SAFE HARBOR AGREEMENT

1.0 INTRODUCTION

This Safe Harbor Agreement (Agreement), effective and binding on the date of last signature below, is between Allen Henrie (Cooperator), Utah Division of Wildlife Resources (UDWR) and the U.S. Fish and Wildlife Service (Service), hereinafter referred to as "the Parties":

Cooperator: Allen Henrie
P. O. Box 128
Panguitch, Utah 84759
Phone: 435-676-2758

UDWR: Utah Division of Wildlife Resources
1594 W. North Temple, Suite 2110
P. O. Box 146301
Salt Lake City, UT 84114-6301

Service: U.S. Fish and Wildlife Service
2369 West Orton Circle, Suite 50
West Valley City, UT 84119
Contact: Field Supervisor
Phone: 801-975-3330

Agreement/Tracking Number: TE098809

This Agreement covers the following species: Utah Prairie Dog (*Cynomys parvidens*). This species is considered the "covered species" as defined in the Service's final Safe Harbor Policy (64 Federal Register 32717).

This Agreement covers the following property: The property covered by the Agreement and Permit to be issued simultaneously therewith is the approximately 900 acre, Henrie Ranch, located in Garfield County, Utah, approximately 12 miles southwest of the town of Panguitch, along Highway 143 in Township 35 north, Range 6 east, in portions of sections 8, 17, 18, 19, and 20. The property is delineated on the map included with the "Conservation Plan" prepared for the property by Environmental Defense, which conservation plan is appended hereto. This property is considered the "enrolled property" as defined in the Service's final Safe Harbor Policy.

Agreement/Permit Duration: This Agreement becomes effective upon issuance by the Service of the Section 10(a)(1)(A) enhancement of survival permit (hereinafter referred to as the "Permit") described in Part 5 hereof, and will be in effect for 15 years. The requested Permit will remain in effect for 40 years. The additional 25 years of permit duration beyond the term of the agreement will allow the Cooperator to continue with routine ranching operations without actively maintaining habitat for the covered species or if individuals of the covered species are taken by routine ranching operations during this time, the Cooperator would not be liable for Section 9 prohibitions on the enrolled property.

2.0 AUTHORITY AND PURPOSE

Sections 2, 7, and 10 of the Endangered Species Act (Act) of 1973, as amended, allow the Service to enter into this Agreement. Section 2 of the Act states that encouraging interested parties, through federal financial assistance and a system of incentives, to develop and maintain conservation programs is a key to safeguarding the nation's heritage in fish, wildlife, and plants. Section 7 of the Act requires the Service to review programs that it administers and to utilize such programs in furtherance of the purposes of the Act. By entering into this Agreement, the Service is utilizing its endangered species and related programs to further the conservation of the nation's fish and wildlife resources.

Section 10(a)(1) of the Act authorizes the Service's issuance of enhancement of survival permits for listed species. This Agreement is entered pursuant to the Service's Safe Harbor Agreement final policy (64 Federal Register 32717) final regulations (64 Federal Register 32706), and revisions to the regulations (69 Federal Register 24084) and implements the intent of the Parties to follow the procedural and substantive requirements of section 10(a)(1)(A) of the Act. The Permit for which the Cooperator has applied, has been applied for in good faith. If granted, it is expected to operate to the advantage of the covered species by increasing and improving the habitat available to them, creating an opportunity to increase their numbers, and providing insurance against the loss of the species in the area as a result of habitat loss or other factors elsewhere. The Agreement and Permit are consistent with the purposes and policies of the Act, because they are expected to further the conservation of the covered species in a manner consistent with the recommendations and strategies contained in the recovery plans for this species.

The purpose of this Agreement is for the Parties to collaborate in order to implement conservation measures for the Utah Prairie Dog (UPD) on the Cooperator's property. Foraging and visual surveillance habitat will be enhanced for the UPD by thinning decadent stands of brush and by increasing forage quantity and quality using mechanical and herbicidal treatments and re-seeding native grasses and forbs. In cooperation with the UDWR, UPD's will be released on the property after the habitat improvements have been completed. The habitat improvements will be maintained throughout the term of this agreement through managed grazing, additional brush treatments if necessary, and to some degree by the UPDs themselves. The Cooperator will receive an enhancement of survival permit (Permit) that authorizes implementation of the conservation actions and other provisions of this Agreement and authorizes incidental take and limited direct take of the covered species above the Cooperator's baseline responsibilities, as defined in this Agreement.

3.0 BACKGROUND

3.1 Description of the Enrolled Property

The Property is located within the Paunsaugunt Recovery Area, one of three priority areas identified in the UPD Recovery Plan (UDWR and U.S. Fish and Wildlife Service 1991). A private landowner to the west, HWY 143 to the south, and U.S. Department of Agriculture (USDS), Forest Service to the north and east borders the Property. Most of the Ranch slopes to the south toward Panguitch Creek, a perennial stream that runs through the southern end of the

Property. One small residence and associated outbuildings, used seasonally by the Henrie family, is located in the southwest corner.

3.2 Description of Covered Species

The UPD is a member of the genus, *Cynomys*, and one of five species of this genus in North America. It is endemic only to southwestern Utah. Numbers of the species have declined from an estimated 95,000 individuals in 1920 to 5,000 – 10,000 today (Crocker-Bedford and Spillett 1981, Bonzo and Day 2001). The species is currently federally listed as threatened. UPDs inhabit relatively open, grassy areas within shrubland ecosystems. A full description of the UPD and its habitat requirements can be found in the Utah Prairie Dog Recovery Plan (UDWR and USFWS 1991). According to this plan, actions needed to recover the species include selecting and managing transplant sites, monitoring transplanted colonies, ensuring the protection of prairie dogs and their habitat on both existing and transplant sites on public and private lands, and developing and implementing site-specific management plans for each colony or transplant site.

3.3 Description of Baseline Conditions

According to the Cooperator, UPDs once inhabited much of the property, and some evidence has been found of their past existence in the treatment area. Currently active UPD colonies exist on a neighboring private property less than 2 miles west of the treatment area. In addition, Utah prairie dogs were found on private property immediately to the west of the Henrie Ranch (within one mile of the treatment area) as late as 1999. (Current status of these colonies is not known because UDWR can no longer access them.) UDWR has determined that, though UPDs do not currently occupy the Henrie Ranch, the property should be capable of supporting them once vegetation conditions are improved.

Based on this site assessment, the UPD baseline on the enrolled property will be set at zero, reflecting the fact that at the present time there are no restrictions on the use of the enrolled property as a result of the Endangered Species Act's protection of the UPD.

Current Vegetation Conditions and Grazing Management

The Henrie Ranch is currently composed of approximately 680 acres of rolling sagebrush steppe uplands, 120 acres of lowland, rabbit brush dominated flats, and 100 acres of riparian habitat along Panguitch Creek. The proposed restoration work outlined in the Conservation Plan will take place within a portion of the Property identified as the "treatment area," located in the northeast corner (see the map accompanying the "Conservation Plan" Appendix 1 of Attachment 1). The treatment area represents about one fifth of the total acreage, or 180 acres, and currently consists of a rabbit brush dominated flat about 120 acres in size and about 60 acres of rolling uplands dominated by sagebrush steppe. The rabbit brush flat was formerly plowed, and currently contains only a sparse under story of grasses and forbs. The rabbit brush is sufficiently dense to hinder UPD colonization.

A portion of the treatment area is currently fenced, but additional fencing is needed to exclude livestock to facilitate vegetation treatments. Another portion of the treatment area (north end) is not currently fenced or utilized by the Cooperator's livestock (Appendix 1 of Attachment 1).

The treatment area, with the exception of the portion mentioned above, is currently grazed for 5 months per year by approximately 16 cow-calf pairs, representing 80 AUMs (animal unit months). The Cooperator has enrolled the riparian area in a conservation contract with the USDA, Natural Resources Conservation Service, the purpose of which is to restore the riparian vegetation and improve water quality in Panguitch Creek. This area has been fenced to exclude livestock.

4.0 AGREEMENT IMPLEMENTATION

4.1 Conservation Measures

4.1.1 *Maintaining the Baseline Conditions*

There are no baseline responsibilities for the enrolled property at the time of this Agreement. Therefore, the Cooperator is not responsible for any baseline-dependent actions or activities associated with this Agreement.

4.1.2 *Providing a Net Conservation Benefit*

The conservation measures that the Cooperator will undertake to accomplish the expected net conservation benefit for the covered species are set forth in detail in the Conservation Plan attached hereto and incorporated herein (Attachment 1). The goal of these conservation measures is to improve foraging and visual surveillance habitat for UPDs, and subsequently re-introduce and establish a self-sustaining population on the Property.

Specific conservation measures include:

1) *Brush treatments* using mechanical and chemical means to reduce shrub height and percent cover to approximately 0-3% on a selected site within the treatment area.
2) *Re-seeding* the treated site with native grasses and forbs to increase herbaceous forage quality, quantity, and diversity.
3) *Grazing deferment* within the treatment area to promote sufficient vegetative recovery during treatments and ensure the maintenance of treatments thereafter.
4) *Monitoring* designed to measure basic vegetation response to treatments, ensure that the vegetation response meets the habitat standards set forth by the Utah Prairie Dog Recovery Team, monitor the re-introduced prairie dog population, and assess whether additional brush treatments or grazing reductions are necessary.
5) *Re-introducing Utah Prairie Dogs* to the treatment area after vegetative recovery, and encouraging their long-term persistence using additional grazing deferment and brush treatments if necessary.

The brush treatments prescribed in the Conservation Plan will be limited to the flat portions of the treatment area dominated by rabbit brush to avoid impacting sagebrush communities. Some individual sagebrush plants existing within the flats may be incidentally removed, but the surrounding sagebrush community will be left intact.

No herbicides treatments in the Conservation Plan associated with this Agreement will be applied while UPDs are present, in the riparian areas, or anywhere else outside of the treatment area.

These conservation measures are expected to result in the following net conservation benefits to the covered species:

- Increased availability of foraging (forage quantity and quality) and visual surveillance habitat for UPDs.
- Reduced risk of catastrophic decline due to increased UPD numbers and high plant diversity on colony site.
- Improved chance of natural restocking following catastrophic declines without increasing the risk of plague, through an increased number of distinct colonies and reduced inter-colony distance.
- Increased genetic mixing in the Pausaugunt Recovery Area following natural dispersal.

The Service has determined that Cooperator's conservation measures, as described in this Agreement and the attached Conservation Plan, will provide the net conservation benefits listed above for the covered species. It has also determined that the duration of the Agreement and associated Permit is sufficient to achieve these conservation benefits.

4.2 Incidental Take

During the term of the Agreement, if the covered species occupies the restored habitat, incidental take of those species could occur as a result of a variety of activities. For example, it is possible that prairie dogs could be killed by vehicles on the road that transverses the Property, or off-road, by ranch vehicles during the course of normal ranching activities. The Agreement authorizes incidental take of the covered species, because the species does not currently occupy the property, nor would it be likely to do so without the voluntary measures described in this Agreement.

If the Cooperator proposes to undertake any actions that fall outside the scope of habitat enhancements or his normal ranching operations, and that he reasonably expects will result in the incidental taking of the covered species, including any activities that will return the property to baseline conditions, he will give the Service at least 60 days advance notice thereof and provide it or UDWR an opportunity to relocate any affected individuals. The Cooperator and the Service will work cooperatively to minimize negative impacts to the covered species from such actions.

4.3 Direct Take

The Property, including the treatment area once required deferment ends, will remain in active livestock management. The potential of the introduced UPD population to grow rapidly is such that it may achieve a size that would detrimentally impact the Cooperator's on-going livestock operations. Thus, the Cooperator, in conjunction with the Service and UDWR will be allowed to control UPD's within the treatment areas and elsewhere on the enrolled property if the adult population from an UDWR early spring count in two consecutive years exceeds 53 individuals, or if the spring count in any one year exceeds 75. The number of animals to be removed from

the population under these circumstances will be determined by the Service and UDWR and shall not exceed the number needed to maintain a viable population of animals on the site. Since the objective of this Agreement, and the expected net conservation benefit, is to establish a new colony, control of prairie dog numbers above this population size will not affect the net conservation benefit provided by the Agreement. If control measures are necessary to reduce the total size of the population, the Cooperator will follow the protocol outline in Attachment 2.

The Cooperator is actively involved in efforts to restore riparian areas on his property along Panguitch Creek to achieve conservation benefits. Establishment of UPDs in these areas has the potential to lead to increased erosion, and hinder establishment of riparian vegetation. Additionally, prairie dog establishment in the more sensitive sagebrush uplands outside the treatment area may have detrimental impact on the Cooperator's ongoing agriculture activities by reducing the Cooperator's ability to control their expansion into undesirable areas, including the riparian area and neighboring private property. Hence, the Cooperator will be allowed to control UPDs that become established in areas outside of the treatment area regardless of the total size of the population and fill burrows excavated outside the treatment area. "Established" is defined as prairie dog burrows having been excavated or digging activity, it does not apply to emigrating or immigrating animals or to animals foraging outside the treatment area. The Cooperator must first obtain a Certificate of Registration from UDWR before initiating UPD control actions. Such control will be in accordance with the restrictions outlined in Attachment 2.

In addition to the specific control measures described above, nothing in this Agreement shall make the Cooperator ineligible for a certificate of registration for taking of UPDs outside of the treatment area under other circumstances in accordance with relevant regulations of the state of Utah and the U.S. Fish and Wildlife Service regulations at the time of the proposed control measures.

4.4 Monitoring Provisions

The Service and UDWR will arrange with the Cooperator to visit the property annually to monitor compliance with the agreed-upon habitat conservation activities, assess the health of the restored vegetation, and determine the success of the UPD re-introduction in accordance with the procedures and criteria outlined in the Conservation Plan.

The Cooperator will allow for annual vegetation monitoring on the treatment area prior to the UPD re-introduction and thereafter to determine the level at which grazing should be reduced (if any) to ensure the continued health of the restored vegetation in accordance with the procedures and criteria outlined in the Conservation Plan.

The Service or UDWR will conduct annual early spring population counts (before emergence of young of the year) of the re-introduced UPD colony in accordance with established protocol to determine the population of the animals over the duration of the Agreement, and to assess whether grazing reductions are needed to benefit the covered species.

The Service and/or UDWR will decide whether reduced grazing is necessary for the above reasons. If reduced grazing is necessary, the Service and UDWR will limit this reduction to the amount specified in the Conservation Plan.

4.5 Reporting Provisions

The Cooperator, or his agent, will provide the Service an annual record or report of the conservation, enhancement, and restoration activities described in the previous section as specified in the Permit. This report will be due to the Service on or before Dec 31 of each year of this Agreement.

4.6 Changed Circumstances

Emergency situations which result in changed circumstances, such as drought, wildfire, plague, or insect infestations, may require management actions not specified in this Agreement. In these situations, the Parties acknowledge that it may be impossible to provide the 60 day notice required by the Agreement prior to initiation of activities that could result in take of the covered species. However, the Cooperator will notify the Service within 10 days of discovering such a situation, and will make reasonable accommodations to the Service for surveying for and/or relocating affected individuals or populations of the covered species prior to the action(s). The Parties acknowledge that survey and relocation may be precluded by certain urgent or emergency situations. The Parties will work cooperatively to avoid impacts to the covered species. If the re-introduced colony is decimated or substantially reduced by plague, UDWR and the Service have the option of re-populating the colony with additional translocated animals. Response to plague may include dusting the colony for fleas following the guidelines outlined in Attachment 1.

5.0 RESPONSIBILITIES OF THE PARTIES

5.1 Cooperator Responsibilities

The Cooperator will make a good faith effort and use due diligence to implement the conservation measures outlined in the attached Conservation Plan, and other provisions of this Agreement and to adhere to the Terms and Conditions of the Permit. The Cooperator will work in partnership with the Parties and with Environmental Defense as per the terms of a Wildlife Stewardship Cooperative Agreement, to assure sufficient funding and other resources necessary to implement the Agreement.

With reasonable advance notice, the Cooperator shall allow Service personnel, or other properly permitted and qualified persons designated by the Service, to enter the enrolled property at reasonable hours and times for the general purposes directly related to this Agreement.

The Cooperator shall allow personnel of the Service, UDWR, or its Agent to visit the property at agreed upon times each year of the Agreement to monitor compliance with the agreed-upon conservation measures, to conduct annual counts of UPDs, and to assess the success of the UPD re-introduction.

5.2 Service Responsibilities

The Service will ensure that the Cooperator implements the Agreement properly. As noted above, the Service and UDWR will arrange with the Cooperator to visit the property annually to

ensure that the agreed-upon conservation measures contained in this Agreement are being accomplished.

The Service will provide the Cooperator with technical assistance in making applications for cost-share funding and, if awarded, implementing the conservation measures as funded. The Service will permit the translocation of UPDs to the property, provided conditions are deemed appropriate by the Service and UDWR, and provide technical assistance with the translocation as needed.

Upon execution of the Agreement and satisfaction of all other applicable legal requirements, the Service will issue an Enhancement of Survival Permit to the Cooperator in accordance with ESA section 10(a)(1)(A), authorizing incidental and limited direct take of the covered species as a result of lawful activities on the enrolled properties in accordance with the terms of such permit. The term of the permit will be 40 years.

5.3 UDWR Responsibilities

Dependent on habitat conditions on the enrolled property, availability of individual UPDs, and a determination that it is in the best interest of the conservation of the species at the time, UDWR will re-introduce UPDs to the site, at no expense to the Cooperator, outlined in the Conservation Plan, and in accordance with any approved plans governing the translocation of animals.

UDWR will monitor the size of the re-introduced population on an annual basis, at no expense to the Cooperator, to help identify the need for additional conservation measures as specified in attached Conservation Plan.

UDWR will undertake limited control measures of UPDs or issue Certificates of Registration for control measures by the Cooperator, when the conditions of Section 4.3 of this agreement are met, further subject to the conditions included in Attachment 2.

5.4 Shared Responsibilities of the Parties

The Parties will ensure that the Agreement and the actions covered in the Agreement are consistent with applicable Federal, State, and Tribal laws and regulations.

Nothing in this Agreement will be construed to limit or constrain any Party or any other entity from taking additional actions at its own expense to protect or conserve the covered species.

Nothing in this Agreement shall limit the ability of Federal and State conservation authorities to perform their lawful duties, and conduct investigations as authorized by statute and by court guidance and direction.

6.0 COOPERATOR ASSURANCES

If new information or changed circumstances such as those identified in section 4.6, reveal that additional conservation measures are necessary to provide a net benefit to the covered species, the Service provides an assurance through this Agreement that no additional measures can be required without Cooperator consent that incur any additional future cost, loss of revenue, or

restrictions on the use of the property. In the event of changed circumstances, the Parties agree to work together to adapt management to address these circumstances to the best of their ability.

These assurances allow the Cooperator to alter or modify the enrolled property, even if such alteration or modification results in the incidental take of the UPD to such an extent that the take returns the species to the originally agreed upon baseline conditions of zero. Such assurances may apply to the entire enrolled property or to portions of the enrolled property as designated or otherwise specified in this Agreement. These assurances depend on the Cooperator complying with the obligations in this Agreement and in the Permit. The Service has determined that this level of take will not appreciably reduce the likelihood of survival and recovery in the wild of the UPD.

Subject to the conditions in Section 4.3, the Cooperator will have the ability to control UPDs on the enrolled property, subject further to the terms of the Permit, notwithstanding any changes to the authority of the state of Utah to permit take under the provisions of the ESA.

7.0 MODIFICATIONS

7.1 Modifications of the Agreement and/ or Permit.

Any party may propose amendments to this Agreement and /or the permit, as provided in 50 CFR 13.23, so long as all parties agree to the request in writing. Requests should include a statement of the proposed modification, the reason for it, and the expected results. The Parties will use their best efforts to respond to the proposed modifications within 30 days of receipt. Proposed modification will become effective upon written approval of all Parties.

7.2 Termination of Agreement.

As provided for in Part 12 of the Service's Safe Harbor Policy (64 FR 32717), the Cooperator may terminate the Agreement for circumstances beyond the Cooperator's control. In such circumstances, the Cooperator may return the enrolled property to baseline conditions even if management activities identified in Attachment 1 have not been fully implemented, provided that the Cooperator gives the Service notification required in Part 4.2 above prior to carrying out any activity likely to result in the taking of the covered species. If the Cooperator terminates the Agreement for any other reason, the permit referenced in Part 5.2 above shall immediately cease to be in effect, and the Cooperator may be liable to repay a pro-rated portion of the costs associated with the habitat improvements. If the Cooperator terminates this Agreement, the Service and/or UDWR reserve the right to remove the re-introduced animals by trapping and relocating them.

7.3 Renewal of Agreement and Permit.

The Agreement can be renewed with or without modification with the approval of all Parties pursuant to 50 CFR 13.22. If the Agreement is renewed, the corresponding Permit duration may be extended beyond the duration of the Agreement. The duration of the renewed Agreement and Permit will be agreed upon by the Parties. If the Service does not agree to renew the Permit, at the Cooperator's request, the Service will trap and remove any existing UPDs to return the Property to baseline conditions.

7.4 Permit Suspension and Revocation.

The Service may suspend or revoke the permit referred to in Part 5.2 above for cause in accordance with the laws and regulations in force at the time of such suspension or revocation. The Service also, as a last resort, may remove the permit if continuation of permitted activities would result in jeopardy of the covered species (50 CFR 13.28 (a)). In such circumstances, the Service will exercise all possible measures to avoid revoking the permit.

8.0 OTHER MEASURES

8.1 Remedies

Each party shall have all remedies otherwise available to enforce the terms of the Agreement and permit, except that no party shall be liable for damages for any breach of this Agreement, and performance or failure to perform an obligation under this Agreement or any other cause of action arising from this Agreement.

8.2 Dispute Resolution

The Parties agree to work together in good faith to resolve any dispute, using dispute resolution procedures agreed to by all Parties.

8.3 Succession and Transfer

Pursuant to 50 CFR 13.25, the Cooperator may transfer his interest in the enrolled property to a non-Federal entity, the Service will regard the new owner as having the same rights and responsibilities with respect to the enrolled property as the Cooperator, if the new property owner agrees and commits in writing to become a party to this Agreement through the existing Conservation Plan and the Permit referenced in Part 5.2 above in the place of the former landowner. If the new landowner does not wish to enroll, the permit referenced in Part 5.2 above shall immediately cease to be in effect, and the Service and/or UDWR will reserve the right to remove the re-introduced animals by trapping and relocating them.

8.4 Availability of Funds.

Implementation of this Agreement is subject to the requirements of the Anti-Deficiency Act and the availability of appropriated funds. As requested by the Cooperator, the Service and UDWR will provide technical or other assistance in making application for cost-share or other funding from the Service, U. S. Department of Agriculture, or other organizations. Nothing in this Agreement 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 this 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 in writing.

8.5 No Third-Party Beneficiaries.

This Agreement does not create any new right or interest in any member of the public as a 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 third parties shall remain as imposed under existing law.

8.6 Other Listed Species, Candidate Species, and Species of Concern.

Although the Service regards it as unlikely, the possibility exists that other listed, or candidate species, or species of concern may occur in the future on the enrolled property as a result of the management actions specified in Attachment 1. In the event that a non-covered species that may be affected by covered activities becomes listed under the ESA, Cooperator will implement the no-take/no-jeopardy measures identified by the Service for that species until the permit is amended to include such species, or until the Service notifies Cooperator that such measures are no longer needed to avoid jeopardy to, take of, or adverse modification of the critical habitat of, the non-covered species.

8.7 Notice and Reports.

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

Field Supervisor
U.S. Fish and Wildlife Service
2369 West Orton Circle, Suite 50
West Valley City, UT 84119

9.0 SIGNATURES

By our signatures below, each Party agrees to abide by and uphold the provisions of this Agreement and any conditions of the Permit associated with this Agreement.

ACTING Deputy Nancy A. Henry 9/19/05

Regional Director, U.S. Fish and Wildlife Service Date

James F. Karpowitz 8/30/05

Director, Utah Division of Wildlife Resources Date

Allen Ktenno 8-24-05

Cooperator Date

10.0 ATTACHMENTS

Attachment 1. Henrie Property Conservation Plan

Project Description and Purpose

This is a cooperative project between Allen Henrie (the Cooperator), Environmental Defense, Utah Division of Wildlife Resources (UDWR), and the US Fish and Wildlife Service (USFWS). These parties have agreed to work together to restore rangeland health on the property (Property) managed by Mr. Henrie and owned by him and his siblings for the purpose of improving habitat quality for the threatened Utah Prairie Dog (*Cynomys parvidens*), and re-introducing a colony of the species to the Property. The broad purpose for doing this work is to create a conservation benefit for the Utah Prairie Dog on private lands. Private lands conservation efforts for this species are considered important, if not essential, for the species' long-term survival. Through this project, the parties seek to improve rangeland health, as well as, prairie dog habitat. Regulatory assurances and financial incentives provided by the parties will accompany this Conservation Plan. In doing so, it is hoped that this project will serve as a model for future projects on private lands that seek to improve habitat for this species while simultaneously improving overall rangeland health.

The length of this Conservation Plan is 15 years. It is expected that the habitat treatments and prairie dog re-introduction described will be completed within that time, and that no further treatments will be necessary.

Property Description

The Property is currently composed of approximately 680 acres of sagebrush steppe uplands, 120 acres of lowland, rabbit brush dominated flats, and 100 acres of riparian habitat along Panguitch Creek, a perennial stream for a total of 900 acres. The proposed treatment area is located in the northeast section of the Property within the lowland, rabbit brush dominated flats (identified as "treatment area" on the accompanying map). At this time, the treatment area consists mostly of rabbit brush with a scattered cover of streambank and western wheatgrass and few native forbs. According to the Cooperator, Utah Prairie Dogs once inhabited much of the property, and some evidence has been found of their past existence on the treatment area. A private Landowner to the west, HWY 143 to the south, and USDA Forest Service property to the north and east borders the Property (Appendix 1).

The treatment area is currently grazed for approximately 5 months per year (approximately May 15-October 15) by approximately 16 cow-calf pairs, representing 80 AUMs (animal unit months). The Property is not cross-fenced with the exception of the riparian area, which the Cooperator has enrolled in a conservation contract with the U. S. Department of Agriculture, Natural Resources Conservation Service. This is a separate project, the purpose of which is to restore the riparian vegetation and improve water quality in Panguitch Creek.

The treatment area consists of approximately 180 acres, or 20% of the entire property. This area will be fenced, and all of the treatments described within this Plan will take place therein.

Goal

The primary goal of this project is to improve forage quality and quantity on the Property (within the treatment area only) for UPD to the standards outlined in the Utah Prairie Dog Interim Recovery Plan (see Appendix 2) through brush management and reseeding, and to reintroduce and maintain a colony within the treatment area. A secondary goal of this project is to improve rangeland health on the treatment area thereby increasing the quality and quantity of forage for livestock.

Objectives

1) *Conduct brush management* on treatment site to reduce height and % cover of rabbit brush and other shrubs in selected colony release site and surrounding area (Appendix 1) to approximately 0-3% cover.
2) *Re-seed treatment site* with native grasses and forbs following brush management to increase herbaceous % cover and quality, and increase diversity of forage classes (adapted grasses and forbs cool season grasses, warm season grasses, and forbs).
3) *Defer grazing within treatment area* to promote vegetative recovery during treatments and ensure the maintenance of treatments thereafter.
4) *Establish monitoring system* designed to measure basic vegetation response to treatments, ensure that the vegetation response meets the habitat standards set forth by the Utah Prairie Dog Recovery Team (see Appendix 2), monitor the re-introduced prairie dog population, and assess whether additional brush treatments or grazing reductions are necessary throughout the term of the Project.
5) *Re-introduce Utah Prairie Dogs* to treatment site after vegetative recovery, and maintain this colony using managed grazing and further brush treatments if necessary.

Treatment Descriptions

A qualified range ecologist, contracted by Environmental Defense, will oversee all treatments described below and will work together with the Cooperator, UDWR, and USFWS to ensure that this work is completed properly and in a timely manner.

In year 1 (2005) of the project, the entire 180-acre treatment area will be fenced, and approximately 120 acres therein will be treated to remove brush, remove existing forbs and grasses on approximately 1/3 of the site, and to re-establish a diverse mix of native vegetation. Treatments will include mowing, herbicide applications, and seeding. Treatments will be repeated in 2006 and 2007, and in later years, if necessary, with the exception of herbicide treatments, which will not take place after prairie dogs are released on the site.

Grazing will be excluded from the treatment area from 2005 through 2007 in order to allow ~~for~~ vegetation treatments to occur and to provide sufficient time for newly planted areas to re-establish. Grazing will resume on the treatment area in 2008 and 2009 at a reduced rate of no more than 50 AUMs, a reduction of 37.5% (30 AUMs) from the grazing rate prior to this project (formerly 80 AUMs). It may be necessary for the health of the vegetation and for prairie dogs to reduce the level of grazing within the treatment area more than 37.5%. UDWR and the Service may do so, with approval from the Cooperator and with full compensation.

For the period of, 2010-2014, UDWR or the Service, with recommendations from a qualified range ecologist assigned to the project will determine the allowable grazing rate within the treatment area. This rate will be based upon the health of the restored vegetation and the needs of the re-introduced prairie dog population. Allowable grazing rates will be between 50 and 80 AUM with compensation to the Cooperator for mandatory reductions below the baseline rate of 80 AUM. If additional grazing reductions are recommended below 50 AUM, they will require the approval of and compensation for the Cooperator. Acceptable reasons for reducing grazing may include but not be limited to, lack of proper vegetation establishment and limited forage availability for prairie dogs. For the remainder of the Agreement (2015-2019), at the determination of UDWR or the Service, restrictions on the amount and timing of livestock grazing will be made only upon mutual agreement of the Parties as necessary for the health of the restored vegetation and/or the needs of the re-introduced prairie dog population, and with full compensation to the Cooperator. Grazing rates will be communicated to the Cooperator before April 1 of each year.

Prior to treatments, the site will be inventoried to determine the characteristics of the existing vegetation. Treatments and re-establishment of native vegetation will be designed to meet habitat standards recommended by the Utah Prairie Dog recovery team and outlined in the Conservation Plan. Environmental Defense, the Service, and/or UDWR will monitor the restored vegetation to ensure vegetation meets these standards before releasing animals on the site. Monitoring of vegetation will continue for the first 10 years of this agreement on an annual basis. The Cooperator will allow the Service, UDWR, and Environmental Defense sufficient access to the site to conduct this monitoring.

The Service with UDWR will determine a proper site for prairie dog release within the treatment area in consultation with the Cooperator and in accordance with translocation protocol developed by the UPD Recovery Team. UDWR will complete the burrow preparation, prairie dog release, and monitoring of the colony according to above protocol, which will involve use of digging equipment, burial of plastic corrugated tubing, and soil disturbance. The reintroduction site may be mowed before release, if needed. Prairie dogs will be released each year over a period of 3 years or more, beginning in 2008. UDWR and the Service have the option to determine the number of releases needed in order to ensure that the colony becomes permanently established. If the colony is decimated by plague or some other factor during the Agreement, UDWR and the Service have the option to re-establish the colony by re-introducing more animals.

A more specific description of the treatments follows. These treatment descriptions are considered recommendations, and may be adjusted slightly to fit specific property conditions or needs of the prairie dogs.

1) *Brush Management.* The site proposed for reintroduction of prairie dogs currently supports a stand of rubber rabbitbrush (*Chrysothamnus nauseosus spp. nauseosus*) that has recovered from a previous burn that occurred approximately 10 years ago. The understory vegetation consists primarily of western wheatgrass (*Pascopyrum smithii*). Apparently, the site has been plowed and seeded to introduced grasses, and some additional perennial grasses still remain. The area is annually grazed, and only a few native forbs or grasses currently exist. Rabbitbrush is sufficiently dense to hinder or limit Prairie Dog colonization. Rabbitbrush can be difficult to completely eliminate, consequently the shrubs will be mowed to about 6 inches in height in the spring (mid

May to mid June). A private contractor will complete the mowing. Following mowing, the shrubs will be allowed to develop some new growth. As new shoots reach 4 to 6 inches in length, the plants will be sprayed with 2, 4-d (2, 4-Dichlorophenoxy acetic acid) or Dicamba, broadleaf herbicides. A tractor-drawn applicator will be used apply the herbicide and reduce drift. An herbicide dye will be added to the solution to mark and aid in the treatment. Brush spraying will be completed by a contract applicator. Mowing and spraying are designed to reduce brush density to 0-3% cover. If rabbitbrush is not effectively controlled, repeat mowing or spraying later in the summer or fall would be necessary. Follow-up mowing may be required in the second year to contain regrowth. Application of herbicide after the first season is not possible, as the site will be seeded with a number of broadleaf species in the fall of 2005. Any spraying to control rubber rabbitbrush after this date would kill many of the planted species. A third treatment will involve removing strips of grass using a contact herbicide, Glyphosate, and seeding a mixture of native species. The existing grass will be removed from approximately thirty percent of the site. The existing grasses will be removed to reduce competition and allow a diverse mixture of grasses and forbs to be introduced. Clearings will be created by spraying strips, about 10' in width, throughout the site. Approximately 20' interspaces will be left between the sprayed strips to retain the existing herbaceous vegetation. The understory grasses will be sprayed at the time leaves have elongated to about 4 inches and air temperatures are 60 to 70 degrees F (approximately June 15th). A ground spray unit will be used to apply the herbicide. Dyes and markers will be used to locate the treated areas and maintain proper distances between the spray strips. A contractor will complete grass spraying. All herbicide spraying will occur within the first 3 years of the project, thereby avoiding any potential impacts to prairie dogs, which will be released in the 4th year. No spraying associated with this project will occur in riparian areas or any other areas outside of the treatment area. Additional treatments may be necessary to restore vegetation to required standards.

2) *Re-seeding*. Spraying the grass to create strips is necessary to remove the herbaceous competition and provide a seedbed to plant additional species. Seeding will be conducted in the fall after some precipitation has been received to improve seedbed conditions. The sprayed strips will be seeded using a precision, no-till drill designed to plant a mixture of seeds. UDWR will conduct the seeding using a no-till drill developed for this type of rangeland planting. No previous tillage or site preparation is recommended unless the soil remains dry and hard. Planting directly into the dead grass litter is recommended, if possible. If the soil is too hard for the drill to penetrate the surface to a desired depth, the site will need to be disked and repacked to accommodate seeding. A combination of perennial grasses and forbs will be planted to improve the amount of herbage produced and the seasonal quality of species for prairie dogs (Attachment 1, Appendix 3). Grass and forb seeds will be grouped in separate mixtures and planted in different furrows to reduce competition among seedlings and increase the chance of survival. Seeds of different size and shape will also be separated and planted through different seed boxes that are designed to meter trashy, smooth, and small seeds.

3) *Grazing*. The baseline-stocking rate for the 180-acre treatment area will be set at 80 AUM/yr., the rate at which this parcel was grazed prior to this agreement. Grazing will be completely deferred within the treatment area during the year of treatment and for two years thereafter for a total of 3 years. Grazing will resume in years 4 and 5 at a reduced

rate of no more than 50 AUMs (a 37.5% reduction). UDWR or the Service, with recommendations from a qualified range ecologist, will determine the allowable maximum grazing rate in years 6-10. This determination will be based upon on the health of the vegetation and the needs of the re-introduced prairie dog population. Acceptable reasons for reducing grazing may include but not be limited to, lack of proper vegetation establishment and limited forage availability for prairie dogs. If it is determined that reduced grazing is necessary for these reasons, then grazing may be reduced no more than 37.5% of baseline or 30 AUMs below the rate prior to this agreement. In years 11-15 of the project grazing may be reduced for the reasons stated, but only upon mutual agreement of the Parties, and will full compensation to the Cooperator for lost AUMs.

4) *Vegetation Monitoring.* Prior to treatments, the site will be inventoried to determine the density and heights of all shrubs by species. A series of 10 permanent transects that are 2 meters x 20 meters in size will be established and marked for future relocation and sampling. All shrubs that occur within the transect will be recorded by species, plant height, and vigor. The shrub transects will be inventoried annually to determine if rabbit brush or other shrubs re-establish. In addition, 20 permanent meter square subplots will be established in the sprayed and seeded strips and 20 subplots will be established in the unsprayed grass areas. The meter size subplots will be used to record the species presence, percent ground cover, and herbage production of all herbaceous species. Subplots designed to inventory the herbaceous vegetation, will be established and inventoried prior to the spray treatment to control the herbaceous vegetation. The subplots will be permanently staked to relocate and re-inventory the vegetation annually. Annual or seasonal inventories can include analysis of individual species to determine forage quality. The results of the vegetation monitoring will be used to determine whether reduced grazing is required in 2008-2014 of this project (see Grazing). Since there are no known specific parameters (i.e. percent ground cover, herbage production, etc.) upon which to base this determination, it will be made by the expert opinion of the UDWR and the Service in consultation with a qualified range ecologist assigned to this project. These experts will refer to the Utah prairie dog Vegetation Composition Guidelines prepared by the Utah Prairie Dog Recovery Team and provided in Appendix 2 of this Conservation Plan, and the best available science.

   Vegetation monitoring will be conducted in the first 10 years of the project only.

5) *Prairie Dog Re-introduction and Monitoring.* The Service and UDWR will determine a proper site for prairie dog release in consultation with the Cooperator. UDWR will work with a qualified range ecologist assigned to this project to determine that vegetation meets the habitat standards set forth by the Utah Prairie Dog Recovery Team before releasing prairie dogs on the site. If the treatments do not restore the vegetation to acceptable standards for Utah prairie dogs, upon the determination of UDWR and the Service using the guideline in Appendix 2, then UDWR will not release animals, and UDWR and the Service will determine what additional treatments are required and will consult with Cooperator before implementing additional treatments. UDWR will complete the burrow preparation, prairie dog release, and monitoring according to current established protocol. Prairie dogs will be released on the selected site within the treatment area beginning the 4th year of this project, assuming full vegetative recovery,

and will continue for a two consecutive years thereafter, for a total of 3 years, or more if necessary. Re-introduction may be delayed if vegetation is deemed inadequate to support prairie dogs, as determined by UDWR or the Service. Re-introduction will follow established UDWR protocol approved by the Service, which includes the use of artificial burrows upon initial release. Artificial burrows must be buried, and this activity will disturb the ground on approximately 1 acre of the treatment site. Release may need to continue for more years in order to sufficiently establish a self-sustaining population. The Cooperator will agree to maintain a colony of a maximum of a 53 animals (see below for derivation of this number) based on an early spring count conducted before the emergence of the young of the year, and in accordance with approved protocol. The Cooperator will be allowed to control animals if the population exceeds this level in two consecutive years, if the population exceeds 75 in any one spring count, or if the animals establish outside of the treatment area. If control is needed, UDWR will issue a Certificate of Registration sufficient to reduce the number of prairie dogs to or below the maximum population of 53, but not to harm the viability of the colony. UDWR will monitor the established colony throughout the term of this project and in perpetuity if needed.

The allowable number of animals was derived by multiplying the average density of a private lands colony in Garfield county (1.0 prairie dogs/acre) by the average size of a colony in the Paunsaugunt Recovery Area (52.7 acres) and rounding up (UDWR, unpublished data). Thus, the Cooperator is being asked to maintain an average sized colony of average density for his location, with some allowance for single year spikes in population size.

If the re-introduced colony is decimated or reduced substantially by plague, the Service and UDWR have the option or repopulating the colony with additional transplanted animals. If plague is suspected or otherwise detected in the colony by any Party, UDWR will respond in accordance with established UPD Recovery Team protocol. UDWR may defer this action to USDA – APHIS Wildlife Services, which will respond to two concerns: 1) when an individual Utah prairie dog comes into contact with the public, and 2) when there is a suspected plague outbreak. Individual Utah prairie dogs that come into contact with the public will be captured and tested for the plague bacterium. If the prairie dogs test positive, they will be destroyed and efforts will be made to determine which colony they came from, if other than the re-introduced colony on the Property. The colony will be observed and if there is no apparent outbreak, no action will be taken. If the colony is experiencing a die-off suspected to be caused by plague, the Service may initiate dusting the colony with a Service approved insecticide to control fleas.the The colony will be monitored closely for 10 days, after which the number of any surviving prairie dogs will be noted and burrow use determined. Wildlife Services will treat the area for fleas following their standard methods of control and will use the best science available to control the vectors of plague (Mike Bodenchuk, personal communication). If a plague outbreak is suspected in a colony, the Utah Public Health Department will authorize media releases to inform the public, as well as post sign around the infected area.

Responsibilities of Parties

This project will be completed with funded contributions and in-kind labor provided by UDWR, Environmental Defense, and the Cooperator (in-kind only). Refer to the Budget and Treatment Schedule attached to see what specific practices will be funded by particular parties.

The USFWS will assist with locating the re-introduction site and will work with Environmental Defense, UDWR and the Cooperator to assure proper completion of the work.

UDWR will make an in-kind contribution of seeding equipment and labor to seed the site. UDWR will conduct all prairie dog related work including burrow preparation, relocation and monitoring. UDWR will also provide labor for fence building through the Dedicated Hunter Program. UDWR will monitor the established UPD colony as long as is deemed necessary.

Environmental Defense will provide staff to complete this Conservation Plan, contract with a qualified Range Ecologist to design and oversee habitat treatments, provide an incentive payment for the Cooperator's participation in the project, and pay for necessary grazing deferment throughout the project.

The Cooperator will provide in-kind labor to assist with completion of the fence construction and brush treatments where he is able. The Cooperator will allow the Parties access to the property on an annual basis for the first 10 years of the Agreement for the purpose of monitoring the vegetation. The Cooperator will agree to allow access to the UDWR and the Service for monitoring of the established prairie dog colony in perpetuity as long as they request it.

Payments

Project Coordination. Environmental Defense, the recipient of the Private Stewardship Grant, will provide a project coordinator, who will coordinate the treatments and payments to contractors.

Brush management. The project coordinator will oversee, coordinate, and reimburse contractors for brush treatment work.

Grazing deferment. All grazing deferment will take place only within the fenced treatment area. This area represents 20% of the total ranch acreage. The baseline-stocking rate for the Property will be set at 400 AUM/year, the rate at which the entire ranch was grazed prior to this agreement. The amount of grazing deferred will be calculated by multiplying the baseline-stocking rate by 20% (400 AUM X .2 = 80 AUM), the size of the treatment area removed from grazing. Thus, for the first 3 years of the agreement, the Cooperator will be compensated for 80 AUMs of forgone grazing. In years 4 and 5, the Cooperator will be compensated for 30 AUMs of forgone grazing. After these first 5 years the amount of grazing deferred within the treatment area will vary from 0 – 30 AUM (a 0% - 37.5% reduction from baseline), and will be determined by UDWR and the Service in cooperation with a qualified range ecologist, and only with compensation to the Cooperator.

The grazing deferment payment is based upon a recommended range of $4-$20/AUM by Utah State University Extension Service (Godfrey, personal communication). Forgone grazing will be compensated for at a rate of $15/AUM in the first year with an annual inflation rate of 3%.

Project Budget

ITEM	Henrie (In-Kind)	UDWR (In-Kind)	Environ. Defense	PSGP
Project Planning			$5,000	
Fencing Construction **5,280' X $1.00/linear.ft.**	$500 (In-Kind)	$4,000 (Labor)		$5,280
Mowing **$30/acre X 120 acres** **- Coordination of equipment and contractor, supervision, inspection, billing, report preparation.**				$3,600 $2,750
Herbicide (shrubs) **$43/acre X 120 acres** **- Coordination of equipment and contractor, supervision inspection, billing, report preparation.**				$5,160 $2,750
Herbicide (grass) **$37/acre X 120 acres** **- Locate and stake treatment strips, coordination of equipment and contractor supervision, inspection, billing, report preparation.**				$4,440 $4,100
Seedbed Preparation and Seeding **$150/acre X 40 acres** **- Coordination of equipment, UDWR personnel, supervision, inspection, report preparation.**	$500 (In-Kind)	$6,000 (Labor, equipment)		$5,120
Seed				$9,240
Additional Mowing and/or Herbicide **$20/acre X 120 acres (1 per year in years 2-4 @ $2,400/yr.)**				$7,200
Grazing Deferment **$15/AUM plus 3% annual inflation**			$4,706.9 - $7,476.5	
Vegetation Inventory/ Monitoring **$1,000/yr. (for 5 years, $2,950 for year 2)**				$6,950
Burrow Preparation **$1,200 one-time**		$1,200 (Labor, equipment)		
Prairie Dog Release **$4,700/yr. X 3 years**		$14,100 (Labor, equipment)		
Prairie Dog Monitoring **$500/yr. X 11**		$5,500 (Labor, equipment)		
TOTAL	$1,000	$30,800	$13,456.9 – $16,226.5	$56,590

Total Project Cost - $101,846.9– $104,616.5

Treatment Schedule and Costs (120 acres treated):

Date	Who	Activity and Unit Cost	Total Cost	Source
Mar 04	SM	Management Plan	$5,000	ED (NFWF) - $5,000
May 05	SM	Baseline Inventory	$1,000.00	PSGP- $1,000
May 05	AH	Grazing Deferment (yearlong) $15/aum X 80 AUMs	$1,200	ED (LSF) - $1,200
May 05	AH	Fence Construction 5,280 ft. X $1.00/linear ft	$9,780 (supplies and labor)	PSGP - $5,280 (supplies) Cooperator (In-Kind) - $500 UDWR (In-Kind) – 4,000
June 05	SM	Mow $30./acre X 120 acres - Contractor cost - Coordination of equipment and contractor, supervision, inspection, billing, report preparation.	 $3,600 $2,750	 PSGP - $6,350
July 05	SM	Herbicide (shrubs) $43.00 /acre X 120 acres - Contractor cost - Locate and stake treatment strips, coordination of equipment and contractor supervision, inspection, billing, report preparation.	 $5,160 $2,750	 PSGP - $7,910
Aug. 05	SM	Herbicide (grass) $ 37.00 /acre X 120 acres - Contractor cost - Locate and stake treatment strips, coordination of equipment and contractor supervision, inspection, billing, report preparation.	 $4,440 $4,100	 PSGP - $8,540
Oct. 05	SM	Inter-seeding - seedbed prep, and drilling, personnel $150/acre X 40 acres - Coordination of equipment, UDWR personnel, supervision, inspection, report preparation. Seed	$6,000 $500 $5,120 $9,240	UDWR - $6,000 (In-Kind) Cooperator (In-Kind) - $500 PSGP - $5,120 PSGP - $9,240
End 2005		**Total Cost Year 1**	**$64,390**	**PSGP - $43,440 Cooperator (In-Kind)- $1,000 UDWR (In –Kind) - $10,000 ED (NFWF) - $5,000 ED (LSF) – $4,950**
May 06	AH	Grazing Deferment (yearlong) $15.45/AUM X 80 AUMs	$1,236.00	ED (LSF) - $1,236.00
June 06	SM	Veg. Monitoring	$2,950	PSGP - $2,950
June 06	SM	Herbicide/mow (if needed) $20/acre X 120 acres	$2,400	PSGP - $2,400
End 2006		**Total Cost Year 2**	**$6,586**	**PSGP - $5,350 ED (LSF) – $1,236**

May 07	AH	Grazing Deferment (yearlong) $15.91/AUM X 80 AUMs	$1,272.80	ED (LSF) - $1,272.80
June 07	SM	Veg. Monitoring	$1,000	PSGP - $1,000
June 07	SM	Herbicide/mow (if needed) $20/acre X 120 acres	$2,400	PSGP - $2,400
End 2007		**Total Cost Year 3**	**$4,672.8**	**PSGP - $3,400 ED (LSF) - $1,272.80**
May 08	AH	Grazing Deferment $16.39/AUM X 30 AUMs	$491.70	ED (LSF) - $491.70
May 08	UDWR	Prairie Dog Burrow Prep	$1,200	UDWR (In-Kind) - $1,200
June 08	SM	Veg. Monitoring	$1,000	PSGP - $1,000
June 08		Herbicide/mow (if needed) $20/acre X 120 acres	$2,400	PSGP - $2,400
July 08	UDWR	Prairie Dog Release	$4,700	UDWR (In-Kind) - $4,700
End 2008		**Total Cost Year 4**	**$9,791.7**	**PSGP - $3,400 UDWR (In-Kind) - $5,900 ED (LSF) - $491.70**
May 09	AH	Grazing Deferment $16.88/AUM X 30 AUMs	$506.40	ED (LSF) - $506.40
June 09	UDWR	Prairie Dog Count	$500	UDWR (In-Kind) - $500
July 09	UDWR	Prairie Dog Release	$4,700	UDWR (In-Kind) - $4,700
Nov. 09	SM	Walk-through Assessment	$1,000	PSGP - $1,000
End 2009		**Total Cost Year 5**	**$6,706.4**	**PSGP - $1,000 UDWR (In-Kind) - $5,200 ED (LSF) - $506.40**
May 10	AH	Grazing Deferment $17.39/AUM X 30 AUMs	$0 - $521.70	ED (Other) - $0 - $521.70
June 10	UDWR	Prairie Dog Count	$500	UDWR (In-Kind) - $500
July 10	UDWR	Prairie Dog Release	$4,700	UDWR (In-Kind) - $4,700
End 2010		**Total Cost Year 6**	**$5,200– $5,721.7**	**ED (Other) - $0 - 521.7 UDWR (In-Kind) - $5,200**
May 11	AH	Grazing Deferment $17.91/AUM X 30 AUMs	$0 - $537.30	ED (Other) - $0 - $537.30
June 11	UDWR	Prairie Dog Count	$500	UDWR (In-Kind) - $500
End 2011		**Total Cost Year 7**	**$500 – $1,037.3**	**ED (Other) - $0 - $537.30 UDWR (In-Kind) - $500**
May 12	AH	Grazing Deferment $18.45/AUM X 30 AUMs	$0 - $553.50	ED (Other) - $0 - $553.50
June 12	UDWR	Prairie Dog Count	$500	UDWR (In-Kind) - $500
End 2012		**Total Cost Year 8**	**$500– $1,053.5**	**ED (Other) - $0 - $553.50 UDWR (In-Kind) - $500**
May 13	AH	Grazing Deferment $19.00/AUM X 30 AUMs	$0 - $570.00	ED (Other) - $0 - $570.00
June 13	UDWR	Prairie Dog Count	$500	UDWR (In-Kind) - $500
End 2013		**Total Cost Year 9**	**$500 – $1,070**	**ED (Other) - $0 - $570.00 UDWR (In-Kind) - $500**
May 14	AH	Grazing Deferment $19.57/AUM X 30 AUMs	$0 - $587.10	ED (Other) – $0 - $587.10
June 14	UDWR	Prairie Dog Count	$500	UDWR (In-Kind) - $500
End 2014		**Total Cost Year 10**	**$500 – 1,087.1**	**ED (Other) - $0 - $587.10 UDWR (In-Kind) - $500**
June 15-24	UDWR	Prairie Dog Count	$2,500	UDWR (In-Kind) - $2,500 ED (Other) - $0 - $2,769.6
End 2015-		**Total Cost Year 11-15**	**$2,500**	**UDWR (In-Kind) - $2,500**

2019 End Project		**Total Project Cost**	**$101,846.9–$104,616.5**	**PSGP - $56,590 Cooperator (In-Kind)- $1,000 UDWR (In-Kind) - $28,300 ED (NFWF) - $5,000 ED (LSF) - $5,687.3–$8,456.9 ED (Other) - $0 - $2,769.6**

AH – Allen Henrie
ED – Environmental Defense
LSF – Leopold Stewardship Fund
SM – Stephen Monsen through Environmental Defense
NFWF – National Fish and Wildlife Foundation
UDWR – Utah Department of Wildlife Resources
PSGP – Private Stewardship Grant Program through the Service

References

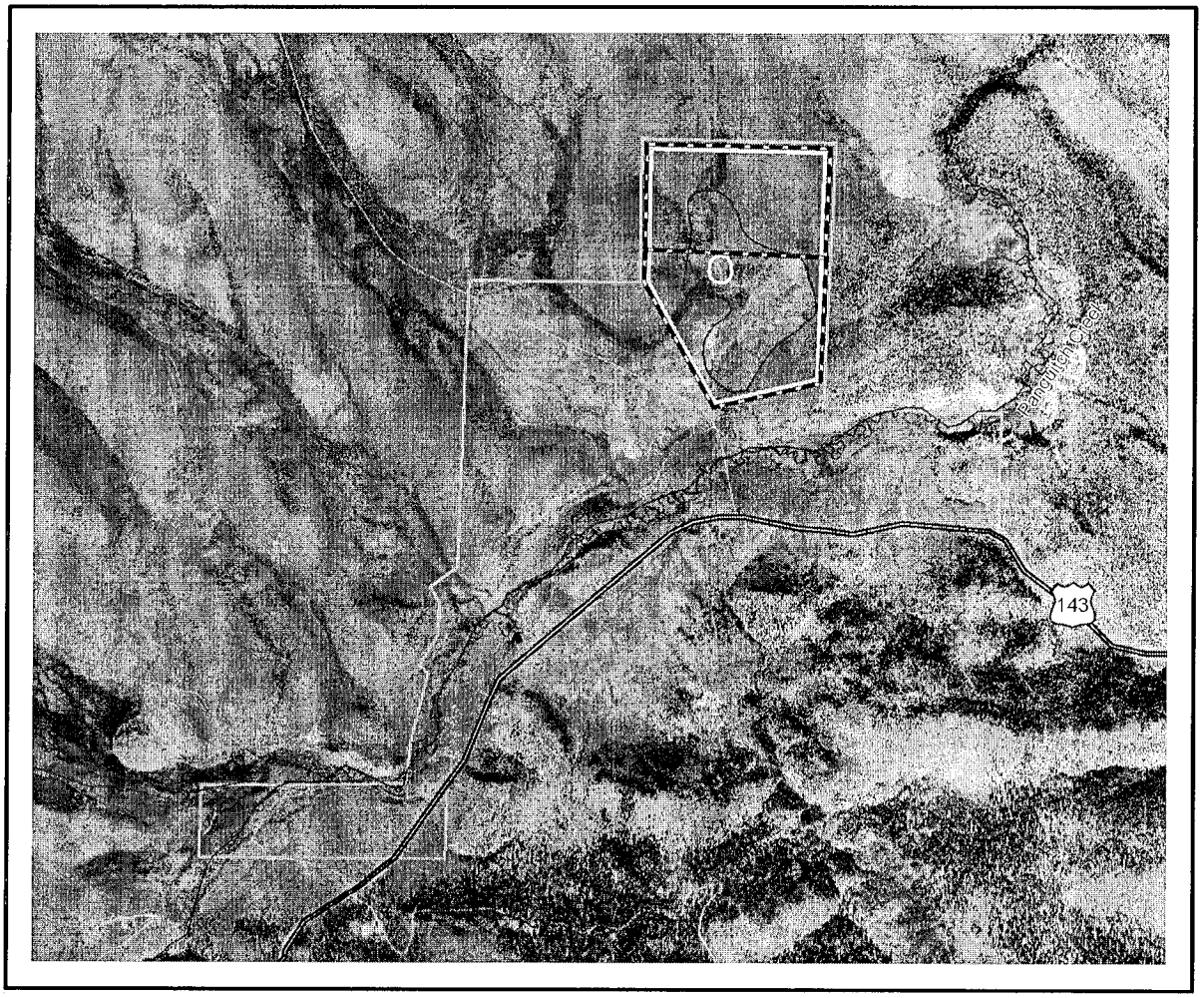
US Department of Agriculture, National Agricultural Statistics Service. Agricultural Land Values and Cash Rents. August 2003.

Crocker-Bedford D. 1976. Food interactions between Utah prairie dogs and cattle. M. S. Thesis, Utah State University, Logan.

Utah Prairie Dog Recovery Implementation Team. 1997. Utah Prairie Dog Interim Conservation Strategy. Members of team in collaboration with Dr. Mark Ritchie, Utah State University.

Appendix 1.

Map of Henrie Property with Proposed Treatment Locations



Appendix 2. Vegetation Composition Guidelines For Utah Prairie Dog Habitat (adapted from Utah Prairie Dog Implementation Recovery Team 1997).

Vegetation Type	Examples	Recommended % Ground Cover	Additional Requirements
Warm-season grasses	Blue grama, sand dropseed, mountain muhly, curlygrass	3% - 10%	If warm-season grasses are less than 3%, then forbs must be 11% - 20%
Cool-season grasses	Western wheatgrass, slender wheatgrass, needle-and-thread, squirreltail	12% - 40%	A minimum of three species are required, with at least one native species present.
Forbs	*Astragalus, Aster, Penstemon, Senecio*	1% - 10%	Non-annual, and a minimum of 1% forbs must be species as defined below
Shrubs	Sagebrush, rabbit brush, greasewood, broom snakeweed	0% - 3%	

Definitions

- Warm-season grasses – grasses which "green-up" and do most of their growing during the warm summer months.
- Cool-season grasses – grasses which "green-up" and do most of their growing during the cool spring months.
- Forbs – any herbaceous plant other than those in the grass family (*Poacae*). Must be palatable and provide nutritional value to prairie dogs.
- Shrubs – plants with persistent, woody stems and a relatively low growth form, compared to tress, and that generally produce several basal shoots.

Appendix 3. Recommended Seed Mix. (Seeding 40 Acres)

Species	Lbs/A	Cost/Lb	Cost/A	Total Cost
Warm Season Grasses				
Blue grama, Lovington	3	$ 6.00	$18.00	$ 720.00
Galletta	0.5	$30.00	$15.00	$ 600.00
Squirreltail	1	$18.00	$18.00	$ 720.00
Cool Season Grasses				
Slender wheatgrass	2	$2.50	$5.00	$ 200.00
Nodding brome	1	$20.00	$20.00	$ 800.00
Mountain brome	2	$2.50	$5.00	$ 200.00
Bluebunch wheatgrass	2	$4.00	$8.00	$ 320.00
Forbs				
Eaton penstemon	1	$30.00	$30.00	$1200.00
Smooth-leaf penstemon	1	$30.00	$30.00	$1200.00
Pacific aster	1	$20.00	$20.00	$ 800.00
Utah sweetvetch	1	$40.00	$40.00	$1600.00
Western yarrow	1	$10.00	$10.00	$ 400.00
Rocky Mtn. Beeplant	1	$12.00	$12.00	$ 480.00
				Total $ 9,240.00

Attachment 2. Prairie Dog Control Provisions

Pursuant to this Safe Harbor Agreement and associated Enhancement of Survival Permit, the Cooperator will have the authority to request control, or, when appropriate, undertake control measures himself, for prairie dogs (1) in riparian areas on both sides of Panguitch Creek (as designated in the attached map of the Property) (2) in the treatment area and all other portions of the Property if the population on the enrolled property exceeds a spring count of 53 adult prairie dogs for two consecutive springs or 75 adult prairie dogs in any one spring as determined by UDWR; and (3) on the enrolled property outside the treatment area when prairie dogs become established. "Established" is defined as prairie dog burrows having been excavated or digging activity, it does not apply to emigrating or immigrating animals or to foraging. The goal of such prairie dog control shall be to keep prairie dogs from damaging riparian areas and agricultural lands outside the treatment area and to allow the Cooperator to control total prairie dog numbers, if the population exceeds the spring count figures listed above.

Prior to commencing control measures pursuant to a Certificate of Registration, the Cooperator shall request assistance in controlling UPDs by contacting UDWR's Southern Region Office or the Utah Field Office of the Service. UDWR and the Service must respond to the Cooperator's request for assistance or issue him a Certificate of Registration to control UPDs within 21 days. The preferred method of control will always be trapping and relocation; as long as a suitable, approved transplant site is available. During July and August (or through the Friday of the week of August 31), all UPDS in excess of the agreed numbers or outside the agreed areas and which meet minimum weight and condition criteria (minimum 500 g, non-lactating) will be trapped and relocated by UDWR. In addition, adult male UPDs may be trapped and relocated from April1 through May 31 if sites are available to receive them. Otherwise, UPDs will be controlled via shooting or lethal trapping from 1 January through 31 May and from 1 September (or from the Saturday of the week of August 31) through 31 December. The Cooperator may also fill UPD burrows excavated outside the treatment area at any time of year.