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In Reply Refer To:
AESO/SE
02-21-02-F-0210
02-21-04-F-0160

February 3, 2006

Ms. Cindy Lester
Chief, Arizona Section, Regulatory Branch
U.S. Army Corps of Engineers
Arizona-Nevada Field Office
3636 North Central Avenue, Suite 900
Phoenix, Arizona 85012-1936

Reference File: 2004-00502-MB

RE: Ocotillo Preserve Residential Subdivision

Dear Ms. Lester:

Thank you for your request for formal consultation with the U.S. Fish and Wildlife Service (FWS) pursuant to section 7 of the Endangered Species Act of 1973 (16 U.S.C. 1531-1544), as amended (Act). Your request was dated June 27, 2005 and received by us on June 27, 2005. At issue are impacts that may result from the proposed Ocotillo Preserve residential subdivision located in Tucson, Pima County, Arizona. The proposed action may affect the Pima pineapple cactus (PPC) (*Coryphantha scheeri* var. *robustispina*).

In your letter, you requested our concurrence that the proposed action may affect, but is not likely to adversely affect, the cactus ferruginous pygmy-owl (CFPO or pygmy-owl) (*Glaucidium brasilianum cactorum*). Our concurrence is provided in Appendix A.

This biological opinion is based on information provided in the June 14, 2005 (Vanguard 2005) biological assessment, telephone conversations, 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, residential development and its effects, or on other subjects considered in this opinion. A complete administrative record of this consultation is on file at the Arizona Ecological Services Office.

Consultation history

- June – August 2002: We discussed PPC information, surveys, and conservation easements with the project proponent.
- July – September 2003: We discussed PPC habitat and the modified survey protocol with the project proponent and their consultant.
- January – March 2004: We provided comments regarding the draft Biological Assessment for Ocotillo Preserve.
- June 27, 2005: We received a request for formal consultation from the U.S. Army Corps of Engineers (COE).
- November 23, 2005: We transmitted our draft Biological Opinion for Ocotillo Preserve to the COE.
- January 19, 2006: We received comments on the draft Biological Opinion.

BIOLOGICAL OPINION

DESCRIPTION OF THE PROPOSED ACTION

The applicant proposes to construct a residential subdivision, known as Ocotillo Preserve (herein property, subdivision, or development), on 174.05 acres located southeast of Tucson, Pima County, Arizona (T17S, R15E, northeast ¼ of section 35 and northwest ¼ of section 36). The property will consist of 42 lots, each approximately 4.1 acres. The maximum graded area for a designated home site is 20,000 square feet, including permanently disturbed areas for corrals and paddocks but excluding 12-foot wide driveways providing access to the residence. The total buildable area in the development is 24.14 acres (13.87 percent). Two miles of new streets will be constructed, totaling 10.67 acres (6.13 percent). Restricted natural open space (NOS) shall encompass 139.24 acres (80.0 percent).

Planned improvements to the property include paved roads; underground utilities, including City of Tucson Water, Trico electric, and state-of-the-art telecommunications, possibly Cox cable; a front entrance statement; and a homeowner's association with attendant Covenants, Conditions & Restrictions (CC&Rs) and Design Guidelines. The applicant anticipates that home builders will utilize the latest conservation techniques and technology in site work and building materials.

Proposed Conservation Measures

The applicant and the COE propose the following conservation measures to minimize the effects to PPC and its habitat.

- Project plans include 139.24 acres (80.0 percent) of NOS within the proposed subdivision. This includes 112.44 acres (64.60 percent) within currently platted NOS and another 26.80 acres (15.40 percent) of restricted property that is within the building envelope on each lot but outside of the 20,000 square foot Designated Homesite Area and 12-foot wide driveway and slope easements.
- The NOS will be managed by the Ocotillo Preserve Homeowners Association, Inc., (OPHOA) and includes all portions of the three ephemeral washes and corresponding erosion setbacks that will be crossed by the two portions of a paved roadway, one paved driveway, and one or two driveway bridges within the proposed subdivision.
- Prior to commencement of construction of the permitted action, the applicant will:
 - Record the Declaration of Restrictive Covenants – Natural Area Open Space for Ocotillo Preserve to minimize the effects of the proposed action,
 - Record a Declaration of CC&Rs for Ocotillo Preserve to provide for, among other items, the preservation and protection of the NOS described and delineated in the recorded Ocotillo Preserve Subdivision Plat and the Restricted Property described and delineated in the Declaration,
 - Implement a Third Party Monitoring Program for Ocotillo Preserve to provide operational management in protecting key elements of the program, and

STATUS OF THE SPECIES

PPC

Life History

The final rule listing PPC as endangered was published on September 23, 1993 (58 FR 49875). No critical habitat has been designated. PPC occurs south of Tucson, in Pima and Santa Cruz counties, Arizona and adjacent northern Sonora, Mexico. It is distributed at very low densities throughout both the Altar and Santa Cruz valleys, and in low-lying areas connecting the two valleys. Factors that contributed to the listing include habitat loss and degradation, habitat modification and fragmentation, limited geographic distribution and species rareness, illegal collection, and difficulties in protecting areas large enough to maintain functioning populations. The biological information below is summarized from the proposed and final rules and other sources.

Habitat fragmentation and isolation may be an important factor limiting future seed set of this cactus. Recent data show that the species cannot successfully self pollinate in situ and is reliant on invertebrate pollinators. One hypothesis is that the spatial distribution pattern of individual Pima pineapple cacti within a given area may regulate pollinator visitations, thus affecting successful cross-pollination and subsequent seed set over the population (Roller 1996). If the pollinators are small insects with limited ability to fly over large distances, habitat fragmentation

may contribute to a decrease in pollinator effectiveness with a subsequent decrease in seed set and recruitment.

Population Stability

Extrapolations from 1992-1997 surveys of known PPC locations suggest that the cactus may be more numerous than previously thought. Projections based only on known individuals may underestimate the total number of individuals. This in no way indicates that the cactus is not rare or endangered. PPC is widely dispersed in very small clusters across land areas well-suited for residential, commercial, or mining development. Field observations suggest that a great deal of land area within the range boundaries would not support PPC today due to historical human impacts. Thus, populations are already considerably isolated from each other in many portions of the range, and population size and apparent recruitment varies significantly across the range. On a more local scale, population variability may relate to habitat development, modification, and/or other environmental factors such as slope, vegetation, pollinators, and dispersal mechanisms.

The transition zone between the two regions of vegetation described by Brown (1982) as semidesert grassland and Sonoran Desert scrub contains denser populations, better recruitment, and individuals exhibiting greater plant vigor. Vegetation within this transition zone is dominated by mid-sized mesquite trees, half shrubs (snakeweed, burroweed, and desert zinnia), and patches of native grass and scattered succulents. Because populations are healthier in this transition zone, conservation within these areas is very important (Roller and Halvorson 1997). However, this important habitat type is not uniformly distributed throughout the plant's range. Populations of Pima pineapple cacti are patchy, widely dispersed, and highly variable in density. The higher population densities have only been documented at three sites. Compared to other surveys, two of these sites are very small in scale and range from 1-3 plants per acre. Other densities across the majority of the plant's range vary between one plant per 4.6 acres and one plant per 21 acres (Mills 1991, Ecosphere 1992, Roller 1996).

Land areas surrounding developed parts of Green Valley and Sahuarita, Arizona (including adjacent areas of the San Xavier District of the Tohono O'odham Nation), may be important for the conservation of this species within its range. As stated above, analysis of surveys conducted from 1992 to 1995 with a multivariate statistical analysis documented a pattern of greater population densities, higher ranks of cactus vigor, and better reproduction occurring within the transition vegetation type found in this area of the northern Santa Cruz Valley (Roller and Halvorson 1997). This area could be defined as an ecotone boundary between semidesert grassland and Sonoran desert scrub.

Status and Distribution

Generally, the PPC grows on gentle slopes of less than 10 percent and along the tops (upland areas) of alluvial bajadas nearest to the basins coming down from steep rocky slopes. The plant is found at elevations between 2,360 ft. and 4,700 ft. (Phillips *et al.* 1981, Benson 1982, Ecosphere 1992), in vegetation characterized as either or as combination of the Arizona upland of the Sonoran Desert scrub and semidesert grasslands (Brown 1982).

Densities range between 0.05-3 plants per acre. PPC is known to occur in 50 townships within its U.S. range. However, a considerable amount of land area within the range boundaries does not provide habitat for the species due to elevation, topography, hydrology, plant community type, and human impacts. To date, an estimated 56,730 acres, or 10 to 20 percent of the U.S. range, have been surveyed. Not all of this area has been intensively surveyed; some has only been partially surveyed using small land blocks to estimate densities rather than 100 percent ground surveys. A conservative estimate of total cacti located to date would be approximately 4,000 individuals. The majority of those were located after 1991.

It is important to clarify that the above number represents the total number of locations ever found and not the current population size. It would be impossible to estimate densities over the remaining unsurveyed area because of the clumped and widely dispersed pattern of distribution of this species. Of the approximately 4,000 individuals recorded to date, 2,212 (55 percent) of them have been removed. This includes observed and authorized mortalities and individuals transplanted since the species was listed in 1993. A small portion of these mortalities was caused by natural factors (e.g., drought). Moreover, this figure does not take into account those cacti that are removed from private land or lost to other projects that have not undergone section 7 reviews.

Transplanted individuals are not considered as functioning within the context of a self-sustaining population. Efforts to transplant individual cacti to other locations have had only limited success, and the mortality rate has been high, especially after the first year. Furthermore, once individuals are transplanted from a site, it is considered to be extirpated as those individuals functioning in that habitat are irretrievably lost. We view transplanting cacti as a measure of last resort for conserving the species. Transplanting will be recommended only when on-site and off-site habitat conservation is not possible and the death of cacti is unavoidable.

The area of habitat reviewed under section 7 of the ESA between 1987 and 2000 (i.e., habitat developed or significantly modified beyond the point where restoration would be a likely alternative) is approximately 24,429 acres, which represents 43 percent of the total area surveyed to date. In 1998, more than 1,100 acres of PPC habitat were lost including 752 acres from the ASARCO, Inc. Mission complex project. In 2000, 586 acres of habitat were lost with the expansion of a state prison in Tucson. In 2001, 177 acres of habitat were lost through development, but 888 acres of occupied and suitable habitat were conserved through conservation easements. In 2002-2003, 76.5 acres of occupied habitat were destroyed, but 36 acre-credits were purchased in the PPC conservation bank, thus protecting 36 acres of PPC habitat; and an additional 58.5 acres of PPC habitat were conserved in a conservation easement. We are aware of housing developments along Valencia Road, Pima County, Arizona, in the vicinity of T15S, R12E, Section 15 and surrounding areas, which support PPC. These developments affect several hundred acres of habitat and have not been evaluated through the section 7 process. The number of acres lost through private actions, not subject to Federal jurisdiction, is not known but, given the rate of urban development in Pima County, we believe it is significant.

Based on surveys and habitat analysis, areas south of Tucson through the Santa Cruz Valley to the town of Amado and surrounding developed parts of Green Valley and Sahuarita, and parts of the San Xavier District of the Tohono O'odham Nation, appear to support abundant populations and some recruitment, and units of extensive habitat still remain. However, the primary threat to the status of this species throughout its range is the accelerated rate (since 1993) at which much of the prime habitat is being developed, fragmented, or modified.

Most of the documented habitat loss has occurred south of Tucson through the Santa Cruz Valley to the town of Amado. This area is critical for the future recovery of the species. The expansion of urban centers, human population, and mining activities will continue to eliminate habitat and individuals, and result in habitat fragmentation.

The protection of habitat and individuals is complicated by the varying land ownership within the range of this species. An estimated 10 percent of the potential habitat for PPC is held in Federal ownership. The remaining 90 percent is on Tribal, State, and private lands. Most of the federally owned land is either at the edge of the plant's range or in scattered parcels. The largest contiguous piece of federally owned land is the Buenos Aires National Wildlife Refuge, located at the southwestern edge of the plant's range at higher elevations and with lower plant densities.

The Arizona Native Plant Law may delay vegetation clearing on private property for the salvage of specific plant species within a 30-day period. Although the Arizona Native Plant Law prohibits the illegal taking of this species on State and private lands without a permit for educational or research purposes, it does not provide for protection of plants in situ through restrictions on development activities.

Based on current knowledge, urbanization, farm and crop development, and exotic species invasion alter the landscape in a manner that would be nearly irreversible in terms of supporting PPC populations. Prescribed fire can have a negative effect if not planned properly.

Other specific threats that have been previously documented (U.S. Fish and Wildlife Service 1993), such as overgrazing and mining, have not yet been analyzed to determine the extent of effects to this species. However, partial information exists. Mining has resulted in the loss of hundreds, if not thousands, of acres of potential habitat throughout the range of the plant.

Much of the mining activity has been occurring in the Green Valley area, which is the center of the plant's distribution and the area known to support the highest densities of individuals. Overgrazing by livestock, illegal plant collection, and fire-related interactions involving exotic Lehmann lovegrass (*Eragrostis lehmanniana*) may also negatively affect PPC populations (U.S. Fish and Wildlife Service 1993).

In summary, monitoring has shown that the range-wide status of the PPC appears to have been recently affected by threats that have completely altered or considerably modified more than a third of the species' surveyed habitat, and have caused the elimination of nearly 60 percent of documented locations. Dispersed, patchy clusters of individuals are becoming increasingly isolated as urban development, mining, and other commercial activities continue to detrimentally impact the habitat. The remaining habitat also is subject to degradation or modification from

current land-management practices, increased recreational use when adjacent to urban expansion (i.e., off-road vehicle use and illegal collection), and the continuing aggressive spread of nonnative grasses into habitat. Habitat fragmentation and degradation will likely continue into the foreseeable future based on historical data and growth projections produced by the Pima County Association of Governments (1996). There is very little Federal oversight on conservation measures that would protect or recover the majority of the potential habitat. Even some areas where section 7 consultations have been completed have been modified and may not be able to support viable populations of the PPC over the long-term.

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 action area for this project includes the footprint of the entire development (174.05 acres) and a ¼-mile area surrounding the project boundaries, the latter of which encompasses the area most likely to incur indirect effects from the housing development. Additionally, we include the 17 acres of unsubdivided land that is excluded from, but is surrounded by, the subdivision, for reasons that will be explained in the “Effects of the Action” section of this consultation. The portion of South Houghton Road that is to be paved, as well as staging areas and other land-disturbing activities related to the paving of this road, are included in the action area, as well.

Single-family residences are predominant in the vicinity of the action area, which is bordered on the east and south by the Coronado National Forest; on the southeast, west, northwest, and northeast by private land; and the north by State Trust land and private land.

STATUS OF THE SPECIES WITHIN THE ACTION AREA

After discussions between us and the applicant, a Protocol for On-Site Survey for “Pima Pineapple Cactus” at Ocotillo Preserve (Protocol) was developed to survey for PPC within the perimeter of the subdivision. This Protocol involved mapping areas of potential PPC densities (ranging from Unsuitable to High) within the subdivision using surficial geology, aerial photo interpretation, and a site visit. Probable PPC densities were calculated as follows:

- Areas of rubified¹ soils within Pleistocene alluvial fans were characterized as High density habitat (greater than or equal to 0.20 PPC/acre). Approximately 12.07 acres within this category were delineated.
- Areas within Pleistocene alluvial fans without rubified soils were characterized as

¹ Rubified soils are those which are clay-enriched due to the slow accumulation of clay (primarily from Aeolian transport) and are often associated with higher densities of PPC (Westland Resources, Inc. Conservation Features Map, Figure 2, 04-26-24).

Moderate density habitat (0.06-0.13 PPC/acre). Approximately 23.54 acres within this category were delineated.

- All other areas not immediately above or within the floodplain nor having a slope of greater than or equal to 15 percent were characterized as Unlikely to contain PPC. Approximately 56.80 acres within this category were delineated.
- Areas immediately above or within the floodplain or having a slope of greater than or equal to 15 percent were characterized as Unsuitable. Approximately 81.66 acres within this category were delineated.

According to the Protocol, all areas with potentially Moderate and High densities of PPC (35.61 acres total) and approximately the same number of adjoining acres of Unlikely PPC habitat would be surveyed according to the protocol developed by Roller (1996). The total area surveyed was approximately 71.22 acres, or 77 percent of the approximately 92.41 acres of property within the subdivision that was neither within the 100-year floodplain nor had a slope of greater than or equal to 15 percent.

A total of 21 PPC were detected in the surveyed areas, including 18 live and 3 dead plants. Of these, 11 live and 3 dead PPC were found within the High density habitat (1.16 PPC/acre), 5 live PPC were found within the Moderate density habitat (0.21 PPC/acre), and 2 live PPC were found within the Unlikely habitat (0.06 PPC/acre). Based on this analysis, we consider the site to have 92.41 acres of potential PPC habitat.

EFFECTS OF THE ACTION

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

The proposed action will result in the development of 26.23 acres within the proposed subdivision (the buildable area plus the construction of new roads). This is 15.07 percent of the total 174.05 acres, or 28.38 percent of the 92.41 acres modeled as potential PPC habitat on the site. While some of the 34.81 acres falls within areas modeled as Unsuitable for PPC (within the floodplain or having a slope of greater than or equal to 15 percent), the majority of it falls within modeled potential habitat. Two PPC were found within the buildable area; however, not all of the buildable area was surveyed for PPC. These 2 PPC were found on lots 26 and 35, for which a single lot Plant Preservation Plan will be developed for each lot prior to grading and construction. These 2 PPC also were found in habitat modeled as Unlikely to contain PPC, which means that PPC may be found in other Unlikely habitat that was not surveyed (21.19 acres). In fact, according to the Protocol that was developed, the *a priori* assumption was that no

PPC would be found in these areas, when in fact these areas fall into what was considered *a priori* to be Moderate density PPC habitat (0.06-0.13 PPC/acre). Therefore, it seems likely that more than 2 PPC exist within modeled Unlikely habitat and outside of the platted NOS.

The BA states that 19 PPC (or 90 percent of those found during the survey) fall within the platted NOS. All of the NOS falls within individual lots. Even with deed restrictions and CC&Rs, we find it doubtful that the PPC and habitat would not be affected by residents' use of their property (e.g. creating trails, landscaping, bike riding, and pets) which can degrade PPC habitat. The Third Party Monitoring Program states that any known PPC will be fenced and protected; however, even with oversight from a homeowner's association, the PPC could be inadvertently destroyed. Additionally, PPC on the 17-acre parcel that is not included in but is surrounded by the development will likely also suffer from indirect impacts. New residential developments often introduce non-native plants into an area, creating more opportunity for degradation of the remaining natural habitat. Nearby undeveloped open space is often used for recreation, off-road vehicle use, and illegal dumping of trash, which can ultimately lead to habitat degradation and possible loss of PPC. These indirect effects will contribute to the overall deterioration of the remaining PPC in this area. While some conservation may be achieved, there is no evidence to support this type of measure as producing long-term protection for PPC and its habitat.

In summary, the proposed project will result in the direct loss of 34.81 acres of suitable PPC habitat and possibly the loss of 2 PPC within the buildable area. It will further modify through indirect effects the remaining PPC habitat on-site, within ¼ mile of the property, and within the 17-acre parcel that is surrounded by the proposed subdivision. The applicant has proposed to offset the effects to PPC and its habitat by setting aside 139.24 acres on the property as NOS. All of the NOS is within residential lots, which will be protected through deed restrictions and CC&Rs. All of these proposed conservation measures may provide some conservation for PPC, but most of the conservation benefits provided on-site are unquantifiable and do not promote the conservation of the species over the long-term.

CUMULATIVE EFFECTS

Cumulative effects include the effects of future State, tribal, local or private actions that are reasonably certain to occur in the action area considered in this biological opinion. Future Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the Act.

Development in this geographic region can be expected to increase. State and private lands not presently developed in the area are quickly becoming urbanized. To the north of the proposed subdivision, Corona de Tucson is experiencing heavy development pressure, which can be expected to expand out from the current infrastructure supporting this development. Much of the development in this area has had no Federal nexus. Without any protection under the Act, the only protection available is through the Arizona Native Plant Law, which provides only for salvage for scientific and educational purposes. The habitat of PPC will continue to be lost, regardless of salvaged cacti transplant success.

State Trust lands are not protected and can be sold for development. There are likely PPC near the action area that would be affected by development of State lands. State Trust lands also provide for recreation and open space for the residents of developments in the area. The use of State Trust lands for recreation, off-road vehicle use, and illegal dumping of trash can ultimately lead to habitat degradation and possible loss of PPC. If State lands are developed, further fragmentation of the larger PPC population in the general area will result.

In summary, it is likely that the habitat and the individual PPC on the lands surrounding the action area will experience habitat degradation and fragmentation in the foreseeable future. Individual PPC within future proposed residential developments are likely to be lost. There is little regulatory authority that would be expected to reduce these risks.

CONCLUSION

After reviewing the current status of PPC, the environmental baseline for the action area, the effects of the proposed subdivision, and the cumulative effects, it is our biological opinion that the subdivision, as proposed, is not likely to jeopardize the continued existence of the PPC. No critical habitat has been designated for this species; therefore, none will be affected. We make this determination because:

- The status of PPC continues to degrade. We estimate that between 1997 and 2003 approximately 20 percent of the known population has been destroyed as a result of urban and mining development. New populations of PPC, detected during project surveys, are often transplanted, leaving their contribution to PPC conservation in doubt. Habitat continues to be developed, and habitat loss and fragmentation remain significant threats for this species.
- Cumulative effects considered in our analysis include recreational use, residential developments, single-family residences, and commercial projects where zoning and development plans make them reasonably certain to occur, but no Federal nexus is anticipated. Areas where these cumulative effects are anticipated to occur include areas where there is suitable PPC habitat. Cumulative effects are likely to contribute to habitat degradation and fragmentation.
- The proposed conservation measures may provide some protection for PPC on-site, but it is likely that existing individuals and PPC habitat will be impacted and degraded within the action area, and the development of this area contributes to the continued decline of PPC and habitat. However, this project does not jeopardize the continued existence of PPC. We make this determination because, while the status of PPC continues to degrade, as discussed above, the loss of the 18 known live PPC individuals reduces the known population by approximately one percent; this loss does not constitute a significant reduction in the conservation status of the species.

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

INCIDENTAL TAKE STATEMENT

Sections 7(b)(4) and 7(o)(2) of the Act generally do not apply to listed plant species. However, limited protection of listed plants from take is provided to the extent that the Act prohibits the removal and reduction to possession of federally listed endangered plants from areas under Federal jurisdiction, or for any act that would remove, cut, dig up, or damage or destroy any such species on any other area in knowing violation of any regulation of any State or in the course of any violation of a 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.

- We recommend that the COE offset the effects to PPC and its habitat by compensating for the loss of 2 PPC (the number of PPC within the buildable area) through the purchase of 2 acre-credits in an approved conservation bank. This amount is equal to the acres directly lost to grading (for residences and driveways) and construction of new roads. The purchase of these credits would help to offset the effects to PPC from this project. Please send us a copy of the Notorized Credit Agreement upon completion of the bank transaction.

In order that we are kept informed of actions minimizing or avoiding adverse effects or benefitting listed species or their habitats, we request notification of the implementation of any conservation recommendations.

REINITIATION NOTICE

This concludes formal consultation on the action(s) outlined in the 174.05 acre Ocotillo Preserve request. As provided in 50 CFR §402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded (not applicable to this consultation); (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation.

We appreciate the COE's efforts to identify and minimize effects to listed species from this project. For further information please contact Marit Alanen at (520) 670-6150 (x234) or Sherry Barrett at (520) 670-6150 (x223). Please refer to the consultation numbers, 02-21-02-F-0210 and 02-21-04-F-0160, in future correspondence concerning this project.

Sincerely,

/s/ Steven L. Spangle
Field Supervisor

cc: Assistant Field Supervisor, Fish and Wildlife Service, Tucson, AZ
U.S. Army Corps of Engineers, Tucson, AZ (Attn: Marjorie Blaine)

Pima County Development Services, Tucson, AZ (Attn: Sherry Ruther)
Habitat Branch Chief, Arizona Game and Fish Department, Phoenix, AZ
Regional Supervisor, Arizona Game and Fish Department, Tucson, AZ (Attn: Joan Scott)

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APPENDIX A

Concurrence

In your June 27, 2005 request for formal consultation, you concluded that the proposed construction of the residential subdivision, known as Ocotillo Preserve, located in Pima County, Arizona, may affect, but is not likely to adversely affect, the cactus ferruginous pygmy-owl (*Glaucidium brasilianum cactorum*; pygmy-owl). We concur with your determination for the following reasons:

- This project does not support suitable breeding habitat for pygmy-owls, although the wash systems within the parcel could provide pygmy-owl dispersal habitat. However, the likelihood that dispersing pygmy-owls would utilize the project area for dispersal is reduced due to the rising elevation and associated inappropriate pygmy-owl habitat elements found to the south and east of this project. Therefore, the effects to pygmy-owl habitat are insignificant.
- The applicant has committed to conserve areas within the project as NOS, as well as protect areas on individual lots through CC&Rs. This will allow existing dispersal habitat to remain intact and available for use by the dispersing pygmy-owls. Therefore, the effects to pygmy-owl habitat are insignificant.
- It is highly unlikely that noise disturbance resulting from the construction of this project will impact either pygmy-owl nesting or dispersal. This is due to the lack of potential breeding habitat; negative results for pygmy-owls surveys conducted up to March 29, 2004; and the lack of known pygmy-owl nest sites within 21 miles (the maximum observed dispersal distance for dispersing pygmy-owls). Therefore, the effects of disturbance are discountable.

This determination is dependent on the complete implementation of all conservation measures outlined above. Should project plans change, or if information on the distribution or abundance of listed species or critical habitat becomes available, this determination may need to be reconsidered. Should this occur, please contact us regarding the need for further consultation.