



United States Department of the Interior

FISH AND WILDLIFE SERVICE

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AESO/SE
2-21-00-F-396

NOV 17 2000

Mr. John Bedell
Forest Supervisor
P.O. Box 640
Springerville, Arizona 85938

Dear Mr. Bedell:

The U.S. Fish and Wildlife Service (Service) has reviewed your August 28, 2000, biological assessment for Forest Service management of grazing and recreation after the introduction of Gila trout (*Oncorhynchus gilae*) into Raspberry Creek, on the Apache-Sitgreaves National Forests (A-S), in Greenlee County, Arizona. Your request for formal section 7 consultation under the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.) was received on August 31, 2000.

This biological opinion is based on information provided in the August 3, 2000, biological assessment, telephone conversations between our staffs, and other sources of information. Literature cited in this biological opinion is not a complete bibliography of all literature available on the species of concern, or on other subjects considered in this opinion. A complete administrative record of this consultation is on file at the Arizona Ecological Services Office (AESO).

CONSULTATION HISTORY

Informal discussions led by the Arizona Game and Fish Department (AGFD), on the possible reintroduction of Gila trout into Raspberry Creek, have been underway for several years. In early August 2000, we received a letter from the Service's Division of Federal Aid (FA) requesting the initiation of formal consultation for the transfer of Gila trout into Raspberry Creek. Attached to the letter, was a Biological Evaluation prepared by Terry Myers, biologist at the A-S. The Biological Evaluation stated that the Forest Service was not a cooperator in the FA action and that ongoing Forest Service activities would not be included in this consultation. Informal discussions between FA, AESO, and staff at the A-S concluded that Forest Service activities needed to be addressed before the actual introduction of Gila trout into Raspberry Creek. This was confirmed in an August 28, 2000, letter from the Forest Supervisor of the A-S, requesting a

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separate consultation on the effect of ongoing forest actions on the Gila trout. The AESO received the September 7, 2000, letter from FA, clarifying their action would be addressed in a separate consultation (2-21-00-F-397). This consultation, 2-21-00-F-396, addresses the ongoing grazing and recreation conditions after the Gila trout have been introduced. On September 22, 2000, we received your letter designating Troy Cooke of Cooke Ranches, Inc. as an applicant for the purposes of this consultation; and on October 10, 2000, we received your letter granting Otis and Judy Wolkins the same status. The draft biological opinion was issued to you on November 3, 2000; Forest Service comments on the draft opinion were received on November 17, 2000.

BIOLOGICAL OPINION

DESCRIPTION OF PROPOSED ACTION

The Forest Service proposes to continue grazing of livestock in two allotments. The Strayhorse Allotment is on the Clifton Ranger District, and the Raspberry Allotment is on the Alpine Ranger District, both in eastern Arizona. The Strayhorse Allotment is 25,637 acres, and the term permit will expire on December 12, 2005. However, a new term permit for Strayhorse will be issued about April 1, 2001 and will be based on a new Allotment Management Plan. The Raspberry Allotment is 30,147 acres, and the term permit will expire on December 31, 2008.

The continued use of Forest Trail 35 is also anticipated. Use of this trail provides for limited camping and fishing opportunities. Other actions, including prescribed natural fire plan, road construction, and management of non-native species in Raspberry Creek or the Blue River watershed, will be addressed in separate, future consultations.

Strayhorse Allotment

Livestock grazing will change significantly on the Strayhorse Allotment in 2001. Beginning in 2001, the AUM will decrease from 1,606 to 1,477. However, livestock numbers will increase from 100 head of livestock to either 225 adult ("dry" cows) or 320 yearlings. The season of grazing will change also. Livestock will be distributed "evenly" across two pastures for 6.5 months, including the entire "dormant season" and about 20% of the "growing season." The "dormant season" includes those times when "cool season" plants are actively growing (from BA). The allotment was noted to have a well-developed riparian plant community and no adverse impacts from ongoing livestock. The allotment will also begin the implementation of Maximum Allowable Use (MAU) levels for herbaceous forage. A MAU of 45% is planned for key areas, including riparian areas along Raspberry Creek and upland portions of the watershed. Although the establishment of 45% MAU assumes that 45% of the range is in "Excellent" or "Good" condition, the actual classification percentages of the allotment are 0% "Excellent," 11% "Good," 62% "Fair," and about 27% of the range is in "Poor" condition.

Raspberry Allotment

Livestock grazing on the Raspberry Allotment has been reduced from 225 cattle (cow/calf) yearlong, and 160 cattle (yearlings) from January 1 to May 15, to 46 cattle (cow/calf) grazed from November 1 to June 14, or less if utilization standards are reached. Animal months have dropped from 3,400 to 81. Maximum Allowable Use in riparian areas is 45% for "forage" and "browse" and will be monitored in key areas including one site above the barrier.

STATUS OF THE SPECIES

The Gila trout was listed as an endangered species in 1967. Gila trout are a typical cold water species requiring well-oxygenated high water quality, cobble substrate, deep narrow channels, and abundant overhanging banks or cover. Gila trout begin spawning activity in early April or whenever water temperatures reach 8 degrees C, and continue through June as water warms with summer (Rinne and Minckley 1991, USFWS 1993, Sublette *et al.* 1990). Adults live in pools, with smaller individuals dependent on overhanging vegetation (Rinne and Minckley 1991). The species inhabits clear runs that are typically narrow and shallow, and feeds on aquatic insects including caddisflies, mayflies, chironomids, and beetles (Sublette *et al.* 1990).

The Gila trout is one of two native trout species known in Arizona. Prior to 1900, Gila trout were found in Arizona's Verde, San Francisco, and Agua Fria river systems, but the species was extirpated from Arizona around the turn of the century (USFWS 1993) until the reintroduction into Dude Creek in 1999. During the mid-1990s, the Spruce Creek fish were determined to represent the native trout of the San Francisco River drainage, including the Blue River.

One of the greatest successes for the species included the introduction of 120 multi-aged Gila trout into Dude Creek by AGFD in coordination with FA, the Tonto NF, and other cooperators. This was made possible after a 1990 catastrophic fire, known by locals as the "Dude fire," which burned more than 20,000 acres in the Payson Ranger District of the Tonto NF, including most of the Dude Creek drainage, and left the creek without fish. An additional 44 fish have been placed in Dude Creek since the original 1999 stocking. Successful replication of the Spruce Creek lineage of Gila trout into Dude Creek has been a tremendous impetus for continuing to evaluate the listing status of this species.

In New Mexico, the fish were found throughout the Gila and San Francisco river basins. By the 1960's, Gila trout were divided into five stocks or populations: Main Diamond, South Diamond, McKenna, Spruce, and Iron creeks. Today they exist in New Mexico in isolated populations throughout the upper portion of the Gila basin (Minckley 1973, Propst and Stefferud 1997). The replication and security of each of the five populations are essential for the recovery of the species (USFWS 1993).

Gila trout from Main Diamond Creek were translocated into Gap Creek, a tributary of the Verde

River, in 1974. By 1981, the population was estimated at 150 fish. During a 1987 survey, the population was estimated at 70 fish and restricted to about 1.5 miles of stream (Warnecke 1987). Although the population persisted for at least seven years, the fish were later believed lost (USFWS 1993).

Major threats to the species include habitat degradation including natural disasters (particularly floods and fires), grazing, timber management, and competition/hybridization with introduced non-native trouts (USFWS 1993). In 1988, a flood eliminated more than 90% of the Gila trout in McKnight Creek (Propst and Stefferud 1997). In 1989, a forest fire and associated impacts eliminated the Main Diamond Creek population. Later that same year, drought combined with impacts of a fire reduced the South Diamond Creek population by 95% (USFWS 1996). Wildfires and subsequent ash-laden runoff have decimated Gila trout populations in New Mexico many times over the years (e.g., USFWS 1993, Propst *et al.* 1992). Prior to these events, discussions of downlisting the species from endangered to threatened were underway. The loss to these populations has delayed downlisting considerations. The presence of rainbow trout (*O. mykiss*) or other salmonids in areas designated as Gila trout streams has required the use of toxicants to eliminate the non-native salmonids, followed by restoration with Gila trout. The presence of rainbow trout in Dry Creek and Trail Canyon Creek has also lead to rainbow trout and Gila trout hybrids requiring similar treatment, expenditures of funds, and staff time.

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.

The geographic limits of the action area include both the Strayhorse and Raspberry allotments, and extend from the uppermost reaches of Raspberry Creek downstream to the confluence of Raspberry Creek with the Blue River.

The Raspberry Basin is managed under the A-S Clifton and Alpine Ranger Districts. Livestock grazing and recreation are the primary uses of the land. Raspberry Creek includes two grazing permits, the Strayhorse Allotment which includes about 75% of the watershed above the natural barrier, and the Raspberry Allotment which includes the remaining 25% of the watershed.

Raspberry Creek on the Strayhorse Allotment was evaluated in July 1998 and determined to be in "Proper Functioning Condition." During 2000, 100 head of livestock were permitted for the

Strayhorse Allotment. The Annual Operating Plan authorizes grazing 25 cattle (cow-calf) and three horses in the Raspberry Creek watershed portion of the allotment. The horses were in a small sub-pasture all year (Rattlesnake Trap Pasture) and cattle were in the watershed for about five months from May 16 to October 31, 2000. The AOP set the allowable use in key areas at 25-30% for cattle and 35% for horses.

Evaluation of Raspberry Creek on the Raspberry Allotment occurred twice in 1998 and concluded that the allotment was "Functional - At Risk" and in a "Downward" trend. The report noted an incised channel, and concluded that upland watershed conditions were contributing to the riparian degradation. A 1995 decision notice resulting in significant changes to the Raspberry Allotment became fully effective in 2000. This change called for a reduction in livestock numbers from 225 cattle (cow/calf) yearlong, and 160 cattle (yearlings) from January 1 to May 15, to 46 cattle (cow/calf) grazed from November 1 to June 14 (or less, depending on when utilization standards are reached). Animal Months have dropped from a maximum of 3,400 to 81 AMs. The permittee for the Raspberry Allotment opted for "personal convenience, non-use" during 2000.

Raspberry Creek is a first order stream located in Greenlee County, in the Blue Range Primitive Area of the Clifton and Alpine Ranger Districts on the A-S. The creek originates from a series of springs and tributaries on the southwest side of Blue Peak and travels southeasterly for approximately 11 kilometers (km) (6.8 miles [mi]) where it meets the Blue River at an elevation of 1,530 meters (m) (5,020 feet [ft]). A steep gradient (6-8%) exists in the upper 7 km (4.3 mi) of Raspberry Creek and levels somewhat (4-5%) in the lower 4 km (2.9 mi) (Stefferd and Young 1998). Channel substrates are cobble and gravel, with good canopy cover overhead.

Although the stream is entrenched 1 to 2 m deep (3.3 to 6.6 ft) (Stefferd and Young 1998), it is believed to be relatively stable with no signs of erosion or deposition when evaluated in July 1998. Perennial flows of Raspberry Creek exist in the last 2.5 km (1.5 mi) of the stream above a natural barrier located about 4.3 km (2.7 mi) above the confluence with the Blue River. This barrier should prevent the upstream movement of fish from downstream. The barrier consists of a large boulder backfilled with cobble and gravel which provides a vertical drop of about 1.2 to 2 m (3.9 to 6.6 ft). Raspberry Creek itself is narrow, 0.5 to 1.0 m (1.6 to 3.2 ft), and shallow, 0.1 to 0.3 m (0.3 to 1.0 ft), with a mixture of riffles, pools, and runs. The creek can be seasonally intermittent. The invertebrate community includes caddis fly larvae (Trichoptera), blackfly larvae (Diptera-Simuliidae), and possibly water striders (Hemiptera-Gerridae) and other insects (Mike Lopez, AGFD, pers. comm.). Silvey and Thompson (1978) concluded that the uppermost reach of Raspberry Creek would provide a minor salmonid fishery. This was supported during a 1998 field investigation by Stefferud and Young (1998) and by Mike Lopez in 1999 (Lopez 2000).

Surveys conducted by Arizona State University in 1994 reported speckled dace (*Rhinichthys*

osculus) in areas upstream of the then undocumented barrier location (Bagley and Knowles 1994). No fish have been documented above the barrier since 1994, but surveys have been limited. Surveys by AGFD in 1999 documented speckled dace, rainbow trout, and longfin dace (*Agosia chrysogaster*) below the barrier (Lopez 2000). No sport fish currently exist in Raspberry Creek above the barrier. Some limited camping in the basin and incidental fishing in the creek may also occur. Recreation in the Raspberry Basin is primarily a result of Forest Trail 35. The trail, which mostly parallels the creek (although it veers away from the creek in places), is primarily used by deer and elk hunters from September through January.

EFFECTS OF THE ACTION

Since the introduction of the Gila trout into Raspberry Creek has been covered under a 10(a)(1)(A) permit, and the effects to Gila trout moving out of Raspberry Creek into the Blue River have been addressed under a separate consultation (2-21-00-F-397); this biological opinion only addresses the ongoing forest practices including grazing and recreation associated with the use of Forest Trail 35.

Livestock Grazing

The most commonly acknowledged impact of livestock grazing on streams is increased sediment production and transport (Platts 1990, Johnson 1992, Weltz and Wood 1994). Negative impacts of sediment to fish and fish habitat are well documented (Newcombe and MacDonald 1991, Barrett 1992, Megahan *et al.* 1992). Excess sediment can also smother invertebrates, reducing production and availability of fish food. Per the BA, livestock can access Raspberry Creek from the Strayhorse Allotment. Livestock grazing has also been demonstrated to increase nutrients in streams (Kaufman and Krueger 1984). While an increase in nutrients may benefit the fish through increased food production, excessive nutrient input may lead to increase algal growth, oxygen depletion, and possibly death. Bank configuration, soil type, and soil moisture content influence the amount of damage with moist soil being the most vulnerable to damage (Marlow and Pogacnik 1985, Platts 1990). The v-shape of the bottom of Raspberry Creek may limit access to many stream areas, but could lead to increased pressure in the more accessible places. Localized areas of increased pressure will lead to degraded habitat conditions for Gila trout through increased sediment and nutrient loading, and stream bank alteration.

Additional effects include the grazing of plants and trampling of vegetation and soil which affect both riparian zones and uplands (Marlow and Pogacnik 1985), and compaction and disruption of soil, which influences streamflow conditions and stream channel characteristics. The adverse effects of livestock grazing on native fishes of the Southwest have long been recognized. Effects of ongoing grazing may inhibit recovery from, and are exacerbated by, the underlying habitat alteration and destruction that occurred as a result of serious overgrazing of the late 1800s and early 1900s (Chamberlain 1904, Miller 1961, Hendrickson and Minckley 1984, Minckley 1985,

Williams et al. 1985, Minckley and Deacon 1991, Rinne and Minckley 1991). Beginning in 2001, the AUM for Strayhorse will decrease about 8%, from 1,606 to 1,477. However, livestock numbers will increase between 125% and 220%, allowing the permittee to graze either 225 adult ("dry" cows) or 320 yearlings. This change may result in more livestock moving into the creek bottoms with subsequent degradation of Gila trout habitat. In addition, only 11% of the allotment is in "Good" condition; however, MAU has been established assuming more favorable conditions. The Forest Plan states that with 62% of the range in "Fair" condition, allowable use should be 40%; and with 27% of the range in "Poor" condition, allowable use should be about 20%. These high utilization rates, particularly those in "Fair" or "Poor" condition, is likely to lead to overutilization over much of the allotment and adversely affect the Gila trout. Cattle disrupt streambanks through chiseling, sloughing, compaction, and collapse. This in turn can lead to wider and shallower stream channels (Armour 1977, Platts and Nelson 1985, Platts 1990, Meehan 1991) which will affect fish habitat elements (Bovee 1982, Rosgen 1994). Similarly, Raspberry Creek on the Raspberry Allotment was determined to be "Functional - At Risk" and in a "Downward" trend. The recent reduction in livestock numbers and the permittee's decision to take "personal convenience, non-use" in 2000 may be the beginning in reversing the trend on the Raspberry Allotment. No rehabilitation of Strayhorse is included in this action and stream conditions, along with the quality of Gila trout habitat, may decline.

Forest Trail 35

The Forest Service estimates that two or three people use Forest Trail 35 daily. Minor amounts of sediments may enter the creek as a result of humans and pack animals crossing the creek. Although Raspberry Creek will be closed to fishing, some incidental fishing in the creek is expected to occur. Direct effects from angler trampling of larvae or eggs can also impact trout (Roberts and White 1992).

CUMULATIVE EFFECTS

Cumulative effects include the effects of future State, 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 ESA.

The Service is not aware of any cumulative effects.

CONCLUSION

After reviewing the current status of Gila trout, the environmental baseline for the action area, the effects of the proposed grazing management and recreational use, and the cumulative effects,

it is the Service's biological opinion that the action, as proposed, is not likely to jeopardize the continued existence of the Gila trout. Although take will occur, replication of the Spruce Creek lineage of Gila trout into Raspberry Creek has an overall beneficial effect to the species. No critical habitat has been designated for this species, therefore, none will be affected. Although the success of this reintroduction effort is not known, and the long-term survival of the species in Raspberry Creek cannot be guaranteed, the success or failure of this introduction will be a significant consideration in the decision to reclassify the Gila trout.

INCIDENTAL TAKE STATEMENT

Sections 4(d) and 9 of ESA, as amended, prohibit taking (harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or attempt to engage in any such conduct) of listed species of fish or wildlife without a special exemption. Harm is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as breeding, feeding, or sheltering. Harass is defined as 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 any take of listed animal species that results from, but is not the purpose of, carrying out an otherwise lawful activity conducted by the Federal agency or the applicant. 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 a prohibited taking provided that such taking is in compliance with the terms and conditions of this incidental take statement.

The measures described below are non-discretionary, and must be implemented by the A-S, or their applicants, so that they become binding conditions of any grant or permit issued to the applicants, as appropriate, in order for the exemption in section 7(o)(2) to apply. The A-S has a continuing duty to regulate the activity covered by this incidental take statement. If the A-S or their applicant (1) fails to require the applicant to adhere to the terms and conditions of the incidental take statement through enforceable terms that are added to the permit or grant document, and/or (2) fails to retain oversight to ensure compliance with these terms and conditions, the protective coverage of section 7(o)(2) may lapse.

AMOUNT OR EXTENT OF TAKE

Take of Gila trout adults, larvae, and eggs is expected to result from grazing activities within the Strayhorse and Raspberry allotments, and from sporadic use of Forest Trail 35 which provides opportunity for unauthorized fishing. The type of take expected to result from grazing activities is harm caused by increased sedimentation, pollution of water from cattle feces, and reduction of bank cover due to trampling. The take expected to result from infrequent unauthorized fishing will be in the form of harassment, wound, and capture through the direct hooking of individuals, removal from the creek, handling, and subsequent release back to the stream. Take of Gila trout associated with the proposed action will be difficult to detect because finding dead or impaired

individuals is unlikely; injured or dead fish may be removed from the creek by predators or scavengers, or masked by seasonal fluctuations in environmental conditions and fish numbers. Therefore, the Service defines incidental take in terms of habitat characteristics, and is using this surrogate measure to identify when take has been exceeded. The Service anticipates that take will occur upstream from the natural barrier on Raspberry Creek through the Strayhorse and Raspberry allotments. Incidental take of Gila trout from the proposed action will be exceeded if the following conditions are met:

1. Ecological conditions do not continue to improve or maintain good or better status under the proposed livestock management (improved conditions can be defined through improvements in watershed, soil condition, trend and condition of rangelands, riparian conditions, and stream channel conditions within the natural capabilities of the Raspberry Creek watershed).
2. Reports of angler use within Raspberry Creek above the natural barrier exceed one per month.

EFFECT OF THE TAKE

In the accompanying biological opinion, the Service determined that this level of anticipated take is not likely to result in jeopardy to the species. No critical habitat has been designated for this species, therefore, none will be affected.

REASONABLE AND PRUDENT MEASURES

The Service believes the following reasonable and prudent measures are necessary and appropriate to minimize take of the Gila trout:

1. Improve ecological conditions (watershed, soil, range, riparian, and stream channel conditions) within the Raspberry Creek watershed. This will help ensure the integrity of Raspberry Creek and provide for recovery of Gila trout.
2. Reduce impacts to riparian and aquatic habitats from livestock grazing and recreational activities. This will minimize adverse impacts to all life stages of Gila trout.
3. Monitor grazing and recreational activities. This is necessary to ensure that the following terms and conditions are minimizing take.

TERMS AND CONDITIONS

In order to be exempt from the prohibitions of section 9 of ESA, the A-S or their applicant must comply with the following terms and conditions, which implement the reasonable and prudent measures described above and outline required monitoring/reporting requirements. These terms and conditions are non-discretionary.

To implement reasonable and prudent measure #1:

1.1 Apply established and replicable methods to measure utilization in the Raspberry Creek watershed. If improvement or maintenance of soil and range conditions does not progress toward Forest Plan standards during the ten year permit period, the A-S shall evaluate the grazing management and identify and implement changes.

1.2 The A-S shall evaluate the Raspberry Creek stream channel, riparian conditions, and adjacent uplands upstream from the natural barrier. If improvement or maintenance of these parameters does not progress toward Forest Plan standards during the ten year permit period, the A-S shall evaluate the grazing management and identify and implement changes.

To implement reasonable and prudent measure #2:

2.1 The A-S shall protect the riparian/stream corridor by meeting term permit forage utilization objectives.

2.2 The A-S shall coordinate with the AGFD to make information regarding prohibitions on angler possession of Gila trout available to persons using Raspberry Creek and the Blue River.

2.3 The A-S shall ensure that levels of permitted recreational activity within the Raspberry Creek watershed will protect the riparian/stream corridor and sustain improvement or maintenance of adjacent uplands.

To implement reasonable and prudent measure #3.

3.1 The Forest Service shall submit annual monitoring reports to the AESO at least 30 days prior to the issuance of the Annual Operating Plan. This report shall summarize: a) effectiveness of the terms and conditions; b) allotment monitoring results; c) records of downed or damaged exclosure fencing or incidents (including duration) of cattle within the riparian corridor; d) other pertinent information on the status of the creek.

The reasonable and prudent measures, with their implementing terms and conditions, are designed to minimize incidental take that might otherwise result from the proposed action. If, during the course of the action, the level of incidental take is exceeded, such incidental take would represent new information requiring review of the reasonable and prudent measures provided. The A-S must immediately provide an explanation of the causes of the taking and review with the AESO the need for possible modification of the reasonable and prudent measures.

CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of ESA directs Federal agencies to utilize their authorities to further the purposes of ESA 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.

1. Investigate opportunities for developing a hatchery stock of Spruce Creek lineage Gila trout in Arizona.
2. Investigate opportunities for introduction of Gila trout into other Arizona waters.

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

REINITIATION - NOTICE

This concludes formal consultation on the action outlined in the request for consultation. 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 that was 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.

We appreciate your continued coordination. Please refer to the consultation number 2-21-00-F-396 in future correspondence concerning this project. If we can be of further assistance, please contact Debra Bills at 602-640-2720 (ext. 239) or Stuart Leon at 505-248-6657.

Sincerely,



ACTUAL
Assistant Regional Director
Ecological Services

cc: Regional Director, Fish and Wildlife Service, Albuquerque NM (Attn: P. Mullane)
Field Supervisor, Fish and Wildlife Service, Albuquerque, NM
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