

**United States Department of the Interior
U.S. Fish and Wildlife Service
2321 West Royal Palm Road, Suite 103
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AESO/FA
22410-2006-FA-0009

December 19, 2005

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

Dear Ms. Lester:

Thank you for Public Notice 2006-00248-RWF (PN) dated December 5, 2005, issued by the U.S. Army Corps of Engineers, and received by our office on December 9, 2005. Sonoran Desert Holdings, LLC has applied for a Section 404 Clean Water Act (CWA) permit to construct the Eagle Canyon subdivision within the Las Sendas master-planned community in Mesa, Maricopa, Arizona. 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.) but do not constitute our final review.

According to the the PN, elevation of the property ranges from 1,680 to 1,790 feet above mean sea level. Topography varies from relatively flat in the unnamed ephemeral washes to protruding ridges of the foothills of the Utery Mountains. Vegetation within the proposed project area is Sonoran desertscrub. Upland vegetation consists of foothill paloverde (*Parkinsonia microphylla*), creosotebush (*Larrea tridentata*), brittlebush (*Encelia farinosa*), triangle-leaf bursage (*Ambrosia deltoidea*), saguaro (*Carnegia gigantea*), buckhorn cholla (*Cylindropuntia acanthocarpa*), and barrel cactus (*Ferocactus* sp.). Xeroriparian vegetation includes more robust individuals associated with the upland community, and also desert ironwood (*Olneya tesota*), wolfberry (*Lycium* sp.), catclaw acacia (*Acacia greggii*) and desert lavender (*Hyptis emoryi*).

Your review should address the total entire footprint of the proposed development including direct, indirect, and cumulative effects; and all interrelated and interdependent activities including those above the ordinary high water mark. Your assessment should include effects of adjacent development on jurisdictional waters not subject to a discharge and the effects of the larger project on a landscape scale. An evaluation should 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).

The Section 404(b)(1) Guidelines require the analysis of 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). Corps regulations (CFR 33,

Appendix B to Part 325) grant the District Engineer 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, such as when it is impracticable to completely avoid jurisdictional waters through bridge spanning or upland buffering. This would be consistent with the approach taken in the expanded environmental assessment for the Lone Mountain project (2000-01928-RWF) where the scope of impact analysis was extended over the entire residential development.

The PN states that a preliminary determination has been made that an environmental impact statement (EIS) is not required for the proposed work in accordance with the National Environmental Policy Act (NEPA). Your review should address the potential effects of the entire development on jurisdictional washes, desertscrub vegetation, and local and regional wildlife resources, including potential shifts in ecosystem function, community structure, biological diversity, relative abundance, and species richness. This approach would be consistent with the Regulations For Implementing The Procedural Provisions Of The NEPA (40 CFR, Parts 1502.16 and 1508.8), prepared by the Council on Environmental Quality, which 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.” We request that any draft NEPA document be submitted to our office so we may evaluate the environmental impact and complete our mandated review of the proposed project.

The PN does not provide information regarding the preparation or implementation of a mitigation plan. The Corps’ recent Special Public Notice (970031200-RRS) for Mitigation Guidelines and Monitoring Requirements, in regard to compensatory mitigation site design (page 14), states “[t]he factors used in a preliminary design of the compensatory mitigation site should have a functional assessment basis.” Your functional assessment should utilize objective empirical methods to quantify impacts on biotic resources for the purpose of guiding preparation of a mitigation plan.

The functional assessment should address vegetative parameters such as canopy cover, biomass, and total volume; and perhaps shifts in animal diversity, abundance, density, and richness. Monitoring and criteria should track the success of mitigation. Empirical criteria are needed to illustrate how the mitigation proposal would quantitatively replace the biological functions of ecosystems and biotic communities affected by the project. The mitigation plan should demonstrate that mitigation would adequately replace the loss and/or impairment of biological functions. Of particular concern is how jurisdictional waters would function within an urban landscape versus how they function in a natural setting. We suggest that biological functions provided by the totality of jurisdictional waters on the project site, including the role and influence of adjacent uplands, be evaluated in a quantitative fashion. We request that the draft mitigation plan be submitted to our office so that we may review the plan, provide recommendations, and complete our mandated review of the proposed permitting action.

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In closing, we request an opportunity to review the draft NEPA document and mitigation plan, and provide substantive comments and recommendations in accordance with the FWCA and Section 404(m) of the CWA. Thank you for your coordination on this project. If we can be of further assistance please contact Mike Martinez (x224).

Sincerely,

/s/ Thomas A. Gatz
Deputy Field Supervisor

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

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