PEREGRINE FALCON NESTING SURVEYS OF THE SPRING MOUNTAINS NATIONAL RECREATION AREA
2003-USDA_USFS-389

FINAL PROJECT REVIEW

What measurable goals did you set for this project and what indicators did you use to achieve these goals?
The purpose of this project was to detect and describe peregrine falcon nest sites within the Spring Mountains National Recreation Area (NRA) to provide data to better manage Forest activities surrounding cliff nesting sites.

To what extent has your project achieved these goals and levels of performance?
During the summer of 2003, reconnaissance of cliffs and rock faces were conducted to determine appropriate habitat to conduct surveys. Fifteen cliff complexes were visited and mapped. Appropriate survey sites were delineated and casual observations of bird species using the cliff habitat were recorded. Surveys for peregrine falcons in 2004 were initiated on May 25 and continued through July 7, 2004. During this time 14 cliff complexes were inventoried to determine occupancy and nesting.

Did the project encounter internal or external challenges? How were they addressed?
The greatest challenge encountered by the crew was the difficulty finding suitable habitat using USGS 24,000 scale maps. The Forest Service had concerns that cliff faces which were not as sheer and not as high may be missed when suitable habitat was defined. The issue was addressed by conducting reconnaissance of cliffs and rock faces to determine appropriate survey sites.

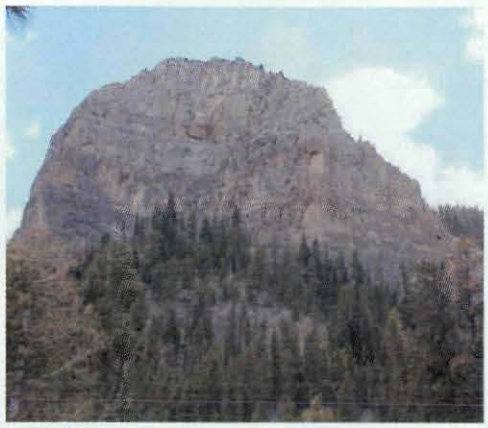
What impact do you think this project has had to date?
Through this survey, if nest sites were identified, management strategies to reduce disturbance during the nesting season would have been employed. No nest sites were discovered within the Spring Mountains NRA, therefore seasonal protection measures of cliff and rock facings for Peregrine Falcons will not be employed at this time.

Is there additional research or efforts that would complement or add to your project that could be conducted?
The BLM and NPS did several of the same type of surveys in 2003. Some of these surveys were completed at Red Rock Conservation Area, and nests were located. From this we could infer possible recruitment of Peregrines into the Spring Mountains NRA. Survey sites should continue to be monitored.

FORMAL REPORT

Executive Summary

Featured project and Type
Peregrine Falcon Nesting Surveys of the Spring Mountains National Recreation Area (NRA)



Species Addressed
Peregrine Falcon (*Falco peregrinus*)

Project Description
The purpose of this project was to detect and describe peregrine falcon nest sites within the Spring Mountains NRA in order to provide data to better manage Forest activities surrounding cliff nesting sites.

Project Status
During the summer of 2003, reconnaissance of cliffs and rock faces were conducted to determine appropriate habitat to conduct surveys. Fifteen cliff complexes were visited and mapped. Appropriate survey sites were delineated and casual observations of bird species using the cliff habitat were recorded.

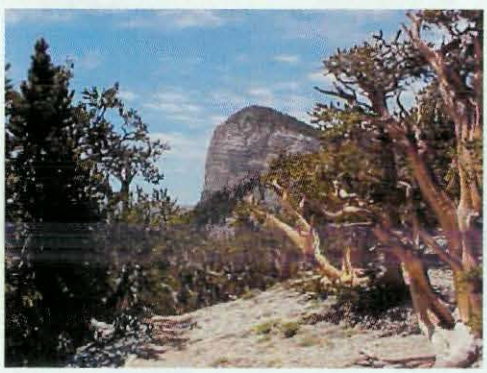
Cathedral Rock was one of the many cliff sites on the Spring Mountains National Recreation Area, which were surveyed for Peregrine Falcons.

Surveys for peregrine falcons in 2004 were initiated on May 25 and continued through July 7, 2004. During this time 14 cliff complexes were inventoried to determine occupancy and nesting. No peregrine were found on the Spring Mountains NRA in 2004, however in 2003 a pair of Peregrine Falcons with two chicks were observed within the Red Rock Canyon National Conservation Area near the Spring Mountains NRA boundary. Other birds noted which were nesting within surveyed cliff habitat included common raven, golden eagle, red-tailed hawk, white-throated swifts and swallows.

Partners
Great Basin Institute, University of Nevada, Reno

Project Contact
Amy Meketi Natural Resource Officer, Spring Mountains NRA, Las Vegas, NV

Funding Awarded	**Funding Spent**
$9,000	$9,000



Mummy's Toe peregrine falcon survey site

Completion Date or Status
This project was completed on April 2, 2005.

Products Produced from Project
Quarterly Reports, Final Project Report

Introduction

Background and Need for Project
Since 1998, the Spring Mountains NRA personnel have been working at completing conservation actions listed in the conservation agreement and the MSHCP. The MSHCP includes conservation measures to protect peregrine falcon nesting site from disturbance. One of the sources threatening these raptors are climbers. The sport of climbing is becoming more and more popular. Through this survey, if nest sites are identified they can easily be managed to reduce disturbance during the nesting season. A comprehensive

inventory of the Spring Mountains NRA to document falcons nesting has never been completed. This is a one year survey to survey all suitable cliff habitats on the NRA. The USFS has a need to identify peregrine falcon nesting sites to employ protection measures during the nesting season.

Management Actions Addressed
USFS (64): Continue to provide rock climbing opportunities while protecting resource values.
USFS (79): Rock climbing within 100 yards of known active peregrine falcon nests will be allowed only from the beginning of July through the end of January. Specific routes may be signed as necessary to inform of seasonal closures if nests are identified. Monitor peregrine nesting success to determine if the 100-yard closure is effective.

Goals and Objectives of the Project
Sightings and nest sites will be GPSed. All field forms and sighting information will be reported to the Nevada Division of Wildlife in addition to being submitted to the MSHCP database.
If nest sites are discovered, seasonal protection measures may be employed if threats are identified which pose a risk to successful reproduction at a site.

Methods
The primary goal of this project was to collect baseline data on the assemblage of peregrine falcons in the Spring Mountains NRA. In 2004 surveys for peregrine falcon were initiated on May 25 and continued through July 7. Suitable nesting areas were identified and mapped through this proposal. This suitable habitat (cliffs) was inventoried following established survey protocol. This protocol requires two visits during the nesting season to observe cliff sites for 4 hours in duration on two separate occasions. The surveying crew was required to be at observation post ½ hour before sunrise, and remain at their post for 4 hours. Surveyors were required to return to their post for 4 hours at the end of the day, surveys commenced ½ hour after sunset. Sunrise and sunset times were determined using an NPR calendar. Observation posts were found the day before the survey and were areas with a clear view of the cliffs being surveyed. If peregrines were nesting in the survey area, adult flights to/from the eyrie would be observed. This survey technique has been used throughout the Nation to locate nesting peregrines.

Materials
Spotting scope, Tripod, Binoculars, Clipboard, Trimble GeoExplorer3 GPS unit, Sibley.

Results and Evidence of the results
No Peregrine Falcons were found on the Spring Mountains National Recreation Area.

On the SMNRA 14 suitable nesting habitat areas were identified and mapped during the summer of 2003. In 2004, the 14 identified survey sites were inventoried to determine occupancy and nesting.

Evaluation/Discussion of results
Although no peregrine were discovered during the nesting surveys on the SMNRA in 2004, a pair of Peregrine Falcons with two chicks was observed within the Red Rock Conservation Area in 2003.

From this we could infer the possibility of future peregrine nesting sites within the SMNRA.

Conclusion and Recommendations
The surveying crew had concerns with the challenges in finding suitable nesting habitat, and feared that cliffs which were not as sheer and not as high may have been missed when defining suitable nesting habitat. Considering the crews concerns it is recommended to continue Peregrine Falcon Nesting Surveys within the SMNRA, in order to best employ protection measures during the nesting season.

Literature Cited
1998. USDA. Peregrine Falcon Nesting Survey Methods for National Forest Lands

Peregrine Falcon Nesting Surveys within the Spring Mountains National Recreation Area

Heather Hundt, Natural Resource Officer

The peregrine falcon is widely distributed within North America and typically occurs in open habitats (for hunting) or near cliffs (for nesting). In Nevada, the peregrine falcon is known to breed primarily along the Colorado River in southern Nevada, but also nests within White Pine Range in eastern Nevada (Tomlinson 2004). Peregrines feed primarily on medium-sized birds such as pigeons or ducks, and nests in shallow depressions on rock ledges or small caves on high cliffs. In the Spring Mountains National Recreation Area peregrine falcons have been seen on the Mt. Charleston summit and near Mummy Mountain (RECON 2000). Peregrine falcon is listed as a rare resident on the Spring Mountain bird checklist (Titus 2000).

Since 1998, Spring Mountain National Recreation Area (NRA) personnel have been working to fulfill conservation actions delineated in the Conservation Agreement (U. S. Forest Service Intermountain Region; State of Nevada Department of Conservation and Natural Resources; U. S. Fish and Wildlife Service, Pacific Region 1998), which are incorporated into the MSHCP. This survey was a priority for wildlife surveys on the NRA during the 2003/2005 biennium. The MSHCP includes conservation measures to protect peregrine falcon nesting sites from disturbance. Threats which have been identified include disturbance from rock climbing activity. The sport of climbing has increased in popularity on the Spring Mountains, and the potential for interactions between nesting falcons and the public is increasing. Through surveys, nest sites were identified to be managed for reduced disturbance during the nesting season. Incidental observations of peregrine falcons during the nesting season have been reported to the NRA, however, a comprehensive inventory of the Spring Mountains to document falcon nesting has not been completed. This one-year survey included all of the most suitable cliff habitats on the NRA.

Methods

Potentially suitable nesting areas were identified and mapped. This habitat (cliffs) was inventoried following established survey protocol. This protocol requires two visits during the nesting season to observe cliff sites for 4 hours in duration on two separate occasions between mid-May through July 1st. If adult flights to/from a cliff face were observed, then there was a strong possibility of presence of a nest and further observation was initiated for confirmation. This survey technique has been used Nationwide to locate nesting peregrines. This survey was conducted by the NRA with cooperation by partners such as the Nevada Division of Wildlife, Red Rock Audubon, and Nevada Partners in Flight Working Group. If nest sites were discovered, seasonal protection measures would have been employed if threats were identified that posed a risk to successful reproduction at a site. Sightings and nest sites were to be marked with GPS, and all data was reported to the Nevada Division of Wildlife in addition to being submitted to the MSHCP database.

Results

During the summer of 2003, reconnaissance of cliffs and rock faces were conducted to determine appropriate habitat to conduct surveys. Fifteen cliff complexes were visited and mapped. Appropriate survey sites were delineated and casual observations of bird species using the cliff habitat were recorded. During this reconnaissance, a report of a pair of peregrines at Red Rock Canyon National Conservation Area was submitted by Cheryl Beyer, Botanist for the Spring Mountains National Recreation Area. NRA Biological Technicians confirmed the peregrine sightings as well as finding two chicks on a ledge near Bridge Mountain within Red Rock Canyon National Conservation Area. No additional sightings of peregrines were documented by the survey crew within the Spring Mountains in 2003.

Surveys for peregrine falcons in 2004 were initiated on May 25 and continued through July 7, 2004. During this time 14 cliff complexes were inventoried to determine occupancy and nesting. No peregrine were found in 2004. Other birds noted which were nesting within surveyed cliff habitat included common raven, golden eagle, red-tailed hawk, white-throated swifts and swallows.

Discussion

Although surveys did not detect occupancy during 2004, there is a potential that previously occupied nest sites, which had failed and the adults dispersed, would have been undetected. Ward suggests that surveys should be timed to observe falcons in courtship (March-April) (Ward 1994). Since these surveys were conducted relatively late in the breeding season (late-May early-July) and may have missed courtship activities, previous occupancy may have been erroneously labeled unoccupied. For example, only half of the occupied sites monitored from 1989-1994, in Arizona successfully fledged, and if surveys were delayed until late summer to detect occupancy, many occupied, but unproductive sites would have been labeled incorrectly (Ward 1994). Regardless, this survey provided preliminary information regarding the distribution of nesting peregrine falcons, and other cliff-nesting species, on the NRA. It is recommended to maintain records regarding future sightings and investigate associated cliff-faces for nests.

Literature Cited

RECON. 2000. Clark County Multiple Species Habitat Conservation Plan and Environmental Influence Statement for Issuance of a Permit to Allow Incidental Take of 79 Species in Clark County, Nevada. Clark County Department of Comprehensive Planning. Las Vegas, Nevada.

Titus, C. 2000. Birds of the Spring Mountains Checklist. Prepared for the Humboldt - Toiyabe National Forest, Spring Mountains National Recreation Area, Las Vegas, Nevada.

Tomlinson, C. 2004. Personal Communication. Nevada Department of Wildlife, Las Vegas, Nevada.

U. S. Forest Service Intermountain Region; State of Nevada Department of Conservation and Natural Resources; U. S. Fish and Wildlife Service, Pacific Region. 1998. Conservation Agreement for the Springs Mountain National Recreation Area, Clark and Nye Counties, Nevada.

Ward, L. Z. Peregrine Falcon Reproductive Survey Methods. Arizona Game and Fish Department, Non-game Branch, Phoenix, AZ. 12pp.