

**DECISION NOTICE AND
FINDING OF NO SIGNIFICANT IMPACT
RESOLUTION COPPER MINING PRE-FEASIBILITY ACTIVITIES PLAN
OF OPERATIONS**

USDA Forest Service
Globe Ranger District, Tonto National Forest
Pinal and Gila Counties, Arizona

Background: In May 2010 the Tonto National Forest (TNF) completed a *National Environmental Policy Act* (NEPA) review of the proposed action to authorize mining pre-feasibility activities on the Globe Ranger District in Pinal and Gila Counties, Arizona. The activities are proposed in the western portion of the Pinal Mountains, east and south of the Town of Superior and involve public land administered by the Forest Service (National Forest System Lands), Arizona State Land Department (State Trust lands) and private lands. The *Tonto National Forest Land and Resource Management Plan* (Forest Plan) forest wide direction pertinent to minerals, as amended, is to “support environmentally sound energy and minerals development.”

The western portion of the Pinal Mountains is entirely within the Management Area 2F designation of the Forest Plan, which for the most part is currently open for mining exploration activities, unless specifically precluded. The environmental impacts analysis of the *Resolution Copper Mining (RCM) Pre-feasibility Activities Plan of Operations* (Pre-feasibility Plan of Operations) has been completed in compliance with the requirements of NEPA and the *Mining and Minerals Policy Act of 1970*. In addition to the regulatory need to conduct the environmental analysis, the purpose and need for the proposed action arose for the following reasons:

- The purpose of the Pre-feasibility Plan of Operations is to gather and evaluate geologic, geotechnical, and hydrologic data to support pre-feasibility studies being conducted by RCM for their evaluation of developing a deep copper ore deposit.
- The need for the proposed federal action is for compliance with the requirements that the Forest Service respond to a proposed plan of operations to conduct mining operations on National Forest System Lands pursuant to U.S. mining laws.

The proposed mining pre-feasibility activities (Proposed Action) were described and anticipated effects analyzed in the *RCM Pre-feasibility Activities Plan of Operations Environmental Assessment* (EA). In addition, the EA also discloses the anticipated effects of four alternatives including the *No Action Alternative*. It also describes specific mitigation and monitoring requirements that would be implemented as part of the *Proposed Action*. The EA is available for review at the Globe Ranger District Office and the Tonto National Forest Supervisor’s Office, and on the Tonto National Forest website

(<http://www.fs.fed.us/r3/tonto/projects/>). Reading copies are available at eleven local libraries: Apache Junction, Mesa, San Carlos, Superior, Florence, Kearny, Gila and Pinal County Library District Offices, Globe, Miami, and Hayden. The Project administrative record is available for public inspection at the Tonto National Forest Supervisor's Office.

Decision and Rationale

Given the purpose and need, I have reviewed the No Action Alternative (Alternative 1), the Proposed Action (Alternative 2), North OF-2 Exploration Drill Site (Alternative 3), West Access Route 4a (Alternative 4) and West Access Route 4b (Alternative 5). I have considered public comments, analysis disclosed in the EA, information contained in the Project record, and management direction and policy considerations collectively to determine the selected alternative.

Based on this review, it is my decision to implement the Proposed Action (Alternative 2) with the incorporation of the North OF-2 Exploration Drill Site (Alternative 3) and West Access Route 4b (Alternative 5), and include all mitigation and monitoring measures listed in Section 2.3 of the EA.

This selected action is chosen because it best meets the purpose and need for the project to respond to RCM's proposal and is consistent with the Forest Plan. Resolution Copper Mining has a statutory right under the *Mining Law of May 10, 1872* (as amended) to go upon certain National Forest System Lands for the purposes of locatable mineral exploration. Accordingly, the Forest Service is fulfilling specific requirements set forth in *Subpart A* of the Forest Service Minerals regulations (*36 CFR 228*) which are to ensure that operations are conducted, where feasible, to minimize adverse environmental impacts on National Forest surface resources.

The selected action consists of three components: authorization, pre-feasibility activities, and mitigation measures. The three components are described below.

1. Authorization

The selected action will authorize exploration activities within the western portion of the Pinal Mountains, east and south of the Town of Superior in Pinal and Gila Counties (EA, Sections 1.2 and 2.1). This decision is based on existing Forest Plan goals and objectives, public comments, information contained in the Project record and analysis disclosed in the EA. This decision ensures that the selected action will only occur under terms and conditions identified by the Forest Service and will not result in significant adverse impacts to the environment based on the evaluation of current conditions and recent project area investigations, and it ensures consistency with the Forest Service's previous decisions and the Forest Plan. The selected action will be authorized through Forest Service approval of a final *Plan of Operations* that will incorporate all selected alternatives and mitigation measures. Prior to the approval of the *Plan of Operations*, a bond will be required to be in place to cover all required reclamation, mitigation, and monitoring measures.

2. Pre-feasibility Activities

The Pre-feasibility Plan of Operations activities are as follows:

- 1) Constructing five exploration drill sites that will impact approximately 1.17 acres and directional drilling on those sites. With incorporation of Alternative 3, the North OF-2 drill site will be constructed instead of the proposed OF-2 site. This will avoid impacts to the Boulder Campsite and Campground Boulder, a popular recreation and climbing area located at the proposed OF-2 drill site.
- 2) Constructing eight drill sites to accommodate a total of three deep and six shallow groundwater testing and monitoring wells that will impact approximately 1.86 acres;
- 3) Constructing nine drill sites that will impact approximately 1.8 acres to accommodate a total of nine geotechnical characterization boreholes;
- 4) Continuing exploratory and monitoring activities at previously authorized drill sites that have impacted approximately 3.02 acres;
- 5) Completing necessary roadway improvements on approximately 16.67 miles of existing roads on National Forest System Lands that will impact approximately 29.51 acres;
- 6) Construction of 0.33 mile of new roads that will impact 0.59 acre;
- 7) Road maintenance for access to previously authorized drill sites and new drill sites on National Forest System, State Trust, and private lands;
- 8) Completing road improvements on approximately 4.28 miles of existing roads that will impact approximately 5.75 acres on State Trust lands, and on approximately 1.05 miles of existing roads that will impact approximately 2.48 acres on private lands;
- 9) Constructing three drill sites and monitoring wells on these sites that will impact approximately 0.39 acre of State Trust land and 0.18 acre of private land;
- 10) Continuing exploratory and monitoring activities at previously authorized drill sites RES-13, HRES-05, HRES-07, HRES-08 and utilization of existing well A-06 on State Trust lands; and
- 11) Incorporate Alternative 5, the construction of West Access Route 4b and associated drill sites 4E and 4W that will impact approximate 2.70 acres on National Forest System Lands and 0.35 acres on State Trust land. The alternative was selected to avoid possible traffic concerns in the Oak Flat Campground area.

The overall area of construction activity, including existing road surfaces, totals approximately 83 acres. Within those 83 acres, new construction disturbance would occur on a total of 46.78 acres; of which 37.63

acres would occur on National Forest System Land, 6.49 acres on State Trust lands, and 2.66 acres on private lands.

3. Mitigation Measures

To mitigate resource impacts, the following measures will be implemented (EA, Sections 2.1.5 and 2.3). These practices have been demonstrated to be successful when used on similar projects and are considered effective at reducing environmental impacts. They are consistent with applicable Forest Plan standards and guidelines, Best Management Practices, and the terms and conditions and conservation measures of applicable U.S. Fish and Wildlife Service (USFWS) *Biological Opinions*. Implementation of the mitigation measures is intended to preclude the occurrence of potentially significant environmental impacts.

Air Quality – The objective is to mitigate effects of dust from road and drill site maintenance and improvements, vehicles traveling on unpaved roads and emissions at drill sites. Mitigation measures are the following:

- To minimize dust, unpaved roads will be watered as necessary during periods of regular use by RCM employees or contractors. If dust problems are noted, a watering schedule will be developed and implemented by RCM, or RCM will propose an alternative dust palliative program for review and approval by the Forest Service; and upon approval, will implement that program. In addition, as necessary, RCM will minimize land disturbance during site preparations, cover trucks when hauling any soil, minimize soil track-out by washing or cleaning truck wheels before leaving construction sites, create windbreaks, and revegetate disturbed land not used.
- Drill rigs and other mobile and stationary sources of air emissions at drill sites must be operated consistently with past practices to limit oxides of nitrogen emissions from Pre-feasibility Activities to peak estimated emission levels analyzed in the EA. Using readily available data, RCM will document their conformance with this requirement annually to the Forest Service.
- To the extent practical and consistent with the efficient and safe implementation of Pre-feasibility Activities, RCM will reduce vehicle traffic on National Forest System Lands.

Erosion and Sedimentation – The objectives are to mitigate effects of erosion, protect water quality, and prevent accidental release of hazardous or nuisance substances through the use of Best Management Practices (*FSH 2509.22*). Mitigation measures are the following:

- Prior to implementation of any ground disturbing activities, the *Storm Water Pollution Prevention Plan* (SWPPP) will be provided to the Forest Service for review and approval.
- RCM will provide the Forest Service with copies of all applicable water quality permits required for well development and testing prior to ground disturbing activities at drill sites. Future compliance with *Clean Water Act* (CWA) regulations and permitting requirements will be

required of RCM throughout the life of the project. Additionally, RCM will be required to demonstrate compliance with State of Arizona Surface and Aquifer water quality standards for the four water sources identified for dust suppression on roads and drilling activities.

- Pre-Feasibility Activities will not result in the release of any hazardous or nuisance substances to the environment and, if such release occurs, immediate corrective actions will be taken by RCM. A *Spill Prevention, Control, and Countermeasure* (SPCC) plan will be prepared in accordance with Arizona Department of Environmental Quality (ADEQ) regulations and incorporated into the approved Pre-feasibility Plan of Operations prior to any ground disturbing activities.
- RCM will be required to develop both temporary shutdown and interim reclamation plans for review and approval by the Forest Service. These plans will address periods of non-activity at exploration drill sites and partial reclamation of drill sites that are transitioning from active drilling phases to groundwater monitoring phases. Upon approval by the Forest Service, these plans will be incorporated into the Pre-feasibility Plan of Operations. Final reclamation will be conducted on all sites not selected for groundwater monitoring immediately after the completion of drilling activities.
- RCM will coordinate with the Forest Service prior to the construction of any safety pull-outs identified in the selected action to ensure that the size of the pull-out is minimized to the extent practical.

Wildlife- The objective is to mitigate undue impacts to wildlife, including Forest Service Management Indicator Species (MIS) and birds protected under the *Migratory Bird Treaty Act* (MBTA) within or in the vicinity of the project. Mitigation measures are the following:

- If RCM wishes to use water from existing well A-06 for dust control or drilling activities, RCM must first prove, through appropriate pump test and monitoring procedures that the pumping of this well will not affect nearby groundwater dependent ecosystems.
- Fire restrictions and provisions of the Tonto National Forest Fire Plan will be incorporated into the Pre-feasibility Plan of Operations. This may include shut down of project operations to comply with Red Flag conditions unless measures to minimize the risk of fire are employed and agreed to prior to fire seasons.
- All seed mixes to be used in reclamation are required to be certified weed free of seeds listed on the Tonto National Forest weed list. All equipment must be cleaned prior to use on the project. Cleaning will remove all dirt, plant parts, and material that could carry noxious weed seeds. Only equipment cleaned and inspected will be allowed to operate in the project area and RCM must provide an annual record of this activity to the Forest Service. Cleaning must occur off National Forest System Lands. This requirement does not apply to service vehicles used for transportation to and from the reclamation sites.

- All wells and boreholes will be abandoned in accordance with the State of Arizona well abandonment rules (*Arizona Administrative Code Rule R12-15-816*). Copies of Arizona Well Drill Reports, Well Log Forms, and Well Abandonment Completion Reports will be provided to the Forest Service annually.

Endangered Species and Arizona Hedgehog Cactus (AHC) – The objective is to mitigate impacts to the Arizona hedgehog cactus, the only endangered species determined to be present within the project area. A summary of nine conservation measures identified by the Forest Service and the USFWS during formal *Section 7* consultation to mitigate impacts to the AHC are as follows:

- *AHC Conservation Measure 1: Transplant.* Two AHC occur near existing roads proposed for improvements as part of the Pre-feasibility Activities. A biological monitor, the Boyce Thompson Arboretum, or other Forest Service-approved entity will transplant these AHC and any other AHC identified during the resurvey required by AHC Conservation Measure 2 that cannot be avoided during construction of Pre-feasibility Activities. The transplanted plants will be relocated to Boyce Thompson Arboretum. RCM shall be responsible for preparing an initial transplant report that documents the origin and new location of each transplanted AHC. If more than 20 AHC are impacted as a result of the proposed action (i.e., harmed, transplanted or relocated to the Boyce Thompson Arboretum), the Forest Service will reinitiate consultation with the USFWS.
- *AHC Conservation Measure 2: Resurvey Prior to Construction, Road Repair, and Reclamation Activities.* If the area of proposed construction has been surveyed within the past year as part of the required monitoring efforts (Conservation Measure 5), resurvey is not required prior to construction. Resurvey will be completed no later than one month prior to the planned implementation of road improvement activities authorized by the Pre-feasibility Plan of Operations.
- *AHC Conservation Measure 3: Measures to Protect Plants During Construction.* All AHC detected during resurvey will be clearly delineated with T-post and wire fencing to establish the limits of surface disturbance and to protect the microhabitat associated with each plant. Fencing will be placed as generally depicted in the Pre-feasibility Plan of Operations. In circumstances where additional screening is determined necessary by the biological monitor or the Forest Service, additional screening or protection measures will be implemented.
- *AHC Conservation Measure 4: Coordination with Construction Crews.* Prior to the start of each phase of construction activities, the biological monitor will inform construction crews of the presence and location of all known AHC proximate to the new, proposed construction activities and the procedures required to avoid adverse impact. The biological monitor will have the authority to stop work in the event that the monitor believes that an AHC would be affected by the action. Work will not proceed until one or more of the mitigation measures outlined in AHC Conservation Measures 1 and 3 have been implemented to minimize adverse impacts to AHC to the maximum extent practicable.

- *AHC Conservation Measure 5: Long-Term Monitoring of AHC.* AHC within the action area will be monitored every two years beginning in 2010 through the period authorized for the Pre-feasibility Activities. Biennial monitoring surveys will occur in April and May to coincide with the flowering period of AHC. Biennial monitoring will occur along all roads proposed for improvement or used for the Pre-feasibility Activities that occur within AHC habitat or potential habitat. On final monitoring survey will be required at the end of the authorization period for the proposed Pre-feasibility Activities or at the cessation of the Pre-feasibility Activities by RCM. The biennial monitoring report will be submitted to the Forest Service by RCM on or before December 1 of each monitoring year.
- *AHC Conservation Measure 6: Protection of Down Gradient Plants.* Known AHC that occur downhill from Pre-feasibility Activities will be protected by rock guards when deemed necessary by the biological monitor and the Forest Service. Rock guards will be painted white to minimize potential heat-loading effects. The guards will be properly pinned to maximize their effectiveness.
- *AHC Conservation Measure 7: Use of Native Plants in Reclamation.* RCM will include native vegetation common to AHC habitat in reclamation and closure plans for the selected actions. The Forest Service will develop this seed mix.
- *AHC Conservation Measure 8: Reintroduction of AHC Individuals via Seed/Seedlings.* Seeds and/or seedlings will be obtained from previously transplanted AHC housed at the Boyce Thompson Arboretum and/or the Carlota Copper Project AHC test plot. A propagation and monitoring technique plan will be cooperatively developed between the Tonto National Forest, USFWS, Boyce Thompson Arboretum, RCM and any other agency and/or individual determined to be appropriate by the Tonto National Forest and the USFWS. Reintroduction areas could include, but may not be limited to, “safe areas” as identified in the Tonto National Forest Conservation Assessment and Plan for AHC. Introductions of seeds/ and/or seedlings will occur within two years after project initiation. Frequency and duration of propagation and monitoring, reintroduction areas and task responsibilities will be delineated in the propagation and monitoring technique plan developed. Propagations occurring outside the action area may require additional Section 7 consultation.
- *AHC Conservation Measure 9: Closure of User-created Roads.* User-created roads within potential AHC habitat or AHC habitat will be identified for closure. These user-created roads will then be surveyed by RCM to establish the presence/absence of AHC. Closure will be the responsibility of RCM and accomplished through the construction of a gate, berm or other adequate means as determined by the Forest Service.

Recreational Activities In and Around Oak Flat Campground – The objective is to mitigate potential impacts to the recreational user’s experience within the Oak Flat Campground area and adjacent dispersed recreation areas. Adverse impacts may include restriction of access, an increase in traffic and noise, and degradation of visual resources. Mitigation measures are the following:

- Riprap or aggregate used during road preparation will be angular and the color will match native soil. Non-native aggregate surfacing placed on drill sites will be removed or buried at closure.
- The drilling equipment at the North OF-2 drill site will be configured so that the power pack, or the engine of the drill if it is integral to the rig, is oriented away from Boulder Campsite to minimize noise impacts to recreational users at that campsite.
- An assessment of the need for screening will be made by the Forest Service following drill setup. RCM will place camouflage netting materials on exploration drill sites OF-1 and OF-3 where they face the Oak Flat Campground, if screening from existing boulders or vegetation is not sufficient. Materials will be placed so that views of the drill equipment to a maximum height of 15 feet from the Oak Flat Campground area will be blocked.
- At exploration drill site OF-3, RCM will leave the large boulders along the eastern edge of the proposed exploration drill pad nearest the road. These boulders could provide some screening from the road, and facilitate reclamation efforts upon completion of exploration drilling at this location.
- At drill site H-N, RCM will leave the large boulders along the eastern edge of this drill site nearest the road to provide some screening from the road, and to facilitate reclamation efforts.
- Annually, RCM will work with the Forest Service to 1) identify any disturbed areas associated with the construction of new roads, improvements to existing roads, and construction of drill sites and 2) develop a rock staining (simulated desert varnish) implementation plan for the following year to reduce visual impacts.
- Lights used for night work and safety at drill sites will be directed or shielded to minimize night light effects to recreational areas.
- RCM will, to the extent practical, collect and set aside suitable boulders within the footprint of the proposed disturbance area for later use at drill sites or other reclamation activities. When used for closure and reclamation, salvaged boulders will be placed in a fashion or pattern that mimics boulder configuration in adjacent undisturbed areas.

Safety – The objective is to mitigate potential conflicts between recreational users and the drilling and construction crews responsible for the implementation of Pre-feasibility Activities, relative to the increased risk of traffic accidents on National Forest System Lands, particularly in the vicinity of the Oak Flat Campground. Mitigation measures are the following:

- RCM will work with the Forest Service to develop and implement an administrative access control plan to address safety concerns. Specific items that could be addressed in the plan include, but are not limited to the following: 1) signage, 2) training programs and documentation, 3)

performance standards and specific policies to identify problems and discipline offenders, 4) plans for limiting traffic during periods of high-use public events, 5) plans to incorporate traffic safety issues into regular “lunch box” safety meetings on site, 6) a traffic monitor when and where appropriate, and 7) a collection agreement to fund Forest Service oversight of the traffic monitor. In response to concerns that were raised regarding possible effects to Tribal traditions and practices, RCM will ensure Tribal members will continue to have safe access to the area for those purposes during this project. RCM will be required to inform the San Carlos and White Mountain Apache Tribes of their scheduled activities and to coordinate with the Tribes to resolve any potential conflicts arising from needs for access for particular activities. The Forest Service is committed to continuing government to government consultation with Tribes related to the implementation of exploratory drilling and facilitating RCM’s collaboration in those consultations.

- RCM will be responsible for the maintenance and care of Magma Mine Road.
- With incorporation of Alternative 5, the West Access Route 4b, RCM will restrict its use of roads within the Oak Flat Campground area to the Magma Mine Road, FR 2438, and those portions of old Superior-Miami Highway that are used to access drill sites PVT-3, PVT-4, and H-L. Use of other roads within the Oak Flat Withdrawal Area will only be allowed for emergency vehicle access and emergency evacuation from the drill sites south of the Oak flat Campground area. RCM will also limit the time of year that drilling activities will occur at drill sites PVT-3, PVT-4 and H-L. Drilling activities at these sites will not be allowed from October 1 through March 31 of the following calendar year, the primary season of use at the Oak Flat Campground. There will be no seasonal limitation for access to groundwater testing and monitoring wells sites for testing and monitoring purposes. Drill sites OF-1, OF-3, M and RES-13 will not be reoccupied for drilling activities until this alternative access route is constructed.

Conflicts with the Oak Flat Picnic and Campground Withdrawal Area - The objective is to ensure that directional drilling under the Oak Flat Picnic and Campground Withdrawal Area will not occur as this would constitute an appropriation under U.S. mining laws. Mitigation measures are the following:

- RCM will conduct a cadastral survey of drill sites located adjacent to the Oak Flat Picnic and Campground Withdrawal Area to ensure that exploration activities do not encroach on the withdrawal lands. Annual drilling information will be provided to the Forest Service for exploration drill holes in the vicinity of the Oak Flat Picnic and Campground Withdrawal Area that is of sufficient detail to document that directional drilling activities do not extend under the Oak Flat Picnic and Campground Withdrawal Area.

Travel Management - The objective is to ensure that the road system utilized by RCM during Pre-feasibility Activity operations and reclamation and closure are completed in conformance with Forest Service's travel management goals, which may become established as part of the Forest Service's current planning efforts. Mitigation measures are the following:

- No roads are being proposed under this action for changes in designation. Travel management is expected to be complete before completion of the proposed actions of RCM. Those roads whose status is not changed through consideration under travel management will be returned to their original condition (or in the case of user-created roads, obliterated) when they are no longer in use for this project.

Cultural Resources - The objective is to mitigate undue impacts on prehistoric, historic, and other cultural resources within or in the vicinity of the project. Mitigation measures are the following:

- During construction of road improvements for West Access Route 4b, the PVT-8 access route, the PVT-7 access route, and drill site construction pad improvements for H-C and PVT-8, RCM will provide a qualified archaeologist who will be present to ensure that the limits of construction are established and maintained during construction.
- A cultural resources site is located adjacent to H-C. The outfall structure for the well at this site will be placed along the opposite wall of the drill pad to avoid water flow over the cultural resources site. Expelled water will flow along an eastward gradient from this location and will be intercepted by an existing livestock watering tank.
- If previously unidentified cultural resources are encountered during construction activities, work will cease at that location and Forest Service archaeologists will be contacted for instruction before work continues at that location.
- The existing early 1920's Superior-Miami Highway road segment will be used to access a drill site. RCM will fill the numerous existing potholes within this road with clean fill material to slow erosion of the historic highway.

Other Alternatives Considered

In addition to the Proposed Action, four other alternatives were evaluated in the EA: No Action and three action alternatives (summarized below). A comparison of these alternatives is found in Chapter 2 of the EA.

The alternatives considered in detail appropriately addressed the scope of the analysis and represented a range of reasonable alternatives within that scope. They include Alternative 1, No Action (reclamation and closure of existing drill sites and user-created roads); Alternative 2, the Proposed Action (implementation of activities proposed by RCM in the Pre-feasibility Plan of Operations); Alternative 3, North OF-2 (an alternative to the proposed OF-2 site included in the Pre-feasibility Plan of Operations);

Alternative 4, West Access Route 4a (an alternative to the existing roads within the Oak Flat Campground area used to gain access to drill sites OF-1, OF-3, M, and RES-13); and Alternative 5, West Access Route 4b (an alternative to the existing roads within the Oak Flat Campground area used to gain access to drill sites OF-1, OF-3, M, and RES-13).

- Alternative 1 was not selected. Alternative 1 is the No Action Alternative. Under the no action alternative, none of the Pre-feasibility Activities would be authorized on public lands administered by the Forest Service. RCM would initiate reclamation and closure requirements for existing drill sites and user-created roads in accordance with the requirements of their previously authorized exploration and monitoring activities. RCM would continue with their pre-feasibility studies on private and State Trust lands. The Forest Service is required to provide reasonable access under U.S. Mining Laws. Drilling activities at RES-13, located on State Trust lands, are expected to continue and access through the Oak Flat Withdrawal Area is considered the most reasonable existing means of access. Activities at the Superior East Plant Site such as the dewatering of the No. 9 Shaft and the sinking of the No. 10 Shaft would continue and RCM would continue to use Magma Mine Road to access this site. *40 CFR part 1502.14(d)* requires that the alternative of no action be included in an Environmental Impact Statement. *Forest Service Handbook 1909.15 Chapter 14.1* clarifies: “The no-action alternative provides a baseline for estimating the effects of other alternatives; therefore, consider the no-action alternative in detail in each environmental analysis.” Under current statutes, selection of a “no-action” alternative is outside the authority of the Responsible Official and could involve a probable “taking” of private property rights under the Fifth Amendment of the Constitution. The Forest Service does not have the authority or discretion to prohibit well-planned and legitimate mineral operations complying with all applicable laws and located in areas open to mineral entry. The NEPA process is used to develop reasonable alternatives and mitigation that minimizes adverse environmental impacts while allowing the operations to take place. The *1872 Mining Act* confers a statutory right to enter upon public lands open to location in pursuit of locatable minerals and to conduct mining activities, locate necessary facilities, associated incidental activities, and all uses reasonable incidental thereto. The Forest Service’s responsibility is to facilitate the exercise of that right while protecting and requiring the operator to restore surface resources and minimize adverse environmental impacts.
- Alternative 4 was not selected. The West Access Route 4a was identified as an alternative to the use of existing roads within the Oak Flat Withdrawal Area to access drill sites OF-1, OF-3, M, and RES-13. This alternative was developed in response to public scoping comments that suggested that an alternative route be built off Forest Route (FR) 315 to avoid traffic concerns in the Oak Flat Withdrawal Area. The West Access Route 4a Alternative was not selected due to the required road grades and steepness of the terrain that could result in long-term maintenance, which in turn would result in a greater degree of impacts and increased surface disturbance.
- Alternatives 2, 3, and 5 were selected. The Proposed Action (Alternative 2) modified by the

selection of the North OF-2 drill site (Alternative 3) and West Access Route 4b (Alternative 5) were determined to have the least environmental impacts while meeting the purpose and need of the project.

Reason for the Selection

I have decided that the Proposed Action (Alternative 2) modified by the selection of the North OF-2 drill site (Alternative 3) and West Access Route 4b (Alternative 5) has the least environmental impacts while meeting the purpose and need of the project.

The alternative is consistent with the management emphasis, direction, standards and guidelines for Management Area 2F identified in the Forest Plan.

Changes Between the Pre-decisional EA and the Final EA

The EA includes a discussion of the changes between the Pre-decisional EA and the final EA in Section 1.8. Notable changes between the pre-decisional EA and the final EA include:

- 1) The determination by TNF that certain activities identified by RCM in Appendices D and G of their Prefeasibility Activities Plan of Operations that RCM proposes to conduct on State Trust and private lands are connected actions, and therefore must be analyzed as part of the proposed action. Relevant sections of Chapters 1, 2, and 3 have been updated to reflect this determination, and graphics and acreage calculations have been updated throughout the document to include the connected actions.
- 2) Additional information developed during formal Section 7 consultation with USFWS regarding the impacts of Pre-feasibility Activities to the Arizona hedgehog cactus (AHC; *Echinocereus triglochidiatus var. arizonicus*) have been incorporated into relevant sections of Chapter 3.
- 3) TNF proposed conservation measures to avoid, minimize, and mitigate potential impacts to AHC have been incorporated into the mitigation measures identified in the EA, Section 2.3.
- 4) The wildlife section of Chapter 3 has been expanded to include an analysis of the project impacts to Management Indicator Species and migratory birds in accordance with recent Forest Service guidance.
- 5) Figures 2-5 and 2-6 which depict the West Access Routes 4a and 4b, respectively, have been revised to reflect minor modifications of these alignments based on additional field review by TNF resource specialists. Acreages of disturbance associated with each of the alternatives have been updated accordingly.
- 6) Text throughout the document has been updated and refined to more clearly reflect the analysis and to clarify/respond to specific questions raised by some reviewers and commenters.
- 7) Appendix B has been added to provide the responses to public comments on the pre-decisional EA.

Where appropriate, information developed during preparation of responses to public comments has been incorporated into relevant sections of the EA.

8) Appendix C has been added to provide specific information on Special Status Species for Gila and Pinal Counties listed by the USFWS.

Public Involvement

The Pre-feasibility Plan of Operations was listed in the TNF *Schedule of Proposed Actions* on June 11, 2008. A *Notice of Intent* (NOI) to prepare an EA and an invitation to attend a public open house was published on June 11, 2008, in five area newspapers: *Scottsdale Tribune*, *East Valley Tribune*, *Arizona Silver Belt*, *Copper Basin News*, and the *Superior Sun*. The *East Valley Tribune* was the newspaper of record when the NOI was published. A general scoping letter was sent to 135 individuals and organizations on June 9, 2008. Scoping letters were sent to 18 officials at 10 Native American Tribes. The scoping information was also posted on the TNF website. The NOI and scoping letters provided information about RCM's Pre-feasibility Plan of Operations, described how interested members of the public could obtain more information and provide comment, and announced the open house hosted by the Forest Service. The open house was held on June 25, 2008, at the Junior/Senior High School in Superior, Arizona, to provide an opportunity for the public to learn more about the Pre-feasibility Activities and to provide comment. The public scoping period for this action closed on July 18, 2008.

Public comments were received during the open house or submitted during the public scoping period by email, fax, surface mail or private mail service. Thirty-one scoping comment letters were received. The Forest Service Interdisciplinary Team (ID Team) discussed and analyzed the individual comments or concerns expressed within each letter to identify the key issues that would be addressed in this EA. A response to each comment/concern identified in the letters submitted during this public scoping process is provided in Appendix A of the EA.

The pre-decisional EA was published on April 1, 2009 and the legal notice announcing the 30-day public comment period was published in the *Arizona Capitol Times*, the newspaper of record when the EA was published, as well as in four other area newspapers: *East Valley Tribune*, *Arizona Silver Belt*, *Copper Basin News*, and the *Superior Sun*. All individuals and agencies included in the scoping mailing list, as well as those added after the scoping period were specifically mailed a letter announcing the 30-day comment period. The pre-decisional EA was published on the TNF website and hard copies were provided to eleven local libraries: Apache Junction, Mesa, San Carlos, Superior, Florence, Kearny, Gila and Pinal County Library District Offices, Globe, Miami, and Hayden. Additional hard copies were made available for public review at the TNF Supervisor's Office in Phoenix, and at the Globe Ranger District Office in Globe. Copies were sent to representatives of ten Native American Tribes. Multiple means were provided to solicit comments (e.g., mail, email, phone, and fax) and direction for providing comments was included in the legal notice and at locations where the EA could be reviewed. Twenty-one comment letters/emails were received during the 30-day comment period. A response to each comment/concern identified in the letters submitted during this comment period is provided in Appendix B of the EA.

Finding of No Significant Impact

After considering the context and intensity of the environmental effects described in the EA, I have determined that the selected action will not have a significant effect on the quality of the human environment as defined in the Council of Environmental Quality implementing regulations at *40 CFR 1508.27*. Thus, an environmental impact statement will not be prepared. I base my finding on the following:

Context: The selected action is a site-specific action that by itself does not have international, national, region-wide or statewide importance. The overall area of construction activity totals approximately 83 acres. Within those 83 acres, new disturbance will occur on approximately 46.78 acres; of which 37.63 acres will occur on National Forest System Lands, 6.49 acres of State Trust lands and 2.66 acres of private lands.

Intensity: The following discussion is organized around the ten significance criteria described in the NEPA regulations found at *40 CFR Part 1508.27*.

1. Both beneficial and adverse impacts were considered in the impact analysis (EA, Chapter 3). The selected action will result in new ground disturbance of approximately 47 acres of National Forest System Lands, State Trust lands, and private lands (EA, Chapter 2). Ground-disturbing activities will remove wildlife habitat from disturbed areas, the majority of which are areas adjacent to existing Forest Service roads and user-created roads. The effects to recreation and travel management are from the use of Forest Service roads. The intensity of these effects will be greatest during well construction and development activities. Adverse effects were evaluated in a variety of technical report and disclosed in the EA; effects have been reduced or eliminated through project design or mitigation measures (EA, Chapter 3).
2. No significant effects on public health and safety as a result of the selected action were identified. Alternative road alignments were evaluated and selected to minimize potential risk to recreational users associated with proposed traffic volumes in the Oak Flat Campground area. A *Spill Prevention, Control and Countermeasure* plan will be developed and implemented to reduce the potential for release of petroleum products at drill sites (EA, Section 2.1.2)
3. The project area does not contain unique characteristics such as designated wilderness, wild and scenic river segments, research natural areas, park lands, prime farmlands, ecologically-critical areas, zoological or botanical areas, or other areas that would require special management by regulation or Forest Plan direction.
4. The effects on the quality of the human environment from the selected action are not likely to be highly controversial. The environmental analysis process has documented expected environmental effects. These effects have been disclosed in Chapter 3 of the EA and

mitigation measures have been designed to address the issues raised (EA, Sections 1.7 and 2.3). The analysis represents the judgment and expertise of resource management professionals who have applied their knowledge to similar projects and resources in the past. While some members of the public are opposed to well drilling and road improvements and others view the Forest Service as too restrictive in its management, the selected action is not highly controversial within the context of NEPA which indicates that disagreement over the decision itself does not constitute controversy for the purpose of determining significance (40 CFR 1508.27).

5. There are no highly uncertain, unique, or unknown risks identified for this project. The selected action will occur either directly adjacent to or within the historic Superior and Globe-Miami mining districts. Exploration has occurred in these areas for over 100 years. The Forest Service has previously evaluated and approved numerous plans of operations for exploration drilling in this area (EA, Section 3.11). Similar activities are done at many other locations throughout the United States for mineral exploration.
6. The decision to authorize the selected action will not establish a precedent for future actions with significant effects or represent a decision about future consideration. Future proposed exploration or mining projects would be subject to a site specific analysis through the NEPA process and approval would depend on that analysis.
7. The cumulative impacts of the action were considered and disclosed in the EA in Chapter 3. No past, present or reasonably foreseeable future actions which have been identified will cause cumulatively significant effects.
8. The selected action will have no significant adverse effect on district, sites, highways, structures or objects listed in or eligible for listing in the *National Register of Historic Places*. The selected action will also not cause loss or destruction of significant scientific, cultural or historic resources (EA, Section 3.9). Mitigation included as part of the selected action is designed to preclude effects to these resources (EA, Section 2.3). The selected action includes provisions to survey for and avoid sensitive heritage sites prior to any ground disturbing activities (EA, Section 2.3) and is in compliance with the Forest Service Region 3, First Amended Programmatic Agreement Regarding Historic Property Protection. A Heritage Resources Investigation was prepared and submitted to the State Historic Preservation Office (SHPO) with a determination of no adverse effect to cultural resources. Concurrence from the SHPO was received on June 11, 2009. The Forest Service consulted with 10 Tribes during the development of the EA. On September 15, 2008, a copy of the Class III survey report for the project was provided to Native American groups seeking their comments on the report and specifically requesting their input regarding traditional cultural places and practices. The pre-decisional EA (April 2009) was provided to Native American groups for review and comment. As a result of public comments and further evaluation, the Forest Service determined that activities occurring on State Trust and private lands were connected actions. Therefore, the

Class III Cultural Resources Survey reports for those activities were also provided for Tribal review on March 16, 2010. Primary consultation between the TNF and Tribal entities has included meetings, conference calls, phone calls and letters. The Tribes were consulted prior to and throughout the planning process for the project. The area is recognized as holding special significance to the Apache people; however there are no identified adverse effects to traditional cultural properties or practices (EA, Sections 3.9 and 3.10).

9. Formal consultation with the USFWS concluded that effects of the selected action may affect, are likely to adversely affect the AHC (April 16, 2010). The USFWS concurred with the Forest Service determination that the selected action is consistent with the *Endangered Species Act* (ESA) and will not result in a jeopardy finding to the AHC. The selected action will have no effect on any of the following species or critical habitats within Pinal and Gila Counties, and therefore consultation with the USFWS was not required: acuna cactus (*Echinomastus erectocentrus* var. *acunensis*), Apache trout (*Oncorhynchus gilae apache*), Arizona bugbane (*Cimicifuga arizonica*), bald eagle (*Haliaeetus leucocephalus*), Chiricahua leopard frog (*Lithobates chiricahuensis*), Colorado pikeminnow (*Ptychocheilus lucius*), desert pupfish (*Cyprinodon macularius*), Gila chub (*Gila intermedia*), Gila topminnow (*Poeciliopsis occidentalis occidentalis*), lesser long-nosed bat (*Leptonycteris curasoae yerbabuena*), loach minnow (*Tiaroga cobitis*), Mexican spotted owl (*Strix occidentalis lucida*), Nichol turk's head cactus (*Echinocactus horzonthalonius* var. *nicholii*), razorback sucker (*Xyrauchen texanus*), southwestern willow flycatcher (*Empidonax traillii extimus*), spikedace (*Meda fulgida*), and Yuma clapper rail (*Rallus longirostris yumanensis*). These findings are summarized in the EA, Section 3.4. Consultation was not required on candidate species which include both the headwater chub (*Gila nigra*) and the yellow-billed cuckoo (*Coccyzus americanus*). The California brown pelican (*Pelecanus occidentalis californicus*) had been delisted at the time of AHC consultation.
10. The selected action is in full compliance with all federal, state and local law requirements established for environmental protection. ADEQ and U.S. Army Corps of Engineers reviewed and commented on the proposal. Measures to ensure protection of air and water quality are included in the selected action (EA, Sections 2.3 and 3.2).

My conclusions regarding the effects of the selected action are based on a review of the record that demonstrates a thorough review of relevant scientific information, a consideration of any and all viewpoints (i.e., those in support, opposition, or other), and the acknowledgement of incomplete or unavailable information, scientific uncertainty and risk. The management practices included in the selected action were developed using data obtained and interpreted according to accepted monitoring and evaluation practices for identifying resource conditions.

Findings Required by Other Laws and Regulations

National Forest Management Act

The Forest Plan was adopted in 1985 and has been amended several times. The 2008 Forest Service planning regulations state that projects must be consistent with the applicable plan (36 CFR 219.8 (e)). The selected action is within Management Area 2F, and is consistent with the management direction of providing for the utilization of minerals in a manner that is compatible with other resource production and use. Therefore, the actions identified in the selection action are consistent with direction contained in the Forest Plan.

Multiple Use Sustained Yield Act

The selected action will not impair land productivity and is therefore consistent with this law.

Endangered Species Act (ESA)

The TNF initiated informal consultation with the USFWS for the Pre-feasibility Activities on February 27, 2009. At the request of the USFWS, formal consultation was initiated on August 12, 2009 and completed on April 16, 2010. The USFWS concurred with the Forest Service determination that the selected action is consistent with ESA and will not result in a jeopardy finding to the AHC.

National Historic Preservation Act of 1966 (NHPA)

This decision is consistent with and in compliance with NHPA. A Heritage Resource Investigation was completed with a finding of no adverse effect on cultural resources. Concurrence from SHPO on this determination was received on June 11, 2009.

Clean Air Act of 1970, as amended

This decision is consistent with the Clean Air Act. The project does not involve any actions that would result in a significant impact to air quality.

Clean Water Act of 1977, as amended

The Clean Water Act (CWA) requires State and Federal agencies to control and abate water pollution. RCM will be required to obtain a Stormwater Permit and develop a Stormwater Pollution Prevention Plan for review and approval by the Forest Service. RCM will provide the Forest Service with copies of all applicable water quality permits required for well development and testing prior to ground disturbing activities at drill sites. Future compliance with the CWA regulations and permitting requirements will be required of RCM throughout the life of the project. Additionally, RCM will be required to demonstrate compliance with State of Arizona Surface and Aquifer water quality standards for the water sources

identified for dust suppression on roads and drilling activities. These requirements ensure consistency with the CWA.

Floodplain Management and Protection of Wetlands

The decision is in compliance with *Executive Orders 11990* and *11988* regarding the management of wetlands and floodplains. There are no adverse impacts to wetlands or floodplains because these features are not present within the analysis area.

Executive Order 12898 (Environmental Justice)

This decision is in compliance with *Executive Order 12898* because there will be no disproportionately high adverse human health or environmental effect on minority or low-income populations.

Executive Order 13186 (Migratory Birds)

This decision is in compliance with *Executive Order 13186*, because there will be no effects on migratory birds, Birds of Conservation Concern, and/or Important Bird Areas (EA, Section 3.3).

Migratory Bird Treaty Act (MBTA)

This decision is in compliance with the MBTA requirements and *Executive Order 13186* (EA, Section 3.3). The majority of the area affected by the selected action is immediately adjacent to previously disturbed areas. The use and maintenance of existing roads, and the placement of the majority of drill pads either on areas previously disturbed or adjacent to existing roads reduces the loss of migratory bird habitat. Any unintentional take reasonably attributable to the implementation of the selected action is not likely to have any measureable, adverse effects to migratory bird populations.

Tribal Consultation and Coordination (Executive Order 13175)

The Forest Service has consulted with 10 Tribes during the development of the EA. On September 15, 2008, a copy of the Class III survey report for the project was provided to Native American Tribes seeking their comments on the report and specifically requesting their input regarding traditional cultural places and practices. The pre-decisional EA (April 2009) was provided to the Native American Tribes for review and comment. As a result of public comments and further evaluation, the Forest Service determined that activities occurring on State Trust lands and private lands were connected actions. Therefore, the Class III cultural resources survey reports for those activities were also provided for Tribal review on March 16, 2010. Primary consultation between the TNF and Tribal entities has included meetings, conference calls, phone calls and letters. The Tribes were consulted prior to and throughout the planning process for this project.

Administrative Review or Appeal Opportunities

This decision is subject to appeal in accordance with regulations at 36 CFR 215. Individuals or organizations that provided comments or otherwise expressed interest during the comment period may appeal. A notice of appeal must be in writing and clearly state that it is a Notice of Appeal being filed pursuant to 36 CFR 215. Appeals must be filed (regular mail, fax, email, hand-delivery, express delivery, or messenger service) with the Appeals Deciding Officer and should be submitted to: Reviewing Officer, Regional Forester, USDA Forest Service, 333 Broadway SE, Albuquerque, NM 87102 [Fax (505) 842-3173]. If hand-delivered, the appeal must be received at the above address during business hours (Monday-Friday 8:00 am to 4:30 pm) excluding holidays. Electronic appeals may be submitted to: appeals-southwestern-regional-office@fs.fed.us (.doc, .rtf, .pdf, or .txt formats only). The appeal must have an identifiable name attached or verification of identity will be required. Names and addresses of appellants will become part of the public record. A scanned signature may serve as verification on electronic appeals.

Appeals, including attachments, must be in writing, fully consistent with 36 CFR 215.14 and filed (postmarked) within 45 days following the date the legal notice of this decision is published in the *Arizona Capitol Times*. This publication date is the exclusive means for calculating the time to file an appeal. Those wishing to appeal this decision should not rely on dates or timeframes provided by any other source.

Implementation Date

If no appeals are filed within the 45-day time period, implementation of this decision may occur on, but not before, 5 business days from the close of the appeal filing period. When appeals are filed, implementation may occur on, but not before, the 15th business day following the date of the last appeal disposition. Implementation of this decision consists of issuance of a Plan of Operations to the proponent.

Contact Information

For additional information regarding this decision or the Forest Service appeal process, contact Gene Blankenbaker, Tonto Forest Supervisor or contact Karyn Harbour, Team Leader, (602) 225-5200.



5/14/10

GENE BLANKENBAKER

Date

Forest Supervisor

Tonto National Forest