

**United States Department of the Interior
U.S. Fish and Wildlife Service
2321 West Royal Palm Road, Suite 103
Phoenix, Arizona 85021
Telephone: (602) 242-0210 FAX: (602) 242-2513**

AESO/FA

November 13, 2003

Ms. Cindy Lester
Chief, Regulatory Branch
U.S. Army Corps of Engineers
3636 North Central Avenue, Suite 760
Phoenix, Arizona 85012-1936

Dear Ms. Lester:

The Fish and Wildlife Service thanks you for Public Notice 2000-00966-RWF (PN) dated October 14, 2003, issued by the U.S. Army Corps of Engineers. 10,000 West L.L.C. has submitted an application for a Section 404 Clean Water Act (CWA) permit to build the 10,105 acre Festival Ranch master-planned community along the Hassayampa River, Wagner Wash, and other unnamed washes in Buckeye, Maricopa County, Arizona (sections 3, 10, 15, 22, 27, 28, 33, 34 in T5N, R4W and sections 4, 8, 9, 13, 14, 16, 17, 20-29 in T4N, R4W). In addition to the PN, we have received from the applicant a copy of the June, 2002, Appendices For Section 404 Permit Authorization Request For Festival Ranch, Town of Buckeye, Maricopa County, Arizona (Appendices). These comments are provided under the authority of and in accordance with the Fish and Wildlife Coordination Act (48 Stat. 401, as amended U.S.C. 661 et. seq.) (FWCA), but do not constitute our final review of the permit application under the FWCA.

The proposed Festival Ranch project will involve the development of residential, commercial, and recreational land uses, and associated roads and utilities. This will include resort residential, single family housing, high density residential, golf courses, parks, and commercial and retail developments. The proposed project area contains approximately 787 acres of waters of the United States, including 642.8 acres of the Hassayampa River along the western edge of the property. No discharge of dredge or fill will occur in the jurisdictional area of the Hassayampa River. As proposed, the master-planned project will result in discharges into approximately 47.9 acres of jurisdictional washes.

We believe the total impact of the development should be assessed, including parts located on uplands above the ordinary high water mark. Your impact assessment should include direct, indirect, and cumulative effects, and all interrelated and interdependent activities. We believe the footprint of the permitted project that should be assessed by the Corps is, at minimum, the total 10,105 acres of development. The PN provides no information regarding the effects of adjacent

development on jurisdictional waters not subject to a discharge, such as the Hassayampa River, nor does it provide information on the effects of the larger project on a landscape scale. We suggest an assessment be conducted to determine the extent of secondary and cumulative effects as defined in the Section 404(b)(1) Guidelines (CFR 40 part 230.11).

Alterations to adjacent upland areas can impact the physical, chemical, and biological characteristics of adjacent and downstream jurisdictional waters and result in secondary effects through modification of ecological processes such as infiltration capacity, surface runoff, underground water storage, sediment load, and organic matter input. For instance, the immediate hydrologic effect of upland development is the increase in the area of low or zero infiltration capacity, due to decreased energy dissipation resulting from a loss of roughness (i.e. removal of plant cover) and increased impermeable surface (i.e. placement of asphalt and concrete). Temporary secondary effects can include increases in sediment yield and a decrease in the number of smaller order streams to convey sediment load, while long term secondary effects may include incision of arroyos and the degradation of existing channels resulting in channel downcutting or enlargement. The combined effects of adjacent upland development may include bank degradation, channel downcutting, increased flood events, decreased surface flow period, and reduced biological productivity.

We believe the Corps also has the authority and responsibility to consider all indirect effects of the discharge of dredged and fill material. The Section 404(b)(1) Guidelines direct the Corps to analyze the effects of Section 404 permitted activities on “surrounding areas” as well as “other wildlife” including resident and transient mammals, birds, reptiles, and amphibians (40 CFR Part 230.32). Additionally, the Regulations For Implementing The Procedural Provisions Of The National Environmental Policy Act (NEPA) (40 CFR, Parts 1502.16 and 1508.8) states that the environmental consequences of an action include both direct effects and indirect effects, which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.

Most transient wildlife species associated with aquatic ecosystems utilize adjacent upland areas for a large portion of their life cycle. For instance, Gila woodpeckers use saguaros located in adjacent uplands for nesting purposes while foraging extensively along washes. Also, bird community structure in a given habitat type depends, at least partially, on bird species composition and density in adjacent habitats. While desert mule deer utilize uplands, xeroriparian washes and their associated vegetation were also an important component of desert mule deer habitat. It has also been found that as riparian areas become increasingly isolated, or fragmented, they rapidly lose riparian or upland herpetofaunal species. These concepts illustrate that an intimate biological and ecological relationship exists between adjacent uplands and waters, and that activities in uplands will necessarily have some level of effect on the biological function of adjacent jurisdictional waters. Modification or loss of upland areas may displace transient wildlife species, lower plant and animal species density and richness, disrupt the normal functions of the ecosystem, and lead to reductions in overall biological productivity and diversity.

The loss of upland vegetation communities associated with development of the proposed community could have a negative impact on wildlife populations within and adjacent to the project area. Uplands provide movement corridors, nesting areas, and foraging areas for numerous wildlife species. The proposed modification could adversely affect population dynamics through habitat loss or fragmentation. This type of disturbance can disrupt intra- and interspecific wildlife interactions, resulting in population and community shifts. Animals could be displaced to adjacent areas that may already be functioning at or near carrying capacity, resulting in increased competition, predation, disease transmission, and mortality. The associated development and increased human activity could place increased stress on local wildlife populations resulting in reduced fecundity and recruitment, adversely affecting local populations.

The PN states that a preliminary determination has been made that an environmental impact statement (EIS) is not required for the proposed work. As such, we assume that your agency is preparing an environmental assessment (EA) in accordance with the National Environmental Policy Act (NEPA). We request that, when completed, the draft EA be submitted to our office so we may evaluate the environmental impact and complete our review of the proposed project. Of particular concern is the potential effect of groundwater pumping on vegetation along the Hassayampa River Preserve that is critical to the recovery of the endangered southwestern willow flycatcher (*Empidonax traillii extimus*).

Corps regulations (CFR 33, Appendix B to Part 325) states that the District Engineer is considered to have authority over portions of the project beyond the limits of jurisdiction “where the environmental consequences of the larger project are essentially products of the Corps permit action.” If it is impracticable to completely avoid impacts to jurisdictional waters through bridge spans or upland buffers, we believe the proposed development could not occur “but for” the issuance of a Section 404 permit and it would be within Corps authority to extend the scope of analysis beyond the limits of the ordinary high water mark and assess interrelated and interdependent actions.

Corps regulations involving the Section 404 public interest review (33 CFR 320.4) state: “The benefits which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments.” This balancing of detriments and benefits is also addressed in the Corps NEPA Implementation Procedures For The Regulatory Program (33 CFR Appendix B to Part 325). In regard to determining the appropriate scope of analysis these regulations state: “In all cases, the scope of analysis used for analyzing both impacts and alternatives should be the same scope of analysis used for analyzing the benefits of the proposal”. We assume the residential, recreational and commercial facilities provided by the proposed activity will be considered as a benefit in your public interest review. Accordingly, we believe the Corps should also consider the detriments, such as overall loss of wildlife habitat and aquatic ecosystem function associated with development of those facilities.

Therefore, your environmental assessment should include the potential effects of the entire development on Sonoran desertscrub vegetation communities and local and regional wildlife

resources including potential shifts in community structure, changes in diversity, relative abundance, and species richness. The analysis should be more than a qualitative assessment, and use acceptable empirical methodologies to quantify and evaluate impacts on biotic resources.

The PN states that the property is dissected by the Central Arizona Project canal and only conceptual development plans for 6,972 acres have been developed. The applicant has proposed to mitigate these impacts by revegetating reconstructed washes and payment of in-lieu fees. In accordance with existing regulations and procedures, mitigation measures should be developed that first address the issues of avoidance and minimization, and lastly compensation. For compensatory mitigation, measures should not only mitigate vegetative parameters such as canopy cover, biomass, and total volume, but should also mitigate changes or loss of animal diversity, abundance, density, and richness. Empirical monitoring provisions and criteria should be developed to track the success of mitigation for animal populations as well as vegetation communities. Empirical methodologies are needed to illustrate how the revegetation of washes within an urban landscape can quantitatively replace biological functions of jurisdictional waters within a desert landscape. We request that the mitigation plan be provided to our office so that we may evaluate the plan and provide written recommendations.

Development of the other 3,133 acres (southern portion property) is expected to impact 14.7 acres of ephemeral washes and will be the first phase of development. The PN states that the applicant has developed a compensatory mitigation proposal to replace the 14.7 acres of impacts to waters of the U.S. that will result from development of these 3,133 acres. This compensatory mitigation proposal includes vegetative enhancement of approximately 9.4 acres of degraded mesquite bosque buffered by an additional 14.7-acres along a section of Wagner Wash located within the center of the project area. The mitigation proposal suggests the modification of the native soils to impervious surfaces within the developed portions of the project area will generate additional runoff that may serve to support supplemental plantings in the restoration area.

The analyses within the PN and supplemental appendices do not quantify the effect the proposed master-planned community would have on the biological functioning of all jurisdictional waters within the project footprint. Species diversity, abundance, density, and richness of habitat islands situated within urban landscapes are markedly different than those situated within desert landscapes. These impacts need to be assessed and mitigated in accordance with section 404 of the CWA.

In closing, we request an opportunity to review the draft EA and mitigation plans and provide substantive comments and recommendations in accordance with the FWCA and Section 404(m) of the CWA. If we can be of further assistance please contact Mike Martinez (x224) or Don Metz (x217).

Sincerely,

/s/ Steven L. Spangle
Field Supervisor

Ms. Cindy Lester

5

cc: Regional Administrator, Environmental Protection Agency, San Francisco, CA
Supervisor, Project Evaluation Programs, Arizona Game and Fish Department, Phoenix, AZ

W:\Mike Martinez\Festival-pn.wpd:egg