ENVIRONMENTAL ASSESSMENT

for the

Cedar Ridge Golf Course

And

Paiute Tribal Land

Habitat Conservation Plan

Title Page

Lead Agency:	U.S. Fish and Wildlife Service, Department of Interior
Legal Authority:	Endangered Species Act of 1973, as amended, Section 10(a), as implemented by 50 CFR 17.32(b)(1) and 17.22(b)(1)
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1. INTRODUCTION

1.1 Summary

The Cedar Ridge Golf Course (Golf Course) and Paiute Tribal Land (Tribal Land) in Cedar City, Utah, are areas that receive heavy recreational use. These areas also support high concentrations of Utah prairie dogs (*Cynomys parvidens*) (UPD), a species listed as threatened under the Endangered Species Act of 1973, as amended (ESA). UPDs are incompatible with the identified land uses, and Cedar City and the Paiute Tribe are seeking a permit under Section 10(a)1(B) of the ESA to address this conflict. When a Federally protected species is at the center of the conflict, management[1] must abide by Federal law through the ESA. Habitat Conservation Plans are created to help ensure sustainability of endangered and threatened species populations and also allow for relief for land owners when these situations occur. Within a Habitat Conservation Plan, mitigation measures are developed to protect the viability and sustainability of the population of a threatened or endangered species through proper management, while allowing the land owner or applicant to conduct certain activities. This Environmental Assessment (EA) explains the issues concerning the Cedar Ridge Golf Course and Paiute Tribal Land Habitat Conservation Plan (HCP) in regards to its effects on the ecosystem, natural and historical resources, community, and the applicants.

1.2 Satisfaction of Habitat Conservation Plan Policy

The U.S. Fish and Wildlife (Service) has adopted a "five point policy" to improve the Habitat Conservation Plan process. Satisfaction by this HCP of the five point policy is outlined below.

1. <u>Biological Goals and Objectives</u>
   The biological goals of the HCP are to minimize and mitigate for incidental take of UPDs to the greatest extent practicable, and to not appreciably reduce the likelihood of the survival and recovery of UPD in the wild. These goals would be achieved by removing all UPD from the Golf Course and Tribal Lands; establishing a conservation easement on the Wild Pea Hollow; and improving habitat at Wild Pea Hollow.

2. <u>Monitoring</u>
   The HCP provides for compliance and biological monitoring. Monitoring of allowed activities at the golf course and tribal lands would occur annually for the life of the permit. Biological monitoring at Wild Pea Hollow would occur beyond the life of the permit in perpetuity.

3. <u>Adaptive Management</u>
   Adaptive management would be implemented to address potential changes in the identified conservation measures in sections 5 and 6 and in Changed and Unforeseen Circumstances

[1] Management of these lands includes landscape maintenance of greens, fairways and recreational parks. Vegetation in these areas is closely maintained via mowing, fertilizing and pest control. Paved trails must be constructed and maintained in a manner that is safe for all users including golf carts.

identified in section 8.0. If annual monitoring determines that conservation measures are not succeeding as intended, conservation measures may be modified.

4. Permit Duration
   The permit would have a term of 20 years. This time period is sufficient to allow for the removal of prairie dogs from the project lands and for habitat restoration and protection of Wild Pea Hollow to occur.

5. Public Participation
   Public comments to the Service regarding the project will be solicited through a request for public comments in a Notice of Availability published in the Federal Register.

2. PURPOSE AND NEED FOR ACTION

2.1 Background

For the past 13 years the Cedar City Golf Course and adjacent Paiute lands—undeveloped areas and an open field used for annual restoration gatherings by the Paiute Tribe of Utah—have been inhabited by the Utah prairie dog (*Cynomys parvidens)* (UPD). All lands are heavily utilized for recreational purposes. Because of the incompatibility of prairie dog occupation of these developed lands with the existing recreational uses, Cedar City and the Paiute Tribe (the Applicants), through this HCP, are seeking to reduce the ongoing conflicts on these sites. Through this HCP, UPDs would be removed from the Cedar Ridge Golf Course and Paiute tribal lands (Project Lands) while establishing a conservation easement for Utah prairie dogs in natural habitat where there is no human development**.**

Due to adverse human/prairie dog interaction, a solution that would minimize or negate interactions that exist on these recreation areas located within the boundaries of Cedar City Municipality would benefit all affected parties. Seeking a solution would be consistent with guidelines found in the Utah Prairie Dog Recovery Plan (U.S. Fish and Wildlife Service 1991). Although the current Iron County Habitat Conservation Plan (UDWR, 1998) allows limited take of prairie dogs on the golf course, it only allows up to 300 dogs annually across the entire county. This HCP would allow the applicant to permanently impact 18 acres of currently occupied UPD habitat and 257 acres of potential habitat in exchange for permanently protecting 303 acres of habitat elsewhere. This HCP covers UPDs only as critical habitat has not been designated.

2.2 Purpose and Need for the Federal Project

The purpose of this EA is to: (1) conserve listed and unlisted species and their habitats, and (2) ensure compliance with the National Environmental Policy Act (NEPA), the Endangered Species Act (ESA), and other federal laws and regulations. The need for this EA is to analyze the impacts of the federal action of issuing and incidental take permit by the Service for take of Utah prairie dogs and their habitats.

2.3 Decision to be Made

The need for the proposed HCP is to set forth the conservation practices that would allow the federal agencies to make the following decisions regarding the issuance of a Section 10 incidental take permit. These questions must be answered affirmatively for the Services to grant an incidental take permit under Section (10)(a)(1)(B) of the Endangered Species Act. They are:

- Is the proposed take incidental to an otherwise lawful activity?
- Are the impacts of the proposed take minimized and mitigated to the maximum extent practicable?
- Has the applicant ensured that adequate funding would be provided to implement the measures proposed in the HCP?
- Is the proposed take such that it would not appreciably reduce the likelihood of the survival and recovery of the species in the wild?
- Are there any other measures that should be required as a condition of the permit?

Assuming the measures included in the proposed HCP meet these criteria, it is the responsibility of the Service to issue the desired incidental take permit for the species and the land management activities covered in the plan.

2.4 NEPA Responsibilities

This environmental assessment (EA) has been developed as part of the public process followed by the Service in deciding whether to issue a permit as required by the National Environmental Policy Act (NEPA).The preparation of this document follows the guidelines in the Endangered Species Habitat Conservation Planning Handbook (USFWS 1996) and other applicable sources and guidance for developing NEPA documents. This EA has been prepared in compliance with NEPA to identify and evaluate the potential impacts of the proposed Service action. Issuance of the Section 10(a) permit, as proposed, would require that the applicant, as well as the Service enter into an agreement for the implementation of the HCP. NEPA requires federal agencies to evaluate and disclose the effects of their proposed actions on the human environment in a written statement that addresses:

- The environmental impact of the proposed action;
- Any adverse environmental effects that cannot be avoided should the proposed action be implemented;
- Alternatives to the proposed action;
- The relationship between short-term uses of the human environment versus the maintenance and enhancement of long-term productivity;
- Any irreversible and irretrievable commitments of resources that would be involved if the proposed action is implemented.

2.5 Issues Raised During Project Planning

The primary concern raised during planning was whether the project proponent could lethally control animals as part of maintenance of their facilities.

3. DESCRIPTION OF ALTERNATIVES

3.1 Alternative 1

Proposed (Preferred) Action

This alternative would proceed in 2 phases. The first phase would entail placing a perpetual conservation easement on 303 acres of UPD habitat (an area known as Wild Pea Hollow), 19 of which is occupied, within the West Desert Recovery Area (Appendix A.) in exchange for the removal of UPDs from the Cedar Ridge Golf Course. Removal of UPDs would consist of first live trapping and translocating animals to approved translocation sites for 2 seasons. After two seasons of live trapping, lethal trapping would ensue in conjunction with burrow filling. The Golf Course would then be maintained and free of UPDs.

Phase 2 would entail the restoration of 198 acres of the 303 acres at Wild Pea Hollow to increase available habitat. Once the colony reaches 70 animals for two consecutive years, the Paiute Tribe would initiate removal of UPDs from covered Tribal Lands. Removal of UPD would be as described for the Golf Course above. The Tribal Lands would then be maintained free of UPDs.

Under this alternative, monitoring of UPDs and vegetation treatment would occur annually with assistance from the Bureau of Land Management (BLM). Translocation of UPDs would occur with oversight from the Utah Division of Wildlife Resources (UDWR). Funding for this alternative is provided through the State of Utah, Iron County, Cedar City, Paiute Tribe, with in-kind services being provided by UDWR and BLM. A full description of the proposed alternative can be found in the HCP (Appendix A.)

3.2 Alternative 2

On-site Mitigation

This alternative would allow UPDs to remain on an 8 to 10 acre portion of the Golf Course (roughs). This area would permanently be managed specifically for UPDs. The 13.5 acres of currently occupied UPD habitat on the Golf Course and the remainder of the Golf Course, including currently unoccupied areas, would be managed to be free of UPDs. This alternative was rejected because, with a source population of UPDs in the roughs, the rest of the Golf Course areas would be impossible to maintain free of UPDs. It is extremely difficult to keep locations free of UPDs through means such as fencing (including buried fences). In addition, adjacent Tribal Land would not be able to address their UPD population issues. Moreover, the Tribal Land UPD population would represent another source population dispersing into the greens of the Golf Course in the future. Although this alternative would allow for the presence of some UPDs within the Golf Course, these animals would not provide any effective contribution to the long term survival and recovery of the species as they would be isolated and surrounded by development. Under this alternative, the Wild Pea Hollow 303-acre mitigation site would not be protected in perpetuity and managed for the conservation of the UPD. This alternative would not fully offset the impacts to UPD nor does it meet the needs of the Permittees.

3.3 Alternative 3

No Action

Under this alternative, the Permittees would not apply for a Section 10(a)(1)(B) permit. UPDs would continue to be present on the site but controlled under the Iron County Habitat Conservation Plan which allows up to 300 UPDs annually to be "non-permanently taken" across the whole county at "…developed recreational areas that still remain suitable as habitat…". Conflicts between human uses and the conservation of the UPD would remain. In addition, the Wild Pea Hollow 303-acre mitigation site would not be protected in perpetuity and managed for the conservation of the UPD. This alternative does not meet the needs of the Permittees.

4. DESCRIPTION OF AFFECTED ENVIRONMENT

4.1 Wild Pea Hollow General Description

The average elevation of the Wild Pea Hollow land is 6,400 feet above sea level. Wild Pea Hollow is within the Utah prairie dog West Desert Recovery Area. The land consists of rolling foothills that historically were covered with basin big sagebrush (*Artemisia tridentata ssp. tridentata*) with a scattering of Utah juniper (*Juniperus osteosperma*). It is surrounded by BLM lands with access via a 2-track on the west side of the parcel. In recent years, due to several range fires (both wild and controlled burns), much of the area has burned allowing native grasses and shrubs to become the dominant species. The area currently has permittees that graze cattle on the allotment. The grazing will continue into the foreseeable future.

4.2 Golf Course / Tribal General Description

These lands are within the Utah prairie dog West Desert Recovery Area. They are in the center of Cedar City on the east side of town. The Cedar Mountains rise from the eastern side of the golf course and quickly transition into Pinion Juniper foothills that are undeveloped at this time. A portion of the lands to the east are privately owned but the majority is held by BLM**.** Much of the land to the north, west, and south of this area has been developed or soon will be under the current Iron County Habitat Conservation Plan.

4.3 Vegetation

<u>Cedar Ridge Golf Course</u>

The predominant vegetation of the Golf Course is Kentucky bluegrass (*Poa pratensis*) within the groomed fairways and greens with islands of native vegetation in the roughs. The native vegetation consists of Indian rice grass (*Stipa hymenoides*), bottlebrush squirreltail (*Elymus elymoides*), needle-and-thread (*Stipa comata*), Hood's phlox (*Phlox hoodii*), Douglas rabbit brush (*Chrysothamnus viscidiflorus*), scarlet globe mallow (*Sphaeralcea coccinea*) and penstemon (*Penstemon spp*.).

<u>Paiute Tribal Land</u>

The predominant vegetation on the Tribal Land is a mix of cultivated lawns and disturbed lands of native and non-native vegetation.

<u>Wild Pea Hollow</u>

The vegetative composition of Wild Pea Hollow is a mixture of native and non-native vegetation. Black sagebrush (*Artemisia nova*), Indian ricegrass (*Stipa hymenoides*), bluebunch wheatgrass (*Agropyron spicatum*), Wyoming big sagebrush (*A. tridentata ssp. wyomingsis*) and antelope bitterbrush (*Purshia tridentata*) are the major vegetation species for the area. A

scattering of Utah juniper (*Juniperus osteosperma*) is also present in the area. Other miscellaneous forbs, perennial grasses and other shrubs are listed as occurring in the area.

4.4 Wildlife

Cedar Ridge Golf Course and Paiute Tribal Land

There are a multitude of species that may on occasion occupy the subject lands including: sage thrasher (*Oreoscoptes montanus*), sage sparrow (*Amphispiza belli*), horned lark (*Eremophila alpestris*), western meadowlark (*Sturnella neglecta*), mourning dove (*Zenaida macroura*), red-tailed hawk (*Buteo jamaicensis*), northern goshawk (*Accipiter gentiles*), desert cottontail rabbit (*Sylvilagus audubonii*), black-tailed jackrabbit (*Lepus californicus*), rock squirrel (*Spermophilus variegatus*), striped skunk (*Mephitis mephitis*), Botta's pocket gopher (*Thomomys bottae*), coyote (*Canis latrans*), American badger (*Taxidea taxus*), long-tailed weasel (*Mustela frenata*), and Utah prairie dog.

Wild Pea Hollow

Most wildlife species associated with the Great Basin ecotype should be expected to be present in the Wild Pea Hollow area. Some of the more common species are: pronghorn antelope (*Antilocapra americana*), black-tailed jackrabbit, desert cottontail rabbit, mourning dove, sage thrasher, sage sparrow, horned lark, golden eagle (*Aquila chrysaetos*), red-tailed hawk, American kestrel (*Falco sparverius*), coyote, American badger, and Utah prairie dog.

4.5 Endangered, Threatened, and Candidate Species

Five Federally listed species occur in Iron County, in which the Golf Course, Tribal Land, and Wild Pea Hollow are located. The status of the species are listed below:

- *Endangered*

  Southwestern willow flycatcher (*Empidonax traillii extimus*) – This species occurs within riparian areas and nests primarily in mid-to-low elevation riparian habitat along rivers, streams, or other wetlands where a dense growth of willows or other woody vegetation are present. It is currently very rare throughout its range and breeds in the southwestern United States (and possibly northern Mexico), and winters in Central America and southern Mexico. This flycatcher is difficult to distinguish from other related species, though its territorial song is distinctive. The major factor in the decline of the southwestern willow flycatcher is likely the alteration/loss of the riparian habitat necessary for the species. Riparian habitat suitable for Southwestern willow flycatcher does not exist on the project lands.

  California condor (*Gymnogyps californianus*) – In Utah, the California condor is an experimental nonessential population. The California condor is among the rarest birds in North America. Over the last century, populations declined (due to lead poisoning, cyanide poisoning, shooting, and DDT contamination) to the point that the few remaining birds were captured for captive breeding efforts in the 1980s. Since then, captive-reared birds have been released in California and northern Arizona. In Utah, sightings were historically rare, noted only twice by pioneers in the 1800s. However, beginning in the late 1990s, sightings of birds released in northern Arizona have been made across the state of Utah. California Condors prefer mountainous country at low and moderate elevations, especially rocky and brushy areas near cliffs. Colonies roost in snags, tall open-branched trees, or cliffs, often near

important foraging grounds. California condors eat carrion, usually feeding on large items such as dead sheep, cattle, and deer. California condors are not expected to occur at the golf course/tribal lands or at Wild Pea Hollow, except possibly as an infrequent transiet visitor. Condors are know to occasionally visit the nearby Kolob Canyon.

- *Threatened*
  Bald eagle (*Haliaeetus leucocephalus*) – There are only eight known nesting pairs of bald eagles in Utah, of which none occur in Iron County. Bald eagles are a large, dark, raptorial bird with a white head and tail when mature. Eagles roost in large trees in late winter and early spring. The most common use of the area of the proposed HCP would be in the winter by infrequent migrant eagles. Nesting and roosting habitat does not occur on project lands.

  Mexican spotted owl (*Strix occidentalis lucida*) – The Mexican spotted is Federally listed as threatened. In Utah, the Mexican spotted owl utilizes canyon habitats for nesting and forested habitats for dispersing and foraging. Mexican spotted owls in Utah breed and forage in steep-walled canyon complexes. These areas are typically cool, moist environments; however, owls have been located in dry, arid habitats with minimal vegetation (USFWS 1995). The common characteristics of canyon sites are the presence of steep to vertical rock walls in all or part of the canyon. The habitat necessary to support this species does not occur on project lands.

  Utah prairie dog (*Cynomys parvidens*) – The UPD occurs in the southwestern part of the state. It was listed as an endangered species in 1973 and it has been federally listed as a threatened species since 1984 (USFWS 1973, 1984,1991). Similar to other prairie dogs, UPDs form colonies and spend much of their time in underground burrows, often hibernating during the winter. The species breeds in the spring, and young can be seen above ground in late May or early June. The UPD's diet is composed of flowers, seeds, grasses, leaves, and even insects. Major threats to the species include habitat loss (through development and drought), poisoning, and the sylvatic plague (USFWS 1991). This species occurs on all project lands.

- *Candidate*
  Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) – The cuckoo prefers open woodland with clearings and low, dense scrubby vegetation; often associated with watercourses. In Utah, they prefer desert riparian woodlands comprised of willow Fremont cottonwood and dense mesquite (Hughes 1999). This habitat does not occur on project lands.

4.6 Wetlands

<u>Cedar Ridge Golf Course</u>
There are no wetlands on the Golf Course.

<u>Paiute Tribal Land</u>
There are no wetlands on the Tribal Land.

<u>Wild Pea Hollow</u>
There are no wetlands on the Wild Pea Hollow land.

4.7 Geology/Soils

Cedar Ridge Golf Course and Paiute Tribal Land

Topography - Most of the Golf Course is situated on an alluvial fan, with a 2 to 5 percent slope. The elevation ranges from 5,600 to 6,000 feet above sea level.

Soils - Ashdown loam and similar soils comprise 85 percent of the soils. Medburn, gypsiferous substratum, along with soutin and squawcave soils are also present in small quantities. The mean annual soil temperature at depths of 20 inches ranges from 50 to 53 degrees F. The moisture control section is continually dry in all parts for 60 to 75 days during the summer, and is continually moist in all parts for 60 to 75 days during the winter and early spring. The moisture regime is aridic bordering on xeric. The 10 to 40 inch series particle-size control section averages 18 to 27 percent clay and more than 15 percent fine sand or coarser. Coarse-fragment content ranges from 0 to 35 percent. The Ap and C horizons have hue of 7.5YR, 5YR or 2.5YR, value of 4 or 6 dry, 3 through 5 moist, and chroma of 2 through 6. The soils are loam, silt loam, fine sandy loam, clay loam, sandy loam, silty clay loam, or sandy clay loam. It is mildly alkaline to strongly alkaline. Some pedons have less than 3 percent gypsum in the C horizon. Electrical conductivity ranges from 0 to16 mmhos/cm in the lower part of the C horizon.

Wild Pea Hollow

Topography - Much of the landform is a dissected fan remnant, with a 2-15 percent slope. The elevation ranges from 6,000 to 7,000 feet.

Soils - Pavant and similar soils make up 85 % of the soils. Ashdown, Muleypoint and Tombar soils make up the other 15% of the soil type. The Pavant soil type is generally shallow (10-20 inches) and is well drained. The top 14 inches is cobbly loam and gravely loam under laid with indurated carbonate hardpan. The mean annual soil temperature is 47 to 52 degrees F, and the mean summer soil temperature at 20 inches is 63 to 68 degrees F. These soils are moist in the moisture control section more than 50 percent of the time the soil temperature is above 41 degrees F, and are continually dry for more than 60 consecutive days during the summer months in more than 7 out of 10 years. The soil is 12 to 20 inches deep over an indurated calcium carbonate cemented hardpan. The particle size control section contains 0 to 15 percent rock fragments which are dominantly gravel and cobble size. The A horizon has a value of 4 or 5 dry, 2 or 3 moist and chroma of 2 or 3. This horizon is slightly to strongly effervescent. This horizon is moderately to strongly alkaline. The Bk horizon has hue of 10YR or 7.5YR, value of 5 through 8 dry, 3 through 6 moist and chroma of 2 through 4. Clay content is 18 to 27 percent. It is moderately to strongly alkaline.

4.8 Land Use

Cedar Ridge Golf Course

The Golf Course hosts an average of 225 golfers per day with peak activity from mid-February thru mid-December, totaling 6,000 golfers per month. The Golf Course is open all year round for golfing. The land is maintained by grounds keepers throughout the year. The Golf Course encompasses 503 acres. Of those acres, 13.5 acres are currently occupied by UPDs.

Paiute Tribal Land
The Tribal Land has outdoor activities most of the year and especially spring through fall. Recreational activities include playground, sports, and powwows. The Paiute Indian Tribe of Utah owns 48 acres of land adjacent to the Golf Course. On this land are buildings, houses, a parking lot, a playground, a powwow gathering area, and some undeveloped areas which are proposed for future housing, a health clinic and other various developments. Suitable UPD habitat includes undeveloped areas, the playground, and the powwow gathering area totaling approximately 26 acres. Currently occupied areas include portions of the powwow area and dirt areas around the playground, totaling approximately 4.5 acres.

Wild Pea Hollow
Wild Pea Hollow is owned by the State Institutional Trust Land Administration (SITLA) and is surrounded by BLM land. SITLA must manage the lands and revenues generated from the lands in the most prudent and profitable manner possible, and not for any purpose inconsistent with the best interest of the trust beneficiaries. Currently the land is being leased for grazing and hunting.

4.9 Air Quality

Cedar Ridge Golf Course and Paiute Tribal Land
The properties are located in a rural portion of Iron County that meets all relevant air quality standards.

Wild Pea Hollow
The Wild Pea Hollow is located in an undeveloped area and has little to no pollution causing attributes emanating from it.

4.10 Water Resources

Cedar Ridge Golf Course and Paiute Tribal Land
Mean annual temperature is 45 to 50 degrees F with a mean annual precipitation 10 to 12 inches. Normally there are 120 to 140 days annually which are frost free. The Golf Course has only one pond which is less than an acre in size. There is also a drain-off, which is only filled when it rains.

Wild Pea Hollow
Mean annual temperature is 45 to 48 degrees F with a mean annual precipitation of 10 to 12 inches. Normally there are 120 to 140 days annually which are frost free. There are no water resources at this site.

4.11 Cultural Resources

Cedar Ridge Golf Course and Paiute Tribal Land
Neither the Golf Course or Tribal Land have any known archeological significance and much of the Tribal Land has been developed.

Wild Pea Hollow
The Utah State Historic Preservation Office and UDWR, in conjunction, conducted a survey and determination of the lands. Three lithic scatter sites were found in the survey area; one large site, in the northern portion of the area; and two small sites, in the mid to southern portion of the area.

Based on the evidence, the area is said to have been a temporary hunting ground. It has been recommended to avoid all sites for restoration plans.(Appendix B)

5.0 ENVIRONMENTAL CONSEQUENCES

5.1 Alternative 1- Preferred Alternative

5.1.1 Vegetation

Cedar Ridge Golf Course and Paiute Tribal Land

The vegetation at the Cedar Ridge Golf Course and the Tribal Lands would not be significantly affected under Alternative 1. Vegetation is likely to increase in the roughs as UPD would not be consuming it or destroying it through the creation of burrows. Fairways and greens would continue to be managed by mowing and herbicide applications.

Wild Pea Hollow

Vegetation would be directly affected by mechanical treatments and seeding, and would likely change in percent composition from mainly sage brush to mainly grasses. As the UPD colony increases in response to restoration activities, more ground disturbance can be expected from UPDs digging additional burrows.

5.1.2 Wildlife

Cedar Ridge Golf Course and Paiute Tribal Land

Wildlife other then UPDs (see Section 5.1.3) at the Cedar Ridge Golf Course and Tribal Lands would not be significantly affected under alternative 1.

Wild Pea Hollow

Wildlife species at Wild Pea Hollow would benefit from the conservation of the land in perpetuity. Sage dependent species such as sage sparrows, pronghorn, and pygmy rabbits would see a reduction in sage which might decrease foraging or nesting sites. Predators such as raptors, coyotes and badgers might see an increase in prey availability as prairie dog numbers increase.

5.1.3 Endangered, Threatened, and Candidate Species

Cedar Ridge Golf Course and Paiute Tribal

- *Endangered*

  Southwestern willow flycatcher (*Empidonax traillii extimus*) – The project site lacks suitable habitat the Southwestern willow flycatcher; therefore, this species would not be affected significantly by Alternative 1.

  California condor (*Gymnogyps californianus*) – The project site lacks suitable habitat for the California condor; therefore, this species would not be affected significantly by Alternative 1.

- *Threatened*

  Bald eagle (*Haliaeetus leucocephalus*) – The project site lacks suitable habitat for bald eagles; therefore, this species would not be affected significantly by Alternative 1.

Mexican spotted owl (*Strix occidentalis lucida*) – The project site lacks suitable habitat for the Mexican spotted owl; therefore, this species would not be affected significantly by Alternative 1.

Utah prairie dog (*Cynomys parvidens*) –

The table below shows the recent (1999-2003) annual spring count of UPDs on the Golf Course and on the two (combined) Tribal Land parcels. Note that for the years 1999 through 2001, the total Golf Course counts are included in the "Golf Course Driving Range" category.

Annual spring count conducted by UDWR using standard survey methods (UDWR 2000)

Location	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**
Golf Course hole 5	**	**	**	2	0	
Golf Course hole 4 &5	**	**	**	0	0	
Golf Course hole 6	**	**	**	1	2	
Golf Course hole 2	**	**	**	2	1	
Golf Course hole 8	**	**	**	3	1	
Golf Course hole 1,8 & 9	**	**	**	10	7	
Golf Course hole 18 east	**	**	**	2	2	
Golf Course hole 18 west	**	**	**	3	4	
Golf Course hole 14 & 15	**	**	**	11	6	
Golf Course Driving Range	70	9	26	3	5	
Golf Course totals	**70**	**9**	**26**	**37**	**28**	**33**
Tribal Land*	44	38	13	27	15	38
Grand Totals	**114**	**47**	**39**	**64**	**43**	**71**

* Note: Paiute Tribal Land includes both the ball field and the Tribal restoration gathering area (Powwow Land)

** 1999-2001 counts on Cedar Ridge Golf Course were not broken down according to holes until the spring counts of 2002.

A mean of 34 UPDs has been counted from 1999 through 2003 at the Cedar Ridge Golf Course. Literature suggests that 40-60% of the population is above ground at any one time. Therefore, the adult UPD estimate for the Golf Course would be 68 UPDs. The literature also suggests that approximately 50% of the adult population is female and that each female produces an average of 4 pups. Based on this, by mid-summer, there would be a total of 136 pups and 68 adults, totaling 204 UPDs on the Golf Course. Complete capture and translocation of the entire UPD population the first year is not likely to occur. Based on a trapping success rate of 79% at other colonies in the county (Bonzo 2004) it is estimated that approximately 43 UPDs would remain after the first year of trapping. Applying an overwinter survival of 59%[2] (Clark, 1974) approximately 25 UPDs would emerge in the spring. Based on the calculation used above, there could be 77 UPDs present when the trap window opens the second year. Using the same trapping success rates, 17 animals could remain at the end of the trap window when lethal control could commence.

[2] Information for age specific survival on Utah Prairie dogs is scarce. Therefore, information on White-tailed prairie dogs was used to estimate over winter survival.

The remainder would have been successfully live-trapped and translocated. Assuming 100% lethal control via conibear traps and filling of burrows, further annual take of animals would be limited because it would consist of animals from the Tribal Land dispersing into the Golf Course. However this dispersal should be minimal because UPDs on Tribal Land would be controlled via the Iron County Habitat Conservation Plan non-permanent take provisions. Additional animals could come from other colonies throughout Cedar City although control of these animals is covered by the Iron County Habitat Conservation Plan. Currently several small, dispersed colonies occur within .25 miles of the Golf Course and the Tribal Land. Although animals from these colonies could travel into the Golf Course HCP area, the likelihood of this decreases with time due to development authorized by the Iron County Habitat Conservation Plan.

From 1999 through 2003 the mean spring count on the Tribal Land is 27 UPDs. Calculating the number of adults, females, and resulting number of pups as in the above section, the Tribal Land is estimated to have 108 pups and 54 adults, with a total of 162 UPDs. Upon implementation of this HCP, removal of UPD from Tribal Land would not commence until mitigation is deemed successful (minimally 2 years from implementation of HCP). Complete removal of the entire UPD population the first year is not likely to occur. Based on trapping success rate on the Golf Course in 2004 and assuming that trapping is occurring every working day during the trapping window (approximately 50 days, 5 hours a day), approximately 79% of the UPDs can be live-trapped and translocated. Based on 2004 UPD counts, 48 UPDs would remain after the first year of trapping. Based on that number and an estimated 59% winter mortality rate, there could be 28 UPDs emerging in the spring and 84 UPDs could be present when the trap window opens the second year. Using the same trapping success rates, 18 animals could remain at the end of the trap window when lethal control could commence. The remainder would have been successfully live trapped and translocated. Assuming 100% lethal control via conibear traps and filling of burrows, further annual take of animals would be limited to animals that could disperse from other colonies throughout Cedar City although control of these animals would be covered under the "non-permanent" take provisions of the Iron County Habitat Conservation Plan. Also under the "permanent" take provisions of the Iron County Habitat Conservation Plan, many of these colonies within the city would be lost to development.

In conclusion, the loss of occupied habitat and individual prairie dogs would not be significant because habitat loss will be offset by the protection and restoration of habitat at Wild Pea Hollow. The loss of prairie dogs will be offset by live trapping and translocation of as many as possible prior to lethal control.

- *Candidate*
  Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) – The project site lacks suitable habitat for the Western yellow-billed cuckoo; therefore, this species would not be affected significantly by Alternative 1.

<u>Wild Pea Hollow</u>

- *Endangered*

Southwestern willow flycatcher (*Empidonax traillii extimus*) – The project site lacks suitable habitat the Southwestern willow flycatcher; therefore, this species would not be affected significantly by Alternative 1.

California condor (*Gymnogyps californianus*) – Other then transient visitors, the project site lacks suitable habitat for the California condor; therefore, this species would not be affected significantly by alternative 1.

- *Threatened*
  Bald eagle (*Haliaeetus leucocephalus*) – Other then transient winter visitors, the project site lacks suitable habitat for bald eagles; therefore, this species would not be affected significantly by Alternative 1.

  Mexican spotted owl (*Strix occidentalis lucida*) – The project site lacks suitable habitat for the Mexican spotted owl; therefore, this species would not be affected significantly by Alternative 1.

  Utah prairie dog *(Cynomys parvidens)* - Utah prairie dogs occurring at Wild Pea Hollow would be affected by alternative 1. During habitat restoration activities, it is possible that an individual animal could be harmed or harassed during seeding or mowing. Overall, they would benefit from the perpetual conservation easement and resulting habitat improvement associated with the restoration activities.

  A field survey of the Wild Pea Hollow area was completed in the spring of 2003. The survey revealed that 19 acres of the 303 acres were occupied by UPDs. Population counts performed by the BLM as per the survey protocol counted 45 individuals on the 19 acres. The survey also determined that 198 acres of unoccupied area were suitable for UPDs to the degree that the plant community and soil types were consistent with known UPD habitats. Approximately 86 acres of Wild Pea Hollow will never be suitable for UPDs.

  The potential impact to UPD from restoration activities would not be significant as it would be completed during seasons when UPD are less active and would be temporary. Any adverse impacts would be offset by the long term benefits of increased and improved habitat.

  Table 2. below illustrates annual UPD counts (1996 – 2003) from Wild Pea Hollow as well as adjacent BLM and State of Utah School Institutional Trust Lands land. These counts indicate the UPD numbers on the Wild Pea Hollow have increased from 9 in 1998 to 45 in 2003.

Table 2. Utah Prairie Dog Counts on Wild Pea Hollow/Complex #125 from 1996 - 2003.

Colony	Ownership	1996 counts	1997 counts	1998 counts	1999 counts	2000 counts	2001 counts	2002 counts	2003 counts
A	BLM	3	8	9	18	31	36	70	113
B	BLM				1	0	0	2	4

C	Iron County Previously owned by SITLA			9	18	20	26	39	45
D	SITLA				0	0	0	0	0
E	SITLA				3	2	0	0	0
F	BLM				7	19	7	15	26
G	BLM								1
G	SITLA					2	4	8	6
H	BLM								1
Total		3	9	19	46	74	75	134	196

* Colony "c" shows available information specifically for the 303-acre Wild Pea Hollow site.

5.1.4 Wetlands

The preferred action would have no significant affect upon wetlands, as no wetlands occur in the project areas

5.1.5 Geology/Soils

Cedar Ridge Golf Course and Paiute Tribal Land

With the removal of the UPDs and their burrowing activities, the soils would no longer be turned over and aerated by burrowing activities. This would pose no significant impacts on the geology or soils.

Wild Pea Hollow

Since this site has existing UPDs and the existing colony is expected to increase in size, the soils would experience an increase of disturbance and aeration from an increase in UPDs digging burrows.

5.1.6 Land Use

Cedar Ridge Golf Course and Paiute Tribal Land

Activities previously occurring would likely continue at both the Golf Course and the tribal lands for recreational and other uses. The removal of UPDs on these lands might increase the availability of functional lands for more recreation use and ease grounds maintenance.

Wild Pea Hollow

Wild Pea Hollow would be protected in perpetuity with a conservation easement held by the Division of Wildlife Resources. Habitat restoration would occur to increase habitat suitability for Utah prairie dogs. Monitoring of prairie dog populations and habitat would occur annually. Based on monitoring of restoration activities and the response of UPD to those actions, current uses such as grazing might be altered if necessary to improve UPD habitat.

5.1.7 Air Quality

There would be no significant modifications of air quality at all three sites during and after the proposed action due to direct and indirect activities of the action.

5.1.8 Water Resources

The preferred action would have no significant affect upon any water resources

5.1.9 Cultural Resources

Cedar Ridge Golf Course and Paiute Tribal Land

The preferred action would have no significant affect upon any cultural resources.

Wild Pea Hollow

The Utah State Historic Preservation Office has determined a No Adverse Effect for the preferred action with stipulations of avoiding restoration activity on the lithic sites found. If any additional cultural or archaeological sites are discovered during construction, all work would halt until the site is evaluated by the Utah State Historic Preservation Office. (Appendix B)

5.1.10 Cumulative Impacts

Cumulative impacts include the direct and indirect impacts of a project together with the reasonably foreseeable future actions of others. The Cedar Ridge Golf Course and the Paiute Tribal Lands are currently covered by the Iron County Habitat Conservation Plan as are all the private lands surrounding these lands. Under the Iron County Habitat Conservation Plan, impacts to UPDs in Iron County are offset by conservation measures which include restoration of habitat on BLM lands and translocation of UPD off of private lands.

In addition to the Iron County Habitat Conservation Plan, the Service has issued a 4(d) rule for Utah prairie dogs which was amended in 1991. The current rule authorizes controlled take of up to 6000 animals annually on private agricultural lands between July 1 and December 31 throughout their range. Authorized take of UPD under the 4(d) is overseen and permitted by UDWR and is based on spring counts and annual production of the colony. Although future take under the 4(d) can not be quantified, it is reasonable to assume that some amount would be authorized as needed to control nuisance animals.

In 2004 the Service issued a biological opinion to Indian Health Services for the construction of a ballfield on Tribal Lands adjacent to the golf course. This biological opinion authorized the take of 1.31 acres of habitat and 33 animals through translocation. No other federal projects are known at this time.

The additional take that would be authorized under this HCP when added to the take noted above will not preclude survival and recovery and the species in the wild.

5.2 Alternative 2 – On site Mitigation

5.2.1 Vegetation

Cedar Ridge Golf Course and Paiute Tribal Land

Vegetation would remain unchanged at the Golf Course and the Tribal Lands under Alternative 2.

Wild Pea Hollow

Vegetation would remain unchanged at Wild Pea Hollow under Alternative 2. There would be no habitat improvements and no monitoring of vegetation.

5.2.2 Wildlife

Cedar Ridge Golf Course and Paiute Tribal Land

Alternative 2 would not result in changes to the current status of wildlife on the Golf Course or Tribal Lands

Wild Pea Hollow

Wild Pea Hollow would not be protected in perpetuity. Currently, the land is leased for grazing which has minimal impacts to wildlife but the land would be at risk for future development as determined by SITLA.

5.2.2 Endangered, Threatened, and Candidate Species

Cedar Ridge Golf Course and Paiute Tribal Land

- *Endangered*
  Neither the Cedar Ridge Golf Course nor the Paiute Tribal lands provide habitat for the Southwestern willow flycatcher (*Empidonax traillii extimus*) or the California Condor. Therefore Alternative 2 would not significantly affect these species.

- *Threatened*
  Neither the Cedar Ridge Golf Course nor the Paiute Tribal lands provide habitat for Bald eagles (*Haliaeetus leucocephalus*) or Mexican spotted owls (*Strix occidentalis lucida*). Therefore Alternative 2 would not significantly affect these species.

  The Utah prairie dog (*Cynomys parvidens*) does occur on both the Cedar Ridge Golf Course and the Tribal lands. Implementation of Alternative 2 would provide permanent protection of 10 acres of habitat on site for UPD. This would be extremely difficult to maintain and would be isolated from other colonies in the future. The remainder of the golf course would be maintained free of prairie dogs. This would also be extremely difficult to do because the 10 acres of protected area could perpetually provide a source UPD population to the remaining golf course lands.

- *Candidate*
  Neither the Cedar Ridge Golf Course nor the Paiute Tribal lands provide habitat for Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) Therefore Alternative 2 would not significantly affect this species.

Wild Pea Hollow

- *Endangered*
  Southwestern willow flycatcher (*Empidonax traillii extimus*) – The project site lacks suitable habitat the Southwestern willow flycatcher; therefore, this species would not be affected significantly by Alternative 2.

  California condor (*Gymnogyps californianus*) – Other then transient visitors, the project site lacks suitable habitat for the California condor; therefore, this species would not be affected significantly by alternative 2.

- *Threatened*
  Bald eagle (*Haliaeetus leucocephalus*) – The project site lacks suitable habitat for bald eagles; therefore, this species would not be affected significantly by Alternative 2.

  Mexican spotted owl (*Strix occidentalis lucida*) – The project site lacks suitable habitat for the Mexican spotted owl; therefore, this species would not be affected significantly by Alternative 2.

Wild Pea Hollow would not be protected under a conservation easement under Alternative 2. Should the land be sold to development interests, occupied habitat could be lost. Population counts performed by the BLM as per the survey protocol counted 45 individuals on the 19 acres of Wild Pea Hollow in 2003. Under Alternative 2, that number could increase or decrease but their habitat would not be restored or protected in perpetuity.

5.2.4 Wetlands

There are no wetlands on the Golf Course or the Tribal Lands, therefore Alternative 2 would pose no consequences for wetlands.

5.2.5 Geology/Soils

Cedar Ridge Golf Course and Paiute Tribal Land

Utah prairie dogs would be managed on 10 acres under Alternative 2. Soils within that 10 acres might be turned over more frequently potentially leading to changes in soil chemistry and soil porosity. Conversely, with the removal of the UPDs on the remaining golf course, soil turnover would not occur and not affect soil chemistry and soil porosity.

Wild Pea Hollow

Soil characteristics would remain unchanged under Alternative 2.

5.2.6 Land Use

Cedar Ridge Golf Course and Paiute Tribal Land

Activities previously occurring would likely continue at both the Golf Course and the tribal lands for recreational and other uses under Alternative 2.

Wild Pea Hollow

Wild Pea Hollow would not be protected under a conservation easement. Therefore, land use would be at the discretion of SITLA which could include mineral or other development.

5.2.7 Air Quality

Alternative 2 would not result in modifications of air quality at the golf course, the tribal lands or Wild Pea Hollow.

5.2.8 Water Resources

Alternative 2 would not result in modifications of water resources at the golf course, the tribal lands or Wild Pea Hollow.

5.2.9 Cultural Resources

Cedar Ridge Golf Course and Paiute Tribal Land

Alternative 2 would not result in modifications of cultural resources at the golf course or the tribal lands.

Wild Pea Hollow

Preservation of Cultural resources found on Wild Pea Hollow would be managed at the discretion of SITLA.

5.2.10 Cumulative Impacts

Cumulative impacts include the direct and indirect impacts of a project together with the reasonably foreseeable future actions of others. The Cedar Ridge Golf Course and the Paiute Tribal Lands are currently covered by the Iron County Habitat Conservation Plan as are all the private lands surrounding these lands. Under the Iron County Habitat Conservation Plan, impacts to UPD in Iron County are offset by conservation measures identified in the HCP which include restoration of habitat on BLM lands and translocation of UPD off of private lands.

In addition to the Iron County Habitat Conservation Plan, the Service has issued a 4(d) rule for Utah prairie dogs which was amended in 1991. The current rule authorizes controlled take of up to 6000 animals annually on private agricultural lands between July 1 and December 31 throughout their range. Authorized take of UPD under the 4(d) is overseen and permitted by UDWR and is based on spring counts and annual production of the colony. Although future take under the 4(d) can not be quantified, it is reasonable to assume that some amount would be authorized as needed to control nuisance animals.

In 2004 the Service issued a biological opinion to Indian Health Services for the construction of a ballfield on Tribal Lands adjacent to the golf course. This biological opinion authorized the take of 1.31 acres of habitat and 33 animals through translocation. No other federal projects are known at this time.

The additional take that would be authorized under this HCP when added to the take noted above will not preclude survival and recovery and the species in the wild.

5.3 Alternative 3 – No Action

5.3.1 Vegetation

Cedar Ridge Golf Course and Paiute Tribal Land

Vegetation would remain unchanged at the Golf Course and the Tribal Lands under Alternative 3.

Wild Pea Hollow

Wild Pea Hollow would not be protected by a conservation easement. Therefore, the vegetation would be managed at the discretion of SITLA. A loss of habitat could occur if the land is sold to development interests.

5.3.2 Wildlife

Cedar Ridge Golf Course and Paiute Tribal Land

Alternative 3 would not result in changes to the current status of wildlife on the Golf Course or Tribal Lands

Wild Pea Hollow

Wild Pea Hollow would not be protected in perpetuity. Therefore, wildlife would be managed at the discretion of SITLA.

5.3.2 Endangered, Threatened, and Candidate Species

Cedar Ridge Golf Course and Paiute Tribal Land

- *Endangered*
  Neither the Cedar Ridge Golf Course nor the Paiute Tribal lands provide habitat for the Southwestern willow flycatcher (*Empidonax traillii extimus*) or the California Condor. Therefore Alternative 3 would have not significantly affect these species.

- *Threatened*
  Neither the Cedar Ridge Golf Course nor the Paiute Tribal lands provide habitat for Bald eagle (*Haliaeetus leucocephalus*) or Mexican spotted owl (*Strix occidentalis lucida*). Therefore Alternative 3 would not significantly affect these species.

  The Utah prairie dog (*Cynomys parvidens*) does occur on both the Cedar Ridge Golf Course and the Tribal lands. Under alternative 3, UPD would continue to be controlled under the current Iron County Habitat Conservation Plan. This HCP allows for limited non- lethal control from July 1 through September 1.

  Candidate
  Neither the Cedar Ridge Golf Course nor the Paiute Tribal lands provide habitat for Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) Therefore Alternative 2 would have not significantly affect this species.

Wild Pea Hollow

- *Endangered*
  Wild Pea Hollow does not provide habitat for the Southwestern willow flycatcher (*Empidonax traillii extimus*) or the California Condor. Therefore Alternative 3 would have not significantly affect these species.

- *Threatened*
  Wild Pea Hollow does not provide habitat Mexican spotted owl (*Strix occidentalis lucida*). Bald eagles possibly occur as infrequent winter visitors. Therefore Alternative 3 would not significantly affect these species.

  Wild Pea Hollow would not be protected under a conservation easement under Alternative 3. Should the land be sold to development interests, occupied prairie dog habitat could be lost to development. Population counts performed by the BLM as per the survey protocol counted 45 individuals on the 19 acres of Wild Pea Hollow in 2003. Under Alternative 3, that number could increase or decrease but their habitat would not be restored or protected in perpetuity. Actions at Wild Pea Hollow would be at the discretion of SITLA.

- *Candidate*
  Neither the Cedar Ridge Golf Course nor the Paiute Tribal lands provide habitat for Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) Therefore Alternative 2 would have not significantly affect this species.

5.3.4 Wetlands
There are no wetlands on the Golf Course, Tribal Lands or Wild Pea Hollow, therefore Alternative 3 would pose no consequences for wetlands.

5.3.5 Geology/Soils
<u>Cedar Ridge Golf Course and Paiute Tribal Land</u>
Soil characteristics would remain unchanged under Alternative 3.

<u>Wild Pea Hollow</u>
Soil characteristics would remain unchanged under Alternative 3.

5.3.6 Land Use
<u>Cedar Ridge Golf Course and Paiute Tribal Land</u>
Activities previously occurring would likely continue at both the Golf Course and the tribal lands for recreational and other uses under Alternative 3.

<u>Wild Pea Hollow</u>
Wild Pea Hollow would not be protected under a conservation easement. Therefore, land use would be at the discretion of SITLA under Alternative 3.

5.3.7 Air Quality
Alternative 3 would not result in modifications of air quality at the golf course, the tribal lands or Wild Pea Hollow.

5.3.8 Water Resources
Alternative 3 would not result in modifications of water resources at the golf course, the tribal lands or Wild Pea Hollow.

5.3.9 Cultural Resources

Cedar Ridge Golf Course and Paiute Tribal Land

Alternative 3 would not result in modifications of cultural resources at the golf course or the tribal lands.

Wild Pea Hollow

Preservation of Cultural resources found on Wild Pea Hollow would be managed at the discretion of SITLA under Alternative 3.

5.3.10 Cumulative Impacts

Cumulative impacts include the direct and indirect impacts of a project together with the reasonably foreseeable future actions of others. The Cedar Ridge Golf Course and the Paiute Tribal Lands are currently covered by the Iron County Habitat Conservation Plan as are all the private lands surrounding these lands. Under the Iron County Habitat Conservation Plan, impacts to UPD in Iron County are offset by conservation measures identified in the HCP which include restoration of habitat on BLM lands and translocation of UPD off of private lands.

In addition to the Iron County Habitat Conservation Plan, the Service has issued a 4(d) rule for Utah prairie dogs which was amended in 1991. The current rule authorizes controlled take of up to 6000 animals annually on private agricultural lands between July 1 and December 31 throughout their range. Authorized take of UPD under the 4(d) is overseen and permitted by UDWR and is based on spring counts and annual production of the colony. Although future take under the 4(d) can not be quantified, it is reasonable to assume that some amount would be authorized as needed to control nuisance animals.

In 2004 the Service issued a biological opinion to Indian Health Services for the construction of a ballfield on Tribal Lands adjacent to the golf course. This biological opinion authorized the take of 1.31 acres of habitat and 33 animals through translocation. No other federal projects are known at this time.

The additional take that would be authorized under this HCP when added to the take noted above will not preclude survival and recovery and the species in the wild.

5.4 Environmental Justice

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, 59 FR 7629 (1994), directs Federal agencies to incorporate environmental justice in their decision making processes. Federal agencies are directed to identify and address, as appropriate, any disproportionately high and adverse environmental effects of their programs, policies, and activities on minority or low-income populations. This assessment has not identified any adverse or beneficial effects unique to minority or low-income populations in the affected areas.

6.0 CONSULTATION AND COORDINATION WITH OTHERS

6.1 Consultation with Local interests

Throughout the project, the Service has coordinated with the applicants in their preparation of the HCP. The Service has met with both the local applicants as well as the Paiute tribe to ensure the project activities are coordinated between these two entities. Notice of Availability of the HCP and this accompanying EA was published in the Federal Register by the Service on May 15, 2006.

6.2 Coordination with State Interests

The Service coordinated with UDWR throughout the development of this Habitat Conservation Plan. The successful development and implementation of this Habitat Conservation Plan is dependent on participation with UDWR. UDWR is signatory to the Implementation Agreement and would participate in the implementation.

The Service coordinated with SITLA to identify lands that provided UPD habitat and possessed opportunities to provide additional habitat through restoration.

6.3 Coordination with Federal Interests

The Service coordinated with BLM throughout the development of the project. The BLM conducted initial biological surveys and vegetation surveys utilized in the development of the Habitat Conservation Plan. As the adjacent land owner to the Wild Pea Hollow, participation of BLM in the development and implementation of the habitat conservation plan has been imperative. BLM is signatory to the Implementation Agreement and would participate in implementation and long term management of Wild Pea Hollow.

6.4 Consultation with Tribal Interests

The Paiute Tribe (Tribe) is a coapplicant with Cedar City and Iron County to this HCP. Initially the tribe was not a participant. However, due to future development needs the tribe joined Cedar City and Iron County in development of the current HCP. The tribe has participated in the development of the HCP and is signatory to the implementation Agreement.

6.5 Consultation with the U.S. Fish and Wildlife Service

The Service submitted a copy of the EA, HCP and (10(a)1(B) permit to the Utah Ecological Services Field Office, and asked for their review and concurrence that the project is not likely to adversely affect Utah prairie dog and no effect for southwestern willow flycatcher, Mexican spotted owl, California condor, and bald eagle.

6.6 **Section VI: Document Preparers and Contacts**

Document Preparer

Elise Boeke, U.S. Fish and Wildlife Service, Salt Lake City, Utah

Agencies, Organizations, and Persons Contacted

7.0 LITERATURE CITED

Bonzo, T., and K. Day, 2001. Utah Prairie Dog Recovery Efforts 2000 Annual Report. Utah Division of Wildlife Resources. Publication No. 02-02. 27 pp.

Bonzo, T., and K. Day, 2003. Utah Prairie Dog Recovery Efforts 2002 Annual Report. Utah Division of Wildlife Resources. Publication No. 03-47. 26 pp.

Bonzo, T. 2004. Personal Communication.

Clark, Tim W., 1974. Ecoloy and Ethology of the White-Tailed Prairie Dog. Milwaukee Public Museum Publication in Biology and Geology, Number 3. 97 pp.

Hughes, J.M. 1999. Yellow-billed Cuckoo (Coccyzus americanus). *In* Birds of North America, No. 418 (A. Poole and F. Gill, eds.) The birds of North America, Inc., Philadelphia, PA.

U.S. Fish and Wildlife Service. 1973. Endangered and Threatened Wildlife and Plants; Final Rule to List the Utah Prairie Dog. 38 Federal Register 14678 (June 4, 1973).

_____. 1995. Recovery Plan for the Mexican Spotted Owl. U.S. Fish and Wildlife Service, Albuquerque, New Mexico.172 pp.

_____. 1991. Utah prairie dog recovery plan. U.S. Fish and Wildlife Service, Denver, Colorado. 41 pp.

_____. 1984. Endangered and Threatened Wildlife and Plants; Final Rule to Reclassify the Utah Prairie Dog as Threatened, With Special Rule To Allow Regulated Taking. 49 Federal Register 22330 (May 29, 1984).

_____. 2002. Memorandum with List of Threatened and Endangered Species from Utah Field Office, West Valley City, Utah. Memo on file at Denver Service Center.

_____. 1996. Habitat Conservation Planning and Incidental Take Permit Processing Handbook.

APPENDICES

Appendix A.

Habitat Conservation Plan
for the
Cedar City Golf Course
and
Paiute Tribal Lands.

Appendix B.

Office of Archaeology and Historic Preservation Correspondence