MEMORANDUM

Date: June 22, 2012

To: The Honorable Chairman and Members
   Pima County Board of Supervisors

From: C.H. Huckelberry
       County Administrator

Re: A Tale of Two Mines – An Analytical Comparison of the Proposed Rosemont Copper Mine with the Proposed Oracle Ridge Mine

I. INTRODUCTION

I recently provided the Board an analysis comparing the costs and benefits between the proposed Rosemont Copper Mine (RCM) and six other recently announced new or expanded businesses in Pima County. The point was that not all high paying, high job generating business proposals are at odds with natural and cultural resource conservation and preserving other community values. As a region, we have come a long way in the past decade or so in recognizing that a balance between economic growth and conserving our natural and cultural environment is, in fact, possible. In the case of copper mining, the analysis showed it is possible to develop a high job generating, high salary generating copper mining enterprise that does not compromise our environmental and other community values.

The analysis included the proposed RCM in the Santa Rita Mountains southeast of Tucson and the proposed reopening of the Oracle Ridge Mine (ORM) on the north side of the Santa Catalina Mountains northeast of Tucson. The three tables below show how these two mines compared across the indicators included in the analysis. The sources of data included in these tables can be found in staff’s June 14, 2012 report.

<table>
<thead>
<tr>
<th>Proposed Mine</th>
<th>Number of New Direct Jobs</th>
<th>Number of New Direct, Indirect and Induced Jobs</th>
<th>Average salary and benefits of new jobs</th>
<th>Total New Jobs Capital Investment</th>
<th>Total New Jobs Economic Benefit in Pima County per year (direct, indirect and induced output)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rosemont Copper Mine</td>
<td>350 – 480</td>
<td>900 – 1,600</td>
<td>$70,800</td>
<td>$897,171,772</td>
<td>$392,400,000</td>
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<tr>
<td>Oracle Ridge Mine</td>
<td>240</td>
<td>636</td>
<td>78,000</td>
<td>100,000,000</td>
<td>201,731,693</td>
</tr>
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</table>
Table 2. Costs or Adverse Impacts to Land and Related Resources.

<table>
<thead>
<tr>
<th>Proposed Mine</th>
<th>Total Acres of New Land Disturbance</th>
<th>Adverse Impacts to Conservation Lands System (acres)</th>
<th>Adverse Impacts to Threatened or Endangered Species</th>
<th>Adverse Impacts to Cultural Resources (number of sites)</th>
<th>Area No Longer Available for Recreation (acres)</th>
<th>Use of Public Land without Compensation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rosemont Copper Mine</td>
<td>4,288</td>
<td>4,288</td>
<td>Yes</td>
<td>96</td>
<td>6,844</td>
<td>Yes</td>
</tr>
<tr>
<td>Oracle Ridge Mine</td>
<td>77</td>
<td>77</td>
<td>Potential</td>
<td>5</td>
<td>&lt;1</td>
<td>No</td>
</tr>
</tbody>
</table>

Table 3. Cost or Adverse Impacts to Water, Air, Transportation and Dark Skies.

<table>
<thead>
<tr>
<th>Proposed Mine</th>
<th>Adverse Impacts to ground water supplies</th>
<th>Adverse Impacts to air quality</th>
<th>Adverse Transportation Impacts</th>
<th>Adverse Impacts to Dark Skies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rosemont Copper Mine</td>
<td>High</td>
<td>Yes</td>
<td>medium-high</td>
<td>High</td>
</tr>
<tr>
<td>Oracle Ridge Mine</td>
<td>Medium</td>
<td>No</td>
<td>low</td>
<td>Low</td>
</tr>
</tbody>
</table>

This memorandum compares just these two mining proposals using the indicators included in the tables above, as well as additional indicators that compare these projects. There are striking contrasts in the scale, footprint, extraction and processing methods, and useful life of the two mines. RCM has far higher potential to cause adverse impacts on natural, cultural and other community resources than ORM. However, the annual number of jobs and total yearly economic benefit in Pima County from the jobs proposed by RCM is only two times that of ORM.

Equally important, the companies proposing these projects have taken completely different approaches to avoiding and mitigating environmental and other community impacts, as well as completely different approaches to sharing information and working cooperatively with the community and interested parties. For the Board of Supervisors July 10 or August 7, 2012 agenda, staff is preparing a Memorandum of Understanding between ORM and the County concerning a number of issues that will be cooperatively addressed by the company.
II. PROPOSED PROJECT DESCRIPTIONS

ORM is proposing to reopen and operate a currently closed underground copper mine on the northeast side of the Santa Catalina Mountains, approximately 10 miles southwest of San Manuel and seven miles northeast of Summerhaven (see Maps 1 and 2). The company estimates an 11-year mine life generating approximately 140 tons of copper concentrate per day. The company has stated that, as much as possible, they intend to utilize a similar footprint to previous operations, with an estimated area of new impact of 77 acres. It appears the most sizable new area of impact would be the expansion of the existing 35-acre tailings storage site by approximately 45 acres (see Map 3). The mine site and the ore processing facility/dry stack tailings site are located approximately two miles apart on private property (see Map 3). A pipeline would carry slurry containing copper and waste from the mine site to the processing facility/tailings site. Haul trucks driving about five to seven round trips a day would carry the copper concentrate from the processing facility along Black Hills Mine Road, to a warehouse north of the Pima/Pinal County line. A utility and conveyance corridor containing pipelines, a road, and electrical lines would generally follow the existing alignment, which crosses land acquired by the County in 2004 for conservation purposes, as well as US Forest Service land.

The former ORM mine relied on diesel generators for power. Additional power will be necessary for reopening of the mine. The company is exploring the addition of new power lines and poles that would generally follow the alignment of the Black Hills Mine Road, from Pinal County to the tailings site, and then upgraded lines and poles along the existing utility corridor alignment from the tailings site to the mine site. The company will need several permits and approvals to reopen this mine.

RCM is proposing to develop and operate a new open pit copper mine on the east side of the Santa Rita Mountains, approximately 30 miles southeast of Tucson (see Maps 1 and 4). The company is estimating a 21-year mine life generating approximately 1,300 tons of copper concentrate and molybdenum per day. The preferred alternative, as described in the September 2011 Draft Environmental Impact Statement (DEIS), would impact approximately 4,288 acres of previously undisturbed land, most of which is on public land managed by the Coronado National Forest (see Map 4). The mine would include an open pit, waste rock and dry stack tailings storage area, heap leach facility and processing facilities, all within a perimeter fence surrounding a 6,844 acre area (see Map 5). Haul trucks driving about 56 round trips a day would carry copper concentrate from the mine site along Sonoita Highway/State Scenic Highway 83, on to Interstate 10 and on to City and County roads to a rail yard at the Port of Tucson. Additional mine related heavy truck traffic on Sonoita Highway would bring the total round trips to 88 per day (p. 611).
Power for the RCM mine would be provided by Tucson Electric Power Company and would include a new transmission lines that would run from an area near the southern end of the Town of Sahuarita, across The University of Arizona-managed Santa Rita Experimental Range, generally following the alignment of the existing Santa Rita Road, then across Rosemont private property and Coronado National Forest-managed land and to the mine plant site. The company will need several permits and approvals to develop and operate this mine.

III. COMPARISON OF ECONOMIC BENEFITS

As Table 1 above shows, RCM, compared to ORM, would provide about twice the number of new direct jobs annually; twice the number of new direct, indirect and induced jobs annually; and twice the annual economic benefit, excluding economic benefits from capital improvements. ORM would pay slightly higher salaries and benefits. RCM’s capital investment would be about nine times greater than ORM’s.

ORM’s high number of jobs compared to its comparatively small size and output is due to the fact that it would be an underground mine, which is apparently much more labor intensive than an open pit mine. To produce one ton of copper concentrate at ORM, 1.7 jobs are necessary. To produce one ton of copper concentrate at RCM, 0.4 jobs are necessary.

IV. COMPARISON OF MINING IMPACTS

The significant differences between the size, extraction methods and locations of these two mining proposals, coupled with the very different approaches the companies have taken with regard to mitigation and environmental protections, will result in RCM causing substantially greater adverse impacts to environmental and community resources. In addition, many of these adverse impacts are irreversible and will permanently impact this community beyond the foreseeable future.

A. Size of New Land Disturbance

The number of acres of previously natural land that will be disturbed is the most striking difference between these two proposals. A sizable portion of the new land disturbance is due to the differences in extraction methods. The geology of the Rosemont deposit, including the low concentrations of copper, makes it more economically viable to extract via an open pit, which results in a massive hole in the ground and massive quantities of waste rock. The copper deposit at ORM is of much higher concentrations and can more easily be extracted via underground mining, which in turn results in significantly less land disturbance and waste.
RCM: 4,288 acres. This does not include power and water lines.
ORM: 77 acres. This includes power and water lines.

B. Conservation Lands System and Mitigation

The County’s Conservation Lands System (CLS) is the foundation for not only conservation of plant and animal diversity, but for preserving natural floodplain functions and a host of other communitywide benefits that result from maintaining wide open landscapes around our urban community. While the preference is to guide development impacts to areas outside the CLS, the County’s CLS development guidelines acknowledge that impacts within the CLS will occur and provide appropriate mitigation ratios to compensate for such impacts. While it is true mines and development within incorporated cities and towns are not subject to the land use regulations and policies of the County, we strive to maintain the integrity of the CLS through cooperative relationships whereby developers volunteer to meet these standards. Both of these mining proposals will disturb land within the CLS. But RCM’s size of disturbance and lack of willingness to provide compensatory mitigation for such disturbance contrasts significantly with ORM.

RCM: 4,288 acres. All of the project area is within the CLS. RCM has not agreed to comply with the CLS. County staff has estimated that full mitigation of impacts to the CLS at ratios stated in the CLS development guidelines would require RCM to provide approximately 8,800 acres of mitigation land. The County identified and requested compensatory land acquisitions in 2006 discussions with the company. As of the 2011 DEIS, none had been included.

ORM: 77 acres. All of the project area is within the CLS. An ORM representative has stated that ORM will fully comply with the CLS, mitigating all impacts at the ratios stated in the CLS development guidelines. Furthermore, the mitigation land totaling at least 300 acres would be within the same watershed as the impacts and would be donated to the County.

C. Threatened and Endangered Species

The SDCP Biological Element provides a foundation for conserving a diversity of plants and animals, including those that continue to be found in healthy numbers, as well as those that are already at risk of being lost permanently from this region. Both mining proposals involve federal permitting processes that require the assessment of the potential to impact federally listed Threatened and Endangered Species.
RCM: The Forest Service has identified 10 federally listed Threatened or Endangered Species that may have a reasonable potential to occur in the proposed RCM analysis area. Three of the 10 species have designated critical habitat in the analysis area: the Chiricahua leopard frog, Gila chub, and Mexican spotted owl. The southwestern willow flycatcher has proposed critical habitat within the analysis area. According to the DEIS, direct impacts are expected for Chiricahua leopard frog, lesser long-nosed bat, and Pima pineapple cactus. Rosemont will be required to mitigate for impacts to federally listed Threatened and Endangered Species.

ORM: Surveys for four federally listed species were conducted at and in the vicinity of the ORM. Portions of the project are in designated critical habitat of the Mexican spotted owl, and one spotted owl call was documented south of the project area. No other federally listed species were detected. No agency determination has been made as to whether the ORM is expected to actually impact the Mexican spotted owl.

D. Cultural Resources

The physical and geographic contexts of the two mines appear superficially similar, but the affected area of the Santa Ritas supports more extensive watersheds providing more and better settings that are rich in life-sustaining and useful economic (and symbolic) resources for human use through time. This difference has produced very different historic contexts in the two areas, with strong empirical evidence for deep prehistoric traditions of human occupation and use of the affected portion of the Santa Rita Mountains that continue through the historic and modern periods. Similar evidence for human use through time in the affected portion of the Santa Catalina’s is sparse or absent.

RCM: The Forest Service’s DEIS sited a total of 112 prehistoric, historic, traditional cultural and multicomponent sites that would be impacted by the preferred alternative (p. 667). Nearly all of these sites have been deemed archaeologically or historically significant and eligible for listing in the National Register of Historic Places. The potential for impacts on human burial remains cannot be understated. The DEIS contains estimates of numbers of sites containing human remains, but they remain gross estimates that only address numbers of sites, with no attempt to estimate the actual numbers of individual human burials, or other human remains or associated grave goods.

The Tohono O’odham consider the Santa Rita Mountains to be a traditional cultural landscape, or Traditional Cultural Property (TCP), under the criteria of significance
of the National Register of Historic Places. They know the TCP as Ce:iv Duag and believe the effects of the Proposed Action and all Alternatives on its cultural and heritage resources should be evaluated holistically. The Santa Rita Mountains are important for the plants, animals, springs, ancestral homes, ancestral burials and ancestral religious places that are embedded within this natural landscape, all of which have tremendous present day cultural and religious importance to the Tohono O'odham.

Most affected sites will be physically destroyed by ground-disturbing mine actions or by being buried forever beneath vast piles of waste rock and tailings. These cultural resources reflect the full range and scope of human activities and life-ways in the area, spanning the past 7,000 years or more, to today. Affected prehistoric sites include the full range of site types, from villages where people lived settled lives supported by agricultural production in adjacent lands, to special-activity areas in various locations and elevations used to gather food and other plants and raw materials to support daily life. Historic period life ways are also well represented by nineteenth and twentieth century Euro-American towns and other locations used to support historic economic activities such as ranching and mining.

ORM: Five sites were listed in a recent report by Antigua Archaeology conducted for the company, dated May 29, 2012. The ORM project area contains five historic-period sites reflecting ranching, forestry (roads) and mining use. A few additional historic and in-use stock tanks and other structures dot the landscape. Evidence of historic and prehistoric Native American use is virtually absent. None of the five recorded historic sites are considered historically significant, none are eligible for listing on the National Register of Historic Places and the proposed mine actions will have little or no effect on these sites.

E. Recreation

Similar to historic and prehistoric times, more humans continue to make use of the northeastern portions of the Santa Rita Mountains in comparison to the northeastern portions of the Santa Catalina Mountains. The area that would be affected by the RCM is more easily accessible to the million or so residents in metropolitan Tucson is along a much busier transportation corridor and is adjacent to many more residences.

RCM: The Rosemont area is a popular recreation area for motorized vehicle touring, wildlife watching, nature study, bird watching, recreational prospecting, hunting, rock and mineral collection, picnicking, mountain biking, hiking and horseback riding (DEIS). The preferred alternative would result in 6,844 acres being enclosed within
a perimeter fence for 25 years. There would be irreversible and irretrievable impacts to recreation trails and roads (p. 532 and p. 551). An off highway vehicle staging area and some roads would be eliminated (p. 532). Five miles of the Arizona National Scenic Trail would be displaced by the preferred alternative (p. 512).

ORM: Existing recreational use in the vicinity of the ORM is thought to be light, but an upcoming Environmental Assessment for the Forest Service will further quantify existing use. ORM would not have similar perimeter fence around the entire project, and the far majority of areas of new disturbance would be on private land. As a result of the proposed reopening of the mine, the largest single area that would be taken out of possible recreation use is the proposed helipad on 0.26 acres of Forest Service land. ORM has stated they are willing to act as a facilitator concerning a missing link of the Arizona Trail, the alignment of which crosses land owned by independent private parties who own the surface rights above the ORM.

F. Use of Public Land without Compensation

There have been many failed attempts to reform the 1872 Mining Law, but the most likely area for reform, in my opinion, continues to be the lack of a royalties or payment for the use of publically owned land and resources. It seems more than reasonable that the public should be reimbursed for the privatization of these public lands and resources. Other public land management agencies and owners, like the Arizona State Land Department and Pima County, are required such compensation. In the case of the Rosemont deposit, mining companies in 1970 and 1979 proposed land exchanges with the Forest Service to fully compensate the Forest Service and the public for the loss of resources. Resolution Copper, a mining company that has proposed a large underground copper mine near Superior, Arizona, is pursuing a land exchange. Again, this is an area of significant difference between the RCM and ORM.

RCM: The proposed mine would directly impact thousands of acres of National Forest land (unpatented mining claims) without compensation. The Forest Service does not require royalties or payment for use of the property beyond minimal annual fees to retain control of the mining claims. To our knowledge, the company has not offered a land exchange or donation of property that would fully compensate the public and federal government for the use of and permanent impacts to these public lands.

ORM: The majority of the project is on private property. Minor facilities and right of way across National Forest and Pima County lands are also proposed. Although
the issue of compensation for use of these lands will not be fully known until the Forest Service's permitting processes is further along, a representative for the Company has stated commitments will be made to fully compensate for these impacts or uses of the public property. As examples, in the case of the National Forest lands, the company would provide use of a helipad to the Forest Service, materials for road maintenance and water for use in firefighting. In the case of the County lands, a land exchange is being discussed that would fully compensate Pima County for impacts to County-owned land.

G. Water Supply and Groundwater Impacts

With regard to Table 3 and the indicator for adverse impacts to ground water supplies, the new or expanded facilities were compared to each other based on the amount of water to be used, the source or sources of the water and whether the water would be replenished. High was defined as using more than 2,000 acre-feet of water per year and pumping groundwater. Medium was defined as using between 100 and 2,000 acre feet of water per year and pumping ground water, but supplementing with reclaimed or CAP water. Low was defined as using less than 100 acre feet of water per year and obtaining water from a municipal water provider that uses CAP water or reclaimed water.

RCM: 5,400 acre feet per year of direct use of groundwater in the Tucson Basin aquifer and dewatering and indirect impacts to the Cienega basin aquifer. The company has stated it will acquire CAP water and recharge the water near the area of impact. They have already acquired 45,000 acre feet of excess CAP water, but it is recharged in Marana, miles away from the area of impact. They are currently working with Community Water Company of Green Valley to fund an extension to the CAP pipeline and development of recharge basins within the Town of Sahuarita, closer to their major groundwater wells. It is unknown whether they will be successful in completing the permitting process for this CAP pipeline extension and recharge project.

ORM: Approximately 150 acre feet per year. The company is currently evaluating locations for a new well generally in an area east of the tailings impoundment to generate approximately 100 acre feet of water per year. The remainder of the water supply for operations would likely come from within the underground mine itself, a spring near the underground mine and reclaimed water resulting from the dry stack tailings process.

Staff has requested more information from ORM representatives and consultants regarding the potential for reduced surface water flows from the Daily Spring,
which could impact leopard frog habitat and other riparian habitat along Gibb Wash. ORM representatives appear willing to further discuss mitigation measures regarding these potential impacts.

H. Protecting Groundwater Quality

A well-publicized 2006 study of 70 Environmental Impact Statements for modern-era hard rock mines found that impacts to water quality are continually underestimated, which causes mitigation to consistently be inadequate. The loss of an entire native fish population along Cocio Wash in Avra Valley is a good example of the potentially damaging effects that mining can have on aquatic ecosystems. There is ample evidence that modern mines need to go above and beyond the often inadequate state and federal water quality regulations to truly ensure that the legacy of mine pollution does not continue. RCM and ORM also appear to be taking different approaches to this most serious of potential impacts.

RCM: The County is appealing the Rosemont Aquifer Protection Permit (APP) because we believe the environmental controls in the permit do not provide enough protection for ground and surface water. One of the most significant concerns is the intention to install flow through drains under the waste rock and tailings disposal mounds that will likely cause the mixing of pollutants and stormwater but would not be regulated as pollutant discharge facilities. Long-term maintenance of these drains is also a concern. The US Army Corps of Engineers and the Environmental Protection Agency have also expressed significant concerns about the flow through drains. In addition, RCM does not intend to construct a base liner system below the massive dry stack tailings mound. The only area that would be lined would be the heap leach pad. Therefore, fluids percolating through the tailings stack will interact with the subsurface alluvial and bedrock environment below the tailings with potential impacts to both surface water and groundwater.

ORM: ORM provided their APP application to the County in January 2012. Staff have reviewed sections of the application and have met with representatives and consultants for ORM to discuss it. The ORM proposal does not include flow through drains. ORM does intend to construct a composite base liner system below the dry stack tailings mound. Fluids percolating through the tailings will be collected above this liner system, transferred and recycled. The base liner system, if installed properly, will prevent fluids that percolate downward through the tailings mound from entering the subsurface alluvial and bedrock environment and impacting soils, bedrock, surface water and groundwater. ORM would take steps to remediate an existing sulfate plume that appears to be emanating from the old, unlined tailings impoundment, including relocating those tailings, lining the former
tailings area and placing the tailings back on the liner. ORM would also remediate past slurry discharges along the old pipeline. Staff have requested more information on the design of the pipelines to better evaluate the safety measures being proposed by ORM.

I. **Air Quality Impacts**

With regard to Table 3, adverse impacts to air quality were defined as whether the new or expanded facility would result in violation of ambient air standards in the area.

RCM: Pima County denied an air quality permit to RCM in 2011 because the permit application and additional submittals failed to disclose federal applicable requirements and failed to prove the planned source is designed, controlled, equipped or capable of being operated such that compliance with all applicable requirements would be possible throughout the term of the permit. Based on information available in the DEIS, the facilities will result in a violation of the ambient air standard in the area.

ORM: The Pima County Department of Environmental Quality (PDEQ) has developed a final draft air quality permit for public comment, and the public comment period is ongoing through June 29, 2012. The facilities will not result in a violation of the ambient air standard in the area.

<table>
<thead>
<tr>
<th><strong>PDEQ Open House</strong></th>
<th><strong>PDEQ Hearing</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Wednesday, June 27, 5 to 7 PM</td>
<td>Thursday, June 28, 5:30 to 6:30 PM</td>
</tr>
<tr>
<td>Coronado K-8 School, Catalina</td>
<td>Coronado K-8 School, Catalina</td>
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<td>3401 E. Wilds Road</td>
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<tr>
<td>Tucson, AZ 85739</td>
<td>Tucson, AZ 85739</td>
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</tbody>
</table>

J. **Adverse Transportation Impacts**

Regarding Table 3, adverse transportation impacts were defined by comparing the new or expanded facilities to each other based on expected traffic volumes, impacts to traffic safety, and wear and tear on the roads.

RCM: The project would be located along a well-traveled Scenic State Highway. Haul trucks will make about 56 round trips per day on the Scenic State Highway, as well as local roads, to the Port of Tucson, located in an urban area of Tucson. Impacts include the additional traffic, safety and wear and tear on roads, as well as
reduction in quality of life for those traveling the same route. Pima County Department of Transportation (PCDOT) staff ranked the impact on traffic and transportation as high.

ORM: The company estimates haul trucks will make about five to seven round trips per day on Black Hills Road between the tailings site and San Manuel. Use of the Mount Lemmon Control Road would be limited to a two-mile section, and no haul trucks would use the Mount Lemmon Control Road. Based on a limited review, PCDOT staff ranked the impact on traffic and transportation as low because there is likely very little public traffic that uses Black Hills Mine Road, which has been used in the past as a haul road.

K. Light Pollution and Protecting Dark Skies for the Established Astronomy

Recent articles in the Arizona Daily Star’s science in Arizona series have highlighted the origins and continuing expansion of the astronomy industry locally. Maintaining the visibility of celestial objects in the night sky is fundamental to retaining and expanding this industry in Arizona, the annual economic impact of which has been estimated at $250 million. The sensitivity to and awareness of this issue is reflected in the Tucson/Pima Outdoor Lighting Code. With regard to Table 3, adverse impacts to dark skies were estimated based on the location of the new or expanded facilities and spectra and lumen quantity.

RCM: RCM would be in lighting area E1a, according to the 2012 Tucson/Pima Outdoor Lighting Code. Our understanding is that the impacts disclosed in the DEIS were significantly greater than a more recent updated lighting plan. However, the County’s Chief Building Official has contacted Rosemont personnel multiple times notifying them that RCM is required to comply with the Tucson/Pima Outdoor Lighting Code and is required to obtain a lighting permit from Pima County. To date, the company has not responded. Based on the location of the proposed RCM estimated spectra and lumen quantity, our Chief Building Official ranked the RCM as likely to have a high impact on dark skies.

ORM: According to an ORM representative, the mine is underground, the crusher is underground and the mill is above ground but fully enclosed. The filter plant at the tailings site will be covered. A preliminary lighting review letter is currently being prepared by the engineers and will be provided to the County. The final design will be done when the mine facility plan is completed. The engineering firm working on the facility design is a local firm; and the engineer working on lighting has prepared a number of designs compliant with the local code and is very familiar with it and the need to use net acreage. The ORM representative has had meetings with The
University of Arizona Planetary Sciences Department, the astronomers using Mount Lemmon and Mount Bigelow, and a representative of the Dark Sky community and has assured them of the company’s awareness of the applicability of the ordinance and their need to comply. Based on a facility tour, the mine site is not visible from either telescope location. Based on the location of the ORM and the current proposal to continue the majority of operations underground and in fully enclosed structures (which would limit spectra and lumen quantity), our Chief Building Official ranked the ORM as likely to have a low impact on dark skies.

V. OVERALL SUMMARY

I believe this comparison clearly demonstrates that new job growth and economic development in Pima County do not have to be at the expense of our environmental and other community values. It appears from what we know thus far about ORM, even an industry as intensive as copper mining can balance the need for economic growth with our other core values.

CHH/mjk

Attachments

c: Nicole Fyffe, Executive Assistant to the County Administrator
   Linda Mayo, Director, Sustainability and Conservation
   Julia Fonseca, Environmental Planning Manager, Sustainability and Conservation
Figure 1. Project location
Figure 14. Barrel Alternative footprint