inconsistent with the label.

In Arizona, poisoning may occur on State, Federal, and private lands without a specific State permit. However, products registered for prairie dog control by the EPA require a pesticide applicators license, which an applicator can obtain only through a formal process with the Arizona Department of Agriculture (Underwood 2007, pp. 23–24). Federal agencies and the State closely regulate and manage poisoning, and the extent of poisoning has been extremely limited in area compared to historical poisoning, usually in developed areas and confined to specific needs. For example, from 2013 through 2018, Animal and Plant Health Inspection Service’s (APHIS) Wildlife Services treated prairie dogs with zinc phosphide at three private properties totaling 56 acres of colonies, for livestock and property protection on pasture and farmland near rural communities (C. Carrillo, pers. comm. APHIS, October, 23, 2019). None of these treatments was in or near current or proposed reintroduction areas. Given the limited use of prairie dog poisons in Arizona and the number of landowners and managers willing to manage prairie dogs for ferrets, poisoning should not affect the establishment or success of reintroduced populations of ferrets.

#### Adverse Effects of Plague

As previously noted, plague can adversely affect ferrets directly via infection and subsequent mortality, and indirectly by decimating prairie dogs, the ferret’s prey. Management of plague has improved, including dusting prairie dog burrows with insecticide to control fleas and vaccinating ferrets, and the development of vaccines to prevent large-scale plague outbreaks in prairie dogs is underway. In Colorado, ferret survival significantly improved when researchers applied the insecticide deltamethrin as a prophylactic treatment to control fleas in prairie dog burrows (Seery *et al.* 2003, p. 443; Seery 2006, entire). Researchers are currently investigating the potential of vaccinating wild prairie dogs for plague via oral bait. This has the potential to limit plague cycles more effectively and economically than direct vaccination of ferrets, though we may need to employ both in some cases. Based on our experiences at various reintroduction sites, we think we can manage the threat from plague by monitoring, dusting, vaccinating, and maintaining more,



widely spaced reintroduction sites (USFWS 2013a, p. 78).

In Arizona, plague management includes best management practices and adaptive management to respond to changing conditions and incorporating new techniques as we develop them (AGFD 2016, p. 19, appendices E and F). In addition, AGFD, the Service, and the U.S. Geological Survey recently began planning an intensive plague study for the AVEPA to determine whether plague is present at an enzootic level that current plague surveillance is not detecting (Rachel Williams, USFWS, pers. comm., October 16, 2019). Plague will be an ongoing challenge to ferret recovery, but with current management tools, promising new treatments, and the benefit of being able to establish widely spaced populations across the SWEPA, we will be able to manage the ferret at a landscape level.

#### Conversion of Habitat

Currently, rangewide conversion of prairie dog habitat is not significant relative to historical levels, although it may affect some prairie dog populations locally (USFWS 2013a, pp. 24–25). We do not expect agricultural land conversion and urbanization to have a measurable effect on the current condition of ferrets at the species level (USFWS 2019, p. 56). In Arizona, agricultural development currently covers about 700,000 to 1.3 million ac (283,000 to 526,000 ha) or about one to two percent of the landscape (U of A Cooperative Extension 2010; American Farmland Trust 2020) predominantly in central and southern Arizona, outside the range of the Gunnison's prairie dog. Within the range of Gunnison's prairie dog in Arizona, agricultural development affects 31,449 ac (12,727 ha), and urban development affects 78,673 ac (31,838 ha), both of which, combined, is less than one percent of the range of the Gunnison's prairie dog (Seglund 2006, p. 15). There are about 26 million acres of agricultural activity in Arizona in the form of pastures and rangeland for livestock grazing (USDA 2019; U of A 2010). These non-cultivated agricultural lands may represent habitat for the prairie dog and ferret in the State (Ernst *et al.* 2006, p. 91). Routine livestock grazing and ranching activities are largely compatible with maintaining occupied prairie dog habitat capable of supporting ferrets (USFWS 2013a, p. 20).

#### Reintroduction Expertise

The Service and its partners have considerable experience establishing reintroduced black-footed ferret populations. Since 1991, we have

initiated 30 ferret reintroduction projects, including 2 in Arizona (USFWS 2019, Table 3). While, these projects have had varying degrees of success, they have all contributed to our understanding of the species' needs and effective management toward establishing reintroduced populations. The Service and our partners continually apply adaptive management principles through monitoring and research to ensure that the best available scientific information is used to develop new tools (*e.g.*, SPV), update strategies and protocols, and identify new reintroduction sites, to progress towards recovery (AGFD 2016, p. 19).

Since reintroductions began, we have developed and refined techniques in several areas. These include management and oversight of the captive-breeding program, veterinary care and animal husbandry (USFWS 2016, entire), advances in the preconditioning program (Biggins *et al.* 1998, entire; USFWS 2016, pp. 34–37), release techniques, and disease and plague management, including ferret vaccination programs at individual reintroduction sites. With respect to disease management, vector control (*i.e.*, dusting and/or fipronil grain baits) and SPV use in concert with vigilant plague epizootic monitoring may be the most effective way to reduce the range-wide effects of plague (Abbott *et al.* 2012, pp. 54–55; Tripp *et al.* 2017, entire). However, plague remains an ongoing issue (Scott *et al.* 2010, entire; Rohlf *et al.* 2014, entire), and we need considerable management inputs to maintain both the captive and reintroduced populations (USFWS 2019, p. 65).

In Arizona specifically, we adapted our management and refined techniques to enhance reintroduction efforts. For example, when ferrets did not appear to be breeding at Aubrey Valley after 5 years of releases, AGFD modified their release strategies to incorporate pen breeding and springtime releases and documented wild-born kits the following year (AGFD 2016, p. 5). The Service also continually adapts and refines our plague monitoring and management. At Espee, for example, we learned plague was present only after we released ferrets despite AGFD's use of pre-release plague surveillance and management protocols. Subsequently, AGFD incorporated the latest disease monitoring protocols and adaptive management into its Management Plan (AGFD 2016, p. 19, appendices E and F). In addition, at Espee Ranch, AGFD is participating in trials of the experimental SPV, the results of which will contribute to both the national

effort to deploy SPV in the field as well as our understanding of local plague conditions. Given the Service's 30 years of experience with reintroducing ferrets across their historical range and our 25 years in Arizona, development and refinement of management and reintroduction techniques, and ongoing adaptive management, we are likely to be successful in establishing and managing new populations of ferrets in the SWEPA.

#### Habitat Suitability

The likelihood of establishing ferret populations largely depends on adequate habitat. Although there was a significant decline of prairie dog occupied habitat on non-Tribal lands in Arizona historically, there has been a 10-fold increase of occupied habitat since 1961 (Seglund 2006, p. 16). Outside of Navajo and Hopi land, Arizona currently has more than 108,000 ac (43,707 ha) of occupied prairie dog habitat (H. Hicks, AGFD, pers. comm., January 26, 2018), a portion of which is located on lands of the Hualapai Tribe. Lands of the Navajo Nation and the Hopi Tribe collectively may contain about 250,000 ac (101,174 ha) of active prairie dog colonies (Johnson *et al.*, 2010, p. iv). With purposeful management, this amount and distribution of prairie dog occupied habitat would be able to support multiple ferret reintroduction sites.

In addition to the statewide amount of habitat, individual reintroduction sites need to be of sufficient size to support reintroduced ferrets. Two sites in Arizona currently meet or have met the State Gunnison's prairie dog-occupied acreage criterion (5,540 acres) to reintroduce ferrets, the AVEPA/Double O Ranch and Espee Allotment (AGFD 2016, p. 6). AGFD classifies both as Active MAs, where the State can release, manage, and monitor ferrets (AGFD 2016, p. 8). In 2018, the AVEPA/Double O Ranch contained about 65,500 ac (26,500 ha) of active prairie dog colonies and 264,000 ac (106,850 ha) of potential acreage (USFWS 2019, Table 3). This is enough acreage for Arizona to meet the habitat portion of the State guidelines for delisting. However, as explained below, we need multiple sites to guard against stochastic or catastrophic events at any given site. In addition to the two Active MAs, the AGFD has identified four Potential MAs. Arizona has a plan to provide appropriate management for the ferret and its habitat (AGFD 2016, entire). In addition, Arizona has a management plan to conserve and maintain viable prairie dog populations and the ecosystems they inhabit (Underwood

2007, entire). The acreage area criteria, along with implementation of management plans for viable prairie dog populations and ferrets and their habitats, will ensure that any sites selected for reintroduction have sufficient quantity and quality of habitat to support establishment of ferret populations.

#### Increased Prey Stability

Prairie dog populations in Arizona have increased from historical lows in the 1960's, and the State is managing them for long-term viability. The potential for continued expansion of prairie dogs across Arizona through prairie dog conservation and disease management, coupled with past success of ferret reintroductions in Arizona and across the species' range, suggests that ferret-occupied areas can expand through additional reintroductions and dispersal. Reintroduction of ferrets in the larger proposed SWEPA would allow us to meet Arizona's ferret recovery goals and contribute to ferret recovery across their range.

#### Summary

The Service and our partners have considerable experience reintroducing ferrets range-wide and in Arizona. We have criteria for selecting suitable reintroduction sites and developed protocols and plans to manage those sites. In Arizona, we have the quantity, quality, and distribution of habitat to support reintroductions. Additionally, the causes of extirpation of ferrets in Arizona have been or are being addressed; the wide-spread poisoning of prairie dogs is no longer occurring, the Service and partners continue to develop plague management techniques, and the conversion of habitat into cropland is not occurring at a significant scale. Lastly, the demonstrated success of existing reintroduced ferret populations in Arizona indicate that additional reintroduction efforts in the SWEPA will be successful in establishing and sustaining additional black-footed ferret populations, required for species recovery.

#### *Effects of the SWEPA on Recovery Efforts for the Species*

The Service's recovery strategy for the black-footed ferret requires establishment of numerous, spatially disperse populations of ferrets within the range of all three prairie dog species to reduce the risk of stochastic events affecting multiple populations (*e.g.*, plague), increase management options, and maintain genetic diversity (USFWS 2013a, Table 7) (see "Recovery, Captive Breeding and Reintroduction Efforts to

Date" above). Delisting criteria for the species include 30 populations in 9 of 12 States within the species' historical range and distributed among the ranges of 3 prairie dog species (USFWS 2013a, p. 6). To implement this recovery strategy and achieve recovery criteria, additional successful reintroductions of ferrets are necessary (USFWS 2013a, p. 7), which establishment of the proposed SWEPA will facilitate.

Participation by numerous partners across the ferret's former range is critical to achieve the ferret's delisting criteria of multiple spatially dispersed populations and maximize species redundancy, representation, and resiliency. To achieve this strategy, for each State in the historical range of the species, the Recovery Plan suggests recovery guidelines for the number of ferrets and prairie dog habitat acreages (proportional to the historical amount of prairie dog habitat) to contribute to meeting recovery criteria (USFWS 2013a, p. 69). We intend the recovery guidelines by State to improve risk management and ensure equity of recovery responsibilities across State boundaries (USFWS 2013a, Table 8). Arizona has led ferret recovery efforts, providing one of the early ferret reintroduction sites and the first in a Gunnison's prairie dog population. Tribes have also played an important role in ferret recovery in several areas of the species' historical range by providing land for about 24 percent of the reintroduction sites statewide (USFWS 2013a, p. 44; USFWS 2019, Table 3).

The recovery plan's State guidelines for Arizona to contribute to ferret downlisting and delisting criteria are 74 free-ranging breeding adult ferrets on 17,000 ac (6,880 ha) of Gunnison's prairie dog-occupied habitat, and 148 breeding adults on 34,000 ac (13,760 ha). The guidelines for New Mexico and Utah are 220 and 25 breeding adult ferrets for downlisting, respectively, and 440 and 50 breeding adults for delisting (USFWS 2013a, Table 8). Delisting criteria for the entire range include five ferret populations in colonies of both Gunnison's and white-tailed prairie dogs (USFWS 2013a, p. 6). About 27 percent of the Gunnison's prairie dog range occurs in Arizona (Seglund *et al.* 2006, p. 70), so establishing additional ferret populations in Gunnison's prairie dog habitat within the SWEPA would contribute to meeting this criterion.

Currently, there is only one population of ferrets in Arizona. As of 2013, we considered the AVEPA one of the four most successful reintroduced populations throughout the species' range; it had a population that exceeded

the recommended downlisting criteria for Arizona and we considered it self-sustaining (USFWS 2013a, pp. 5, 22, 77). However, the population declined significantly, for which we suspect that plague may be a cause. The proposed SWEPA will include all potential ferret habitat in Arizona and on participating Tribal lands, including Hualapai Tribal lands, a portion of Hopi Tribal lands, and Navajo Nation lands in Arizona, New Mexico, and Utah (see "Proposed Experimental Population" above). Establishing additional populations within the proposed SWEPA will reduce the vulnerability of extirpation of the species. Additionally, AGFD's proposed widely spaced reintroduction sites, and the potential for other reintroduction sites (*e.g.*, on the Navajo Nation) will reduce the effects of localized or stochastic events on overall recovery efforts, by reducing the likelihood that all individuals or all populations would be affected by the same event. Reintroducing viable ferret populations on the Navajo Nation in the New Mexico and Utah portions of the Navajo Nation would not only aid in recovery of the species but also in meeting the recovery guidelines for those States.

The significant threat of plague to ferret populations emphasizes the need for several spatially dispersed reintroduction sites across the widest possible distribution of the species' historical range (USFWS 2013a, p. 70), supporting the value of a statewide approach to reintroductions. Establishing the proposed SWEPA will facilitate ferret reintroduction across a large geographic area and will likely result in establishment of several populations that will persist over time, thus contributing to recovery of the species.

#### *Actions and Activities That May Affect the Introduced Population*

Classes of Federal, State, Tribal, and private actions and activities that may currently affect black-footed ferret viability, directly or indirectly, across its range are urbanization, energy development, agricultural land conversion, range management, and recreational shooting and poisoning of prairie dogs (USFWS 2019, p. 13). Actions and activities that affect prairie dogs may also indirectly affect ferrets given the ferret's dependency on prairie dogs as a food source and their burrows for shelter.

In Arizona, land ownership within the range of Gunnison's prairie dog is approximately as follows: Tribal—49.05 percent; private—21.62 percent; Federal—16.80 percent; State—12.53 percent; city/

county—0.01 percent (Seglund 2006, Table 3). Although urbanization may adversely affect local prairie dog colonies, effects across the range of the species in Arizona are not significant due to the small amount of urban land, and the distance of urban areas from ferret MAs. Similarly, the amount of oil and gas and other types of mineral exploration and extraction development covers less than one percent of the prairie dog range in Arizona (Underwood 2007, p. 10), and this development is not associated with ferret MAs. Solar and wind energy development has expanded in recent years but also comprises a very small part of the landscape. In Arizona, all solar power facilities are located in the southern and far western part of the State, outside the range of Gunnison's prairie dog (U.S. Energy Information Administration 2020). To date, there have been a number of wind projects in the range of Gunnison's prairie dog, but none are currently constructed within ferret MAs, and the existing infrastructure of wind projects occupies less than 0.005 percent of the ferret's potential range (USFWS 2019, p. 40). As discussed above, agricultural development affects less than one third of one percent of the range of Gunnison's prairie dog (Seglund 2006, p. 16). We do not expect agricultural land conversion to have a measurable effect on the future condition of the ferret in Arizona based on a 20-year analysis (USFWS 2019, p. 56).

There are about 26 million acres of rangeland, used predominantly for grazing, in Arizona across Tribal, private, Federal, and State land (USDA, 2019), and these lands represent potential habitat for both the prairie dog and ferret (Ernst *et al.* 2006, p. 91). Overgrazing in arid areas can alter ecosystem structure, which can affect prairie dogs by decreasing availability of forage and causing an increase in woody shrubs. Conversely, well-managed grazing can benefit prairie dog and other rodent populations by creating increases in shortgrass species (Norris 1950, p. 4; Smith 1958, p. 21; Koford 1958, pp. 66–67). Routine livestock grazing and ranching activities are largely compatible with maintaining occupied prairie dog habitat capable of supporting ferrets (USFWS 2013a, p. 20).

Depending on intensity, recreational shooting of prairie dogs can negatively affect local prairie dog populations through direct mortality of individuals (Vosburgh and Irby 1998, entire; Keffer *et al.* 2001, entire; Knowles 2002, pp. 14–15), with the resulting decrease in prey base negatively affecting ferrets, and it is likely this activity could occur

on ferret reintroduction sites (Reeve and Vosburgh 2006, entire). Recreational shooting reduces the number of prairie dogs in a colony, thereby decreasing prairie dog density (Knowles 1988, p. 54), occupied acreage (Knowles and Vosburgh 2001, p. 12), and reproduction (Stockrahm and Seabloom 1979, entire). Recreational shooting also causes direct mortality to prairie dog-associated species such as ferrets (Knowles and Vosburgh 2001, p. 14; Reese and Vosburgh 2006, pp. 120–121). Although incidental take of ferrets by prairie dog shooters is not documented to date, direct ferret mortality due to accidental shooting is possible. Lastly, recreational shooting of prairie dogs also contributes to the environmental issue of lead accumulation in wildlife food chains (Knowles and Vosburgh 2001, p. 15; Pauli and Buskirk 2007, entire). Killing large numbers of animals with lead bullets and not removing carcasses from the field may present potentially dangerous amounts of lead to scavengers and predators of prairie dogs, such as ferrets. Luckily, we have not documented ferret ingestion of lead to date (USFWS 2013a, p. 28). To address these recreational shooting conservation issues, AGFD implements prairie dog shooting closures on public lands from April 1 to June 30 to reduce potential effects on prairie dog reproduction (USFWS 2019, p. 29). In addition, in the event of prairie dog population declines in an active ferret MA for any reason, the AGFD Commission may close prairie dog hunting until the population recovers (AGFD 2016, p. 13).

Poisoning of prairie dogs has the potential to occur within both Gunnison's and black-tailed prairie dog habitat and can affect ferrets through loss of prey, and inadvertent secondary poisoning for some poisons. In recent years, the extent of prairie dog poisoning has been closely regulated, limited in area, and confined to specific needs compared to historical poisoning. From 2013 through 2018 in Arizona, APHIS treated prairie dogs with zinc phosphide at three private properties, totaling 56 acres of colonies, for livestock and property protection on pasture and farmland near rural communities (C. Carrillo, pers. comm. APHIS, October 23, 2019). None of these treatments were in or near current or proposed ferret reintroduction areas.

Certain activities associated with all of the aforementioned activities (prairie dog recreational shooting and poisoning) have the potential to result in incidental ferret fatality. For example, use and establishment of roads within prairie dog and ferret habitat may result

in ferret road kills and increase human access for prairie dog shooting (Gordon *et al.* 2003, p. 12). However, we have no information to suggest that incidental fatalities have a significant effect on ferret population viability.

When the Service originally established AVEPA, we determined existing and foreseeable land use practices within the AVEPA to be compatible with sustaining ferret viability (61 FR 11320, March 20, 1996). These practices include: Grazing and related activities (including prairie dog control), big game hunting, prairie dog shooting, and the trapping of furbearers and predators. Other land uses include transportation and rights-of-way (*e.g.*, for utilities). Our success reintroducing ferrets in the AVEPA over 25 years supports that finding. Similarly, in the Service's establishment of the statewide nonessential experimental population of ferrets in Wyoming, we found that land use activities currently occurring across that State, primarily livestock grazing and associated ranch management practices, recreation, residential development, and mineral and energy development, are compatible with ferret recovery and that there is no information to suggest that similar future activities would be incompatible with ferret recovery (80 FR 66821, October 30, 2015). Based on our previous success with other experimental populations in areas influenced by similar land use activities and actions, including the AVEPA within the proposed SWEPA, we conclude that the effects of Federal, State, and private actions and activities will not pose a substantial threat to ferret establishment and persistence within the SWEPA and that SWEPA establishment will benefit the conservation of black-footed ferrets.

#### **Experimental Population Regulation Requirements**

Our regulations at 50 CFR 17.81(c) include a list of what we should provide in regulations designating experimental populations under section 10(j) of the ESA. We explain what our proposed regulations include and provide our rationale for those regulations below.

#### *Means To Identify the Experimental Population*

Our regulations require that we provide appropriate means to identify the experimental population, which may include geographic locations, number of individuals to be released, anticipated movements, and other information or criteria.

### Identifying the Location and Boundaries of the SWEPA

The 40,905,350-ac SWEPA is located in the three States of Arizona, New Mexico, and Utah (see “Proposed Experimental Population” above), and we delineate the boundaries below in the figure titled “Southwest Nonessential Experimental Population Area (SWEPA) for the black-footed ferret.” These boundaries are based on various grasslands and parts of biotic communities in which grasslands are interspersed, with which prairie dogs are associated, including Plains and Great Basin Grassland, Great Basin Conifer Woodland, Great Basin Desertscrub, and Petrane Montane Conifer Forest biotic communities (AGFD 2016, pp. 8–10) (Brown *et al.* 1979, entire) and represent a 184 fold increase in area from the AVEPA (USFWS 2021, p. 7 Figure 2). Within the SWEPA are the sovereign Indian lands of the Hopi Tribe, Hualapai Tribe, and the Navajo Nation. State political subdivisions include portions of Apache, Cochise, Coconino, Gila, Graham, Mohave, Navajo, Pima, Pinal, Santa Cruz, and Yavapai Counties of Arizona; Cibola, McKinley, Rio Arriba, Sandoval, and San Juan Counties of New Mexico; and San Juan County, Utah.

The proposed SWEPA consists of two separate areas: (1) Northeast and northcentral Arizona, the southeast corner of Utah, and northwest New Mexico on the Navajo Nation, and (2) southeastern Arizona.

The proposed SWEPA will encompass and replace the AVEPA. In addition, two areas enrolled in the programmatic SHA under certificates of inclusion, the Espee Allotment and Double O Ranch, would be within the SWEPA. Although this proposed experimental population designation can overlay SHAs, we contacted enrollees to assess interest in replacing their certificates of inclusion with this 10(j) rule. If we finalize this revised experimental population designation, we propose phasing out the SHA certificates of inclusion following finalization of the rule to allow for a transition for interested landowners. As a result, the Service proposes to conduct all future reintroductions of ferrets within the SWEPA under the proposed experimental population designation regulation.

### Number of Anticipated Ferret Releases

The number of ferrets we will release at a given reintroduction site depends on multiple variables and can vary significantly between sites. In the AVEPA, for example, AGFD released

ferrets for 5 years before documenting wild reproduction, which is necessary for a site to become self-sustaining. We continued releasing ferrets until the population appeared to be self-sustaining, but then began to release ferrets again after 4 years when the population appeared to be faltering. In total, over a span of 24 years starting in 1996, the Service released 466 ferrets in the AVEPA. In addition, we released 99 ferrets at Espee in a span of 3 years (2007–2009), and 41 at the Double O Ranch over 4 years starting in 2016. The Service anticipates initially releasing 20 to 30 ferrets at new reintroduction sites in the SWEPA, with the number of ferrets released subsequently similar to other sites in Arizona.

### Actual or Anticipated Movements

Understanding ferret movement patterns and distances will ensure accurate identification of ferrets associated with the SWEPA. Researchers have documented newly released captive-born ferrets dispersing up to 30 miles (49 km) (Biggins *et al.* 1999, p. 125), and wild-born ferrets more than 12 miles (20 km) (USFWS 2019, p. 7). AGFD first documented ferrets outside the AVEPA in 2011, 15 years after initial releases. In the years between the 2011 sightings and 2016, when the Service released ferrets onto the Double O Ranch, there were about 10 sightings outside of the AVEPA, with the farthest being about 15 miles outside the AVEPA. These sightings were by AGFD personnel during surveys of selected areas and incidentally by area residents. While dispersal of ferrets will depend on variables such as competition within a given population and the availability of adjacent habitat, we would expect a pattern of ferret dispersal from new reintroduction sites in the SWEPA to be similar to those observed in the AVEPA. Outside of the proposed SWEPA, the closest current reintroduced population of ferrets is Coyote Basin, Utah, which is about 200 mi (320 km) away, substantially greater than documented ferret dispersal distances. Therefore, we would consider any black-footed ferret found in the wild within the boundaries of the SWEPA part of the nonessential experimental population.

### Identified Reintroduction Sites

In the area of the proposed SWEPA under Arizona State jurisdiction, the current goal is to reintroduce ferrets into suitable habitat within three to five AGFD designated MAs (AGFD 2016, p. 6). We may consider additional locations if landowners are willing to host ferrets where suitable prairie dog

occupied acreage exists, including on Tribal lands. If the Navajo Nation were to request to reintroduce ferrets on their lands, potential reintroduction sites could include the New Mexico or Utah portions of the Navajo Nation.

Two sites in Arizona currently meet or have met the minimum Gunnison’s prairie dog-occupied acreage requirement for a population of ferrets (AVEPA/Double O Ranch and Espee Ranch). Arizona’s Federal and State public lands and Tribal and private lands currently support a large amount of grasslands with varying sizes of Gunnison’s prairie dog colonies (AGFD 2016, Figure 1). Within the ferret’s historical range in Arizona, the AGFD and Service have identified four additional potential reintroduction sites or Potential MAs, introduced in the prior “Proposed Experimental Population” section and discussed further below.

### Existing Reintroduction Sites (Active MAs) Within the SWEPA

(1) AVEPA/Double O Ranch—The AVEPA encompasses 221,894 ac (89,800 ha) of private, Tribal, State, and Bureau of Land Management (BLM) managed lands and is located about 5 miles northwest of Seligman in Coconino, Yavapai, and Mohave Counties. The adjacent Double O Ranch encompasses 236,792 ac (95,828 ha) of private, State, and Forest Service (FS) managed lands south of the AVEPA. Together, these sites contain 264,016 ac (106,846 ha) of grasslands. AGFD mapped an average of 52,455 ac (21,228 ha) of Gunnison’s prairie dog colonies in the AVEPA between 2007 and 2016 (AGFD 2016, p. 8) (H. Hicks, AGFD, pers. comm., January 26, 2018). In 2014 and 2016, respectively, Gunnison’s prairie dogs occupied 7,074 and 6,313 known ac (2,863 and 2,555 ha) on Double O Ranch (AGFD 2016, p. 7; H. Hicks, AGFD, pers. comm., January 26, 2018). Plague is likely present in the AVEPA.

(2) Espee Ranch—The Espee Allotment encompasses 145,644 ac (58,941 ha) of private and State lands about 17 miles northeast of Seligman, in Coconino County, Arizona. There are 139,255 ac (56,356 ha) of grasslands, of which Gunnison’s prairie dogs occupied 3,228 known ac (1,306 ha) in 2014 (AGFD 2016, pp. 8–9). Plague is present on Espee Ranch and is the suspected reason for the lack of ferret observations despite multiple releases.

### Future Potential Reintroduction Sites (Potential MAs) Within the SWEPA

The remaining four areas described below do not currently meet the minimum necessary Gunnison’s prairie

dog-occupied acreage to support ferrets. We would need active management, such as translocations of prairie dogs, dusting for plague, or administration of a plague vaccine (*e.g.*, SPV), along with annual monitoring of prairie dog populations, to potentially meet the minimum acreage of occupied prairie dog habitat (AGFD 2016, p. 9).

(1) Kaibab National Forest, Williams/Tusayan Ranger Districts—These areas cover over 613,000 ac (248,078 ha) of National Forest System (NFS), military, private, and State managed lands surrounding the city of Williams in Coconino and Yavapai Counties. There were 96,954 ac (39,237 ha) of grasslands with 4,984 ac (2,017 ha) of known Gunnison's prairie dog-occupied area in 2015 (AGFD 2016, p. 9).

(2) CO Bar Ranch—This ranch encompasses 263,758 ac (106,741 ha) of private, State, BLM, and Tribal lands and is located about 24 miles north of Flagstaff in Coconino County. There were 184,815 ac (74,794 ha) of grasslands with 870 ac (352 ha) of known Gunnison's prairie dog-occupied area in 2015 (AGFD 2016, p. 9).

(3) Petrified Forest National Park—This area encompasses 223,027 ac (90,258 ha) of NPS, State, Tribal, BLM, and privately managed lands east of Holbrook in Navajo and Apache Counties. There were 214,135 ac (86,659 ha) of grasslands with 87 ac (35 ha) of known Gunnison's prairie dog-occupied area in 2015 (AGFD 2016, p. 10).

(4) Lyman Lake—This area encompasses 316,958 ac (128,271 ha) of private, State, AGFD, BLM, and NFS lands south of St. Johns in Apache County. There were 273,227 ac (110,573 ha) of grasslands with 2,045 ac (828 ha) of known Gunnison's prairie dog-occupied area in 2015 (AGFD 2016, p. 10).

#### Tribal Lands

Forty-nine percent of the land within the range of Gunnison's prairie dog in Arizona is under Tribal ownership (Seglund *et al.* 2006, Table 3). The Navajo Nation is the largest owner of Gunnison's prairie dog habitat (Johnson *et al.* 2010, p. 6). Working with the Hopi Tribe, Hualapai Tribe, and Navajo Nation, we may be able to identify other potential sites for ferret reintroduction on their Tribal sovereign lands. All three Tribes have expressed interest in working with the Service and AGFD in ferret recovery (Hopi Tribe 2017, entire; Navajo Nation 2017, entire; Hualapai Tribe 2018, entire). The Hualapai and Hopi reservations and Hopi-owned ranches coincide entirely with Arizona, (*i.e.*, their lands are wholly within the borders of the State), whereas the

Navajo Nation also includes parts of the States of New Mexico and Utah, within which the Navajo Nation has sovereign authority to manage wildlife.

We would need surveys of prairie dog populations on Tribal lands, in addition to other information such as incidence of plague, prior to considering these lands for ferret reintroduction. The Navajo Nation and Hopi Tribe, in collaboration with Natural Heritage New Mexico, conducted a remote survey of Gunnison's prairie dogs on the lands of both Tribes in 2010. This technique, using standard photo-interpretive techniques to identify disturbance in suitable habitat on digital orthophoto quarter quads, estimated the area of active Gunnison's prairie dog towns on the Navajo Nation and Reservation of the Hopi Tribe at 253,562 ac (102,615 ha) (Johnson *et al.* 2010, pp. iv, 18). As mentioned previously, we originally included some lands of the Hualapai Tribe when we designated the AVEPA, and the Tribe has worked cooperatively with AGFD on ferret recovery. The Hopi Tribe, while expressing interest in ferret recovery activities on some of their lands (*e.g.*, ranches and part of their Reservation) requested excluding District 6 of their Reservation, pending review of this proposal by members of the Hopi Villages within District 6. If the Hopi Tribe, in consultation with the Hopi Villages, decides to include District 6 within the proposed SWEPA, then we will revise the final rule accordingly.

#### Southeastern Arizona

Black-tailed prairie dog habitat exists in southeastern Arizona (Cockrum 1960, p. 76). In 2008, the AGFD reintroduced this species into a small portion of its historical range via translocations from wild populations in New Mexico (Van Pelt 2009, p. 41, Figure 1). This new population occurs on the BLM-administered Las Cienegas National Conservation Area. Surveys in 2017 estimated a minimum of 135 black-tailed prairie dogs occupied 19 ac (7.7 ha) (H. Hicks, AGFD, pers. comm., October 3, 2017). It would likely take many years to reach enough black-tailed prairie dog-occupied acreage with a stable population to support a reintroduction of ferrets. However, efforts to expand black-tailed prairie dog colony acreage would offer opportunities to re-create habitat for ferrets (USFWS 2013a, p. 51).

#### Is the proposed experimental population essential or nonessential?

Essential experimental populations are those “whose loss would be likely to appreciably reduce the likelihood of

survival of the species in the wild” (50 CFR 17.80(b)). The Service defines “survival” as the condition in which a species continues to exist in the future while retaining the potential for recovery (USFWS and NMFS 1998). Inherent in the definition of “essential” is the effect the potential loss of the experimental population would have on the species (49 FR 33893, August 27, 1984).

The ESA states that, prior to any release “the Secretary must find by regulation that such release will further the conservation of the species” (49 FR 33893, August 27, 1984). Reintroductions are, by their nature, experiments, the fate of which is uncertain. However, it is always our goal for reintroductions to be successful and contribute to recovery. The importance of reintroductions to recovery does not necessarily mean these populations are “essential” under section 10(j) of the ESA. In fact, Congress' expectation was that “in most cases, experimental populations will not be essential” (H.R. Conference Report No. 835 supra at 34; 49 FR 33888, August 27, 1984). The preamble to our 1984 publication of implementing regulations reflect this understanding, stating that an essential population will be a special case and not the general rule (49 FR 33888, August 27, 1984).

In our final rule establishing the nonessential experimental population in Aubrey Valley, the Service found the AVEPA to be “nonessential” because the captive-breeding population is both the secure source for all reintroductions, and the primary repository of genetic diversity for the species (61 FR 11320, March 20, 1996). We considered all reintroduced ferrets to be in excess to the captive population, and we could replace any reintroduced animals lost through captive breeding (61 FR 11323, March 20, 1996).

The Service did not anticipate changing the nonessential designation for the AVEPA unless the experiment failed or until the ferret recovered (61 FR 11323, March 20, 1996). However, because we are proposing to replace the AVEPA through incorporation into the proposed SWEPA 10(j), an evaluation as to whether the new SWEPA experimental population is essential to the continued existence of the species in the wild is appropriate.

As discussed above, we expect the proposed SWEPA to further the conservation of the species by contributing to the establishment of multiple, widespread populations that will persist over time, which contribute to achieving recovery goals for the species. However, we consider the

SWEPA nonessential because there are now a number of reintroduced ferret populations in the wild, across the range of the species, that provide redundancy in case of local extirpations. There are 14 active reintroduction sites across the historical range, with a minimum average of 340 breeding adult ferrets, and a minimum of 254 at the 4 most successful reintroduction sites (Rocky Mountain Arsenal National Wildlife Refuge, Colorado; Conata Basin/Badlands, South Dakota; and Shirley Basin and Meeteetse, Wyoming) (USFWS 2019, Table 3). Additionally, captive-breeding efforts continue to support the establishment of more populations throughout the species' range. Loss of the SWEPA would not affect these remaining populations of ferrets in the wild.

The ferret population in Arizona, while contributing incrementally to conservation in concert with other sites, is a relatively small portion of the total number and distribution of ferret populations needed for species recovery. The Recovery Plan's delisting criteria for ferrets calls for 30 or more populations, with at least 1 population in each of at least 9 of 12 States within the historical range of the species, and at least 5 populations within colonies of Gunnison's and white-tailed prairie dogs. About 27 percent of Gunnison's prairie dog range occurs in Arizona. This is about 9 to 14 percent of all prairie dog occupied habitat (*i.e.*, the range of all 3 prairie dog species) (USFWS 2013a, p. 24). Arizona's relative recommended contribution of habitat to ferret delisting is about seven percent (USFWS 2013a, Table 8, p. 77).

The proposed SWEPA will further the recovery of the ferret by opening all suitable habitat in the defined SWEPA area to the establishment of multiple wild populations within the species' historical range. However, we conclude loss of reintroduced ferrets within the proposed area is not likely to appreciably reduce the likelihood of survival of the species in the wild. This is due to maintenance of the captive population, the number of reintroduction sites and established populations in the wild rangewide, and the expected incremental contribution of Arizona to the recovery of the ferret given Arizona has seven percent of the total range of all three prairie dog species. Therefore, as required by 50 CFR 17.81(c)(2), we determine the proposed SWEPA experimental population is not essential to the continued existence of the species in the wild, and we propose to designate the SWEPA experimental population as nonessential.

### Management Restrictions, Protective Measures, and Other Special Management

We prefer applying the experimental population designation and regulations to the entire proposed SWEPA, because a single set of statutes and regulations and a single management framework would then apply to all lands, non-Federal and Federal, containing suitable ferret habitat within the designated SWEPA boundary. This approach would also extend regulatory assurances to all areas where ferrets could potentially establish, including the current properties covered by the SHA. There would be no significant differences between the terms and conditions of the SHA and 10(j) regulations in terms of how landowners operate their ranches with respect to ferret recovery.

The Service will undertake SWEPA reintroductions in cooperation with AGFD, the Navajo Nation, Hopi Tribe, Hualapai Tribe, and other landowners. Existing management plans or those that wildlife managers develop in cooperation with us and other partners and stakeholders will guide management of ferret populations in the SWEPA (*e.g.*, AGFD 2016).

As discussed in the "*Actions and Activities that May Affect the Introduced Population*" section, Federal, State, Tribal, and private actions will not pose a substantial threat to ferret establishment and persistence in the proposed SWEPA. This is because land management activities, such as agricultural land conversion, recreational shooting of prairie dogs, poisoning of prairie dogs, urbanization, and energy development currently occurring or anticipated to occur at prospective reintroduction sites in Arizona are very limited in scope. In addition, as discussed in *Addressing Causes of Extirpation within the Experimental Population Area* above, we do not anticipate any change in prairie dog control efforts that would reduce prairie dog-occupied habitat to the extent that they would compromise the viability of any potential ferret population due to the low demand for poisoning and regulatory restrictions. We also base this conclusion on our experience with ferret reintroduction sites in Arizona over the past 25 years and elsewhere throughout the species' range. The best available information indicates that future range and ranching activities will remain compatible with ferret recovery because they do not limit essential behavior such as feeding, breeding, or sheltering. We base this assessment on our ferret reintroduction efforts at the AVEPA and Espe and

Double O ranches, and other reintroduction sites throughout the range of the species (80 FR 66826, October 30, 2015).

The AGFD, BLM, FS, NPS, Tribes, and private landowners manage sites with high potential for ferret establishment, and these areas receive protection through the following legal mechanisms:

#### Legal Mechanisms

(1) Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 *et seq.*) (FLPMA)—The BLM's mission is set forth under the FLPMA, which mandates that BLM manage public land resources for a variety of uses, such as energy development, livestock grazing, recreation, and timber harvesting, while protecting the natural, cultural, and historical resources on those lands. The BLM manages listed and sensitive species under guidance provided in the BLM Manual Section 6840—Special Status Species Management. The Manual directs BLM to conserve listed species and the ecosystems upon which they depend, ensure that all actions authorized or carried out by BLM comply with the ESA, and cooperate with the recovery planning and recovery of listed species. The BLM has experience in managing the ferret at four reintroduction sites in four States that occur at least in part on its lands. Therefore, we anticipate appropriate management by the BLM on any future ferret reintroduction sites that include BLM lands.

(2) National Forest Management Act of 1976, as amended (16 U.S.C. 1600 *et seq.*)—This law instructs the FS to strive to provide for a diversity of plant and animal communities when managing NFS lands. The FS identifies species listed as endangered or threatened under the ESA, including the ferret, as Category 1 species at risk based on rangewide and national imperilment. The FS has experience managing the ferret on one reintroduction site that occurs at least in part on NFS lands. Therefore, we anticipate appropriate management by the FS on any future ferret reintroduction sites that include NFS lands.

(3) Organic Act of 1916, as amended (16 U.S.C. 1 4)—This law requires the NPS to conserve National Park resources, consistent with the established values and purposes for each park. In addition, the Organic Act instructs NPS "to conserve the scenery and the natural and historical objects and the wildlife therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of

future generations.” NPS management policies require them to conserve listed species and to prevent detrimental effects on these species. The NPS has experience managing the ferret at two parks in South Dakota, where the NPS protects ferrets and their habitats from large-scale loss or degradation, per their mandate. Management of these reintroduction sites would need to continue regardless of the species’ listing status. Therefore, we anticipate appropriate management by the NPS on any future ferret reintroduction sites that include NPS lands.

(4) Navajo Nation law—Navajo Nation Code (NNC), Title 17, Chapter 3, Subchapter 21, provides protections for black-footed ferrets. Title 17 NNC section 507 makes it unlawful for any person to take wildlife on either of the following lists, as quoted from the code:

(a) “The list of wildlife indigenous to the Navajo Nation that they determine to be endangered by regulation of the Resources Committee of the Navajo Nation Council.” Pursuant to Resources Committee Resolution RCF 014–91, they added the black-footed ferret to the list.

(b) The U.S. lists of endangered native and foreign fish and wildlife, as set forth in section 4 of the Endangered Species Act of 1973 as endangered or threatened species, to the extent that the Resources Committee adopts these lists.”

Navajo Nation Code (17 NNC section 504) also makes it unlawful for any person to take or possess a fur-bearing animal, which includes ferrets by definition (17 NNC section 500), except as permitted by the Director, Navajo Nation Department of Fish and Wildlife.

(5) Hopi Tribal Law—Tribal Ordinance 48 (Wildlife) documents the Tribe’s exclusive jurisdiction to regulate and adjudicate all matters pertaining to wildlife found on the Hopi Reservation. All wildlife found on the Reservation, whether resident or migratory, native or introduced, is the property of the Hopi Tribe, and Tribal Law provides the times and manner of allowable take.

(6) Arizona State Law—General provisions of Arizona Revised Statutes, title 17, protects all of Arizona’s native wildlife, including federally listed threatened and endangered species.

(7) Endangered Species Act—The ESA would continue to provide protection to ferrets through section 10 by requiring certain management entities to obtain an enhancement of survival permit from the Service under section 10(a)(1)(A) for any intentional taking of a ferret that is prohibited by section 9 of the ESA and not exempted through this rule. The authorities of section 6 of the ESA, 50 CFR 17.21, 50 CFR 17.31, and 50 CFR 17.84(g) cover AGFD’s management

activities. Section 7(a)(1) of the ESA also requires all Federal agencies to use their authorities to further the purposes of the ESA.

#### *Other Protections & Management Restrictions*

Other protections and management restrictions and measures in the proposed SWEPA would include:

(1) Incidental take: Experimental population special rules contain specific prohibitions and exceptions regarding take of individual animals. These special rules are compatible with most routine human activities in the expected reestablishment area. Section 3(19) of the ESA defines “take” as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” Under 50 CFR 17.3, “harass” means an intentional or negligent act or omission that creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns that include, but are not limited to, breeding, feeding, or sheltering. And “harm” means an act that actually kills or injures wildlife, including significant habitat modification that actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. The regulations further define “incidental take” as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. If we adopt the nonessential experimental population designation rule as proposed, it will allow most incidental take of ferrets in the experimental population area, provided the take is unintentional and not due to negligent conduct. However, if there were evidence of intentional take, we would refer the matter to the appropriate law enforcement entities for investigation. This is consistent with regulations for areas currently enrolled in the SHA and in the AVEPA where we do not allow intentional take.

(2) Special handling: In accordance with 50 CFR 17.21(c)(3), any employee or agent of the Service or of a State wildlife agency may in the course of their official duties, handle ferrets to aid sick or injured ferrets, salvage dead ferrets, and conduct other activities consistent with 50 CFR 17.84(g), their section 6 work plan, and 50 CFR 17.31. Employees or agents of other agencies would need to acquire the necessary permits from the Service for these activities.

(3) Arizona promulgation of regulations and other management for the conservation of the ferret as well as other species that, in turn, would

benefit ferret recovery: For example, the AGFD includes the ferret on the Species of Greatest Conservation Need Tier 1A (AGFD 2012, p. 216). The list provides policy guidance on management priorities only, not legal or regulatory protection. The State also implements prairie dog shooting closures on public lands from April 1 to June 30.

(3) Coordination with landowners and land managers: We discussed this proposed rule with potentially affected State and Federal agencies, Tribes, local governments, private landowners, and other stakeholders in the expected SWEPA. These agencies, landowners, and land managers have indicated either support for, or no opposition to, the proposed revision to the AVEPA. In advance of our developing the original rule for AVEPA, the AGFD determined that designation of a nonessential experimental population was necessary to achieve landowner support to make a ferret reintroduction project viable (AGFD 2106, p. 2; 61 FR 11325, March 20, 1996). To receive the same public support for their Management Plan, the AGFD proposed a statewide nonessential experimental designation for the ferret (AGFD 2016, p. 2).

(5) Public awareness and cooperation: We will inform the public of the importance of the SWEPA for the recovery of the ferret through this proposed rule and associated public meetings, if requested. The replacement of the AVEPA to establish the SWEPA under section 10(j) of the ESA as a nonessential experimental population would increase reintroduction opportunities and provide greater flexibility in the management of the reintroduced ferret. The nonessential experimental population designation will facilitate cooperation of the State, Tribes, landowners, and other interests in the affected area.

(6) Potential effects to other species listed under the ESA: There are four federally listed species with distributions that overlap the proposed SWEPA and with habitat requirements that could overlap the grassland habitats that support prairie dogs (Table 1). However, we have not documented any of these species in current or potential ferret reintroduction sites and/or these species are unlikely to occur or compete for resources. We do not expect ferret reintroduction efforts to result in adverse effects to these species.

TABLE 1—FEDERALLY LISTED SPECIES IN THE PROPOSED SWEPA

Species	Current status in Arizona under the ESA
Mexican wolf ( <i>Canis lupus baileyi</i> ).	Nonessential experimental.
California condor ( <i>Gymnogyps californianus</i> ).	Nonessential experimental, Endangered.
Northern aplomado falcon ( <i>Falco femoralis septentrionalis</i> ).	Nonessential experimental.
Pima pineapple cactus ( <i>Coryphantha scheeri</i> var. <i>robustispina</i> ).	Endangered.

#### Measures To Isolate or Contain the Experimental Population From Natural Populations

There are no naturally occurring wild populations of black-footed ferrets. The ferret is extirpated throughout its historical range, including in Arizona, New Mexico, and Utah, with the exception of reintroduced populations (USFWS 2017, entire) (see “*Historical Range*” above). Therefore, we do not need any measures to isolate or contain reintroduced ferrets in the SWEPA from natural populations.

#### Review and Evaluation of the Success or Failure of the SWEPA

Monitoring is a required element of all ferret reintroduction projects. Reintroduction projects will conduct the three following types of monitoring:

(1) *Reintroduction Effectiveness Monitoring*: Reintroduction partners will monitor ferret population demographics and potential sources of fatality, including plague, annually for 5 years following the last release using spotlight surveys, snow tracking, other visual survey techniques, or possibly radio-telemetry of some individuals following AGFD’s management plan (2016) or similar procedures identified in a management plan developed for a specific reintroduction site. Thereafter, partners will complete demographic surveys periodically to track population status. Surveys will incorporate methods to monitor breeding success and long-term survival rates, as appropriate. The Service anticipates that AGFD and/or other participating partners will conduct monitoring, and they will include monitoring results in their annual reports.

(2) *Donor Population Monitoring*: We will acquire ferrets from the captive-breeding population, or partners may translocate ferrets from another viable reintroduction site. The Service and our partners manage ferrets in the captive-breeding population in accordance with

the AZA SSP® (Graves *et al.* 2018, entire). The AZA SSP® Husbandry Manual provides up-to-date protocols for the care, propagation, preconditioning, and transportation of captive ferrets, and all participating captive-breeding facilities use it.

The Service may also translocate ferrets from other reintroduction sites, provided their removal will not negatively affect the extant population and appropriate permits are issued in accordance with current regulations (50 CFR 17.22) prior to their removal. Partners will conduct population monitoring following any removals for translocation under guidance of the Service-approved management plan for the donor site.

(3) *Monitoring Effects to Other Listed Species and Critical Habitat*: We do not expect adverse effects to other federally listed species or critical habitat (see “*Other Protections and Management Restrictions*” number 6, above).

#### Findings

Based on the above information, and using the best scientific and commercial data available (in accordance with 50 CFR 17.81), we find that releasing ferrets into the proposed SWEPA will further the conservation of the species and that these reintroduced populations are not essential to the continued existence of the species.

#### Peer Review

In accordance with our policy, “Notice of Interagency Cooperative Policy for Peer Review in Endangered Species Act Activities,” (59 FR 34270, July 1, 1994), we will seek the expert opinion of at least three appropriate independent specialists regarding scientific data and interpretations contained in this proposed revision. We will send copies of this proposed revision to the peer reviewers immediately following publication in the **Federal Register**. The purpose of such review is to ensure we based our decisions on scientifically sound data, assumptions, and analysis. Accordingly, the final decision may differ from this proposal.

#### Required Determinations

##### *Regulatory Planning and Review (Executive Orders 12866 and 13563)*

Executive Order 12866 provides that the Office of Information and Regulatory Affairs (OIRA) in the Office of Management and Budget will review all significant rules. OIRA has determined that this rule is not significant.

Executive Order 13563 reaffirms the principles of E.O. 12866 while calling

for improvements in the nation’s regulatory system to promote predictability, to reduce uncertainty, and to use the best, most innovative, and least burdensome tools for achieving regulatory ends. The executive order directs agencies to consider regulatory approaches that reduce burdens and maintain flexibility and freedom of choice for the public where these approaches are relevant, feasible, and consistent with regulatory objectives. E.O. 13563 emphasizes further that regulations must be based on the best available science and that the rulemaking process must allow for public participation and an open exchange of ideas. We have developed this proposed rule in a manner consistent with these requirements.

*Regulatory Flexibility Act (5 U.S.C. 601 et seq.) as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996; 5 U.S.C. 601 et seq.*

Under these acts, whenever a Federal agency is required to publish a notice of rulemaking for any proposed or final rule or revision to a rule, it must prepare, and make available for public comment, a regulatory flexibility analysis that describes the effect of the action on small entities (small businesses, small organizations, and small government jurisdictions). However, these acts require no regulatory flexibility analysis if the head of an agency certifies that the action will not have a significant economic impact on a substantial number of small entities. The SBREFA amended the Regulatory Flexibility Act to require Federal agencies to provide a statement of the factual basis for certifying that an action will not have a significant economic impact on a substantial number of small entities. We are certifying that this revision will not have a significant economic effect on a substantial number of small entities. The following discussion explains our rationale.

The affected area includes release sites in Arizona, lands of the Navajo Nation in Arizona, New Mexico, and Utah, and adjacent areas into which ferrets may disperse, which over time could include significant portions of the proposed SWEPA. Because of the regulatory flexibility for Federal agency actions provided by the nonessential experimental designation and the exemption for incidental take in the special rule, this revision is not expected to have significant effects on any activities on Federal, State, Tribal, or private lands in the revised area. Concerning section 7(a)(2), we treat the



population as proposed for listing, and do not require Federal action agencies to consult with us on their activities. Section 7(a)(4) requires Federal agencies to confer (rather than consult) with the Service on actions that are likely to jeopardize the continued existence of a species proposed for listing. However, because a nonessential experimental population is, by definition, not essential to the survival of the species, we will likely never require a conference for the ferret populations in the SWEPA. Furthermore, the results of a conference are advisory in nature and do not restrict agencies from carrying out, funding, or authorizing activities. In addition, section 7(a)(1) requires Federal agencies to use their authorities to carry out programs to further the conservation of listed species, which would apply on any lands in the revised area. As a result, and in accordance with these regulations, some modifications to proposed Federal actions in the SWEPA may occur to benefit the ferret, but we do not expect implementing of these regulations to halt or substantially modify proposed projects.

This revision would include the same authorization provided in the AVEPA for incidental take of the ferret but over a larger landscape, the SWEPA. The regulations implementing the ESA define “incidental take” as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity such as agricultural activities and other rural development, camping, hiking, hunting, vehicle use of roads and highways, and other activities that are in accordance with Federal, Tribal, State, and local laws and regulations. The proposed rule would not authorize intentional take for purposes other than authorized data collection or recovery purposes. Intentional take for research or recovery purposes would require a section 10(a)(1)(A) recovery permit under the ESA.

The principal activities on private property in or near the revised nonessential experimental population area are livestock grazing and associated ranch management practices (e.g., fencing, weed treatments, water developments, and maintenance). Ferret presence would not affect these land uses because there would be no new or additional economic or regulatory restrictions imposed upon States, non-Federal entities, or members of the public due to the presence of the ferret, and Federal agencies would only have to comply with sections 7(a)(1) and 7(a)(4) of the ESA in these areas. Therefore, we do not expect this rulemaking to have any significant

adverse impacts to activities on private lands in the proposed SWEPA.

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

In accordance with this act:

(1) This proposed revision will not “significantly or uniquely” affect small governments because they would not place additional requirements on any city, county, or other local municipalities. The Service determined and certifies under this act, that it will not impose a cost of \$100 million or more in any given year on local or State governments or private entities. Therefore, this act does not require a Small Government Agency Plan.

(2) This proposed rule is not a “significant regulatory action” under this act; it will not produce a Federal mandate of \$100 million or more in any year. The revised nonessential experimental population area for the ferret would not impose any additional management or protection requirements on the States or other entities.

*Takings (E.O. 12630)*

In accordance with E.O. 12630, the proposed revision does not have significant takings implications. It would allow for the take, as defined in the ESA, of reintroduced ferrets when such take is incidental to an otherwise legal activity, such as livestock grazing, agriculture, recreation (e.g., off-highway vehicle use), and other activities that are in accordance with Federal, State, and local laws and regulations. Therefore, the revision of the AVEPA to encompass a larger area, the proposed SWEPA, would not conflict with existing or proposed human activities or hinder public land use.

This order does not require a takings implication assessment because this proposed rule: (1) Will not effectively compel a property owner to suffer a physical invasion of property, and (2) will not deny economically beneficial or productive use of the land. The revision would substantially advance a legitimate government interest (conservation and recovery of a listed species) and would not present a barrier to reasonable and expected beneficial use of private property.

*Federalism (E.O. 13132)*

In accordance with E.O. 13132, we have considered whether this proposed revision has significant federalism effects and determined we do not need to conduct a federalism assessment. It would not have substantial direct effects on the States, on the relationship between the Federal Government and the States, or on the distribution of

power and responsibilities among the various levels of government. In keeping with Department of the Interior policy, we requested information from and coordinated development of this proposed revision with the affected resource agencies. Achieving the recovery goals for this species would contribute to its eventual delisting and its return to State management. We do not expect any intrusion on State administration or policy, change in roles or responsibilities of Federal or State governments, or substantial direct effect on fiscal capacity. The special rule operates to maintain the existing relationship between the State and the Federal Government, and we will implement it in coordination with the State of Arizona. Therefore, this proposed rule does not have significant federalism effects or implications to warrant preparation of a Federalism Assessment under the provisions of E.O. 13132.

*Civil Justice Reform (E.O. 12988)*

In accordance with E.O. 12988, the Office of the Solicitor has determined that this revision would not unduly burden the judicial system and would meet the requirements of sections (3)(a) and (3)(b)(2) of the Order.

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

This rule does not contain any new collection of information that require approval by the Office of Management and Budget (OMB) under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.). OMB has previously approved the information collection requirements associated with reporting the taking of experimental populations (50 CFR 17.84) and assigned control number 1018–0095 (expires 09/30/2023). We may not collect, or sponsor, and may not require you to respond to a collection of information unless it displays a currently valid OMB control number.

*National Environmental Policy Act (NEPA) of 1969 (42 U.S.C. 4321 et seq.)*

In compliance with all provisions of the NEPA, the Service has analyzed the impact of this proposed rule. Based on this analysis and any new information resulting from public comment on the proposed action, we will determine if there are any significant impacts or effects caused by this rule. In cooperation with the AGFD, the Hopi Tribe, Hualapai Tribe, and the Navajo Nation, we have prepared a draft environmental assessment on this proposed action and have made it available for public inspection online at

<<http://www.regulations.gov>> or <<http://www.fws.gov/southwest/es/arizona/>>. We solicit comments on the draft EA as set forth above in **DATES** and **ADDRESSES**.

*Government-to-Government Relationships With Tribes*

In accordance with the Executive Memorandum of April 29, 1994, “Government-to-Government Relations with Native American Tribal Governments” (59 FR 22951, May 4, 1994), E.O. 13175 (65 FR 67249, November 9, 2000), and the Department of the Interior Manual Chapter 512 DM 2, we have considered possible effects of the proposed revision on federally recognized Indian Tribes. We determined that the proposed SWEPA overlaps or is adjacent to Tribal lands. Potential reintroduction sites identified in this revision, the CO Bar Ranch and Petrified Forest National Park, are near or adjacent to Tribal lands, as is the existing AVEPA where a reintroduced ferret population exists. We offered government-to-government consultation to nine Tribes: The Havasupai, Hopi, Hualapai, San Carlos Apache, San Juan Southern Paiute, White Mountain Apache, and Yavapai-Prescott Tribes, Navajo Nation, and the Pueblo of Zuni. We met with the Hualapai, Hopi, and White Mountain Apache Tribes and the Navajo Nation about the proposed revision. Participation in ferret recovery is voluntary. If suitable habitat for ferret recovery is available on their lands, Tribes may choose either not to participate, or to participate through authorities under section 10(j), section 10(a)(1)(A), or the SHA (USFWS 2013b, entire). If we introduce ferrets on non-Tribal lands adjacent to Tribal lands and they disperse onto Tribal lands, the aforementioned authorities will provide a more relaxed, flexible regulatory situation under the ESA through allowances for incidental take.

*Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use (E.O. 13211)*

E.O. 13211 requires agencies to prepare Statements of Energy Effects when undertaking certain actions. We do not expect this proposed rule to have a significant effect on energy supplies, distribution, and use. Because this action is not a significant energy action, this order does not require a Statement of Energy Effects.

*Clarity of This Regulation*

E.O. 12866, E.O. 12988, and Presidential Memorandum of June 1, 1998, require the Service to write all actions in plain language. This means that each rule we publish must:

- (1) Be logically organized;
- (2) Use the active voice to address readers directly;
- (3) Use clear language rather than jargon;
- (4) Be divided into short sections and sentences; and
- (5) Use lists and tables wherever possible.

If you feel that we have not met these requirements, send us comments by one of the methods listed in **ADDRESSES**. Your comments about this proposed revision to the 1996 final rule should be as specific as possible. For example, you should identify the numbers of the sections and paragraphs that are not clear, the sections or sentences that are too long, or the sections where you feel lists and tables would be useful.

**References Cited**

A complete list of all references cited in this proposed rule is available at <http://www.regulations.gov> at Docket Number FWS–R2–ES–2020–0123, or upon request from the Arizona Ecological Services Field Office (see **ADDRESSES**).

**Authors**

The primary authors of this proposed rule are staff members of the Service’s

Arizona Ecological Services Field Office (see **ADDRESSES** and **FOR FURTHER INFORMATION CONTACT**).

**Signing Authority**

The Director, U.S. Fish and Wildlife Service, approved this document and authorized the undersigned to sign and submit the document to the Office of the Federal Register for publication electronically as an official document of the U.S. Fish and Wildlife Service. Martha Williams, Principal Deputy Director Exercising the Delegated Authority of the Director, U.S. Fish and Wildlife Service, approved this document on June 14, 2021, for publication.

**List of Subjects in 50 CFR Part 17**

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

**Proposed Regulation Promulgation**

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

**PART 17—ENDANGERED AND THREATENED WILDLIFE AND PLANTS**

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

**Authority:** 16 U.S.C. 1361–1407; 1531–1544; and 4201–4245, unless otherwise noted.

- 2. Amend § 17.11(h) by revising the entries for “Ferret, black-footed” under “MAMMALS” in the List of Endangered and Threatened Wildlife to read as follows:

**§ 17.11 Endangered and threatened wildlife.**

\* \* \* \* \*  
(h) \* \* \*

Common name	Scientific name	Where listed	Status	Listing citations and applicable rules
<b>Mammals</b>				
* Ferret, black-footed .....	* <i>Mustela nigripes</i> .....	* Wherever found .....	* E	* 32 FR 4001, 3/11/1967; 35 FR 8491, 6/2/1970.
* Ferret, black-footed .....	* <i>Mustela nigripes</i> .....	* U.S.A. (parts of WY (Shirley Basin/Medicine Bow Management Area); see § 17.84(g)(9)(i)).	* XN	* 56 FR 41473, 8/21/1991; 50 CFR 17.84(g). <sup>10j</sup>
* Ferret, black-footed .....	* <i>Mustela nigripes</i> .....	* U.S.A. (parts of SD (Conata Basin/Badlands Reintroduction Area); see § 17.84(g)(9)(ii)).	* XN	* 59 FR 42682, 8/18/1994; 50 CFR 17.84(g). <sup>10j</sup>
* Ferret, black-footed .....	* <i>Mustela nigripes</i> .....	* U.S.A. (parts of MT (Northcentral Montana Reintroduction Area); see § 17.84(g)(9)(iii)).	* XN	* 59 FR 42696 8/18/1994; 50 CFR 17.84(g). <sup>10j</sup>

Common name	Scientific name	Where listed	Status	Listing citations and applicable rules
Ferret, black-footed .....	<i>Mustela nigripes</i> .....	U.S.A. (parts of AZ, NM, UT (Southwest Experimental Population Area), see § 17.84(g)(9)(iv)).	XN	61 FR 11320, 3/20/1996; [Federal Register CITATION OF FINAL RULE]; 50 CFR 17.84(g). <sup>10j</sup>
Ferret, black-footed .....	<i>Mustela nigripes</i> .....	U.S.A. (parts of CO, UT (Northwestern Colorado/Northeastern Utah Experimental Population Area), see § 17.84(g)(9)(v)).	XN	63 FR 52824, 10/1/1998; 50 CFR 17.84(g). <sup>10j</sup>
Ferret, black-footed .....	<i>Mustela nigripes</i> .....	U.S.A. (parts of SD (Cheyenne River Sioux Tribe Reintroduction Area), see § 17.84(g)(9)(vi)).	XN	65 FR 60879, 10/13/2000; 50 CFR 17.84(g). <sup>10j</sup>
Ferret, black-footed .....	<i>Mustela nigripes</i> .....	U.S.A. (parts of SD (Rosebud Sioux Reservation Experimental Population Area), see § 17.84(g)(9)(vii)).	XN	68 FR 26498, 5/16/2003; 50 CFR 17.84(g). <sup>10j</sup>
Ferret, black-footed .....	<i>Mustela nigripes</i> .....	U.S.A. (most of WY (Wyoming Experimental Population Area), see § 17.84(g)(9)(viii)).	XN	80 FR 66821, 10/30/2015; 50 CFR 17.84(g). <sup>10j</sup>
*	*	*	*	*

■ 3. Amend § 17.84(g) by revising paragraphs (g)(1), (g)(6)(iv), and (g)(9)(iv) to read as set forth below and removing the fourth map (depicting the Aubrey Valley Experimental Population Area) and adding in its place the map shown below:

**§ 17.84 Special rules—vertebrates.**

\* \* \* \* \*

(g) \* \* \*  
 (1) The black-footed ferret populations identified in paragraphs (g)(9)(i) through (viii) of this section are nonessential experimental populations. We will manage each of these populations, and each reintroduction site in the Southwest and Wyoming nonessential experimental populations, in accordance with their respective management plans.

\* \* \* \* \*

(6) \* \* \*  
 (iv) Report such taking in the Southwest Experimental Population Area (SWEPA) to the Field Supervisor,

Ecological Services, U.S. Fish and Wildlife Service, Phoenix, Arizona (telephone: 602-242-0210).

\* \* \* \* \*

(9) \* \* \*  
 (iv) We consider the Southwest Experimental Population Area (SWEPA) to be the area shown on a map following paragraph (g)(12) of this section. The SWEPA includes the core recovery areas for this species in Arizona. The boundary of the northern section of the SWEPA is those parts of Apache, Coconino, Gila, Mohave, Navajo, and Yavapai Counties, Arizona, that include the northern area as delineated on the map, excluding Hopi District 6. The northern section also includes portions of Cibola, McKinley, Rio Arriba, Sandoval, and San Juan Counties, New Mexico; and San Juan County, Utah. The boundary of the southern section of the SWEPA is those parts of Cochise, Pima, Pinal, Graham, and Santa Cruz Counties, Arizona, that include the southern area as delineated on the map.

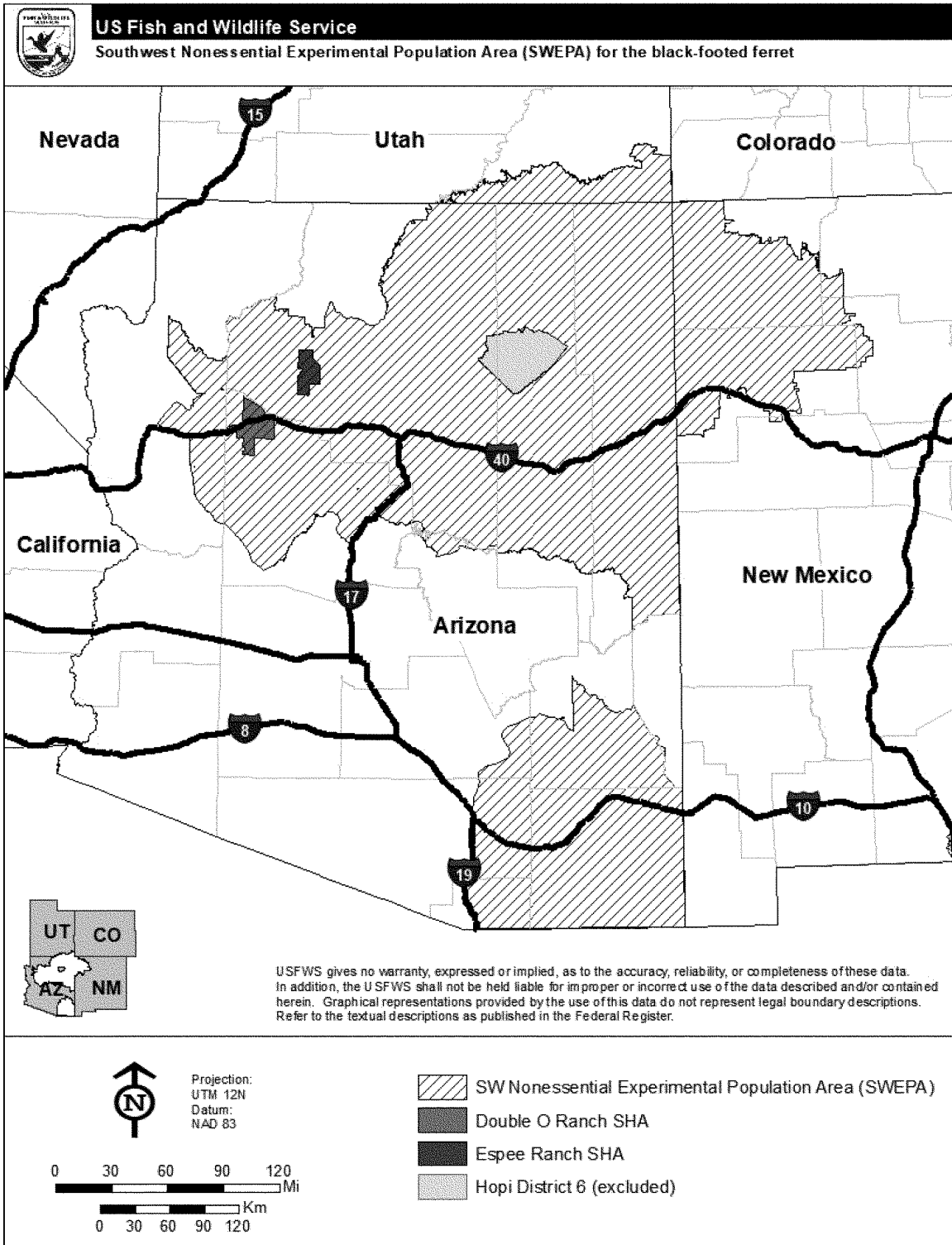
After the first breeding season following the first year of black-footed ferret release, we will consider any black-footed ferret found in the SWEPA as part of the nonessential experimental population. We would not consider a black-footed ferret occurring outside of the Arizona, New Mexico, and Utah portions of the SWEPA a member of the nonessential experimental population, and we may capture it for genetic testing. We may dispose of the captured animal in the following ways:

(A) If an animal is genetically determined to have originated from the experimental population, we may return it to the reintroduction area or to a captive-breeding facility.

(B) If an animal is determined to be genetically unrelated to the experimental population, we will place it in captivity under an existing contingency plan.

\* \* \* \* \*

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\* \* \* \* \*

**Madonna Baucum,**  
*Regulations and Policy Chief, Division of Policy, Economics, Risk Management, and Analytics, Joint Administrative Operations, U.S. Fish and Wildlife Service.*

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