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Susan Russell, Right of Way Administrator
Arizona State Land Department
1616 W. Adams Street
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Subject: STATE LAND APPLICATIONS ¹⁴⁻¹¹²¹⁵⁷ ~~14-11215~~, 14-114856, 14-115294, 18-115542, 18-115543, and 30-116323

Dear Ms. Russell:

Thank you for allowing Pima County the opportunity to comment on the above referenced applications for leases and rights of way to accommodate electric transmission lines and water pipes, ingress and egress, and the boring of test holes.

At the request of Arizona State Land Department (ASLD), staff from Pima County and Pima County Regional Flood Control District conducted interjurisdictional reviews for six ASLD applications filed by Rosemont Copper Company, including 14-112157, 14-114856, 14-115294, 18-115542, 18-115543, and 30-116323. The six applications collectively represent a project to supply electric power and water to the proposed Rosemont Mine in a shared utility corridor that also will require a permanent, non-exclusive access road.

Various Alternative Routes for the utility corridor, including some sections that depart from the shared utility corridor, were previously submitted by Tucson Electric Power Corp., to the Arizona Corporation Commission (ACC) Line Siting Committee for review, resulting in approval of a Certificate of Environmental Compatibility (CEC) allowing construction of the submitted Preferred Route of the 138kV Transmission Line. However, the ACC Line Siting Committee placed conditions on the main transmission line requiring that construction is contingent upon approval of the ongoing National Environmental Policy Act (NEPA) review process for the proposed Rosemont Mine Project and Draft Environmental Impact Statement (DEIS). The NEPA process is being overseen by the Lead Federal Agency, Department of Agriculture, U.S. Forest Service, Coronado National Forest, because of impacts from the mine project on public lands within the Coronado. The ACC Line Siting Committee requires a Record of Decision issued by the Forest Service approving the Mine Plan of Operations, issuance of a Clean Water Act, Section 404 Permit, issuance of an Air Quality permit pursuant to the Clean Air Act, and acquisition of right-of-way from ASLD.

Pima County has taken an official position, opposing the proposed Rosemont Mine Project in Board of Supervisors Resolution 2007-15. Pima County is participating as an invited

Cooperating Agency with the Forest Service in the NEPA process through a Memorandum of Agreement, submitting comments on: 1.) the proposed action alternatives as they are being developed through the review process; 2.) the DEIS during the NEPA-required public comment period; 3.) the Clean Water Act permit review; and 4.) the ACC Line Siting Committee review. Pima County also filed comments to the Arizona Corporation Commission regarding the siting of the proposed 138 kv transmission line.

The State Land applications encompass the proposed utility corridor and rights of way in Pima County, paralleling Santa Rita Road, a County maintained roadway, and other alignments, extending to the east and southeast from the Town of Sahuarita to the Rosemont Mine project area within the Santa Rita Mountains, in the Coronado National Forest.

ASLD 14-112157 Underground Water Line. This application is for right of way to install a 20-inch, or smaller, underground water pipe line and 20-foot easement for a dirt service road from a point east of Sahuarita, extending the full length of the project alignment primarily within the shared utility corridor. A booster pump station will be proposed, but at the time of the current review, it has not yet been approved. The application includes a temporary construction easement.

ASLD 14-114856 Access Road. This application is for right of way for a 40-foot wide non-exclusive access road to the utility corridor, in T17S, R14E, Section 29. Although not mentioned in this application, the utility corridor also will require construction of an access/maintenance road along the full length of the project alignment.

ASLD 14-115294 138kV Overhead Electric Transmission Line. This application is for a 50-year, 100-foot wide right of way for the main transmission line, to which the ACC Line Siting Committee subsequently applied the previously mentioned conditions to the CEC and other conditions, such as ensuring appropriate preservation actions are taken in the event of disturbance to paleontological and archaeological sites, and biological resources, and requiring expiration of the CEC if the project is not capable of operation within 10 years of the date of the CEC and an extension is not requested. The 138kV Line spans the entire project alignment from Sahuarita to the project area.

ASLD 18-115542 13.8kV Underground Electric Line. This is an application for a temporary construction easement and a 30-foot wide right of way for the 13.8kV underground electric line to be constructed within the shared utility corridor, in T17S, R14E, Sections 29 and/or 33.

ASLD 18-115543 24.9kV Underground Distribution Line. This application is for a temporary construction easement and a 30-foot wide right of way for a 24.9kV underground electric line to be constructed within the shared utility corridor, in T18S, R15E, Sections 17, 18, 20, and 21.

ASLD 30-116323 Two 7-inch Diameter Geotechnical Borings at Proposed Booster Pump Station No. 2 Site. This application is for geotechnical investigations in the location of a proposed Booster Pump station for the underground water line, within the utility corridor in T18S, R15E, Section 18. At the time of the ASLD Application submittal, the booster station had not yet been approved.

The following comments have been received from various County Departments:

DEVELOPMENT SERVICES DEPARTMENT

Utility water lines and electric transmission lines less than 115 kV that are located outside of County designated Scenic Route rights-of-way are not subject to Zoning Code requirements. Please note that other County Departments may have responsibilities for permitting and approvals under County Ordinances that are separate from the Zoning Code. Even though proposed power lines may not be subject to the Zoning Code, the substations that they originate in or pass through may be subject to Development Services approval. Leases for substations have not been requested; however the failure to obtain necessary approvals from Pima County may affect the need and/or location of the proposed transmission lines and may affect the lease requests.

The proposed 138 kV electric transmission lines were approved by the Arizona Corporation Commission, with conditions. The conditions include that the Rosemont Mine must receive all approvals required by the Forest Service, the Army Corps of Engineers, the State of Arizona, and Pima County. We recommend that these conditions also be placed on the approvals for all of the above referenced requests.

Disturbance caused by the proposed utility lines will occur in areas that have been designated by Pima County as Multiple Use Management areas by the Maeveen Marie Behan Conservation Land System. The County's Comprehensive Plan guidelines call for setting aside 66 2/3% as natural open space when the properties with this designation are rezoned for development.

The extents of the effects on native plants are not fully identified. A native plant assessment was prepared by Westland Resources for the proposed utility lines subject to this request as part of the Rosemont Mine Draft Environmental Impact Statement (EIS). The assessment focused on saguaro and agave species. It did not include the federally endangered and state designated Highly Safeguarded Pima pineapple cactus; however the following statement appeared in another section of the Draft EIS for the proposed entire mine area recognizing that Pima pineapple cacti would be affected by utility lines:

At least 33 Pima pineapple cacti and at least 88 acres of Pima pineapple cactus habitat would be impacted, *depending on which utility alignment is chosen* (italics added).

Several addendums were prepared by Westland Resources after the draft EIS was submitted and after the dates on the State Land applications. The addendums were prepared for an expansion of the area affected by the proposed utilities along Santa Rita and Dawson Roads. Since the addendums were prepared after the date of the applications, the application could not have considered the implications of the expansion.

Recommendations:

Consistent with the above comments, Development Services recommends the following conditions in the event that the leases and rights of way are granted by State Land:

1. Disturbance of the subject property shall be limited to the least amount possible.
2. The same conditions that the Arizona Corporation Commission attached to their approval of the 138kV transmission line prohibiting construction until all approvals required by federal, state, and local governments have been granted should be added to all State Land approvals of utility line leases and rights-of-way and to all structures associated with those lines and rights-of-way.

REGIONAL FLOOD CONTROL DISTRICT

Staff has the following comments:

14-112157

1. The application states that the impact on Jurisdictional Washes is unknown at this time. In addition to potential impacts on "Waters of the U.S." the proposed ROW while primarily parallel to flow does cross several watercourses regulated by Pima County. The ROW appears to avoid Pima County Regulated Riparian Habitat. The application states that permits have yet to be obtained and that applicable permits have yet to be identified. The lack of information presented is somewhat surprising although not atypical as this information is readily available from the County and our flood control authority well established. Furthermore the associated electric transmission line lease requests cite a study by Westland, dated March 1, 2010 and titled "preliminary Jurisdictional Determination: Santa Rita Road Waterline Project for the Rosemont Project, Pima County, Arizona." Floodplain Use Permits are required for wash crossings associated with the water line.

2. As has been noted upon all state land permit and ROW applications these corridors have incremental impacts which individually may not exceed habitat encroachment criteria requiring mitigation but which clearly do on a cumulative basis. Furthermore these uses of state land have a tendency to become conduits for illegal activity including off road vehicles and for invasive species that create substantial secondary impacts including erosion. Oftentimes this results in direct maintenance costs to the County and other entities. Headcutting, channel migration and other erosion associated with linear projects is a major concern given the distributory alluvial fan characteristics of the project area. The State Land Department is encouraged to put lease provisions and policies in place to ensure ROWs are fenced; gates are closed, native seed mixes used for revegetation and invasive and erosion control BMPs are put in place. Furthermore the state and leaseholder are encouraged to consider the need for countywide strategies to address erosion as well as direct and secondary riparian habitat impacts.

3. Wash crossings should be perpendicular whenever possible to avoid the need for potentially expensive erosion control measures.

4. Roads whether permanent or temporary should be constructed at grade to avoid impacting floodplains and drainage, and to minimize erosion damage potential.

Recommendation:

In conclusion, Pima County Regional Flood Control District requests that a term be added to the lease requiring that the District be notified of and provided an opportunity to review any preliminary improvement plans prior to finalization.

18-115542, 18-115543, & 14-115294

1. Rather than stating whether or not the project impacts Jurisdictional Water as provided for on the form, the applicant refers the reader to a study by Westland dated March 1, 2010 and titled "Preliminary Jurisdictional Determination: Santa Rita Road Waterline Project for the Rosemont Project, Pima County, Arizona", however a copy has not been provided. In addition to potential impacts on "Waters of the U.S." the proposed lines cross numerous watercourses and sheet flood areas regulated by Pima County as well as Pima County Regulated Riparian Habitat (PCRRH). The lack of information presented is somewhat surprising although not atypical as this information is readily available and County authority regarding flooding well established. Furthermore County resources are well known to the applicant via the EIS and Cooperator processes administered by the Forest Service. With specific regard to these applications the District has the authority (ARS Section 48-3613) to review and comment on electrical transmission facilities but not to issue permits (PCC 16.12.020).
2. In addition to numerous watercourse crossings the UG 13.8k (18-115542) Line is concurrent and parallel to one mapped wash just after it leaves State Land on the west. This concurrency is by inference as the map does not extend beyond state land. However it is demonstrative of the type of channel capture and migration impacts linear projects have on flow paths in this environment. It is suggestive of the design elements which will be of concern when plans are submitted for comment as required by the Floodplain and Erosion Hazard Management Ordinance Title 16 and Arizona statute (ARS 48).
3. The District can provide detailed flow information for this project area and our design comments would be of a constructive nature as contemplated by our authority to do so.
4. This line will have direct impact on PCRRH. As has been noted upon all state land permit and ROW applications these corridors have incremental impacts which individually may not exceed habitat encroachment criteria requiring mitigation but which clearly do on a cumulative basis. Furthermore these uses of State land have a history of becoming conduits for illegal activity including off road travel that creates substantial secondary impacts including erosion. Oftentimes this results in direct maintenance costs to the County and other entities. Headcutting, channel migration and other erosion associated with linear projects, especially buried utilities and access roads, is a major concern given the distributory alluvial fan characteristics of the project area. The State Land Department is encouraged to put lease provisions and policies in place to ensure ROWs are fenced; gates are closed, native seed mixes used for revegetation and invasive and erosion control BMPs are put in place. Furthermore the state and leaseholder are encouraged to consider the need for countywide strategies to address erosion and direct and secondary riparian habitat impacts.
5. While permits are not required for electrical transmission, placement outside floodplains where possible is recommended.
6. Wash crossings should be perpendicular whenever possible to avoid the need for potentially expensive erosion control measures.
7. Maintenance and access roads should be constructed at grade to avoid impacting floodplains and drainage, and to minimize erosion damage potential.

Recommendation:

In conclusion, Pima County Regional Flood Control District requests that a term be added to the lease requiring that the District be notified of and provided an opportunity to review any improvement plans prior to finalization.

DEPARTMENT OF TRANSPORTATION

The Pima County Department of Transportation has reviewed the above noted applications from Rosemont Mine for underground water lines, access roads, overhead and underground electric lines and geotechnical borings within sections defined within the applications within T18S R14E, T18S R15E and T17S R14E.

Pima County has established and adheres to certain roadway development standards and regulations to preserve and protect natural cultural resources, to prevent and reduce air pollution and to insure safe public transportation facilities. Pima County objects to and does not support any request for public right-of-way across State Lands unless there are appropriate conditions of the right-of-way application approval imposed by the State Land Department. The conditions of the approval should preserve and protect natural and cultural resources (plant survey and preservation plan cultural resources survey), prevent and reduce air pollution (paved roadway) and insure safe public transportation facilities (provisions for drainage and appropriate roadway design, width, horizontal and vertical alignment).

Appropriate right-of-way use permits shall be obtained and are required where there is encroachment of right-of-way under Pima County jurisdiction. Santa Rita Road, Dawson Road and Country Club Road are maintained by Pima County and there are numerous right-of-ways that are in Pima County jurisdiction within this area. There are crossings of utilities on Dawson Road and Santa Rita Road, therefore the applicant should be advised to obtain the necessary permits.

Recommendation:

Transportation requests that two terms be added to the lease:

1. Requiring that Pima County right-of-way permits be obtained where necessary.
2. Requiring Transportation be notified of and provided an opportunity to review any improvement plans prior to finalization.

OFFICE OF SUSTAINABILITY AND CONSERVATION, CONSERVATION SCIENCE DIVISION

1) **Term of ROW 14-115294.** The proposed timeframe of the mine is estimated to be approximately 20 years, but the application for the power line 14-115294 indicates a 50-year Right-of-Way. The application was evidently submitted in 2010, before the Decision and Order of the Arizona Corporation Commission. The ACC subsequently imposed a condition requiring

expiration of the Certificate of Environmental Compatibility (CEC) if the project is not capable of operation within 10 years of the date of the CEC and an extension is not granted. Therefore, the proposed term for 14-115294 far exceeds the likely need. The application does not identify benefits to the State Trust that would be served for granting the ROW for a length of time far longer than the mine's life.

2) **Decommissioning.** The application for 14-115294 does not include any provision for collaborating with the State Land Department in the event the line along is decommissioned per requirements of the Arizona Corporation Commission CEC.

3) **Threat to the long-term viability of the Santa Rita Experimental Range.** By granting a 50-year easement, the power line could be used for domestic, commercial or industrial consumption after the mine closes and after the end of the University of Arizona's leases. The substations and power capacity at either end of the line could facilitate development of the Santa Rita Experimental Range (herein Range). This would be inconsistent with Pima County's Comprehensive Plan. In addition, the Range is one of the longest-running ecological experimental sites in the world and an area where some of the most important theories of ecological succession were developed in the early 20th Century. This rich ecological history and the host of ongoing experiments have provided invaluable information that has aided our understanding and management of rangelands throughout the southwestern U.S. and beyond. This information continues to be used by the Arizona State Land Department to monitor and manage lands throughout the State. The Range is owned by the State of Arizona and is designated by the State legislature as having a special land status (for conservation and research), but this designation can be overturned by the legislature, which could choose to open the Range to development. Granting a long-term ROW to Rosemont Copper will very likely erode the long-term viability of the Range. A long term easement would not be in the interest of the State Land Department or any other agency charged with maintaining rangelands.

4) **Ownership of the easement.** Rosemont and TEP have testified that a \$4 million tax benefit would accrue to Rosemont if Rosemont chooses to construct the utility line and Rosemont substation. However, even if the Rosemont would own and construct the line, the State Land easement 14-115294 could be owned by TEP, and then licensed to Rosemont. A grant of easement to Rosemont, instead of TEP, positions a private company to become a utility provider independent of Tucson Electric Power. Is private ownership in best interest of the State Trust?

5) **Loss and fragmentation of wildlife habitat in the area.** Depending on the alternative chosen, the applicant is requesting a new ROW that will further fragment wildlife habitat along the proposed route. Of particular concern is the use of power poles by raptors and ravens, which can have a profound effect on predation of wildlife species, particularly the predation of desert tortoise by ravens. Pima County would like to know if there are any provisions for discouraging nesting of ravens, in particular. Other environmental impacts such as invasive species, soil disturbance, and vegetation management are also expected from the construction and maintenance of the line and those issues are covered below.

5) **Invasive species.** The disturbance associated with the construction and maintenance of the power line and other infrastructure will very likely result in an increase in non-native and invasive plant species. Of particular concern in that area is buffelgrass, which is already a significant problem in that area, but this issue has not been addressed in the application.

6) **Loss of soil and air quality.** Power line construction and maintenance will inevitably involve land and vegetation disturbance that results in direct and in-direct losses of soil over time. This soil cover reduces the capacity of the site to maintain vegetation and other key surface features (e.g., biological soil crusts), thereby leading to excessive runoff and loss of habitat. Soil loss and erosion will be particularly extreme along the proposed route because of these are primarily fine soils (particularly in the valley and foothills) and therefore highly erodible by wind and water. This air quality of this area is already disadvantaged by existing mining, agricultural and rural road use—new disturbance will exacerbate these conditions. In particular, the need for maintaining parallel dirt access roads is not apparent for application 14-114856, where Rosemont's parcel abuts E. Corto Road, and along Santa Rita Road 14-112157. Can ASLD minimize the loss of soil by providing the company the ability to access the underground pipeline for any necessary repairs, without the need for maintaining a road paralleling existing roads? Can segments of the underground water line be stabilized and revegetated?

7) **Vegetation management.** Recent actions by utilities with regards to vegetation management—that includes clearing all vegetation under and around power lines and poles—has raised questions about new projects. The practice of clear-cutting vegetation below electric transmission lines significantly and dramatically increases the environmental impact of locating these facilities. Obviously, this practice is of significant concern to the County as it relates to this project and some species in particular, including the Pima pineapple cactus.

8) **Mapping and identification of plant and wildlife habitat.** The proposed project takes place within habitat of a number of species of concern to Pima County, most especially the desert tortoise (Sonoran population), Pima pineapple cactus, needle-spined pineapple cactus, and other species. As part of the planning process, the project proponent (Rosemont Copper) has conducted a native plant assessment, but no native, vertebrate species assessment has been completed.

Recommendations:

1. The Applicant should justify why the Right-of Way for 14-115294 should be granted for a period in excess of the mine's term of operation.
2. The terms of all easements should include closure conditions.
3. ASLD should consider rejecting the application for 14-115294 in favor of TEP, the holder of the Certificate of Environmental Compatibility for the proposed power line.
4. In the event the ROW 14-115294 is granted to Rosemont, include a provision prohibiting use of the easement to serve any other facilities than those listed in the ACC application.
5. An invasive species monitoring and treatment plan be developed and followed for both during and after construction activities. Post-construction monitoring and removal of species—especially buffelgrass—should be ongoing for at least 5 years.
6. ASLD should reject or minimize the construction of parallel dirt access or maintenance roads where possible, particularly parallel to the existing Santa Rita and Corto Roads. Include measures to restrict public access along the utility easements.
7. Provisions for stabilizing disturbed areas should be considered for air quality purposes.

8. The applicant should provide a vegetation management plan that will demonstrate how they will comply with safety regulations, but also reduce the need to destroy all vegetation under the power lines. Alternatives should be considered, such as promotion of grasses or small shrubs that will provide both habitat and soil protection.
9. More thorough and complete surveys of a wider range of native species should be conducted to determine what species will be impacted by the construction and maintenance of the utility line.
10. If fencing is needed, ensure use of wildlife safe fencing.
11. Avoid impacts outside of right-of-way easement by requiring demarcation of the easement boundaries prior to clearing and grubbing.
12. Ensure best practices to avoid spread of invasive species during construction and maintenance.

OFFICE OF SUSTAINABILITY AND CONSERVATION, CULTURAL RESOURCES DEPARTMENT

The six applications are for ground-disturbing projects with potential to adversely affect significant historic properties and, therefore, were similarly reviewed for cultural resources and share similar recommendations.

Cultural Resources Review: A review of Pima County cultural resources records indicates that the proposed utility corridor crosses State lands through and nearby previously recorded archaeological and historic sites, as well as crossing the Santa Rita Experimental Range (SRER), administered by the University of Arizona. The SRER contains numerous recorded prehistoric archaeological sites, historic ranching and homesteading sites, and many historic SRER buildings and facilities dating to former ranching in the area, or to the historic beginnings of the research stations at the SRER. Established in 1903, the SRER represents important historic use of the landscape, and has been recognized by the Tohono O'odham, Pima County, and others, as a significant cultural landscape that should be inventoried and assessed as a TCP. Another important cultural landscape includes Huerfano Butte, a prominent landform on the south side of the proposed utility corridor that is considered sacred by several Native American Tribes, including the Tohono O'odham, who consider the butte and its surroundings a Traditional Cultural Property. O'odham informants have indicated the sacred importance of Huerfano Butte, marking it as a place to leave trailside offerings and for other important uses. Partially overlapping the butte is a significant prehistoric site with numerous bedrock processing features and cupules, and important rock art panels and images. The proposed utility corridor passes just north of Huerfano Butte, so indirect effects, such as visual effects of the proposed undertaking should be considered. Among the historic resources to be directly affected by the utility lines is the Helvetia Townsite Cemetery, which contains the mortal remains of the long-abandoned mining town's residents and which will be directly impacted by the proposed utility corridor. Helvetia Cemetery has been recorded as an archaeological site, but it has been recommended ineligible for listing on the National Register under its criteria of significance. However, the cemetery lies on State lands and is subject to State laws protecting archaeological resources and human remains (ARS 41-865).

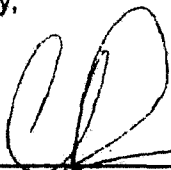
Since it is a connected action to the Rosemont Mine Project, the utility corridor 14-115294 has been surveyed recently in several stages by different archaeological consultants, resulting in several cultural resources inventory reports. These reports are under review by the Forest Service, interested Indian Tribes, and Cooperating Agencies, including Pima County. Several reports have been revised subsequent to review and comment during the NEPA process, and the revised reports are again undergoing review. Several Tribes and Cooperating Agencies, including Pima County, continue to find inadequacies and deficiencies in certain of these reports.

Recommendations: The applicant should be aware that the utility corridor crosses recorded cultural resources and the proposed uses of the utility corridor have a potential to impact significant cultural resources, including archaeological and historic sites, cultural landscapes, and potential Traditional Cultural Properties. In addition to the possibility of encountering unanticipated human burial remains, associated grave offerings, and other objects, throughout the proposed utility corridor, there is significant potential for impacting historic human burial remains at Helvetia Cemetery and, possibly, elsewhere within the corridor.

ASLD requires state cultural resources compliance requirements to be met. The proposed utility corridor is also being considered as a connected action to the Rosemont Mine Project, and is, therefore, also subject to the requirements of Section 106, National Historic Preservation Act, as revised, and its implementing regulations (36CFR800). The effects on cultural and historic resources, including human burial remains, from ground-disturbing construction of the proposed utilities and also later ground-disturbances required during the use of the utility corridor, such as maintenance and repair activities, should be taken into account and appropriate strategies to avoid, reduce, or mitigate those effects should be implemented. It is recommended that before ground-disturbing actions take place, the previously mentioned cultural resources survey documents be fully reviewed and approved by the Forest Service, participating Indian Tribes, and Cooperating Agencies, as part of the Rosemont Mine Project NEPA process, and any additional revisions completed. The final documents are subject to ASLD review and approval under applicable State laws.

All historic properties that will be adversely affected by the proposed actions in all the ASLD Applications under review should be identified. A cultural resources mitigation treatment plan should be prepared and submitted for review and approval by ASLD and the State Historic Preservation Office. All work shall be conducted by an archaeologist permitted by the Arizona State Museum, or a registered architect, or other cultural resources professional, as appropriate.

Sincerely,



Chris Poirier, Assistant Planning Director