

United States Department of the Interior

U.S. Fish and Wildlife Service

Arizona Ecological Services Office

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In Reply Refer To:

AESO/SE
22410-2010-F-0364

July 22, 2010

Mr. Michael R. Williams, Forest Supervisor
U.S. Forest Service
Kaibab National Forest
800 South Sixth Street
Williams, Arizona 86046-2899

RE: Biological Opinion for the North Canyon Trout Habitat Restoration Project

Dear Mr. Williams:

Thank you for your request for formal consultation with the U.S. Fish and Wildlife Service (FWS) pursuant to section 7 of the Endangered Species Act of 1973 (16 U.S.C. 1531-1544), as amended (Act). Your request was dated March 7, 2010, and received by us on April 8, 2010. At issue are impacts that may result from the proposed North Canyon Trout Habitat Restoration Project located on the North Kaibab Ranger District, Kaibab National Forest, Coconino County, Arizona. The Forest Service has determined that the proposed action may affect the Apache trout (*Oncorhynchus apache*).

You also requested our concurrence that the proposed project may affect, but is not likely to adversely affect, the threatened Mexican spotted owl (*Strix occidentalis lucida*). We concur with your determination and the basis for our concurrence is found in Appendix A. You also determined that the proposed action would not affect the California condor (*Gymnogyps californianus*). "No effect" determinations do not require review from the FWS and are not addressed further.

This biological opinion (BO) is based on information provided in the March 30, 2010, biological evaluation (BE), telephone conversations, email messages, and other sources of information. Literature cited in this BO is not a complete bibliography of all literature available on the species of concern, stream restoration projects and their effects, or on other subjects considered in this opinion. A complete administrative record of this consultation is on file at this office.

CONSULTATION HISTORY

Table 1 is a summary of the consultation history for the proposed action.

<i>Date</i>	<i>Event</i>
March 3, 2009	We attended a meeting with the project proponents regarding the proposed action.
June 9, 2009	We attended a field trip with the project proponents to assess components of the proposed action.
November 5, 2009	We received background material regarding project design and components of the proposed action.
December 16, 2009	We conducted a telephone conversation with the Forest Service regarding the proposed action.
January 19, 2010	We received a draft BE of the project.
February 17, 2010	We provided comments on the draft BE.
March 3, 2010	We conducted a telephone conversation with the Forest Service regarding the proposed action.
March 4, 2010	We received more information regarding components of the proposed action.
March 11, 2010	We received a revised version of the draft BE for review.
March 24, 2010	We provided comments on the revised draft BE.
March 25, 2010	We received additional information regarding the revised draft BE.
April 8, 2010	We received a request for formal consultation and a final BE.
May and June, 2010	We requested and received clarification of the proposed action by telephone and email.
July 2, 2010	We provided a draft biological opinion for review.
July 20, 2010	We received a response from the Kaibab National Forest that no modifications of the draft biological opinion were necessary.

BIOLOGICAL OPINION

DESCRIPTION OF THE PROPOSED ACTION

The Forest Service and Arizona Game and Fish Department (AGFD) are proposing to repair and rebuild check dams in North Canyon Creek within the Saddle Mountain Wilderness on the North Kaibab Ranger District (Township 35 North, Range 3 East, sections 12, 14, 15, 21 and 22).

In the early 1930s, Rural Conservation Corps crews constructed approximately 52 log check dams in North Canyon Creek to form plunge pools that would support trout. North Canyon Creek was first stocked with the Ord Creek strain of Apache trout by the AGFD in 1963. Apache trout have persisted in the creek since that time. In 2009, the Apache trout recovery team completed a revised recovery plan. As part of this process, it was determined that the North Canyon Creek Apache trout would be maintained as a refuge and source population for population establishment or augmentation.

Several of the log check dams have begun to decay resulting in concern that habitat conditions for the trout will deteriorate as more of the dams become non-functional. The combination of past heavy rain events and the deterioration of the structures is causing serious scouring, and diminishing the availability, of pools for trout habitat. Restoration of the dams will result in retention and/or improvement of habitat for Apache trout in North Canyon Creek.

The proposed action is to repair 29 of the 52 check dam structures. AGFD re-located and assigned individual identifying numbers and GPS location coordinates to each of the 52 structures. In general, the actions to be taken at the treated dams will include minor repair, major repair, or complete rebuilding. Repairs will follow the design recommendations of Natural Channel Design (2009).

Actions may include:

- Replacing decayed logs with logs up to 12 inches in diameter.
- Burying replacement logs in the streambanks at a right angle to the stream flow.
- Anchoring replacement logs in place with ballast rocks and cable earth anchors.
- Placing and burying non-woven geotextile fabric on the upstream side of log structures to seal and help hold fine sediment material from downstream movement.
- Cleaning scour pools of excess sediment and placement of the clean-out gravels and sediment above the repaired check-dam structures.
- Efforts will be made to keep the majority of the flows and highest velocities in the center of the stream to maximize pool scour.

The following actions will also be implemented:

- Apache trout may be allowed to remain in the stream or they may be moved either upstream or downstream from the work location while the check dams are being repaired. Movement of trout will depend on the amount of silt in the stream at the site and the anticipated amount of disturbance to the substrate. AGFD will determine if and when trout will be moved.
- Mechanized tools including winches may be used, but no motorized tools such as chainsaws will be used.
- Fifteen logs up to 12 inches in diameter from the North Canyon vicinity but from outside the channel riparian area will be used to repair the 29 structures.
- Trees that will be felled to provide the logs will be ponderosa pine, Douglas-fir, and/or white fir.

- Project work will occur September through November after the spawning season (April through June) and during periods of low flows. Implementation of the proposed action will be completed by December 2011.
- The work force for the project has been projected to be 10-12 people for 20 days.

The 29 structures to be treated under the proposed action and the necessary specific repairs are summarized in Table 2.

Table 2. Structures and Repairs of the Proposed Action

<i>Structure</i>	<i>Action</i>
NC12	Rebuild; seal upstream side and replace cross log
NC12C	Repair; replace log
NC12D	Repair; remove debris and inspect; repair
NC15	Repair; replace with 12-feet by 10-inch log
NC17	Repair; replace log and ballast; seal better
NC21	Rebuild; replace with 8-feet by 10-inch log; restructure
NC22	Rebuild; replace cross log with 10-feet by 10-inch log; replace top log to make higher
NC24	Repair; restructure
NC27	Repair; replace with 8-foot by 10-inch log; replace support ends
NC28	Repair; add log; seal ends
NC29	Rebuild; add log;
NC30	Rebuild; repair with 12-inch cross log and ballast; replace log subsurface
NC31	Rebuild; repair with 12-inch cross log and ballast; replace log subsurface
NC32	Repair; remove debris; replace log
NC33	Rebuild; replace with 10-12-inch log; replace with lower log
NC36	Repair; add top log
NC38	Rebuild; move existing log; cut log to place
NC42	Repair; add rocks to north end; add ballast
NC44	Rebuild; add log all the way to bank; add rock; keep low 8-10 inches; add 10-inch cross log buried in bank; add ballast
NC47	Repair; replace base log; replace top log; replace front log and ballast
NC48	Repair; remove debris; anchor ends; add ballast to ends
NC49	Repair; add ballast to ends
NC50	Repair; support ends to protect back; add ballast to ends
NC51B	Rebuild; complete rebuild; 16 feet across; use one 12-inch log and ballast
NC54	Repair; ballast ends
NC56	Repair; remove smaller debris;
NC59	Repair; seal behind; ballast
NC61	Repair; log replacement with 12-16-inch log; add erosion cloth
NC62	Repair; remove rocks; add finer materials; seal upstream side with erosion cloth

Work will be scheduled and conducted so that the structures will be repaired in the order of most-downstream to most-upstream (Angela Gatto, personal communication, 2010). According to AGFD (Chuck Benedict, personal communication, 2010), the most important five to six check dams in terms of trout habitat are located at the downstream end of the project. Repairing these structures first will ensure that these repairs are completed if for some reason (high flows, etc.) prevent completion of the project.

The Forest Service will provide an annual report to the FWS by March 1 after each year that project work is conducted. The report will include a work summary and any observed effects to Apache trout (e.g., injury and/or death) and their habitat (Angela Gatto, personal communication, 2010).

The reclassification of Apache trout to threatened status in 1975 included a 4(d) rule under the Act, allowing the AGFD to regulate take of the species and to establish sportfishing opportunities (USFWS 1975). Activities associated with the establishment of sportfishing opportunities include the actions by AGFD that will be contemporaneous with check dam structure restoration including capture, handling and movement of Apache trout. Therefore, capture, handling, and movement of Apache trout are subject to the provisions of the AGFD 10(A)(1)(a) permit and applicable State laws and the effects of these actions are not included in our analysis for the proposed action.

STATUS OF THE SPECIES

Apache trout (*Oncorhynchus gilae apache*) is one of two salmonid subspecies native to Arizona (the other is Gila trout, *O. g. gilae*). Originally listed as endangered under the Federal Endangered Species Preservation Act of 1966 (USFWS 1967), the Apache trout later became federally protected with passage of the Act in 1973. Successful culturing in captivity and greater knowledge of existing populations led to its downlisting to threatened under the Act in 1975 (USFWS 1975), without critical habitat. Reclassification to threatened status included a 4(d) rule, allowing AGFD to regulate take of the species and to establish sportfishing opportunities.

Apache trout evolved in streams primarily above 6,000 feet (ft) elevation, within mixed conifer and ponderosa pine forests. Apache trout generally require water temperatures below 77 degrees Fahrenheit. Adequate stream flow and shading are generally required to prevent lethal temperatures and to maintain pools that are used frequently during periods of drought and temperature extremes. Apache trout are largely opportunistic and feed on a variety of aquatic and terrestrial organisms. Apache trout require clean coarse gravel substrates for spawning. In White Mountain streams spawning occurs from March through mid-June, and varies with stream elevation. Spawning maturation is estimated to begin at three years of age, with eggs hatching in approximately 30 days, and emergence occurring about 60 days after deposition (Harper 1978). Life-span is typically four years (maximum known is six years) (Behnke 2002). Additional biological information is available in the species' Recovery Plan.

The historical distribution of Apache trout included the upper Salt River drainage (Black and White Rivers), San Francisco River drainage (Blue River), and headwaters of the Little Colorado River in Arizona (Miller 1972). Based on extensive sampling, analysis of physical

characteristics and genetic material, and recent GIS mapping, it is generally accepted that Apache trout historically inhabited between approximately 600 and 820 miles of streams above 6,000 ft elevation in the upper White and Black rivers and Little Colorado River basins of east central Arizona's White Mountains.

In the late 1800s, substantial harvest of trout was documented in the areas historically occupied by Apache trout. Introduction of non-native trout species (i.e., brook, brown, rainbow, and cutthroat) and degradation of habitat associated with modern day settlement rapidly eliminated or reduced most populations of Apache trout during a span of about 50 years (Behnke and Zarn 1976, Harper 1978). Competition with brown trout and brook trout has also been identified as a cause of the decline of Apache trout (Rinne and Minckley 1985). In addition, habitat alterations have occurred through timber harvest, domestic livestock grazing, road construction, water diversions, reservoir construction, and to a lesser extent mining (sand and gravel operations). These alterations were identified as causes for reduction of Apache trout habitat in the White Mountains of Arizona (USFWS 1983). Such alterations damage riparian vegetation and streambank morphology and stability, which increase stream erosion and can ultimately result in higher sediment loads. These, in turn, increase the susceptibility of habitat damage from floods, decrease the quality and quantity of spawning and rearing areas, alter stream flow volume and temperatures, and alter stream productivity and food supply (e.g., stream dwelling insects). Collectively, these factors have varied in intensity, complexity, and damage depending on location, ultimately reducing the total occupied range and the ability of Apache trout to persist at all life stages. Non-native trout stocking still occurs today, although most often in reservoirs or small lakes. All AGFD FWS fish stocking actions are conducted under the auspices of section 7 intra-service consultation with compliance to applicable Federal laws (USFWS 1995 and 2008).

One objective of the 2009 Recovery Plan is to establish and/or maintain 30 self-sustaining discrete populations of pure Apache trout within its historical range. Many of the recovery and conservation actions implemented to date have resulted in the expansion of populations and habitat protection/restoration within Apache trout historical range. Currently, 27 pure Apache trout populations exist within historical range (in approximately 118 mi of stream) in Gila, Apache, and Greenlee counties of Arizona, on lands of the White Mountain Apache and National Forest System Lands (ASNF). Additional streams have been identified as potential recovery populations within the historical range of Apache trout and they may be used for further conservation of the species if they meet the criteria for recovery populations in the future.

Our information indicates that, as of 2010 rangewide, 17 formal consultations have been completed or are underway for actions affecting Apache trout. Adverse effects to Apache trout have occurred due to these projects and many of these consultations have included reasonable and prudent measures to minimize effects to Apache trout. In addition, the Forest Service, White Mountain Apache Tribe, FWS, AGFD, and other cooperators are currently implementing many projects and recovery actions that provide habitat improvement or protection for Apache trout.

ENVIRONMENTAL BASELINE

The environmental baseline includes past and present impacts of all Federal, State, or private actions in the action area, the anticipated impacts of all proposed Federal actions in the action area that have undergone formal or early section 7 consultation, and the impact of State and

private actions which are contemporaneous with the consultation process. The environmental baseline defines the current status of the species and its habitat in the action area to provide a platform to assess the effects of the action now under consultation.

Description of the Action Area

North Canyon Creek is located on the Kaibab Plateau near the North Rim of the Grand Canyon. The stream is located entirely in the Saddle Mountain Wilderness Area on the North Kaibab Ranger District, Kaibab National Forest. North Canyon begins at an elevation of approximately 8,800 ft and descends just over 2,000 ft to its bottom. The vegetation on the plateau above the canyon consists of mixed conifer with many aspen and locust trees. Within the canyon, the vegetation includes nettle, raspberries, poison oak, and many smaller herbaceous species of plants that thrive in the moist soil and abundant shade.

North Canyon Creek is a small system, containing approximately five miles of perennial habitat (USFWS 2009). Creek width ranges from approximately 1.6 ft (0.5 meter) to 6.6 ft (2 meters) and depth ranges from about 0.3 ft (0.1 meter) in riffle areas to 4.9 ft (1.5 meters) in the deepest pool. The substrate is a mixture of cobble and gravel throughout the system with red silt covering the substrate from just above the first crossing and downstream. There is ample instream cover such as many undercut banks, small boulders, overhanging vegetation, and the logs of the check dam themselves. Plunge pools oxygenate the water and in combination with the cold spring water (38 to 44 degrees Fahrenheit) provide suitable habitat for trout.

A. STATUS OF THE SPECIES WITHIN THE ACTION AREA

As stated above, North Canyon Creek supports a pure (Ord Creek lineage) Apache trout population. In 1962, the creek was treated with the chemical piscicide rotenone and the following year Apache trout were stocked in the creek. Since this time, the trout have thrived in the creek and are used to reestablish other Apache trout populations in the White Mountains (USFWS 2009). Although North Canyon Creek is considered a critical refuge and a source of fish for population establishment or augmentation in recovery streams, the stream does not count towards the 30 streams needed for recovery (USFWS 2009).

Electrofishing data collected in August 2007 indicated that trout recruitment in 2006 was high and led to an increase in the estimated population size. The 2007 data resulted in a population estimate of 990 individuals. However, a reasonable estimate of the total population may be as high as 2,000 individuals (Chuck Benedict, AGFD, personal communication, 2010).

B. FACTORS AFFECTING SPECIES' ENVIRONMENT WITHIN THE ACTION AREA

North Canyon Creek was altered to provide fish habitat by a series of log check dams installed by Rural Conservation Corps crews in the 1930s. Some of the log check dams have disappeared, failed, or have begun to decay. Structural problems are mainly due to failure of rotted logs and leakage under logs. In a few cases the structures have been buried by stream substrate or dislodged and moved downstream by flood flows.

Recreation activities (e.g., hiking and camping) occur within North Canyon, and the Forest Service manages a trail into North Canyon. The trail descends through mixed conifer and oak thickets into North Canyon and leads back and forth across the creek as it follows the canyon down to the lower trailhead at Forest Road 631. There is some erosion from the trail that enters the creek and recreationists cross the creek in several locations. However, the Apache trout do not seem to be impacted by these activities.

EFFECTS OF THE ACTION

Effects of the action refer to the direct and indirect effects of an action on the species or critical habitat, together with the effects of other activities that are interrelated and interdependent with that action that will be added to the environmental baseline. Interrelated actions are those that are part of a larger action and depend on the larger action for their justification. Interdependent actions are those that have no independent utility apart from the action under consideration. Indirect effects are those that are caused by the proposed action and are later in time, but are still reasonably certain to occur.

Direct effects to Apache trout may occur when trout are handled. Trout may be captured, handled, and moved either upstream or downstream from the work location while the check dams are being repaired. Movement of trout will depend on the amount of silt at particular sites and the amount of anticipated disturbance to the substrate. If there is a need to move trout, then AGFD will lead the removal. Trout will be captured through electrofishing or netting and then carried in buckets to existing pools upstream from the work area. Since the effects of salvage of Apache trout in the stream systems and effects of reintroduction on released Apache trout are subject to the provisions of the 4(d) rule, the AGFD 10(A)(1)(a) permit, and applicable State laws, this BO will only evaluate the effects of actions associated with the repair of 29 check dam structures to the Apache trout and its habitat within North Canyon Creek.

Though the ultimate goal of the project is to improve trout habitat in the long-term, work at the structure sites may adversely affect trout and their habitat in the short-term. Project work will occur September through November, outside the spawning season (April to June) and during periods of low flows. Project work is scheduled to be completed by December 2011.

If trout are not removed from within or below a work site, or if efforts made to capture and remove trout do not result in complete removal, then individuals may be affected by the work at, and possibly above and below the structure sites. If trout leave the site on their own, their normal feeding and sheltering behavior may be affected. Work at the sites may also disturb the normal feeding and sheltering behavior of trout that remain at the site. If trout do not leave the work site, work on the structures could result in injury or mortality of individuals.

Apache trout begin redd construction and spawning during receding flows in the spring (Harper 1978). Redds are constructed primarily at downstream ends of pools in wide varieties of substrates (0.03 in to 1.3 in size), most frequently in water depths from 7.5 to 11 inches in areas that received day-long illumination, with water velocities ranging between 50 to 110 cubic feet per second (cfs) (Harper 1976). Because the project will not be conducted during the spawning season (April through June), no redds or fry should be impacted by the project.

In streams within their historical range, juvenile Apache trout tend to use shallow water (< 8 inches) most frequently while adults prefer waters > 8 inches in depth (Kitcheyan 1999). Juvenile fish are closely associated with cover such as surface turbulence, overhanging vegetation, and objects less than 6 inches diameter, while adults use cover less frequently (Kitcheyan 1999). In general, juveniles prefer faster moving water than adults and both juveniles and adults use substrates in proportion to their availability (Kitcheyan 1999). Fry nursery areas tend to be located in small pools in runs, or shallow areas on the edges of pools (Wada 1991). Current velocities in nursery areas are low, depths shallow (mean 1.3 in), and substrates tend to be composed of fines. Wada (1991), Wada et al. (1995), and Kitcheyan (1999) reported that adult Apache trout spent a considerable portion of the day feeding and residing in portions of pools exposed to direct sunlight.

Habitat structure at each check dam is likely to be impacted or removed due to work on the structures. Structures will be removed and repaired in the same year (i.e., if NC30 is removed in 2010, it will be rebuilt in 2010). As each structure is renovated as described in Table 2, there will potentially be a reduction in cover and increased disturbance at these sites. Each check dam forms a pool of varying size behind it. Since adult fish are most likely to occur in the pools, any fish not moved from a work site will likely be displaced from the deeper water they prefer, and possibly forced into shallower water or habitat upstream of the disturbance. We would expect that juvenile fish would be more likely to be in shallow, riffle and/or run habitat away from the structures. Therefore, juveniles are likely to be occupying areas away from the structures and may be less impacted by the action.

Sites, such as NC30, NC31, and NC47, where the entire structure will be rebuilt may result in higher sedimentation to North Canyon Creek, both immediately above and below the structure. The removal of the sub-surface log at these sites is likely to result in much greater disturbance to the stream bottom than structures where only the top log is replaced or other minor work is conducted. In addition, cleaning scour pools of excess sediment and placement of the clean-out gravels and sediment above the repaired check-dam structures may also increase sedimentation and result in displaced fish to non-preferred habitats. The clean-out and movement of silt and sediment from these actions may affect the normal feeding and sheltering of individuals, particularly adults that spend a considerable portion of the day feeding in sunlit pools.

In summary, Apache trout may be displaced from preferred habitats during the structure renovation work. This has the potential to impact their feeding and sheltering behaviors and could result in impacts to individual fish within the vicinity of project work. Moving fish upstream of the work will likely reduce impacts to a great number of individuals. However, short-term habitat modification will occur and trout may be displaced and/or possibly injured or killed during the renovation work.

CUMULATIVE EFFECTS

Cumulative effects include the effects of future State, tribal, local or private actions that are reasonably certain to occur in the action area considered in this biological opinion. Future Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the Act. The North Canyon Creek Watershed and the Saddle Mountain Wilderness is managed by the Kaibab National

Forest. Since the land within the action area is exclusively managed by the Forest Service, most activities that could potentially affect listed species are Federal activities and subject to additional section 7 consultations.

Future non-Federal actions within the project area that may be reasonably certain to occur in the area are fishing activities, which are managed by the state. Due to the relative remoteness of the area and limited extent of the resource, recreational fishing occurs at a very low level.

CONCLUSION

After reviewing the current status of the Apache trout, the environmental baseline for the action area, the effects of the proposed action and the cumulative effects, it is the FWS's biological opinion that the North Canyon Trout Habitat Restoration Project, as proposed, is not likely to jeopardize the continued existence of the Apache trout. We present this conclusion for the following reasons:

- The Apache trout in North Canyon Creek is described as a replicate population in a non-recovery stream located outside of the historical range of the species (USFWS 2009).
- Although short-term harm and harassment of individuals is anticipated, long-term injury and mortality of individuals is expected to be minimal. In addition, the intent of the project is to maintain and improve Apache trout habitat and the long-term effects are expected to benefit Apache trout and its habitat.

The conclusions of this biological opinion are based on full implementation of the project as described in the *Description of the Proposed Action* section of this document, including any Conservation Measures that were incorporated into the project design.

INCIDENTAL TAKE STATEMENT

Section 9 of the Act and Federal regulations pursuant to section 4(d) of the Act prohibit the take of endangered and threatened species, respectively, without special exemption. "Take" is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. "Harm" is defined (50 CFR 17.3) to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. "Harass" is defined (50 CFR 17.3) as intentional or negligent actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding or sheltering. "Incidental take" is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the Act provided that such taking is in compliance with the terms and conditions of this Incidental Take Statement.

AMOUNT OR EXTENT OF TAKE

We anticipate that the proposed action is reasonably certain to result in incidental take of Apache trout. Take may occur at any of the structure sites and in any portion of the creek that receives sediment due to implementation of the project.

As explained in the Effects of the Action section, take of Apache trout is anticipated to be largely in the form of harm and harassment (through disturbance of individuals and modification of habitat), but may also be in the form of injury and mortality. More individuals are expected to be harmed or harassed than injured or killed. Harm and harassment is expected to be relatively short-term, most individuals are anticipated to survive it, and the system is expected to equilibrate after the restoration of structures is completed. The number of individuals that may be injured or killed is expected to be quite low due to the nature of the project and the mobility of Apache trout.

It is difficult to quantify the number of individual fish taken because observation of harm and harassment of individuals will not be possible, and injured or dead individuals will be difficult to detect even with monitoring during implementation of the project.

Due to these difficulties in detecting the anticipated take, it is not possible to quantify the total number of individuals that will be taken incidentally. However, the anticipated incidental take will be considered to be exceeded if either of the following occurs:

1. Work on any structures other than the 29 check dams identified in the biological opinion is conducted.
2. More than five dead Apache trout are observed during implementation of the project. As discussed in the BO, trout injured or killed during the course of capture, handling, and movement are covered under AGFD's Section 10(a)(1)(a) recovery permit.

EFFECT OF THE TAKE

In the accompanying biological opinion, the FWS determined that this level of anticipated take is not likely to result in jeopardy to the species or destruction or adverse modification of critical habitat.

REASONABLE AND PRUDENT MEASURES AND TERMS AND CONDITIONS

In order to be exempt from the prohibitions of section 9 of the Act, the (agency) must comply with the following terms and conditions, which implement the reasonable and prudent measures described above and outline required reporting/monitoring requirements. These terms and conditions are non-discretionary.

We determine that the proposed action incorporates sufficient measures that reasonably and prudently minimize the effects of incidental take of Apache trout. All reasonable measures to minimize take have been incorporated into the project description. Thus, no reasonable and prudent measures are included in this incidental take statement.

Disposition of Dead or Injured Listed Species

Upon locating a dead, injured, or sick listed species initial notification must be made to the FWS's Law Enforcement Office, 2450 W. Broadway Rd, Suite 113, Mesa, Arizona, 85202, telephone: 480/967-7900) within three working days of its finding. Written notification must be made within five calendar days and include the date, time, and location of the animal, a photograph if possible, and any other pertinent information. The notification shall be sent to the Law Enforcement Office with a copy to this office. Care must be taken in handling sick or injured animals to ensure effective treatment and care, and in handling dead specimens to preserve the biological material in the best possible state.

CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the Act directs Federal agencies to utilize their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information.

No conservation recommendations are necessary for the proposed action.

In order for the FWS to be kept informed of actions minimizing or avoiding adverse effects or benefiting listed species or their habitats, the FWS requests notification of the implementation of any conservation recommendations.

REINITIATION NOTICE

This concludes formal consultation on the action(s) outlined in the request. As provided in 50 CFR §402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation.

In keeping with our trust responsibility to American Indian Tribes, when an agency consults with us on a proposed action that may affect Indian lands, Tribal trust resources, or Tribal rights, we provide a copy of the final biological opinion to affected and interested Tribes and the Bureau of Indian Affairs.

The FWS appreciates the Forest Service's efforts to identify and minimize effects to listed species from this project. For further information, please contact Bill Austin (928) 226-0614 (x102) or Brenda Smith (x101).

Sincerely,

/s/Shaula Hedwall for

Steven L. Spangle
Field Supervisor

cc (hard copy):

Director, Cultural Resource Center, Chemehuevi Tribe, Havasu Lake, CA
Cultural Compliance Technician, Museum, Colorado River Indian Tribes, Parker, AZ
Tribal Secretary, Havasupai Tribe, Peach Springs, AZ
Director, Hopi Cultural Preservation Office, Kykotsmovi, AZ
Director, Cultural Resources, Kaibab Band of Paiute Indians, Fredonia, AZ
Environmental Specialist, Environmental Services, Western Regional Office, Bureau of
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cc (electronic):

Shaula Hedwall, Fish and Wildlife Service, Flagstaff, AZ
District Ranger, North Kaibab Ranger District, Fredonia, AZ
Chief, Habitat Branch, Arizona Game and Fish Department, Phoenix, AZ
Regional Supervisor, Arizona Game and Fish Department, Flagstaff, AZ

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APPENDIX A - CONCURRENCE

This appendix contains our concurrence with your “may affect, not likely to adversely affect” determinations for Mexican spotted owl.

We concur with your determination that the proposed project may affect, but is not likely to adversely affect, the Mexican spotted owl. We base this concurrence on the following:

1. The project area occurs within protected steep-slope Mexican spotted owl habitat. The proposed action will remove 15 trees up to 12 inches in diameter at breast height. The Mexican Spotted Owl Recovery Plan recommends no harvest of trees greater than nine inches in diameter at breast height from steep-slope habitat. However, we believe that the removal of 15 trees from along North Canyon creek will result in insignificant and discountable effects to key habitat components.
2. Surveys for Mexican spotted owls were conducted along the rim of North Canyon were in 1990 and 1991 and no Mexican spotted owls were detected. The Forest Service and AGFD surveyed the project area again in 2009 and no Mexican spotted owls were detected. Surveys will be conducted in 2010 prior to project implementation.
3. Project work will occur September through November in 2010 and 2011. Thus, the work will be conducted outside of the Mexican spotted owl breeding season.