

**United States Department of the Interior
U.S. Fish and Wildlife Service
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April 18, 1994

In Reply Refer To:
AESO/SE
2-21-94-F-020

John A. Gill
Regulatory Branch
U.S. Army Corps of Engineers
3636 N. Central Avenue
Phoenix, Arizona 85012-1936

Dear Mr. Gill:

This responds to your request of October 5, 1993, for formal section 7 consultation with the Fish and Wildlife Service (Service) pursuant to the Endangered Species Act (Act) of 1973, as amended, on a section 404 permit under the Clean Water Act for the proposed Verde River Ranch project located along the Verde River in Yavapai County, Arizona. The listed species potentially affected by this action are the endangered razorback sucker (Xyrauchen texanus) and its designated critical habitat on the Verde River, bald eagle (Haliaeetus leucocephalus), peregrine falcon (Falco peregrinus), Arizona cliffrose (Purshia subintegra) and threatened spikedace (Meda fulgida) and Mexican spotted owl (Strix occidentalis lucida). The Verde River also supports an experimental non-essential population of the Colorado squawfish (Ptychocheilus lucius).

The proposed project is also within the boundaries of proposed critical habitat of the southwestern willow flycatcher (Empidonax traillii extimus), which has been proposed for listing as endangered. A separate conference report will deal with the effect of this action to the southwestern willow flycatcher and its proposed critical habitat so it is not addressed in this biological opinion.

This biological opinion was prepared using information contained in the biological evaluation, other letters and documents exchanged between the U.S. Army Corps of Engineers (Corps) and the Service, discussions and field meetings with interested agencies, data in our files or in the published or grey literature, and other sources of information.

The 90-day consultation period began on October 12, 1993, the date your request was received by the Arizona Ecological Service State Office. Notice of that receipt was sent to you in a memorandum dated October 18, 1993.

BIOLOGICAL OPINION

It is the Service's biological opinion that the issuance of a section 404 permit for the Verde River Ranch is not likely to jeopardize the continued existence of the endangered razorback sucker,

bald eagle, or the experimental non-essential population of Colorado squawfish. Designated critical habitat for the razorback sucker in the Verde River is not likely to be destroyed or adversely modified. The endangered peregrine falcon, Arizona cliffrose and threatened spikedace and Mexican spotted owl will not be affected by the proposed action.

BACKGROUND INFORMATION

Consultation History

The Service responded to a pre-discharge notice (PDN 93-682-RD) for the subject permit in a letter to the Corps dated July 1, 1993. In this letter, the Service stated that according to 33 CFR Part 330, the Corps must determine if an action is likely to jeopardize the continued existence of a listed species prior to the issuance of a nationwide permit for the project. Subsequently, the Corps commissioned a biological evaluation and sent it to the Service with a request for formal consultation.

Description of the Action

There are three actions covered under the PDN that are the subject of this consultation. These actions are needed for, and would result in, the development of the Verde Valley Ranch, a master-planned community of approximately 1500 housing units and ancillary commercial, public and recreational facilities. The three proposed projects are:

1. A utility crossing under the Verde River would be constructed to replace and upgrade the current utility crossing at approximately the same location. The initial use of this crossing would be for sewage transport to the treatment plant and return of the effluent for use on the proposed golf course. This crossing would require use of a cofferdam in the river to divert flows and possibly wells to lower the water table in the construction area. A dragline bucket or back hoe would be used to dig the trench, and the new pipes would be encased in concrete. To provide for future needs, an additional two to four pipeline sleeves would be placed in the crossing.
2. The existing outlet structure of Pecks Lake would be replaced with a paved, all-weather road crossing and a concrete storm control structure and spillway.
3. A road crossing with a sedimentation basin and erosion control would be constructed in a dry wash leading into Pecks Lake.

The proposed utility crossing would be done in Phase 1 of the development, with the new outlet and wash crossings covered in Phase 2. No dates were given for the start of these phases.

The proposed Verde Valley Ranch development would be primarily located on lands east of the Verde River, but a portion at the northern end would be located on the west bank. Based on maps provided in the biological assessment, development would be close to the river. There is one existing road crossing to access the property. No additional roads over the river are mentioned in the Biological Evaluation (BE). The development of the project area will surround Pecks Lake on all but the northern shore. Setbacks of 20 or 40 feet between the lake and structures in residential areas are proposed with setbacks greater than 200 feet in parks. A trail would be included in this buffer zone around portions of the lake.

Description of the Project Area

The area proposed for development currently contains a tailings pond, golf course, picnic area, agricultural pasture and Pecks Lake, a natural oxbow lake supported by springs and a diversion from the Verde River. The development area is outside the 100-year floodplain of the Verde River, with the possible exception of portions of areas FF, GG, HH, II and MM (Corps of Engineers 1976). Areas FF and II would be designated open space, GG would be retail and HH would be residential. Riparian and wetland plant communities are found along the Verde River and the shoreline of Pecks Lake.

The Verde River through the project area is a perennial stream supported by surface runoff, springs, and seeps. This reach is in a relatively confined channel. Terraces may be either sloping to the water level or steep, three to ten feet above the active channel in areas where erosion has occurred. Substrates are largely cobble with occasional cobble and gravel bars. This is a low gradient reach with shallow riffle habitats and occasional three to six foot deep pools. Riparian vegetation is present throughout the reach; however, the width of the riparian zone varies considerably. Both native and non-native fish, and the bald eagle are known to inhabit this portion of the river (Sullivan and Richardson 1993).

Species Descriptions

Razorback sucker

The razorback sucker is an endemic fish species of the Colorado River Basin. Historically, large populations were found in the major tributaries of the Gila River subbasin (Bestgen 1990). In the Verde River, it was historically found as far upstream as Perkinsville (Minckley 1973), with the last recorded individual in the drainage taken from Peck's Lake in 1954. Reintroduction efforts in the Verde River since 1981 have not been successful in reestablishing a self-sustaining population. The razorback suckers in the Verde River were fully protected as endangered in the 1991 final rule that listed the species as endangered. Razorback suckers utilize both quiet backwater areas and river channel habitats. Spawning takes place over a variety of substrates, but shallow gravel and rocky areas are often used and the spawning period usually lasts from January or February to April or May, depending upon water temperatures (reviewed by Minckley et al. 1991). Critical habitat for the razorback sucker includes both the river and the 100-year floodplain.

Colorado squawfish

The Colorado squawfish is the largest minnow in North America, capable of reaching almost six feet in length. Historically, the Colorado squawfish was known from the Verde River, but it was extirpated by the middle of this century (Miller and Lowe 1964, Minckley and Deacon 1968). Known to migrate up to several hundred miles to and from spawning habitats (Tyus 1990), the Colorado squawfish was also the top predator on the other native fish of the river. Reintroduction efforts in the Verde River under the Experimental Non-Essential rule are ongoing.

Bald eagle

The bald eagle was listed as an endangered species on March 11, 1967 (32 FR 4001). No critical habitat has been designated for this species. The bald eagle was once found throughout North America, nesting in trees or on cliffs near seacoasts, lakes and rivers. The primary food is fish, taken live or as carrion. Chemical contamination, chiefly by organochlorine pesticides, caused

severe population declines and local extirpation throughout the species' range, through reproductive failure and direct toxicity.

Although not considered a separate subspecies, bald eagles in the southwestern United States are considered a distinct population for purposes of recovery efforts and section 7 consultation under the Act (Service 1982, Service 1986). Southwestern bald eagles constitute a distinct population, distinguishable by morphology, breeding chronology and geographic isolation. Southwestern bald eagles are also distinct behaviorally, frequently nesting on cliffs, a phenomenon rare or absent outside this geographic region. The southwestern bald eagle nests early, with eggs laid in January or February. This is believed to be a behavioral adaptation to avoid the extreme desert heat of midsummer. The young eagles remain in the vicinity of the nest until June (Hunt et al. 1992). This population also supplements its piscine diet with mammals, birds and reptiles, taken either live or as carrion (Heywood and Ohmart 1986, Hunt et al. 1992). Approximately 34 occupied bald eagle breeding areas (BAs), each supporting one nesting pair, have been identified in the southwestern population in recent years. The majority of the population inhabits Arizona, distributed along the Salt, Verde, Gila and Bill Williams Rivers, and several major tributaries. Two are known in New Mexico (pers. comm., Sartor O. Williams III, New Mexico Department of Game and Fish), and 32 in Arizona [Hunt et al. 1992, G. Beatty, Arizona Game and Fish Department (AGFD) pers. comm.].

The Verde River supports 11 BAs. The nearest BA to the proposed project is located approximately three miles upstream from the project area. This BA is designated the "Towers" BA, with six nests known to have existed over approximately 26 years. The active Towers nest in 1993 was 4.25 aerial miles northwest of the proposed project area.

Environmental Baseline

The environmental baseline serves to define the current status of the listed species and its habitat to provide a platform to assess the effects of the action now under consultation. While it is clearly focused on conditions in the action area, it is important to include in the environmental baseline the status of the listed species throughout its range as well as in the action area. Any evaluation of the effects of the action must be made in the context of the overall status of each affected species.

The environmental baseline is developed using past and present impacts of all Federal, State, or private actions and other human activities 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 or private actions which are contemporaneous with the consultation process. A summary of status information for the species from outside the action area also forms a part of the environmental baseline.

Sullivan and Richardson (1993) provide a detailed account of the available aquatic and riparian habitats of the Verde River. Information from that report is incorporated herein by reference.

Past Actions

Razorback sucker and Colorado squawfish

The Verde River is subject to the effects of Federal, State and private actions. There are both new and long-term ongoing actions in the action area. Impacts of these human activities on the Verde River watersheds have had profound effects on the river and associated riparian areas. Water diversions and return flows, flood control projects, livestock grazing, timber harvest,

recreational activities, and changes in annual flows due to off-stream uses of water have impaired the ability of the aquatic habitats to support native fish. For the most part, the effects of most Federal activities on fish habitat have not yet undergone section 7 consultation, but the probable effects of these types of activities on habitat for razorback sucker and Colorado squawfish have been documented in other areas.

The loss of riparian vegetation from these activities has affected the habitat of these fish. The health of the riparian area is important to the maintenance of shallow water areas, shade, and nutrient input. Changes in water flows in the river that result from human activities on the watershed may have profound effects on the stability and regenerative ability of the riparian vegetation.

Development in the bottomlands or floodplains also eliminates portions of the natural riparian areas. Changes to the watershed that affect how runoff is delivered to the river have effects to patterns of erosion and aggradation of sediments and influence how the river will move across its floodplain. Erosion that forms tall, steep banks may prevent the flooding of adjacent floodplains and cause changes to the height of the water table. This has adverse effects to fish species such as the razorback sucker and Colorado squawfish, which are known to use these flooded bottomlands. Riparian vegetation may be lost if the water table moves below the level their roots can reach.

The reintroduced razorback sucker populations in the Gila, Salt and Verde Rivers are small and not self-sustaining. The natural populations along the lower Colorado River are larger, but recruitment is not adequate to support these populations, now dominated by old adult fish. In the upper Colorado River basin, only small populations survive and recruitment is also very limited. Non-native fish have a tremendous influence on razorback sucker survival and recruitment, and habitat conditions that favor the non-native fish restrict the potential for recovery actions. The razorback sucker was listed as endangered in 1991 after 10 years of reintroduction efforts in Arizona failed to reestablish self-sustaining populations and the overall status of the species was declining as old adults died and were not replaced. Restoration of the razorback sucker to its former range will require that both physical and biological habitat degradation be controlled.

Self-sustaining populations of the Colorado squawfish have not been established in the Verde River as a result of stocking efforts. There are no extant populations of this species in the lower Colorado River basin, and the remaining populations in the upper basin are not large. There is evidence of successful recruitment into the upper basin populations. Non-native fish have a tremendous influence on Colorado squawfish survival and recruitment, and habitat conditions that favor the non-native fish restrict the potential for recovery. Recovery criteria for this species should include establishment of self-sustaining populations in both basins and control of both physical and biological habitat degradation.

Bald eagle

The southwestern bald eagle population is exposed to increasing hazards from a regionally increasing human population. These include extensive loss and modification of riparian breeding and foraging habitat through clearing, changes in groundwater levels and the natural hydrograph, and changes in water quality. Hazards also include increasing human disturbance from urban, rural and recreational encroachment into breeding habitat. This latter threat includes a host of activities documented by Stahlmaster (1987), such as: shooting; collision with vehicles, aircraft, transmission lines and structures; poisoning; and electrocution. The bald eagle population in the Southwest was probably never very large due to limited habitat, and in pre-industrial times likely fluctuated in size in response to weather conditions (e.g. cyclic droughts and wet periods).

Following the banning of domestic use of the pesticide DDT in 1972, the Arizona bald eagle population has probably recovered despite increasing pressures of a regionally increasing human population and associated industrialization. However, while significant recovery has taken place, the bald eagle remains somewhat tenuously established in the Southwest. Various reports and records suggest that nesting bald eagles may have been more widely distributed in Arizona in the past. Approximately 20 historic site records, including several on the Verde River above the proposed project, strongly suggest the historic presence bald eagle nest sites which are not known to have been occupied in the last decade (Hunt et al. 1992). These observations may suggest factors are at work that are currently limiting further recovery or population expansion. These pressures compound the stresses of a naturally harsh environment for breeding bald eagles. Especially near population centers, eagle breeding sites face continually increasing threats from malicious and accidental harassment, including shooting, off-road vehicles (ORVs), low aircraft overflights, loss of nesting and foraging habitat from riparian degradation, and lethal entanglement in fishline, a threat documented by Hunt et al. (1992).

Much of the southwestern bald eagle population is exposed to the pressures described above. Half of Arizona's 32 known breeding sites are located on rivers and near reservoirs that are easily and frequently accessed by the public, providing the potential for these threats. The Arizona Bald Eagle Nestwatch Program (ABENWP) continues to document disturbance at nest sites, and frequently intervenes to reduce harassment. This intervention has proven not only effective, but perhaps crucial in maintaining the southwestern population. Up to 50% of a given year's reproduction has been salvaged by ABENWP "rescue" operations. These include removing fishline and tackle from nestlings and returning nestlings into nests after they fell or jumped out in response to disturbance, or to escape extreme heat. The bald eagle population in Arizona has increased in recent years. Protection of breeding and feeding areas is crucial to maintain that positive growth. Riparian, wetland and other wetland habitats must be maintained or enhanced for this species to continue to move toward recovery.

EFFECTS OF THE ACTION

Direct and Indirect Effects

Razorback sucker and Colorado squawfish

There is a potential for direct effects to these fish species from the construction required to place the new pipelines into the bed of the Verde River. The construction of a cofferdam and diversion of the river flow has the potential to cause death or injury to individuals. There may also be increases in sedimentation downstream as a result of the construction disturbance if newly disturbed materials are washed downstream. The extent and duration of this potential effect are not quantifiable and may be extremely difficult to measure given the total sediment load usually carried by the Verde. Impairment of feeding (either by changes in water clarity or covering over of benthic food resources) may result. Both fish species evolved under conditions with varying sediment loads, so this may not be a significant effect provided it is of short duration and levels of sediment are not significantly higher than normal. There may be seasonal differences in effects of sedimentation on these species, based on spawning period. There may also be changes to waterflows through the area due to changes in bottom configuration until the area restabilizes subsequent to higher flow events. These possible changes in flows may exacerbate erosion or deposition at downstream locations. The effects to the channel from the construction are likely to be temporary in nature and thus do not warrant a finding of destruction or adverse modification of critical habitat.

Construction of the road crossing over the ephemeral wash would not affect either the razorback sucker or Colorado squawfish. Depending upon the type of construction activity required at the Pecks Lake outlet, this action may not affect these fish either. If the construction would require the lake to be drawn down or otherwise modified, there is the potential for effects. Additional consultation may be necessary if there may be effects to these species.

There are other effects to be considered. Surface runoff from the proposed development may contain pollutants either not currently found in the Verde River or Pecks Lake or may increase the levels of some pollutants. Construction of homes and businesses in the floodplain may in the future result in projects to provide flood protection for the proposed structures. Additional bridges across the river may be required to deal with the increased traffic as development continues.

There is also the issue of adequate water to support the municipal and industrial needs of a development of this size. Water availability in the Verde Valley is becoming a concern for local and Federal agencies. If additional water must be removed from the Verde River to supply the needs of this development, conflicts with environmental values would be expected to result.

There are effects to the proposed critical habitat for the razorback sucker. If undeveloped floodplain is converted to residential or commercial uses, there may be a direct loss of critical habitat. It is not clear from project and floodplain maps how much, if any of section FF, GG, HH, and II are in the 100-year floodplain. Areas maintained as open space, if not including extensive recreation development, road or parking lot paving or similar actions, generally would not be expected to lose all of their value as habitat. Areas with retail and residential development would be expected to lose their value as habitat. While the development is not the Federal action under consultation, the development is an action dependent upon the issuance of a Federal permit. Habitat losses would be permanent. The magnitude of this loss is not sufficient to warrant a finding of destruction or adverse modification for the action.

Bald eagle

Bald eagles are known to occur at Peck's Lake. These individuals are likely to represent both wintering individuals of eagles that breed north of Arizona, and local breeders, most likely from the Towers BA (G. Beatty, AGFD, pers. comm.). As the biological assessment noted, bald eagles are known to flush from perches (roosting or foraging) in response to approach by humans, and avoid potential foraging areas in close proximity to developments. The Corps' proposed action will make possible the development of Verde Valley Ranch. Many elements of that development will be adjacent to Peck's Lake, and will result in a substantial increase in the number of peoples and structures into the shoreline area. Therefore, flushing eagles or exclusion of them from Peck's Lake is likely to take occur. Such flushing and/or exclusion constitutes disturbance and/or harassment and both are forms of take.

Bald eagles that winter in Arizona appear to be widely distributed and may relocate periodically in response to availability of food and roost sites. Because these wintering eagles range widely and have lower energetic needs than breeding eagles, the incidences and effects of the above "take" are likely to be insignificant. However, exclusion of breeding bald eagles from foraging at Peck's Lake is likely to be more significant. The Towers BA is located higher in the Verde River watershed than any other successful BA. Another BA ("Perkinsville") was centered approximately 8 airline miles upstream from Towers, but had never succeeded in producing young, when its nest tree was destroyed in the 1993 floods. The foraging resources there were restricted to the relatively low-flow upper Verde River and adjacent uplands, and may have limited the BA's capability for successful reproduction. The proximity of Peck's Lake to the

Towers BA, and the unique foraging opportunities it affords (waterfowl and lake fishes) may be important in maintaining the success of the Towers BA.

Effects to Survival and Recovery

Razorback sucker - Colorado squawfish

The level of effects from the proposed action would not be sufficient to warrant a finding of destruction or adverse modification of proposed critical habitat for the razorback sucker. This may not be true of other such projects in the future. The Verde River is a very important part of the survival and recovery opportunities for these fish. Continued alterations to the natural habitat by projects such as this may result in reducing the value of the Verde River for the razorback sucker and Colorado squawfish. Given the declining status of these species elsewhere in their range, reducing the effectiveness of the remaining habitats by implementing actions such as the proposed action, will not contribute towards the recovery of the species but rather will contribute to their declining status.

Cumulative Effects

Cumulative effects are those effects of future State or private activities that have no Federal connection, that are reasonably certain to occur within the action area of the Federal action subject to consultation.

It is anticipated that the ongoing private actions described in the environmental baseline will continue in the action area. Any other flood control or bank stabilization work in the Verde River could require a Clean Water Act, section 404 permit to proceed, and thus would be a Federal action requiring compliance with Federal law.

Increasing development along the Verde River may have significant effects to the Verde River, the floodplain, and Peck's Lake. Construction within the 100-year floodplain could destroy or adversely modify the critical habitat of all species discussed here. Runoff from these areas may introduce pollutants to the river, Peck's Lake, and Tavasci Marsh. As development continues in the Verde Valley, there will be an increased emphasis on ensuring adequate supplies of water for municipal and industrial uses. Sales or transfers of water rights, conservation programs and other methods are likely to be considered. Some of these may have no Federal nexus. Others, particularly any transfers between water right holders on the Verde River and the Central Arizona Project, do have a Federal nexus and additional consultation would likely be required. Projects without a Federal nexus may require section 10(a) permits (Habitat Conservation Plans to comply with section 9 of the Act.

Increases in human populations at Verde Valley Ranch may result in increased regional use of the Verde River corridor for recreation. These uses may include increased fishing and shooting, increasing the risks of fishing tackle fouling eagle nests, and increased incidences of accidental or malicious shooting of eagles.

INCIDENTAL TAKE

Section 9 of the Act, as amended, prohibits the taking (harass, harm, pursue, shoot, wound, kill, trap, capture or collect, or attempt to engage in any such conduct) of listed species without a special exemption. The concept of harm includes habitat modification and degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as

breeding, feeding or sheltering. Case law has affirmed that taking does harm to listed threatened species when there is definable injury or death to individuals. 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 taking within the bounds of the Act, provided such taking is in compliance with the incidental take statement provided in the biological opinion.

The Service has determined that construction activities in the river channel would result in incidental take of razorback suckers because their breeding, feeding or sheltering may be affected by the work or increased sedimentation downstream. Given the small population size of the razorback sucker in the Verde River, it is not possible to determine the actual amount of take or the number of individuals that would be affected. Because of the small size of the razorback sucker population, the incidental take is set at one individual.

The Service anticipates that the proposed project will result in incidental take of bald eagles as follows:

1. Harassment of all bald eagles attempting to forage at Peck's Lake.

The measures described below are not discretionary and must be undertaken by the agency as part of the implementation of the proposed action or made a binding condition of any permit or other implementation document given to or developed by the applicant, as appropriate.

Reasonable and Prudent Measures

The Service believes the following reasonable and prudent measures are necessary and appropriate to minimize the incidental take documented in this biological opinion:

1. Efforts to minimize disturbances to the channel habitats of the Verde River during and after construction of the utility crossing will be incorporated into the project construction plans.

Regarding the bald eagle, the Service is unable to identify any reasonable and prudent measures to minimize the incidental taking authorized by this biological opinion which would not alter the basic design, location, scope, duration or timing of the proposed action [50 CFR §402.14(i)(2)]. The Service, therefore, identifies no reasonable and prudent measures for minimizing the incidental taking authorized by this biological opinion.

Terms and Conditions

To be exempt from the prohibitions of section 9 of the Act, the Corps must ensure the applicant's and their own compliance with the following terms and conditions which implement the reasonable and prudent measures described above.

1. To implement reasonable and prudent measure 1, the following terms and conditions will be implemented:
 - a. Construction machinery should utilize the smallest area of riverbed possible for the construction.
 - b. All construction equipment will be stored outside of the floodplain and materials storage will occur only in upland areas disturbed by the construction.

- c. Prior to any work in standing or flowing water at the utility crossing site, block nets will be placed above and below the work site and the area will be surveyed for native fish and any specimens captured will be released unharmed downstream. This effort will be repeated when the cofferdam is moved to the other side of the river.
- d. If any isolated waters are formed as a result of the construction, they will be checked for the presence of native fish and any specimens captured will be released downstream.
- e. To reduce sediment increases resulting from the construction, barriers, hay bales or other filtration techniques will be placed between the work area and the river downstream. Any water runoff from the work site, including any well water pumped, will be diverted through the filtration area.
- f. The work area will be contoured to pre-construction conditions at the end of the project.

Reporting Requirements

The applicant, through the Corps, shall report to the Service any capture or mortality of a razorback sucker during the course of the activity. If there is a mortality, all construction activity must halt until the circumstances of the taking are investigated.

CONSERVATION RECOMMENDATIONS

Sections 2(c) and 7(a)(1) of the Act direct Federal agencies to use their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. The term "conservation recommendations" has been defined as Service suggestions regarding discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat or regarding the development of information. The recommendations provided here relate only to the proposed action and do not necessarily represent complete fulfillment of the agency's section 7(a)(1) responsibility for the species.

The Service recommends the following actions:

1. Additional protection for the riparian areas in the project be incorporated. These may be in the form of closed areas, public education on the values of riparian and aquatic habitats in Arizona, or other concepts.
2. Development in floodplain areas of parcels FF, GG, HH and II be foregone and all the area be retained as open space.
3. All buffers between Verde Valley Ranch developments and the Verde River, Pecks Lake and other aquatic resources be at least 200 feet to allow for proper filtration of runoff. All internal drainage on the site should meet applicable standards for control and disposal of runoff.
4. To avoid harassment of foraging bald eagles, maintain a development-free buffer zone, with existing vegetation maintained, of 600 feet between Verde Valley Ranch developments and the Verde River and Pecks Lake.

5. To ensure undisturbed eagle nesting at the Towers BA, and gathering additional information on the foraging habits of the Towers BA bald eagles, the Corps and applicant should financially support the Arizona Bald Eagle Nestwatch Program, which is administered by the AGFD. Based on 1994 costs (approximately \$5000/Nestwatcher per season, and two Nestwatchers per BA), the Service recommends financial support in the amount of \$10,000 annually.
6. To ensure undisturbed eagle nesting at the Towers BA, the Corps and applicant should approach and cooperate with the Coconino and Prescott National Forests regarding establishing, and marking with signs, a seasonal closure area around the Towers BA nest(s), to minimize disturbance of the breeding eagles. Such a closure should be designed in consultation with the AGFD and the Service.

CONCLUSION

This concludes formal section 7 consultation on the section 404 permit for the Verde River Ranch project as described in your October 5, 1993, request. As required by CFR 402.16, reinitiation of formal consultation is required if: 1) the amount or extent of incidental take is exceeded, 2) 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, 3) the agency action is subsequently modified in a manner that causes an effect to a 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 agency action.

We remind the Corps that additional consultation or conference may be required for other portions of this action. Projects that are part of phase 2 have provisional clearance, providing that the type of proposed work or construction do not change.

In future communications on this project, please refer to consultation number 2-21-94-F-020. If we may be of assistance, please contact Lesley Fitzpatrick or Tom Gatz.

Sincerely,

/s/ Sam F. Spiller
State Supervisor

cc: Chief, Fish and Wildlife Service, Arlington, Virginia (DES)
Regional Director, Fish and Wildlife Service, Albuquerque, New Mexico (AES)
Director, Arizona Game and Fish Department, Phoenix, Arizona

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2-21-94-F-020

SUMMARY
BIOLOGICAL OPINION ON VERDE RIVER RANCH PROJECT
EFFECTS TO RAZORBACK SUCKER AND BALD EAGLE

Date of the opinion: November 9, 1994

Action agency: U.S. Army Corps of Engineers

Project: Section 404 of the Clean Water Act permit for activities involved with the Verde River Ranch development project in Yavapai County, Arizona.

Listed species affected: Razorback sucker (Xyrauchen texanus) with designated critical habitat and bald eagle (Haliaeetus leucocephalus).

Biological opinion: Non-jeopardy.

Incidental take statement:

Level of take anticipated: Any bald eagle attempting to feed at Peck's Lake would be harassed. The level of take for the razorback sucker is difficult to assess because of the small size of the population. If one razorback sucker is taken because of the project, then the level of incidental take will have been exceeded.

Reasonable and prudent measures: None were provided for the bald eagle. For the razorback sucker, one reasonable and prudent alternative (RPA) was provided. Implementation of the RPA, through the terms and conditions, is mandatory.

Terms and conditions: Terms and conditions implement the reasonable and prudent measures and are mandatory requirements. Terms and conditions include use of the smallest possible construction sites, storing all construction equipment and supplies out of the floodplain, placement of block nets around the work site and the survey of these areas as well as isolated waters formed by the action, implementation of a sediment reduction program and contouring the construction sites to original grade.

Conservation recommendations: Implementation of conservation recommendations is discretionary. Six recommendations were given.

Additional section 7 consultation needs: A conference report for the proposed endangered southwestern willow flycatcher is being developed.