



United States Department of the Interior

FISH AND WILDLIFE SERVICE

New Mexico Ecological Services Field Office
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May 15, 2000

To: Area Director, Navajo Area Office, Bureau of Indian Affairs, Gallup, New Mexico

From: Field Supervisor, New Mexico Ecological Services Field Office, U.S. Fish and Wildlife Service

Subject: Biological Opinion on the Effects of the Shiprock Northern Navajo Fairgrounds Project on Mesa Verde Cactus

Attached in the format of a memorandum is the U.S. Fish and Wildlife Service's biological opinion on the affects to Mesa Verde cactus, a threatened plant species, from proposed construction of the Shiprock Northern Navajo Fairgrounds. It is our opinion that construction of the new fairgrounds will not jeopardize the continued existence of Mesa Verde cactus. One element contributing to this conclusion is the excellent conservation record for this species despite the numerous activities in its habitat. For the period 1990 to present, 41 of 42 section 7 consultations that involved Mesa Verde cactus resulted in findings of "no effect" or "not likely to adversely affect" meaning that when cacti were found, agencies were able to avoid adverse affects while still successfully completing their projects. This has helped prevent lowering the species' environmental baseline; that is, projects have been completed without moving the species any closer to the point where the next project might jeopardize its continued existence. The Bureau of Indian Affairs (BIA), the Navajo Natural Heritage Program, and the many action agencies doing projects in Mesa Verde cactus habitat should be commended for the success of these conservation efforts.

The biological opinion contains four conservation recommendations. These recommendations are discretionary for the BIA, but if implemented they would reduce the direct loss of Mesa Verde cactus plants to almost zero, preserve some habitat within the project area, and reduce or eliminate indirect effects adjacent to the project area. These recommendations are similar to mitigation measures proposed during the Environmental Assessment process.

Thank you for your cooperation during this formal section 7 consultation. If you have any questions, please contact Charlie McDonald of my staff at (505) 346-2525, ext. 112.


Joy E. Nicholopoulos

cc: (w/atach)

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SUMMARY

BIOLOGICAL OPINION ON MESA VERDE CACTUS (*Sclerocactus mesae-verdae*)

Cons. #2-22-99-F-467

Date of the opinion: May 15, 2000

Action agency: Department of Interior, Bureau of Indian Affairs

Project: New Shiprock Northern Navajo Fairgrounds

Listed species and its critical habitat affected: Mesa Verde Cactus (*Sclerocactus mesae-verdae*) a threatened plant

Biological Opinion: It is the opinion of the U.S. Fish and Wildlife Service that this project **will not** jeopardize the continued existence of the Mesa Verde cactus

Incidental take statement: None

Conservation Recommendations: Implementation of conservation recommendations is discretionary. Four conservation recommendations have been provided.



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To: Area Director, Navajo Area Office, Bureau of Indian Affairs, Gallup, New Mexico

From: Field Supervisor, New Mexico Ecological Services Field Office, U.S. Fish and Wildlife Service, Albuquerque, New Mexico

Subject: Biological Opinion on the Effects of the Shiprock Northern Navajo Fairgrounds Project on Mesa Verde Cactus

This document transmits the Fish and Wildlife Service's (Service) biological opinion based on our review of the proposed Shiprock Northern Navajo Fairgrounds located on the Navajo Nation, San Juan County, New Mexico, and its effects on Mesa Verde cactus (*Sclerocactus mesae-verdae*) in accordance with section 7 of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*). This document is in response to your August 6, 1999, request for formal section 7 consultation.

This biological opinion is based on the information you provided with your request for formal consultation, data in our files, discussions with species experts, and other sources of information. A complete administrative record of this consultation is on file at the Fish and Wildlife Service, New Mexico Ecological Services Field Office, Albuquerque.

Consultation History

We received your package of materials regarding this project on August 13, 1999. These materials included your letter requesting formal consultation, the Environmental Assessment for the Proposed New Northern Navajo Fairgrounds dated May 1998, the Biological Assessment for the Proposed Northern Navajo Fairgrounds dated May 1999, the Proposed Shiprock Fairgrounds Mesa Verde Cactus Survey Report dated June 25, 1992, and various items of correspondence between your office, the Navajo Natural Heritage Program, the Navajo Regional Business Development Department, and Ecosphere Environmental Services. A meeting to discuss the proposed project was held at your office on October 5, 1999. Attending the meeting were representatives of the Shiprock Northern Navajo Fair Board, the Navajo Regional Business Development Office, the Navajo Fish and Wildlife Department, the Bureau of Indian Affairs, and the U.S. Fish and Wildlife Service. Your request for formal consultation was acknowledged by this office on October 14, 1999.

BIOLOGICAL OPINION

It is the Service's biological opinion that the proposed Shiprock Northern Navajo Fairgrounds is not likely to jeopardize the continued existence of the Mesa Verde cactus (*Sclerocactus mesae-verdae*).

DESCRIPTION OF PROPOSED ACTION

The Shiprock Northern Navajo Fair is the oldest fair on the Navajo Nation and has been held annually for more than 70 years. This annual event has gained international recognition; many of the 70,000 people who attend the fair are from other countries and represent all walks of life. The present fairgrounds are located on a 34-acre site in a portion of Shiprock's business area that can no longer safely accommodate the number of visitors the fair attracts.

The proposed new Northern Navajo Fairgrounds will occupy about 200 acres. It will be located about 1.6 miles south of Shiprock, on the east side and immediately adjacent to U.S. Highway 666. The location is within Sections 11 and 12, T. 29 N., R. 18 W., N.M.P.M., Navajo Indian Reservation, San Juan County, New Mexico.

The development of the fairgrounds complex will be done in two phases. Phase I involves land acquisition, field clearance, and an environmental assessment for the 200 acres. Phase II involves site preparation, installation of all utilities, and infrastructure construction. Proposed infrastructure includes, but is not limited to, exhibit halls, administration offices, public facilities, infirmary, concession facilities, parks and rest areas, a botanical garden, rodeo arena, race track, coliseum, amphitheater, livestock facilities, maintenance yard, parking lots, law enforcement facilities, campgrounds, vendor accommodations, song and dance grounds, pow wow grounds, yei bei chei grounds, and interconnecting roads and pathways. Phase II will be broken down into the following subphases:

1. Fencing, perimeter road and parking area grading, rodeo arena, song and dance, yei bei chei, and pow wow grounds, carnival grounds, some vendor booths in the immediate vicinity of these facilities, and some landscaping.
2. Two exhibit halls, more vendor booths, perimeter road and parking lots paved, carnival grounds upgraded, and more landscaping.
3. Race track, street dance grounds, additional vendor booths, more landscaping, and more parking.
4. Coliseum.

The various subphases will be initiated and completed as funding becomes available.

According to Appendix F, Item 8, of the Environmental Assessment for the Proposed New Northern Navajo Fairgrounds, May 1998, the main sewage lines and the sewage treatment lagoon will be located outside the 200 acres being acquired for the fairgrounds. Therefore, construction of sewage treatment facilities will be considered a separate action from the one under consideration in this Biological Opinion.

Conservation Measures

Three measures to reduce project impacts on Mesa Verde cactus are included in the Biological Assessment for the Proposed Northern Navajo Fairgrounds (BA) (Ecosphere Environmental Services 1999). The BA states, "The following conservation measures were agreed upon between the NFWD [Navajo Fish and Wildlife Department] and the RBDO [Navajo Nation Regional Business Development Office] on November 16, 1998." The conservation measures are:

1. Establish a non-development zone in the northeastern part of the fairgrounds to protect the 50 Mesa Verde cacti in that area. The zone would include a buffer space between the cacti and the nearest development. Because the survey that identified the cacti in this area was done in 1992, the precise boundaries of the zone would be based on subsequent field work. A fence would be placed between this zone and the developed part of the fairgrounds. The area of the non-development zone would be about 33 acres.
2. Establish a Mesa Verde cactus preserve at a location other than the proposed fairgrounds site. To be suitable, the preserve would: need to be high quality habitat with a healthy population of Mesa Verde cacti, have a low probability of development, have a plan for land use or a description of allowable activities, have formal land user consent, have a legal description and survey, have fencing, and have formal designation as a preserve by the BIA and the Navajo Nation. On April 29, 1999, personnel of the NFWD and BIA Shiprock Agency visited a potential preserve site of about 10 acres, but no actions have been taken to establish this area, or any other, as a Mesa Verde cactus preserve site.
3. Transplant to an offsite location the 34 Mesa Verde cacti that would be destroyed when the fairgrounds are developed. Monitor the cacti for several years to determine transplant success. A March 11, 1999, letter from the Shiprock Northern Navajo Fair, Inc. stated that the Fair Board could not presently commit to funding a transplanting project due to monetary constraints.

STATUS OF THE SPECIES (range-wide)

Mesa Verde cactus (*Sclerocactus mesae-verdae*) was listed as a threatened species on October 30, 1979. No critical habitat was designated. When listed, existing or potential threats included coal, oil, and gas exploration and production; commercial and residential development; road, powerline, and pipeline construction; commercial and private collecting; off-road vehicle (ORV) impacts; livestock trampling; and natural threats of disease and predation.

The Mesa Verde cactus is a small globose, usually single-stemmed, plant 3.2 - 6.6 centimeters (1.5 - 3 inches) in diameter. The spines are 6 - 13 millimeters (0.25 - 0.50 inch) long in clusters of 8 - 11. The flowers are about 2 centimeters (0.75 inch) in diameter, cream to yellow-colored, and bloom in late April or early May.

Mesa Verde cactus grows in clay soils derived from shales of the Mancos and Fruitland formations. These formations erode easily forming low rolling hills. The soils have high alkalinity, are gypsiferous, and have shrink-swell properties that make them harsh sites for plant growth. The sparse vegetation is dominated by two species of saltbush (*Atriplex corrugata* and *A. nuttallii*) on the uplands and several species of forbs and grasses

(*Chrysothamnus Greenei*, *Sphaeralcea coccinea*, *Abronia elliptica*, *Sporobolus cryptandrus*, and *Hilaria Jamesii*) in the drainages.

The distribution of Mesa Verde cactus encompasses a roughly rectangular area extending north to south from about 15 miles north of the Colorado-New Mexico border to the vicinity of Sheep Springs, New Mexico, and east to west from the vicinity of Waterflow, New Mexico, to about 15 miles west of Shiprock, New Mexico. Plants can occur sporadically anywhere that soils are suitable, but there appear to be five areas of plant concentration. These areas are near the base of the Mesa Verde Escarpment in Montezuma County, Colorado, near the Colorado-New Mexico state line, in the vicinity of Shiprock, in the vicinity of Sheep Springs, and north of Waterflow. The New Mexico plants all occur in San Juan County.

The Mesa Verde Cactus Recovery Plan (USFWS 1984) estimates 5,000 - 10,000 plants occur within the species' range, but this number is probably low. Some abundance estimates have been done by extrapolating plant counts at known sites to all suitable habitat, but this yields an inflated estimate because the distribution of Mesa Verde cactus is very sporadic within suitable habitat. So far, there have been no attempts to estimate Mesa Verde cactus numbers using any statistically acceptable technique.

Most Mesa Verde cactus populations occur on Indian lands. Perhaps 70 percent occur on the Navajo Reservation and another 20 percent occur on the Ute Mountain Indian Reservation. The other 10 percent of the populations occur east of the Hogback on private lands and on public lands administered by the Bureau of Land Management (BLM).

A 2 hectare monitoring plot was established on BLM land in 1986 and data were recorded annually through 1995 by personnel from the New Mexico Forestry Division (1995). During the 10-year study period, 240 new plants were found and 230 were lost. The reason for most mortalities could not be determined, but a small number could be attributed to ORVs, cow tracks, rodent predation, cactus poaching, and investigator damage. The study showed that reproduction is episodic with the greatest population increases coming after the wet year of 1990, which followed two years of extreme drought. The monitoring indicates the population is generally stable.

Numerous commercial activities are occurring within Mesa Verde cactus habitat. Oil, gas, and coal resources are all being developed in the area. Associated development includes roads, pipelines, powerlines, and expanding commercial and residential development. Road realignments and upgrades to serve rural communities in the vicinity of Shiprock are known to have impacted Mesa Verde cactus. The installation of new water pipelines to serve rural customers has impacted some plants and habitat.

The sparsely vegetated rolling hills occupied by Mesa Verde cactus are attractive to ORV enthusiasts. The potential for ORV impacts is greatest near towns. Mesa Verde cactus populations that occur in the suburban fringes of Farmington and Shiprock have been impacted by ORVs in the past, and this threat continues unless regulated.

Mesa Verde cactus is a rare species attractive to some cactus enthusiasts. Because of its specialized soil requirements, it is difficult to grow in cultivation and, therefore, not readily available from legitimate commercial sources as are many other endangered cacti. Illegal collecting was observed during the monitoring study and several instances of suspected

illegal collecting have been reported. The overall impact of illegal collecting is probably minor, but it can be significant in populations that are known to collectors and visited repeatedly.

Livestock impacts are the result of trampling. There is little available forage in Mesa Verde cactus habitat so livestock numbers are usually low. There have been some reports of livestock trampling in monitoring plots, but this is considered a minor threat.

Impacts to Mesa Verde cactus populations from predation or disease can be significant. A species of moth lays its eggs on Mesa Verde cactus plants and the larvae burrow into the interior. Plants then rot and die. This moth also infects cacti in the genus *Opuntia*. Such a predator may explain the scattered distribution of Mesa Verde cactus because dense populations of plants would be more susceptible to attack than scattered individuals.

ENVIRONMENTAL BASELINE

Regulations implementing the Act (50 CFR 402.02) define the environmental baseline as the past and present impacts of all Federal, State, or private actions and other human activities in the action area. Also included in the environmental baseline are the anticipated impacts of all proposed Federal projects that have undergone section 7 consultation, and the impacts of State and private actions that are contemporaneous with the consultation in progress.

Numerous activities in Mesa Verde cactus habitat have required section 7 consultation, but only three have resulted in formal consultations. A formal consultation was conducted with the Federal Water and Power Resources Service in March 1980. The action was the Gallup-Navajo Indian Water Supply Project, which proposed to deliver domestic water in a buried pipeline from the San Juan River to several communities in northwestern New Mexico. The project had the potential to impact about 200 cacti. A non-jeopardy opinion with conservation recommendations was given. A formal consultation was conducted with Bureau of Indian Affairs (BIA) in May 1985 (Cons. #2-22-83-F-039). The action was improvements to Navajo Route N36 from Shiprock to Fruitland. It was estimated the project would impact 40 plants. A non-jeopardy opinion was given with recommendations that the plants be transplanted to a safe locality and that transplanting success after one year be reported to the Service. A formal consultation was conducted with BLM in February 1997 (Cons. #2-22-96-F-010). The proposed action was continued implementation of the BLM, Farmington District, Resource Management Plan (RMP). A non-jeopardy opinion was given with the conclusion that management provisions and protective measures in the RMP are sufficient to prevent adverse effects to the cactus. No conservation recommendations were given.

Section 7 consultation records for the last 10 years were reviewed to determine the number and types of informal consultations for Mesa Verde cactus. During this period, 41 activities in Mesa Verde cactus habitat required the action agency to consider the potential effects of its activities on the cactus. These activities included housing area planning and construction (7); coal mining activities (7); oil and gas production activities to include well pad siting, access road construction, well-field pipelines, and compressor units (7); road projects (5); long-distance oil, gas, or electricity transmission lines (5); mining reclamation projects (3); local electrical transmission lines (2); review and adoption of various planning documents (2); and other miscellaneous activities (3). For these projects, the environmental reviews

either determined that no Mesa Verde cacti were present in the project area or that the project could be carried out in a way that would not adversely affect any cacti.

Status of the Species (in the action area)

Surveys for Mesa verde cactus in and adjacent to the project area were done in 1991 (Marron Taschek Knight Corp. 1991), 1992 (Navajo Natural Heritage Program 1992), and 1999 (Ecosphere Environmental Services 1999). These surveys found 84 cacti on the proposed fairgrounds and an additional 103 cacti in an area of about 180 acres south and west of the fairgrounds. Sizes of the plants ranged from juveniles to large adults indicating both past and continuing recruitment into the population. The most plants (50) were found in the northeast quarter of the fairgrounds site, north of a large east-west drainage that cuts across the area. This area provides the best Mesa Verde cactus habitat and it continues north of the site for some distance, although no surveys were done north of the fairgrounds boundary. The remainder of the site provides spotty habitat for the cactus, with the best habitat being along the breaks and upper slopes of the arroyo that cuts through the southeastern quarter of the site.

EFFECTS OF THE ACTION

Direct Effects

Development of the proposed Northern Navajo Fairgrounds would potentially destroy 84 Mesa Verde cactus plants. Development of the area will include fencing, utilities installation, heavy equipment grading, and vegetation clearing to establish level areas for fairgrounds facilities. This will destroy Mesa Verde cactus habitat and any plants in the direct path of these activities. Parts of the fairgrounds not graded and cleared will be impacted by foot traffic, vehicle traffic, parking, and camping with the resulting destruction of additional habitat and plants.

Indirect Effects

Indirect effects are those that are caused by, or result from, the proposed action, and are later in time, but reasonably certain to occur. Interdependent actions and interrelated actions are two types of indirect effects. Interdependent actions are actions that have no independent utility apart from the action under consideration. Interrelated actions are actions that are part of a larger action, and are dependent on the larger action for their justification.

The construction of a sewage treatment facility of the open lagoon type is included in the EA for the proposed fairgrounds, but the proposed site is outside the 200 acres presently being considered for withdrawal for fairground use. The sewage treatment facility will require an additional EA and land withdrawal before it can be constructed.

Vendors who use fairgrounds facilities pay a fee of \$350. Therefore, many vendors of food, hay, produce, crafts, and other items do not use the fairgrounds, but instead sell items along the roadside near the fairgrounds. This will potentially extend the impact of fair activities well beyond the actual limits of the fairgrounds property.

The influx of 70,000 or more people into Shiprock to attend the fair puts a strain on the town's limited tourist facilities. Some people may choose to camp at the fairgrounds or on

lands surrounding the fairgrounds. As more facilities are built on the fairgrounds property there will be less open space to accommodate campers and more pressure to use surrounding lands.

The Mesa Verde Cactus survey report (Navajo Natural Heritage Program 1992) states the Shiprock Fair Board has plans to someday expand the proposed 200 acres to 400 acres to accommodate projected growth of the fair. Expansion to the east and southeast is constrained by the topography of Many Devils Wash. Likely expansion would be to the south as far as Navajo Route N-36 and to the west side of U.S. Highway 666. Expansion in either direction would encroach on occupied Mesa Verde cactus habitat.

Cumulative effects

Cumulative effects are those effects of future non-Federal (State, local government, or private) activities on endangered or threatened species or critical habitat that are reasonably certain to occur in the foreseeable future. Ongoing or future non-Federal activities that may affect the Mesa Verde cactus include, but are not limited to, the many activities that will result from the future growth of the Shiprock community. The growth of shiprock necessitated the present proposal to move and expand the fairgrounds and this trend is expected to continue. Community growth will impact some of the best Mesa Verde cactus habitat that is around Shiprock. Future Federal actions are subject to the consultation requirements established in section 7, and, therefore, are not considered cumulative in the proposed action.

Conclusion

After reviewing the current status of Mesa Verde cactus, the environmental baseline for the species, the effects of the proposed new Shiprock Northern Navajo Fairgrounds and the cumulative effects, it is the Service's biological opinion that the new Shiprock Northern Navajo Fairgrounds, as proposed, is not likely to jeopardize the continued existence of the Mesa Verde cactus. No critical habitat has been designated for this species, therefore, none will be affected.

Mesa Verde cactus has a large area of suitable habitat. It is sporadically distributed within its suitable habitat with the total number of plants probably exceeding 10,000. Numerous activities have the potential to negatively affect Mesa Verde cactus, but consultation records indicate that most of these activities have been accomplished without adversely affecting the species. For the period 1990 to present, 98 percent (41 of 42) of the section 7 consultations for the species resulted in findings of "no effect" or "not likely to adversely affect". For the most part, Federal agencies have been able to effectively conserve Mesa Verde cactus by making only minor modifications in project plans or by carefully executing project activities to avoid plants that might otherwise have been damaged or destroyed. Because Mesa Verde cactus is almost completely on either Indian lands or Federal lands managed by the BLM, a very high proportion of the activities that might affect the cactus are subject to section 7 consultation, and this process has contributed measurably to conservation of the species. The Mesa Verde cactus population on BLM-lands north of Waterflow, New Mexico, was monitored for 10 years in a study that concluded in 1995. This study showed the population to be stable. Given that conservation efforts for the species have been effective, that population numbers for the species are large enough to sustain some losses without detriment to the species as a whole, and that monitoring indicates populations are stable, the Service

can conclude that the potential loss of 84 Mesa Verde cactus plants from the construction of the new Shiprock Northern Navajo Fairgrounds would not be likely to jeopardize the continued existence of the species. In addition, even these losses can be greatly reduced with implementation of the conservation recommendations given below.

INCIDENTAL TAKE

Sections 7(b)(4)(C)(ii) and 7(b)(4)(C)(iv) of the Act direct the Service when conducting formal consultations for threatened or endangered animals to specify reasonable and prudent measures that are considered necessary and appropriate to minimize the "take" of listed animals and to specify terms and conditions with which the Federal agency must comply to insure the minimized "take" is not exceeded. These requirements generally do not apply to listed plants and in formal consultations for plants, no "incidental take statements" are given. The prohibited activities and exceptions for listed plants that are generally equivalent to "take" for listed animals are set forth in section 9(a)(2) of the Act implemented by 50 CFR 17.61 and 17.71. Listed plants are afforded protection from "take" to the extent that they cannot be removed and reduced to possession from areas under Federal jurisdiction without a permit. In addition, for plants listed as endangered, the Act prohibits their malicious damage or destruction on areas under Federal jurisdiction and their removal, cutting, digging up, damage or destruction in knowing violation of any State law or regulation, including State criminal trespass law.

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. The Service recommends that the following conservation recommendations be implemented for the development of the new 200-acre fairground site for the Shiprock Northern Navajo Fair:

1. The overall site plan for the proposed fairgrounds indicates there will be no development in the northern part of the fairgrounds generally north of an east-west trending arroyo. When surveyed in 1991, this area contained 50 Mesa Verde cactus plants in about 33 acres. Resurvey the area to determine the present distribution and abundance of Mesa Verde cactus plants. Provide a buffer of 100 feet and fence the entire area including the buffer to exclude livestock and vehicle traffic. Also, exclude this area from future development. The size of this area does not need to exceed 33 acres even if the present distribution of plants in this area is found to be greater than determined in the original survey.
2. Resurvey the fairgrounds areas designated for development and transplant any Mesa Verde cactus plants found. There were 34 plants found in the previous surveys, but the present number of plants could now be either higher or lower. Transplant these plants into suitable habitat within the area described in the previous conservation recommendation. If possible, do the transplants during the period March 1 - April 15 because this has been shown to be a time of year when high transplant success can be achieved (Roth 1997). Provide supplemental watering for the first growing season, if

needed. Monitor the transplanted plants for three years and report the results to the Service.

3. Fence the perimeter of the fairgrounds, provide specified access points, and within the fairgrounds restrict vehicle traffic to designated roads and parking areas.
4. Work with appropriate agencies to ensure that the right-of-way fences for U.S. Highway 666 and Navajo Route N36 are maintained to prevent fair visitors from using the suitable Mesa Verde cactus habitat adjacent to the fairgrounds for parking, camping, driving, or other recreation.

In order for the Service to be kept informed of actions that either minimize or avoid adverse effects or that benefit listed species or their habitats, the Service requests notification of the implementation of any conservation recommendations.

REINITIATION - CLOSING STATEMENT

This concludes formal consultation on the proposed development of the new 200-acre fairground site for the Shiprock Northern Navajo Fair. As required by 50 CFR 402.16, reinitiation of formal consultation is required if: (1) new information reveals effects of the agency action that may impact listed species or critical habitat in a manner or to an extent not considered in this opinion; (2) 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 (3) a new species is listed or critical habitat designated that may be affected by the action.

In future correspondence on this project, please refer to consultation number 2-22-99-F-467. Please contact Charlie McDonald of my staff at (505)346-2525, ext. 112 if you have any questions or would like to discuss any part of this Biological Opinion.


Joy E. Nicholopoulos

cc:

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