

Low-Effect HCP

**Habitat Conservation Plan for
the Carson Wandering Skipper
for Pioneer Meadows**

Prepared for:

Pioneer Meadows Development, LLC
BCI Properties, LLC
DBJ Holdings, LLC
BB Investment Holdings, LLC
BPH 1, LLC

August 15, 2005

TABLE OF CONTENTS

Executive Summary	1
Section 1	
Introduction and Background	2
1.1 Overview	2
1.2 Incidental Take Permit	3
1.3 Regulatory Framework	4
1.4 Species to be Covered by Permit	6
Section 2	
Project Description	6
2.1 Project Description	6
2.2 HCP Boundaries	7
2.3 Construction Methods and Equipment Staging Areas	7
2.4 Access	8
2.5 Schedule	8
2.6 Covered Activities	8
Section 3	
Biology of the Carson Wandering Skipper	9
3.1 Environmental Setting and Habitat	9
3.2 Carson Wandering Skipper (<i>Pseudocopaeodes eunus obscurus</i>)	9
Section 4	
Impacts and Environmental Compliance	12
4.1 Impact Assessment	12
Section 5	
Environmental Compliance	12
5.1 ESA Section 7 Assessment	12
Section 6	
Measures to Minimize and Mitigate Impacts	14
6.1 Biological Goals	14
6.2 Measures to Minimize and Mitigate Impacts	14
6.3 Monitoring and Reports	16
Section 7	
Funding	18
7.1 Funding for Minimization and Mitigation Measures	18
7.2 Funding for Changed Circumstances	21
Section 8	
Changed and Unforeseen Circumstances	22
8.1 Changed and Unforeseen Circumstances	22
8.2 Other Measures as Required by the Director	23
8.3 Cooperating Party Agreement	23
Section 9	
Permit Amendment and Renewal Processes	23
9.1 Summary	23

Section 10		
	Alternatives	26
	10.1 Summary	26
Section 11		
	Citations	27
	11.1 Printed Literature	27
	11.2 Personal Communications	28
Exhibit A		29

Executive Summary

Pioneer Meadows Development, LLC, a Nevada limited liability company, BCI Properties, LLC, a Nevada limited liability company, DBJ Holdings, LLC, a Nevada limited liability company, BB Investment Holdings, LLC, a Nevada limited liability company, and BPH I, LLC, a Nevada limited liability company, (collectively, “Applicants”), are applying for a permit (“Permit”), as co-permittees, pursuant to section 10(a)(1)(B) of the Endangered Species Act of 1973 (16 U.S.C. 1531-1544, 87 Stat. 884) (“Act”) as amended, from the U.S. Fish and Wildlife Service (“USFWS” or “Service”) for the incidental take of the endangered Carson wandering skipper (*Pseudocopaeodes eunus obscurus*). The potential take would occur incidental to development of 39 acres of real property (“Habitat Area”), which Habitat Area is a portion of a mixed residential and commercial use community being developed in Sparks, Nevada, consisting of a total of 610 acres (“Project”). The Habitat Area and the Project are described and shown on Exhibit A.

On June 11, 2004, the Service received a telephonic report from a lepidoptera biologist of a sighting of a single Carson wandering skipper within the Habitat Area. As discussed more fully below, at the recommendation of the Service, Applicants conducted an extensive habitat component survey (“Habitat Component Survey”) of the entire Project area to determine the existence of habitat components believed necessary to support the Carson wandering skipper. After review of the Habitat Component Survey and an on-site inspection of the Project by the Service, the Service identified the Habitat Area as potentially suitable habitat for the Carson wandering skipper. After the report of the initial sighting of the Carson wandering skipper, site visits in the latter part of the flight season by the lepidoptera biologist produced no additional sightings of the Carson wandering skipper.

The spectacular growth in Reno and Sparks, Nevada has created heavy demand for quality residential and commercial properties. The Project is on valuable real estate that is fully entitled for a mixed-use residential and commercial development. The 39 acres of Habitat Area are located within the Project. Development of the Habitat Area will result in the loss of potentially suitable habitat for the Carson wandering skipper. As a result, Applicants have applied for the Permit and propose to implement this low-effect Habitat Conservation Plan, as described herein, which provides measures for minimizing and mitigating potential adverse affects on the Carson wandering skipper.

This Habitat Conservation Plan (“HCP”) summarizes the development of the Habitat Area and the Project and identifies the responsibilities of the USFWS and Applicants. The biological goal of this HCP is to minimize and mitigate potential adverse impacts due to the development of the Habitat Area by providing funds and a plan for the acquisition and management of suitable replacement habitat (“Replacement Habitat” or “Replacement Habitat Area”). This HCP describes the measures that will be implemented by Applicants to minimize and mitigate the potential impacts of the development of the Habitat on the Carson wandering skipper and its potential habitat.

Applicants believe that this HCP will qualify as a low-effect HCP and Permit because the development of the Habitat will have only minor or negligible impacts on the Carson wandering skipper. The development of the Habitat Area will likely affect only a small area of the Carson wandering skipper’s distribution. The Habitat Area is of marginal and declining quality due to human encroachment, including without limitation development of the Project, extensive

development of properties adjacent to the Project, as well as other causes discussed below. The mitigation efforts described in this HCP are expected to result in the conservation of better quality habitat for the Carson wandering skipper than the Habitat Area.

Section 1 Introduction and Background

1.1 Overview

Applicants are developing the Project as a mixed residential and commercial use community comprising approximately 610 acres and located in Sparks, Nevada. The Project originally included approximately 640 acres, but approximately 30 acres were sold, leaving 610 acres. The Habitat Area is an important and integral part of the overall Project. Applicants acquired the Project in April 2004. Applicants' predecessor acquired the Project in or about 1994. From 1994 to 2004, the previous owner obtained all federal and local entitlements and approvals to develop the Project as a master planned community, including approximately 1325 single family residences, 800 apartment units, a commercial shopping center, a business park, offices, and other commercial purposes. The Project is fully entitled, prime development land that will help satisfy the extreme demand for, and shortage of, residential housing in the Reno-Sparks area. Most quality residential projects in the Reno-Sparks area have a waiting list of between 100 and 400 prospective buyers. Because the demand for homes greatly exceeds the available supply, increases in housing costs over the last several years have been dramatic. Because of this growth and associated population increases, the demand for commercial property has similarly increased. Because of the high price paid for the Project, and the fact that all approvals and entitlements had been obtained, development commenced immediately in an attempt to meet demand. However, after notice by the Service regarding the Carson wandering skipper sighting, Applicants ceased all operations on the Habitat Area.

The Project is situated in the center of the rapidly growing Spanish Springs Valley. The area surrounding the Project is undergoing extensive residential and commercial development. The property located to the east and southeast of the Project has been fully developed as a residential and golf course community called Wingfield Springs, with over 2,500 residences, two 18-hole championship golf courses, and commercial development. The property located to the immediate north of the Project was recently purchased by a large developer and is planned for residential development, including at least 1,500 residences. To the immediate south of the Project lies Vista Boulevard, a regional collector roadway linking eastern Spanish Springs to the remainder of the City of Sparks, with a high traffic count which will increase as the area continues its development. The property to the west and southwest of the Project has received necessary approvals for approximately 4,000 residences, a regional retail center, offices and a business park. The southwestern corner of the Project and a portion of the property located to the immediate southwest of the Project, containing a total of approximately 150 acres, will serve as a City of Sparks maintained flood inundation area. This flood inundation area will require ongoing management and maintenance by the City of Sparks to meet its obligations for the public's health, safety and welfare. This includes, without limitation, flood debris removal and channel clearing, which require the use of construction equipment such as backhoes, loaders, excavators, and scrapers.

After Applicants received notice from the Service of the believed sighting of the single Carson wandering skipper, Applicants, at the recommendation of the Service, conducted an extensive Habitat Component Survey of the entire Project site for habitat components believed necessary for the Carson wandering skipper's known biological needs. Based upon a review of the Habitat Component Survey and its own on-site inspection of the Project, the Service identified the Habitat Area as potentially suitable habitat for the Carson wandering skipper. This Habitat Area lies in a portion of the Project previously approved for single family residences.

1.2 Incidental Take Permit

The Project includes the development of the Habitat Area. Therefore, Applicants are applying for an incidental take permit under the Endangered Species Act ("ESA") Section 10(a)(1)(B). The proposed length of the Permit is forty-two (42) months from the date of issuance of the Permit, which is the targeted time for acquisition of the Replacement Habitat. Grading of the Habitat Area also will be completed by this time. A habitat conservation plan is an integral and required component of an incidental take permit application.

The Habitat Area is believed to be marginal and declining due to numerous factors, including, without limitation, the following:

- Conversion of historically suitable habitat that was adjacent to the Habitat Area to developed status, causing fragmentation and isolation of remaining areas vegetated with the Carson wandering skipper's larval hostplant, as well as extensive existing and encroaching development around the Project site, as previously addressed;
- The nearby location of Vista Boulevard, a major arterial serving Reno and Sparks that is heavily traveled and is expected to experience ever-increasing traffic demands;
- Ongoing and extensive mosquito abatement measures for public health purposes, now even more pronounced because of the presence of the West Nile virus in Nevada, which may negatively impact insect species in areas adjacent to affected wetlands, including habitat potentially occupied by the Carson wandering skipper;
- The fact that water supporting the Habitat Area is supplied artificially by irrigation, which irrigation is not required to be maintained and has been discontinued as a result of existing and pending development; and
- The likely lowering of the free water table due to increased human demand on water supplies, which would likely result in a decrease or eradication of saltgrass, a necessary component of the habitat of the Carson wandering skipper.

Several of these factors were also factors that are believed to have contributed to the decline of the Carson wandering skipper populations in Carson City, Nevada. (Brussard *et al.* 1999). However, even more detrimental factors are present regarding the Habitat Area on the Project site than the Carson City site, such as mosquito abatement measures, that contribute to the degradation of the suitability of the habitat on or near the Habitat Area. Because of the presence of numerous factors

outside of Applicants' control that contribute to the decline of potential habitat for the Carson wandering skipper, it is not feasible to attempt to provide for any on-site mitigation for the Carson wandering skipper. This low-effect HCP provides for mitigation by providing Replacement Habitat and management thereof.

1.3 Regulatory Framework

Federal Endangered Species Act

The Act, 16 U.S.C. § 1531 et seq., and its implementing regulations prohibit the "take" of any fish or wildlife species that is federally listed as threatened or endangered without prior approval pursuant to either Section 7 or Section 10(a)(1)(B) of the Act. The Act defines take as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Federal regulation 50 C.F.R. 17.3 further defines the term "harm" in the "take" definition to mean any act that actually kills or injures a federally listed species, including significant habitat modification or degradation.

Section 10(a) of the Act establishes a process for obtaining an incidental take permit, which authorizes nonfederal entities to incidentally take federally listed wildlife or fish subject to certain conditions. The Act defines incidental take as take that is "incidental to, and not the purpose of, the carrying out of an otherwise lawful activity." Preparation of a habitat conservation plan is required for all Section 10(a)(1)(B) incidental take permit applications.

Section 7 of the Act requires all federal agencies to ensure that any action they authorize, fund or carry out is not likely to jeopardize the continued existence of any species listed under the Act, or to result in the destruction or adverse modification of its critical habitat. Technically, the issuance of an incidental take permit is an authorization for take by a federal agency. Consequently, prior to issuing a permit, the Service must conduct an internal Section 7 consultation on the proposed habitat conservation plan. The internal consultation begins after a nonfederal entity develops and submits a habitat conservation plan for formal processing and review. The internal consultation results in a Biological Opinion prepared by the Service regarding whether implementation of the habitat conservation plan will result in jeopardy to any listed species or adversely modify critical habitat.

The Section 10 Process - Habitat Conservation Plan Requirements and Guidelines

The Section 10 process for obtaining an incidental take permit has three primary phases: (1) the habitat conservation plan development phase; (2) the formal permit processing phase; and (3) the post-issuance phase.

During the habitat conservation plan development phase, the applicant prepares a plan that integrates the proposed project or activity with the protection of listed species. A habitat conservation plan submitted in support of an incidental take permit application must include the following information:

- impacts likely to result from the proposed taking of the species for which a permit is sought;

- measures that will be implemented by the applicant to monitor, minimize and mitigate impacts; funding that will be made available to undertake such measures; and procedures to deal with unforeseen circumstances;
- alternative actions considered by the applicant that would not result in a take; and
- additional measures the Service may require as necessary or appropriate for purposes of the plan.

The Service has established a special category of habitat conservation plan, called a low-effect habitat conservation plan, for projects with relatively minor or negligible impacts. Based on criteria for determining whether a low-effect habitat conservation plan is appropriate, as described below and in the Habitat Conservation Plan Handbook, Applicants believe this HCP qualifies as a low-effect habitat conservation plan.

Low-effect habitat conservation plans are appropriate for projects that will have minor or negligible effects on federally listed, proposed or candidate species and their habitats that are covered by the habitat conservation plan and minor or negligible effects on other environmental resources. Implementation of low-effect habitat conservation plans and their associated incidental take permits, despite authorization of some small level of incidental take, individually and cumulatively have a minor or negligible effect on the species covered by the habitat conservation plan. The determination of whether an habitat conservation plan qualifies for the low-effect category is based on the anticipated impacts of the project prior to implementation of the mitigation plan. The purpose of the low-effect habitat conservation plan is to expedite handling of habitat conservation plans for activities with inherently low impacts. This category of habitat conservation plan is not intended for projects with significant potential impacts that are subsequently reduced through mitigation programs.

The habitat conservation plan development phase concludes and the permit processing phase begins when the applicant submits a complete application package to the appropriate permit-issuing office. A complete application package for a low-effect habitat conservation plan consists of an habitat conservation plan, a permit application and a \$25 fee from the applicant. The Service must publish a Notice of Availability of the habitat conservation plan in the Federal Register; prepare an Intra-Service Section 7 Biological Opinion; prepare a Set of Findings, which evaluates the Section 10(a)(1)(B) permit application in the context of permit issuance criteria; and prepare an Environmental Action Statement, a brief document that serves as the Service's record of compliance with the National Environmental Policy Act (“NEPA”) for categorically excluded actions, such as a low-effect habitat conservation plan incidental take permit application. An implementing agreement is not required for a low-effect habitat conservation plan but may be included by an applicant. A Section 10 incidental take permit is granted upon the Service's determination that all requirements for permit issuance have been met. Statutory criteria for permit issuance specify that:

- the taking will be incidental to an otherwise lawful activity;
- the impacts of incidental take will be minimized and mitigated to the maximum extent practicable;

- adequate funding for implementing the habitat conservation plan and procedures to handle unforeseen circumstances will be provided;
- the take will not appreciably reduce the likelihood of survival and recovery of the species in the wild;
- the applicant will provide additional measures that the Service requires as being necessary or appropriate; and
- the Service has received assurances, as may be required, that the habitat conservation plan will be implemented.

During the post-issuance phase, the permittee and other responsible entities implement the habitat conservation plan, and the Service monitors the permittee's compliance with the habitat conservation plan as well as the long-term progress and success of the habitat conservation plan. The public is notified of permit issuance by a notice published in the Federal Register.

National Environmental Policy Act

NEPA requires that federal agencies analyze the environmental impacts of their actions, such as issuance of an incidental take permit, and include public participation in the planning and implementation of their actions. NEPA compliance is obtained through one of three actions: (1) preparation of an environmental impact statement (generally prepared for high-effect habitat conservation plans); (2) preparation of an environmental assessment (generally prepared for moderate-effect habitat conservation plans); or (3) a categorical exclusion (allowed for low-effect habitat conservation plans). The NEPA process helps federal agencies to make informed decisions with respect to the environmental consequences of their actions and ensures that measures to protect, restore and enhance the environment are included, as necessary, as a component of their actions. Low-effect HCPs, as defined in the HCP Handbook, are categorically excluded under NEPA.

1.4 Species to be Covered by Permit

The Carson wandering skipper is the only species that is identified as a "covered species" related to the Permit. There are no other threatened or endangered species within or immediately adjacent to the Habitat Area. There are no other threatened or endangered species that will be affected, either directly, indirectly or cumulatively by the effects of the proposed activities.

Section 2 Project Description

2.1 Project Description

Applicants propose to develop and carry out construction activities on the Project lands comprising 610 acres as a mixed residential and commercial use community, including without limitation improvements for residential, retail, industrial, and office use. Specifically, this includes approximately 1,325 single family residences, 800 apartment units, a commercial shopping center,

a business park, offices, and other commercial purposes. Of the Project area's 610 acres, the 39 acres comprising the Habitat Area may provide potentially suitable habitat for the Carson wandering skipper. These 39 acres may support varying amounts of vegetation on which the Carson wandering skipper is known to feed and oviposit. The Habitat Area will be completely developed. Therefore, Applicants seek a Permit for the 39 acres of Habitat Area.

Applicants have obtained all appropriate permits from the City of Sparks and the County of Washoe prior to further ground disturbance. Applicants have obtained a Dust Control Permit, which obligates Applicants to mitigate fugitive dust; a Grading Permit, which, among other things, requires Applicants to revegetate certain portions of the planned community; a conditional letter of map revision to manage hydrological conditions; a Groundwater Discharge Permit from the Nevada Division of Environmental Protection (“NDEP”); and a Wetlands Delineation Permit from the United States Army Corps of Engineers. In addition, Applicants have completed a Level I Environmental Study and a Cultural Resources Study. Applicants will follow all measures imposed by the City and County to further reduce impacts to the environment. All ground disturbance activities are conducted in accordance with the permits issued.

2.2. HCP Boundaries

This HCP and the requested Permit cover the 39 acres of Habitat Area in the southwestern corner of the Project area, which Habitat Area is depicted on Exhibit A.

2.3 Construction Methods and Equipment Staging Areas

The construction and development activities anticipated in the Project and Habitat Area include, but are not limited to:

- earth work and site work operations including, but not limited to, use of equipment, including heavy equipment, vegetation removal, excavation, trampling of vegetation, fill and compaction of soils, ground disturbance, grading and creation of dust;
- infrastructure development, maintenance, repair, and modification including, but not limited to, construction of roadways, and installation of utilities, landscaping, sidewalks, fences, signage, drainage and irrigation systems;
- construction of residential and commercial buildings and other improvements;
- mosquito and other insect abatement and control;
- construction, maintenance, repair, and modification of all other facilities and improvements necessary for the Project and Habitat Area;
- dust abatement by watering, and/or application of palliative or other means; and
- storage of equipment and materials on the Habitat Area.

The activities anticipated in the Replacement Habitat include, but are not limited to, the following:

- Replacement Habitat monitoring activities, including without limitation walking upon the Replacement Habitat and conducting Carson wandering skipper monitoring activities.
- Replacement Habitat management activities, including without limitation seeding the Replacement Habitat, removing Tall Whitetop from the Replacement Habitat, and posting signs and constructing fences to prevent trespassing on the Replacement Habitat.

2.4 Access

Applicants' construction and development crews will access the Habitat Area via roads, both permanent and temporary, paved and unpaved. Permanent backbone roads in the Project are shown on Exhibit A. Additional roadways will be constructed to provide access to residential and commercial buildings.

2.5 Schedule

Development of the Habitat Area has been stopped, and construction, development, and sale of parcels within the Project have been significantly delayed, since July, 2004. Grading of the Habitat Area is expected to occur within sixty (60) days after issuance of the Permit.

2.6 Covered Activities

Applicants' activities which may result in an incidental take include without limitation the following:

- construction operations, including but not limited to, use of any equipment, excavation, vegetation removal, trampling of vegetation, import or export of topsoils, compaction of soils, ground disturbance, grading or creation of dust;
- any activities associated with the construction and maintenance of buildings and infrastructure, including, but not limited to, buildings, sidewalks, roadways, swimming pools, and sewage drainage utilities and related appurtenances, flood control basins and channels, storm drains, and landscaping irrigation systems ("Improvements");
- any activities related to the repair, maintenance, modification, or replacement of any of the Improvements;
- any activities to construct or maintain landscaping and wetlands, including, but not limited to, leveling ground, planting vegetation, watering vegetation, and removal of exotic plant species;

- any activities associated with fire control measures or emergency measures during a possible wildfire, including but not limited to, vegetation removal, vegetation reseeded, application of fire retardant, or other measures deemed necessary to protect the health, safety and welfare of the general public;
- mosquito and other insect abatement and control activities; and
- any activities associated with monitoring and/or management of the Replacement Habitat and/or Carson wandering skipper.

Section 3 Biology of the Carson Wandering Skipper

3.1 Environmental Setting and Habitat

The Habitat Area consists of disturbed grassland and open scrub with grass and forb understory adjacent to wetlands. The surrounding Project Area also currently includes completed utilities, roadways, fully graded areas, and completed and partially completed flood control facilities. The entire Project area has been subject to intensive historical grazing and manipulation of water flows through impoundment and direction of surface flows. As previously mentioned, the area to the immediate east of the Project has been developed into a large residential community including two 18-hole golf courses and approximately 2,500 single family residences. The area to the immediate west of the Project has received approvals and entitlements for over 1,500 residences and development is expected to commence in 2005. To the immediate south of the Project lies Vista Boulevard, a regional collector roadway linking eastern Spanish Springs with the remainder of the City of Sparks. The property to the west and southwest of the Project has received necessary approvals for approximately 4,000 residences, a regional retail center, offices and a business park. The southwestern corner of the Project and a portion of the property located to the immediate southwest of the Project, containing a total of approximately 150 acres, will serve as a City of Sparks maintained flood inundation area for 100-year flood events. The Habitat Area contains some alkaline soils, some saltgrass (*Distichlis spicata* var. *stricta*) and various nectar sources, in a combination that may provide suitable habitat for the Carson wandering skipper. The Habitat Area consists of approximately six percent of the Project.

3.2 Carson Wandering Skipper (*Pseudocopaeodes eunus obscurus*)

Description/Distribution/Habitat/Ecology

The Carson wandering skipper (*Pseudocopaeodes eunus obscurus*) is one of five subspecies of the wandering skipper butterfly (*Pseudocopaeodes eunus*). The taxonomic species ranges from extreme northern California in the north to the border with Mexico in the south. Populations are found in the Mojave Desert of California and Nevada, and east of the east slope of the Sierra Nevada, east to the central Great Basin in the Big Smoky Valley. *P. eunus* is a small skipper butterfly,

described as "tawny orange above except for a narrow uniform border and black veins near the border," and pale orange on the lower surface of the hind wings. (Howe 1975). The Carson wandering skipper is distinguishable from the species by its browner dorsal surface and heavier black along the veins and border of the wings. (Austin and Emmel 1998).

Females lay their eggs on saltgrass, the larval host plant for the species. The species is common in saltbush-greasewood communities and widely distributed in lowland areas of now dry pluvial lakes. While the Carson wandering skipper's life cycle remains a bit of a mystery, it is likely that the cycle is similar to other species of Hesperinae. (Scott 1986). Larvae of the subfamily generally hibernate in silked-leaf nests, which may be partially underground, and pupae generally rest in the nest. Unlike other *Pseudocopaedodes eunus* subspecies, which typically produce two broods per year, the Carson wandering skipper may produce only one brood per year during June to mid-July. Some larvae may be able to extend their period of diapause for more than one season depending on the individual and environmental conditions. (Brussard, pers. comm., 2001).

The Carson wandering skipper was federally listed as endangered on November 29, 2001, under an emergency listing. (Endangered and Threatened Wildlife and Plants; Emergency Rule To List the Carson Wandering Skipper as Endangered, 66 Fed. Reg. 59537 (Nov. 29, 2001)). Endangered status for the subspecies was finalized on August 7, 2002. (Endangered and Threatened Wildlife; Determination of Endangered Status for the Carson Wandering Skipper, 67 Fed. Reg. 51116 (Aug. 7, 2002)). The Service has not designated critical habitat for the Carson wandering skipper, but has commenced development of a recovery plan for the Carson wandering skipper.

The Carson wandering skipper is associated with grasslands and scrublands that support a combination of alkaline soils, saltgrass, which is the larval host plant, and nectar sources. Most plants providing nectar sources do not grow in alkaline soils. An exception is *Thelypodium crispum*. Other known nectar sources, which may occur near saltgrass areas, include racemose golden-weed (*Pyrrcoma racemosa*), birds' foot trefoil (*Lotus corniculatus*), small-flowered cleomella (*Cleomella parviflora*), *Cleomella plocasperma*, heliotrope (*Heliotropium curassavicum*) tumble mustard (*Sisymbrium altissimum*) and thistles (*Cirsium arvense*, *C. vulgare*). (M. Haworth, pers. comm., February 24, 2005). It should be noted that tumble mustard and thistles are considered weeds, and if they were ever designated as noxious weeds in the future, they would be illegal to plant. There is no recognized specifically identifiable combination of the foregoing nectar sources, saltgrass and alkaline soils that is known to support the Carson wandering skipper. Saltgrass (*Distichlis spicata*) prefers alkaline soils and occurs where the water table is high enough to saturate the plant's roots for most of the year. The skipper, however, likely cannot survive in its larval stage if its habitat is underwater. Hence, the skipper's prime habitat likely occurs where microtopographical variations allow saltgrass roots to remain saturated without inundating the plant and where nectar sources are nearby. (Brussard, et al. 1999).

The Carson wandering skipper was first discovered in 1965 in Carson City. Historically, the skipper was observed in areas north of Highway 50 in Carson City and south of Airport Road in Carson City. (Brussard, et al. 1999). A study conducted in 1997 and 1998 revealed that the Carson

City population has likely been extirpated. (Brussard, et al. 1999). However, the study further revealed new populations of the Carson wandering skipper, one occupying an extensive area of saltgrass in Washoe County, Nevada, located in Warm Springs Valley/Winnemucca Ranch Road, and one occupying several sites in Honey Lake Valley in Lassen County, California. (Brussard, et al. 1999). From 2000 to 2004, twenty-one new occupied nectar sites were found in Lassen County around Honey Lake. (M. Haworth, pers. comm. February 24, 2005). In June 2004, a population was discovered along the Carson River in Douglas County, Nevada. (D. Murphy, pers. comm., 2004).

The Lassen County habitat area is estimated at several hundred acres. (M. Haworth, pers. comm. February 10, 2005). It is estimated that the Douglas County habitat area covers approximately 140 acres and the Warm Springs Valley/Winnemucca Ranch Road area covers approximately 25 to 30 acres. (M. Haworth, pers. comm., February 24, 2005). The known range of the Carson wandering skipper extends from Lassen County, California, eastward to Washoe County, Nevada, and south to Douglas County, Nevada. (M. Haworth, pers. comm., February 24, 2005).

Possible causes for the extirpation of the Carson City population likely include habitat loss, caused by urban and suburban development, and habitat degradation, caused by a reduction of the free water table due to increased human demand on water resources, which in turn resulted in a decrease of the larval host plant. (Brussard, et al. 1999). These conditions are very similar to the conditions at the Project site, which negatively contribute to the marginal quality of the Habitat Area as well as the continuing decline of the Habitat Area. The demands for water from the dramatic increase in development likely has lowered and will likely continue to lower the free water table. In addition, there are other factors that influence the marginal habitat conditions of the Habitat Area, such as mosquito abatement measures and flood control measures, that were not believed to be present when the Carson City skipper populations declined.

Census data are not available for any populations of the Carson wandering skipper. It is not known to be possible to monitor population sizes effectively using available techniques. Adult skippers are particularly elusive; they are small in size, fly extremely fast and are seldom observed, except on nectar plants. The larvae are cryptic and widely dispersed. The species cannot be safely handled for purposes of obtaining capture and recapture-based population estimates. Further confounding population status and trends measurements is the absence of adults at sites that are known to be occupied during certain years, indicating that the species may experience extended diapause during periods of less suitable environmental conditions. (D. Murphy, pers. comm., 2004).

Field Observations/Occurrence in Project Vicinity

Within the Habitat Area, a single male specimen of the Carson wandering skipper was believed sighted on June 11, 2004. After the sighting and upon request by the Service, Applicants commissioned an extensive Habitat Component Survey, as previously defined, on the entire Project site. Subsequent multiple site visits by a qualified lepidoptera biologist near the end of the typical flight season revealed no further individuals on or around the Habitat Area. It is thus believed that the closest extant population occurs on the Winnemucca Ranch Road/Warm Springs Valley site.

The closest population in a southern direction is that discovered in Douglas County during June, 2004. Historical and recent aerial photographs indicate that landscape areas immediately east of the Project may once have provided the most suitable and most extensive historic local potential habitat for the Carson wandering skipper in the Spanish Springs Valley. Those areas, however, were lost to development prior to the listing of the species. The Habitat Component Survey was performed in July, 2004, by Huffman and Carpenter. After review of the survey and an on-site inspection of the Project, the Service identified the Habitat Area.

Section 4 Impacts and Environmental Compliance

4.1 Impact Assessment

The construction of the improvements in the Habitat Area could potentially result in an incidental take of the Carson wandering skipper. Because the Carson wandering skipper is mobile and rarely encountered, and the specific amounts and combinations of habitat characteristics which support the skipper are not known, it is not possible to quantify the number of individuals that might be taken during the covered activities listed in Section 2.6. Therefore, the maximum level of incidental take of the Carson wandering skipper anticipated to occur under this HCP, and authorized by its associated Permit, is expressed as any specimens that may be taken during the activities listed under Section 2.6. Potential takes associated with monitoring and management activities on the Replacement Habitat are considered negligible for the Carson wandering skipper due to the small area that would be impacted by these actions.

Section 5 Environmental Compliance

5.1 ESA Section 7 Assessment

The following information is provided to assist the Service in complying with the consultation requirements of Section 7 of the Act.

Direct and Indirect Effects - The effect of the development of the Habitat Area to the Carson wandering skipper is the loss of 39 acres of potentially suitable habitat due to the removal of native vegetation that may be suitable for the skipper's needs for oviposition plants and nectar sources. This habitat loss is considered negligible because: (1) only one adult skipper was believed observed in the area; (2) habitat suitability and quality of the Habitat Area is marginal and its condition is in decline, therefore limiting potential sustainability of any demographic unit of the skipper that might take residence; (3) more suitable adjacent habitats may have been lost to development previously, isolating the current population at issue, if any such population exists, and reducing the likelihood of local species survival; and (4) more extensive habitat areas exist elsewhere, including those at Honey Lake, on Winnemucca Ranch Road, and along the Carson

River. The Habitat Area is also believed to be marginal and in decline for the reasons set forth in Section 1.2.

Activities to be conducted on the Replacement Habitat, such as habitat monitoring and/or management, also could result in adverse effects to all stages of the Carson wandering skipper (adults, eggs, larvae or pupae) by workers and/or equipment, assuming existing or future occupancy of the Replacement Habitat by the skipper. These activities may include, but are not limited to, seeding of nectar sources and/or saltgrass, if necessary; Tall Whitetop (*Lepidium latifolium*) weed control, if necessary; fence or sign construction and/or repair, if necessary, and surveys for the Carson wandering skipper, all of which activities are more particularly described in Sections 6.2(b) and 6.3(b). It is possible that persons conducting habitat monitoring and/or skipper surveys may disturb the skipper or its host or nectar plants on the Replacement Habitat. The selected Replacement Habitat, however, would be determined in part by its current quality habitat condition and its appropriateness for the Carson wandering skipper. This would reduce the need for active habitat management, which, in turn, would reduce the potential disturbance caused by management and monitoring activities. The Replacement Habitat would generally be managed to avoid or minimize disturbance to individual skippers and their host and nectar plants. Carson wandering skipper surveys will follow the Service-approved protocol for skipper surveying to minimize or avoid impacts to the skipper or to its habitat. Impacts to the skipper during its various life stages are unlikely, and any potential impacts that might occur would be considered negligible due to the small area that would be impacted by these actions.

Cumulative Impacts - The cumulative impacts on the Carson wandering skipper are believed minor and negligible because (1) only one adult skipper was believed observed in the area during survey after repeated site inspections; (2) habitat suitability and quality of the Habitat Area is believed to be marginal and in a state of decline, limiting the potential sustainability of any demographic unit of the skipper that might take residence (or possibly preventing the establishment of any population at all); (3) more suitable adjacent habitats may have been lost to development previously, reducing the likelihood of local species survival; and (4) more extensive habitat areas exist elsewhere, including those at Honey Lake, on Winnemucca Ranch Road, and along the Carson River. Furthermore, Applicants will mitigate the loss of any habitat by acquisition and management of the Replacement Habitat, as defined below, of an equally sized area of habitat. Any impacts on the skipper on the Replacement Habitat are unlikely, will be minimized as much as practicable, and are not considered to present long-term negative cumulative impacts.

Effects on Critical Habitat – No critical habitat has been designated for the Carson wandering skipper.

Section 6 Measures to Minimize and Mitigate Impacts

6.1 Biological Goals

The biological goals of this HCP are:

- (a) To minimize and mitigate to the extent practicable the impacts of development to the Carson wandering skipper;
- (b) To provide suitable habitat for the Carson wandering skipper by acquiring 39 acres of property by conservation easement, in fee simple or other appropriate method for Replacement Habitat; and
- (c) To provide the Funds (as defined in Section 7.1(e)) for habitat Monitoring and Habitat Management (each as defined below) on the Replacement Habitat.

6.2 Measures to Minimize and Mitigate Impacts

(a) **Acquisition of Replacement Habitat.** As mitigation for development of the 39 acres of Habitat Area, Applicants will provide 39 acres of Replacement Habitat of equal or better quality than the Habitat Area. Pioneer Meadows Development, LLC (hereinafter the “Managing Entity”) will have primary responsibility for acquisition of the Replacement Habitat. The Replacement Habitat should have saltgrass coverage with microtopographical variations, alkaline soils and a co-occurring or nearby nectar source. Ideally, the Replacement Habitat will include or be situated near a known Carson wandering skipper population. The Carson wandering skipper may “commute” to a nectar source. Therefore, it is believed that acquiring suitable habitat near an occupied skipper site will be sufficient to maintain the Carson wandering skipper’s survival, especially if the Replacement Habitat provides saltgrass coverage, which will likely become an area in which eggs are oviposited if the females commute to a nectar source located near saltgrass.

The Replacement Habitat will be provided through acquisition of fee title in, or a conservation easement on, the Replacement Habitat or other appropriate method approved by the Service. The Managing Entity will initially hold title to the fee or to the conservation easement. Upon approval by the Service, the fee title or conservation easement may be transferred to and held by a non-profit conservation organization or other private party approved by the Service or a governmental entity or agency willing to hold the Replacement Habitat (each a "Cooperating Entity"). Alternatively, the Cooperating Entity may acquire title to the Replacement Habitat using the acquisition funds provided by the Managing Entity. The Management Activities described in Section 6.2(a) below also may be provided by the Cooperating Entity.

The Replacement Habitat will be located in the general vicinity of an area where the Carson wandering skipper is known to exist. Based on current knowledge, the Carson wandering skipper exists in the Winnemucca Ranch area, the Carson River area and the Honey Lake area, as described in Section 3.2 hereof and as generally shown on maps previously provided to the Service. These areas will be investigated for suitable and available locations for Replacement Habitat.

The Managing Entity will commence efforts to identify and acquire or cause to be acquired the Replacement Habitat not later than the date 30 days after issuance of the Permit ("Permit Date") and will exercise diligent, good faith efforts to acquire or cause to be acquired the Replacement Habitat within 18 months ("Acquisition Period") after the Permit Date. The Managing Entity will provide to the Service a written report of the status of its efforts to provide the Replacement Habitat as required herein approximately 6, 12 and 18 months after the Permit Date ("Acquisition Status Reports"). The Acquisition Status Report will contain the information described in Section 6.3(a) below. If the Replacement Habitat has not been provided as required herein within 18 months after the Permit Date, Applicants will be required to acquire Replacement Habitat at a higher mitigation ratio as follows: If acquisition occurs between 18 months and 30 months ("First Extended Acquisition Period"), the mitigation ratio will increase to 1.25 acres of Replacement Habitat for each acre of the Habitat Area, for a total of 48.75 acres of Replacement Habitat. If acquisition is accomplished between 30 months and or longer ("Second Extended Acquisition Period"), the mitigation ratio will be 1:1.5, for a total of 58.5 acres of Replacement Habitat. For purposes of this section, acquisition is accomplished if a parcel of land is under contract within the specified time frame, and the actual close of escrow occurs within six (6) months thereafter. In the event the acquisition of the Replacement Habitat is delayed by events or circumstances beyond the reasonable control of the Managing Entity, the Acquisition Period, First Extended Acquisition Period and Second Extended Acquisition Period shall be extended by a period equal to the period of delay. The Replacement Habitat identified by Applicant will be subject to the approval by the Service that the Replacement Habitat is reasonably consistent with the requirements of this HCP.

Upon issuance of the Permit, Applicants will deposit Seventy-Five Thousand Dollars (\$75,000.00) in an interest bearing account ("the Acquisition Account") controlled by the Managing Entity to be used only for the acquisition of the Replacement Habitat. This figure has been determined based on estimates by a Nevada-licensed real estate agent familiar with the areas that may contain Carson wandering skipper-occupied sites available for acquisition, which estimates and availability have been provided separately to the Service. The Managing Entity intends to investigate making a portion of the money to be used for acquisition of the Replacement Habitat available to The Nature Conservancy or similar non-profit conservation organization to allow such non-profit conservation organization the opportunity to obtain matching funds from the Nevada Conservation and Resource Protection Grant Program ("Question 1 Program"). The State of Nevada may issue up to \$200 million in general obligation bonds in order to preserve and protect water quality, open spaces and

wildlife habitat and to restore and improve recreational areas, historic and cultural resources and parks. Non-profit environmental organizations are eligible to apply for funds from the Question 1 Program to match privately donated funds to acquire environmentally sensitive property. In this case, the matching funds may be used to acquire additional or better quality habitat for the Carson wandering skipper.

(b) **Management of Replacement Habitat.** Using the Funds described in Section 7.1(e), the Managing Entity will perform or cause to be performed the following management activities (collectively, "Habitat Management"):

(i) Initial seeding of the Replacement Habitat to the extent reasonably necessary to establish appropriate densities of nectar sources and saltgrass for the Carson wandering skipper. Seeding would not likely be necessary over the entire 39 acres of Replacement Habitat, but only strategically in areas where nectar sources and saltgrass would be expected to grow and thrive. Thereafter, seeding is not expected to be necessary absent changed circumstances, as discussed in Section 7.2, because the nectar sources and saltgrass will self propagate.

(ii) Weed control, to the extent reasonably necessary and reasonably possible to prevent Tall Whitetop (*Lepidium latifolium*) from displacing the salt grass and nectar sources considered necessary for suitable habitat for the Carson wandering skipper. Such measures may include chemical removal by spot-spraying and/or mechanical removal. Because it is anticipated that the Replacement Habitat will be in stable condition with undisturbed soils, the Replacement Habitat will not be easily susceptible to encroachment by Tall Whitetop and weed control is not expected to be necessary initially or on an annual basis.

(iii) Constructing fencing and/or posting signs around the Replacement Habitat to prevent and/or minimize trespasses and subsequent maintenance and repair of fences and/or signs, if necessary.

6.3 Monitoring and Reports

Habitat Monitoring

Because the Carson wandering skipper does not lend itself to typical population assessment techniques and may not fly in some years under less suitable environmental conditions, it cannot be effectively monitored by typical population studies. Therefore, the following alternative monitoring (collectively "Monitoring") techniques will be provided, as approved by the Service, and detailed as follows:

(a) **Compliance Monitoring**

Applicants will provide or cause to be provided the Acquisition Status Report at the times described in Section 6.2. The Acquisition Status Reports shall describe, in reasonable detail,

the efforts to acquire the Replacement Habitat, including without limitation a description of the method of identifying possibly suitable replacement habitat, the properties investigated by applicants and targeted or eliminated from consideration, if any, and plans for ongoing habitat acquisition efforts, if necessary.

(b) Effectiveness Monitoring

After acquisition of the Replacement Habitat, monitoring will be performed to measure the effectiveness ("Effectiveness Monitoring") of this HCP in meeting its biological goals. The Effectiveness Monitoring will consist of three components. The first component will include inspection of the Replacement Habitat for trespass, dumping or other activities detrimental to the habitat and a visual survey of the Replacement Habitat to assess the condition and suitability of the Replacement Habitat, which shall include assessment of the existence and estimated density (percentage coverage) of salt grass, nectar sources and alkaline soils on the Replacement Habitat or in the vicinity of the Replacement Habitat ("Condition Monitoring"). The condition of the Replacement Habitat ("Baseline" or "Baseline Condition"), after any necessary initial seeding of saltgrass and nectar sources (as described in Section 6.2(b)(i)), will be established as soon as reasonably possible after the first close of escrow on the Replacement Habitat. The Baseline Condition will include estimates of the density (percent coverage) of saltgrass, alkaline soil and nectar sources. The nectar sources will be identified by plant species.

The second component will include visual surveys for the Carson wandering skipper ("Species Monitoring"). The Species Monitoring will be conducted in accordance with the Service-approved Carson wandering skipper survey protocol except that the Species Monitoring will occur one time during the Carson wandering skipper flight season. The Condition Monitoring and Species Monitoring will be carried out on a single day under appropriate weather conditions during the first ten days of June, the typical flight season for the Carson wandering skipper. If no Carson wandering skippers are observed, a second Carson wandering skipper survey will be repeated once during the last ten days of June.

A third component of the Effectiveness Monitoring will be monitoring for encroachment by Tall Whitetop, which will be conducted by a person trained to recognize Tall Whitetop on a single day in June ("Whitetop Monitoring"). A report, in reasonable detail, describing the Effectiveness Monitoring will be filed with the Service no later than November 1 of the year in which Effectiveness Monitoring is completed. The first Effectiveness Monitoring will occur in the first ten days of June immediately following the later of the date of acquisition of the Replacement Habitat or the Permit Date ("Start Date"). Thereafter, the Effectiveness Monitoring will be conducted annually for the next two years. If the Replacement Habitat is determined by Applicant, with the approval of the Service, to be self-sustaining in the third year after the Start Date, the Effectiveness Monitoring will be repeated in the sixth year and ninth year after the Start Date. If the Replacement Habitat is determined not to be self-sustaining in the third year after the Start Date, the Effectiveness Monitoring will continue annually through the fifth calendar year after the Start Date and thereafter as

reasonably determined necessary by Applicant and the Service. During the first five years, the Effectiveness Monitoring and reporting is expected to be carried out pro bono by staff from the Biological Resources Research Center at the University of Nevada, Reno. If the Biological Resources Research Center refuses or fails to conduct the Effectiveness Monitoring or reporting in any year, the Funds will be used to retain a trained field biologist or other qualified consultant to complete the Effectiveness Monitoring and reporting as required herein.

The Monitoring Report will include: 1) an assessment of the habitat condition and its deviation from the Baseline Condition; 2) an estimate of Tall Whitetop coverage; 3) restoration efforts, if any; 4) monitoring activities; 5) problems identified with habitat conditions and corrective measures taken, if any; 6) recommendations for future action, if any; and 7) butterfly sightings, if any.

(c) Performance and Success Criteria

Performance and success of this HCP will be measured by:

- (i) Acquisition of the Replacement Habitat as required herein; and
- (ii) Performance of the Habitat Management as required herein.

Success criteria in performance of the Habitat Management will be measured by the existence and/or establishment of appropriate densities of saltgrass and nectar sources, the existence of the alkaline soil crust, and the exclusion or minimization of encroachment by Tall Whitetop that jeopardizes the habitat.

Access

Biologists from the Service will be given complete access to the Replacement Habitat to monitor the quality of the habitat and the Carson wandering skipper population, compliance hereunder and to perform any preservation work or measures the Service deems necessary. Access will also be given to other person(s) performing Monitoring and/or Maintenance Activities, as specified herein, including, without limitation, biologists and students from the University of Nevada, Reno.

**Section 7
Funding**

7.1. Funding for Minimization and Mitigation Measures

Three categories of costs are anticipated for the implementation of this HCP. These costs include: (1) costs necessary to acquire 39 acres of Replacement Habitat (“Acquisition Costs”); (2) costs of Effectiveness Monitoring (“Monitoring Costs”); and (3) costs of the

Habitat Management activities described in Section 6.2(b), to the extent necessary (“Habitat Management Costs”).

(a) **Acquisition Costs**

As discussed in Section 6.2, Applicants will deposit Seventy-Five Thousand Dollars (\$75,000.00) in an interest bearing account for acquisition of Replacement Habitat. In the event that such funds prove insufficient to acquire adequate Replacement Habitat, Applicants will expend the amount reasonably necessary to acquire 39 acres of suitable Replacement Habitat.

(b) **Monitoring Costs**

The Effectiveness Monitoring and reporting activities consists of Condition Monitoring, Species Monitoring and Whitetop Monitoring, as described in Section 6.3(b). The estimated cost for the Condition Monitoring and Species Monitoring is \$1,000 per year. (D. Murphy, pers. comm., November 2004). However, the Condition Monitoring and Species Monitoring will be carried out on a pro bono basis for the first three years (or the first five years, if Effectiveness Monitoring is required under Section 6.3(b) in the fourth and fifth years) by UNR staff from the Biological Resources Research Center. (D. Murphy, pers. comm., November 2004). The cost for the Whitetop Monitoring in the Replacement Habitat is estimated to be \$1,014.00 per year (\$13 per person per hour for two people, covering 1 acre per hour) (S. Donaldson, pers. comm., November 19, 2004). Therefore, the total annual cost for Effectiveness Monitoring for the first three years (or the first five years, if applicable), will be \$1,014.00, composed of \$1,014.00 per year for Whitetop Monitoring and no cost for Condition Monitoring and Species Monitoring. The total annual cost for Effectiveness Monitoring for any years after the fifth year will be \$2,014.00, composed of \$1,014.00 per year for Whitetop Monitoring and \$1,000.00 per year for Condition and Species Monitoring.

(c) **Habitat Management Costs**

The Habitat Management Costs are not expected to be incurred on an annual basis, if at all, and will only be expended as necessary. Habitat Management Costs include the following:

i. Initial seeding of the Replacement Habitat is estimated to cost approximately \$2,365.00 This estimate assumes 50% of area of Replacement Habitat will be seeded, at \$14 per pound of seed, with a typical application of 5 pounds per acre, together with application cost of \$1,000.00, for a total of \$2,365.00. (L. Carpenter, pers. comm., December 2, 2004).

ii. Control of Tall Whitetop involves application of herbicides with a wand applicator and is estimated to cost \$150-\$200 per acre, plus \$35 per 100-gallons of the herbicide Telar). (L. Hughes, pers. comm., November 23, 2004). However, such

measures will only be implemented if and to the extent necessary to control encroachment of Tall Whitetop. Because it is anticipated that the Replacement Habitat will be in stable condition with undisturbed soils, it is not anticipated that weed control measures will be needed on an annual basis.

iii. Building fences or posting signs will be done only to the extent necessary to discourage trespassers, if any. Such activities will be performed only in the event of recurring trespass situation that threatens the quality and stability of the Replacement Habitat. Such activities are estimated to cost \$13 per person per hour.

(d) Estimated Total Habitat Management and Monitoring Costs

The estimated total of Habitat Management Costs and Monitoring Costs is as follows:

i.	<u>Year One.</u>		
	Effectiveness Monitoring (see Section 7.1(b))	\$1014.00	
	Habitat Management Seeding (assuming initial seeding is needed) (see Section 7.1(c))	\$2365.00	
	<u>Total first Year</u>		<u>\$3379.00</u>
ii.	<u>Years two and three.</u> (and years four and five if necessary) Effectiveness Monitoring (see Section 7.1(b))	\$2,014.00	
	Habitat Management (None expected) (see Section 7.1(c))	-0-	
	<u>Annual Total Years 2 through 5</u>		<u>\$2,014.00</u>
iii.	<u>Years six and nine.</u> (if necessary)		
	Effectiveness Monitoring (see Section 7.1(b))	\$2014.00	
	Habitat Management (None expected (see Section 7.1(c))	-0-	
	<u>Total Years 6 and 9</u>		<u>\$4028.00</u>

(e) Funding

Applicants will make a single deposit of \$75,000.00 (the “Funds”) in an investment account (“Management Account”) approved by the Service to pay the costs of Habitat Management and Effectiveness Monitoring. Estimated annual earnings of the

Account, assuming five percent (5%) annual return, is \$3,750.00. Based on the above, it is expected that the annual cost of Habitat Management and Effectiveness Monitoring will be paid by the earnings on the Funds and that the annual earnings on the Funds will exceed annual costs, leaving a surplus. The surplus the first year is estimated to be \$371.00. The surplus for each of the second through fifth years is expected to be \$1,736.00. The surplus for years six through nine is expected to be \$9,222.00. This surplus, together with the original \$75,000.00 Fund amount and any surplus after the fifth year, which is the end of the term of pro bono monitoring, is expected to be sufficient to pay any of the contingent Habitat Management Costs that may be incurred.

Applicants understand that failure to provide the Funds as required herein, and a consequent failure to implement the terms of this HCP as required herein, could result in a temporary permit suspension or permit revocation. The Managing Entity will control the Management Account until such time as a Service-approved Cooperating Entity is found to undertake management responsibilities, at which time the account will be transferred to the Cooperating Entity upon approval by the Service. The Managing Entity will also perform or cause to be performed the Management and Monitoring activities beyond the time frame during which the University of Nevada - Reno staff and students are available to perform such activities on a pro bono basis. Upon approval by the Service, however, the Managing Entity may transfer management responsibility to a Cooperating Entity.

7.2 Funding for Changed Circumstances

Possible changed circumstances upon the Replacement Habitat include wildfire, extreme flood conditions and extreme drought conditions. Because salt grass and the nectar sources naturally and quickly germinate and the alkaline soils will remain after the cessation of unsuitable conditions, and because in the event of extreme drought conditions it is unlikely water would be available to the property for purposes of mitigating the drought conditions on the Replacement Habitat, it is not anticipated that these changed circumstances will require further mitigation. However, in the event of extreme occurrences of wildfire, flood conditions or drought conditions that occur during the reporting period, the Funds may be accessed to restore or recreate suitable habitat. For purposes hereof, an extreme occurrence of wildfire event, flood event or drought event is one that is sufficiently severe that the salt grass, nectar sources and alkaline soils have not been restored naturally and are not available on the Replacement Habitat or in the vicinity of the Replacement Habitat on the date three years after the occurrence. In the event of changed circumstances that requires the expenditure of the Funds for mitigation hereunder, the Service will not require any additional measures to be implemented by Applicants or co-permittees absent the Applicants and co-permittees consent so long as this HCP is being properly implemented. In addition, this Section is subject to Section 8.1 below.

Section 8

Changed and Unforeseen Circumstances

8.1 Changed and Unforeseen Circumstances

Section 10 regulations (50 C.F.R. § 17.22(b)(2)(iii)) require that an HCP specify the procedures to be used for dealing with changed and unforeseen circumstances that may arise during the implementation of the HCP. The HCP Assurances ("No Surprises") Rule defines "unforeseen circumstance" and "changed circumstances" and describes the obligations of the permittee and the Service. The purpose of the "No Surprises" rule is to provide assurances to non-federal landowners participating in habitat conservation planning under the Act that no additional land or water restrictions or financial compensation will be required for species adequately covered by a properly implemented HCP, due to unforeseen circumstances, without the permittee's consent.

"Changed circumstances" are defined as changes in circumstances affecting a species or geographic area covered by the HCP that could reasonably be anticipated by plan developers and the Service and that could be planned for (e.g., the listing of a new species, or fire or other natural catastrophic events in areas prone to such events). The policy defines "unforeseen circumstances" as changes in circumstances that affect a species or geographic area covered by the HCP that could not reasonably be anticipated by plan developers and the Service during negotiations and development of the plan and that would result in a substantial and adverse change in status of the covered species.

In determining whether any event constitutes an unforeseen circumstance, the Service considers, without limitation, the following factors: (1) the size of the affected species' occupied range declines; (2) the percentage of range adversely affected by the HCP increases; (3) the ecological significance of that portion of the range affected by the HCP increases; (4) knowledge about the affected species and the degree of specificity of the species' conservation program under the HCP changes; and (5) new information regarding factors that affect survival and recovery of the species as it becomes available, which may suggest a need for additional conversation measures.

If the Service determines that unforeseen circumstances would affect the outcome of the HCP, additional conservation and mitigation measures may be necessary. Where the HCP is being properly implemented, the additional measures must be as close as possible to the terms of the original HCP and are limited to modifications within any conserved habitat area or to adjustments within lands or waters already set aside in the HCP's operating conservation program. The Service cannot require the permittee to commit additional land, water or financial compensation or impose additional restrictions on the permittee's use of land, water or other natural resources otherwise available for development or use under the original terms of the HCP without the permittee's consent. Resolution of the situation is to be documented by letters between the Service and Applicants.

The "No Surprises" rule applies to this HCP and Permit. Except as otherwise required by law or provided for under this HCP, no further mitigation for the effects of the proposed project on the Carson wandering skipper may be required from Applicants without their consent, so long as the terms of the HCP and Permit are being properly implemented. If, in response to any judicial decision or determination, the "No Surprises" assurances rule is subsequently revised, this HCP and Permit shall automatically be amended in a manner consistent with the revised rule so as to afford the maximum protection to Applicants consistent with the revised rule.

8.2 Other Measures as Required by the Director

There are no other measures required by the Director for this HCP.

8.3 Cooperating Party Agreement

Because of the involvement of the Cooperating Party, as provided in Sections 6 and 7 above, an appropriate agreement will be executed if necessary to implement the requirements of this HCP between Applicants, the Cooperating Party and the Service, in form and content consistent with this HCP and approved by the Service.

Section 9 Permit Amendment and Renewal Processes

9.1 Summary

An HCP and/or the Permit and/or its associated documents may be revised or amended. Any revisions and amendments shall be processed in accordance with all applicable legal requirements, including, but not limited to, the Act, NEPA, and any applicable federal regulations.

HCP Amendments

This HCP may, under certain conditions, be amended without amending its associated incidental take permit. Such amendments must be of a minor or technical nature, and the effect on the covered species and incidental take levels must not be significantly different than those described in the original HCP. Examples of minor amendments to this HCP that would not require Permit amendment include, but are not limited to:

1. Correction of any maps or exhibits to correct mapping errors or to reflect previously approved changes in the Section 10(a)(1)(B) Permit or HCP;
2. Minor changes to monitoring or reporting protocols;
3. Minor revisions in project design and construction procedures;

4. Minor revisions of the HCP's plan area or boundaries; and
5. Transfer or assignment of the Permit, so long as such assignment does not significantly affect the HCP's plan area or boundaries.

To amend the HCP without amending the Permit, Applicants must submit a written description of the proposed amendment, an explanation of why the amendment is necessary or desirable, and an explanation of why Applicants believe the effects of the proposal are not significantly different from those described in the original HCP. Upon receipt, the Service shall respond in writing to each proposed revision within thirty (30) calendar days. If the Service concurs with Applicants' proposal, it shall authorize the HCP amendment via a written letter or memorandum, and the amendment shall be considered effective upon the date of the Service's written authorization. If the Service disapproves the proposed revision, it shall include in its response an explanation of its determination.

Permit Amendments

Amendments of the Section 10(a)(1)(B) Permit associated with this HCP would be required for any change in the following:

1. Significant revision of the Permit area boundary;
2. The listing under the ESA of a new species not currently addressed in this HCP that may be taken by Project activities;
3. Modification of any important Project action or mitigation component under the HCP, including funding, that may significantly affect authorized take levels, effects of the Project, or the nature or scope of the mitigation programs; and
4. Any other modification of the Project likely to result in significant adverse effects to the Carson wandering skipper not addressed in the original HCP.

Amendment of a Section 10(a)(1)(B) permit must be treated in the same manner as an original permit application. An application for a permit amendment requires a revised habitat conservation plan, a permit application form and applicable fee, an Implementing Agreement, if applicable, a NEPA compliance document and a 30-day public comment period. However, if the permit amendment qualifies as a "low-effect" habitat conservation plan, the Implementing Agreement and NEPA document would not be necessary.

Following the receipt of a complete application package for a proposed permit amendment, the Service shall publish a notice of the proposed amendment in the Federal Register. The Service shall use its reasonable efforts to process the proposed amendment

within sixty (60) calendar days of publication, except where longer periods are required by law.

Suspension/Revocation

The Service may suspend or revoke an incidental take permit if the Applicants fail to implement the HCP in accordance with the terms and conditions of the permit. Suspension or revocation of the Permit, in whole or in part, by the Service shall be in accordance with 50 C.F.R. §13.28 and 50 C.F.R. §17.22(b)(8). Additionally, notwithstanding anything to the contrary in the HCP, the Service retains statutory authority, under both Sections 7 and 10 of the Act, to revoke incidental take permits that are found likely to jeopardize the continued existence of a species in the wild.

Permit Renewal

Upon expiration, the Permit may be renewed without the issuance of a new permit, provided that the Permit is renewable and that biological circumstances and other pertinent factors affecting the Carson wandering skipper are not significantly different from those described in the original HCP. To renew the Permit, at least 30 days before the Permit expires Applicants shall submit to the Service, in writing:

1. A request to renew the Permit;
2. Reference to the original Permit number;
3. Certification that all statements and information provided in the original HCP and Permit application, together with any approved HCP amendments, are still true and correct, and inclusion of a list of changes, if any;
4. A description of any take that has occurred under the Permit; and
5. A description of any portions of the Project still to be completed, if applicable, or the activities that the renewal is intended to cover.

If the Service concurs with the information provided in the request, it shall renew the Permit consistent with permit renewal procedures required by 50 C.F.R. § 13.22. If Applicants file a renewal request and the request is on file with the issuing Service office at least thirty (30) days prior to the Permit's expiration, the Permit shall remain valid while the renewal is processed, providing that the existing Permit is renewable. If Applicants fail to file a renewal request within thirty (30) days prior to Permit expiration, the Permit shall become invalid upon expiration.

Right to Terminate

The co-permittees or any one or all of them may relinquish the Permit in accordance with the regulations of the Service in effect on the date of such relinquishment.

Notwithstanding the relinquishment of the Permit, the Permittee will be required to mitigate for any take of the Carson wandering skipper that the Service may determine not to have been fully mitigated under the HCP at the time of relinquishment. However, in the event that less than all of the co-permittees relinquish the Permit and such co-permittees have entered into an agreement whereby the remaining permittee(s) assume full responsibility for the mitigation measures to be implemented under the HCP, the Service will authorize the latter co-permittee(s) to assume responsibility for the implementation of the HCP and will fully release the relinquishing co-permittee(s).

Section 10 Alternatives

10.1 Summary

In addition to the proposed Project, the following alternatives have been considered by Applicants.

No Action Alternative

Under this alternative, Applicants would not implement any of the activities described within the Project Description Section of this HCP. This alternative is not preferable because (1) Applicants would be denied the use of the Habitat Area, a critical portion of the Project, and (2) the Habitat Area is of marginal and declining quality. The Replacement Habitat is expected to provide more sustainable habitat for the Carson wandering skipper.

On-site Mitigation Alternative

Under this alternative, Applicants would conserve the 39 acres of Habitat Area on the Project. This alternative is not a preferable option because of the factors set forth in Section 1.2. Furthermore, a portion of the Potential Habitat Area is required to be conveyed to the City of Sparks under an executory agreement and the City is unable to participate as an applicant for an incidental take permit because of its limited authority and resources and the potential liability for an incidental take that might occur during activities that the City is required to undertake for the health, safety and welfare of the public.

Redesigned Project Alternative

Under this alternative, the development footprint of the Project would be reduced or altered to minimize the loss of acres of Habitat Area to development activities. Although a Section 10(a)(1)(B) permit would still be required, the amount of mitigation would be less than that provided for the Project as proposed. A reduction in the development would not significantly improve onsite habitat for the Carson wandering skipper and there would still be an increase in human activities that would likely affect individual animals that may be using the areas. Also, Applicants have already acquired all of the necessary permits from the City and County for the current development plan. Changing those plans would require Applicants to acquire new permits at considerable delay and cost. In addition, the Habitat

Area is on land for which Applicants paid a very high price, which could not be recouped under this alternative. For these reasons, this alternative has been rejected.

Proposed Action

Under the Proposed Action alternative, the Project would be developed as described in Section 2. The Proposed Action would require the issuance of Section 10(a)(1)(B) Permit to allow development of the Project and the Habitat Area. Development of the Habitat Area would result in the loss of 39 acres of potentially suitable habitat for the Carson wandering skipper. However, conservation measures as proposed in the HCP are expected to result in greater habitat value for the Carson wandering skipper than exists on the Habitat Area because lands with suitable habitat could be acquired that would not be in close proximity to intense human development. Furthermore, the exotic non-native plant, Tall Whitetop, which can outcompete the larval hostplant of the skipper, saltgrass, occurs most frequently in areas of disturbed soils. The soils all around the 39 acres of the Habitat Area will be disturbed, increasing the likelihood of weed invasion even on the undisturbed Habitat Area. Acquisition of an offsite mitigation area with suitable habitat, no disturbed soils and minimum establishment of Tall Whitetop would result in a higher quality habitat for the Carson wandering skipper. Therefore, the Proposed Action alternative provides more habitat conservation benefits than the No Action, Onsite Mitigation and Redesigned Project alternatives, while meeting the needs of Applicants.

Section 11 Citations

11.1 Printed Literature

Austin, G.T. and J.F. Emmel. 1998. New subspecies of butterflies (*Lepidoptera*) from Nevada and California. Chapter 42 in Systematics of Western North American Butterflies. T.C. Emmel (ed.) Mariposa Press, Gainesville, FL.

Brussard, P.F., B. Neill and G.T. Austin. 1999. Report on the Distribution, Genetics and Conservation Status of the Carson wandering skipper, *Pseudocopaeodes eunus obscurus*. University of Nevada, Reno.

Howe, W.H. 1975. The Butterflies of North America. Doubleday and Company, Garden City, NY.

Scott, J.A. 1986. The Butterflies of North America. Stanford University Press, Stanford, California.

11.2 Personal Communications

Brussard, P. 2001. University of Nevada, Reno. Personal communication January 30, 2001.

Carpenter, L., 2004. Huffman and Carpenter, Inc. Personal communication December 2, 2004.

Donaldson, S. 2004. University of Nevada, Reno, Cooperative Extension. Personal communication November 19, 2004.

Haworth, M., 2005. Fish and Wildlife Biologist. U.S. Fish and Wildlife Service, Nevada Fish and Wildlife Office, Reno, Nevada. Personal communication February 10, 2005.

Haworth, M. 2005. Fish and Wildlife Biologist. U.S. Fish and Wildlife Service, Nevada Fish and Wildlife Office, Reno, Nevada. Personal communication February 25, 2005.

Hughes, L., Supervisor of Weed Control of Douglas County Parks, Recreation and Community Services. Personal communication November 23, 2004.

Murphy, D. D., Research Professor, Department of Biology, University of Nevada, Reno, 2004.

Exhibit A
(Habitat Conservation Plan)
Description and Site Plan/Map of Project, Habitat Area,
Open Space, Surrounding Properties, Backbone Roads

