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C.H. HUCKELBERRY
County Administrator

August 14, 2013

Jim Upchurch, Forest Supervisor
U. S. Forest Service
300 W. Congress Street
Tucson, Arizona 85701

Re: Pima County Comments – Rosemont Copper Mine Preliminary Administrative Final Environmental Impact Statement

Dear Mr. Upchurch:

Thank you for granting the time extension for providing comments. We appreciate this extra time.

Attached please find comments regarding the Rosemont Copper Mine Preliminary Administrative Final Environmental Impact Statement (PAFEIS) from Pima County and the Pima County Regional Flood Control District, collectively referred to as Pima County in this letter.

Supplemental DEIS Requested

Pima County previously provided comments on the Administrative version of the Draft EIS (DEIS) under our Cooperating Agreement with the Forest Service, as well as the public version of the DEIS. In those previous comments, we found the DEIS to be substantially flawed. We have requested previously and now repeat our request for a supplemental DEIS, since the version upon which public comment was based is so substantially different than the present version.

While this current version of the PAFEIS and associated reports contain considerably more information, the fact remains that this document fails to adequately address the primary purpose of the National Environmental Policy Act (NEPA), which is the full disclosure of impacts based on a thorough analysis of the proposal and its alternatives, including

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mitigation measures. Relying upon this document for your decision as to whether to permit the mine's destruction of thousands of acres of public Forest land, will surely result in lengthy challenges. Similarly, the US Army Corps of Engineers' (Corps') use of this document for their decision as to whether to approve a Clean Water Act (CWA) permit allowing Rosemont to fill, destroy and pollute area waterways, springs and seeps will also prove problematic.

Confusion Abounds Regarding Mitigation Measures and Requirements

An area of concern regarding the federal decision making process is confusion regarding what will be required mitigation or even offered mitigation. We understand the Forest Service, Corps and US Fish and Wildlife Service are limited in what they can require for mitigation. However, we were informed that if Rosemont voluntarily commits to mitigation measures, then those mitigation measures can become required conditions to the permits. Regardless of the distinction, the fact remains that the level of mitigation proposed is inadequate to offset the significant adverse and irreversible permanent impacts of the proposal or is described so vaguely it is confusing as to whether there is in fact a commitment.

Today, we still have no clear understanding as to what mitigation is either being voluntary provided or even required. We have read Appendix B, which is supposed to be a summary of the mitigation either provided or required. There are few, if any, declarative statements regarding specific, detailed mitigation.

There is also great confusion as to what is or will be a required response or condition of project approval or permitting. Saying the Forest Service cannot require a certain mitigation measure or project requirement and that the project proponent should volunteer compliance creates a loophole large enough to drive a mine truck through it. Without clear and concise requirements, every mitigation measure is questionable, setting up a scenario where the public will be left with a mess; and the taxpayers will be on the financial hook for corrective action.

Finally, the mitigation proposed also fails to recognize accepted local standards. Recommended mitigation measures proposed or suggested by the County have largely been ignored even though these measures are an accepted community standard.

No Clear Indication Local Code Compliance is Required

Neither the proposed action nor the project proponent has shown a willingness to or ability to comply with local codes and laws, such as the County Outdoor Lighting Code, the Floodplain Management Ordinance and other County Codes and Ordinances. The FEIS should provide a clear statement requiring local compliance. This is unacceptable and is either a federal oversight or simply ignoring legitimate local community concerns.

Major Areas of Concern

We take our role as a Cooperating Agency very seriously and to that end have contributed meaningful input we feel has and will continue to improve aspects of the project. As a County government, our role is also to assure public health, safety and welfare, as well as to protect taxpayers from adverse and costly impacts over the long run that could dwarf short-term benefits.

The comments attached reflect these roles and responsibilities, as well as the technical expertise of the staff that drafted them. Below are a few of the major concerns that continue to plague this NEPA review and process.

1. Water Supply Loss is not Mitigated

The proposed action relies on mined groundwater. The project proponents propose to recharge 105,000 acre feet (af) to offset this groundwater pumping and depletion. To date, they have recharged approximately 45,000 af of water in the Tucson Active Management Area (TAMA) but have done so in a location not hydrologically connected to the area of groundwater pumping and depletion.

The County has stated on numerous occasions our preference to have the mine rely on directly-delivered Central Arizona Project (CAP) water. If this water is not reliable on an annual basis, it could be supplemented with groundwater to augment the necessary mine water supply. This action would be preferred to groundwater mining and depletion. The balance of recharge from CAP water must be recharged in the area of hydrologic impact of groundwater pumping and depletion. Such should be required by the Forest Service.

In addition, there are vague references to offsetting groundwater pumping using CAP storage credits. However, there are no clear-cut statements or commitments to do so. The recharge credits obtained by Rosemont must be extinguished upon the pumping of groundwater. We recommend the Forest Service require that recharge credits be extinguished on an annual basis, with the number of acre feet of recharge credits being extinguished based on annual groundwater pumping by Rosemont. To not require these recharge credits to be extinguished potentially allows the groundwater overdraft to be doubled, instead of the proposed action, which is to offset groundwater pumping and depletion with recharge in the TAMA.

The County requests the Forest Service require further groundwater recharge to occur in the area of hydrologic impact of groundwater withdrawal and that recharge credits be extinguished on an annual basis in proportion to groundwater pumping by Rosemont.

2. Air Quality Impacts Are Underestimated

The potential adverse air quality impacts of the Rosemont proposal are underestimated due to incorrect assumptions used in the air quality modeling. These incorrect assumptions include the use of improper modeling inputs for estimating particulate matter; exclusion of elevated particulate matter data; underestimating background air quality data; incorrect nitrogen oxide emissions; and incomplete modeling for ozone.

When estimating the particulate matter (PM) arising from wind erosion of the tailings impoundments, the Forest Service relies on an assumed threshold friction velocity that is 2.5 times higher than the threshold actually measured for mine tailings at Hayden, Arizona. By using such a high threshold, the Forest Service has severely underestimated the ability of the wind to cause erosion, which would result in higher ambient PM levels that could exceed the National Ambient Air Quality Standards (NAAQS).

Rosemont excludes the highest PM value from the air quality modeling without thorough statistical analysis. When this high value is included, the 24-hour PM₁₀ data exceeds (Proposed Action) or nearly exceeds (Barrel Alternative) the NAAQS.

US Environmental Protection Agency guidance requires modeled pollutant estimates to be added to current “background” levels found in the immediate area. Instead, Rosemont selected the lowest possible background pollutant level, sometimes from a monitor in a pristine area hundreds of miles away, to add to predicted Rosemont emissions. This mistake is made for PM and NO_x, thus calling into question all the air quality model results.

The incorrect nitrogen dioxide (NO₂) to nitrogen oxide (NO_x) ratios used result in an underestimation of NO_x concentrations. Even using the lower NO₂/NO_x ratio, modeled emissions for the Proposed Action and the Barrel Alternative exceed the NO₂ NAAQS.

Not only is Pima County likely to violate the NO₂ NAAQS, but also the ozone NAAQS. This is because NO₂ is a necessary ingredient for ozone formation and has a significant and complex effect on ambient ozone levels. Recognizing this, the Forest Service should have called for the use of a photochemical model to estimate the effects of Rosemont’s activities on ambient ozone. The Forest Service claims that such modeling “is not typically performed...” but given the potential impacts of increased NO₂, a conservative approach to protecting air quality dictates the use of a photochemical model, especially since more than a million people live in the air shed.

Approving the Rosemont proposal based on flawed air quality modeling places Pima County closer to nonattainment of the NAAQS for multiple pollutants. Hence, the adverse cost of dealing with nonattainment potentially caused by Rosemont will be an economic burden placed on existing County businesses and residents.

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The County requests the Forest Service require reanalysis of the air quality impacts of the Rosemont proposal related to conformance with the national ambient air quality standards of the CAA and demonstrate the County will not be placed in nonattainment if the Forest Service approves the proposed Rosemont action.

3. Wetland, Riparian, Seeps and Springs Loss not Mitigated

The proposed Rosemont action irreversibly impacts Waters of the United States (Waters) and seeps and springs that will be lost forever. Surface water captured by the Rosemont proposal will be diverted from replenishing Cienega Creek and Davidson Canyon, both designated Outstanding Waters of the State of Arizona. Over the life of the proposed action, in addition to surface water diversion, 18,000 af to 26,000 af of groundwater will be removed from the area around the proposed mining pit in the dewatering to facilitate safe excavation and operation of the pit. After mine closure, the pit lake will forever divert and evaporate natural groundwater flows that would otherwise replenish the Waters within the Cienega Basin. Long-term riparian restoration needs to be assured to offset the adverse impacts to Waters, springs and seeps that will be irreversibly impaired or destroyed.

Our concerns related to adverse impacts to Waters of the United States and the Outstanding Waters of the State of Arizona are based on our substantial public investments made to protect Cienega Creek and Davidson Canyon within the Cienega Basin. The County has already invested over \$64 million in watershed and stream protection within the Cienega Basin. In addition, the Bureau of Land Management gave up thousands of acres of land to development in order to acquire Las Cienegas. The proponent's actions must not adversely impact these investments. We are not satisfied that the proposed mitigation measures regarding Waters of the United States impacts are adequate.

The PAFEIS fails to take into account the declining baseline conditions of natural water sources against which Rosemont's proposal must be evaluated. It is a well-known fact that dependable surface flows, as measured by the US Geological Survey in Cienega Creek, continue to diminish due to a variety of factors, including natural drought. The average dependable base flow of wet water at the Pantano Dam has been only 360af per year. The attached report entitled "Water Resource Trends in the Cienega Creek Natural Preserve" provides additional documentation of declines in surface water and groundwater conditions in the Preserve.

Rosemont has acquired a number of surface water rights dating from 1908 and proposes to use a portion or potentially all of these to satisfy the mitigation offsets to their impacts to Waters. They have acquired or have options to acquire 1,122 af of 1908, 1933 and 1935 surface water rights; however, the acquisition and dedication of these water rights

can never be a real or dependable mitigation measure, since the base flow at the Pantano Dam may not much exceed 360 af in future years.

While acquisition of water rights, conveyance of those rights to the County, acquisition of the dam site, conveyance of the dam site to a third party or the County for conservation, and retiring the Vail Water Company well in the vicinity of the dam site will all be helpful actions, they will not fully mitigate the proponent's adverse impacts to Waters.

The County is willing to consider appropriate actions to improve the sustainability and development of riparian vegetation and aquatic habitat in the Cienega Basin; however, the responsibility to do so will be solely that of Rosemont. Rosemont must demonstrate clear and complete compliance with the CWA, and details of their mitigation proposals related to the impacts to Waters do not demonstrate such compliance at this time.

4. Habitat Losses not Mitigated

The PAFEIS disclosures that the Forest Service's preferred action will destroy up to 5,421 acres of functional ecosystem, about 1,000 acres more than was disclosed in the earlier DEIS and 1,000 acres more than the Silver Bell Mine. This substantial increase in disturbed area points to the need for a Supplemental DEIS. Pima County has an adopted local standard for mitigating the loss of ecosystem and habitats. This local standard would require around 12,900 acres of mitigation based on what we now know about how the project affects the County Conservation Land System that has been adopted and applied within Pima County for nearly 10 years. This local standard needs to be respected by federal agencies and is required to offset the loss of functioning ecosystems.

Under the present proposal, the project proponent is proposing to acquire approximately 3,300 acres of mitigation lands in Pima County, well below that required by the local standard. The project proponent has referenced the possible acquisition of Sonoita Creek Ranch. Even if this property is acquired, the proposal falls far short of meeting the local accepted standard for mitigation lands.

It should also be understood that the monetary fund being established for the Cienega Basin to "help restore the watershed to a functioning ecosystem" is grossly inadequate and represents a mere fraction of the cost of real restoration and mitigation.

Of most concern to the County is its exclusion from the interagency team responsible for identifying mitigation actions in the Cienega Basin. I assume this is an oversight. Given our \$64 million investment in protecting the ecosystems and water resources within the Cienega Basin, the County requests it be a key member of the interagency mitigation team. The County also requests the federal decision-making agencies require the full mitigation obligation in accordance with local standards for acres of mitigation; a significant increase in the fund established for watershed and ecosystem restoration; and significant

involvement with the interagency team responsible for identifying mitigation actions to be funded by Rosemont in the watershed.

The County has also suggested on numerous occasions the analysis of partial pit backfill to minimize the impact on the ecosystem by shrinking the footprint of the waste disposal site. Our requests have been largely discounted. It is only appropriate that full mitigation measures be imposed on Rosemont, given the County's suggested number of alternatives, including partial pit backfill to minimize these impacts.

5. Traffic Impacts not Mitigated

In the PAFEIS, the proponent inadequately and, in some cases, fails to reference any impact analysis or mitigation of adverse traffic impacts resulting from the proposed action. While there is some discussion regarding certain improvements to State Route (SR) 83, they are not clear, nor are the improvements quantified. For example, discussion has occurred regarding the paving of additional lanes on SR 83 in particular areas. However, there is no mention of the rural highway section being widened to accommodate this additional lane paving and shoulder. Without complete reconstruction of the roadway prism, adding a lane could make the roadway even more unsafe than it would be without improvements.

There are also impacts to County-maintained highways; i.e., Santa Rita Road, Sahuarita Road, Valencia Road and others that have not been analyzed or quantified. Full network transportation impacts need to be analyzed in order to validate the PAFEIS. Anything short of this is a significant flaw in the document. Traffic and transportation impacts do not stop at jurisdictional boundaries.

Certain roadway improvements, such as turning and passing lanes, shoulder stabilization and paving, and pavement overlay only on SR 83 could cost as much as \$13 million. The mitigation measure suggested for heavy truck damage to the structural pavement section to "conduct the baseline analysis of road conditions along State Route 83" is wholly inadequate and will not result in any meaningful reductions of the impacts caused by the mine.

The proposal also locates a school bus stop in the vicinity of the mine entrance. Mixing school buses with heavy truck traffic and other mine traffic is unacceptable. Also, the location of the Vail School District bus turn around at Milepost 46.9 on SR 83 immediately south of the proposed Rosemont primary access is not disclosed in the PAFEIS. Finally, the proponent has indicated they intend to bus 1,250 workers to the site from staging areas along Interstate 10 or from the community of Sonoita, but there are no locations listed for these staging areas or statements of how employee bus travel will be enforced. If bus travel is not enforced, what would be the increased traffic impact to SR 83 and

other local streets and highways maintained and operated by Pima County or the City of Tucson?

The PAFEIS states that gas tax revenues are available to pay for required roadway improvements and maintenance. A historical analysis of gas tax revenues in the State of Arizona shows they have been declining or stagnant for the last 10 years. Gas tax revenues will not be available to pay for needed roadway improvements or maintenance, and the cost burden of the transportation impacts caused by the proponent will be shifted to local taxpayers as gas tax revenues today are inadequate to maintain the existing streets and highways maintained by the State, County and City.

The PAFEIS is completely inadequate in evaluating and mitigating transportation and traffic impacts caused by the project. The document is significantly flawed in that it fails to disclose impacts to streets and highways maintained by the City and County. Further, the mitigation being required for improving SR 83 is unclear and nonspecific.

6. Mining Reclamation Plan is Inadequate

The Rosemont Copper letterhead contains the title: "Redefining Mining." The inadequacies of mine reclamation from past hard rock mining activities are well documented throughout the nation. Within a few miles of the Rosemont project area, legacies of periodic air quality violations of national ambient air quality standards, groundwater pollution, including the sulfate plume; and depleted groundwater along the Santa Cruz River remind us how important an adequate mine reclamation plan is to assure past mistakes will not be repeated. While a mine reclamation plan is proposed, it is not "Redefining Mining," since it does not contain detailed reclamation measures that assure the reviewer that reclamation will be assured, adequate and sustained in the long term.

A few simple examples demonstrate this reclamation plan is not better than those of the past. For example, there are no performance standards for the composition of the soil or "growth media" to be placed on the waste and tailings. Secondly, there are no success criteria for revegetation measures. Monitoring simply indicates that observations will be made, but it does not address what remedial actions will be taken to ensure revegetation will succeed.

Third, the plan relies heavily on natural soil availability. By 2015, natural soil borrow areas will have all been removed through excavation or covered by mine waste; and the amount of soil salvaged is, by our estimate, nearly 2.5 million cubic yards short of being able to plate the final mine waste landform with topsoil. Where will the additional topsoil come from for needed and complete reclamation?

The mine at closure will create a pit lake. No mitigation measures are proposed that would deal with a mine pit lake that does not meet water quality standards. The present lake pit

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water quality monitoring leaves out many sources of pollution and has made too many simplifying assumptions as we have previously commented. There is nothing in the reclamation plan that would assure us we will not be left with another polluted pit lake.

Finally, tens of thousands of native oak, juniper and mesquite trees will be destroyed as a result of the project proponent's actions. The final EIS must offset the impacts to these basic forest resources, either onsite or offsite. The Forest Service can, but has not, demanded this kind of mitigation; yet it is not only fundamental to the Forest Service's mission but also to Rosemont's visual mitigation goals for softening the blight of the mined landform.

In summary, it appears the reclamation proposed by the project proponent is nothing more than a dressed-up version of past methods that have failed.

7. Future Impacts of Mining West of the Santa Rita Ridge Line not Addressed or Resolved

The Green Valley community has been repeatedly assured that Rosemont has no planned mining activities west of the Santa Rita ridgeline; yet, there are no assurances from the project proponent that these deposits will also not be mined in the future.

Rosemont should be required to exchange mineral interests and fee simple estate of the Broadtop Butte and Copper World deposits with the Forest Service as partial mitigation and compensation for Rosemont's acquiring and using 3,670 acres of Forest Service land and 582 acres of State land to exploit the Rosemont deposit.

8. Cultural Resources Impacts not Mitigated

There have been ineffective consultations with Native American communities regarding the adverse impacts of the proposal on heritage resources that include traditional cultural places, sacred sites and landforms, and individual historic properties and archeological sites that comprise the entirety of the historic cultural landscape. There is a general lack of clarity when discussing critical issues related to Section 106 of the National Historic Preservation Act (NHPA), including assessment of the effect of mitigation of adverse effects, as well as monitoring programs designed to ensure damage to traditional cultural places, individual historic properties and archeological sites are minimized. Given the close locational association of historic properties, archeological sites and traditional cultural places to seeps, springs and Waters of the United States, any disruption or destruction of these Waters will proportionately destroy these cultural resources and have profound impacts to the cultural and spiritual fabric of traditional Native American communities that hold these places sacred. Mitigation of these greater impacts is not adequately addressed.

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The PAFEIS indicates the Corps will defer to the Forest Service; however, the Forest Service's consultations appear to be rushed and without adequate consideration of the requests made by the Tohono O'odham Nation, Pascua Yaqui Tribe and other Native American tribes participating in the process. It is also troubling that the PAFEIS states that Section 106 of the NHPA has been concluded, when in fact it has not; and the draft Memorandum of Agreement (MOA) included in the PAFEIS is different from the version currently in review. Moreover, there are currently no assurances that the mitigation measures addressed in the draft MOA will be fully implemented. At present, these measures are not being considered in the reclamation bond that will provide financial assurances that the terms of the MOA and Historic Property Treatment Plan will be fulfilled. We recommend the Forest Service include this provision in the MOA and in the reclamation bond.

9. Environmental Justice not Adequately Addressed

With regard to environmental justice, the PAFEIS fails to address disproportionate impacts to the environmental justice communities of the Tohono O'odham Nation, Pascua Yaqui Tribe, or the Hispanic residents of Santa Cruz County. Federal agencies, in their conduct of this process, have failed to provide opportunities for meaningful involvement of these communities. The PAFEIS concludes the mitigation plan is unlikely to "relieve the disproportionality of the impacts to the Tohono O'odham Nation" or other consulting tribes. No additional mitigation is explored or proposed that might relieve this disparity in whole or in part. The process has failed to reduce or alleviate disproportionate impacts on minority communities.

Arizona Revised Statutes §45-2711 requires the Arizona Department of Water Resources (ADWR) director to conduct a hydrologic analysis of well impacts from nonexempt wells that may impact the Tohono O'odham Nation. The project proponent has indicated in their own studies that groundwater extraction will remove groundwater under the San Xavier District of the Tohono O'odham Nation, potentially reversing groundwater flow. The impacts of this action to a minority community need to be addressed.

10. Fiscal Assurances are Inadequate

Little to no information has been provided regarding the financial assurances to be provided by the project proponent to offset costs that would be incurred by the federal taxpayer if the project causes air and/or water pollution that endangers the public health.

No discussion has been completed that establishes any type of performance bond to assure mitigation and remediation of impacts should the project proponent fail to perform the mitigation or restoration actions stated.

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Given the costly environmental remediation efforts necessary to correct hard rock mining pollution problems of the past, significant and substantial financial assurances must be provided by the project proponent. To date, little, if anything, has been provided.

Overall, the PAFEIS does include substantially more information than was included in the DEIS. It shows that the proposed mine would have high costs to the environment and the community, while providing inadequate mitigation; especially for the types of public health, safety, and welfare impacts that may be outside the regulatory framework of the Forest Service and the Corps. However, it is still incomplete in many ways and lacks information required to be included in a Final EIS.

The previous discussion summarizes our major concerns. Attached in your requested format are 164 pages of detailed comments organized by general subject matter. These comments constitute review of this subject that could be completed within the allotted timeframe.

We appreciate the ability to comment and the additional time afforded to us and other agencies. If, in fact, you do chose to pursue this substantially changed, but still flawed document as a Final EIS, as opposed to a Supplemental EIS, then these comments become all the more important as the process will not afford any further public comment. In addition to the comments attached, we restate all of our previous comments and concerns.

Sincerely,



C.H. Huckelberry
County Administrator

CHH/mjk

Enclosures

c: The Honorable Chairman and Members, Pima County Board of Supervisors
 The Honorable Raúl Grijalva, Congressional District 3, US House of Representatives
 The Honorable Ron Barber, Congressional District 2, US House of Representatives
 Nicole Fyffe, Executive Assistant to the County Administrator
 Linda Mayro, Director, Sustainability and Conservation
 Julia Fonseca, Environmental Planning Manager, Sustainability and Conservation