

MEMORANDUM OF UNDERSTANDING
between
**USDA FOREST SERVICE, REGION 3,
CORONADO NATIONAL FOREST**
and
**SMITHSONIAN ASTROPHYSICAL OBSERVATORY
FRED LAWRENCE WHIPPLE OBSERVATORY
AMADO, ARIZONA**

This **MEMORANDUM OF UNDERSTANDING**, to cooperate in the National Environmental Policy Act process concerning the Rosemont Copper Project, is hereby entered into by and between the USDA Forest Service, Region 3, Coronado National Forest (hereafter, Forest), hereinafter referred to as the Forest Service, and the Smithsonian Astrophysical Observatory, Fred Lawrence Whipple Observatory, Amado, Arizona, hereinafter referred to as Smithsonian Observatory.

A. PURPOSE

The purposes of this Memorandum of Understanding (MOU) are to:

1. Provide the framework for a mutually beneficial, cooperative, and productive intergovernmental relationship between the Forest Service and Smithsonian Observatory with regard to the development of the Forest Service's environmental impact statement for the Rosemont Copper Project.
2. Define the respective roles and responsibilities of the Forest Service and Smithsonian Observatory as they relate to the process the Forest Service will use in developing an environmental impact statement for the Rosemont Copper Project.
3. Affirm the parties' willingness and agreement to cooperate in the environmental study for the Rosemont Copper Project.
4. Identify the Forest Service as the Lead Federal Agency and Smithsonian Observatory as a cooperating agency.
5. Affirm that the Forest Service has primary responsibility for National Environmental Policy Act (NEPA) compliance and preparation of the environmental impact statement for the Rosemont Copper Project.
6. Affirm the commitment of the Forest Service to fully consider the views of Smithsonian Observatory in the development of the environmental impact statement for the Rosemont Copper Project.

7. Establish the parties' agreement and commitment to jointly review the environmental impact statement developed under NEPA for the Rosemont Copper Project.
8. Affirm that the Forest Service has sole and ultimate decision-making authority regarding the use of National Forest System lands for the Rosemont Copper Project.

B. BACKGROUND

The Council on Environmental Quality regulations codified at 40 C.F.R. Parts 1500-1508 apply to the Forest Service. The Forest Service also has its own regulations and policies for implementing NEPA. NEPA requires Federal agencies to prepare an environmental impact statement prior to undertaking a major Federal action significantly affecting the quality of the human environment. NEPA also requires Federal agencies to study, develop, and describe appropriate alternatives to any proposal involving unresolved conflicts concerning alternate uses of available resources. NEPA also requires disclosure of the potential impacts of the proposed action and its alternatives.

The Rosemont Copper Project was generated externally by the Rosemont Copper Company. It is a major Federal action that may significantly affect the quality of the human environment. The proposed project is construction, operation, reclamation, and closure of an open-pit mine. The proposed project also includes associated infrastructure.

As proposed, the project would be located in Pima County, Arizona approximately 30 miles southeast of Tucson, Arizona on approximately 995 acres of private land, 3,670 acres of National Forest System land, 15 acres of land administered by the USDI Bureau of Land Management, and 75 acres of State of Arizona State Trust land. Ore extraction is proposed to be conducted primarily on private lands. Ore processing, waste management, and other support facilities and infrastructure are proposed to be located on the Forest. Project infrastructure is also proposed to be located on land administered by the USDI Bureau of Land Management and the State Trust Lands.

Annual production estimates include 234 million pounds of copper, 4.5 million pounds of molybdenum, and 2.7 million ounces of silver over a period of approximately 20 years. A further summary of the proposed action is provided in the Forest Service's "Notice of Intent to Prepare an Environmental Impact Statement" published in the *Federal Register* on March 13, 2008 (Volume 73, Number 50, pages 13527-13529). The complete proposed action consists of the material provided by the Rosemont Copper Company identified in Forest Supervisor Derby's letter of October 19, 2007, and the 28 items responsive to her request for additional information. An electronic composite of this information has been compiled to facilitate its use. It will be referred to hereafter as the composite Mine Plan of Operation (MPO). The composite MPO is available through links at: <http://www.fs.fed.us/r3/coronado/rosemont/mpo.shtml>.

The General Mining Act of 1872 confers a statutory right to enter upon public lands open to location in pursuit of locatable minerals, and under valid existing mining claims to conduct

mining activities, in compliance with Federal and State statutes and regulations. The Multiple-Use Mining Act of 1955 confirms the ability to conduct mining activities on public lands, locate necessary facilities, and conduct reasonable and incidental uses to mining on public lands, including National Forest System lands. Forest Service mining regulations at 36 C.F.R. Part 228 Subpart A correspondingly recognizes the rights of mining claimants.

Although the Forest Service may reasonably regulate mining activities to protect surface resources, there are statutory and constitutional limits to its discretion when reviewing and approving a mining plan of operations. The Forest Service cannot categorically prohibit mining activity or deny reasonable mineral operations under the mining laws. Although selection of a no-action alternative is outside the discretion of the Forest Service Responsible Official, the impacts of no action will be disclosed in the environmental impact statement. In practice, the Forest Service works with the mining applicant to develop an acceptable, legally-compliant plan of operations as an alternative to be considered during the NEPA process, thereby precluding selection of the no-action alternative.

C. MUTUAL BENEFITS AND INTERESTS

In the interest of mutual benefits and interests, both parties wish to:

1. Develop procedures to ensure that each may efficiently and effectively meet its responsibilities as a public entity.
2. Cooperate to help achieve better outcomes while ensuring each agency's key mandates and legal requirements are adequately and appropriately met.
3. Communicate openly and provide a conduit for the timely exchange of information.
4. Provide a framework to fully consider the physical, biological, social, economic, and cultural impacts of the Rosemont Copper Project as part of their respective and collective planning and decisionmaking processes.
5. Resolve conflicts at the lowest administrative level without having to resort to judicial review.
6. Conduct a periodic review of this MOU for evaluation of its effectiveness.

D. FOREST SERVICE RESPONSIBILITIES

The Forest Service shall:

1. Retain its sole and ultimate decision-making authority regarding the use of National Forest System lands for the Rosemont Copper Project, using the “Rosemont Copper Project Final Environmental Impact Statement,” and supporting record as the basis for determining the Final Mine Plan of Operation.
2. Retain its primary responsibility for NEPA compliance including, but not limited to, content of the environmental impact statement, public distribution of the “Rosemont Copper Project Draft Environmental Impact Statement” for review and comment, public distribution of other project materials, management of the comments received on the environmental impact statement, public notice and filing requirements, and arrangements associated with any public meetings to be held.
3. Identify any requirements necessary for compliance with the Land and Resource Management Plan for the Coronado National Forest, 1986, as amended or revised, (hereafter, Forest Plan) or to further amend the Forest Plan as needed.
4. Designate Smithsonian Observatory as a cooperating agency in the environmental impact statement.
5. Share with Smithsonian Observatory data and other information that is relevant to the development of the environmental impact statement and within Smithsonian Observatory’s area of special expertise.
6. Hold, on its own accord or upon request, government-to-government meetings and field reviews with Smithsonian Observatory as determined appropriate, without general public notice or participation.
7. Confer with Smithsonian Observatory on relevant technical studies and reports that may be required for the project.
8. Include, to the extent feasible, sufficient documentation in the environmental impact statement and supporting record to allow use by Smithsonian Observatory to meet its compliance requirements or other responsibilities.
9. Request Smithsonian Observatory review internal working drafts of select portions of the environmental impact statement.
10. Provide Smithsonian Observatory with copies of the internal working drafts of the “Rosemont Copper Project Draft Environmental Impact Statement” and “Rosemont Copper Project Final Environmental Impact Statement” for review prior to printing of such for public distribution, and negotiate a reasonable amount of time for review.

11. Ensure that contributions by Smithsonian Observatory are considered and appropriately incorporated into the project.
12. Notify Smithsonian Observatory of any public notices made by the Forest Service pertaining to the project.
13. Keep Smithsonian Observatory apprised of the project schedule and provide an updated schedule as it becomes available.
14. Additional responsibilities of the Forest Service in cooperating specifically with Smithsonian Observatory are contained in Attachment 1.

E. COOPERATING AGENCY RESPONSIBILITIES

Smithsonian Observatory shall:

1. Perform duties of a cooperating agency under NEPA for the Rosemont Copper Project.
2. Participate only in those areas within its area of special expertise, unless otherwise invited by the Forest Service.
3. Provide the Forest Service with responses to data requests to the degree the data are reasonably available within time limits that will meet the project schedule.
4. Share with the Forest Service, data and other information within its area of special expertise that are or may be relevant to the development of the environmental impact statement.
5. ~~Provide the Forest Service with copies of the existing and proposed laws, regulations, and policies within its area of special expertise that are or may be relevant to the project.~~
6. ~~Explain the relationship of existing and proposed laws, regulations, and policies within its area of special expertise to the project.~~
7. Make a good faith effort to raise concerns about the project and offer solutions relative to its area of special expertise in a timely and specific manner.
8. Upon request, participate in government-to-government meetings and field reviews with the Forest Service, if feasible.
9. Review and provide written comments on internal working drafts of select portions, as deemed appropriate by the Forest Service, of the environmental impact statement, within a negotiated reasonable amount of time.

- a. Review is to ensure technical accuracy and conformance with laws, regulations, and policies within Smithsonian Observatory's area of special expertise.
 - b. Review is to provide recommendations for improvement of reviewed internal working draft material where the materials are found to be incomplete, inadequate, or inaccurate.
10. Review and provide written comments on the internal working drafts of the "Rosemont Copper Project Draft Environmental Impact Statement" and "Rosemont Copper Project Final Environmental Impact Statement" prior to the Forest Service printing of such for public distribution, within a negotiated reasonable amount of time.
- a. ~~Review is to ensure technical accuracy and conformance with laws, regulations, and policies within Smithsonian Observatory's area of special expertise.~~
 - b. Review is to provide recommendations for improvement of reviewed internal working draft material where the materials are found to be incomplete, inadequate, or inaccurate.
11. Provide input to and/or review responses to public comments received on the "Rosemont Copper Project Draft Environmental Impact Statement," at the request of the Forest Service.
12. Proceed with work as expeditiously as possible to comply with the project schedule.
13. Provide the Forest Service with as much advance warning as possible should budgetary or program constraints prevent the Smithsonian Observatory from fulfilling its commitments identified in this MOU.
14. Make the Forest Service aware if, at any point in the process, its needs are not being met.
15. Additional information about the Smithsonian Observatory's role in cooperating with the Forest Service are contained in Attachment 2.

F. MUTUAL AGREEMENT AND UNDERSTANDING

It is mutually agreed and understood by all parties that:

1. **JURISDICTIONS.** This MOU does not affect each agency's jurisdictions that exist as a matter of law.
2. **LEAD AGENCY.** The Forest Service is the Lead Federal Agency, and has the authority through the Forest Supervisor to enter into this MOU.

3. **COOPERATING AGENCY.** Smithsonian Observatory's participation in preparation of the environmental impact statement for the Rosemont Copper Project as a cooperating agency is appropriate because the Observatory is just 10 miles from the project site; it would be severely impacted by light and atmospheric pollution, and possibly by ground vibrations arising from mining activities. The Observatory needs to minimize these impacts to continue its operations. The Observatory has the expertise to monitor these contaminants and determine compliance with any agreements under the environmental impact statement. Additional information as to Smithsonian Observatory's area of special expertise is contained in Attachment 3. Smithsonian Observatory has the authority through 20 U.S.C. 41 et seq to enter into this MOU.
4. **INFORMATION MANAGEMENT.** The Forest Service will share draft and deliberative materials with Smithsonian Observatory to further accomplish the purposes of this MOU in achieving the previously stated mutual benefits and interest. While the Forest Service seeks to conduct a transparent process, not all shared information may be ripe for disclosure to the public. Sometimes confusion and angst is created by the premature release of information to the public. To minimize this, the Forest Service asks that Smithsonian Observatory does not proactively make public notice of shared information. However, the Forest Service recognizes that Smithsonian Observatory may receive and process, within its authorities, external requests for information. To reduce external requests for information, the Forest Service intends to post select items of shared information that it deems ripe for public dissemination to the to the worldwide Internet at www.RosemontEIS.us. Information furnished by Smithsonian Observatory in response to a formal request by the Forest Service under this MOU will become part of the Forest Service's official record and subject to public release pursuant to the Freedom of Information Act and other applicable federal statutes. To allow full and frank discussion of preliminary analysis and recommendations, meetings with cooperating agencies to review draft and deliberative materials will not be open to the public.
5. **PARTICIPATION IN SIMILAR ACTIVITIES.** This instrument in no way restricts the Forest Service or Smithsonian Observatory from participating in similar activities with other public or private agencies, organizations, and individuals. Parties to this MOU may meet separately with any other cooperating agency.
6. **COMMENCEMENT/EXPIRATION/TERMINATION.** This MOU shall be effective upon the signature of the Forest Supervisor and the Smithsonian Observatory signing official, and shall remain in effect until public release of the "Rosemont Copper Project Final Environmental Impact Statement" by the Forest Service. This MOU may be extended or amended upon written request of either party and the subsequent written concurrence of the other. Either party may terminate this MOU following the delivery of a 60-day written notice to the other.

Consistent with information tracked by the Council on Environmental Quality, below are some reasons for terminating a cooperating agency agreement:

- Cooperating agency lacks special expertise and jurisdiction by law.
 - Cooperating agency lacks authority to enter into an agreement.
 - Cooperating agency lacks agreement with the Lead Agency (e.g.: unable to accept the scope of the analysis or the purpose and need for the proposed action; unable to accept responsibilities and/or milestones for analysis and documentation; unable to develop information/analysis of all reasonable alternatives; unable to prevent release of predecisional information; misrepresents the process or the findings presented in the analysis and documentation).
 - Cooperating agency lacks capacity (training or resources) to participate (e.g.: unable to participate during scoping and/or throughout the preparation of the analysis and documentation as necessary to meet process milestones; unable to identify significant issues, eliminate minor issues, identify issues previously studied, or identify conflicts with the objectives of regional, state, and local land use plans, policies, and controls in a timely manner; unable to assist in preparing portions of the review and analysis and to help resolve significant environmental issues in a timely manner; unable to provide resources to support scheduling and critical milestones).
7. **RESPONSIBILITIES OF PARTIES.** The Forest Service, Smithsonian Observatory, and their respective agencies and offices will oversee the activities set forth herein as individual roles and responsibilities and will utilize their own resources, including the expenditure of funds, in pursuing these objectives. Each party will carry out its separate activities in a coordinated and mutually beneficial manner. While the parties agree to make reasonable efforts to resolve procedural and substantive disagreements, the Forest Service retains final responsibility for determining the content of the environmental impact statement and its related processes.
8. **PRINCIPAL CONTACTS.** The principal contacts for this instrument are:

***Forest Service
Project Technical Contact***

Sarah Davis
Coronado National Forest
300 West Congress Street
Tucson, Arizona 85701
Phone: 520-388-8458
FAX: 520-388-8305
E-Mail: sldavis@fs.fed.us

***SMITHSONIAN OBSERVATORY
Project Technical Contact***

Emilio Falco
Smithsonian Institution
Whipple Observatory
Post Office Box 6369
Amado, Arizona 85645
Phone: (520) 670-5715
Fax: (520) 670-5715
E-Mail: falco@cfa.harvard.edu

**Forest Service
Project Management Contact**

Teresa Ann Ciapusci
Forest Service Project Manager
Rosemont Copper Project
Coronado National Forest
300 West Congress Street
Tucson, Arizona 85701
Phone: 520-388-8350
FAX: 520-388-8305
E-Mail: tciapusci@fs.fed.us

**SMITHSONIAN OBSERVATORY
Project Management Contact**

Dan Brocious
Smithsonian Institution
Whipple Observatory
Post Office Box 6369
Amado, Arizona 85645
Phone: (520) 670-5706
Fax: (520) 670-5714
E-Mail: dbrocious@cfa.harvard.edu

**Forest Service
Administrative Contact**

Grants and Agreements Specialist
Coronado National Forest
300 West Congress Street
Tucson, Arizona 85701
Phone: 520-388-8325
FAX: 520-388-8331
E-Mail: nnorris@fs.fed.us

**SMITHSONIAN OBSERVATORY
Administrative Contact**

>>> NONE <<<

At its sole discretion, an above-named party may designate an alternate representative. Each agency's designated authorized representative is authorized to act in its behalf with respect to those matters contained in this MOU. Each agency may change the designation or its authorized representative upon oral notice given to the other, confirmed promptly by written notice.

Each agency may request that additional persons with special expertise attend meetings to present and discuss information. Such attendance must be requested and confirmed by the other party in writing prior to the meeting.

The Forest Service will be the main contact with the project proponent and its consultant(s) and sub-consultant(s) providing support to the project.

Smithsonian Observatory may communicate with the Forest Service's third-party environmental consultant, SWCA Environmental Consultants, only through the Forest Service's Project Management Contact representative or with specific written permission of the Forest Service Project Management Contact.

9. NON-FUND OBLIGATING DOCUMENT. Nothing in this MOU shall obligate either the Forest Service or Smithsonian Observatory to obligate or transfer any funds. Specific work projects or activities that involve the transfer of funds, services, or property among the various agencies and offices of the parties will require executions of separate agreements and be contingent upon the availability of appropriated funds. Such activities must be independently authorized by appropriate statutory authority. This MOU does not provide such authority. Negotiation, execution, and administration of each such agreement must comply with all applicable statutes and regulations.
10. ESTABLISHMENT OF RESPONSIBILITY. This MOU is not intended to, and does not create, any right, benefit, or trust responsibility, substantive or procedural, enforceable at law or equity, by a party against the United States, its agencies, its officers, or any person.
11. AUTHORIZED REPRESENTATIVES. By signature below, the cooperator certifies that individuals listed in this document as representatives of the cooperator are authorized to act in their respective areas for matters related to this agreement.

THE PARTIES HERETO have executed this instrument.

SMITHSONIAN OBSERVATORY

USDA FOREST SERVICE

	<u>10/26/2009</u>		<u>10/19/09</u>
CHARLES ALCOCK	DATE	JEANINE A. DERBY	DATE
Director		Forest Supervisor	

The authority and format of this instrument has been reviewed and approved for signature.

	<u>11/17/09</u>
NORENE NORRIS	DATE
FS Agreements Coordinator	

Forest Service Agreement Number: 09-MU-11030514-060

Attachment 1

Additional Forest Service Responsibilities for Cooperating with Smithsonian Observatory

>>> NONE <<<

Attachment 2

Additional Smithsonian Observatory Responsibilities for Cooperating with Forest Service

Section E. Cooperating Agency Responsibilities is amended to add the following:

The Smithsonian Institution is a trust instrumentality established by the United States Congress [20 U.S.C. 41 et seq]. Though it is not an executive agency subject to the National Environmental Policy Act (NEPA), it is the Smithsonian's policy to inform and involve the public and other stakeholders in the planning of its facilities, and regularly participates in NEPA processes affecting its facilities or operations.

Attachment 3

Description of Smithsonian Observatory's Special Expertise

The Smithsonian Observatory is a world-renowned facility for astronomical research with an investment of about \$200 million. Astronomers, principally from the Smithsonian Astrophysical Observatory, Harvard University, and the University of Arizona, as well as from a large number of national and international institutions, use the telescopes at the Observatory every night to conduct research on a wide variety of topics ranging from planets to galaxies. Light pollution has a negative impact on this research, limiting the brightness of objects that can be observed. Atmospheric clarity is also essential, because air pollution also reduces the number and type of objects that can be observed, and degrades delicate optics. Excessive ground vibrations will also degrade the quality of observations, possibly causing misalignments of optics that require exquisite alignment, as well as mechanical malfunctions.

The Smithsonian Observatory regularly monitors sky brightness and atmospheric quality. Members of the staff have been involved with officials of Santa Cruz County and surrounding jurisdictions to develop reasonable outdoor lighting codes that provide safe, efficient light levels that lessen the impact of outdoor lighting on night skies. The most recent example is the approval in 2008 of an updated outdoor lighting code in Santa Cruz County that the Observatory proposed and promoted. The Observatory has the technical expertise to determine levels of light and atmospheric pollution at the Observatory site and its vicinity. Given estimated limits for the various contaminants from the Rosemont Project, the Observatory will be able to verify and report compliance with these limits or lack thereof. The Observatory will also be able to monitor the existence of excessive ground vibration.

Attachment 4
References

Note: Full text of the below references are available at the cited source. This attachment contains only selected applicable excerpts from the primary references.

(Source: <http://www.azleg.state.az.us>)

20 U.S.C. 41 ET SEQ

The President, the Vice President, the Chief Justice, and the heads of executive departments are constituted an establishment by the name of the Smithsonian Institution for the increase and diffusion of knowledge among men, and by that name shall be known and have perpetual succession with the powers, limitations, and restrictions hereinafter contained, and no other.