

Black-Footed Ferret Programmatic Safe Harbor Agreement

October 23, 2013

U.S. Fish and Wildlife Service Black-footed Ferret Recovery Program

Black-footed Ferret Programmatic Safe Harbor Agreement

Table of Contents

Appendices.....	4
Glossary.....	5
1.0 Introduction	10
2.0 Background	11
3.0 Authorities	16
4.0 Covered Species	17
5.0 Eligible Lands.....	17
6.0 Baseline Determination	18
7.0 Conservation Activities	19
7.1 Black-Footed Ferret Reintroduction and Management.....	20
7.2 Disease Management.....	21
7.3 Prairie Dog Management	22
7.4 Livestock Grazing.....	23
8.0 Incidental Take and Net Conservation Benefits.....	23
8.1 Incidental Take and Return to Baseline	23
8.2 Net Conservation Benefits	25
9.0 Monitoring	27
10.0 Roles and Responsibilities of the Parties	28
10.1 The Permittee (Black-Footed Ferret Recovery Coordinator).....	28
10.2 Cooperator	29
10.3 Additional Partners	30
11.0 Changed Circumstances.....	30
12.0 Agreement Duration	32
13.0 Assurances to a Cooperator.....	32
14.0 Non-participating Neighboring Landowners.....	33
15.0 Modifications	34
15.1 Modifications of the Agreement or Reintroduction Plans.....	34
15.2 Amendment of the Permit or Certificate of Inclusion	34
15.3 Early Termination of the Agreement	34
16.0 Permit Suspension or Revocation	35

Black-footed Ferret Programmatic Safe Harbor Agreement

17.0	Other Measures	36
18.0	References	38
19.0	Signatures	42

Black-footed Ferret Programmatic Safe Harbor Agreement

Appendices

- Appendix A. Historical Range of Prairie Dogs and Black-footed Ferrets.
- Appendix B. Black-footed Ferret Site Specific Reintroduction Plan TEMPLATE
- Appendix C. Black-footed Ferret Recovery Guidelines by State (U.S. Fish and Wildlife Service 2013)
- Appendix D. Annual Report to Cooperator by Permittee TEMPLATE
- Appendix E. Annual Report to Permittee by Cooperator (Questionnaire) TEMPLATE
- Appendix F. Black-footed Ferret Recovery Team Members

Black-footed Ferret Programmatic Safe Harbor Agreement

Glossary

10(a)(1)(A) Enhancement of Survival Permit (Permit) – This Permit also may be referred to as an incidental take permit or a recovery permit. It authorizes incidental take of a threatened or endangered species that would otherwise be prohibited by section 9 of the Endangered Species Act (Act) when such take is a result of activities for scientific research or to enhance the propagation or survival of a listed species. Section 10 of the Act provides for exceptions to prohibited activities identified in section 9 of the Act. Section 10(a)(1)(A) allows the Secretary of Interior to issue permits to authorize incidental take of threatened and endangered species for scientific research or to enhance the propagation or survival of such species. The Safe Harbor policy (64 FR 32717) provides for the extension of this authority to non-federal landowners who volunteer to enroll in a Safe Harbor Agreement that provides a net conservation benefit to covered species.

10(j) Experimental Population – Section 10(j) of the Act allows the Secretary of Interior to introduce experimental populations of threatened or endangered species into the wild as long as they are wholly separate from non-experimental populations of the same species. This designation is accomplished through a rulemaking process and allows for regulatory flexibility within the section 10(j) designated areas.

Assurances – Regulatory certainty provided by the U.S. Fish and Wildlife Service (Service) pursuant to the Safe Harbor policy (64 FR 32717) that it will not impose additional conservation measures and restrictions on the use of land, water, or resources beyond those measures and restrictions agreed upon in the Safe Harbor Agreement as a result of voluntary conservation actions by participating landowner interests (Cooperator) that benefit covered threatened or endangered species. These assurances are conveyed to the Cooperator through certificates of inclusion issued under a 10(a)(1)(A) enhancement of survival permit.

Baseline – Population estimates and distribution (if available or determinable) of the covered threatened or endangered species and/or habitat characteristics of enrolled property at the time of enrollment under the Safe Harbor Agreement as mutually agreed upon by the Black-footed Ferret Recovery Coordinator (Permittee) and the Cooperator. Baseline for this Agreement will be zero black-footed ferrets for both existing and new reintroduction sites, because none will occur on any property until reintroduction of the species, and none will likely occur in the foreseeable future on any property that may have ferrets now without purposeful management of prairie dogs to protect both ferrets and prairie dogs from sylvatic plague—a recurring non-native disease that will likely result in any extant ferret population being reduced to zero without active management.

Biological Opinion – A document, pursuant to Section 7 of the Act, stating the opinion of the Service on whether or not a Federal action is likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat. In this

Black-footed Ferret Programmatic Safe Harbor Agreement

instance, the Federal action is the implementation of a Programmatic Safe Harbor Agreement and related permit for the black-footed ferret.

Bottleneck – A reduction of a population due to a natural or manmade cause, such that the surviving population is no longer self-sustaining.

Certificate of Inclusion – The document issued by the Permittee to a Cooperator that conveys the Permit's incidental take authorization for covered threatened and endangered species.

Changed Circumstances – Changes in circumstances affecting a threatened or endangered species or geographic area covered by a Safe Harbor Agreement that can be reasonably anticipated and planned for by the Service (e.g., the listing of a new species, or a fire or other natural catastrophic event in areas prone to such events).

Conservation Activities – The actions that will be taken or avoided under this Safe Harbor Agreement to provide a net conservation benefit to the black-footed ferret. Conservation activities may be carried out by the Permittee (or designee), the Cooperator, as described in the Reintroduction Plan for the enrolled property, or partners approved by the Permittee and Cooperator.

Conservation Zone – An area that can contribute to the necessary attributes to support at least 30 adult ferrets. Typically, it will be a minimum of 1,500 acres of black-tailed prairie dog occupied habitat or 3,000 acres of white-tailed prairie dog or Gunnison's prairie dog occupied habitat. It may be owned by one or more Cooperators. All otherwise legal activities may be conducted as appropriate, except those that are incompatible with ferret recovery. Inappropriate, prohibited activities will include any activity that reduces prairie dog numbers, including, but not limited to, poisoning, shooting, and major landscape alterations (e.g., tilling soil). The Conservation Zone will be identified on a map of the enrolled lands. All conservation activities within the Conservation Zone will be described in the Reintroduction Plan for the enrolled property. Prohibited activities will also be identified in the Reintroduction Plan.

Cooperator – Any non-federal landowner—including but not limited to private individuals, Tribes, States, counties, and municipalities—eligible for enrollment in the Safe Harbor Agreement who voluntarily chooses to assist in the development and implementation of a Reintroduction Plan for black-footed ferrets on their lands (or some portion of their lands). Under the Agreement, the Permittee issues each Cooperator a Certificate of Inclusion, which conveys the Permit's incidental take authorization.

Covered Species – The species listed under the Act for which the Safe Harbor Agreement is designed to provide a net conservation benefit and for which incidental take and Safe Harbor assurances are authorized. For this particular Agreement, the covered species is the black-footed ferret.

Black-footed Ferret Programmatic Safe Harbor Agreement

Delist – The removal of a species from a listed status under the Act. Usually delisting is a result of successful recovery actions that have increased a species' numbers and addressed threats to its viability. For the black-footed ferret, delisting is expected to require the establishment of at least 3,000 breeding adult ferrets in 30 or more populations in at least nine states within the historical range of the species, with no fewer than 30 breeding adults in any population. Management efforts will continue to address threats to the species, especially from disease.

Downlist – The reclassification of a species from endangered to threatened. Usually downlisting is a result of successful recovery actions that have increased a species' numbers and addressed some portion of the threats to the species. For the black-footed ferret, downlisting is expected to require the establishment of at least 1,500 breeding adult ferrets in 10 or more populations in at least six states within the historical range of the species, with no fewer than 30 breeding adults in any population. Management efforts will continue to address threats to the species, especially from disease.

Endangered species – An animal or plant species in danger of extinction throughout all or a significant portion of its range.

Enrolled lands – Non-federal lands (see below) that are included in the Black-footed Ferret Programmatic Safe Harbor Agreement through the process of Cooperators signing and the Permittee issuing Certificates of Inclusion.

Experimental population – A population (including its offspring) of a listed species, designated by rule published in the Federal Register, that is wholly separate geographically from other populations of the same species. An experimental population may be subject to less stringent prohibitions than are applied to the remainder of the species to which it belongs.

Incidental Take – Incidental take is the accidental or inadvertent take of a species listed as threatened or endangered under the Act while carrying out otherwise legal activities.

Kit – A kit is the young of a black-footed ferret.

Landowner – Any entity with a legally recognized interest in a parcel of land including, but not limited to, surface, mineral, mortgage, and/or lease rights.

Management Zone – An area adjacent to or near a Conservation Zone. It may or may not have occupied prairie dog habitat. All otherwise legal activities may be conducted as appropriate, including lethal control of prairie dogs—except for the use of anticoagulant toxicants such as chlorophacinone (Rozol®) or diphacinone (Kaput®). The Management Zone will be identified on a map of the enrolled lands. The precise characteristics and size of a Management Zone, including the associated conservation activities, may vary for each enrolled property, depending on the physical and biological attributes of a particular property, the needs of the Cooperator, and the potential concerns of non-participating neighboring landowners. Consequently, site-specific details will be described in each individual Reintroduction Plan.

Black-footed Ferret Programmatic Safe Harbor Agreement

Net conservation benefit – Improved status of the covered species or population as a result of a Safe Harbor Agreement’s conservation actions minus the impacts from any incidental take of the species.

Non-essential experimental population – An experimental population whose loss would not appreciably reduce the prospect of survival of the species in the wild.

Non-federal lands – Lands owned by entities other than the Federal government, including Tribes (see tribal lands below), States, counties, municipalities, private individuals, and non-governmental organizations.

Non-participating landowner – Any landowner within the vicinity of a black-footed ferret reintroduction site developed under the Black-footed Ferret Programmatic Safe Harbor Agreement—including private individuals, Tribes, States, and municipalities—who does not participate. Under this Agreement, non-participating neighboring landowners will be covered for incidental take, via an associated Biological Opinion, of any black-footed ferrets that may disperse onto their lands.

Parties – The Permittee, the Cooperator, and others as described in Part 10.3 of this Safe Harbor Agreement and identified in the Reintroduction Plan.

Permittee – The entity who holds the 10(a)(1)(A) Enhancement of Survival Permit issued under the Safe Harbor Agreement. Under this Agreement, the Permittee is the Service’s Black-footed Ferret Recovery Coordinator.

Programmatic Safe Harbor Agreement (Agreement) – The parent document, prepared by the Service, that describes the conservation strategy and activities that will be carried out to provide a net conservation benefit for the covered species, in this case the black-footed ferret. It also describes the process and requirements for developing the site-specific Reintroduction Plans for lands to be voluntarily enrolled in the Agreement.

Reintroduction Plan – The document that describes site-specific characteristics of any lands enrolled in this Agreement. It will include: (1) a description of the ownership interest; (2) a map of the enrolled land, identifying boundaries of any nearby Conservation and Management Zones; (3) a description of the conservation activities to be carried out in any Conservation and Management Zones on the enrolled lands; and (4) a description of any activities that may be prohibited within the Conservation or Management Zone. The Permittee and the Cooperator will develop a Reintroduction Plan prior to enrollment of any property and prior to issuing any Certificate of Inclusion. Upon completion, it will be signed by the Permittee and the Cooperator. Information provided in a Reintroduction Plan could be made public as a result of a Freedom of Information Act request. A template for the Reintroduction Plan is in Appendix B of this Safe Harbor Agreement.

Black-footed Ferret Programmatic Safe Harbor Agreement

Routine Livestock Grazing and Ranching Activities – Those activities required to manage a livestock operation. For the purposes of this Safe Harbor Agreement, any livestock grazing or ranching practice that does not reduce prairie dog occupied habitat to a degree that the viability of a ferret population occupying the same lands would be impacted would be appropriate. Prohibited activities within any Conservation Zone would include lethal control of prairie dogs and/or major landscape alterations, except in unusual circumstances as agreed to by both the Permittee and Cooperator.

Split Estate – For purposes of this Safe Harbor Agreement, a split estate refers to any property where the management of wildlife habitat may be diminished by other ownership interests (e.g., mineral rights, mineral leases, hunting agreements, etc.).

Take – Defined by the Act as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Take may include significant habitat modification or degradation if it kills or injures wildlife by significantly impairing essential behavioral patterns including breeding, feeding, or sheltering.

Threatened species – An animal or plant species likely to become endangered within the foreseeable future throughout all or a significant portion of its range.

Tribal Lands – Tribal lands refer to those lands within the boundaries of an Indian reservation or land outside of an Indian reservation that are held in trust by the United States for the benefit of an individual Indian or Indian Tribe, held by an individual Indian or Indian Tribe, or held by a dependent Indian community.

Unforeseen Circumstances – Circumstances affecting a species or geographic area covered by a conservation plan or agreement that could not reasonably have been anticipated by the Service at the time of development of the Safe Harbor Agreement, and that result in a substantial and adverse change in the status of the covered species.

Black-footed Ferret Programmatic Safe Harbor Agreement

Black-Footed Ferret Programmatic Safe Harbor Agreement

1.0 Introduction

The U.S. Fish and Wildlife Service (Service) Safe Harbor Program (64 FR 32717) is a program that provides regulatory flexibility to non-federal landowners who voluntarily commit to implementing or avoiding specific activities over a defined timeframe that are reasonably expected to provide a net conservation benefit to species listed under the Endangered Species Act (Act). In exchange for this commitment, enrolled landowners (Cooperator) receive assurances from the Service that no additional future regulatory restrictions will be imposed or commitments required for species covered under a Safe Harbor Agreement. The purpose of this Black-Footed Ferret Programmatic Safe Harbor Agreement (Agreement) is to encourage non-federal landowners to voluntarily engage in conservation activities to benefit and advance recovery of the endangered black-footed ferret (*Mustela nigripes*). The primary conservation activity under this Agreement will be reintroductions of ferrets on properties of willing landowners. Cooperators who enroll in this Agreement may withdraw at any time without penalty, providing they give the Service an opportunity to retrieve any ferrets on their lands.

Based on this Agreement and compliance with all other associated regulations and laws, the Service will issue a section 10(a)(1)(A) Enhancement of Survival Permit (Permit) to the Service's Black-Footed Ferret Recovery Coordinator (Permittee) for a term of 50 years. Under the Permit, the Permittee may enroll eligible and willing non-federal landowners through Certificates of Inclusion for a minimum term of 10 years under this Agreement. The Certificates of Inclusion will convey the Permit's incidental take authorization and the Safe Harbor assurances to Cooperators. An attendant Biological Opinion will be developed as a result of an intra-Service section 7 consultation, under the Act, on the effects of the issuance of the Permit and implementation of the Agreement. This Biological Opinion will provide incidental take of black-footed ferrets to non-participating landowners (i.e., nearby non-enrolled landowners) where dispersing ferrets from a reintroduction effort under this Agreement may affect their ownership interests. Cooperators who withdraw from the Agreement become non-participating landowners and will also be covered for future incidental take of ferrets through the Biological Opinion. Split estate owners of severed mineral interests are covered for any incidental take of ferrets related to otherwise lawful activities as non-participating landowners.

The Permittee has the capability and commitment to administer the Permit and the terms of the Agreement. The Permittee oversees the recovery efforts of the black-footed ferret with the assistance of the Black-footed Ferret Recovery Implementation Team (BFFRIT). The BFFRIT was established in 1996 and reaffirmed with a revised charter in 2012. The BFFRIT is guided by an Executive Committee made up of various State and Federal agencies, Tribes, and non-governmental organizations with a purpose of recovering the ferret

Black-footed Ferret Programmatic Safe Harbor Agreement

through coordinated efforts of many interested entities (Appendix F). All of these partners have been instrumental in the implementation of ferret recovery efforts to date. The Permittee will work closely with the BFFRIT on the implementation and monitoring of this Agreement. To date, the Permittee, with the assistance of the BFFRIT, has established a successful captive breeding program, initiated 20 reintroduction sites, and coordinated the release of more than 2,700 ferrets since 1987.

This Agreement is programmatic in nature and applicable across the 12-state historical range of the black-footed ferret, which includes portions of Arizona, Colorado, Kansas, Montana, Nebraska, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, Utah, and Wyoming. However, the Service expects that the Agreement will be implemented in only a small portion of this area because only 0.08 percent of the ferret's historical range will be needed to recover (delist) the species (U.S. Fish and Wildlife Service 2013). This historical range includes a wide variety of landscapes, habitat types, and potential partners. This broad diversity in landscapes necessitates site-specific black-footed ferret Reintroduction Plans (Reintroduction Plan) for the enrolled lands. Reintroduction Plans will describe the specific conservation and management details of each site within identified Conservation and/or Management Zones on each enrolled property. Each Reintroduction Plan will be developed by the Permittee and the Cooperator, with technical input from other partners as appropriate. Partners may include State wildlife agencies, Tribes, the Natural Resources Conservation Service, Animal Plant Health Inspection Service/Wildlife Services, and others as appropriate. The Permittee will issue a Certificate of Inclusion to each Cooperator after a Reintroduction Plan is approved and signed by the Permittee and the Cooperator. Collectively, the Permittee and the Cooperator are hereafter called the Parties. The programmatic nature of this Agreement provides Cooperators with a streamlined process for obtaining assurances that actions taken to benefit black-footed ferrets on their land will not restrict current land use or result in additional regulatory obligations associated with the species under the Act.

Prior to enrollment of any landowner as a Cooperator to the Agreement, inquiries will occur to determine if any split estate ownership may exist that could limit management of wildlife habitat. If these split estate ownership interests occur, the Service will either attempt to enroll all the interests as Cooperators or evaluate if the exercise of any activities pursuant to these ownership interests could materially limit any potential net conservation benefit for the black-footed ferret. For example, if the ownership of subsurface mineral rights was severed from surface ownership, the likelihood and extent of any development of those minerals would be evaluated. Enrollment of partial ownership interests for a property may or may not be determined to be appropriate based on this evaluation.

2.0 Background

The black-footed ferret is an endangered carnivore with a black face mask, black legs, and a black-tipped tail. It is approximately 18 to 24 inches long and weighs up to 2.5 pounds. It is the only ferret species native to North America. The ferret is mainly solitary, except when

Black-footed Ferret Programmatic Safe Harbor Agreement

breeding and when mother and young are together (Forrest et al. 1985). In the wild, it first breeds at 1 year of age, usually from mid-March through early April with litter sizes averaging 3.5 individuals (Wilson and Ruff 1999). The mean life expectancy of wild ferrets in the last known free-ranging population in Meeteetse, Wyoming was 0.9 years (Biggins et al. 2006).

Black-footed ferrets are specialists that prey primarily on prairie dogs (*Cynomys spp.*) and use their burrows for shelter and denning (Henderson et al. 1969, Hillman and Linder 1973, Forrest et al. 1985, Biggins 2006). Since ferrets depend almost exclusively on prairie dogs for food and shelter, and the ferret range directly overlaps that of certain prairie dog species (Anderson et al. 1986) with no documentation of ferrets breeding outside of prairie dog colonies, we believe that ferrets were historically endemic to the range of three of the prairie dog species (Gunnison's, white-tailed, and black-tailed). The historical range of these prairie dog species collectively occupied approximately 100 million acres of intermountain and prairie grasslands within a potential range of an estimated 562 million acres extending from Canada to Mexico (Anderson et al. 1986, Biggins et al. 1997, Ernst 2008). Today, largely due to a number of anthropogenic factors including land conversion, poisoning, and the non-native disease sylvatic plague, most prairie dogs occur in highly fragmented subpopulations (Luce 2003, U.S. Fish and Wildlife Service 2010). Significantly reduced and fragmented prairie dog populations that fluctuated spatially and temporally created bottlenecks for ferret populations. The ferret population declined precipitously as a result (Fagerstone and Biggins 1986, Cully 1993, Biggins 2006, Lockhart et al. 2006). Nevertheless, prairie dogs appear able to persist in smaller, more fragmented populations than were common historically. However, ferrets require relatively large, stable prairie dog complexes to maintain a viable population. Accordingly, management efforts to successfully recover the ferret must coordinate with landowners to provide appropriate stable prairie dog habitat for the species.

The same historical factors that have impacted prairie dog numbers have also impacted black-footed ferrets. By 1987, the last remaining wild ferrets were taken into captivity for captive breeding purposes (Hutchins et al. 1996, Garelle et al. 2006). Approximately 280 animals currently make up the captive population at six facilities. Multiple facilities ensure redundancy, reducing the risk of a single or even multiple catastrophic events eliminating the entire captive ferret population. A Species Survival Plan ensures their genetic fitness and provides surplus animals for release. After successful captive breeding efforts, the first captive bred ferrets were released back into the wild at Shirley Basin in Wyoming in 1991. Today, in addition to the six captive breeding facilities, a minimum of approximately 274–448 adult ferrets exist at 20 managed reintroduction sites across their historical range (U.S. Fish and Wildlife Service 2013). Captive breeding and the release of surplus ferrets continues, in efforts to augment existing sites and establish more ferret populations throughout their range. Reintroduction efforts have met draft recovery goals at four sites. Ferret populations at many reintroduction sites are challenged by disease (U.S. Fish and Wildlife Service 2013). Considerable effort has been undertaken to identify additional suitable reintroduction sites to advance recovery of the species.

Black-footed Ferret Programmatic Safe Harbor Agreement

Previous studies suggest that a minimum of approximately 75 acres of occupied black-tailed prairie dog habitat or 100–150 acres of occupied white-tailed or Gunnison's prairie dog habitat are needed to support one female black-footed ferret (Biggins et al. 2006). However, conservative field observations suggest the prairie dog acreage required to support a female ferret may be as much as 225–375 acres depending on prairie dog densities, which vary by species, and other factors including disease and climactic conditions (U.S. Fish and Wildlife Service 2013). Male ferrets have overlapping ranges with female ferrets and do not require additional prairie dog habitat beyond that considered for females (Biggins et al. 2006). These conservative estimates of 225 acres of black-tailed prairie dog occupied habitat and 375 acres of Gunnison's or white-tailed prairie dog occupied habitat to support one female ferret were used to determine the amount of habitat needed for downlisting and delisting criteria (U.S. Fish and Wildlife Service 2013).

The amount of habitat needed by a black-footed ferret population is directly related to the amount of occupied prairie dog habitat and the density of prairie dogs on that habitat (Biggins et al. 1993). Therefore, prairie dog management can be crucial to ferrets. However, landowner attitudes toward prairie dogs vary greatly and prairie dogs have long been a focus of conflict with agricultural producers (Miller et al. 2007). The principal conflict centers on competition between livestock and prairie dogs for forage, but also includes concern for livestock safety.

Competition for forage between prairie dogs and livestock in some instances—depending on factors such as prairie dog density, rainfall, temperature, and stocking rates—may be a threat to the economic viability of livestock producers. However, competition among herbivores is a complex interaction that varies by livestock operation size, geographic location, vegetation type, biomass productivity, season, and year (Derner et al. 2006, Detling 2006). The complexity associated with this interaction and related ranching concerns have led to ongoing control of prairie dogs in some areas. Successful reintroductions of black-footed ferrets, which depend on healthy prairie dog populations, cannot be sustained without addressing this concern. Judicious and targeted management of prairie dog colonies is necessary to maintain support for the conservation of the ferret from landowners whose ranches provide suitable ferret habitat and from their neighbors.

Prairie dog management can involve either lethal or non-lethal methods. Lethal control of prairie dogs typically includes poisoning or shooting, both of which can limit the number of black-footed ferrets that a site can support (Pauli 2005, Reeve and Vosburgh 2006). Poisoning of prairie dogs is regarded as a major factor in the historical decline of prairie dogs and ferrets (Forrest et al. 1985, Cully 1993, Forest and Luchsinger 2005). Currently, most poisoning is more limited in nature and undertaken by landowners at very localized locations (U.S. Fish and Wildlife Service 2009). Toxicant use on or adjacent to ferret reintroduction sites is of particular concern due to the potential use of toxicants with secondary impacts to non-target wildlife, including ferrets that consume prairie dogs. However, carefully managed and implemented use of specific toxicants with identified

Black-footed Ferret Programmatic Safe Harbor Agreement

management objectives has been important to address prairie dog encroachment issues at ferret reintroduction sites (Gober pers. comm. 2012a, Griebel 2010). At one reintroduction site in Kansas, management of prairie dogs by Animal Plant Health Inspection Service/Wildlife Services at the property boundary has been conducted to minimize the expansion of prairie dog colonies onto adjacent properties. Purposeful management of prairie dogs can help alleviate conflicts associated with prairie dog expansion and impacts to livestock forage. Flexibility in prairie dog management may generate more support from landowners to participate in this program and conserve ferrets. The ability to collaborate to purposefully manage prairie dogs in some areas, while limiting their expansion in other areas, can help build a strong private land conservation model for the ferret.

Shooting of prairie dogs often focuses on the most vulnerable segment of the population, i.e., naïve young of the year (pups). These animals are smaller than adult prairie dogs, and as a result more available to hunting black-footed ferrets. Pup availability to adult female ferrets providing for their young (kits) is an important factor in kit survival at ferret reintroduction sites. Prairie dog shooting on any ferret reintroduction site likely reduces the value of the area for recovery of the ferret. However, this impact may be ameliorated by the size of the ferret reintroduction area and the species of prairie dog present. Shooting of prairie dogs occurs on very large successful reintroduction sites at Aubrey Valley in Arizona, where Gunnison's prairie dogs occur, and at Shirley Basin in Wyoming, where white-tailed prairie dogs occur. At smaller successful ferret reintroduction sites such as Conata Basin, South Dakota, shooting has significantly reduced black-tailed prairie dog populations, with likely disproportionate impacts on pups. Accordingly, shooting has been limited at Conata Basin to better support ferret recovery.

There are several diseases, both native and nonnative, that impact black-footed ferrets. Of particular concern is nonnative sylvatic plague, which can be lethal to ferrets and prairie dogs—their main prey source (Barnes 1993, Gage and Kosoy 2006). Sylvatic plague is caused by the bacterium *Yersinia pestis* and is transmitted via fleas, through consumption of infected animals, or through breathing in tiny droplets containing the bacterium (Godbey et al. 2006). Since 2005, plague has been detected in prairie dogs in all 12 states throughout the historical range of the ferret (Abbott and Rocke 2012). The potential significance of plague on ferret populations underscores the value of establishing multiple reintroduction sites across the widest possible distribution of the species' historical range; more populations can significantly minimize the chances that plague outbreaks will cause widespread decline in the species (Gage and Kosoy 2006, U.S. Fish and Wildlife Service 2008). The establishment and, more importantly, the management of multiple reintroduction sites is a risk management strategy to promote recovery of the species.

The original recovery plan for the black-footed ferret was completed in 1978 and revised in 1988 (U.S. Fish and Wildlife Service 1988). The revised recovery plan identified downlisting criteria that included at least 1,500 adult ferrets in 10 wild populations, with no fewer than 30 breeding adults in any population. The widest possible distribution of those 1,500 adult ferrets across the landscape was encouraged.

Black-footed Ferret Programmatic Safe Harbor Agreement

Since 1988, knowledge about the black-footed ferret and the threats it faces has grown. Many reviews of the 1988 recovery plan and subsequent recovery progress have been undertaken including reviews by the Conservation Breeding Specialist Group (CBSG) (1992), Hutchins et al. (1996), CBSG (2004), Ray (2006), and U.S. Fish and Wildlife Service (2008). These reviews were used in the preparation of a Draft revised recovery plan that will direct ferret recovery in the future (U.S. Fish and Wildlife Service 2013). The overall strategy to recover this species will rely on engaging multiple partners including States, Tribes, Federal land management agencies, non-governmental organizations, and private landowners. Recovery criteria will provide guidance to establish multiple free-ranging populations in an effort to minimize impacts to the stability of ferret populations from localized stochastic events. Recovery goals define downlisting criteria to include the establishment of at least 1,500 free-ranging breeding adult ferrets in 10 or more populations, with at least 1 population in each of at least 6 of 12 States within the species' historical range. Delisting criteria include the establishment of at least 3,000 free-ranging breeding adult ferrets in 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, with no fewer than 30 breeding adults in any population and at least 10 populations with 100 or more breeding adults (U.S. Fish and Wildlife Service 2013). The table below identifies the status of reintroduction efforts through 2012 (U.S. Fish and Wildlife Service 2013). Estimates of breeding adults can vary from year to year for a recovery site based on a number of factors including kit production and survival, predation, the presence of plague, the management efforts implemented, and the amount of monitoring conducted. Therefore, we provide a range of estimates.

Table 1. Approximate number of black-footed ferrets released and extant in the wild, 1991-2012, at white-tailed (Wtpd), black-tailed (Btpd), and Gunnison's (Gpd) prairie dog colonies¹.

Site (year initiated)	Prairie dog spp.	Ferrets released	Minimum fall population ¹ 2008	Estimated breeding adults ² 2009	Minimum fall population 2011 (approximate)	Estimated breeding adults ³ 2012	Average estimate of breeding adults
Shirley Basin, WY (1991)	Wtpd	534	196	98	203 (in 2010; partial survey)	102 (in 2011)	100
UL Bend NWR, MT (1994)	Btpd	242	13	7	20	10	9
Badlands NP, SD (1994)	Btpd	225	20	10	33	17	14
Aubrey Valley, AZ (1996)	Gpd	354	66	33	75	123 ⁴	78
Conata Basin, SD (1996)	Btpd	161	292	146	72	36	91
Ft. Belknap, MT (1997)	Btpd	102	No data	No data	0	0	0
Coyote Basin, UT (1999)	Wtpd	424	25	13	3	1	7
Cheyenne River, SD (2000)	Btpd	351	150	75	25 (partial survey)	>13	44

¹ Source: unpublished data from USFWS National Black-footed Ferret Conservation Center.

² Minimum fall population counts are derived from spotlight surveys and trapping efforts except in Shirley Basin, WY, where a model was used to estimate fall population.

³ Breeding adult figures are estimated to be one-half minimum fall population counts from the previous year.

⁴ Actual count.

Black-footed Ferret Programmatic Safe Harbor Agreement

BLM 40 Complex, MT (2001)	Btpd	95	3	3	No data	No data	0
Wolf Creek, CO (2001)	Wtpd	254	16	8	No data	No data	4
Janos, Mexico (2001)	Btpd	299	13	7	No data	No data	4
Rosebud, SD (2003)	Btpd	162	30	15	No data	No data	8
Lower Brule, SD (2006)	Btpd	107	26	13	12	6	10
Wind Cave NP, SD (2007)	Btpd	61	26	13	46	23	18
Espee Ranch, AZ (2007)	Gpd	77	Recent release	No data	No data	No data	No data
Smoky Hill, KS (2007)	Btpd	125	66	19	38	22	26
N. Cheyenne, MT (2008)	Btpd	88	Recent release	No data	No data	No data	No data
Vermejo Ranch, NM (2008)	Btpd	167	Recent release	8 ⁴	5	3	2
Grasslands NP, Canada (2009)	Btpd	75	Recent release	No data	12	6	3
Vermejo Ranch, NM (2012)	Gpd	20	Recent release	No data	No data	No data	No data
Total		3923	942	468	544	362	418

Since the last non-reintroduced black-footed ferret population was discovered at Meeteetse, Wyoming in 1981, significant progress has occurred toward the recovery of this species. Early efforts concentrated on immediate survival of the species through the establishment of a captive breeding population by Wyoming Game and Fish Department, the Service, and the Association of Zoos and Aquariums (AZA). These efforts led to the establishment of the Service's recovery program for the species, which coordinates all recovery actions and houses a majority of all captive ferrets. The Service coordinates efforts to breed ferrets for reintroduction in the wild with the AZA and several other partners. With the success of the captive breeding program, recovery efforts now include other tasks such as establishing a wide distribution of reintroduction sites with sufficient quantity and quality of prairie dog habitat as well as addressing the impacts of disease and assuring the adequacy of management actions. The accomplishments to date have involved an active BFFRIT. These efforts demonstrate a long term commitment by the Service to coordinate with the diverse members of the BFFRIT to cooperatively advance recovery of the ferret.

3.0 Authorities

This Agreement has been developed under section 10 the Act, the Service's Safe Harbor Policy (64 FR 32717) and final regulations (64 FR 32706), and revisions to the regulations (69 FR 24084). This Agreement supports the intent of the Parties to follow the procedural and substantive requirements of section 10(a)(1)(A) of the Act. The Safe Harbor Policy was developed to encourage private and other non-federal landowners to voluntarily undertake conservation activities on their properties to enhance restore or maintain habitat to benefit federally listed species.

Black-footed Ferret Programmatic Safe Harbor Agreement

4.0 Covered Species

Covered species are those federally listed species that are subject to a Safe Harbor Agreement and accompanying 10(a)(1)(A) Enhancement of Survival Permit, as defined in the Service's final Safe Harbor Policy (64 FR 32717). This Agreement's covered species is the black-footed ferret, federally listed as endangered.

5.0 Eligible Lands

The geographical lands eligible for enrollment in this Agreement include non-federal lands (including tribal lands) within the historical range of the black-footed ferret. This includes portions of Arizona, Colorado, Kansas, Montana, Nebraska, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, Utah, and Wyoming (Appendix A) that have adequate acres of occupied prairie dog habitat to support a population of at least 30 breeding adult ferrets. The acreage necessary to support 30 breeding adults can vary depending on the species of prairie dogs present. Typically, this would be approximately 1,500 acres or more in black-tailed prairie dog habitat or 3,000 acres or more of white-tailed or Gunnison's prairie dog habitat. Eligible land need not be provided by a single Cooperator. Adjacent landowners can collectively enroll lands together under the Agreement such that sufficient acreage to support 30 breeding adult ferrets is enrolled. Potential suitable lands will be evaluated by the Permittee based on available site information and site visits. The number of acres required for enrollment will be determined on a site-specific basis and will be identified in the Reintroduction Plan.

While a minimum of 1,500–3,000 acres of active prairie dog habitat may support 30 breeding adult black-footed ferrets, we would encourage and prioritize larger enrollments to maximize the ability to contribute to the recovery goals of the ferret. Factors such as total size of occupied prairie dog habitat, densities of prairie dogs, documented presence of plague, total size of the grazing/ranching operation, proximity to incompatible land uses such as urban areas, the number of adjacent landowners who have concerns about prairie dog expansion, and the land uses of those neighbors will also be considered in the enrollment of eligible lands. By considering the concerns of the Cooperator and their neighbors, a logistically sound and sustainable ferret reintroduction effort will be possible.

Efforts to distribute black-footed ferret populations throughout their historical range stem from the need to maximize the redundancy of populations, which will minimize the risk of a catastrophic event eliminating the species in the wild. A potential approach would be to distribute ferret populations in proportion to the amount of historical habitat in each State (Appendix C). For example, North Dakota has a much smaller portion of the historical range than Colorado. Consequently, Colorado would be encouraged to enroll more acres occupied by prairie dogs and establish more ferret populations to achieve recovery. Therefore, should enrollment resources become limited, the Service would consider the historical ferret presence along with the above factors for prioritizing enrollments.

Black-footed Ferret Programmatic Safe Harbor Agreement

6.0 Baseline Determination

Baseline is a measure of the conditions associated with the covered species or its habitat that occur on eligible lands at the time of enrollment in the Agreement. Measuring prairie dog population numbers and spatial extent is time-consuming and expensive. These parameters can also fluctuate greatly over time. Therefore, the most reasonable and practical approach for determining baseline under this Agreement would be the number of black-footed ferrets present at the time of enrollment. Since the last remaining wild ferrets were taken into captivity for captive breeding purposes, extensive efforts to find additional wild ferrets have been unsuccessful (Hanebury and Biggins 2006). Therefore, the baseline on eligible lands for this Agreement will be zero ferrets.

Some black-footed ferret reintroductions onto private lands have already occurred under sections 10(j) and 10(a)(1)(A) of the Act since 1991. Ferrets were reintroduced in seven locations under section 10(j) of the Act in Arizona (1), Montana (1), South Dakota (3), Utah and Colorado (1), and Wyoming (1). Section 10(j) authorizes the Service to designate experimental populations for the purposes of reintroduction of threatened and endangered species. Under section 10(j), non-essential experimental populations are considered threatened for all purposes of the Act other than section 7 (such populations are considered as proposed for listing for the purposes of section 7). The Service may issue special rules that provide flexibility in management of these populations. The 10(j) rulemaking process for each of the designated non-essential experimental populations of ferrets uses that flexibility to ensure the continued existing use of all lands within the defined area, include ranching and associated activities. Although non-federal landowners within these 10(j) areas do not need additional incidental take coverage, they may desire the higher level of regulatory assurances provided under this Agreement. Furthermore, reintroductions in the 10(j) areas did not always include the conservation activities provided by this Agreement that would benefit the species, such as disease management, targeted prairie dog management, and monitoring.

Section 10(a)(1)(A) authorizes the Service to issue permits for research and the enhancement of survival of listed species. Six section 10(a)(1)(A) permits for black-footed ferret reintroductions have been issued in Arizona (1), Kansas (1), New Mexico (1), Montana (1), and South Dakota (2). These permits and the Service's accompanying section 7 biological opinions provided incidental take coverage to the landowners whose lands supported these reintroductions, as well as their neighbors. However, these mechanisms do not provide the same regulatory assurances as the Safe Harbor program that no further restrictions or commitments would be imposed on landowners. Additionally, these permits did not always include conservation activities that would benefit the species, such as disease management, targeted prairie dog management, and monitoring. Finally, these permits did not provide an extended period of coverage or baseline condition to which cooperating landowners could return, as provide by the Safe Harbor policy (62 FR 32178).

Black-footed Ferret Programmatic Safe Harbor Agreement

There have been 20 reintroduction sites initiated for black-footed ferrets as of 2012. Some neighboring reintroduction sites were covered by one 10(j) rule. The sites in Canada and Mexico are regulated by their respective governments. In both 10(j) and 10(a)(1)(A) reintroductions, landowners have allowed the Service to test the effectiveness of release, management, and monitoring methods, as well as attempt to establish new populations. This participation in reintroduction efforts was the foundation of the development of successful techniques that are allowing the Service to expand reintroduction efforts rangewide through this Agreement. However, these “early adopters” under section 10(a)(1)(A) permits and section 10(j) designations do not enjoy the same level of regulatory assurances as participants in this Agreement would. For these reasons, such non-federal landowners may be eligible to participate in the Agreement and receive Safe Harbor assurances for reintroductions that have already occurred. Furthermore, if this Agreement had existed at the time of those reintroductions, the baseline conditions for those landowners would have been zero ferrets. Therefore, the ferret baseline will be considered zero for all landowners who volunteer to participate in the Agreement.

The goal of the conservation activities in this Agreement is to increase the number of black-footed ferrets on enrolled properties above the baseline to provide a net conservation benefit to the species through establishment of additional populations (see Section 8.0). The Cooperator may opt to return to baseline upon completion of the Reintroduction Plan (Section 7.0 and Appendix B). The Cooperator may also opt to return to baseline prior to completion of the Reintroduction Plan by withdrawing from the Agreement. Incidental take coverage would be retained, provided the Cooperator notifies the Permittee and allows the Service access to recapture ferrets during the following fall, prior to a return to baseline. A Cooperator who returns to baseline without notifying the Permittee and providing access, will not receive coverage for incidental take. A Cooperator who withdraws from the Agreement with proper notification will be regarded as a non-participating landowner and will receive incidental take coverage via the Biological Opinion associated with the Agreement. The landowner will not be held responsible for events beyond their control (e.g., drought, fire, or plague) that may result in a decrease of the number of ferrets.

7.0 Conservation Activities

Conservation activities are those actions that would be implemented on enrolled lands and which are intended to provide a net conservation benefit to black-footed ferrets.

Conservation activities that will provide a net conservation benefit on an individual piece of land may vary by location but at a minimum will include the reintroduction of ferrets.

Conservation activities are discussed below and will be identified for each site as necessary and defined within a Reintroduction Plan developed for each enrolled property (Appendix B). Within the enrolled lands, a Conservation Zone and/or a Management Zone will be defined.

The Conservation Zone should be a minimum of approximately 1,500 acres of occupied black-tailed prairie dog habitat or a minimum of 3,000 acres of white-tailed or Gunnison

Black-footed Ferret Programmatic Safe Harbor Agreement

prairie dog habitat in order to provide adequate habitat to support a population of at least 30 adult black-footed ferrets. Conservation activities within the Conservation Zone will include ferret reintroduction and disease management as discussed below. Routine livestock grazing and ranching activities are largely compatible with maintaining occupied prairie dog habitat capable of supporting ferrets. All activities of Cooperators that are compatible with ferret recovery will continue in the Conservation Zone, including but not limited to, routine livestock grazing and ranching activities. Land uses and activities of Cooperators that could reduce prairie dog occupied habitat to a degree that the viability of the ferret population would be impacted would be prohibited. Incompatible activities in the Conservation Zone would include lethal control of prairie dogs and major landscape alterations such as plowing, unless approved by both the Permittee and Cooperator. The Cooperator and/or the Permittee should withdraw enrolled lands from the Agreement if incompatible activities are planned and/or conducted.

Conservation activities within the Management Zone are intended to provide benefits to the black-footed ferret while providing flexibility in prairie dog management to Cooperators, including the option for lethal control. The Management Zone will consist of additional acres adjacent to or in close proximity to the Conservation Zone, and may or may not exceed the number of acres in the Conservation Zone. It may or may not have occupied prairie dog habitat. Conservation activities within the Management Zone may include disease management and/or prairie dog management as discussed below and as defined in the Reintroduction Plan. It is expected that any lawful ownership activities, including but not limited to routine ranching activities, will occur in the Management Zone.

All of the following conservation activities are important in that they support the reintroduction of black-footed ferrets. It will require coordinated efforts of multiple partners to implement these conservation activities. The Permittee and any Cooperators will determine what partners may participate in conservation activities. Likely partners in the implementation of the conservation activities include but are not limited to State Wildlife Agencies, Tribes, U.S. Fish and Wildlife Service Ecological Services Field Offices, Animal Plant Health Inspection Service/Wildlife Services, Natural Resources Conservation Service, U. S. Geological Survey, the National Association of Conservation Districts, and other non-governmental organizations. Partners will vary depending on factors such as the state in which the eligible lands are located, budgets, logistics, and work efficiencies. This Agreement provides a mechanism for the coordinated efforts of multiple partners to contribute to recovery of this species.

7.1 Black-Footed Ferret Reintroduction and Management

Lands enrolled under this Agreement will provide an opportunity to increase the number of wild black-footed ferret populations. Once a Cooperator has a signed Reintroduction Plan and is enrolled under the Agreement, ferrets will be reintroduced to the site as described therein. All ferret reintroduction and management actions will be coordinated and carried out by the Permittee (or designee) and all funding for such actions will be provided by the

Black-footed Ferret Programmatic Safe Harbor Agreement

Permittee and/or others, to the extent funds are available. State wildlife agencies will be instrumental in these activities.

Typically, a minimum of 20 juvenile black-footed ferrets will be reintroduced during one release event in the fall. Depending on the size of the site and quality of the habitat, additional animals may be released during this timeframe or in subsequent years. In the latter case, the baseline of zero ferrets will remain. Release events typically occur near dusk and involve a minimum of two biologists. Depending on topography, most animals can be distributed across the site via existing roads or on foot, minimizing impact to the landscape. All reintroduction efforts will utilize techniques outlined in Roelle et al. (2006). The Permittee will work with each Cooperator to coordinate these activities to minimize disruptions to the Cooperator's use of land during reintroduction activities.

Once black-footed ferrets are released, efforts will be undertaken as necessary to determine the success of reintroduction activities. These efforts are described in Section 9.0 (Monitoring) of this Agreement and would require access to the property. This monitoring may occur in subsequent years, as necessary, in coordination with the Cooperator, to determine if excess wild kit production on specific enrolled lands could be removed to support other approved reintroduction sites.

7.2 Disease Management

There are a number of diseases that can affect both captive raised and wild black-footed ferrets. However, sylvatic plague presents the greatest threat to wild ferret populations. In order to address this threat, Cooperators enrolled in this Agreement will allow for the treatment of disease, as appropriate and necessary, on their enrolled lands for the protection of ferrets and prairie dogs. Disease management activities will be coordinated and carried out by the Permittee at no cost to the Cooperator.

Currently there is an effective vaccine that will protect black-footed ferrets from plague. All animals at the captive breeding facilities are vaccinated for plague and other diseases as necessary, including those intended for reintroduction. However, if reintroductions are successful and reproduction occurs, it may be necessary to live trap any kits that are produced on a reintroduction site in order to vaccinate them. These efforts would likely occur during the fall concurrent with monitoring efforts, but could occur during the spring in some cases (Section 9.0 of this Agreement).

Fleas are considered a primary vector of plague transmission. Currently, the most effective control of fleas (and thereby plague) is the application of deltamethrin, the active ingredient in the insecticide DeltaDust (dusting). DeltaDust is an unrestricted-use pesticide classified by the Environmental Protection Agency (EPA), and is considered safe for many applications including use in and around homes. Product transport, mixing, application, storage, cleanup, and use of protective gear will be consistent with label instructions. DeltaDust may be applied according to the EPA label requirements once per year, generally between March and August, and would involve placement of approximately 5 grams of DeltaDust

Black-footed Ferret Programmatic Safe Harbor Agreement

directly into each prairie dog burrow. The insecticide is typically applied by a spray device mounted on ATVs or by hand while walking depending on topography (Seery et al. 2003, Matchett et al. 2010). Applications take several days to two weeks depending on the acreage treated and the size of work crews.

An alternative to the use of insecticides is currently under investigation that involves a sylvatic plague oral bait vaccine for prairie dogs. The vaccine is a genetically modified viral vaccine, using attenuated raccoon pox virus as a vector for orally delivering plague antigens to target animals through the use of baits (Abbott and Rocke 2012). If effective, this vaccine could be used on lands enrolled under this Agreement. The oral bait vaccine would be placed in baits that are distributed from ATVs or aurally onto a prairie dog colony once per year or possibly less often, depending upon research results. Prairie dogs would consume the bait and become vaccinated, thereby limiting plague outbreaks on treated lands. Administration of oral plague vaccine is expected to occur no more than once per year after emergence of prairie dog pups and might occur from late May through October. This plague abatement technique is expected to be less labor intensive than dusting. However, it may require limiting access of livestock to treated areas for a few days after application to avoid livestock consumption of the bait. The bait will not adversely affect livestock, but could decrease the amount available for prairie dogs and therefore decrease the vaccine's effectiveness.

Regardless of the method used, the Permittee (or designee) will work with each Cooperator to coordinate these activities to minimize disruptions to the Cooperator's use of the lands during plague management activities. The science of disease management within wildlife populations is evolving. New techniques and protocol may be considered in the future. Any changes in disease management on lands covered by this Agreement will be agreed to by both Parties prior to implementation.

7.3 Prairie Dog Management

Sustainable black-footed ferret populations are not possible without purposeful management of prairie dog populations to address disease and conflicts with human activities (U.S. Fish and Wildlife Service 2008). Prairie dog management within the Management Zone may include both lethal and non-lethal activities. Lethal activities may include the use of zinc phosphide, shooting, and other activities as approved by the Permittee. Anticoagulant pesticides such as Rozol® and Kaput® will not be allowed on enrolled properties due to the risks of secondary poisoning to other non-target wildlife species that consume prairie dogs, including ferrets, and the resultant impact on the establishment of a ferret population that could contribute to species recovery. Lethal control within the Management Zone will be addressed for each enrolled property and defined in the property's Reintroduction Plan. Responsibility for implementing management of prairie dogs will be defined in the Reintroduction Plan. Lethal prairie dog management may be carried out by Animal Plant Health Inspection Service/Wildlife Services and/or other local entities, such as weed and pest boards, following discussions with these entities regarding management options.

Black-footed Ferret Programmatic Safe Harbor Agreement

Non-lethal management activities may occur in both the Management and Conservation Zones and include, but are not limited to, barriers and translocation. Lethal prairie dog management will not be allowed within the Conservation Zone of the enrolled lands, except in unusual circumstances agreed to by both the Permittee and Cooperator. The Reintroduction Plan can be modified as necessary to address changing prairie dog management needs with concurrence by both the Permittee and the Cooperator. Non-lethal prairie dog management may be carried out by Animal Plant Health Inspection Service/Wildlife Services, other partners, the Permittee, or the Cooperator as agreed to and identified in the Reintroduction Plan. Management to maintain sufficient quantity and quality of prairie dog habitat on lands covered by the Agreement will be critical to its success.

7.4 Livestock Grazing

Most, if not all, of the private land that supports adequate numbers of prairie dogs essential to maintaining black-footed ferret populations is agricultural in nature and predominantly used for livestock grazing. It is expected that any management decisions regarding grazing practices on enrolled properties will continue to be determined by the Cooperator and will be described in the property's Reintroduction Plan. Grazing practices on lands enrolled under this Agreement should provide habitat for the ferret and be economically viable for the Cooperator. It is understood that certain practices such as, but not limited to, grazing livestock, driving vehicles and equipment to and from the livestock operations, driving vehicles to and between pastures to move and/or feed livestock or administer medical attention to animals, building and maintaining fences and watering facilities, treating invasive plants, prescribed fire, reseeding, fertilization, and brush management, may be necessary to facilitate sustainable grazing. Grazing and related activities will be further described in the Reintroduction Plan. Implementation of all grazing activities will be the responsibility of the Cooperator. It is not the intent of this Agreement to limit any land use that does not materially reduce the viability of any reintroduced ferret population.

8.0 Incidental Take and Net Conservation Benefits

8.1 Incidental Take and Return to Baseline

Implementation of this Agreement and any related Reintroduction Plans could result in the incidental take of black-footed ferrets. The regulatory take assurances provided in the Certificate of Inclusions apply only to ferrets.

Incidental take of black-footed ferrets could occur through reintroduction and monitoring of ferrets while handling or transporting to the reintroduction site. Ferret deaths have occurred while anesthetizing animals for health care purposes. In addition, release sites have experienced occasional ferret deaths during transportation due to heat stress when air conditioning equipment failed; however, less than one half of one percent of more than 2,700 ferrets reintroduced have perished from handling and transportation (Gober pers. comm. 2012b). While equipment failures could occur during ferret reintroductions under

Black-footed Ferret Programmatic Safe Harbor Agreement

this Agreement, the precautions contained in the protocol for handling and monitoring reintroduced ferrets outlined in Roelle et al. (2006) will minimize this possibility.

Incidental take of black-footed ferrets may also occur in carrying out other conservation activities, including implementing plague management, prairie dog management, and routine ownership interest activities including, but not limited to, livestock grazing and ranching activities. The most likely means of incidental take associated with these activities would occur through vehicle or equipment collisions. While such incidental take has been documented, the risk of vehicle collisions is low due to the nocturnal habits of ferrets. Other than potential collisions with vehicles or equipment, plague management is unlikely to result in incidental take of ferrets.

Incidental take of black-footed ferrets from non-lethal prairie dog management is not expected in either Conservation or Management Zones. Incidental take from lethal prairie dog management authorized in Management Zones could occur if ferrets are present. Such take may occur through accidental shooting or non-target exposure of ferrets to toxicants meant for prairie dogs, or potential collisions with vehicles or equipment. Such take is not expected in Conservation Zones because shooting and the use of toxicants will not occur within Conservation Zones, except in unusual circumstances agreed to by both the Permittee and Cooperator.

The provisions of this Agreement allow any Cooperator to return the enrolled lands back to a baseline of zero black-footed ferrets at any time through any legal means. Such means cannot include deliberate killing of ferrets. A return to baseline may result in incidental take of all ferrets released onto the enrolled lands. Should the Cooperator choose to return to baseline, the most likely means to do so will be through the absence of plague management, through extensive lethal prairie dog control on all enrolled lands including the Conservation Zone to the point where the prairie dog population is no longer adequate to support a ferret population, or through conversion of enrolled lands from grazing lands to other land uses such as cultivated agriculture or intensive energy development. Before carrying out any activities that would result in a return to baseline, Cooperators are required to notify the Service in sufficient time to allow relocation of the ferrets. September and October are the most suitable months for trapping ferrets. Therefore, this Agreement requires that Cooperators notify the Permittee by July 1 of any given year to allow logistical planning for the recapture of ferrets from the enrolled lands during the following months of September and/or October, or as otherwise mutually determined by the Permittee and Cooperator. If the Permittee is not notified and/or access is not granted, the Cooperator would lose coverage for incidental take.

In the absence of plague management, it is likely that a plague event will occur that decreases prairie dog populations to a level that will no longer support black-footed ferrets. While prairie dogs have the reproductive potential to increase their numbers after such an event, it is unlikely that ferret populations would recover without additional reintroductions. Likewise, extensive lethal prairie dog management across all enrolled lands

Black-footed Ferret Programmatic Safe Harbor Agreement

would likely result in considerable decreases in prairie dog populations such that they would not support ferrets. The reproductive potential of prairie dogs could allow them to return after extensive lethal control, but it is unlikely that ferrets populations would return without additional reintroductions.

While conversion of rangeland to cultivated agriculture in the past resulted in the loss of considerable black-footed ferret habitat, much of the most suitable land has already been converted. Therefore, present and future conversion to cropland is less likely (U.S. Fish and Wildlife Service 2009). However, changes in demands for various crops such as corn for ethanol could influence rate and location of conversion to cropland, which is difficult to predict. Unlike conversion to cropland, energy production does not result in a complete loss of habitat. It reduces the total amount of habitat by converting portions of it to an impermeable surface, i.e., roads and well or turbine pads, but it does not preclude burrows and occupation of prairie dogs and hence ferrets. However, it may increase the potential for incidental take via vehicle collisions during construction and operations and maintenance. Structures associated with energy development may also increase predation by providing additional perches for raptors. The likelihood of the conversion of enrolled lands to energy production is unknown and difficult to predict, but will be influenced by energy prices and energy policy. While suburban and commercial development is also possible, given the rural and relatively remote locations of many of the eligible lands, it is less likely than conversion to cultivated agriculture or energy development.

By whatever means, a change in land use could make the enrolled lands unsuitable for prairie dog habitat or, more likely, impair the quality of prairie dog habitat. Without adequate prairie dogs, sustainable black-footed ferret populations will not be maintained and the enrolled lands will return to their baseline of zero ferrets.

The extent of the incidental take associated with the implementation of conservation activities is difficult to quantify as we do not know how many eligible landowners will enroll. Incidental take associated with the return to baseline is also difficult to anticipate. However, a qualitative review of the Service's Safe Harbor Program indicates that most participants remain committed to these programs and very few choose to return to baseline. Given that livestock grazing and ranching is the primary use for these lands, we anticipate that most Cooperators will not return these lands to baseline.

8.2 Net Conservation Benefits

Net conservation benefits are the cumulative benefits to the black-footed ferret minus the impacts of any incidental take allowed by the Permit. Net conservation benefits must be sufficient to contribute, either directly or indirectly, to recovery of the ferret. The conservation activities identified in this Agreement support recovery efforts identified in the current Recovery Plan by reestablishing the ferret on the enrolled lands and by addressing the most significant threats. The net conservation benefits of each conservation activity are discussed below.

Black-footed Ferret Programmatic Safe Harbor Agreement

Black-Footed Ferret Reintroduction – The principal conservation benefit provided by this Agreement is the opportunity to establish additional free-ranging populations of ferrets throughout their range on non-federal lands. Recovery efforts to date demonstrate that reintroduction of ferrets can be successful, such as those at Conata Basin, South Dakota; Aubrey Valley, Arizona; Cheyenne River Sioux Tribe, South Dakota; and Shirley Basin, Wyoming. Additional reintroduction sites throughout the species' historical range will provide more ecologically diverse release sites. Release sites that vary in site-specific habitat characteristics will increase options to address uncertainty associated with local stochastic events such as plague, other diseases, and potential effects of climate change. If successful, reproduction at these sites could also contribute surplus, wild born kits to reintroduction sites elsewhere. This could foster better survival on site as well as at future reintroduction sites.

Disease Management – Currently, the most destructive disease impacting black-footed ferrets is sylvatic plague. Plague will be addressed as described in Section 7.2 above and may be managed on all lands enrolled under this Agreement as necessary. Engaging in plague management within the Conservation Zones of enrolled lands will reduce or eliminate this lethal threat to ferrets. Plague management within the Management Zones could also provide a conservation benefit by creating a buffer to plague on adjacent lands. Plague management will also benefit ferrets by limiting large fluctuations in prairie dog numbers, thus stabilizing their prey base.

Prairie Dog Management – Adequate numbers of prairie dogs are essential for black-footed ferret survival and population stability. However, prairie dogs may be in conflict with landowner interests. Since the early 1900s, considerable efforts have been undertaken to poison prairie dogs as a means of reducing competition with domestic livestock for forage (Forrest and Luchsinger 2005). Lands enrolled under this Agreement will be subject to purposeful prairie dog management. This means that prairie dogs will be conserved in any Conservation Zone, as defined in the Reintroduction Plan, but may be actively controlled in any Management Zone as necessary. Overall, this will likely result in a substantial increase in suitable ferret habitat available on non-federal lands throughout the species' historical range inasmuch as control of prairie dogs is not often purposefully limited on any significant area of private lands at present.

Purposeful management of black-footed ferrets and prairie dogs, with different activities supported for different outcomes in the Conservation Zone and Management Zone as defined in this Agreement, will demonstrate how a balance of tolerance and control of prairie dogs can benefit both ferret recovery and Cooperator interests. The benefits of allowing purposeful management of prairie dogs in conjunction with ferret reintroduction is critical to minimize impacts of prairie dog encroachment onto neighboring properties and to create an environment in which landowners will allow the release of ferrets. The positive value of establishing new reintroduction sites will exceed the minor negative impacts of any potential incidental take of ferrets associated with prairie dog management.

Black-footed Ferret Programmatic Safe Harbor Agreement

Livestock Grazing – Most lands eligible for enrollment under this Agreement will be non-federal grazing lands. As members of grassland/shrub steppe ecosystems, prairie dogs have evolved with grazing. While there is much debate regarding competition between ungulates and prairie dogs, grazing can benefit prairie dogs by reducing vegetation height, which can improve visibility, thereby reducing predation on prairie dogs. Enrollment of these lands will allow for their continued use as grazing lands, as determined by the landowner, during the term of the Reintroduction Plan. It will also help to ensure that there will not be substantial conversion to other uses such as cropland or other development during the term of the Reintroduction Plan.

Conservation activities collectively provide a net conservation benefit at each site by balancing prairie dog habitat with livestock grazing, purposefully managing the prairie dogs present, and controlling the diseases that can devastate both prairie dogs and black-footed ferrets. This approach makes it possible to carry out the primary goal of the Agreement—to establish additional free-ranging populations of ferrets throughout their range on non-federal lands. Long-term benefits include demonstration of the compatibility of livestock grazing and endangered species conservation, which could lead to additional ferret populations on non-federal lands throughout their range beyond the term of this Agreement.

As one of the most highly endangered mammals in North America, the black-footed ferret has made great strides toward recovery. It has gone from being extirpated to approximately 274–448 animals in the wild at 20 sites. This progress has been achieved through the efforts of many people. However, many more people will need to become engaged in order to recover this iconic species. In addition to the conservation activities described above, this Agreement will allow the Service to engage a broad spectrum of conservation partners including additional private landowners, Tribes, States, non-governmental organizations, and others to advance recovery of this species.

9.0 Monitoring

The purposes of this Agreement’s monitoring program are to: (1) inform the Service of the status of implementation of the conservation activities, (2) track incidental take of black-footed ferrets, and (3) determine success of ferret reintroductions on enrolled properties. The Permittee will coordinate all monitoring efforts. Cooperators will provide information and participate where appropriate with the Permittee to monitor actions described in each Reintroduction Plan. The monitoring on each enrolled property will vary based on the conservation activities taken and the situation at each site.

In a coordinated effort with the Cooperator, the Permittee will track implementation of conservation activities on the Cooperator’s property and provide an annual report to the appropriate Service Regional Offices and to each Cooperator (Appendix D). This report will include the state and county in which the Reintroduction Plan and Certificate of Inclusion were issued, the conservation activities implemented—including the number of acres

Black-footed Ferret Programmatic Safe Harbor Agreement

treated for plague and/or poisoned, the methods used, the dates of black-footed ferret releases, and any incidental take. The Service's appropriate Regional Offices will review these reports to ensure that the terms of the Permit, conditions of the Agreement, and purposes of the monitoring program are being met. Grazing practices carried out by the Cooperator, as well as incidental take, will be tracked through a self-reporting process in an annual questionnaire completed by the Cooperator and returned to the Permittee (Appendix E).

In addition to the implementation of monitoring described above, the Permittee may use aerial imagery, such as the National Agriculture Imagery Program, to assess presence and expansion or contraction of prairie dog colonies to determine if adequate black-footed ferret habitat exists on enrolled properties. Based on the aerial imagery, as well as the Cooperator survey information, the Permittee may coordinate periodic site visits when necessary to confirm the continued presence of reintroduced ferrets. This may include nocturnal spotlight surveys within a fourteen day period in the fall, preferably around the full moon, carried out in accordance with appropriate notification to the landowner and using methods described in Roelle et al. (2006).

While methods for successful reintroduction of black-footed ferrets to their native habitat are generally well understood and will be described for each enrolled property in the Reintroduction Plan, it is possible that with time and experience in developing Reintroduction Plans in varied landscapes, knowledge and skills will evolve. Therefore, every five years (or more frequently if necessary), the Permittee will consolidate information and reports from all enrolled properties to date for the purposes of assessing the implementation and administration of the Agreement. All Cooperators and additional partners will be invited to discuss and provide input. Any necessary changes identified from the information provided will be addressed pursuant to Section 15.0 (Modifications) of this Agreement.

10.0 Roles and Responsibilities of the Parties

10.1 The Permittee (Black-Footed Ferret Recovery Coordinator)

The Permittee agrees to:

- A. Upon consideration of all other applicable legal requirements, obtain and hold a Permit issued by the U.S. Fish and Wildlife Service Region 6, in accordance with section 10(a)(1)(A) of the Act, authorizing incidental take of black-footed ferrets as a result of lawful activities on the enrolled property in accordance with the provision of such Permit. The term of the Permit will be 50 years.
- B. Develop and sign Reintroduction Plans in coordination with each Cooperator for lands proposed for enrollment in the Agreement, thereby ensuring consistency with the provisions of this Agreement.

Black-footed Ferret Programmatic Safe Harbor Agreement

- C. Upon signature of a Reintroduction Plan developed in coordination with the Cooperator, issue a Certificate of Inclusion to convey incidental take to the Cooperator pursuant to section 10.1 A hereof.
- D. Coordinate all ferret reintroduction efforts with Cooperators and any other appropriate partners.
- E. Coordinate all plague management actions with Cooperators and any other appropriate partners.
- F. Coordinate all prairie dog management activities as defined in the Reintroduction Plans with Cooperators and any other appropriate partners.
- G. Support private landowner enrollment and participation in the Agreement.
- H. Provide Cooperators with technical assistance in implementing conservation activities and monitoring to the maximum extent practicable as needed.
- I. Ensure that any impacts to cultural and historic resources due to activities to be carried out under this Agreement are avoided or otherwise in compliance with Section 106 of the National Historic Preservation Act.
- J. Coordinate monitoring described in the Section 9 of the Agreement and in Reintroduction Plans as applicable.
- K. Provide annual monitoring report to the U.S. Fish and Wildlife Service Region 2 and Region 6 offices.
- L. Address concerns of non-participating neighboring landowners by providing incidental take authorization equivalent to that provided to Cooperators.

10.2 Cooperator

A Cooperator agrees to:

- A. Work cooperatively with the Permittee to develop a Reintroduction Plan acceptable to both Parties that includes all provisions identified in Appendix B.
- B. Sign the Reintroduction Plan and Certificate of Inclusion enrolling the identified land under this Agreement and managing the land pursuant to the Reintroduction Plan. This will include cooperating with the reintroduction and management of black-footed ferrets, including disease management as described in the Reintroduction Plan, implementing any grazing activities as described in the Reintroduction Plan, and implementing and/or cooperating with the management of prairie dogs as described in the Reintroduction Plan.
- C. Except as identified in 10.2 F and as required by law, allow access to the enrolled property with 30 days notice by the Permittee (or designee) for purposes related to this Agreement and associated Reintroduction Plan including, but not limited, to ferret reintroduction and monitoring, disease management, and prairie dog management, as described in the Reintroduction Plan.
- D. Promptly report to the Permittee any dead, injured, or ill specimens of ferrets observed on the enrolled property. Notifications may be by letter, e-mail, or phone.
- E. Complete annual questionnaire surveys provided by the Permittee (or designee) for information related to implementation of the Reintroduction Plan.
- F. Notify the Permittee of any planned activity that the Cooperator reasonably anticipates may result in take of ferrets on the enrolled lands so that efforts to

Black-footed Ferret Programmatic Safe Harbor Agreement

recapture any animals can occur in the fall to the extent possible, when trapping success can be maximized.

- G. Promptly notify the Permittee of any unexpected incidental take on the enrolled lands. This includes take that may result from conservation activities or other activities such as emergency maintenance. Notifications may be by letter, e-mail, or phone.
- H. Notify the Permittee within 30 days of any transfer of ownership so that the Permittee can attempt to contact the new owner, explain the Agreement and related Certificate of Inclusion applicable to the enrolled lands, and invite the new owner to continue the existing Certificate of Inclusion or enter into a new one that would benefit listed species on the enrolled lands (enrollment of lands shall not constitute an encumbrance if the Cooperator sells or transfers these same lands, since the Cooperator may withdraw from the Agreement at any time).

10.3 Additional Partners

Additional partners may be necessary and beneficial to implementing the conservation activities identified in this Agreement. These partners may vary for each Reintroduction Plan developed including, but not limited to, any of the following: State wildlife agencies, Tribes, U.S. Fish and Wildlife Service Ecological Services Field Offices, Animal Plant Health Inspection Service/Wildlife Services, Natural Resources Conservation Service, U. S. Geological Survey, and various non-governmental organizations. The Permittee and Cooperator will mutually agree as to the participation of additional parties.

11.0 Changed Circumstances

Changed circumstances are changes affecting black-footed ferrets within the enrolled lands that can reasonably be anticipated and for which contingency plans can be made. These circumstances include, but are not limited to, drought, fire, disease, land use changes, and new species' listings under the Act within the Agreement plan area. These changes could impact the habitat and prairie dogs necessary for ferrets. Should alterations to the habitat occur, the following actions may be undertaken as necessary as described in Table 2. Should any of these circumstances occur, the Permittee will work with the Cooperator to address any issues that may have resulted in the loss of ferrets.

Table 2. Changed Circumstances

Changed Circumstance	Potential Effect to Black-Footed Ferrets	Proposed Response
Drought	Drought can limit forage quantity available for prairie dogs and livestock. Competition for this forage could limit prairie dog reproduction. Limited prairie dog reproduction could lead to limited food availability for ferrets.	Upon identification of a D2 or higher by the Drought Monitor and declaration by State Authorities, the Permittee will determine if adequate habitat is available on the enrolled lands for ferrets. If not, the Permittee may elect to trap any remaining ferrets for reintroduction elsewhere with adequate habitat. Landowner grazing activities will not be limited by the Permittee. Additional ferrets may be reintroduced to the enrolled lands after drought

Black-footed Ferret Programmatic Safe Harbor Agreement

		conditions have improved.
Fire	Direct effects of fire to ferrets or prairie dogs are unlikely as they can seek refuge within their burrows. However, fire can have short term impacts to the availability of forage for prairie dogs and therefore ferrets as discussed above.	Should a fire impact a significant portion of the enrolled lands, the Permittee will determine if adequate habitat is available on the enrolled lands for ferrets. If not, the Permittee may elect to trap any remaining ferrets for reintroduction elsewhere with adequate habitat. Additional ferrets may be reintroduced to the enrolled lands after enrolled lands have recovered from the fire.
Disease	There are a number of native and non-native diseases that can impact ferrets. Impacts occur both directly (death of ferret) or indirectly through the loss of their food source, prairie dogs.	In the case where disease other than plague is suspected to have impacted ferrets, the Permittee will coordinate efforts to identify the disease with U.S. Geological Survey's National Wildlife Health Lab and the appropriate State Agency that oversees wildlife disease outbreaks. Potential response to the disease could include trapping and relocating ferrets if adequate habitat exists elsewhere. If disease causes loss of all ferrets at a reintroduction site, additional ferrets may be reintroduced, if adequate habitat exists that is not impacted by disease.
Additional Land Uses	Changes in land use include, but are not limited to utility development (e.g., waterlines, power lines), energy development, and associated infrastructure. These changes could result in the incidental take of ferrets through vehicle collision and/or decreased availability of prairie dog habitat and prairie dogs for ferrets.	Any additional land uses proposed within the enrolled lands during the term of the Reintroduction Plan will be identified and reviewed by the parties to determine if the proposed use will decrease prairie dogs or ferret habitat. Any significant decreases in prairie dog habitat could be offset by adding prairie dog habitat contiguous with the Conservation Zone to achieve no net loss of adequate prairie dog habitat. If sufficient additional habitat does not exist, the Permittee may elect to trap any remaining ferrets for reintroduction elsewhere with adequate habitat.
Changed Circumstance	Potential Effect to Black-Footed Ferrets	Proposed Response
New Species Listings on Enrolled Lands	Conservation activities to benefit the black-footed ferret may have potential impacts to the newly listed species.	If a non-covered species that occurs within the Agreement area becomes a federally listed species, the Service will assess whether the implementation of the Agreement may affect such species. If implementation may result in incidental take of such species, the Service will work with the enrolled landowners to determine appropriate modifications to the Agreement's conservation activities to either avoid or minimize incidental take. If take cannot be avoided, the Service will determine whether amending the Agreement and permit would be necessary to cover such additional species through the Section 7 process. If the landowner wishes to conserve the species and receive assurances for that species, the Service and landowner would mutually amend the Reintroduction Plan to document the baseline conditions for the species; potentially modify or add conservation measures; and the Service would amend the Agreement, Biological Opinion, and any relevant National Environmental Policy Act documents while providing for required public comment. Any Cooperator may withdraw from the Agreement at any time.
Change in Ownership Interest	Withdrawal of Cooperator from Agreement and termination of Reintroduction Plan may result in loss of site, if the new landowner elects not to enroll in the Agreement	Coverage for incidental take for a new non-participating landowner will be maintained via the Biological Opinion, provided the former Cooperator notifies the Permittee and allows access to trap any remaining ferrets for reintroduction elsewhere.

Black-footed Ferret Programmatic Safe Harbor Agreement

12.0 Agreement Duration

The duration of this Agreement must be of sufficient time to realize a net conservation benefit to the black-footed ferret. As identified above, the principal conservation benefit of this Agreement will be the establishment of additional free-ranging ferret populations throughout their historical range. Successful reintroduction of ferrets can vary based on a number of factors that are not fully understood. Sometimes it may take several ferret releases over multiple years for a site to be considered successful such as occurred at Shirley Basin, Wyoming and Aubrey Valley, Arizona. Experience from past reintroduction efforts suggests that 10 years is sufficient time to accommodate several ferret releases, if necessary, as well as document reproduction and recruitment. Additional time beyond 10 years will extend these benefits by providing additional ferret generations exposure to wild conditions. In the event that offspring from these animals are translocated to other sites, it could increase the probability of survival of several separate populations. It will also provide additional protection against catastrophic events elsewhere throughout the range. We view a single release as a net conservation benefit inasmuch as history demonstrates that Parties to previous reintroduction sites have continued with their recovery efforts for several years after the initial reintroduction effort, and the presence of additional reintroduction sites throughout the range of the ferret provides redundancy and additional opportunities for the translocation of wild-born individuals to other suitable sites.

This Agreement and the Permit, described in section 10.0 A of this Agreement, become effective for 50 years from the date of signature of the Agreement by all relevant Parties and permit issuance by the Service. Reintroduction Plans developed pursuant to the Agreement will be for a term of at least 10 years and up to 40 years within the 50-year term of the Permit. A Certificate of Inclusion issued by the Permittee will extend incidental take coverage and assurances to the Cooperator for as long as the terms of the Agreement and Cooperator's Reintroduction Plan are upheld. Upon full implementation of the Reintroduction Plan, the Reintroduction Plan and Certificate of Inclusion may be extended or renewed with agreement by both Parties while maintaining the original agreed upon baseline. Non-participating landowners receive permanent incidental take coverage via the Biological Opinion developed in conjunction with issuance of the Permit. Cooperators become non-participating landowners if they withdraw from the Agreement.

13.0 Assurances to a Cooperator

Through each Certificate of Inclusion, the Service provides Cooperators with assurances that no additional conservation measures or restrictions on land, water, or resource use, beyond those agreed to in the Agreement and Reintroduction Plan, will be required of the Cooperator for the black-footed ferret. These assurances apply only where the Agreement and associated Certificate of Inclusion and Reintroduction Plan are being properly implemented. If additional conservation and mitigation measures are deemed necessary, the Service may request additional measures of the Cooperator, as applicable, but only if such measures are limited to modifications within the Conservation and Management Zones, if

Black-footed Ferret Programmatic Safe Harbor Agreement

any, for the ferret and maintain the original terms of the Agreement. However, where additional conservation measures might need to be implemented by Cooperators, the parties to this Agreement also recognize, in the spirit of the Agreement, that any such measures would be developed jointly and cooperatively by the Cooperator and the Service. Additional conservation measures will not involve the commitment of additional land, water, or financial compensation or additional restrictions on the use of land, water, or other natural resources otherwise available for development or use under the original terms of the Agreement without the consent of Cooperators, as applicable.

Each Certificate of Inclusion will convey authorization of incidental take of black-footed ferrets consistent with maintaining the baseline condition of zero ferrets as described in Section 6.0 and identified in a Reintroduction Plan with the following conditions:

- A. When a Cooperator is implementing the conservation activities identified in Section 7.0 hereof and further defined in a Reintroduction Plan.
- B. When a Cooperator is carrying out any legal activity, including but not limited to routine ranching and grazing, on or adjacent to the enrolled lands in concert with conservation activities identified in section 7.0 hereof and further defined in a Reintroduction Plan.
- C. When a Cooperator is making any lawful use of Cooperator-owned non-enrolled lands that are adjacent to or in proximity of enrolled lands.
- D. When a Cooperator is returning the lands to baseline at any time through otherwise lawful means.

14.0 Non-participating Neighboring Landowners

The Service recognizes that some landowners may be reluctant to participate in the Agreement due to concerns regarding non-participating neighbors' fear of liability under the Act should black-footed ferrets disperse onto their lands. Therefore, Safe Harbor Policy (64 FR 32717) provides for incidental take assurances to neighbors, whether or not they choose to participate in the Agreement. For the purposes of this Agreement, non-participating neighboring landowners are defined as any landowner, or any landowner interest (severed mineral estates associated with a Cooperator interest), within the vicinity of enrolled lands upon whose land ferrets may disperse and/or occupy as a result of ferret reintroductions. The Service will not enter into an Agreement with a willing landowner as a Cooperator without first considering the concerns of non-participating neighboring landowners.

Voluntary enrollment of Cooperators in the Agreement and implementation of conservation activities will result in the establishment of additional black-footed ferret populations on non-federal lands. Reintroduction of ferrets and subsequent successful breeding of reintroduced ferrets on the enrolled lands may result in an increase of these populations that would exceed the carrying capacity of the enrolled lands. As a result, ferrets could disperse onto non-participating neighboring properties in search of appropriate habitat. Because landowners of non-participating properties likely would not be implementing the conservation activities, particularly disease management, sufficient suitable habitat to

Black-footed Ferret Programmatic Safe Harbor Agreement

support ferrets may not be available; in which case, ferrets are unlikely to persist and establish additional populations on such lands. Therefore, loss of such individuals through incidental take would not result in adverse effects to any existing or reintroduced populations of the ferret.

Flexible regulatory assurances for non-participating neighboring landowners could contribute to increased enrollment by other landowners and ultimately increased conservation for the black-footed ferret by helping to maintain good relations with neighbors and by demonstrating that ferret reintroductions will not limit land use, except as agreed to by Cooperators. The Biological Opinion, pursuant to the intra-Service section 7 consultation under the Act on the issuance of the 10(a)(1)(A) Enhancement of Survival permit under this Agreement, will provide incidental take coverage to non-participating landowners should ferrets disperse to their lands. Non-participating neighboring landowners will not be subject to any land use restrictions. Except as authorized through a separate Enhancement of Survival permit or section 7 Biological Opinion for other activities with a Federal nexus, deliberate take of ferrets not related to an otherwise lawful activity would be prohibited.

15.0 Modifications

15.1 Modifications of the Agreement or Reintroduction Plans

Any party to this Agreement or associated Reintroduction Plans may propose modifications by providing written notice to the other parties explaining the proposed modification and the reasons for the modification. Approval of a modification will require the written consent of the Permittee and Cooperator and must be consistent with the assurances described in Section 13.0 of the Agreement. Any proposed modification to the Agreement or associated Reintroduction Plan will be considered effective as of the date that all affected Parties have agreed in writing to the modification.

15.2 Amendment of the Permit or Certificate of Inclusion

The 10(a)(1)(A) Enhancement of Survival Permit or any Certificate of Inclusion may be amended in accordance with all applicable legal requirements in force at the time of the amendment, including, but not limited to, the Act, National Environmental Policy Act, and Service permit regulations (50 CFR, Parts 13 and 17). A request for an amendment of the Permit or Certificate of Inclusion would require, at a minimum: a written explanation of why the amendment is needed; and an explanation of what, if any, effects the amendment would have on the black-footed ferret. An amendment to the Permit would require the Service to publish a notice in the *Federal Register* of a 30-day public comment period for the proposed amendment.

15.3 Early Termination of the Agreement

As provided for in Part 12 of the Service's Safe Harbor Policy (64 FR 32717), the Permittee may terminate the Agreement or an associated Reintroduction Plan, prior to its expiration date. In such circumstances, the Cooperator may return the enrolled lands to baseline

Black-footed Ferret Programmatic Safe Harbor Agreement

conditions even if the conservation activities identified in the Reintroduction Plan for the enrolled lands have not been fully implemented. Similarly, the Cooperator may terminate the Reintroduction Plan early. A Cooperator who withdraws from the Agreement would subsequently be regarded as a non-participating landowner interest who receives incidental take via the associated Biological Opinion, provided the Cooperator notifies the Permittee and allows the Service access to recapture ferrets during the following fall, prior to carrying out any otherwise lawful activity that may result in take of ferrets on enrolled lands, including a return to baseline. If a Cooperator fails to notify the Permittee regarding possible take or fails to provide access, coverage for incidental take will not be granted.

16.0 Permit Suspension or Revocation

The Service may suspend the privileges of exercising some or all of the permit authority at any time if the Permittee is not in compliance with the conditions of the permit, or with any applicable laws or regulations governing the conduct of the permitted activity. Such suspension shall remain in effect until the issuing officer determines that the Permittee has corrected the deficiencies.

The Service may not revoke the permit except as follows:

- The Service may revoke the permit for any reason set forth in 50 CFR 13.28(a)(1) through (4). This regulation authorizes revocation if:
 - (1) the Permittee willfully violates any Federal or State statute or regulation, or any Indian tribal law or regulation, or any law or regulation of any foreign country, which involves a violation of the conditions of the permit or of the laws or regulations governing the permitted activity; or
 - (2) the Permittee fails within 60 days to correct deficiencies that were the cause of a permit suspension; or
 - (3) the Permittee becomes disqualified; or
 - (4) a change occurs in the statute or regulation authorizing the permit that prohibits the continuation of a permit issued by the Service.
- The Service may also revoke the permit if continuation of the permitted activity would either:
 - (1) appreciably reduce the likelihood of survival and recovery in the wild of any listed species; or
 - (2) directly or indirectly alter designated critical habitat of any listed species such that it appreciably diminishes the value of that critical habitat for both the survival and recovery of that listed species. Critical habitat has not been designated for the black-footed ferret.

Black-footed Ferret Programmatic Safe Harbor Agreement

Before revoking a permit for either of the last two reasons, the Service, in coordination with the Permittee, will pursue all appropriate options to avoid permit revocation. These options may include, but are not limited to: extending or modifying the existing Permit, capturing and relocating the species, or in unusual cases compensating the landowner to forgo the activity, purchasing an easement or fee simple interest in the property, or arranging for a third party acquisition of an interest in the property.

17.0 Other Measures

- A. Remedies. No party shall be liable in monetary damages for any breach of this Agreement, any performance or failure to perform an obligation under this Agreement, or any other cause of action arising from this Agreement.
- B. Dispute Resolution. The Parties agree to work together in good faith to resolve any disputes using dispute resolution procedures agreed upon by all Parties.
- C. Succession and Transfer. As provided in 50 CFR 13.25, if a Cooperator transfers his or her interest in the enrolled lands to another non-federal entity, the new owner has the option to accept the original Cooperator's responsibilities and assurances. If the new owner chooses to accept the original Cooperator's responsibilities and assurances, the Service will regard the new owner or manager as having the same rights and responsibilities with respect to the enrolled lands as the original Cooperator for the remainder of the term of the Agreement. If the new owner chooses not to participate in the Agreement and the activities described in the property's Reintroduction Plan, he or she will retain authorization for incidental take due to otherwise lawful activities via the Biological Opinion as a non-participating landowner, provided the Service is given an opportunity to trap ferrets currently on the property.
- D. Availability of Funds. Implementation of this Agreement is subject to the requirement of the Anti-Deficiency Act and the availability of appropriated funds. Nothing in this Agreement will be construed by any Party to require the obligation, appropriation, or expenditure of any funds from the U.S. Treasury. The Parties acknowledge that the Service will not be required under the Agreement to expend any Federal agency's appropriated funds unless and until an authorized official of that agency affirmatively acts to commit to such expenditures as evidenced in writing.
- E. No Third-Party Beneficiaries. This Agreement does not create any new right or interest in any member of the public as third-party beneficiary, nor shall it authorize anyone not a party to this Agreement to maintain a suit for personal injuries or damages pursuant to the provisions of this Agreement. The duties, obligations, and responsibilities of the Parties to this Agreement with respect to any third-Party shall remain as imposed under existing law.

Black-footed Ferret Programmatic Safe Harbor Agreement

F. Notices and Reports

Any notices and reports, including monitoring and annual reports required by this Agreement shall be delivered to the persons listed below, as appropriate:

Black-footed Recovery Coordinator
U.S. Fish and Wildlife Service
P.O. Box 190
Wellington, CO 80549
(970) 897-2730

Regional Director, Region 6
U.S. Fish and Wildlife Service
134 Union Blvd
Lakewood, Colorado 80228

Regional Director, Region 2
U.S. Fish and Wildlife Service
PO Box 1306
Albuquerque, New Mexico 87103-1306

Black-footed Ferret Programmatic Safe Harbor Agreement

18.0 References

- Abbott, R.C., and Rocke, T.E. 2012. Plague: U.S. Geological Survey Circular 1372. 79 pp.
- Anderson, E. S.C. Forrest, T.W. Clark, and L. Richardson. 1986. Paleobiology, biogeography, and systematics of the black-footed ferret, *Mustela nigripes* (Audubon and Bachman), 1851. In Great Basin Naturalist Memoirs No. 8 The Black-footed Ferret. S.L. Wood, editor. Brigham Young University. Pp. 11–62.
- Barnes, A.M. 1993. A review of plague and its relevance to prairie dog populations and black-footed ferret. In Proceedings of the Symposium on the Management of Prairie Dog Complexes for the Reintroduction of Black-footed Ferret. U.S. Fish and Wildlife Service Biological Report 13. Pp. 28–37.
- Biggins, D.E. 2006. The symposium in context. In Recovery of the Black-footed Ferret: Progress and Continuing Challenges. J.E. Roelle, B.J. Miller, J.L. Godbey, and D.E. Biggins, editors. U.S. Geological Survey. Pp. 3–5.
- Biggins, D.E., B.J. Miller, T.W. Clark, and R.P. Reading. 1997. Management of an endangered species: the black-footed ferret. In Principles of Conservation Biology. G.K. Meffe and C.R. Carroll, editors. Pp. 420–436.
- Biggins, D. E., J.L. Godbey, M. R. Matchett, and T. M. Livieri. 2006. Habitat preferences and intraspecific competition in black-footed ferrets. In Recovery of the black-footed ferret – progress and continuing challenges. J.E. Rolle, B.J. Miller, J.L. Godbey, and D.E. Biggins, editors. U.S. Geological Survey Scientific Investigations Report 2005-5293. Pp. 129–142.
- Biggins, D.E., B.J. Miller, L.R. Hanebury, B. Oakleaf, A.H. Farmer, R. Crete, and A. Dood. 1993. A technique for evaluating black-footed ferret habitat. In Proceedings of the Symposium on the Management of Prairie Dog Complexes for the Reintroduction of the Black-footed Ferret. J.L. Oldemeyer, D.E. Biggins, and B.J. Miller, editors. U.S. Fish and Wildlife Service Biological Report No. 13. Pp. 73–38.
- CBSG. 1992. Black-footed ferret recovery plan review. IUCN/SSC Conservation Breeding Specialist Group: Apple Valley, Minnesota. 44 pp.
- CBSG. 2004. Black-footed ferret population management planning workshop. Final Report. IUCN/SSC Conservation Breeding Specialist Group: Apple Valley, Minnesota. 130 pp.
- Cully, J.F. 1993. Plague, prairie dogs, and black-footed ferrets. In Proceedings of the Symposium on the Management of Prairie Dog Complexes for the Reintroduction of Black-footed Ferret. U.S. Fish and Wildlife Service Biological Report 13. Pp. 38–49.

Black-footed Ferret Programmatic Safe Harbor Agreement

- Derner, J.D., J.K. Detling, and M. F. Antolin. 2006. Are livestock weight gains affected by prairie dogs? *Frontiers in Ecology and Environment* 4:459–464.
- Detling, J.K. 2006. Do prairie dogs compete with livestock? In *Conservation of black-tailed prairie dogs*. J.L. Hoogland, editor. Island Press, Washington, D.C., USA. Pp. 65–88.
- Ernst, A.E. 2008. Retired U.S. Fish and Wildlife Service. E-mail regarding ferret habitat calculations. Personal Communication with Pete Gober. August 4, 2008.
- Fagerstone, K.A. and D.E. Biggins. 1986. Comparison of capture-recapture and visual count indices of prairie dog densities in black-footed ferret habitat. In *Great Basin Naturalist Memoirs No. 8 The Black-footed Ferret*. S.L. Wood, editor. Brigham Young University. Pp. 94–98.
- Forrest, S.C., T.W. Clark, L. Richardson, and T.M. Campbell III. 1985. Black-footed ferret habitat: some management and reintroduction considerations. *Wyoming BLM Wildlife Technical Bulletin No. 2*. 49 pp.
- Forrest, S.C. and J. Luchsinger. 2005. Past and current chemical control of prairie dogs. In *Conservation of the Black-tailed Prairie Dog*. J.L. Hoogland, editor. Island Press, New York. Pp. 115–128.
- Gage, K.L. and M.Y. Kosoy. 2006. Recent trends in plague ecology. In *Recovery of the Black-footed Ferret: Progress and Continuing Challenges*. J.E. Roelle, B.J. Miller, J.L. Godbey, and D.E. Biggins, editors. U.S. Geological Survey. Pp. 213–231.
- Garelle, B., P. Marinari, and C. Lynch. 2006. Black-footed ferret species survival plan. American Zoo and Aquarium Association Population Management Center. 29 pp.
- Gober, P. 2012a. U.S. Fish and Wildlife Service. Personal communication with Elise Boeke regarding use of toxicants at ferret reintroduction sites. October 2, 2012.
- Gober, P. 2012b. U.S. Fish and Wildlife Service. Personal communication with Elise Boeke regarding incidental take of ferrets. October 10, 2012.
- Godbey, J.L., D.E. Biggins, and D. Garrelle. 2006. Exposure of captive black-footed ferrets to plague and implications for species recovery. In *Recovery of the Black-footed Ferret: Progress and Continuing Challenges*. J.E. Roelle, B.J. Miller, J.L. Godbey, and D.E. Biggins, editors. U.S. Geological Survey. Pp. 233–237.
- Griebel, R. G. 2010. Wall Ranger District boundary and interior management zone 2009 Monitoring Report. Unpublished Report. U.S. Department of Agriculture, Forest Service, Rocky Mountain Region, Nebraska National Forest, Wall Ranger District, Wall, South Dakota. 6 pp.

Black-footed Ferret Programmatic Safe Harbor Agreement

- Hanebury, L.R. and D.E. Biggins. 2006. A history of searches for black-footed ferrets. In Recovery of the Black-footed Ferret: Progress and Continuing Challenges. J.E. Roelle, B.J. Miller, J.L. Godbey, and D.E. Biggins, editors. U.S. Geological Survey. Pp. 47–65.
- Henderson, F. F., P.F. Springer, and R. Adrian. 1969 (revised 1974). The black-footed ferret in South Dakota. South Dakota Dept. of Game, Fish & Parks Technical Bulletin No. 4. 37 pp.
- Hillman, C.N. and R.L. Linder. 1973. The black-footed ferret. In Proceedings of the Black-footed Ferret and Prairie Dog Workshop. September 4-6, 1973. R.L. Linder and C.N. Hillman, editors. South Dakota State University; Brookings, South Dakota. Pp. 10–20.
- Hutchins, M., R.J. Wiese, and J. Bowdoin. 1996. Black-footed Ferret Recovery Program Analysis and Action Plan. American Zoo and Aquarium Association. 137 pp.
- Luce, R.J. 2003. A multi-state conservation plan for the black-tailed prairie dog, *Cynomys ludovicianus*, in the United States. 79 pp.
- Lockhart, J.M., E.T. Thorne, and D.R. Gober. 2006. A historical perspective on recovery of the black-footed ferret and the biological and political challenges affecting its future. In Recovery of the Black-footed Ferret: Progress and Continuing Challenges. J.E. Roelle, B.J. Miller, J.L. Godbey, and D.E. Biggins, editors. U.S. Geological Survey. Pp. 6–19.
- Matchett, M.R., D.E. Biggins, V. Carlson, B. Powell, and T. Rocke. 2010. Enzootic plague reduces black-footed ferret (*Mustela nigripes*) survival in Montana. Vector-Borne and Zoonotic Diseases 10: (1):27–35.
- Miller, B.J., R.P. Reading, D.E. Biggins, J.K. Detling, S.C. Forrest, J.L. Hoogland, J.Javersak, S.D. Miller, J.Proctor, J. Truett, and D.W. Uresk. 2007. Prairie dogs: an ecological review and current biopolitics. Journal of Wildlife Management 71(8):2801–2810.
- Pauli, J.N. 2005. Ecological studies of the black-tailed prairie dog (*Cynomys ludovicianus*): implications for biology and conservation. Master thesis. University of Wyoming. 77 pp.
- Ray, C. 2006. Annotated recovery plan outline for the black-footed ferret. 238 pp.
- Reeve, A. F. and T.C. Vosburgh. 2006. Shooting prairie dogs. In Recovery of the Black-footed Ferret: Progress and Continuing Challenges. J.E. Roelle, B.J. Miller, J.L. Godbey, and D.E. Biggins, editors. U.S. Geological Survey. Pp. 119–128.
- Roelle, J.E., B.J. Miller, J.L. Godbey, and D.E. Biggins, editors. 2006. Recovery of the black-footed ferret—progress and continuing challenges. U.S. Geological Survey Scientific Investigations Report 2005-5293. 288 pp.

Black-footed Ferret Programmatic Safe Harbor Agreement

- Seery, D.B., Biggins, D.E., Montenieri, J.A., and Ensore, R.E. 2003. Treatment of black-tailed prairie dog burrows with deltamethrin to control fleas (Insecta: Siphonaptera) and plague. *Journal of Medical Entomology*. 40:718–722.
- U.S. Fish and Wildlife Service. 1988. Black-footed Ferret Recovery Plan. 154 pp.
- U.S. Fish and Wildlife Service. 2008. Black-footed ferret (*Mustela nigripes*) 5-year status review: summary and evaluation. 38 pp.
- U.S. Fish and Wildlife Service. 2009. 12-month finding on a petition to list the black-tailed prairie dog. FR 2009-28852.
- U.S. Fish and Wildlife Service. 2010. 12-month finding on a petition to list the white-tailed prairie dog. FR 2010-12599.
- U.S. Fish and Wildlife Service. 2013. Draft recovery plan for the black-footed ferret (*Mustela nigripes*). U.S. Fish and Wildlife Service, Denver, Colorado. 130 pp.
- Wilson, D. and S. Ruff. 1999. *The Smithsonian Book of North American Mammals*. Washington: Smithsonian Institution Press. Pp. 168–175.

Black-footed Ferret Programmatic Safe Harbor Agreement

19.0 Signatures

In witness whereof, the Service hereto has executed this Safe Harbor Agreement to be in effect as of the date that the permit referenced in 8.0 above is issued.

Assistant Regional Director, Ecological Services
Region 6, Denver
U.S. Fish and Wildlife Service

DATE

Black-Footed Ferret Recovery Coordinator,
U.S. Fish and Wildlife Service

DATE

Black-footed Ferret Programmatic Safe Harbor Agreement

Certificate of Inclusion **Black-footed Ferret Programmatic Safe Harbor Agreement** **# []**

This certifies that the lands described as follows [description of enrolled lands covered by the Safe Harbor permit] owned by [name of Cooperator] is included within the scope of Permit Number [TE000000], held by the U.S. Fish and Wildlife Service, Black-Footed Ferret Recovery Coordinator (Permittee), issued on [date] and expiring on [date] under the authority of section 10(a)(1)(A) of the Endangered Species Act of 1973, as amended, 16 U.S.C. 1539(a)(1)(A). The Permit authorizes incidental take of black-footed ferrets from all lawful activities by participating landowners (Cooperators) as part of the Black-footed Ferret Programmatic Safe Harbor Agreement (Agreement) to reintroduce and establish new populations of the black-footed ferret. Pursuant to the Permit, this Certificate of Inclusion authorizes incidental take of the black-footed ferret that may result from any otherwise lawful activity on the above described lands, subject to the terms and conditions of the Permit, the Reintroduction Plan, and the Agreement. This Certificate of Inclusion becomes binding upon the Cooperator upon the date of the last signature below and continues for as long as the terms of this Agreement and the Reintroduction Plan are met. The attached Reintroduction Plan is incorporated as part of this Certificate of Inclusion for the enrolled lands.

It is understood that any ownership interest in these lands that is not addressed via an appropriate signature below (e.g., mineral interest) is not constrained by this agreement and will not be limited in any way from the exercise of such interests, except when related to the deliberate take of a listed species and any already extant legal obligations.

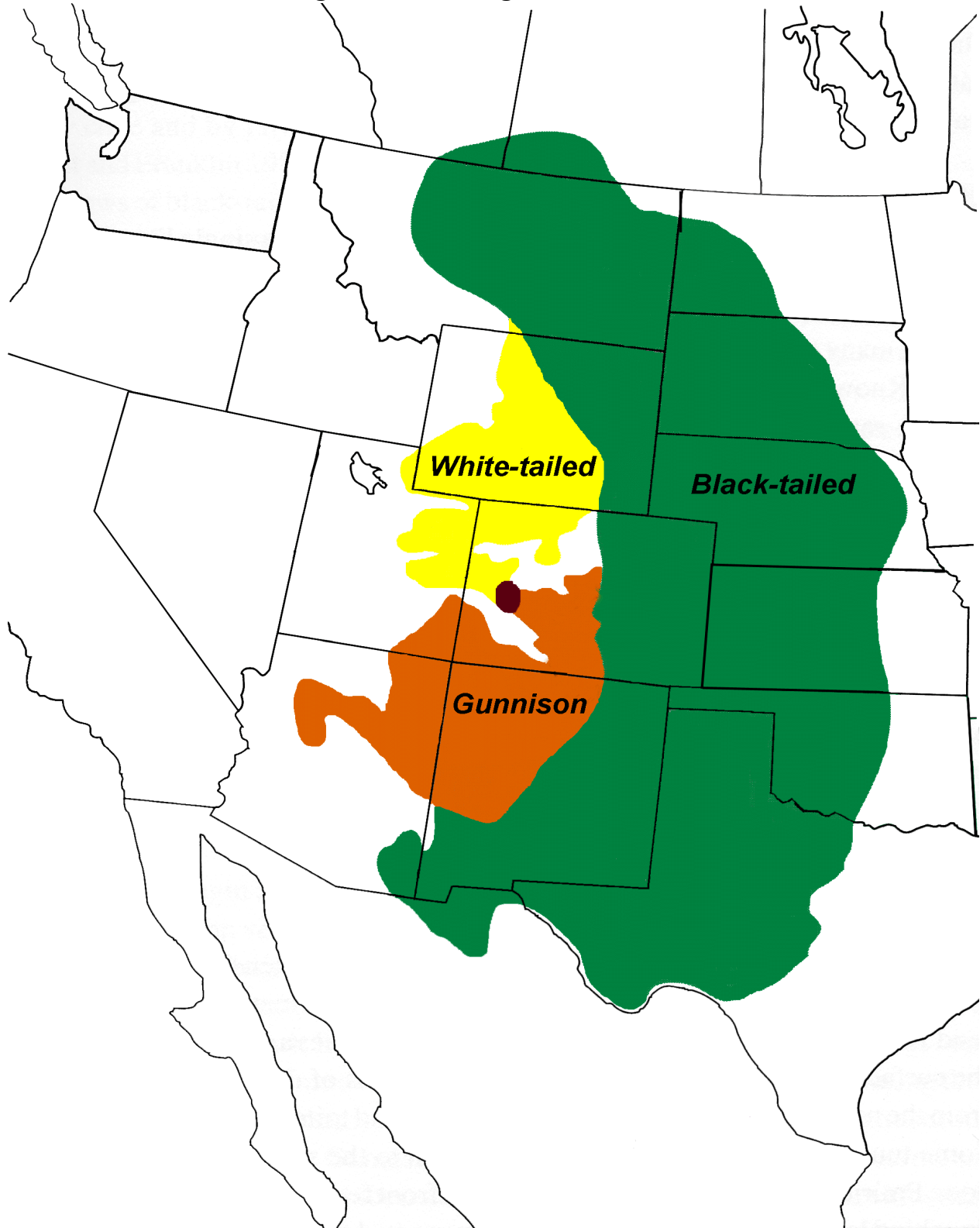
COOPERATOR

DATE

BLACK-FOOTED FERRET RECOVERY COORDINATOR

DATE

APPENDIX A
Historical Range of Prairie Dogs and Black-footed Ferrets



Black-footed Ferret Programmatic Safe Harbor Agreement

APPENDIX B Black-footed Ferret Site-Specific Reintroduction Plan TEMPLATE

Cooperators Name:

Insert Cooperator Name

Certificate of Inclusion (COI)#:

Insert COI #

- 1.0 Legal description and map of enrolled lands:** *Include a written legal description and a map showing the Conservation Zone and the Management Zone as discussed in section 7.0 of the Safe Harbor Agreement.*
- 2.0 Baseline for the Covered Species:** *Include the number of black-footed ferrets on the lands at time of enrollment (for the purposes of regulatory assurances, baseline is considered to be zero).*
- 3.0 Current land use:** *Include a description of current grazing practices on the land such as what types of livestock, approximate stocking rates, and timing of grazing.*
- 4.0 Conservation Activities:**
 - A. Black-footed Ferret Reintroduction and Management: Upon signature by all Parties, the enrolled lands will be eligible to receive black-footed ferrets. Reintroduction and management activities will be carried out by the Permittee (Black-footed Ferret Recovery Coordinator) or designee. Approximately 20 ferrets may be released annually within the Conservation Zone identified on the enrolled lands in the fall. This process will be undertaken over the course of 3 days. *[Include additional specific information as necessary]* You will be notified 30 days prior to release activities.*
 - B. Disease Management: Upon signature by all Parties, the enrolled lands will be eligible for disease management activities. These activities will be carried out by the Permittee or designee. Disease management activities may include applying approximately 5 grams of DeltaDust™ (MSDS attached) into prairie dog burrows within the Conservation Zone and the Management Zone. Dust is typically applied using ATVs or by foot depending on topography. Applications can take several days to several weeks depending on acreage treated and size of work crews. Alternatively, oral vaccine baits could be distributed from ATVs or possibly aerially onto a prairie dog colony no more than once per year after emergence of the young. *[Include additional specific information as necessary]* The Cooperator will be notified 30 day prior to any disease management activities.*
 - C. Prairie Dog Management: Upon signature by all Parties, the enrolled lands may be eligible to receive assistance in prairie dog management. This will be facilitated by the Permittee or designee and carried out by Wildlife Services or other designated party. Prairie dog management may include lethal control of prairie dogs only outside of the Conservation Zone where identified on the Reintroduction Plan map to keep specific lands free of prairie dogs. *[Include additional specific information as necessary]* The Cooperator will be notified 30 days prior to any prairie dog management activities.*

Black-footed Ferret Programmatic Safe Harbor Agreement

**All conservation activities will be coordinated with the Cooperator. Every effort will be made to minimize conflicts with Cooperator's use of the lands. Only in emergency situations will the Permittee request access in less than 30 days.*

5.0 Monitoring: Each Cooperator will be expected to respond to a questionnaire (Appendix E of the Agreement) provided to them by the Permittee on an annual basis regarding status of ferrets on the enrolled land and ongoing routine grazing and ranching activities. Spotlight surveys for black-footed ferrets will be coordinated by the Permittee (or designee) to determine the success of the ferret reintroduction. *[Include a description of anticipated surveys to be conducted]*

6.0 Changed Circumstances:

Changed Circumstance	Potential Effect to Black-Footed Ferrets	Proposed Response
Drought	Drought can limit forage quantity available for prairie dogs and livestock. Competition for this forage could limit prairie dog reproduction. Limited prairie dog reproduction could lead to limited food availability for ferrets.	Upon identification of a D2 or higher by the Drought Monitor and declaration by State Authorities, the Permittee will determine if adequate habitat is available on the enrolled lands for ferrets. If not, the Permittee may elect to trap any remaining ferrets for reintroduction elsewhere with adequate habitat. Landowner grazing activities will not be limited by the Permittee. Additional ferrets may be reintroduced to the enrolled lands after drought conditions have improved.
Fire	Direct effects of fire to ferrets or prairie dogs are unlikely as they can seek refuge within their burrows. However, fire can have short term impacts to the availability of forage for prairie dogs and therefore ferrets as discussed above.	Should a fire impact greater than 50% of the enrolled lands, the Permittee will determine if adequate habitat is available on the enrolled lands for ferrets. If not, the Permittee may elect to trap any remaining ferrets for reintroduction elsewhere with adequate habitat. Additional ferrets may be reintroduced to the enrolled lands after enrolled lands have recovered from the fire.
Disease	There are a number of native and non-native diseases that can impact ferrets. Impacts occur both directly (death of ferret) or indirectly through the loss of their food source, prairie dogs.	In the case where disease other than plague is suspected to have impacted ferrets, the Permittee will coordinate efforts to identify the disease with U.S. Geological Survey's National Wildlife Health Lab and the appropriate State Agency that oversee wildlife disease outbreaks. Potential response to the disease could include trapping and relocating ferrets if adequate habitat exists elsewhere. If disease causes loss of all ferrets at a reintroduction site, additional ferrets may be reintroduced if adequate habitat exists that is not impacted by disease.
Additional Land Uses	Changes in land use include, but are not limited to utility development (e.g., waterlines, power lines), energy development, and associated infrastructure. These changes could result in the incidental take ferrets through vehicle collision and/or decrease available prairie dog habitat and prairie dogs available for ferrets.	Any additional land uses proposed within the enrolled lands during the term of the Reintroduction Plan will be identified and reviewed by the parties to determine if the proposed use will decrease prairie dogs or ferret habitat. Any significant decreases in prairie dog habitat could be offset by including additional prairie dog habitat contiguous with the Conservation Zone resulting in no net loss of adequate prairie dog habitat. If sufficient additional habitat does not exist, the Permittee may elect to trap any remaining ferrets for reintroduction elsewhere with adequate habitat.
New Species Listing on Enrolled Lands	Conservation activities to benefit the black-footed ferret may have potential impacts to the new species.	If a non-covered species that occurs within the Agreement area becomes a federally listed species, the Service will assess whether the implementation of the Agreement may affect such species. If implementation may result in incidental take of such species, the Service will work with the enrolled landowners to determine appropriate modifications to the Agreement's conservation activities to either avoid or minimize incidental take. If take cannot be avoided, the Service will determine whether amending the Agreement and permit would be necessary to cover such

Black-footed Ferret Programmatic Safe Harbor Agreement

		additional species through the Section 7 process. If the landowner wishes to conserve the species and receive assurances for that species, the Service and landowner would mutually amend the Reintroduction Plan to document the baseline conditions for the species; potentially modify or add conservation measures; and the Service would amend the Agreement, Biological Opinion, and any relevant National Environmental Policy Act documents while providing for required public comment. Any Cooperator may withdraw from the Agreement at any time.
Change in Ownership Interest	Withdrawal of Cooperator from Agreement and termination of Reintroduction Plan may result in loss of site.	Coverage for incidental take will be maintained via the Biological Opinion, provided the former Cooperator notifies the Permittee and allows access to trap any remaining ferrets for reintroduction elsewhere.

7.0 Reintroduction Plan Duration: The duration of this plan will be [number] years from the date of signature. The Certificate of Inclusion will be in effect for as long as the terms of this Agreement and the Reintroduction Plan are met.

8.0 Assurances to the Cooperator:

Provided that the Cooperator complies with the provisions outlined in the Reintroduction Plan developed for the enrolled lands, the Service assures that it will not impose conservation measures and restrictions for the ferret on the use of the Cooperator's land, water, or resources additional to those already agreed upon in the Safe Harbor Agreement and the Reintroduction Plan throughout the term of the Certificate of Inclusion. Furthermore, the Certificate of Inclusion will provide the Cooperator with incidental take coverage of the ferret consistent with maintaining the baseline conditions as described in Section 2.0 of this Reintroduction Plan with the following conditions:

- A. When a Cooperator is implementing the conservation activities identified in Section 4.0 of this Reintroduction Plan.
- B. When a Cooperator is carrying out any legal activity, including routine ranching and grazing, on or adjacent to the enrolled lands in concert with conservation activities identified in section 4.0 of this Reintroduction Plan.
- C. When a Cooperator is making any lawful use of Cooperator-owned non-enrolled lands that are adjacent to or in proximity of enrolled lands.
- D. When a Cooperator is returning the enrolled lands to baseline at any time through otherwise lawful means.

9.0 Modifications:

- a. Reintroduction Plan: Any party to this Reintroduction Plan may propose modifications by providing written notice to the other parties explaining the proposed modification and the reasons for the modification. Approval of a modification will require the written consent of the Permittee and Cooperator and must be consistent with the assurances described in Section 8.0 of the

Black-footed Ferret Programmatic Safe Harbor Agreement

Reintroduction Plan. Any proposed modification to the Reintroduction Plan will be considered effective as of the date that all affected parties have agreed in writing to the modification.

- b. Certificate of Inclusion: The Certificate of Inclusion may be amended by the Cooperator and/or the Permittee in accordance with all applicable legal requirements in force at the time of the amendment, including, but not limited to, the Act, National Environmental Policy Act, and Service permit regulations (50 CFR, Parts 13 and 17). A request for an amendment of the Permit or Certificate of Inclusion would require, at a minimum: a written explanation of why the amendment is needed; and an explanation of what, if any, effects the amendment would have on the black-footed ferret. An amendment to the Permit would require the Service to publish a notice in the *Federal Register* of a 30-day public comment period for the proposed amendment.
- c. Early Termination of the Reintroduction Plan: As provided for in Part 12 of the Service's Safe Harbor Policy (64 FR 32717), the Permittee may terminate the Reintroduction Plan prior to the expiration date. In such circumstances, the Cooperator may return the enrolled lands to baseline conditions even if the conservation activities identified in the Reintroduction Plan for the enrolled lands have not been fully implemented. Similarly, the Cooperator may terminate the Reintroduction Plan early. A Cooperator who withdraws from the Agreement would subsequently be regarded as a non-participating landowner interest who receives incidental take via the associated Biological Opinion, provided the Cooperator notifies the Permittee and allows the Service access to recapture ferrets during the following fall, prior to carrying out any otherwise lawful activity that may result in take of ferrets on enrolled lands, including a return to baseline. If a Cooperator fails to notify the Permittee regarding possible take or fails to provide access, coverage for incidental take will not be granted.

10.0 Other Measures:

- A. Remedies. No party shall be liable in monetary damages for any breach of this Reintroduction Plan (Plan), any performance or failure to perform an obligation under this Reintroduction Plan or any other cause of action arising from this Plan.
- B. Dispute Resolution. The Parties agree to work together in good faith to resolve any disputes using dispute resolution procedures agreed upon by all Parties.
- C. Succession and Transfer. As provided in 50 CFR 13.25, if a Cooperator transfers his or her interest in the enrolled lands to another non-federal entity, the new owner has the option to accept the original Cooperators responsibilities and assurances. If the new owner chooses to accept the original Cooperator's responsibilities and assurances, the Service will regard the new owner or manager as having the same rights and responsibilities with respect to the enrolled lands as the original

Black-footed Ferret Programmatic Safe Harbor Agreement

Cooperator for the remainder of the term of the agreement. If the new owner chooses not to participate in the Agreement and the activities described in the Reintroduction Plan, he or she will retain authorization for incidental take due to otherwise lawful activities via the Biological Opinion, provided the Service is given an opportunity to trap ferrets currently on the property.

- D. Availability of Funds. Implementation of this Plan is subject to the requirement of the Anti-Deficiency Act and the availability of appropriated funds. Nothing in this Plan will be construed by the Parties to require the obligation, appropriation, or expenditure of any funds from the U.S. Treasury. The Parties acknowledge that the Service will not be required under the Plan to expend any federal agency's appropriated funds unless and until an authorized official of that agency affirmatively acts to commit to such expenditures as evidenced in writing.
- E. No Third-Party Beneficiaries. This Plan does not create any new right or interest in any member of the public as third-party beneficiary, nor shall it authorize anyone not a party to this Plan to maintain a suit for personal injuries or damages pursuant to the provisions of this Plan. The duties, obligations, and responsibilities of the parties to this Plan with respect to any third-party shall remain as imposed under existing law.
- F. Notices and Reports
Any notices and reports, including monitoring and annual reports required by this Agreement shall be delivered to the persons listed below, as appropriate:

Black-footed Recovery Coordinator
U.S. Fish and Wildlife Service
P.O. Box 190
Wellington, CO 80549
(970) 897-2730

11.0 Signatures:

COOPERATOR

DATE

BLACK-FOOTED FERRET RECOVERY COORDINATOR

DATE

Black-footed Ferret Programmatic Safe Harbor Agreement

APPENDIX C

Black-footed Ferret Recovery Guidelines by State (U.S. Fish and Wildlife Service 2013)

State	# Breeding adults established to date	# Adults/# acres to downlist	# Adults/# acres to delist
Arizona	33-38	74 adults/17,000 ac	148 adults/34,000 ac
Colorado	8	149 adults/29,000 ac	288 adults/58,000 ac
Kansas	7-19	123 adults/18,500 ac	246 adults/37,000 ac
Montana	7-10	147 adults/22,000 ac	294 adults/44,000 ac
Nebraska	0	134 adults/20,000 ac	268 adults/44,000 ac
New Mexico	3	220 adults/39,000 ac	440 adults/78,000 ac
North Dakota	0	38 adults/6,000 ac	76 adults/12,000 ac
Oklahoma	0	70 adults/10,500 ac	140 adults/21,000 ac
South Dakota	110-272	102 adults/15,000 ac	204 adults/30,000 ac
Texas	0	254 adults/38,000 ac	508 adults/76,000 ac
Utah	1-13	25 adults/6,000 ac	50 adults/12,000 ac
Wyoming	98-102	171 adults/35,000 ac	341 adults/70,000 ac
TOTAL	274-488	1,507 adults/256,000 ac	3,004 adults/512,000 ac

Black-footed Ferret Programmatic Safe Harbor Agreement

APPENDIX D

Annual Report to Cooperator by Permittee

Certificate of

Inclusion #:

Name:

State:

County:

Date (covering
past year):

Conservation Activities

Date:	# Released	Black-footed Ferret Reintroductions *
-------	------------	--

Date:	# Acres Treated	Method	Disease Management
-------	-----------------	--------	--------------------

Date:	# Acres Treated	Method	Prairie Dog Management
-------	-----------------	--------	------------------------

--	--	--	--

--	--	--	--

--	--	--	--

*Note number of animals released and pertinent conditions at release

APPENDIX E

Annual Report to Permittee by Cooperator

Questionnaire

Certificate of Inclusion #:

Name:

State:

County:

Date (covering past year):

Ferrets

1. Have you seen ferrets or any sign of live ferrets? If so, give approximate location.

2. Have you seen any dead ferrets? If so, how many?
Please provide approximate location.

3. Please describe what circumstances resulted in the dead ferret, if known.

Prairie Dogs

4. What changes have you noticed in prairie dog densities? Die-offs? If any, describe the extent of the die-off.

Grazing

5. Are you actively grazing the enrolled lands?

6. Please describe any changes in your grazing practices in the past 12 months.

General

7. Has the reintroduction of ferrets caused any hardship to your operation? If so, please describe.

8. Other comments or suggestions

Black-footed Ferret Programmatic Safe Harbor Agreement

APPENDIX F

Black-footed Ferret Recovery Implementation Team – Executive Committee as of 2012.	
Position	Agency
Chair	Texas Parks and Wildlife Department
Vice Chair	U.S. Fish and Wildlife Service
Past Chair	Wyoming Game and Fish Department
Coordinator	U.S. Fish and Wildlife Service
Member – State	Arizona Game and Fish Department
Member – State	Colorado Parks and Wildlife Department
Member – State	Kansas Department of Wildlife, Parks, and Tourism
Member – State	Montana Department of Fish, Wildlife and Parks
Member – State	Nebraska Game and Parks Commission
Member – State	New Mexico Department of Game and Fish
Member – State	North Dakota Game and Fish Department
Member – State	Oklahoma Department of Wildlife Conservation
Member – State	South Dakota Department of Game Fish & Parks
Member – State	Utah Division of Wildlife Resources
Member – Federal	U.S. APHIS - WS
Member – Federal	U.S. Bureau of Indian Affairs
Member – Federal	U.S. Bureau of Land Management
Member – Federal	U.S. Forest Service
Member – Federal	U.S. Geological Survey
Member – Federal	National Park Service
Member – Federal	Natural Resources Conservation Service
Member – Tribe	Cheyenne River Sioux Tribe
Member – Tribe	Gros Ventre & Assiniboine Tribe
Member – Tribe	Lower Brule Sioux Tribe
Member – Tribe	Northern Cheyenne Tribe
Member – Tribe	Rosebud Sioux Tribe
Member – Tribe	Navajo Nation
Member – International	Grasslands National Park of Canada
Member – International	Universidad Autonoma Matropolitana Mexico
Member – NGO	Audubon of Kansas
Member – NGO	American Zoo & Aquarium Association

Black-footed Ferret Programmatic Safe Harbor Agreement

Position	Agency
Member – NGO	Defenders of Wildlife
Member – NGO	National Wildlife Federation
Member – NGO	Prairie Wildlife Research
Member – NGO	The Nature Conservancy
Member – NGO	Turner Endangered Species Fund
Member – NGO	World Wildlife Fund
Member – NGO	National Fish and Wildlife Foundation