



## COUNTY ADMINISTRATOR'S OFFICE

PIMA COUNTY GOVERNMENTAL CENTER  
130 W. CONGRESS, FLOOR 10, TUCSON, AZ 85701-1317  
(520) 724-8661 FAX (520) 724-8171

C.H. HUCKELBERRY  
County Administrator

August 12, 2014

Mr. Patrick Merrin  
Vice President, Arizona Business Unit  
Hudbay Minerals  
P. O. Box 35130  
Tucson, Arizona 85740

**Re: Top 10 Recommendations Regarding the Proposed Rosemont Mine**

Dear Mr. Merrin:

When we met on July 21, 2014, I indicated we would provide you with our top 10 recommendations regarding how to either redesign the Rosemont Mine Plan of Operations to lessen adverse impacts or to position mitigation to be meaningful for the Cienega Basin. These 10 recommendations are listed below for your information and use.

1. Use Central Arizona Project (CAP) water directly for mine operations. Direct use of CAP water would reduce the use of high-quality groundwater on both sides of the mountain and minimize the impacts on existing well owners. It would also facilitate the commitment of water from pit dewatering to conservation purposes (see #3 below). One constraint is that CAP water is not available year-round; thus, recharge in Sahuarita or Green Valley would be needed as backup storage.
2. Minimize the footprint of future disturbance in the northern Santa Rita Mountains by renouncing future efforts to mine Copper World, Peach-Elgin, and Broadtop Butte deposits. Demonstrate to the community that the mine will never further scar the western slope of the Santa Rita Mountains nor further deplete the aquifer in either the Santa Cruz or Cienega Basins. The mine should convey mineral interests and fee simple estate of these other deposits to a qualified landholder as voluntary mitigation for the Rosemont Mine.

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3. Replenish the aquifer downstream of the mine. An adaptive management plan can be developed to pump the pit water and periodic stormwater accumulations from the peripheral areas of the mine downstream over time to store water underground in advance to recharge areas that would become dewatered as a result of the pit. Implementing this mitigation measure could partially address the short-term downstream impacts of pit dewatering on springs and streams in the Cienega watershed, which would also help address Tohono O'odham concerns about impacts to sacred waters. Downgradient wells could also benefit from this mitigation measure.
4. Reclaim the pit through partial backfill. Partial backfilling could reduce long-term water resource impacts on more distant springs, streams and wells by eliminating the perpetual evaporative loss of water due to pit lake formation. The pit lake would otherwise contain over 64,000 acre-feet of groundwater. Partially backfilling the pit could also reduce loss of animal life from the pit lake toxicity.
5. Acquire and protect important natural areas in the Cienega watersheds. While Rosemont is proposing 4,599 acres of protected lands, the mitigation required based on the aggregate impacts of Rosemont in relation to the Conservation Lands System, including the utility corridors, would be approximately 13,700 acres. Much of Rosemont's current mitigation offerings will not actually reduce the impacts to the Santa Rita Mountains or Cienega watershed.
6. Redesign stormwater management systems and reduce seepage through waste-tailings to reduce the risk for future water contamination. The stormwater management systems are under-designed with respect to peak and volume of flood runoff for a variety of reasons (fire, sediment, rainfall inputs and design storm). Use revised hydrology and design for sediment transport per the recommendations of the Pima County Regional Flood Control District. Also, move water out of the perimeter containment areas and unplanned water bodies around the periphery of the mine site to reduce seepage and improve the monitoring and detection of seepage during and after closure.
7. Properly plan and manage soil resources to ensure reclamation success. Soil calculations and staging plans show there will be inadequate soil cover for reclamation success. The mine should prepare and execute plans to assure a minimum one-foot thickness and demonstrate how onsite soils will be managed throughout the mine life, with bonding for potential slope movement
8. Fund additional safety, traffic and road repair improvements on Sahuarita Road and Highway 83. Provide truck passing lanes on State Route 83 and intersection improvements at Sahuarita Road to address safety concerns. Provide additional traffic

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analysis and quantify impacts to Sahuarita Road, then propose measures to address roadway degradation.

9. Acquire and use Tier 4 engines in all non-road diesel equipment to reduce air pollution. This would reduce particulates and other pollutant emissions to air.
10. Comply with local Dark Skies Outdoor Lighting Ordinance. This is critical to protect the longevity of Whipple Observatory and the jobs and economic revenue generated by the observatory.

These suggestions are just that; since we have little, if any, permitting or approval authority over your proposed action. If you would like additional information regarding any of these recommendations, we would be happy to discuss them with you.

Sincerely,



C.H. Huckelberry  
County Administrator

CHH/mjk

Enclosure

c: The Honorable Chair and Members, Pima County Board of Supervisors