A Biological Assessment

of the

Antelope Springs Flood Monitoring Device

Mohave County Flood Control Project (north)

Mohave County, Arizona

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Prepared for: Mohave County Flood Control District

Submitted to: Bureau of Land Management, Kingman Area Office

December 1, 2010

Project Description

Mohave County submitted eight applications for Rights-of-Way to install and operate early alert flood monitoring devices. Each location has been strategically selected to provide early flood warnings that will allow Mohave County to barricade roadways and warn homeowners should flood depths become a hazard to homes or vehicular traffic.

Each device consists of a 1 ft. diameter standpipe which would stand about 10 ft. tall and would be equipped with weather monitoring sensors such as precipitation gauge, small solar panel (approx. 1 – 2 ft. sq.), radio transmitter, and approx. 6 ft. tall antennae mast (mounted about 2 ft. below top of standpipe) and approx. 3 ft. long horizontally mounted antennae for directional transmission or vertically mounted for omni directional transmission. The right-of-way area for these would be 10 ft. x 10 ft. (0.002 acre). No construction or maintenance of roads is necessary for installation and maintenance of these devices. No heavy equipment will be used. Construction materials and equipment will be transported with an ATV. Maintenance is expected to occur twice a year.

The proposed term would be through December 31, 2040.

Location Evaluated: T. 26 N., R. 18 W., Section 33, NENE (Antelope Springs AZA 35523)

Identification of Special Status Species for Evaluation:

The AGFD Heritage Data Base Management System (HDMS) lists the following special status species or important designations that occur within 2 miles of the site location:

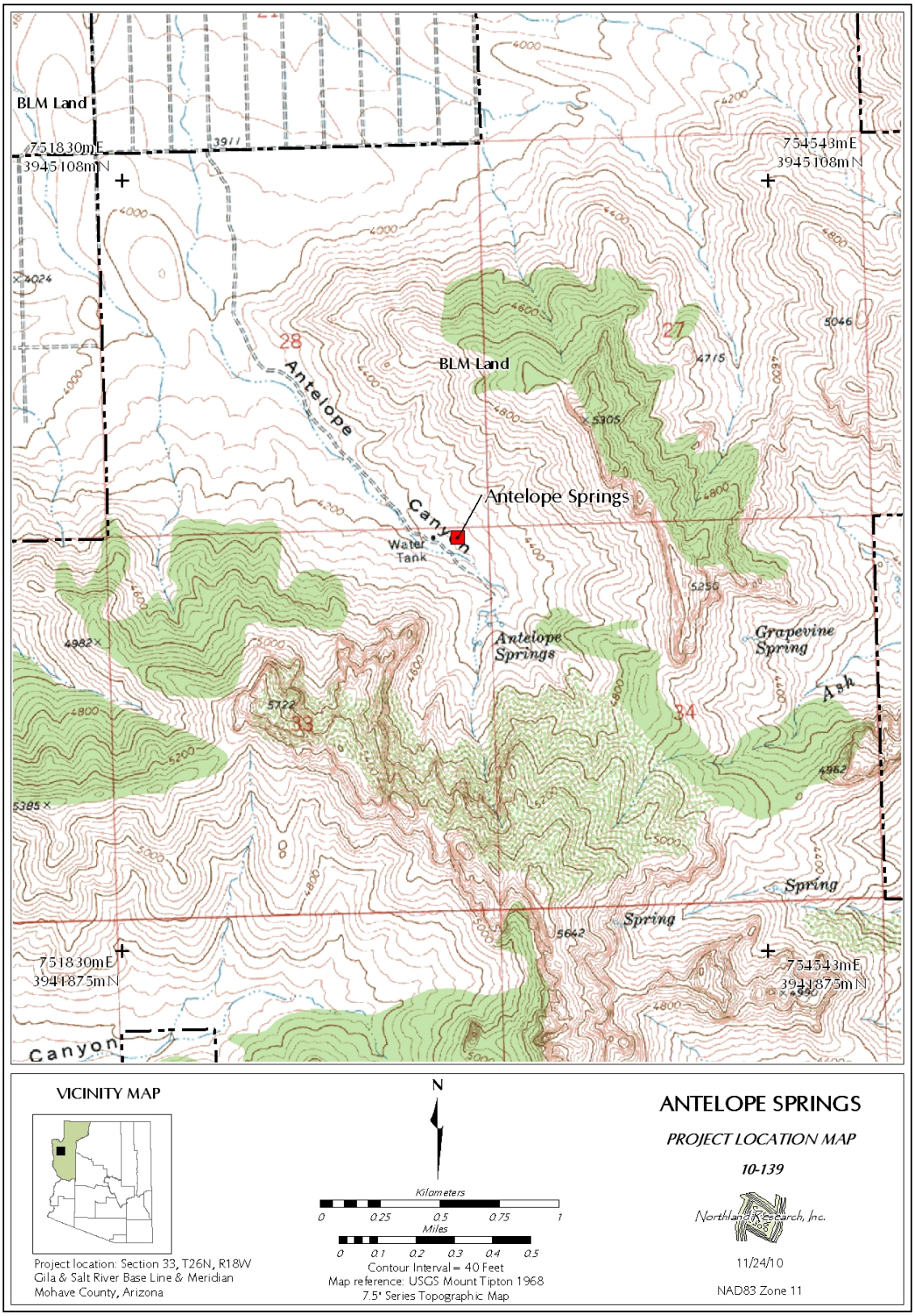
10J area for California condor
Peregrine falcon (*Falco peregrinus anatum*)

All species listed in Appendix 6 of the Kingman Area plan were considered.

No species specific surveys were required by the BLM Kingman Area biologist.

Date of on- site inspection: November 15, 2010

General vegetation: Joshua tree, cholla, opuntia. See Photos 1-3.



Map 1. Location of Antelope Springs Flood Monitoring Device.

Photo 1. Example of vegetation at the project location.

Photo 2. Example of vegetation at the project location.

Photo 3. Example of vegetation at the project location.

Evaluations:

1. California Condor – Nonessential Experimental 10(j) – Proposed Species

a. Species Status and Requirements under Endangered Species Act

The California condor (*Gymnogyps californianus*) was listed as endangered on March 11, 1967 (32 FR 4001). Critical habitat was designated in California on September 24, 1976 (41 FR 187). Critical habitat has not been designated outside of California. The California condor remains one of the world's rarest and most imperiled vertebrate species. Despite intensive conservation efforts, the wild California condor population declined steadily until 1987, when the last free-flying individual was captured. During the 1980s, captive condor flocks were established at the San Diego Wild Animal Park and the Los Angeles Zoo, and the first successful captive breeding was accomplished at the former facility in 1988. Following several years of increasingly successful captive breeding, captive-produced condors were first released back to the wild in California in early 1992 (USFWS 2009).

The first release of condors into the wild in northern Arizona occurred on December 12, 1996. They were released within a designated nonessential experimental population area in northern Arizona and southern Utah. The area is bounded by Interstate 40 on the south, U.S. Highway 191 on the east, Interstate 70 on the north, and Interstate 15 to U.S. Highway 93 on the west (USFWS 2009).

A designation of nonessential experimental limits the application of section 7(a)(2) of the Endangered species Act. For the purposes of section 7, the nonessential experimental population is treated as a proposed species except on National Wildlife Refuge System and National Park System lands. Current and future land, water, or air uses such as, but not limited to: commercial and business development; forest management; agriculture; mining and energy resource exploration and development (e.g. coal); livestock grazing; development of transportation and utility corridors (e.g. power transmission lines); communication facilities; water development projects; sport hunting and fishing; air tour operations and outdoor recreational activities (e.g. jeep tours, hiking, biking, boating) should not be restricted due to the designation of the nonessential experimental population of California condors (USFWS 1996a).

The proposed Antelope Springs Flood Monitoring Device is located within the nonessential experimental population area requiring BLM to evaluate their discretionary actions to determine if the actions will jeopardize the continued existence of California condors.

b. Species Information and Locations

Condors are opportunistic scavengers, feeding only on the carcasses of dead animals. Typical foraging behavior includes long-distance reconnaissance flights, lengthy circling flights over a carcass, and hours of waiting at a roost or on the ground near a carcass (USFWS 1996b). Most California condor foraging in northern Arizona occurs in open

areas and throughout the forested areas of the rims of Grand Canyon. Condors are also attracted to human activity; newly released individuals and young inexperienced juveniles are more likely to investigate human activity (USFWS 2009).

Roost sites include cliffs and tall trees, including snags. Nesting sites for California condors include various types of rock formations such as caves, crevices, overhung ledges, and potholes. The cliffs in the Antelope Springs area (see Photo 4) are potentially suitable for condor nesting and roosting, however condors have not been documented in this area.

The concern from a mortality, and the possibility of additional mortalities, from collision with a powerline led to aversion training prior to release of condors in both California and Arizona. Condors were exposed to a mock power pole fitted with a low voltage electrified cross arm for aversive conditioning to electrical structures. Condors that had already developed the high risk habitat of perching on power poles in California were brought into captivity for the breeding program. Newly released, aversion trained condors were not observed perching on power poles in California (USFWS 1996b). There have been no recorded collisions or electrocutions in Arizona since aversion training, although there are comparatively few powerlines in the region (AZ Condor Review Team 2007).

Locations of released condors are well known for the nonessential experimental population. Prior to release, each condor was fitted with patagial (wing-mounted) number tags and radio transmitters. Condor use is focused on the North and South rims and river corridor of the Grand Canyon, the Kaibab Plateau, and the Kolob region area of southern Utah (AZ Condor Review Team 2007).

In addition to the Grand Canyon area, condors have been observed west to the Virgin Mountains near Mesquite, Nevada; south to the San Francisco Peaks near Flagstaff, Arizona; north to Zion and Bryce Canyon National Parks in Utah; beyond Minersville, Utah; and east to Mesa Verde, Colorado and the Four Corners region (USFWS 2009).

c. Finding: The Antelope Springs Mountain Flood Control Monitoring Device will not jeopardize the continued existence of California condor because:

- No existing roosts, nests, or perch sites are located in the vicinity
- The device is only 10 foot tall and does not present a potential collision obstacle
- The minor vegetation impacts do not impact potential foraging resources (carrion)
- Any future condor use of the cliffs for nesting would not be impacted by presence of the device (non hazardous and low human maintenance activity)

Photo 4. Cliffs in vicinity providing suitable condor and falcon nesting sites.

2. Peregrine Falcon – BLM Sensitive Species

The peregrine falcon has been de-listed under the Endangered Species Act. It is dependent on steep cliffs for nesting and expansive open areas for hunting. The cliffs around Antelope Spring (photo 4) provide suitable nesting habitat and the Arizona Game and Fish Department Heritage Database indicates peregrine falcons within 2 miles. Falcon eyries (nests) are difficult to locate outside of the nesting season as the falcons build minimal nests as opposed to large stick-nests of other raptors. No "white-wash" (excrement) that might indicate presence of any eyrie was observed. Peregrines are sensitive to human disturbance, particularly when it occurs above the nest or on the cliff face (such as rock climbing, rappelling activities). Nesting peregrines are also sensitive to loud construction noises such as blasting.

Finding: The Antelope Springs Flood Monitoring device is unlikely to impact the peregrine falcon because:

- Construction activity is minor (no blasting) and of short duration
- No activity will occur above any suitable nesting cliff faces
- The small area of soil and vegetation impact will not affect foraging resources
- Operation and maintenance is a minor of low frequency and duration

3. Other Special Status Species

No special status plant or animal species listed in Appendix 6 of the BLM Kingman Area Plan were observed. None of these species will be impacted due to a variety of reasons including:

- The species is not located on the site where soil and vegetation will occur
- The activity will not create high levels of noise or disturbance to any of the wildlife species that may be in the surrounding area
- The soil and vegetation disturbance area is so small that it will not cause changes in vegetative forage conditions or levels of other food sources (insects, reptiles, small mammals) to any wildlife species that may be in the surrounding area.

Noxious Weeds:

No noxious weeds were observed on the site or the access road to the site. It is unlikely that noxious weeds are in the surrounding area due to the remoteness of the site. The construction, operation, and maintenance activities are unlikely to increase the risk of introduction or spread of noxious weeds because:

- Noxious weeds were not observed
- No heavy equipment will be used
- ATV access is similar to currently allowed public use
- The soil disturbance area is small

References

Arizona Condor Review Team. 2007. A review of the second five years of the California condor reintroduction program in the Southwest. .

U.S. Fish and Wildlife Service. 1996a. Endangered and Threatened Wildlife and Plants; Establishment of a Nonessential Experimental Population of California Condors in Northern Arizona; Final Rule. Federal Register 61(201):54043-54060. October 16, 1996.

U.S. Fish and Wildlife Service. 1996b. California condor recovery plan. Third Edition. Portland, Oregon. 62 pp.

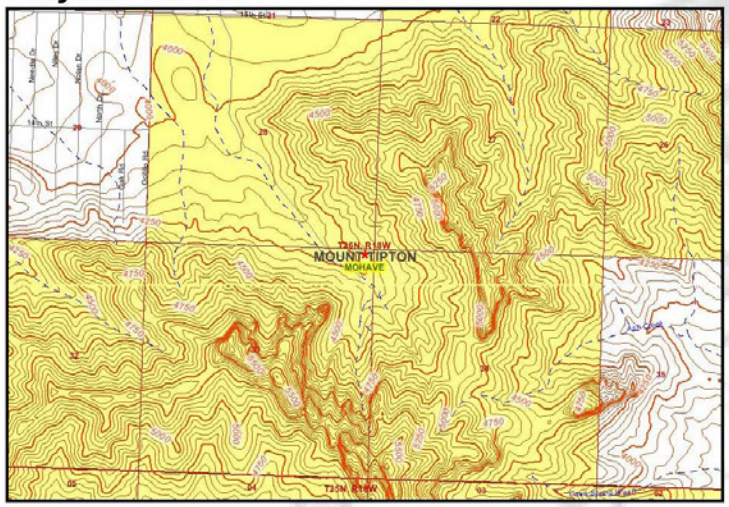
U.S. Fish and Wildlife Service. 2009. Biological Opinion for the Grand Canyon National Park Fire Management Plan. November 10, 2009.

Appendix A

ARIZONA GAME AND FISH DEPARTMENT'S HERITAGE DATA MANAGEMENT SYSTEM REVIEW

Arizona's On-line Environmental Review Tool
Search ID: 20101102013569
Project Name: Antelope Springs Precip Gauge
Date: 11/2/2010 4:11:17 PM

Project Location



Project Name: Antelope Springs Precip Gauge
Submitted By: Sandra Nagiller
On behalf of: CONSULTING
Project Search ID: 20101102013569
Date: 11/2/2010 4:11:12 PM
Project Category: Communication,Antenna and/or communication dish installation,New structure/cell tower
Project Coordinates (UTM Zone 12-NAD 83): 209769.883, 3944739.068 meter
County: MOHAVE
USGS 7.5 Minute Quadrangle ID: 513
Quadrangle Name: MOUNT TIPTON
Project locality is currently being scoped

The Department appreciates the opportunity to provide in-depth comments and project review when additional information or environmental documentation becomes available.

Special Status Species Occurrences/Critical Habitat/Tribal Lands within 2 miles of Project Vicinity:

Name	Common Name	FWS	USFS	BLM	State
Falco peregrinus anatum	American Peregrine Falcon	SC	S	S	WSC
Gymnogyps californianus	10J area for California condor				

Location Accuracy Disclaimer

Project locations are assumed to be both precise and accurate for the purposes of environmental review. The creator/owner of the Project Review Receipt is solely responsible for the project location and thus the correctness of the Project Review Receipt content.

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Please review the entire receipt for project type recommendations and/or species or location information and retain a copy for future reference. If any of the information you provided did not accurately reflect this project, or if project plans change, another review should be conducted, as this determination may not be valid.

Arizona's On-line Environmental Review Tool:

1. This On-line Environmental Review Tool inquiry has generated recommendations regarding the potential impacts of your project on Special Status Species (SSS) and other wildlife of Arizona. SSS include all U.S. Fish and Wildlife Service federally listed, U.S. Bureau of Land Management sensitive, U.S. Forest Service sensitive, and Arizona Game and Fish Department (Department) recognized species of concern.
2. These recommendations have been made by the Department, under authority of Arizona Revised Statutes Title 5 (Amusements and Sports), 17 (Game and Fish), and 28 (Transportation). These recommendations are preliminary in scope, designed to provide early considerations for all species of wildlife, pertinent to the project type you entered.
3. This receipt, generated by the automated On-line Environmental Review Tool does not constitute an official project review by Department biologists and planners. Further coordination may be necessary as appropriate under the National Environmental Policy Act (NEPA) and/or the Endangered Species Act (ESA).

The U.S. Fish and Wildlife Service (USFWS) has regulatory authority over all federally listed species under the ESA. Contact USFWS Ecological Services Offices: http://arizonaes.fws.gov/.

Phoenix Main Office
2321 W. Royal Palm Road, Suite 103
Phoenix, AZ 85021
Phone 602-242-0210
Fax 602-242-2513

Tucson Sub-Office
201 North Bonita, Suite 141
Tucson, AZ 85745
Phone 520-670-6144
Fax 520-670-6154

Flagstaff Sub-Office
323 N. Leroux Street, Suite 101
Flagstaff, AZ 86001
Phone 928-226-0614
Fax 928-226-1099

Disclaimer:

1. This is a preliminary environmental screening tool. It is not a substitute for the potential knowledge gained by having a biologist conduct a field survey of the project area.
2. The Department's Heritage Data Management System (HDMS) data is not intended to include potential distribution of special status species. Arizona is large and diverse with plants, animals, and environmental conditions that are ever changing. Consequently, many areas may contain species that biologists do not know about or species previously noted in a particular area may no longer occur there.
3. Not all of Arizona has been surveyed for special status species, and surveys that have been conducted have varied greatly in scope and intensity. Such surveys may reveal previously undocumented population of species of special concern.
4. HDMS data contains information about species occurrences that have actually been reported to the Department.

Arizona Game and Fish Department Mission

To conserve, enhance, and restore Arizona's diverse wildlife resources and habitats through aggressive protection and

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management programs, and to provide wildlife resources and safe watercraft and off-highway vehicle recreation for the enjoyment, appreciation, and use by present and future generations.

Project Category: Communication,Antenna and/or communication dish installation,New structure/cell tower

Project Type Recommendations:

All degraded and disturbed lands should be restored to their natural state. Vegetation restoration projects (including treatments of invasive or exotic species) should have a completed site-evaluation plan (identifying environmental conditions necessary to re-establish native vegetation), a revegetation plan (species, density, method of establishment), a short and long-term monitoring plan, including adaptive management guidelines to address needs for replacement vegetation.

Based on the project type entered; coordination with State Historic Preservation Office may be required http://azstateparks.com/SHPO/index.html

Based on the project type entered; coordination with U.S. Fish and Wildlife Service (Migratory Bird Treaty Act) may be required (http://arizonaes.fws.gov/)

Consider designs and tower modifications that reduce or eliminate impacts to migratory birds. Please refer to the U.S. Fish and Wildlife Service's page on cellular towers in Arizona http://www.fws.gov/arizonaes/CellTower.htm. On this page there are guidelines for tower siting, construction, operation, and decommissioning. Also see the Service's Interim Guidelines for Recommendations on Communications Tower Siting, Construction, Operation, and Decommissioning, http://www.fws.gov/habitatconservation/communicationtowers.htm.

During planning and construction, minimize potential introduction or spread of exotic invasive species. Invasive species can be plants, animals (exotic snails), and other organisms (e.g. microbes), which may cause alteration to ecological functions or compete with or prey upon native species and can cause social impacts (e.g. livestock forage reduction, increase wildfire risk). The terms noxious weed or invasive plants are often used interchangeably. Precautions should be taken to wash all equipment utilized in the project activities before and after project activities to reduce the spread of invasive species. Arizona has noxious weed regulations (Arizona Revised Statutes, Rules R3-4-244 and R3-4-245). See Arizona Department of Agriculture website for restricted plants http://www.azda.gov/PSD/quarantine5.htm. Additionally, the U.S. Department of Agriculture has information regarding pest and invasive plant control methods including: pesticide, herbicide, biological control agents, and mechanical control: http://www.usda.gov/wps/portal/usdahome. The Department regulates the importation, purchasing, and transportation of wildlife and fish (Restricted Live Wildlife), please refer to the hunting regulations for further information http://www.azgfd.gov/h_f/hunting_rules.shtml.

Planning: consider impacts of lighting intensity on mammals and birds and develop measures or alternatives that can be taken to increase human safety while minimizing potential impacts to wildlife. Conduct wildlife surveys to determine species within project area, and evaluate proposed activities based on species biology and natural history to determine if artificial lighting may disrupt behavior patterns or habitat use.

The Department recommends that wildlife surveys are conducted to determine if noise-sensitive species occur within the project area. Avoidance or minimization measures could include conducting project activities outside of breeding seasons.

Recommendations Disclaimer:

1. Potential impacts to fish and wildlife resources may be minimized or avoided by the recommendations generated from information submitted for your proposed project.
2. These recommendations are proposed actions or guidelines to be considered during **preliminary project development**.
3. Additional site specific recommendations may be proposed during further NEPA/ESA analysis or through coordination with affected agencies.
4. Making this information directly available does not substitute for the Department's review of project proposals, and should not decrease our opportunity to review and evaluate additional project information and/or new project proposals.
5. The Department is interested in the conservation of all fish and wildlife resources, including those Special Status Species listed on this receipt, and those that may have not been documented within the project vicinity as well as other game and nongame wildlife.
6. **Further coordination requires the submittal of this initialed and signed Environmental Review Receipt with a cover letter and project plans or documentation that includes project narrative, acreage to be impacted, how construction or project activity(s) are to be accomplished, and project locality information (including site map).**
7. Upon receiving information by AZGFD, please allow 30 days for completion of project reviews. Mail requests to:

Project Evaluation Program, Habitat Branch
Arizona Game and Fish Department
5000 West Carefree Highway
Phoenix, Arizona 85086-5000
Phone Number: (623) 236-7600
Fax Number: (623) 236-7366

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4. This Environmental Review is based on the project study area that was entered. The review must be redone if the project study area, location, or the type of project changes. If additional information becomes available, this review may need to be reconsidered.
5. A signed and initialed copy of the Environmental Review Receipt indicates that the entire receipt has been read by the signer of the Environmental Review Receipt.

Security:

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This website maintains a record of each environmental review search result as well as all contact information. This information is maintained for internal tracking purposes. Information collected in this application will not be shared outside of the purposes of the Department.

If the Environmental Review Receipt and supporting material are not mailed to the Department or other appropriate agencies within six (6) months of the Project Review Receipt date, the receipt is considered to be null and void, and a new review must be initiated.

Print this Environmental Review Receipt using your Internet browser's print function and keep it for your records. Signature of this receipt indicates the signer has read and understands the information provided.

Signature:_____

Date: _____

Proposed Date of Implementation: _____

Please provide point of contact information regarding this Environmental Review.

Application or organization responsible for project implementation

Agency/organization:_____

Contact Name: _____

Address: _____

City, State, Zip: _____

Phone: _____

E-mail: _____

Person Conducting Search (if not applicant)

Agency/organization:_____

Contact Name: _____

 APPLICATION INITIALS: _____

Address: _____

City, State, Zip: _____

Phone: _____

E-mail: _____

 APPLICATION INITIALS: _____