C. Draft Monitoring Plan

Introduction

This Monitoring Plan has been developed in conformance with regulatory requirements for the Rosemont Copper Project, and to ensure that mitigation for the Rosemont Copper Project is implemented effectively. This monitoring plan should be considered to be the framework of a plan that specifies monitoring requirements, responsible parties, and funding. It lacks the specificity that is necessary for a final monitoring plan. The monitoring plan for the Rosemont Copper Project would continue to be refined as permit requirements become known and mitigation measures are more fully developed. It is fully expected that a more robust and detailed monitoring plan will be presented in the final environmental impact statement (FEIS) and record of decision (ROD).

This Monitoring Plan details the monitoring, reporting, and recordkeeping that will be performed on an annual basis. Once the monitoring activities are completed, a Comprehensive Monitoring Report summarizing the monitoring efforts for the previous year will be submitted to the U.S. Forest Service (Forest Service).

Annually, Rosemont Copper Company (Rosemont Copper) shall facilitate a meeting between the Forest Service and the other relevant permitting agencies to review the Comprehensive Monitoring Report. The facilitation activities shall include the following: preparing meeting invitations and providing a meeting site, administrative support, and supplies as necessary. Rosemont Copper shall also be prepared to provide a summary of activities and an overall discussion of compliance.

The Comprehensive Monitoring Report will be reviewed annually for effectiveness and relevance. The Comprehensive Monitoring Report shall incorporate this annual review and, if required, any proposed changes will be included in the report as well as the rationale for such changes.

A. Geology, Minerals, and Paleontological Resources

Objective: Ensure that paleontological and karst resources are identified and managed, and to the extent practical preserved.

Desired Result: To meet the stated objective through survey, reporting, and recovery as deemed appropriate.

Methods: Prior to land-clearing activities, the project area will be inventoried for formations that may contain paleontological resources. Identified resources of significant value will be appropriately recovered or recorded. During construction and operation, these formations, where exposed, will be inspected prior to disturbance to ensure that any significant vertebrate paleontological resources are recovered. During mining, geologists will monitor wall rock to ensure that any significant karst features are identified and appropriately reported to the Forest Service.

Responsibility: Rosemont Copper

Funding: Rosemont Copper

B. Soils

Objective: Ensure the salvage and recovery of reusable soil resources in a manner that minimizes sediment delivery to downstream channels from disturbed areas.

Desired Result: Maximize the salvage and reuse of soil resources for reclamation of mine-disturbed lands to the extent practicable.

Methods: Soil inventory and salvage data shall be compiled and reported each year for acres of disturbance, acres of reclaimed land, and volume or tonnage and location of soil resources stored for future use.

Responsibility: Rosemont Copper

Funding: Rosemont Copper

C. Air Quality

Objective: Ensure that air quality standards are met and that air quality is maintained around the Rosemont Copper Project.

Desired Result: Air quality meets Clean Air Act standards.

Methods: Methods used to manage and monitor air quality in the area will be identified in the final mine plan of operations (MPO) and specified in the Air Quality Permit issued by the Pima County Department of Environmental Quality.

Opacity measurements at the property line and emissions from point sources must meet standards specified in the Air Quality Permit. The air emissions from all point sources will be reviewed regularly as specified by the permit, when issued. Dust control plans, which specify controls for fugitive sources, are also typically required as part of the Air Quality Permit. If monitoring determines that the dust control efforts need to be modified to improve performance, these plans will be updated. It is expected that Air Quality Permit conditions will require that emissions be observed, measured, and reported on a regular basis. All emissions data and operating information that may affect emissions will be stored onsite and reported as required by the permit.

Once the Air Quality Permit is issued, this Monitoring Plan will require reporting consistent with the specific monitoring requirements of the Air Quality Permit.

Responsibility: Rosemont Copper, Pima County Department of Environmental Quality

Funding: Rosemont Copper

D. Groundwater Quantity

Objective: Minimize impacts to groundwater resources.

Desired Result: Conservation of groundwater resources.

Methods: Groundwater conservation standards are established in management plans for each Active Management Area by the Arizona Department of Water Resources (ADWR). State ground water permits require that groundwater use be monitored and reported to the State annually.

In accordance with these requirements, Rosemont Copper will monitor and report on water use to ensure that water use meets or exceeds those conservation standards.

Groundwater elevations will be regularly monitored near the operational pumping areas, within both the Santa Cruz River valley and the Davidson Canyon/Cienega Creek watershed. Groundwater elevations will be measured and reported annually. Every 5 years, the results of the groundwater monitoring effort will be compared with the groundwater model predictions. The models will then be updated and verified to reflect the acquisition of empirical data. Every 5 years, Rosemont shall reevaluate sources of water that might be used for operations. The information shall be reported in the annual monitoring report for that year.

Rosemont Copper will report annually to the Forest Service on the voluntary commitment to regional groundwater mitigation identified in the final MPO and on compliance with contractual commitments regarding localized groundwater mitigation as set forth in Rosemont Copper's agreement with the United Sahuarita Well Owners group.

Responsibility: Rosemont Copper, ADWR

Funding: Rosemont Copper

E. Groundwater Quality

Objective: The facility will be designed, constructed, and operated so that it ensures the greatest degree of discharge reduction achievable through application of the best available demonstrated control technology (BADCT), processes, operating methods or other alternatives, including, where practicable, a technology permitting no discharge of pollutants, including acid rock drainage.

Desired Result: Per the requirements of the Aquifer Protection Permit (APP) program, compliance with the facility's APP is designed to ensure that the discharge of pollutants into the groundwater system will not cause or contribute to a violation of aquifer quality standards at the point of compliance, or that the discharged pollutants do not further degrade aquifer quality for that pollutant if the concentration of the subject pollutant was above the standard at the time of permit issuance.

Methods: APP coverage typically requires regular inspections to any facilities thatare classified as potentially discharging, and that groundwater quality be monitored at the points of compliance throughout the operational and postclosure periods of the facility. Groundwater monitoring typically has quarterly and biennial (once every second year) constituent lists. The Arizona Department of Environmental Quality (ADEQ) may require a different schedule for postclosure monitoring, within the closure plan of the APP.

In addition, where a hydrologic sink is anticipated, the APP typically requires that the groundwater model for the hydrologic sink (which helps maintain long-term groundwater quality) be updated periodically (typically every 5 years). Groundwater levels to support this model are expected to be monitored on at least an annual basis.

Seepage and leakage monitoring of the various water control facilities will likely be included to meet or exceed prescriptive BADCT criteria.

Once the APP is issued, this Monitoring Plan will require reporting on the specific monitoring requirements of the permit.

Responsibility: Rosemont Copper, ADEQ

Funding: Agency data management and inspections are funded through annual registration fees paid by permittees (including Rosemont Copper) to ADEQ. Rosemont Copper will fund reporting.

F. Surface Water Quantity

Objective : Minimize impacts to surface water quantity.

Desired Result: Conservation and/or replacement of surface water resources and identification of potential impacts.

Methods: Develop and implement a Water Source Enhancement and Mitigation Plan; Rosemont Copper will develop a water Web site that will be updated no less than annually with postings of all water-related data and reports, including surface water quantity data and monitoring. The U.S. Geological Survey (USGS) gage at Barrel Canyon into Davidson Canyon will be funded by Rosemont Copper. Funding will be provided annually by Rosemont Copper for a period that extends 5 years after the completion of ore extraction.

Spring flow and stream flow will be regularly monitored at sensitive riparian locations. Monitoring will be sufficient to identify seasonal variations in flow.

Responsibility: Rosemont Copper, USGS

Funding: Funding for MPO implementation, plan development, Web site, and tank replacement and for maintenance of the gage will be provided for on an annual basis by Rosemont Copper.

G. Surface Water Quality

Objective: Minimize the discharge of pollutants in stormwater, in accordance with the requirements of the Arizona Pollutant Discharge Elimination System (AZPDES) Multi-Sector General Permit (MSGP) and the AZPDES construction general permit (CGP); and minimize or mitigate the discharge of pollutants into Waters of the United States in accordance with the requirements of the Clean Water Act Section 404 individual permit and ADEQ's 401 certification of that permit.

Desired Result: Minimize the discharge of pollutants in stormwater through compliance with the MSGP, CGP, and 404 permits.

Methods: Application for MSGP or CGP coverage requires the development of a stormwater pollution prevention plan (SWPPP), which outlines best management practices to minimize the discharge of pollutants in stormwater from the construction or industrial site. In addition, the new MSGP requires analytical monitoring of stormwater discharges. The SWPPP for the Rosemont Copper Project will identify the stormwater outfalls, anticipated stormwater quality, monitoring schedule, and analytical parameters that will be monitored as part of the project. The MSGP also requires regular visual inspection of stormwater discharges and facility inspections to ensure that control measures are functioning effectively. All stormwater discharge information will be stored onsite and reported as required by the permits and detailed in the SWPPP.

The 404 permit will require the development of habitat mitigation and monitoring plan (HMMP) to address compensatory mitigation for impacts to waters of the United States. The HMMP will contain reporting requirement consistent with U.S. Army Corps of Engineers (USACE) regulations. ADEQ's 401 certification of that permit will include conditions to ensure that surface water quality standards are not violated.

Responsibility: Rosemont Copper, ADEQ, USACE

Funding: Agency data management and inspections under the MSGP and CGP program will be funded through application and annual registration fees for those permits. Rosemont Copper will fund permit compliance and reporting required by the MSGP, CGP, and Section 404 permits.

H. Biological Resources (Plants and Animals)

Objectives: (1) Ensure the requirements of Section 7 of the Endangered Species Act are met; (2) Ensure that viability of species occurring in the project area are not impacted beyond projections disclosed in the FEIS, ROD, and Biological Opinion; (3) Ensure success of revegetation efforts; (4) Ensure success of efforts to reduce or eliminate invasive and noxious species in disturbed areas; (5) Ensure that process water is adequately covered, enclosed or otherwise managed to avoid detrimental impacts to wildlife, livestock, and human health; (6) Protect high value riparian habitat from livestock grazing.

Desired Result: (1) Impacts to federally listed and Forest Service sensitive species are reduced or avoided; (2) Viability of species are maintained; (3) Revegetation efforts result in establishment and distribution of native species that support wildlife habitat, as well as reducing erosion potential and provide for livestock grazing; (4) Ensure that process water is adequately covered, enclosed, or otherwise managed to avoid detrimental impacts to wildlife, livestock, and human health; (5) Protect high-value riparian habitat from livestock grazing.

Methods: Portions of the project area contain habitat for three federally listed species (Chiricahua leopard frog, lesser long-nosed bat, and Pima pineapple cactus) and several other special status or otherwise sensitive species. The Coronado National Forest, along with the two federal cooperating agencies (USACE and Bureau of Land Management (BLM)), will initiate Endangered Species Act Section 7 consultation with the U.S. Fish and Wildlife Service (USFWS) for potential impacts to the three federally listed species once a preferred alternative is identified, following publication of the DEIS. Once the consultation is completed, the USFWS will issue a biological opinion, which will provide an analysis of effects on these species, as well as terms and conditions that are nondiscretionary requirements of the Biological Opinion. At that time, reporting on the implementation and success of these measures will be incorporated into this Monitoring Plan. Rosemont Copper anticipates that this Monitoring Plan will include activities such as monitoring the nearby lesser long-nosed bat roost for use, or monitoring potential habitat for the Chiricahua leopard frog and its use.

In addition, Rosemont Copper intends to develop a conservation program, in coordination with USFWS, for both listed species (such as the Chiricahua leopard frog) selected sensitive species that are not federally listed. This program will include monitoring activities to be completed prior to and during mine construction, and through the life of the mine, along with the maintenance and enhancement of suitable habitat onsite or at appropriate offsite locations. Details of the program will be set forth in documents developed in connection with the Section 7 consultation.

Rosemont Copper will also construct and maintain fencing to restrict access to sensitive riparian and species breeding areas and to discourage wildlife interaction with impacted water resources at the mine.

Sensitive caves and caverns will also be evaluated for protective measures upon discovery through consultation with the Forest Service.

Rosemont Copper will conduct regular monitoring for noxious weeds and invasive species in accordance with the Noxious Weed and Invasive Species Management Plan. This plan will be updated as necessary.

Monitoring of revegetation success will be conducted as part of the Reclamation Plan.

Rosemont Copper will address potential deleterious exposure of wildlife, livestock, and humans to toxic chemicals or hazardous conditions through location and construction of facilities, and other measures such as covers, fences,

or enclosures. The Forest Service will monitor implementation to ensure that the requirements contained in the FEIS and ROD are implemented.

Responsibility: Rosemont Copper, USFWS

Funding: Rosemont Copper

I. Visual Resources

Objective: Verify that the proposed visual mitigation requirements specified in the FEIS and ROD are conducted.

Desired Result: Visual impacts of the mine and associated facilities and activities are reduced or avoided to levels specified in the ROD. Reclamation reporting will be monitored to ensure compliance with commitments therein.

Methods: Initially, the building colors shall be compared to the proposed and approved palette of colors and a report detailing that compliance shall be submitted. For any building maintenance activities that involve painting or surface treatment, those activities shall be documented and the compliance with the color palette reported on for the year. If no maintenance or surface treatment is conducted, this shall be noted for the year.

Additionally, Rosemont Reclamation Plan reporting shall include numbers such as total disturbance, reclamation activities completed and contemplated, and a report on successful reclamation. Other visual mitigation requirements contained in the FEIS and ROD will be implemented.

Responsibility: Rosemont Copper

Funding: Rosemont Copper

J. Dark Skies

Objective: Verify that actions and commitments stipulated in the FEIS and ROD to minimize effects are implemented and maintained.

Desired Result: Minimization of light pollution to the extent practicable.

Methods: Rosemont Copper will implement their Lighting Plan (M3 Engineering and Technology Corporation 2011) and shall monitor light fixtures installed on site to ensure the fixtures meet the specifications. If the fixtures do not meet the specifications, the reasons shall be documented and the overall increase or decrease in light emissions shall be calculated. Options to meet predicted specifications will be explored. The calculated changes shall be managed and reported in the annual report.

Responsibility: Rosemont Copper

Funding: Rosemont Copper

K. Recreation and Wilderness

Objective: Validate that the mitigation measures required in the FEIS and ROD are implemented and maintained.

Desired Result: All trails, access points, recreation, and fencing modifications or enhancements identified in the MPO or ROD are constructed or implemented.

Methods: Rosemont Copper, in conjunction with the Forest Service, shall perform an annual review of commitments and progress toward completion. The results of this review shall be reported to the Forest Service.

Responsibility: Rosemont Copper, Forest Service

Funding: Rosemont Copper, Forest Service

L. Hazardous Materials

Objective: Manage hazardous materials as required by Federal, State, and local law.

Desired Result: Ensure that hazardous materials are managed in a manner that reduces potential human health and environmental risks.

Methods: The Resource Conservation and Recovery Act (RCRA) specifies how hazardous wastes must be managed from cradle to grave. This includes inspection, monitoring, planning, and management and reporting procedures if such wastes are generated. Rosemont Copper anticipates being a conditionally exempt small-quantity generator and, as a matter of Federal law, Rosemont Copper must comply with all applicable requirements of RCRA.

The Toxic Release Inventory (TRI) reporting requirements of the Emergency Planning and Community Right to Know section of the Superfund Amendment Reauthorization Act requires annual reporting if toxic substances are manufactured, processed, or otherwise used onsite. Rosemont Copper must comply with applicable monitoring and reporting requirements of TRI.

The Toxic Substances Control Act (TSCA) requires that specific toxic substances onsite be monitored and reported on as to their ultimate use and disposition. Rosemont Copper must comply with all applicable reporting requirements of TSCA.

The Department of Transportation (DOT) has specific requirements for packaging, and shipping of hazardous materials. This includes security plans as well as the production of shipping papers and specific training for personnel. Rosemont Copper must comply with applicable DOT requirements.

The Mine Safety and Health Administration (MSHA) has specific requirements for management of hazardous materials onsite. These management procedures include specific storage requirements to ensure the materials do not endanger

human health onsite. Rosemont Copper must meet all applicable MSHA requirements.

The Department of Alcohol, Tobacco, Firearms, and Explosives (ATF) has specific requirements for the storage and transport of explosive materials, including inventories, training, security clearance and storage requirements. Rosemont Copper must comply with all applicable requirements from ATF.

The Oil Pollution Prevention Act has specific requirements for Spill Prevention, Control, and Countermeasure (SPCC) Planning. SPCC plans ensure that petroleum products are managed with secondary containment and include regular inspections. An SPCC plan detailing these controls is required, as is training for employees.

Responsibility: Rosemont Copper, U.S. Environmental Protection Agency, MSHA, Pima County/ADEQ

Funding: Rosemont Copper must prepare all materials, reports, perform all necessary

Inspections, and take corrective actions required by the terms and conditions of the identified permits/plans.

M. Fuels and Fire Management

Objective: Validate that the mitigation measures required in the ROD are implemented and maintained.

Desired Result: All specified requirements identified in the ROD are implemented.

Methods: Annual review of facilities or requirements is reported.

Responsibility: Rosemont Copper and Forest Service

Funding: Rosemont Copper

N. Transportation and Access

Objective: Validate that the mitigation measures required in the FEIS and ROD are implemented and maintained.

Desired Result: All specified requirements identified in the ROD are constructed or otherwise implemented.

Methods: Annual review of facilities or requirements is reported.

Responsibility: Rosemont Copper

Funding: Rosemont Copper

O. Noise

Objective: Monitor offsite noise impacts.

Desired Result: Protect workers' hearing and reduce impacts to local residents and forest users.

Methods: Rosemont Copper will install noise/vibration monitors at strategic points around the site between the operations and sensitive receptors to check operational noise levels.

In addition, MSHA requires that noise levels be monitored to ensure workers' hearing is not affected. Rosemont Copper will conduct periodic monitoring of the operations for those levels.

Responsibility: Rosemont Copper, MSHA

Funding: Rosemont Copper

P. Public Health and Safety

Objective: (1) Restrict public access to the project site to ensure public safety;
(2) develop and maintain a health and safety training plan.

Desired Result: Prevent unauthorized access to the project site; a safe working environment is provided.

Methods: MSHA requires that anyone accessing a mine site must have appropriate training and safety equipment. Rosemont Copper will restrict access using a combination of fencing, gates, berms, and locks to ensure that the public does not access the site. A health and safety training plan is required under Federal regulations and must be approved by MSHA.

Responsibility: Rosemont Copper, MSHA

Funding: Rosemont Copper will maintain such structures, prepare appropriate plans, and conduct training at their cost.

Q. Cultural Resources

Objective: Appropriate management of cultural resources.

Desired Result: Successful implementation of the approved treatment or testing plan that is developed pursuant to the Section 106 consultation process and ensures compliance with applicable laws. Implementation of Community Endowment mitigation for socioeconomic impacts.

Methods: Significant survey efforts have identified a variety of archaeological resources within the Rosemont Copper Project area.

Depending on the treatment plans developed through consultation with the State Historic Preservation Officer (SHPO) and various tribal representatives,

archaeological monitoring may be required during the construction and operations phase of the mine. At the very least, initial ground-disturbing activities near recorded sites will be monitored by a professional archaeologist for the presence of additional human remains or archaeological artifacts. Rosemont Copper will make a position available for a Tribal representative during this period to ensure that the Tribe is informed of cultural findings and ground-disturbing activities.

Steps will also be prescribed to mitigate the project's potential adverse effects on National Register of Historic Places eligible historic properties.

Rosemont Copper will create the Santa Rita Mountains Community Endowment Trust for purposes of providing a source of funds for community projects to preserve open space and meet other needs identified by the community. The Trust will seek input from Native American communities relative to recommendations for grant recipients from the Trust.

Responsibility: Rosemont Copper, Forest Service

Funding: Rosemont Copper will be responsible for funding all monitoring and implementing the developed treatment plans and will report annually to the Forest Service regarding the activities of the Trust.

R. Socioeconomics

Objective: Validate the projected socioeconomic impacts and benefits of the project.

Desired Result: Measure and validate the effects of the project.

Methods: Rosemont Copper shall provide annual employment, gross tax, and production numbers to the Forest Service to document the overall socioeconomic impact to the area as part of the comprehensive monitoring report.

Responsibility: Rosemont Copper

Funding: Rosemont Copper

S. Other

Objective: Mitigate potential damage from mine-related blasting.

Desired Result: Rosemont Copper and any successors in interest or ownership of the mine will repair or otherwise pay for all damages to area residential, historical, or other structures caused by blasting at the mine.

Methods: Monitoring points will be located between the areas to be blasted and sensitive receptor sites. Results of blast monitoring will be available to agencies and local residents upon request.

Responsibility: Rosemont Copper

Funding: Rosemont Copper

T. Postclosure Monitoring

Objective: Ensure that reclamation methods are successful.

Desired Result: Reclamation measures and activities achieve intended results and conditions.

Methods: All reclaimed sites would be monitored twice a year for a period to be determined, in order to evaluate the success of reclamation work. Any areas that do not meet the reclamation goals would be analyzed to determine the underlying problems, which would be addressed with a modified plan.

Groundwater would be monitored quarterly for a term to be decided by the closure requirements specified in the APP.

Surface water would be monitored as required by the AZPDES program. Final details and locations will be determined by ADEQ.

Any changes in water quality would be evaluated to determine whether the changes are related to the reclaimed mining features, and appropriate steps would be taken to address the problem.

Responsibility: Rosemont Copper

Funding: Rosemont Coppe