



# United States Department of the Interior

U.S. Fish and Wildlife Service  
Arizona Ecological Services Office  
2321 West Royal Palm Road, Suite 103  
Phoenix, Arizona 85021-4951  
Telephone: (602) 242-0210 Fax: (602) 242-2513



In reply refer to:

AESO/SE  
22410-2009-F-0389

May 16, 2014

Mr. Jim Upchurch, Forest Supervisor  
Coronado National Forest  
300 West Congress Street  
Tucson, Arizona 85701

RE: Reinitiation of Formal Consultation for the Rosemont Copper Mine, Pima County, Arizona

Dear Mr. Upchurch:

Thank you for your participation in meetings between our respective agencies on May 8, 12, and 14, 2014. The purpose of these meetings was to discuss the contents of our October 30, 2013, Final Biological and Conference Opinion (BO) (U.S. Fish and Wildlife Service 2013) on your proposed approval of the Mine Plan of Operations for the Rosemont Copper Company Project in Pima County, Arizona, and to compare those analyses to the contents of your December 2013 Final Environmental Impact Statement (FEIS) for the Rosemont Copper Project (Forest Service 2013).

The purpose of this letter is to briefly summarize the U.S. Fish and Wildlife Service's (FWS) rationale for why reinitiation of formal consultation is required. To illustrate the context of our rationale, we have excerpted the Reinitiation Notice, which appears on Page 341 of the October 30, 2013, BO:

*This concludes formal and conference consultation on the actions outlined in your 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; (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.*

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The Reinitiation Notice identifies three triggers pertinent to reinitiation of the subject BO. The first trigger is Item 1, which refers to situations in which the amount or extent of incidental take is exceeded. This situation potentially exists with respect to the proposed action's effects to the ocelot (*Felis pardalis*) (see discussion below).

The second trigger is Item 2, which refers to new information that reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in the opinion. This is also applicable to the ocelot, as well as to the Huachuca water umbel (*Lilaeopsis schaffneriana* var. *recurva*), Gila topminnow (*Poeciliopsis occidentalis occidentalis*), Gila chub (*Gila intermedia*), Chiricahua leopard frog (*Lithobates chiricahuensis*), and southwestern willow flycatcher (*Empidonax traillii extimus*) and/or the latter three species' critical habitat.

The third trigger for reinitiation is Item 4; a new species is listed or critical habitat designated that may be affected by the action. This will soon apply to the northern Mexican gartersnake (*Thamnophis eques megalops*) and yellow-billed cuckoo (*Coccyzus americanus*), which will be subject to final rulemaking in the near future.

### **Ocelot**

The first trigger, referring to situations in which the amount or extent of incidental take is exceeded, is a potential issue for the ocelot. We acknowledged on Page 182 of the BO that occupancy is difficult to document for rare and secretive animals such as ocelots, and that there were at the time no documented occurrences of ocelots in the Santa Rita Mountains. We therefore anticipated no incidental take of the species. We did, however, recommend that if ocelots were definitively documented in the action area in the future, reinitiation of consultation would be prudent to reexamine incidental take.

In April 2014, a remote camera operated by the University of Arizona detected a lone male ocelot in the Santa Rita Mountains, within the action area of the Rosemont Mine. We therefore need to reinitiate formal consultation to permit additional analysis of the proposed action's effects to the species and to determine if incidental take might now be anticipated.

### **Revised Hydrology and Effects to Species Occurring in Aquatic and Riparian Ecosystems**

Item 2 in the reinitiation criteria relates to new information that reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in the BO. As we have discussed, there are substantive differences between the analyses of the proposed action's effects to springs and streams that appear in the BO's Effects to Aquatic Ecosystems section and those in the Effect on Perennial Flow subsection of the Environmental Consequences section in the FEIS. We believe that these revised analyses constitute substantially new information that we did not analyze in the BO.

In brief, our BO focused primarily on the biological effects resulting from the quantitative, modeled groundwater drawdowns (BO Table A-5). We conducted limited effects analyses on

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the Montgomery and Associates (2010) projections of effects to surface flow, stream length, baseflow, and riparian evapotranspiration (BO Tables A-2 and A-3) and, to a lesser extent, upon the results of Westland Resources (2012) analysis (BO pages 267 and 273). However, most of our analyses of the proposed action's effects to streams and their associated obligate aquatic and riparian species were based on qualitative, surface-flow projections of the quantitative groundwater drawdown data published by Tetra Tech (2010).

We later became aware that the FEIS had introduced a revised, and more quantitative analysis of impacts to streams. The refined analyses were based on the contents of an October 30, 2013, Technical memorandum (SWCA 2013). An April 8, 2014, Technical Memorandum (SWCA 2014) also described the revised approach. The FEIS's refined approach included new analyses of: (1) timing of effects to springs and streams; (2) a range of effects; and (3) specific connections between groundwater drawdowns and diminishment of surface flows.

The review of the FEIS' refined, quantitative information by our respective species leads has generated additional concern with the anticipated diminishment of flow in Empire Gulch analyzed at 50 years postclosure and in both upper and lower Cienega Creek analyzed at both 50 and 150 years postclosure. While the same basic data (i.e. groundwater drawdowns) underpin the analyses in both the BO and FEIS, the heretofore unavailable quantification of the potential extent and duration of stream drying and extreme low-flow events represents new information that may affect the Huachuca water umbel, Gila topminnow, Gila chub, Chiricahua leopard frog, and southwestern willow flycatcher and/or the latter three species' critical habitat in a manner or to an extent not considered in the BO. We recognize the uncertainty in the refined analyses, but given the nature of the new information, we are compelled by regulations at 50 CFR §402.16 to reconsider the effects of the action.

### **Additional Species and Critical Habitat**

The third trigger for reinitiation is Item 4; a new species is listed or critical habitat designated that may be affected by the action. We anticipate making final determinations regarding the listing status and critical habitat for the northern Mexican gartersnake and yellow-billed cuckoo in the near future. We recommend that you pursue conference, pursuant to section 7(a)(4) of the Act and its implementing regulations at 50 CFR §402.10(d), on the proposed action's effects to these species, on the former's proposed critical habitat, and on the latter's proposed critical habitat if and when it is proposed.

### **Adoption of Conference Opinion**

We note that the BO already includes a conference opinion on proposed critical habitat for the jaguar (*Panthera onca*). The jaguar's critical habitat was finalized subsequent to the transmittal of the BO, and thus so we must consider whether to adopt the conference opinion as our biological opinion. The Reinitiation Notice provides instructions (see Pages 341-342), stating that "...you may request the FWS to confirm the conference opinion as a biological opinion issued through formal consultation if the jaguar critical habitat is designated. The request must be in writing. If the FWS reviews the proposed action and finds that there have been no significant changes in the action as planned or in the information used during the conference, the

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FWS will confirm the conference opinion as the biological opinion on the project and no further section 7 consultation will be necessary.” While adoption of a conference consultation as a biological opinion does not require reinitiation of formal consultation, the necessary analyses would occur during reinitiation triggered by other criteria.

Thank you for your continued coordination. Should you require further assistance or if you have any questions, please contact our Tucson staff Jason Douglas at (520) 670-6150 (x226) or Jean Calhoun at (x223).

Sincerely,



Steven L. Spangle  
Field Supervisor

cc (hard copy):

Benjamin Tuggle, Regional Director, Fish and Wildlife Service, Albuquerque, NM

cc (electronic copy):

Jean Calhoun, Assistant Field Supervisor, Fish and Wildlife Service, Tucson, AZ

Marc Stamer, Coronado National Forest, Tucson, AZ

Mindy Vogel, Coronado National Forest, Tucson, AZ

Marjorie Blaine, U.S. Army Corps of Engineers, Tucson, AZ

Chief, Habitat Branch, Arizona Game and Fish Department, Phoenix, AZ

Raul Vega, Regional Supervisor, Arizona Game and Fish Department, Tucson, AZ

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### Literature Cited

- Forest Service. 2013. Final Environmental Impact Statement for the Rosemont Copper Project, a Proposed Mining Operation, Coronado National Forest Pima County, Arizona. File number MB-R3-05-6. December 2013.
- Montgomery and Associates Inc. 2010. Revised Report: Groundwater Flow Modeling Conducted for Simulation of Proposed Rosemont Pit Dewatering and Post-closure, Vol. 1: Text and Tables. Prepared for Rosemont Copper. Tucson, Arizona: Montgomery and Associates Inc. August 30.
- SWCA, Inc. 2013. Review of Available Depth of Flow Information on Cienega Creek and Empire Gulch and Protocol for Estimating Impacts to Streamflow. Memorandum to File, October 30, 2013. Review of Available 16 pp. w/appendices
- SWCA, Inc. 2014. Additional Hydrologic Data from BLM. Technical Memorandum, Proposed Rosemont Copper Project Environmental Impact Statement. 9 pp. w/appendices.
- Tetra Tech. 2010. Regional Groundwater Flow Model, Rosemont Copper Project. Tetra Tech Project No., 114-320874. Prepared for Rosemont Copper. Tucson, Arizona. November.
- U.S. Fish and Wildlife Service. 2013. Final Biological and Conference Opinion for the Rosemont Copper Mine, Pima County, Arizona. File number AESO/SE 22410-2009-F-0389. October 30, 2013. 408 pp with Appendix.
- WestLand Resources, Inc. (WestLand). 2012. Potential Effects of the Rosemont Project on Lower Cienega Creek. Prepared for Rosemont Copper Company. Tucson, Arizona. November 14.