

**Resolution Copper Project and Land Exchange
Environmental Impact Statement**

USDA Forest Service
Tonto National Forest
Arizona

April 8, 2025

Process Memorandum to File

Potential Future Mitigation Measures

This document is deliberative and is prepared by the third-party contractor in compliance with the National Environmental Policy Act and other laws, regulations, and policies to document ongoing process and analysis steps. This document does not take the place of any Line Officer's decision space related to this project.

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Revision History

Date	Personnel	Revisions Made
4/8/2025	C. Garrett	Process memorandum created

Purpose of Process Memorandum

In the version of the Final Environmental Impact Statement (FEIS) published in January 2021 (later rescinded in March 2021), Appendix J – Mitigation and Monitoring Strategy contained three categories of mitigation and monitoring:

- Forest-required mitigation (“FS-XX-XX”), which fall under the authority of the Forest Service to require to limit surface resource impacts on National Forest System land, and also including measures required by the Biological Opinion, the U.S. Army Corps of Engineers, or under Public Law 113-291.
- Resolution voluntary mitigation (“RC-XX-XX”), which are mitigation or monitoring measures committed to by Resolution Copper in writing to the Forest Service, but not required under any specific authority, and therefore not guaranteed to occur.
- Potential future mitigation (“PF-XX-XX”), which are mitigation or monitoring measures that were brought forward during scoping, the public comment period on the DEIS, or from cooperating agencies, then discussed with Resolution Copper to determine if any could be implemented. If committed to, they were designated “Resolution voluntary” measures. If not committed to, they were designated “Potential future” measures.

The process for compiling, reviewing, and disposing of mitigation/monitoring items is fully described in Project Record #0004833 – “Process Memorandum to File - Post-DEIS Assessment of Mitigation”.

The FEIS has been revised for potential republication and the Forest Service has recategorized the mitigations contained in Appendix J, creating a new category “Resolution committed” to distinguish between measures that are agreed to by Resolution Copper in written contractual, financial, or other agreements, versus voluntary measures with no written commitments. At the same time, the Forest Service determined that the “Potential future” measures do not serve a purpose at this point in the NEPA process, as they are not moving forward for execution.

The purpose of this process memorandum is to document the Potential future measures that have now been removed from the FEIS.

Other Mitigation and Monitoring Measures Not Considered in Chapter 3 Impacts Analysis (Potential Future Measures)

While not analyzed for effectiveness in the FEIS, other mitigation and monitoring measures were suggested during the scoping process, during alternatives development, during public comments on the DEIS, or would be likely under a permit or authorization required for the mine. As stated above, the Forest Service has the authority to require mitigation to limit impacts on Forest Service surface resources, but no delegated authority over those mitigation actions imposed by another regulating authority or on private land outside of regulating authorities.

The Forest Service would not have authority to require the items listed below, but they could be implemented in the future to limit impacts. These measures were not considered within the analysis of the FEIS.

Mitigation and Monitoring that could be Required by Other Regulatory and Permitting Agencies

Potential mitigation and monitoring measures associated with the permits listed below are within the authority of other regulatory permitting agencies and could be required, including the Arizona Department of Environmental Quality and Arizona Department of Water Resources. The Forest Service has no authority, obligation, or expertise to determine or enforce compliance for the measures associated with the permits listed in this section, as they have not yet been required by other agencies nor agreed to by Resolution Copper. The mitigation and monitoring measures in this section include permit requirements and stipulations from legally binding permits and authorizations such as the air quality permit, Aquifer Protection Permit, and groundwater withdrawal permit.

Many of these permits are not yet issued but are anticipated to be issued prior to approval of the final mining plan of operations or special use permit. Those permits received prior to the issuance of the final ROD may need to be modified to reflect the alternative selected by the deciding official. These regulatory and permitting agencies would share monitoring results and any instances of noncompliance with the Forest Service. The Forest Service would use the information provided by the regulatory and permitting agencies to determine compliance with the decision that would be documented in the ROD and compliance with the final mining plan of operations or special use permit. Some of the other permits, licenses, and authorizations that are anticipated to be required for the mine to be operational (and may involve additional mitigations beyond those noted here) include:

- Aquifer Protection Permit (APP)
- Arizona Pollutant Discharge Elimination System (AZPDES) Permit

- Clean Water Act Section 401 Certification¹
- Special Use Permits
- Project-Specific Section 404 Clean Water Act Permit
- Air Quality Control Permit

Potential Future Measures for Transportation and Access (2 measures)

PF-TA-01: Replace access if NFS Road 2438 is closed due to subsidence
Other names: M-R23; M-R37
<p>Description/overview:</p> <p>For areas east and south of the mine/Oak Flat (Devil’s Canyon): NFS Road 315 from State Route 177 will remain open to allow public access to the areas south and east of the mine site for Lower Devil’s Canyon. The existing Forest Service Road Maintenance Level is “Level 2 – High Clearance Vehicles.” For access to upper Devil’s Canyon, NFS Road 2438 and/or 2439 via NFS Road 469 (Magma Mine Road) will most likely remain.</p> <p>However, in the event that parts of NFS Road 2438 are closed due to subsidence, Resolution Copper will work with local climbing groups and climbers to evaluate the feasibility of an alternate access route. Access to Northern Devil’s Canyon will remain open from U.S. 60 to NFS Road 342 (North Cerro Road).</p> <p>Rationale for including as a potential future measure: Resolution Copper provided this potential mitigation in response to the Forest Service on mitigation suggestions raised in public comments.</p>
<p>Source of measure:</p> <p>Resolution Copper; public comments</p>
<p>Resource affected/impacts being mitigated:</p> <p>Transportation and access; recreation</p>
<p>Applicable alternatives:</p> <p>All</p>
<p>Possible authority to require:</p> <p>As an applicant-proposed mitigation measure, implementation is not assured; however, if included as a stipulation or requirement in a permit it may become required.</p>
<p>Additional ground disturbance:</p> <p>No additional ground disturbance anticipated.</p>

¹ The 401 water quality certification was issued by the Arizona Department of Environmental Quality on December 22, 2020.

PF-TA-02: Mitigation for adverse impacts on existing transportation facilities
Other names: None
<p>Description/overview:</p> <p>Four additional measures were identified in the traffic impact studies (Southwest Traffic Engineering LLC 2017, 2020b) and subsequent sensitivity analysis review (Hussein and Miles 2020) as being recommended to improve Level of Service (LOS) and potential safety impacts caused by mine traffic:</p> <ul style="list-style-type: none"> • Install new stop signs at minor approaches to intersections as needed and subject to appropriate approval by Arizona Department of Transportation (ADOT). • Use flaggers or a temporary traffic signal as necessary to assist with turning movements at project intersections during peak construction, subject to appropriate approval by ADOT. Include advance warning signage such as CONSTRUCTION TRAFFIC or similar signs to alert drivers to any construction-related changes in roadway conditions. • Stripe a new eastbound left-turn lane for the intersection of Main Street/Lonetree Road (Smelertown Road), subject to appropriate approval by the Town of Superior. • Construct and stripe a new westbound right-turn lane for the intersection of U.S. 60/Main Street, subject to appropriate approval by ADOT. <p>In all cases, Resolution Copper has indicated that the impacts to be addressed are temporary only, and that the proposed mitigations may be more harmful than helpful.</p> <p>If any of these mitigations were to be implemented, it would likely be after monitoring of actual traffic impacts and safety conditions during construction and operations.</p>
<p>Source of measure:</p> <p>Tonto National Forest</p>
<p>Resource affected/impacts being mitigated:</p> <p>Transportation, public health and safety</p>
<p>Applicable alternatives:</p> <p>All</p>
<p>Possible authority to require:</p> <p>Local traffic authorities</p>
<p>Additional ground disturbance:</p> <p>No measurable new ground disturbances are anticipated.</p>

Potential Future Measures for Water Resources (3 measures)

PF-WR-01: Create and maintain public information repository
Other names: GP-79 (DEIS appendix J); M-G1; M-W6
Description/overview: Create and maintain a public information repository, such as a community website, where all information on project monitoring and related matters is readily available in a timely manner, including water quality monitoring data. Rationale for including as a potential future measure: There is merit in having a central clearinghouse of project-specific information for the public to access, restricted primarily to information submitted to government agencies as required under permits, but no single agency (including the Forest Service) is in a position to undertake that responsibility. After the January 2021 Rescinded FEIS, the Forest Service again explored the possibility of this mitigation measure with Resolution Copper, as a voluntary measure. Resolution Copper responded to the Forest Service in January 2023: “RC Response: All monitoring data will be publicly available from the regulatory agencies. The question of a single online repository for all data should be deferred until there is a better understanding of what data will be reported and which agency will be required to manage those reports. Resolution is open to working with the Forest Service, EPA, the USGS and/or a local community working group to identify a best practice and will evaluate such opportunities post-FEIS publication and issuance of the Record of Decision.”
Source of measure: Public comments
Resource affected/impacts being mitigated: Water resources
Applicable alternatives: All
Possible authority to require: None known at this time
Additional ground disturbance: No additional ground disturbance anticipated.

PF-WR-02: Divert existing flows across the subsidence area to preserve downstream flows
Other names: M-W26
<p>Description/overview:</p> <p>Public comments suggested that existing flows (surface runoff during storm events) be diverted across the subsidence area in order to preserve downstream flows, if possible. This concept was also raised by Forest Service specialists during the Groundwater Modeling Workgroup prior to publication of the DEIS.</p> <p>Rationale for including as a potential future measure: Resolution Copper indicated in their responses to the Forest Service on mitigation suggestions raised in public comments, that to the extent practicable and before subsidence starts, Resolution Copper will evaluate the practicability of implementing diversion around the subsidence area. The majority of upgradient surface runoff that would flow towards the subsidence area would have to pass over the Resolution Copper East Plant Site infrastructure complex which sits between the source and the subsidence area. Minimizing that flow across infrastructure would be accomplished by diverting water around the facility and into Queen Creek and Devil’s Canyon. This would also minimize the amount of flow lost to the subsidence area.</p> <p>In November 2022, Resolution Copper clarified that the diversions considered under PF-WR-02 would be permanent (Antone 2022a).</p>
<p>Source of measure:</p> <p>Resolution Copper; public comments</p>
<p>Resource affected/impacts being mitigated:</p> <p>Socioeconomic resources; water quality and water supply</p>
<p>Applicable alternatives:</p> <p>All</p>
<p>Authority to require:</p> <p>Measure PF-WR-02 is a committed measure per agreement with the Town of Superior dated January 14, 2021 and letter of intent with the Town of Superior dated August 23, 2024 to develop a formal agreement. However, the agreement is to “evaluate the practicability of implementing a diversion around the subsidence area”, and therefore this remains a potential future measure, as the practicability of implementation is uncertain.,</p>
<p>Additional ground disturbance:</p> <p>None.</p>

PF-WR-03: Mitigation of effects of water level declines
Other names: M-W32
<p>Description/overview:</p> <p>Arizona Water Company submitted comments on the DEIS requesting that appropriate funding or bonding be in place to ensure the project will not cause any significant water level declines or water quality impacts. While such mitigation is in place for water level declines caused by dewatering near the mine site (see measure FS-WR-01), no such protections are in place for the area near the Desert Wellfield in the East Salt River valley.</p> <p>Rationale for including as a potential future measure: The EIS analysis discloses that water quality impacts and significant water level declines are not anticipated in any areas associated with Arizona Water Company water supply systems. However, Resolution Copper notes: “If there are unique situations where water users will be impacted because of well siting requirements, for example, Resolution will work with these impacted stakeholders to mitigate effects of a water level decline caused by the project.” This mitigation measure is being included in the event remedies in the future could be warranted.</p>
<p>Source of measure:</p> <p>Resolution Copper; public comments</p>
<p>Resource affected/impacts being mitigated:</p> <p>Socioeconomic resources; water quality and water supply</p>
<p>Applicable alternatives:</p> <p>All</p>
<p>Authority to require:</p> <p>As an applicant-proposed mitigation measure, implementation is not assured; however, if included as a stipulation or requirement in a permit it may become required.</p>
<p>Additional ground disturbance:</p> <p>None.</p>

Potential Future Measures for Wildlife (1 measure)

PF-WI-01: Voluntary achievement of “no net loss” of habitat
Other names: M-WL47
Description/overview: Continue collaboration on a voluntary compensatory plan, beyond what is legally mandated, to achieve no net loss of habitat. Rationale for including as a potential future measure: Many aspects of the project design and mitigation will already replace habitat impacted by the mine or will prevent impacts from occurring. This includes preventing riparian and aquatic impacts associated with springs and perennial streams through water replacement if needed, reestablishment of habitat through reclamation, new riparian habitat brought forward as part of the compensatory mitigation under the Section 404 permit, as well as the offered lands coming into Federal ownership that contain desirable habitat. Although there is no legal mandate or regulatory requirement, the goal expressed in the mitigation measure—no net loss of habitat—is an aspirational goal that would have long-term benefits to wildlife in the region. Future mitigations could be considered to bring the project closer to this goal.
Source of measure: Public comments
Resource affected/impacts being mitigated: Wildlife habitat
Applicable alternatives: All
Possible authority to require: None known at this time
Additional ground disturbance: No additional ground disturbance anticipated.

Potential Future Measures for Recreation (3 measures)

PF-RC-01: Purchase lands in the “Preserve”
Other names: M-L2
Description/overview: Purchase and transfer to Federal ownership a considerable portion of the lands suggested as “Preserve” in the Superstition Area Land Plan, an inclusive, 105-square mile study conducted by Superstition Area Land Trust in the early 2000s, with particular emphasis on adding land that would serve as a buffer between the south border of the Superstition Wilderness Area and Phoenix. Rationale for including as a potential future measure: Congressional intent was that the land exchange was to take place, and mitigation for any impacts caused by the exchange of land is not required; regardless, the Forest Service is already requiring a robust mitigation package that will offset recreational impacts associated with the loss of Federal land base upon which recreation can occur. While not necessary to offset the impacts from the Resolution Copper Project, this potential mitigation expresses a long-term vision for maintaining regional open space and an enhanced recreational land base.
Source of measure: Public comments
Resource affected/impacts being mitigated: Recreation
Applicable alternatives: All
Possible authority to require: None known at this time
Additional ground disturbance: No additional ground disturbance anticipated.

PF-RC-02: Develop MARRCO corridor for tourism; reactivate rail
Other names: M-S6
<p>Description/overview:</p> <p>Reactivating the existing rail line along the MARRCO corridor for tourism is not planned as part of the project. However, approval and construction of the proposed action does not foreclose potential other uses of the corridor in the future after sufficient discussion and analysis to address safety issues.</p> <p>Rationale for including as a potential future measure: Resolution Copper dismissed reactivation of the rail system measure for operational and safety concerns. However, they also noted, “Approval and construction of the proposed action does not foreclose potential other uses of the corridor in the future after sufficient discussion and analysis to address safety issues. Resolution Copper would work with the Town of Superior and other stakeholders if such uses were proposed in the future.”</p>
<p>Source of measure:</p> <p>Resolution Copper; public comments</p>
<p>Resource affected/impacts being mitigated:</p> <p>Socioeconomic resources</p>
<p>Applicable alternatives:</p> <p>All</p>
<p>Authority to require:</p> <p>As an applicant-proposed mitigation measure, implementation is not assured; however, if included as a stipulation or requirement in a permit it may become required.</p>
<p>Additional ground disturbance:</p> <p>None.</p>

PF-RC-03: Fund extension of the Legends of Superior Trails (LOST) Queen Creek segment
Other names: M-R27
<p>Description/overview:</p> <p>Public comments suggested that Resolution Copper fund the extension of the Legends of Superior Trails (LOST) Queen Creek segment south across the base of Apache Leap.</p> <p>Rationale for including as a potential future measure: The Forest Service is already requiring a robust mitigation package to offset recreational impacts (motorized trails, non-motorized trails, and camping). The proposed trail is not identified in the management plan for the Apache Leap Special Management Area and would require additional specific proposals and appropriate NEPA clearance to implement. However, this potential mitigation could be compatible with the long-term regional trail system, including the Forest Service recreational mitigation package (FS-RC-03).</p>
<p>Source of measure:</p> <p>Public comments</p>
<p>Resource affected/impacts being mitigated:</p> <p>Recreation</p>
<p>Applicable alternatives:</p> <p>All</p>
<p>Authority to require:</p> <p>None known at this time</p>
<p>Additional ground disturbance:</p> <p>None.</p>

Potential Future Measures for Socioeconomics (2 measures)

PF-SO-01: Mitigation for reduction in property values
Other names: M-S26
Description/overview: <p>The EIS analysis discloses that property values could be reduced due to proximity to the tailings storage facility, or other impacts such as changes in water quality. Public comments suggest that Resolution Copper compensate for any property value reductions.</p> <p>Rationale for including as a potential future measure: Impacts assigned to the tailings storage facility in public comments are not necessarily borne out by the EIS analysis. For instance, noise and traffic impacts associated with the tailings storage facility do not exceed any designated thresholds. However, the one situation in which nearby landowners may experience substantial impact is the potential for tailings seepage to impact downstream private wells. While the EIS predictions indicate that in most cases the numeric Arizona aquifer water quality standards would be met—and State permitting requirements would ensure this is the case—increases in other constituents such as sulfate and total dissolved solids could still degrade water quality and impact downstream property owners.</p> <p>Resolution Copper dismissed this mitigation measure but also noted that “Resolution Copper has already purchased properties in the footprint and vicinity of the Tailings Storage Facility to address this concern.” This mitigation measure is being included as similar remedies in the future may be warranted.</p>
Source of measure: <p>Resolution Copper; public comments</p>
Resource affected/impacts being mitigated: <p>Socioeconomic resources; water quality and water supply</p>
Applicable alternatives: <p>All</p>
Authority to require: <p>None known at this time</p>
Additional ground disturbance: <p>None.</p>

PF-SO-02: Commitment to continue and possibly expand existing apprenticeship program
Other names: M-S21
<p>Description/overview:</p> <p>Resolution Copper established its Apprenticeship Program when it identified specific workforce needs to manage additional maintenance activities associated with the operation of the new Shaft 9 infrastructure and equipment. The Apprenticeship Program filled those workforce needs through the hiring and training of local individuals. The Apprenticeship Program includes free tuition, books, equipment, exam costs, lab fees, practical application training under a Resolution Copper Journeyman, and full-time employment at Resolution Copper. This program has been ongoing since 2018, and 12 individuals are scheduled to complete the program in December 2020.</p> <p>Rationale for including as a potential future measure: In response to the Tonto National Forest on mitigation suggestions raised in public comments, Resolution Copper notes that the current program may be used to form the basis of a future program that can be expanded as Resolution Copper identifies specific skills needed for construction and operations.</p>
<p>Source of measure:</p> <p>Public comment</p>
<p>Resource affected/impacts being mitigated:</p> <p>Socioeconomics</p>
<p>Applicable alternatives:</p> <p>All</p>
<p>Authority to require:</p> <p>As an applicant-proposed mitigation measure, implementation is not assured; however, if included as a stipulation or requirement in a permit it may become required.</p>
<p>Additional ground disturbance:</p> <p>None.</p>