

HABITAT CONSERVATION PLAN

For The

**Issuance of an Incidental Take Permit
Under Section 10(a)(1)(B) of the Endangered Species Act**

For The

Utah Prairie Dog (*Cynomys parvidens*)

By

**Connel Gower Construction, Inc.
P.O. Box 291
Cedar City, Utah 84721-0291**

Prepared for:

**U.S. Fish and Wildlife Service
Utah Field Office
Lincoln Plaza
145 East 1300 South, Suite 404
Salt Lake City, Utah 84115**

Prepared By:

**SWCA, Inc. Environmental Consultants
56 West 400 South, Suite 201
Salt Lake City, Utah 84101
(801) 322-4307**

**Revised
June 7, 1996**

TABLE OF CONTENTS

PAGE

1.0	INTRODUCTION	1
1.1	PURPOSE AND NEED	1
1.2	UTAH PRAIRIE DOG BACKGROUND AND CONTEXT	1
2.0	PROJECT DESCRIPTION	3
2.1	PROJECT LOCATION AND DESCRIPTION	3
2.2	EXISTING ENVIRONMENT	3
2.2.1	Land Ownership, Existing Conditions, and Adjacent Land Uses	3
2.2.2	Topography	5
2.2.3	Soils	5
2.2.4	Vegetation	5
2.2.5	Wildlife	5
2.2.6	Endangered and Threatened Species and Species of Concern	5
3.0	STATUS OF ENDANGERED AND THREATENED SPECIES AND SPECIES OF CONCERN IN THE PERMIT AREA	8
3.1	INTRODUCTION	8
3.1.1	Utah Prairie Dog	8
3.1.2	Other Threatened and Endangered Species and Species of Concern	9
4.0	POTENTIAL IMPACTS	10
4.1	INTRODUCTION	10
4.2	UTAH PRAIRIE DOG	10
4.2.1	Indirect Impacts	11
4.2.2	Direct Habitat Impacts	11
4.2.3	Indirect Habitat Impacts	11
4.3	ENDANGERED AND THREATENED SPECIES AND SPECIES OF CONCERN	11
5.0	MEASURES TO AVOID, MINIMIZE, AND MITIGATE FOR POTENTIAL IMPACTS TO THE UTAH PRAIRIE DOG	12
5.1	INTRODUCTION	12
5.2	AVOIDANCE AND MINIMIZATION	12
5.2.1	Trapping and Relocation	12
5.2.2	Pre-construction Education Program	13
5.2.3	Scheduling	13
5.2.4	Other Requirements	13
5.3	MITIGATION	13

5.4 FUNDING 14

6.0 ALTERNATIVES 15

 6.1 NO ACTION ALTERNATIVE 15

7.0 LITERATURE CITED 16

LIST OF TABLES

Table 1. Endangered and Threatened Species and Species of Concern That May Potentially Occur Within Connel Gower Construction, Inc. Industrial Park 7

LIST OF FIGURES

Figure 1. Project Location Map 4

Figure 2. Looking North Across Gower Construction Proposed Permit Area 6

Figure 3. Looking South Across Gower Construction Proposed Permit Area. Representative Photo of Area Occupied by the Utah Prairie Dog 6

1.0 INTRODUCTION

1.1 PURPOSE AND NEED

Connel Gower Construction, Inc. is currently planning to develop an approximately 63-acre industrial complex, on private property near Cedar City, Iron County, Utah. The Utah prairie dog (*Cynomys parvidens*), a federally threatened species, is known to occur within the Permit Area.

This HCP has been prepared to meet legal requirements contained in 50 CFR §17.22 (b)(1)(iii), which sets forth the application requirements for an Endangered Species Act Section 10(a)(1)(A) permit for incidental take. An Environmental Assessment has been prepared in conjunction with this HCP, as required by the National Environmental Protection Act (NEPA). An Implementation Agreement and Application Form have also been prepared. These documents constitute the permit application. The proposed length of the permit application is twenty (20) years.

1.2 UTAH PRAIRIE DOG BACKGROUND AND CONTEXT

The Utah prairie dog is a member of the white-tail subgenera, *Leucocrossuromys* and is limited to the southwestern quarter of Utah. It was originally listed as endangered in 1974 (38 FR 14678). In 1979 the Utah Division of Wildlife Resources (UDWR) petitioned the U.S. Fish and Wildlife Service (Service) to downlist the Utah prairie dog from endangered to threatened. As a result, the Utah prairie dog was reclassified to threatened status in 1983 (48 FR 21604). The Service does not consider the Utah prairie dog to be in danger of extinction (49 FR 22330). Historically, the Utah prairie dog was found in southwestern and central Utah from the Nevada border on the west to Nephi on the north, east to the foothills of the Aquarius Plateau and south to the northern borders of Kane and Washington counties. The species now occurs principally in Iron, Sevier, Beaver, Wayne, and Garfield counties. The historical distribution of Utah prairie dogs has been reduced and their abundance has been in decline for decades due to habitat loss, intentional poisoning, drought, poor grazing practices, and episodes of plague.

Due to the number of Utah prairie dogs on private property in southwestern Utah, and conflict with private land owners, the Service established a Federal rule in 1984 that allows limited take of the Utah prairie dog on agricultural lands through trapping or shooting of Utah prairie dogs in Cedar and Parowan Valleys. The rule was amended in 1991 to allow take on agricultural lands within the entire range of the Utah prairie dog. The Utah Prairie Dog Recovery Plan (U.S. Fish and Wildlife Service 1991) encourages the relocation of prairie dogs from private to federal lands to promote the recovery of the species.

Utah prairie dogs prefer habitat in open terrain with clear visibility to avoid predators. They are found in elevations from 5,400 feet on valley floors up to 9,500 feet in mountain mesa habitats. Cedar City is one of three areas of population concentration for this species. Although approximately 24 percent of the colonies exist on public lands in Iron County, the majority of individuals are found on private land (UDWR 1994).

2.0 PROJECT DESCRIPTION

2.1 PROJECT LOCATION AND DESCRIPTION

Connel Gower Construction, Inc. is currently planning to develop an approximately 63-acre industrial park on private property near Cedar City, Utah. The project is located in portions of Sections 3, 4, 9, and 10, T36S, R11W. See Figure 1. The privately-owned property is zoned as industrial within city limits and agricultural outside city limits. The project is privately funded and includes development of streets, parking areas and drainage facilities as well as installation of associated infrastructure such as natural gas, sewer, water, power and phone service in preparation for construction of commercial and industrial buildings and facilities. When in place, these services will facilitate the sale of various sized lots on which the construction of commercial and/or industrial facilities is envisioned. The proposed project is consistent with the Cedar City Master Plan and adjacent use.

The Utah prairie dog, a federally threatened species, occupies approximately 20 acres on primarily the southern portion the Permit Area. The proposed action will require the trapping and relocation of an estimated 116 Utah prairie dogs and the possibility of incidental take of two prairie dogs per each five acres developed through direct mortality during construction. This potential take would be incidental to an otherwise lawful activity. Development is anticipated to take place incrementally over a number of years. Authorized take would occur only on and as each increment is developed and no take would occur on undeveloped portions of the Permit Area until such time as development for that increment was planned and coordinated with all parties in the Implementing Agreement. The incremental method will provide a more efficient and cost-effective means of capture and relocation than has been used in the past and will allow any prairie dogs remaining uncaptured after reasonable attempts have been made in each increment, the time and suitable adjacent habitat to which they can voluntarily relocate before construction activities endanger them.

2.2 EXISTING ENVIRONMENT

2.2.1 Land Ownership, Existing Conditions, and Adjacent Land Uses

The majority of the Permit Area is owned and being planned for development by Connel Gower Construction, Inc. The property is currently undeveloped but has been disturbed in the past by agriculture. Land use around the Permit Area includes the Cedar City Airport, livestock, commercial and industrial developments. The predominant land use in the greater Cedar City area, however, is agriculture. Land use to the immediate north is Cedar City's Industrial Park and City Airport; to the east is Airport Road and commercial use; to the immediate south is a meat packing plant and pump service business; and to the west is inactive agriculture land.

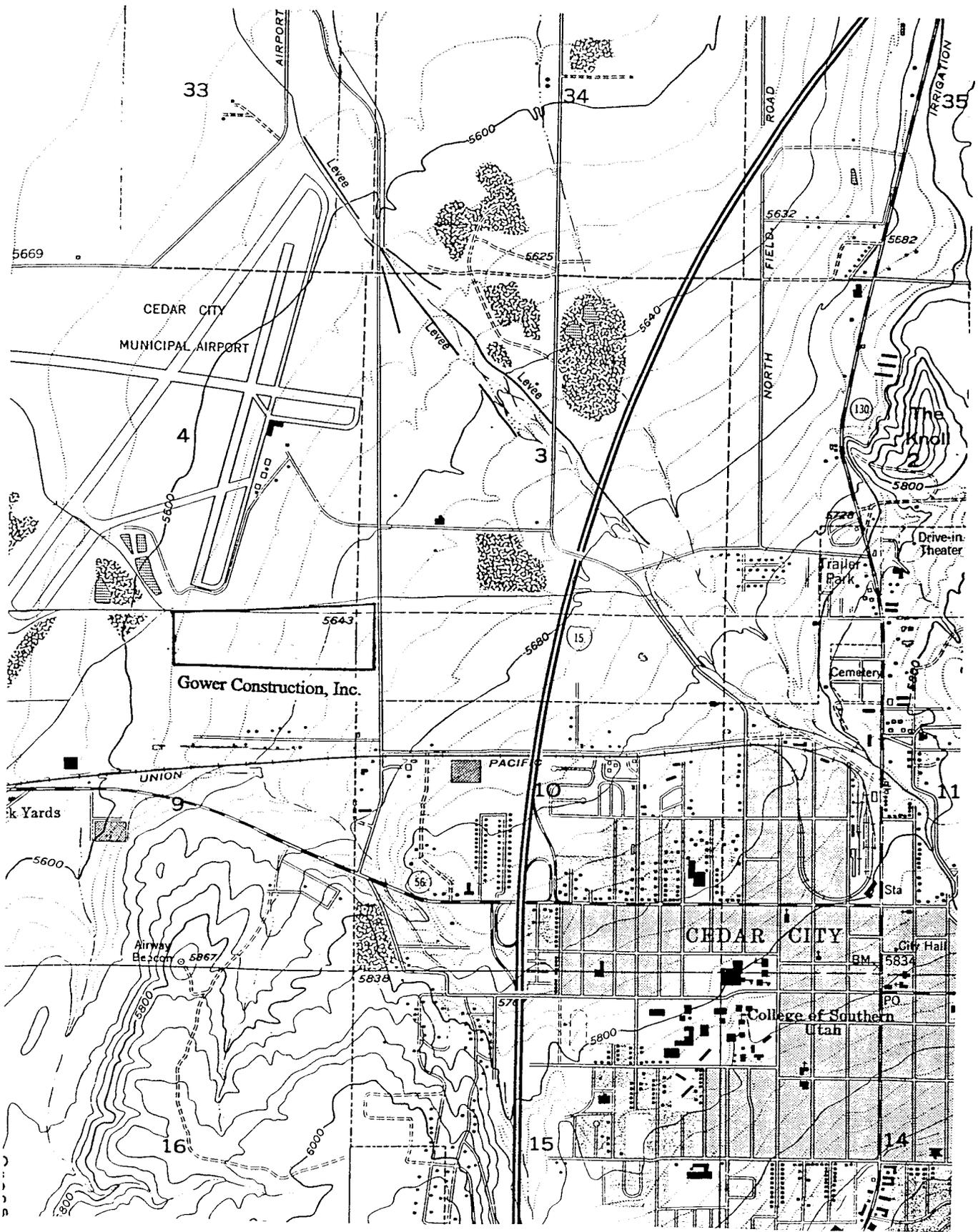


Figure 1. Proposed Project Area

2.2.2 Topography

Cedar City is located in Cedar Valley at approximately 5,622 feet. Hurricane Cliffs lie to the east and southeast, Cross Hollow Hills to the southwest, and Cedar Valley to the northwest. The project site is relatively flat with elevations ranging between 5,600 and 5,643 feet. The property gradually increases in elevation to the east.

2.2.3 Soils

Soils at the project site range from silty clay loam to very gravelly loam. The soil series is Wales-Asdown-Medburn.

2.2.4 Vegetation

The proposed Permit Area has been cleared in the past and predominately supports forbs including tansy mustard (*Descurainia sophia*), cheatgrass (*Bromus tectorum*), storksbill (*Erodium cicutarium*), bur buttercup (*Ranunculus testiculatus*). The only shrub is rabbit brush (*Chrysothamnus nauseosus*). See Figures 2 and 3.

2.2.5 Wildlife

It is likely that raccoon, skunk, coyote, badger, gophers, mice, cottontail rabbits, meadowlarks, and sparrows occur within the Permit Area.

2.2.6 Endangered and Threatened Species and Species of Concern

In addition to the Utah prairie dog, a federally threatened species, one endangered species, one threatened species, and eight species of concern (former Category 2 candidate species) were identified by the Service as potentially occurring within the Permit Area. No critical habitat has been designated for any of the listed species. The species are listed in Table 1 and include four birds and seven mammals.



Figure 2. Looking North Across Gower Construction Proposed Project Area



**Figure 3. Looking South Across Gower Construction Proposed Project Area
Representative Photo of Area Occupied by the Utah Prairie Dog**

Table 1. Endangered and Threatened Species and Species of Concern That May Potentially Occur Within Connel Gower Construction, Inc. Industrial Park Complex

Species	Status ¹
American peregrine falcon (<i>Falco peregrinus</i>)	Endangered
Bald eagle (<i>Haliaeetus leucocephalus</i>)	Threatened
Utah prairie dog (<i>Cynomys parvidens</i>)	Threatened
Western burrowing owl (<i>Athene cunicularia hypugaea</i>)	Species of Concern
Ferruginous hawk (<i>Buteo regalis</i>)	Species of Concern
Pygmy rabbit (<i>Brachylagus idahoensis</i>)	Species of Concern
Spotted bat (<i>Euderma maculatum</i>)	Species of Concern
Small-footed myotis (<i>Myotis ciliolabrum</i>)	Species of Concern
Fringed myotis (<i>Myotis thysanodes</i>)	Species of Concern
Yuma myotis (<i>Myotis yumanensis</i>)	Species of Concern
Big free-tailed bat (<i>Nyctinomops macrotis</i>)	Species of Concern

¹ A Federal endangered species is defined as "...any species which is in danger of extinction throughout all or a significant portion of its range other than a species of the Class Insecta determined by the Secretary to constitute a pest whose protection under the provisions of the Endangered Species Act would present an overwhelming and overriding risk to man."

A Federal threatened species is defined as "... any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range."

3.0 STATUS OF ENDANGERED AND THREATENED SPECIES AND SPECIES OF CONCERN IN THE PERMIT AREA

3.1 INTRODUCTION

The purpose of this section is to discuss the status of endangered, threatened, and candidate species in the Permit Area. No critical habitat has been designated for any of the listed species. A field reconnaissance was conducted on October 28, 1995 to determine the suitability of the site for the listed and candidate species. We acknowledge that the reconnaissance was conducted outside the season in which the majority of the species would be present. However, information on habitat suitability and possible sign of species was collected. Additional discussions regarding listed and candidate species is included in the Environmental Assessment. Section 4.0 discusses potential impacts to these species as a result of the proposed development.

3.1.1 Utah Prairie Dog

Utah Division of Wildlife Resources personnel surveyed the property in 1992, 1993, 1994, and 1995 and counted 35, 10, 6, and 14 prairie dogs, respectively (McDonald 1995a, pers comm.). The following calculations provide a projected estimate of prairie dogs. The calculations are based on the average number of prairie dogs observed over the last four years (16).

16 individuals observed x 2 = 32 adult prairie dogs estimated to be present (According to Crocker-Bedford's (1975) estimate that 40 to 60 percent or an average of 50 percent of prairie dogs are above ground at any given time);

32 prairie dogs equals approximately 21 females and 11 males (Based on a female to male ratio of 2:1, McDonald 1995b, pers. comm.);

The 21 females may have had 1 to 6 young (4 average) this year (McDonald 1995b, pers. comm.):

$$21 \text{ females} \times 1 \text{ young} = 21 \text{ young}$$

$$21 \text{ females} \times 4 \text{ young} = 84 \text{ young}$$

Therefore, the total number of estimated prairie dogs within the Permit Area ranges between 53 and 116 individuals:

$$21 + 32 = 53 \text{ individuals}$$

$$84 + 32 = 116 \text{ individuals}$$

This estimate does not include a mortality factor; therefore, the estimate errs on the high side. Prairie dogs are located in the southern portion of the Permit Area.

The area currently occupied by prairie dogs has been cleared and disturbed in the past. These actions created suitable habitat (i.e., open grassy area with no trees and minimal shrubs) for the prairie dogs. See Figures 2 and 3.

3.1.2 Other Threatened and Endangered Species and Species of Concern

In addition to the Utah prairie dog, one endangered, one threatened, and eight species of concern (former Category 2 candidate species), identified by the Service, could potentially occur within the Permit Area or the immediate vicinity include the American peregrine falcon, bald eagle, Western burrowing owl, ferruginous hawk, pygmy rabbit, spotted bat, small-footed myotis (bat), fringed myotis (bat), Yuma myotis (bat), and big free-tailed bat. No suitable habitat exists within the Permit Area for these species with the exception of the bald eagle, ferruginous hawk, and burrowing owl.

There are no known bald eagle roost sites within the Permit Area. However, it is possible that bald eagles could perch along fence posts and forage in the area during the winter.

Nesting and foraging habitat preferred by ferruginous hawks is present throughout the Cedar City area and foraging habitat is present on the project site. Ferruginous hawks nest throughout the Intermountain West in isolated trees, woodland edges, buttes, cliffs, or grasslands with some relief. They forage in non-forested, non-mountainous areas, such as desert scrub and grassland communities. The majority of undeveloped portions of Cedar Valley are either suitable nesting or foraging habitat. No ferruginous hawks have been observed at the project site by UDWR or SWCA personnel during prairie dog surveys and there is no ferruginous hawk nesting habitat within the Permit Area.

Burrowing owls are known to occur in Cedar City and coexist with prairie dogs. Burrowing owls have been observed adjacent to the Permit Area in the City's Industrial Park by UDWR staff and whitewash, possible sign of burrowing owls, was observed on one mound by SWCA during a late fall survey. However, no pellets or feathers were observed. Furthermore, during UDWR's 1992, 1993, 1994, and 1995 prairie dog surveys in the area, no burrowing owls have been observed within the Permit Area (McDonald 1995b, pers. comm.). Given the lack of any observations and definitive sign for this species, it is unlikely that there is substantial use of the Permit Area by burrowing owls. Should burrowing owls be present within the Permit Area, displacement of individuals as a result of construction is not expected to adversely affect burrowing owls population due to the availability of nearby suitable habitat.

4.0 POTENTIAL IMPACTS

4.1 INTRODUCTION

Preparing an HCP includes determining the amount of incidental take associated with the proposed project. Take as defined in Section 3 of the ESA means "to harass, harm, pursue, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Section 10(a)(1)(B) defines "incidental take" as "take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity." Federal regulation defines the terms "harass" and "harm" as follows. Harass means "an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering." Harm means "an act which actually kills or injures wildlife" and "may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering." A Section 10 permit allows an exception to the taking prohibition of the ESA.

4.2 UTAH PRAIRIE DOG

Direct impacts are those which are caused by an action and occur at the same time and place as the action. Direct impact of the project is the conversion of approximately 20 acres of occupied and 43 acres of potential Utah prairie dog habitat to an industrial development. In order to minimize the effect of this direct impact, there will be an incidental take of an estimated 116 prairie dogs through trapping and relocation and the potential incidental take of no more than two prairie dogs per five acres of developed land as a result of direct mortality during construction. Accidental on-site deaths are not considered likely due to the incremental trapping and relocation of the prairie dogs; their ability to move out of harms way should any escape the trapping process in any one increment; and mandatory preconstruction education regarding prairie dogs.

The proposed project will adversely affect approximately 20 acres of presently occupied Utah prairie dog habitat and an additional 43 acres of unoccupied, potential habitat all of which could support an estimated 116 animals. The proposed project will not adversely affect nor jeopardize the continued existence of the Utah prairie dog population in the West Desert nor anywhere within its range. Furthermore, the relocation of the Utah prairie dogs to Federal lands is consistent with The Utah Prairie Dog Recovery Plan (U.S. Fish and Wildlife Service 1991) and will contribute to attainment of the Service's recovery goals for the Utah prairie dog.

4.2.1 Indirect Impacts

Indirect impacts are those caused by the action and are later in time or removed in distance but still reasonably foreseeable. Indirect impacts could include the failure of individual prairie dogs to survive at the new site, following relocation.

4.2.2 Direct Habitat Impacts

The proposed project will entail conversion of the approximately 20 acres of occupied and 43 acres of potential prairie dog habitat to commercial uses.

4.2.3 Indirect Habitat Impacts

All foreseen impacts to prairie dog habitat are direct.

4.3 ENDANGERED AND THREATENED SPECIES AND SPECIES OF CONCERN

No impacts to any other threatened nor any endangered species or species of concern are anticipated as a result of the proposed project.

5.0 MEASURES TO AVOID, MINIMIZE, AND MITIGATE FOR POTENTIAL IMPACTS TO THE UTAH PRAIRIE DOG

5.1 INTRODUCTION

This section discusses the measures which are proposed to avoid, minimize, and mitigate potential impacts to the Utah prairie dog as a result of the project.

5.2 AVOIDANCE AND MINIMIZATION

Three means to avoid or minimize impacts to the Utah prairie dog will be employed: (1) Incremental development and removal of prairie dogs; (2) trapping and relocation; and (3) pre-construction education program.

5.2.1 Trapping and Relocation

The Utah Prairie Dog Recovery Plan (U.S. Fish and Wildlife Service 1991) calls for establishing sufficient numbers of prairie dogs on public lands that they can be delisted, and protective restrictions on private property removed. Toward that goal, relocation sites are currently being developed by the BLM to accommodate prairie dogs from private lands in Iron County. The relocation sites will be monitored for transplant success, habitat requirements, and the compatibility of cattle grazing and prairie dog colonies.

The UDWR will remove the prairie dogs within the approximately 20-acre occupied area to a BLM and Service approved site according to established protocol. The trapping and relocation will be accomplished incrementally, that is, on one or more sub-divided lots at a time, as requested by the developer and coordinated with the UDWR. This will allow any prairie dogs that may have been missed in the trapping process the opportunity to voluntarily relocate to suitable adjacent habitat thereby avoiding the hazards of construction. The UDWR estimates trapping and relocation costs for 1996 to be \$75.00 per prairie dog (Kimball 1996, pers. comm.). The estimated number of prairie dogs to be relocated is 116 individuals. Upon completion of trapping, UDWR will bill Connel Gower Construction, Inc. at the above rate and on net 30 day terms for the actual number of prairie dogs trapped. Payment default may result in suspension of the permit.

Trapping and relocation of course will not be necessary on unoccupied increments; however, Connel Gower Construction, Inc. will request two weeks in advance that UDWR survey unoccupied areas prior to development to ensure compliance with this permit application. Trapping and relocation may occur July through September, but pre-construction surveys of unoccupied increments may

occur any time ground cover is not obstructed by snow pack. If no prairie dog burrows/sign are encountered, construction may commence.

5.2.2 Pre-construction Education Program

In order to avoid or minimize impacts to prairie dogs, a pre-construction education program will be provided for contractor personnel under the direction of the Service. Two weeks advance notice by Connel Gower Construction, Inc. to schedule the education program is required. Included in the education program, will be an explanation to the contractors' employees that they are working in habitat previously occupied by a threatened species. They will be taught the definition of "harm" and the consequences of causing harm to a threatened species. Any recommendations identified in the Service's Finding of No Significant Impact (FONSI) and in the Implementing Agreement will also be explained at that time.

5.2.3 Scheduling

Avoidance and minimization of impacts will also be facilitated by trapping and relocating the prairie dogs in accordance with currently approved protocols which protect the females and juveniles subsequent to spring breeding and until the young can be safely transported.

5.2.4 Other Requirements

The Service or UDWR will be notified immediately of the finding and circumstances surrounding discovery of any dead or injured listed species on-site. Should the discovery occur on the weekend, the agencies will be notified on the following Monday.

5.3 MITIGATION

Mitigation for incidental take of the Utah prairie dog will be in the form of a total mitigation fee of \$450.00 per acre. The mitigation ratio will be 2:1 and the fee will be paid incrementally based on and for only the acreage contained in each increment as it is developed. Half of the fee will be paid to the BLM office in Cedar City, Utah (unless otherwise directed by that office). The basis for this fee is the approximate cost to enhance public lands to provide suitable prairie dog habitat. Enhancement methods could include: sagebrush chaining, mowing, brush beating, chemical treatment, discing, plowing, reseeding, inter-seeding, and/or burning. The other half of the mitigation fee will be paid as directed by the Service. These funds will only be used to implement the current conservation strategy and/or Recovery Plan with respect to prairie dog habitat in the West Desert recovery area and the specific prairie dogs inhabiting the Permit Area. These are one time fees and no other fees will be paid to the BLM or Service in conjunction with this approximately 63-acre project.

5.4 FUNDING

Funding for preparation of the HCP permit application, trapping, relocation, and mitigation fees will be the responsibility of Connel Gower Construction, Inc.

6.0 ALTERNATIVES

6.1 NO ACTION ALTERNATIVE

The no action alternative is forgoing the development of the approximately 63-acre area of occupied and potential Utah prairie dog habitat which would result in significant economic loss to the land owner. The prairie dogs in the Permit Area are part of a colony which is interspersed (within a ½ mile radius) with over 45 developed business sites, (including the Cedar City Airport), almost that many small livestock operations or holding areas, over a mile of railroad track and numerous high-traffic roads (including a portion of Interstate 15 and state highway 56). The ramifications of the No Action Alternative to the Utah prairie dogs in the Permit Area are: (1) the probable decrease and possible extirpation as a result of increasing human encroachment; (2) the possibility that individual dogs could move to pockets of open land in surrounding areas creating additional conflicts with landowners; (3) the natural elimination of suitable habitat as rabbit brush and tall weeds flourish and spread on the land if left unattended; and (4) the likelihood of high mortality should the property be put to its only other economically practical and legal use -- agriculture. None of these options are considered likely to contribute to the recovery of the species.

The development of this property is logistically and economically feasible and desirable as a result of the proximity of transportation (the airport, Interstate 15 and the railroad), the existing industrial park, railroad, and adequate sewer facilities. In addition, development of an industrial park in this location is in agreement with Cedar City's Master Plan and the removal of the prairie dogs to public lands consistent with the Service's Recovery Plan.

7.0 LITERATURE CITED

- Kimball, J. 1996. Personal communication between R. Valentine (UDWR) and K. Haworth (SWCA) on May 23, 1996.
- McDonald, K. 1995a. Personal communication between K. McDonald (UDWR) and K. Haworth (SWCA) on November 20, 1995.
- McDonald, K. 1995b. Personal communication between K. McDonald (UDWR) and K. Haworth (SWCA) on March 27 and April 25, 1995.
- UDWR. 1994. 1994 Annual Report: Utah prairie dog recovery efforts. UDWR publication.
- U.S. Fish and Wildlife Service. 1991. Utah prairie dog recovery plan. U.S. Fish and Wildlife Service, Denver, CO. and Utah Division of Wildlife Resources, Cedar City, UT, 41 pp.