TUCSON AUDUBON SOCIETY

Leaders in conservation and education since 1949

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May 4th, 2018

Brig. General D. Peter Helmlinger
Commander, South Pacific Division
U.S. Army Corps of Engineers
1455 Market Street
San Francisco, CA 94103-1398

RE: Final Habitat Mitigation and Monitoring Plan for the Rosemont Copper Project

Dear General Helmlinger,

The Tucson Audubon Society is a not-for-profit organization founded in 1949 (http://tucsonaudubon.org/). We advocate for birds, their habitats, and the healthy ecosystems we all depend upon through various education, recreation, restoration, and conservation activities. We have been a partner with the U.S. Army Corps of Engineers (ACE) as an In-Lieu Fee (ILF) Provider providing compensatory mitigation since 2004. We have submitted numerous comments regarding the proposed Rosemont Copper Mine.

In 2001, the Tucson Audubon Society initiated the Important Bird Area (IBA) Program in Arizona in conjunction with Bird Life International, and we now co-administer the program with the National Audubon Society's state office, Audubon Arizona (http://aziba.org). IBAs are identified and designated through a rigorous scientific vetting process. The Santa Rita Mountains, Patagonia Mountains, and the Patagonia-Sonoita Creek Preserve are all designated IBAs; information about each can be found through the website above.

In 2013, in conjunction with the Arizona Game and Fish Department and Southwick Associates, Tucson Audubon Society published *The Economic Contributions of Wildlife Viewing to the Arizona Economy: A County-Level Analysis* (found at http://tucsonaudubon.org/images/stories/News/TAS-AZ-WildlifeWatching-Analysis-2011-130718.pdf). We reported that, for 2011, the total economic effect from watchable wildlife activities in Arizona was $1.4 billion. Of that, $304,368,133 was attributed to Pima County and $21,168,665 to Santa Cruz County. Birding is big business in southeastern Arizona.

The Tucson Audubon Society owns and operates a small, but internationally famous, bird sanctuary and study site, the Paton Center for Hummingbirds. The Center, in Patagonia, Arizona, is dedicated to the celebration and conservation of hummingbirds – and all of Southeast Arizona's astounding biodiversity (http://tucsonaudubon.org/go-birding/tucson-audubons-paton-center-for-hummingbirds/). The Center is immediately adjacent to the Sonoita Creek channel and the entire property is within the regulatory floodway. It is directly downstream of the proposed mitigation on Sonoita Creek Ranch.

What began with Wally and Marion Paton inviting curious birders into their yard shortly after moving to Patagonia in 1973, turned into an international birding destination with two hundred and thirteen bird species reported onsite, including national rarities like Violet-crowned Hummingbirds, Gray Hawks, and Thick-billed Kingbirds. With the assistance of the American Bird Conservancy and Victor

Emanuel's Nature Tours, the Tucson Audubon Society acquired the property in order to honor the Patons' vision and legacy by managing it for the ongoing benefit of the birding community. Thousands of native grasses, shrubs, and trees have been planted along the creek, providing habitat for birds and other wildlife to thrive. The property is one of Patagonia's premier tourist destinations, accommodating nearly 14,000 visitors in 2017, and multiple web cameras showcase aspects of the site and allow people to experience the Paton Center from afar (http://tucsonaudubon.org/go-birding/tucson-audubons-paton-center-for-hummingbirds/paton-center-web-cams/). The Center is highly valued and the community has invested over $1.5 million dollars in the site for its long-term protection and management. Our ongoing education, recreation, conservation, and restoration activities at the Paton Center are dependent on a healthy Sonoita Creek watershed.

We are aware that the Regulatory Branch of the Arizona Office of the ACE recommended, and the Los Angeles District upheld, denial of a Section 404 Permit under the Clean Water Act for the proposed Rosemont Copper Mine in Pima County, Arizona. We understand that the decision has now been elevated to your office for review.

On September 12, 2017, Hudbay Minerals released its "Final HMMP (Habitat Mitigation and Monitoring Plan) for the Rosemont Copper Project". A large part of the planned mitigation is located on Sonoita Creek Ranch, where Hudbay proposes ambitious rehabilitation measures to reconfigure the main channel of Sonoita Creek by cutting a new channel and plugging and backfilling the current incised channel. The Tucson Audubon Society supports denial of the Section 404 Permit based on the HMMP in part because direct, indirect cumulative, and related downstream impacts, which are unaccounted for in the plan, could directly adversely affect our Center.

Aspects of the HMMP design are deeply concerning to our organization because of the likelihood of failure. In a 77-page letter dated November 30, 2017, the EPA found significant flaws with the mitigation design (http://tucsonaudubon.org/wp-content/uploads/2018/05/epa-2017-critique.pdf). In addition, an independent consultant to Save the Scenic Santa Ritas, a non-profit opposing the Rosemont Copper Mine, analyzed the project and asserted that the channel design was likely to fail (http://www.scenicsantaritas.org/wp-content/uploads/2018/01/SSSR_ReviewSonoitaCkMitigationProject-Rosemont-1.pdf).

As a downstream neighbor likely to be impacted, the Tucson Audubon Society was not contacted during the mitigation design process regarding channel redesign. The EPA letter describes the project as a "massive undertaking" of excavation, filling, and re-contouring of almost 300,000 cubic yards of excavated floodplain soils resulting in inevitable impacts of heavy equipment, compacting sensitive soils, disrupting existing topography, and creating significant piles of soil and alluvial sediment. The HMMP itself (page 33 of 39) states that the "first few storms will mobilize a significant volume of sandy material and cobbles". We are also concerned that the HMMP states desired vegetation will not be established for 15 years (page 52), presumably because supplemental irrigation will not be used and the arid-land native plants planned in the design are expected to survive without initial supplementation. This suggests the potential for the introduction of invasive species and leaves highly erodible soils to wash downstream. The EPA points out that the mitigation goals are inappropriate for the site. Their letter explains that the existing abandoned farmland is returning to sacaton and

mesquite grassland. The letter states that the HMMP "naively assumes that reestablished riparian woodland is more ecologically important than the existing native riparian grassland woodland".

According to Council of Environmental Quality Regulations, a Supplemental Environmental Impact Statement must be written when there are "significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts". The HMMP clearly poses new actions which have not been analyzed under the National Environmental Policy Act. If the permit process moves forward, which we do not support, a Supplemental EIS is needed to address downstream impacts which are likely to occur with such a massive undertaking. These impacts could significantly disrupt soil and water integrity at the Paton Center. Downstream impacts could include damages caused by sedimentation or erosion following storm events both during and after construction at Sonoita Creek Ranch. Arizona is currently in our 21st year of a long-term drought (https://azclimate.asu.edu/drought/ and https://www.drought.gov/drought/states/arizona). The water table could be depleted to the extent existing wells fail due to inevitable use of groundwater upstream by the mitigation project once it is determined that revegetation is failing and must be irrigated. It is also highly likely that non-native, invasive species, including Bermuda grass and Johnson grass, will proliferate at the mitigation area and downstream due to degraded disturbed soils and lack of responsive native vegetation growth.

Overall, the proposed HMMP could cause significant negative downstream impacts to properties, such as Tucson Audubon's Paton Center, and has been reviewed as inappropriate for the site. As a top tourist destination in the region, the Paton Center for Hummingbirds attracts birders from around the world and degradation to the site would damage an important economic driver for the region. As a downstream landowner, Tucson Audubon supports the denial of Rosemont Copper's Section 404 permit.

We respectfully submit this letter to you to request that you consider our concerns as downstream neighbors of Sonoita Creek Ranch. Please contact our Executive Director, Jonathan Lutz, at 520-209-1801, and/or our Restoration Ecologist, Jonathan Horst, at 520-971-6238.

Sincerely,

Jonathan Lutz,
Executive Director, Tucson Audubon Society

Jonathan Horst,
Director of Conservation and Research, Tucson Audubon Society

Nicole Gillett,
Conservation Advocate, Tucson Audubon Society

CC:
William James, National Mining Expert, U.S. Army Corps of Engineers
Colonel Kirk Gibbs, District Commander, Los Angeles District, U.S. Army Corps of Engineers
Alexis Straus, Acting Regional Administrator, Region 9, Environmental Protection Agency