
Process Memorandum to File

Cumulative Effects Analysis Overview and Screening by Resource

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Purpose of Process Memorandum

The analysis of cumulative effects is required under Council on Environmental Quality (CEQ) regulations implementing the National Environmental Policy Act (NEPA). However, the regulations themselves offer little practical guidance on conducting analysis:

40 CFR 1508.7. Cumulative impact.

“Cumulative impact” is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

40 CFR 1508.25. Scope.

“Scope” consists of the range of actions, alternatives, and impacts to be considered in an environmental impact statement. The scope of an individual statement may depend on its relationships to other statements (§§1502.20 and 1508.28). To determine the scope of environmental impact statements, agencies shall consider three types of actions, three types of alternatives, and three types of impacts. They include:

(2) Cumulative actions, which when viewed with other proposed actions have cumulatively significant impacts and should therefore be discussed in the same impact statement.

The actual analysis of cumulative effects has evolved over time, and the most comprehensive guidance available from CEQ dates from 1997, titled “Considering Cumulative Effects under the National Environmental Policy Act” (CEQ 1997).

The purpose of this process memorandum is to outline the methods and screening results used for the analysis of cumulative effects for the Resolution Copper Project and Land Exchange environmental impact statement (EIS). This process memorandum discloses:

- Approach for addressing past and present actions in the EIS
- Process used to identify valid reasonably foreseeable future actions (RFFAs)
- Summary of spatial analysis areas and temporal analysis time frames, by resource
- Screening of RFFAs by resource, and whether the RFFA should be assessed in the final EIS (FEIS) cumulative effects analysis.

Approach for Addressing Past and Present Actions

Cumulative effects consist of the following components:

- effects from the proposed action (or alternative), including any connected actions,
- effects from past actions,
- effects from present actions, and

- effects from RFFAs.

Past and present actions contribute to the existing condition of the affected environment in the project area. In the EIS, past and present actions are discussed under the “Affected Environment” heading in each resource section of chapter 3. Pertinent past and present actions may also be part of ongoing trends; these have also been identified under the “Affected Environment” heading in each resource section of chapter 3.

The impacts discussed under the proposed action and alternatives in the “Environmental Consequences” heading in each resource section of chapter 3 represent the impacts of the proposed action or alternatives imposed on the affected environment. As such, the discussed impacts represent a combination of past, present, and proposed actions.

The “Cumulative Effects” heading in each resource section of chapter 3 then provides a summary describing the effects of any RFFAs when considered in combination with the past, present, and proposed impacts as described in the “Environmental Consequences” section. Chapter 4 of the FEIS then provides a detailed analysis of the cumulative effects.

Overall Process for Cumulative Effects Analysis

The cumulative effects analysis process for the Resolution Copper Project consists of three steps:

- 1) Compilation of all identified potential RFFAs and initial screening to determine whether sufficient information exists to analyze impacts, and whether there would be temporal overlap with the Resolution Copper Project. This step is described in the next section, with the results in a separate process memorandum.
- 2) For those RFFAs that pass the initial screening, additional screening to determine which resources are anticipated to be impacted by each RFFA. The results of this resource-specific screening are contained in this process memorandum.
- 3) Analysis to determine which RFFAs overlap in space with impacts from the Resolution Copper Project, identification of impact metrics (quantitative where possible), and assessment and disclosure of cumulative impacts. The results of this final cumulative effects analysis are contained in chapter 4 of the FEIS.

Recap of Process to Identify Valid RFFAs

A full list of potential RFFAs identified by the NEPA team or brought to the attention of the U.S. Forest Service (Forest Service) during project review, is captured in a separate process memorandum.¹ The process to compile the list of potential RFFAs consisted of the following steps:

- July 26, 2018. Initial RFFA list was prepared by NEPA team, incorporating any RFFAs identified during scoping or suggested from any source during the NEPA process.

¹ See Newell, E., K. Perry, and D. Morey. 2020. *Post-DEIS Update: Determination of Reasonably Foreseeable Actions Considered in Cumulative Effects Analysis*. Process memorandum to file. Phoenix, Arizona: SWCA Environmental Consultants. October 28.

- September 24, 2018. The initial RFFA list was updated to incorporate suggestions provided by the Forest Service, Bureau of Land Management (BLM), and Resolution Copper Mining, LLC (Resolution Copper) after review of the initial list.
- October 17, 2018. The RFFA list was updated to incorporate suggestions provided by cooperating agencies after review of the September list. Additional suggestions were provided by the U.S. Army Corps of Engineers, Arizona Game and Fish Department (AGFD), BLM, and Pinal County.
- August 19, 2020. The RFFA list was updated to include new potential RFFAs since the previous list was generated in 2018, prior to the draft EIS (DEIS). Additionally, the status of RFFAs previously included on RFFA list was updated. In some cases, the project had been completed, which removed the RFFA from cumulative effect analysis.
- October 28, 2020. The RFFA list was reviewed prior to finalizing the cumulative effects analysis sections as disclosed in the FEIS.

The process memorandum containing the RFFA list is a living document, and for that reason suggested RFFAs are periodically added to the list. The RFFA process memorandum is also designed for use as a screening tool; any and all RFFAs can be added to the list, but they are then assessed for three conditions.

- **Is the action “reasonably foreseeable”?** According to Forest Service Handbook 1909.15 and 36 Code of Federal Regulations² (CFR) 220.3, RFFAs are “those Federal or non-Federal activities not yet undertaken, for which there are existing decisions, funding, or identified proposals. Identified proposals for Forest Service actions are described in 220.4(a)(1).” In addition, the BLM NEPA Handbook H-1790-1 and 40 CFR 1508.7 state included reasonably foreseeable future actions “cannot be limited to those that are approved or funded.”

Put simply, some indication needs to exist that a proposed activity could actually occur, and with enough detail to allow an evaluation of impacts. In general, any proposed project that lacks public notice, including details of the intended action, is considered speculative. Speculative actions are not reasonably foreseeable and do not provide resource specialists with enough information to be able to conduct a valid cumulative effects analysis.
- **Does the action overlap temporally with the project?** Yes or No. The assessment in the RFFA process memorandum is a rough screen only, with the detailed screen by resource taking place in this current memorandum.
- **Does the action overlap spatially with the project?** Yes or No. Note that this spatial assessment is disclosed in chapter 4 of the FEIS for those RFFAs that pass the first two screening questions.

² This refers to the version of the regulations under which the Resolution Copper Project NEPA analysis was conducted.

The screening process for determining the list of potential RFFAs is not meant to be overly restrictive, but it does set a reasonable standard for determining if enough information exists now to conduct a meaningful cumulative effects analysis following CEQ guidance (CEQ 1997:3).

Summary of Temporal Analysis Areas and Spatial Analysis Time Frames

The temporal analysis time frame is basically the same for all resources, encompassing construction, operations, and closure activities.³ However, the effects of some resource impacts would persist over longer periods of time after closure has occurred.

Spatial analysis areas used for the cumulative effects analysis are summarized in chapter 4 of the FEIS for each resource.

Screening of RFFAs for Potential Resource Effects

Attachment 1 contains the screening results for those RFFAs found to be reasonably foreseeable and with overlap in time with at least one resource. Worksheets are provided for each RFFA that describe the known details of the project and its effects and provides a rationale for which resources are to be included in the analysis in the EIS.

Many projects identified as potential RFFAs were researched but subsequently dropped after initial screening because they did not meet the criteria for a reasonably foreseeable future action. Further details for these projects are included in Attachment 2 for reference. None of these worksheets in Attachment 2 were used as part of the cumulative effects analysis in the EIS.

Table 1 identifies which projects need to be analyzed for each resource, based on the worksheets in Attachment 1.

Table 1. Summary of RFFAs analyzed for cumulative effects in chapter 4 of EIS, by EIS resource category

Resource	Projects Requiring Further Analysis
Geology, Minerals, and Subsidence	<ul style="list-style-type: none"> • Drake Limestone Quarry Expansion • Florence Copper In-Situ Mining Project • Jack's Project • Pine Creek Mining River Bend Placer Project • Pinto Valley Mine Expansion • Ripsey Wash Tailings Project • Ray Land Exchange and Proposed Plan Amendment

³ The estimated overall life of the mine is 51 to 56 years and would consist of three overlapping phases: (1) construction (mine year 1 through 9), (2) operations (mine year 6 through 46), and (3) closure (starting in mine year 46 and lasting 5 to 10 years). The term "mine year" is defined as 1 year after the final record of decision has been signed and the final authorization is issued by the Forest Service.

Resource	Projects Requiring Further Analysis
Soils, Vegetation, and Reclamation	<ul style="list-style-type: none"> • ADOT Vegetation Treatment • AGFD Wildlife Water Catchment Improvement Projects • Apache-Sitgreaves National Forests Public Motorized Travel Management Plan • APS Herbicide Use within Authorized Power Line ROWs on NFS lands • Drake Limestone Quarry Expansion • Jack's Project • Mount Baldy Shooting Sports Sites • Peralta Regional Park • Pine Creek Mining River Bend Placer Project • Pinto Valley Mine Expansion • Ray Land Exchange and Proposed Plan Amendment • Ripsey Wash Tailings Project • Silver Bar Mining Regional Landfill and Cottonwood Canyon Road • Southline Transmission Project • SunZia Southwest Transmission Project • Superior to Silver King 115-kV Relocation Project • Tonto National Forest Travel Management Plan • Verde Connect
Noise and Vibration	<ul style="list-style-type: none"> • Copper King 2019 • Jasper Canyon Mineral Exploration • Mount Baldy Shooting Sports Sites • Pine Creek Mining River Bend Placer Project • Pinto Valley Mine Expansion • Ray Land Exchange and Proposed Plan Amendment • Red Top Exploration • Silver Bar Mining Regional Landfill and Cottonwood Canyon Road • South Mesa Abandoned Mines • Superior West Exploration • Verde Connect

Resource	Projects Requiring Further Analysis
Transportation and Access	<ul style="list-style-type: none"> • ADOT Vegetation Treatment • Apache-Sitgreaves National Forests Public Motorized Travel Management Plan • Copper King 2019 • Jasper Canyon Mineral Exploration • LEN Range Improvements • Pine Creek Mining River Bend Placer Project • Pinto Valley Mine Expansion • Ray Land Exchange and Proposed Plan Amendment • Red Top Exploration • Ripsey Wash Tailings Project • Silver Bar Mining Regional Landfill and Cottonwood Canyon Road • Superior West Exploration • Tonto National Forest Travel Management Plan • Verde Connect
Air Quality	<ul style="list-style-type: none"> • Drake Limestone Quarry Expansion • Pinto Valley Mine Expansion • Ray Land Exchange and Proposed Plan Amendment • Ripsey Wash Tailings Project • Verde Connect
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	<ul style="list-style-type: none"> • LEN Range Improvements • Pinto Valley Mine Expansion • Ray Land Exchange and Proposed Plan Amendment • Ripsey Wash Tailings Project
Water: Groundwater and Surface Water Quality	<ul style="list-style-type: none"> • Pinto Valley Mine Expansion • Ray Land Exchange and Proposed Plan Amendment • Ripsey Wash Tailings Project
Water: Surface Water Quantity	<ul style="list-style-type: none"> • LEN Range Improvements • Pinto Valley Mine Expansion • Ray Land Exchange and Proposed Plan Amendment • Ripsey Wash Tailings Project • Silver Bar Mining Regional Landfill and Cottonwood Canyon Road

Resource	Projects Requiring Further Analysis
Wildlife	<ul style="list-style-type: none"> • ADOT Vegetation Treatment • Apache-Sitgreaves National Forests Public Motorized Travel Management Plan • APS Herbicide Use within Authorized Power Line ROWs on NFS lands • Drake Limestone Quarry Expansion • LEN Range Improvements • Mount Baldy Shooting Sports Sites • Pine Creek Mining River Bend Placer Project • Pinto Valley Mine Expansion • Ray Land Exchange and Proposed Plan Amendment • Ripsey Wash Tailings Project • Silver Bar Mining Regional Landfill and Cottonwood Canyon Road • Southline Transmission Project • South Mesa Abandoned Mines • SunZia Southwest Transmission Project • Tonto National Forest Travel Management Plan • Verde Connect
Recreation	<ul style="list-style-type: none"> • Mount Baldy Shooting Sports Sites • Pinto Valley Mine Expansion • Ray Land Exchange and Proposed Plan Amendment • Ripsey Wash Tailings Project • Silver Bar Mining Regional Landfill and Cottonwood Canyon Road • Wild and Scenic River Eligibility Study • Verde Connect
Public Health & Safety: Tailings and Pipeline Safety	<ul style="list-style-type: none"> • ASARCO Mine, including the Hayden Concentrator and Smelter, and Superfund Site • Pinto Valley Mine Expansion • Ray Land Exchange and Proposed Plan Amendment • Ripsey Wash Tailings Project
Public Health & Safety: Fuels and Fire Management	<ul style="list-style-type: none"> • APS Herbicide Use within Authorized Power Line ROWs on NFS lands • Peralta Regional Park • Ray Land Exchange and Proposed Plan Amendment
Public Health & Safety: Hazardous Materials	<ul style="list-style-type: none"> • Pinto Valley Mine Expansion • Ray Land Exchange and Proposed Plan Amendment • Ripsey Wash Tailings Project

Resource	Projects Requiring Further Analysis
Scenic Resources	<ul style="list-style-type: none"> • Drake Limestone Quarry Expansion • Mount Baldy Shooting Sports Sites • Ray Land Exchange and Proposed Plan Amendment • Ripsey Wash Tailings Project • Silver Bar Mining Regional Landfill and Cottonwood Canyon Road • Southline Transmission Project • SunZia Southwest Transmission Project • Verde Connect
Cultural Resources	<ul style="list-style-type: none"> • LEN Range Improvements • Pinto Valley Mine Expansion • Ray Land Exchange and Proposed Plan Amendment • Ripsey Wash Tailings Project • Silver Bar Mining Regional Landfill and Cottonwood Canyon Road • Southline Transmission Project • SunZia Southwest Transmission Project • Superior to Silver King 115-kV Relocation Project • Verde Connect
Socioeconomics	<ul style="list-style-type: none"> • Apache-Sitgreaves National Forests Public Motorized Travel Management Plan • Florence Copper In-Situ Mining Project • Pine Creek Mining River Bend Placer Project • Pinto Valley Mine Expansion • Ray Land Exchange and Proposed Plan Amendment • Tonto National Forest Travel Management Plan • Verde Connect
Tribal Values and Concerns	<ul style="list-style-type: none"> • Pinto Valley Mine Expansion • Ray Land Exchange and Proposed Plan Amendment • Ripsey Wash Tailings Project • Silver Bar Mining Regional Landfill and Cottonwood Canyon Road • Southline Transmission Project • SunZia Southwest Transmission Project • Verde Connect
Environmental Justice	<ul style="list-style-type: none"> • Pinto Valley Mine Expansion • Ray Land Exchange and Proposed Plan Amendment • Ripsey Wash Tailings Project

Resource	Projects Requiring Further Analysis
Livestock and Grazing	<ul style="list-style-type: none"> • APS Herbicide Use within Authorized Power Line ROWs on NFS lands • Drake Limestone Quarry Expansion • Grazing Allotment Permit Renewals (Various) • LEN Range Improvements • Peralta Regional Park • Ray Land Exchange and Proposed Plan Amendment • Ripsey Wash Tailings Project • Verde Connect

Note that several projects screened have no anticipated effects or negligible effects on resources, or have wholly beneficial effects on resources, and therefore are not carried forward into chapter 4 of the FEIS. The worksheets for these RFFAs are included in Attachment 3. Chapter 4 of the FEIS focuses solely on adverse cumulative impacts. Because we chose to analyze cumulative effects using quantitative metrics where possible, assessing beneficial effects alongside adverse effects would require some judgement of equivalency between beneficial and adverse effects. The approach of disclosing adverse effects with no offset or reduction from potential beneficial effects ensures that the analysis does not underestimate impacts, and follows a clear, non-arbitrary methodology. None of the worksheets in Attachment 3 were used as part of the cumulative effects analysis in the EIS.

These projects include:

- ADOT Potential Transportation Infrastructure Improvement Projects
- APS Coconino-Verde 230-kV Fiber-Optic Improvement Project
- Arizona National Scenic Trail (Arizona Trail) Comprehensive Plan
- Carlota Mine Leaching Operations, Closure, and Reclamation
- Central Arizona Project (CAP) Trail Plan
- Government Springs Pipeline Project
- GSC Farms-Queen Creek Water Transfer
- OMYA Quarry
- Poison Springs Structural Range Improvements
- Recreation Special Use Permits
- Resolution Copper Pre-Feasibility Activities
- Resolution Copper Reclamation Activities and Post-Closure Monitoring at the West Plant Site
- Silent Hill Mineral Exploration
- Unpermitted Discharge of Recycled Water into Queen Creek

Vegetation management or fuels reduction projects were considered to be overall beneficial and were not carried forward into chapter 4 of the FEIS. Fuels reduction and fire management projects are used to address potentially adverse effects of wildfire. These projects result in minor and localized impacts that would be minimized via active management by way of the appropriate planning process within the agency. By definition, any short-term adverse effects are outweighed by the long-term beneficial effects of the treatment, and these RFFAs overall are considered beneficial to all resources by helping prevent catastrophic damage via wildfire.

- East Eagle/Mud Springs Hazardous Fuels Reduction
- Emory Oak Restoration Project
- Four Forest Restoration Initiative EIS - Rim Country Project
- Pine Mountain Area Improvement Project
- Spring Prescribed Fire Project

A full table of all RFFAs, the final outcome of the screening process, and where information can be located is found in Attachment 4.

Literature Cited

Council on Environmental Quality (CEQ). 1997. *Considering Cumulative Effects Under the National Environmental Policy Act*. Washington D.C.: Council on Environmental Quality. January.

**ATTACHMENT 1 – WORKSHEETS FOR RFFAS INCLUDING
PROJECT DETAIL AND RATIONALE FOR RESOURCES TO BE
ANALYZED**

A-Diamond Allotment, Grazing Lease Renewals

Overview of RFFA

The A-Diamond Grazing Allotment is approximately 22,389 acres. This encompasses 6,580 acres of lands administered by the BLM Tucson Field Office, 15,039 acres of lands administered by the Arizona State Land Department (ASLD), and 770 acres of private land. Grazing on private lands is administered by the owner. Each agency/private owner administers grazing leases on their respective lands, and not the entire allotment. The A Diamond Allotment is located about 1.2 miles south of State Route (SR) 177 and about 11.5 miles east of the town of Superior in Pinal County, Arizona. *Note: all acreages are approximate.*

BLM

The A-Diamond allotment is an active grazing allotment that has 301 cattle authorized for year-round use on BLM portions of the allotment and is authorized for 696 Animal Unit Months (AUMs) (BLM Allotment Number AZ06120). Authorized use began on March 1, 2015, and continues through March 1, 2025. An inspection of the allotment in 2000 determined that it was in good condition and stable (United States Fish and Wildlife Service [FWS] 2003). Under NEPA, BLM's lease renewal will require an environmental assessment (EA) reauthorizing the grazing within the allotment and any proposed rangeland improvements.

This evaluation assumes that grazing will continue to occur on the BLM portions of this allotment and that the EA written for lease renewal will allow for minor range improvements such as repair or maintenance of existing fences, cattle guards, stock tanks, etc. It is anticipated that no new roads or other facilities would be constructed under the grazing lease.

ASLD

The A-Diamond allotment is an active grazing allotment authorized for approximately 955 AUMs and is leased to G&H Land & Cattle Company (Lease 5-3391). For this evaluation, we assumed that the ASLD would continue to renew the lease for a term of up to 10 years. It is assumed that the lease renewal would provide for minor range improvements such as repair or maintenance of existing fences, cattle guards, stock tanks, etc. No new roads or other facilities would be constructed under the grazing lease.

Private Ownership

For this evaluation, we assumed that existing grazing practices on private lands would continue unchanged with no term limits. We have assumed that grazing on private lands likely would include minor range improvements such as repair or maintenance of existing fences, cattle guards, stock tanks, etc. Substantial private development such as roads, housing, and commercial facilities are possible, but none are anticipated.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

The exact timing of grazing lease renewals and/or rangeland improvements is not known. However, a reasonable assumption is that they would be implemented on the A-Diamond Allotment throughout the expected life of the Resolution Copper mine (50 to 55 years).

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

Spatial rationale is presented within chapter 4 of the FEIS.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Overall conclusion: Range allotment plans are used to actively manage authorized livestock grazing to address potentially adverse effects of permitted activities on natural and cultural resources. This RFFA would renew existing permits involving the same acres and AUMs. Minor and localized impacts would be addressed via active management by way of the range allotment management plans. With the exception of livestock grazing itself, existing conditions and trends would continue but there would be no cumulative effect.

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Soils, Vegetation, and Reclamation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Noise and Vibration	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Transportation and Access	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Wildlife	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Recreation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.

Resource Category	Results of RFFA Screening
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Cultural Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Tribal Values and Concerns	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Livestock and Grazing	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Grazing allotments will be affected in varying degrees by the proposed Resolution Copper Project activities and its alternatives. The degree of impacts would be dependent upon the activity.

Source:

Arizona State Land Department. 2019. State Land Department Online Map Server, showing parcel ownership and grazing allotment data. Available at: <http://gis.azland.gov/webapps/parcel/>. Accessed April 22, 2019.

Bureau of Land Management. 2019a. Rangeland Administration System Reports, showing Authorization Used by Allotment for the Tucson Field Office. Available at: <https://reports.blm.gov/report/ras/3/Authorization-Use-by-Allotment>. Accessed April 22, 2019.

_____. 2019b. BLM Grazing Allotment Polygons, spatial data for geographic information systems. Available at: <https://catalog.data.gov/dataset/blm-grazing-allotment-polygons>. Accessed April 15, 2019.

U.S. Fish and Wildlife Service. 2003. *Biological Opinion: Livestock Grazing on 18 Allotments Along the Middle Gila River Ecosystem*. AESO/SE 02-21-00-F-0029. Phoenix, Arizona: U.S. Fish and Wildlife Service. October 23.

Apache-Sitgreaves National Forests Public Motorized Travel Management Plan

Overview of RFFA

The Apache-Sitgreaves National Forests Public Motorized Travel Management Plan establishes the system of roads, trails, and areas designated for motorized vehicle use and determines suitable locations for dispersed camping. A draft environmental impact statement (DEIS) was released for public comments in October 2010. Shortly after the comment period ended, the Wallow Fire burned through the Forests and this project was put on hold. The Apache-Sitgreaves National Forests prepared a revised draft EIS (RDEIS) that incorporates the previous public comments and changed conditions to meet the original purpose and need, and to comply with the Travel Management Rule. In August 2019, the Apache-Sitgreaves National Forests released the RDEIS.

The plan seeks to improve the management of motorized vehicle use on lands within the Forests in accordance with the Travel Management Rule. The plan will produce the publication of a motor vehicle use map showing those roads, trails, and areas designated for motor vehicle use, after which travel on areas not designated for motor vehicle use will be prohibited unless authorized. As the Travel Management Plan is a planning document, there may not be concrete impacts to all resources, however, the outcome will include various changes in the National Forest System (NFS) road network, which are outlined below.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

The RDEIS was released in August 2019. Based on this timeline, it is reasonable to assume the proposed plan would be effective during the expected life of the Resolution Copper mine project (50 to 55 years).

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

Spatial rationale is presented within chapter 4 of the FEIS.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed project is a planning document and has not outlined any concrete impacts to geology, minerals, and subsidence.
Soils, Vegetation, and Reclamation	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. The proposed reduction in miles available for motor vehicle use would reduce the number of roads in areas mapped as soils with moderate or high risk of erosion and reduce the area of weed infestations by reducing use.
Noise and Vibration	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The plan would alter localized traffic noise slightly, as the plan would include rerouting various NFS roads, but overall recreation noise would likely remain similar to current conditions.

Resource Category	Results of RFFA Screening
Transportation and Access	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. The RDEIS overall proposes a reduction in motorized open routes, depending on alternative.
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Limiting availability of motorized routes open to the public would result in a reduction of air quality impacts resulting from OHV use. As these effects are wholly beneficial and would offset other adverse cumulative effects, this RFFA is not carried forward for quantitative analysis in the FEIS.
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed project is a planning document and has not outlined any concrete impacts to groundwater quantity and groundwater-dependent ecosystems.
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed project is a planning document and has not outlined any concrete impacts to groundwater and surface water quality.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed project is a planning document and has not outlined any concrete impacts to surface water quantity.
Wildlife	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. The proposed reduction in miles available for motor vehicle use would reduce the number of listed species that are exposed to roads as well as reduce road density within habitat-types for management indicated species. The number of roads within riparian areas would also be reduced, resulting in beneficial impacts to wildlife.
Recreation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Limiting availability of motorized routes open to the public would result in reduced access to recreational activities currently practiced on the Forests, including sightseeing, camping, hiking, hunting, fishing, recreational riding, and collecting fuelwood and other forest products.
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Tailings are not involved with this project.
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Reducing unauthorized OHV use on illegal user routes would reduce the risk of wildland fire.
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed project is a planning document and has not outlined any concrete impacts to public safety regarding hazardous materials.
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Some of the illegal user routes that would be closed under the proposed action would be reclaimed and naturally revegetate over time, however the heavily used areas would be unlikely to revegetate without intensive rehabilitation. Overall, reducing illegal user routes would tend to improve scenic quality by resulting in less surface disturbance.
Cultural Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Limiting availability of motorized routes open to the public would result in reduced damage to cultural resources occurring from motor vehicle use off of designated roads. As these effects are wholly beneficial and would offset other adverse cumulative effects, this RFFA is not carried forward for quantitative analysis in the FEIS.

Resource Category	Results of RFFA Screening
Socioeconomics	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Reducing the number of roads available to motor vehicle use would result in decreased costs that must be allocated to road maintenance.
Tribal Values and Concerns	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Limiting availability of motorized routes open to the public would result in reduced impacts to areas of tribal value occurring from motor vehicle use off of designated roads. As these effects are wholly beneficial and would offset other adverse cumulative effects, this RFFA is not carried forward for quantitative analysis in the FEIS.
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed project is a planning document and has not outlined any concrete impacts to environmental justice communities.
Livestock and Grazing	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed project is a planning document and has not outlined any concrete impacts to livestock and grazing.

Source:

United States Department of Agriculture (USDA). 2019. Public Motorized Travel Management Plan Revised Draft Environmental Impact Statement. August. Available at:
<https://www.fs.usda.gov/project/?project=22692>. Accessed February 6, 2019

ADOT Vegetation Treatment

Overview of RFFA

The Arizona Department of Transportation (ADOT) plans to conduct annual treatment programs using U.S. Environmental Protection Agency (EPA)-approved herbicides to contain, control, or eradicate noxious, invasive, and native plant species that pose safety hazards or threaten native plant communities on road easements and NFS lands up to 200 feet beyond road easement on the Tonto National Forest.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

It can be reasonably assumed that ADOT will continue to conduct vegetation treatments along U.S. 60 on the Tonto National Forest during the expected life of the Resolution Copper Mine (50 to 55 years) for safety reasons.

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

Spatial rationale is presented within chapter 4 of the FEIS.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Note that some conclusions are informed by previous NEPA analysis conducted for the Resolution Copper Project; however, the conclusions regarding which resources require analysis are specific to the current project.

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. This RFFA as identified in <i>Final Environmental Assessment: Resolution Copper Mining Baseline Hydrological and Geotechnical Data Gathering Activities Plan of Operations</i> (USDA 2016) does not measurably impact this resource.
Soils, Vegetation, and Reclamation	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. This RFFA may measurably impact this resource (USDA 2016).
Noise and Vibration	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. This RFFA does not measurably impact this resource (USDA 2016).
Transportation and Access	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. This RFFA may measurably impact this resource (USDA 2016).
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. This RFFA does not measurably impact this resource (USDA 2016).
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. This RFFA does not measurably impact this resource (USDA 2016).
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. This RFFA does not measurably impact this resource (USDA 2016).

Resource Category	Results of RFFA Screening
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. This RFFA does not measurably impact this resource (USDA 2016).
Wildlife	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Herbicide application could have short- and long-term, indirect, minor adverse impacts and short- and long- term, direct, negligible adverse impacts on the Mexican spotted owl, southwestern willow flycatcher, yellow-billed cuckoo, narrow-headed gartersnake, and the northern Mexican gartersnake and their respective habitats.
Recreation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. This RFFA does not measurably impact this resource (USDA 2016).
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Tailings safety is not applicable to vegetation treatment for noxious weeds.
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. This RFFA does not measurably impact this resource (USDA 2016).
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. This RFFA does not measurably impact this resource (USDA 2016).
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. This RFFA does not measurably impact this resource (USDA 2016).
Cultural Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. This RFFA does not measurably impact this resource (USDA 2016).
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. This RFFA does not measurably impact this resource (USDA 2016).
Tribal Values and Concerns	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. This RFFA does not measurably impact this resource (USDA 2016).
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. This RFFA does not measurably impact this resource (USDA 2016).
Livestock and Grazing	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. This RFFA does not measurably impact this resource (USDA 2016).

Source:

U.S. Forest Service. 2016. *Final Environmental Assessment: Resolution Copper Mining Baseline Hydrological and Geotechnical Data Gathering Activities Plan of Operations*. Tonto National Forest, Globe and Mesa Ranger Districts, Pinal County. January.

AGFD Wildlife Water Catchment Improvement Projects

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Small-scale water improvement projects for wildlife would have no measurable effect on this resource.
Soils, Vegetation, and Reclamation	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Each proposed project would disturb approximately 0.5 acre of soils and vegetation.
Noise and Vibration	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Construction would result in short-term noise and some vibrations at each location, but have no long-term effects on noise or vibration.
Transportation and Access	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Small-scale water improvement projects for wildlife would have no measurable effect on this resource.
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Small-scale water improvement projects for wildlife would have no measurable effect on this resource.
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Each proposed project would disturb approximately 0.5 acre and have a negligible effect on area waters.
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Each proposed project would disturb approximately 0.5 acre and have a negligible effect on area waters.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Each proposed project would disturb approximately 0.5 acre and have a negligible effect on area waters.
Wildlife	RFFA contributes to cumulative effects and sufficient information exists to analyze; however, because impacts are overall beneficial, analysis is not carried forward for this resource. Small-scale water improvement projects for wildlife would only have beneficial effects on area wildlife.
Recreation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Small-scale water improvement projects for wildlife would have no measurable effect on this resource, except perhaps to benefit wildlife such as elk and deer and thereby prove beneficial to hunters, photographers, and other wildlife enthusiasts.
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Tailings safety is not applicable to these types of water catchment projects.
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Each proposed project would disturb approximately 0.5 acre and have a negligible effect on area fuel loads or wildfire risk.
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Hazardous materials are not applicable to these types of water catchment projects.

Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Each proposed project would disturb approximately 0.5 acre and is designed to minimally alter existing landscapes.
Cultural Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Each project would be located to avoid any effect on existing cultural resources.
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Small-scale water improvement projects for wildlife would have no measurable effect on this resource.
Tribal Values and Concerns	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Small-scale water improvement projects for wildlife would have no measurable effect on this resource.
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. These types of water catchment projects would have no effect on this resource.
Livestock and Grazing	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Small-scale water improvement projects for wildlife would have no measurable effect on this resource, except perhaps to provide another drinking water source on the landscape and thus potentially reduce competition from wildlife drinking from livestock tanks.

Overview of RFFA

The individual catchment projects below are part of a larger, longer-term cooperative effort between the Tonto National Forest and Arizona Game and Fish Department to improve wildlife habitat throughout the Tonto National Forest, and specifically to benefit mule deer populations (although access to water provided by the catchments would also benefit elk, javelina, Gambel's quail, and other species).

Each of the following catchment arrays (including water storage tanks, a large "apron" to gather and direct precipitation to the storage tanks, drinking trough, and fencing) would not disturb more than 0.5 acre.

- Silver King (AGFD ID#70), NEPA analysis complete, Tonto National Forest, Globe Ranger District, Materials funded. Within footprint of Alternative 4 tailings storage facility; project on hold due to proposed Resolution Copper Mine project.
- Currie Wood (AGFD ID# 69), NEPA analysis complete, Tonto National Forest, Globe Ranger District, Scheduled for construction in February 2019; north of Alternatives 2/3 and 4 tailings storage facilities.
- Gonzales Pass (AGFD ID#71), NEPA analysis complete, Tonto National Forest, Mesa Ranger District, not funded yet, south of Alternatives 2/3 tailings storage facility.
- Cactus Patch (AGFD ID#989), NEPA analysis complete, AGFD internal compliance in process, funding has been applied for through the AGFD - HPC and pending funding decision at January 2019 HPC meeting - in vicinity of Peg Leg tailings corridor west alternative.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

No specific information is provided as to proposed construction schedule, although it is assumed each catchment could be constructed in 2–3 weeks or less. Each catchment is anticipated to have a functional life of approximately 35 years.

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

Spatial rationale is presented within chapter 4 of the FEIS.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Source:

U.S. Forest Service, Tonto National Forest. 2016. “Arizona Game and Fish Department’s Wildlife Water Catchments Project on the Tonto National Forest.” Available at: <https://www.fs.usda.gov/project/?project=49276>. Accessed March 2019.

APS Herbicide Use within Authorized Power Line Rights-of-Way on National Forest System Lands in Arizona

Overview of RFFA

Arizona Public Service Company (APS) has proposed to include Forest Service–approved herbicides as a method of vegetation management, in addition to existing vegetation treatment methods, on existing APS transmission rights-of-way (ROWs). Existing transmission ROWs are within five national forests: Apache-Sitgreaves, Coconino, Kaibab, Prescott, and Tonto National Forests. The Forest Service must decide whether to authorize use of this herbicide. If approved, use of herbicides as well as currently authorized treatments would become part of the APS Integrated Vegetation Management (IVM) approach.

Environmental resource impacts are expected to be minimal. An environmental assessment (EA) published in December 2018 found no significant impacts would result from the proposed action for the following reasons: (1) none of the environmental effects presented in the EA are considered significant; (2) the proposed action promotes overall public safety; (3) project activities would not significantly affect lands with unique characteristics; (4) there are no highly controversial effects on the human environment; (5) the effects associated with the proposed action are recognized, familiar, and acceptable; (6) the proposed action would not result in any minor, moderate, or major contribution to cumulative impacts; 7() the project would not have an adverse effect on cultural or historical resources; (8) the proposed action would result in minor adverse impacts to endangered or threatened species; and (9) implementation of the proposed action does not violate any known Federal, state, or local law or requirement imposed for the protection for the environment.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

Undetermined, but assumed to overlap with the Resolution Copper Project.

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

Spatial rationale is presented within chapter 4 of the FEIS.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Herbicide use would not have any impact on geology or claims and would not result in subsidence.

Resource Category	Results of RFFA Screening
Soils, Vegetation, and Reclamation	<p>Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Limited disturbance to soils and biological soil crusts would occur during the cycle of manual/mechanical and herbicide treatments. The amount of soil loss or erosion, or changes in soil characteristics would be minor and localized. The IVM approach would reduce the intensity of future mechanical and manual treatments, subsequently reducing potential impacts to soils.</p> <p>The project would have short-term, direct and indirect, moderate adverse impacts and long-term, direct and indirect, moderate beneficial impacts to general vegetation. Plant communities would benefit from the use of herbicides by decreasing the growth, seed production, and competitiveness of target plants.</p>
Noise and Vibration	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Noise from herbicide use for vegetation management would be exceedingly minimal.
Transportation and Access	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No impacts to current traffic conditions are expected to occur as a result of this project.
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Herbicide use as proposed for this project would not have impacts to air quality.
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No groundwater would be used in the application of herbicides.
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not include the application of herbicides to surface waters. Therefore, no direct impacts to surface quality are expected, although there is a low likelihood that runoff, leaching, or drift may result in indirect effects. Potential indirect adverse impacts to groundwater would not be detectable.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No surface water would be used in the application of herbicides.
Wildlife	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. The project would have short- and long-term, indirect, minor adverse impacts and short- and long-term, direct, negligible adverse impacts on the Mexican spotted owl, southwestern willow flycatcher, yellow-billed cuckoo, narrow-headed gartersnake, and northern Mexican gartersnake and their respective habitats.
Recreation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Treatments in developed recreation sites would be limited to time periods when facilities are closed or during periods of low human use.
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No tailings are involved in this proposed project.

Resource Category	Results of RFFA Screening
Public Health & Safety: Fuels and Fire Management	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. The proposed action would have short- and long-term, direct and indirect, moderate, beneficial impacts. The use of herbicides would prevent and reduce fuel build-up that would result from rapid, dense regrowth and sprouting of undesired vegetation that is cut back in the ROW.
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Herbicide use will comply with Forest Service direction in FSM 2100, Chapter 2150 – Pesticide-Use Management and Coordination. An operational and spill plan will be prepared in advance of treatment and an emergency cleanup kit will be present on-site during treatments.
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Project area is previously disturbed and managed land.
Cultural Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The Forest Service has consulted with affected tribes on this project and the proposed action would have no adverse effects on cultural resources.
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Herbicide use would not impact socioeconomic conditions within the project area.
Tribal Values and Concerns	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The project would not have an adverse effect on tribal values.
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Herbicide use will not have any impact on communities with potential environmental justice populations.
Livestock and Grazing	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. The project would result in short-term, direct and indirect, moderate adverse impacts and long-term, direct and indirect, moderate beneficial impacts on rangeland health within the study area. Restoration efforts and reduction in frequency and intensity of vegetation maintenance disturbances would counterbalance the effects of previous disturbance by limiting the disruption of reestablishing vegetation and promoting site stability.

Source:

U.S. Forest Service. 2018. *Environmental Assessment and Finding of No Significant Impact for Herbicide Use within Authorized Power Line Rights-of-Way on National Forest System Lands in Arizona*. Phoenix, Arizona: U.S. Forest Service, Southwestern Region. December.

ASARCO Ray Mine, including the Hayden Concentrator and Smelter, and Superfund Site

Overview of RFFA

The Ray Operations consists of a 250,000 ton/day open-pit mine with a 30,000 ton/day concentrator, a 103 million pound/year solvent extraction-electrowinning operation, and associated maintenance, warehouse, and administrative facilities. Cathode copper produced in the solvent extraction and electrowinning operation is shipped to outside customers and to the Asarco Amarillo Copper Refinery.

A local railroad, Copper Basin Railway, transports ore from the mine to the Hayden concentrator, concentrate from the Ray concentrator to the smelter, and sulfuric acid from the smelter to the leaching facilities.

The ASARCO Hayden Plant Superfund site is located 100 miles southeast of Phoenix and consists of the towns of Hayden and Winkelman and nearby industrial areas, including the ASARCO smelter, concentrator, former Kennecott smelter and all associated tailings facilities in the area surrounding the confluence of the Gila and San Pedro Rivers. Site investigation and sampling work are ongoing and will be used to develop the cleanup approach for the area. The site is not listed on the National Priorities List (NPL), but is considered to be an NPL-caliber site and is being addressed through the Superfund Alternatives Approach.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

Currently operational through 2044.

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

Spatial rationale is presented within chapter 4 of the FEIS.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Overall conclusion: Except for the Ripsey Wash tailings facility, which is analyzed as a separate RFFA, no specific information was found that suggests these operations from these facilities would change in the nature of impacts, magnitude of impacts, or location of impacts. Therefore, future operation is assumed to continue in a manner similar to past and present operations.

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Soils, Vegetation, and Reclamation	The Superfund site is undergoing its second phase of investigation work, which would include soil investigations in non-residential areas. Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.

Resource Category	Results of RFFA Screening
Noise and Vibration	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion; present noise and vibration conditions are representative of the operation of Ray Mine, no changes are expected.
Transportation and Access	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion; present transportation conditions include the operation of Ray Mine, no changes are expected.
Air Quality	The Superfund site is undergoing its second phase of investigation work, which would include air quality sampling in non-residential areas. These investigations will determine the nature and extent of contamination and then used to develop additional cleanup options. Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion. Present air quality conditions are representative of the operation of Ray Mine, no changes are expected.
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion. Since 1994, ASARCO has held valid Aquifer Protection Permit (APP) permits with Arizona Department of Environmental Quality (ADEQ) and will continue to do so through remainder of operation and closure.
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion. Since 1994, ASARCO has held valid APP permits with ADEQ and will continue to do so through remainder of operation and closure.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion. Since 1994, ASARCO has held valid APP permits with ADEQ and will continue to do so through remainder of operation and closure.
Wildlife	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion. The Ray Mine has been in operation for many years and is an area of previous disturbance.
Recreation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion. The Ray Mine has been in operation for many years and is an area of previous disturbance.
Public Health & Safety: Tailings Safety	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Note that the newly approved tailings facility is analyzed for cumulative effects in the context of the Resolution Copper Mine in a separate RFFA and worksheet ("Ripsey Wash Tailings Project"). However, existing facilities described under this RFFA involve tailings facilities in the vicinity of the Gila River and these are appropriate for cumulative effects analysis.
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion. Present fuels and fire management conditions are representative of the operation of Ray Mine, no changes are expected.

Resource Category	Results of RFFA Screening
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion. Present hazardous materials conditions are representative of the operation of Ray Mine, no changes are expected.
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion. The Ray Mine is an existing mine and is an area of previous disturbance.
Cultural Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion. Present cultural resources conditions are representative of the operation of Ray Mine, no changes are expected.
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion. Present socioeconomic conditions are representative of the operation of Ray Mine, no changes are expected.
Tribal Values and Concerns	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion. Present tribal values conditions are representative of the operation of Ray Mine, no changes are expected.
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion. Present conditions are representative of the operation of Ray Mine, no additional impacts to environmental justice communities are expected.
Livestock and Grazing	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion. The Ray mine currently is operational and grazing does not occur within the project area.

Source:

Ray Mine APP Permit Draft.

Battle Axe Grazing Allotment – Grazing Lease Renewals

Overview of RFFA

The Battle Axe Allotment is approximately 20,275 acres of land including 14,821 acres of land administered by the BLM Tucson Field Office, 3,270 acres of land administered by the Arizona State Land Department (ASLD), 1,615 acres of private land, and 569 acres of land administered by the Tonto National Forest. Grazing on private lands is administered by the owner. Each agency/private owner administers grazing leases on their respective lands, and not the entire allotment. The Battle Axe Allotment is located about 7 miles south of U.S. 60 and the town of Superior in Pinal County, Arizona. *Note: all acreages are approximate.*

BLM

The BLM administers 14,821 acres of land in the Battle Axe Allotment (BLM allotment AZ060509), and grazing lease information indicates 210 head of cattle, totaling 1,562 AUMs, are permitted on BLM lands within the allotment. The existing lease will expire in February 2027. Under NEPA, BLM's lease renewal will require an environmental assessment (EA), reauthorizing grazing within the allotment and any proposed rangeland improvements. There is no current EA; however, this evaluation assumes that cattle grazing and minor range improvements are currently occurring on the BLM portions of the allotment, and that the grazing lease for these activities will be renewed when it expires.

ASLD

The grazing lease for State lands in this allotment is held by Wade Leuck, who leases about 3,270 acres over multiple parcels from ASLD. The lease (KE-5-102690) allows grazing for up to 425 AUMs. Lease details are not readily available; therefore, this evaluation assumes that the ASLD grazing lease would include renewal of the lease for a term of up to 10 years. It is assumed that the lease renewal would provide for minor range improvements such as repair or maintenance of existing fences, cattle guards, stock tanks, etc. No new roads or other facilities would be constructed under the grazing lease.

Private Ownership

Approximately 1,615 acres of private land exists within the Battle Axe Allotment; however, grazing on private lands is administered by the owner, and public records are not available. For the purposes of this evaluation, we have assumed that existing grazing practices on private lands would continue unchanged with no term limits. We have assumed that grazing on private lands likely would include minor range improvements such as repair or maintenance of existing fences, cattle guards, stock tanks, etc. Substantial private development such as roads, housing, and commercial facilities are possible, but none are anticipated.

U.S. Forest Service

The Tonto National Forest manages approximately 569 acres of the Battle Axe Allotment. No Forest Service grazing allotment information or supporting NEPA documentation for this allotment was retrievable from the Tonto National Forest's website. However, for the purposes of this evaluation, we have assumed that the Forest Service does permit grazing and minor range improvements, and

that grazing practices include a similar AUM per fractional area as the BLM, e.g., about 60 AUMs. This evaluation assumes that, like BLM, the Forest Service grazing lease renewal will require an EA be completed when the current lease expires.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

The exact timing for all grazing lease renewals and/or rangeland improvements is not known; however, it can reasonably be assumed that they would be implemented on the Battle Axe Allotment throughout the expected life of the Resolution Copper mine (50 to 55 years).

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

Spatial rationale is presented within chapter 4 of the FEIS.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Overall conclusion: Range allotment plans are used to actively manage authorized livestock grazing to address potentially adverse effects of permitted activities on natural and cultural resources. This RFFA would renew existing permits involving the same acres and AUMs. Minor and localized impacts would be addressed via active management by way of the range allotment management plans. With the exception of livestock grazing itself, existing conditions and trends would continue, but there would be no cumulative effect.

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Soils, Vegetation, and Reclamation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Noise and Vibration	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Transportation and Access	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Wildlife	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Recreation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.

Resource Category	Results of RFFA Screening
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Cultural Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Tribal Values and Concerns	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Livestock and Grazing	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Grazing allotments will be affected in varying degrees by the proposed Resolution Copper Project activities and its alternatives. The degree of impacts would be dependent upon the activity.

Source:

Arizona State Land Department. 2019. State Land Department Online Map Server, showing parcel ownership and grazing allotment data. Available at: <http://gis.azland.gov/webapps/parcel/>. Accessed April 22, 2019.

Bureau of Land Management. 2019a. Rangeland Administration System Reports, showing Authorization Used by Allotment for the Tucson Field Office. Available at: <https://reports.blm.gov/report/ras/3/Authorization-Use-by-Allotment>. Accessed April 22, 2019.

_____. 2019b. BLM Grazing Allotment Polygons, spatial data for geographic information systems. Available at: <https://catalog.data.gov/dataset/blm-grazing-allotment-polygons>. Accessed April 15, 2019.

U.S. Forest Service. 2019. Projects list for current major projects and project archives. Available at: <https://www.fs.usda.gov/wps/portal/fsinternet/cs/projects/tonto/landmanagement/projects?archive=1&sortby=1>. Accessed April 22, 2019.

_____. 2019. Tonto National Forest GIS Data; Rangeland. Available at: <https://www.fs.usda.gov/detail/r3/landmanagement/gis/?cid=stelprdb5209307>. Accessed April 15, 2019.

U.S. Fish and Wildlife Service. 2003. *Biological Opinion: Livestock Grazing on 18 Allotments Along the Middle Gila River Ecosystem*. AESO/SE 02-21-00-F-0029. Phoenix, Arizona: U.S. Fish and Wildlife Service. October 23.

Copper King 2019

Overview of RFFA

Bronco Creek Exploration proposes drilling from a maximum of four drill sites of six identified (the four largest drill sites plus the laydown yard measure 1.10 acres of total disturbance). Proposed activities include road improvements and laydown yard, in addition to drilling. Three sites are accessed by vehicle, three sites are accessed by helicopter. The sites were selected in pre-existing disturbed areas that are mostly open, flat, and need relatively little preparation to utilize the site. Approximately 70 percent of the total proposed disturbance lies within the pre-disturbed Omya Queen Creek Quarry.

Rationale for Resource Analysis (Temporal Overlap with Resolution Copper Project)

The exploratory drilling would begin in the next few years and continue over a 10-year period.

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

Spatial rationale is presented within chapter 4 of the FEIS.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Installation of core holes for exploratory purposes is not likely to impact the ability to access geology or mineral resources in this area.
Soils, Vegetation, and Reclamation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Drilling will take place in mostly previously disturbed areas and the project includes a mitigation measure to transplant any barrel cactus, pincushion cactus, ocotillo, and agave species located within areas propose for disturbance and to reclaim all drill sites to their initial state immediately upon cessation of drilling.
Noise and Vibration	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Drilling, helicopter use, and vehicles will create temporary noise and vibration impacts.
Transportation and Access	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. The proposed project would use National Forest System roads and has the potential to impact transportation and access in and around the project area.
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource and includes a mitigation measure to spray water on drill sites and any access roads if necessary to control dust.
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.

Resource Category	Results of RFFA Screening
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource. There would be no discharges to surface tributaries, and, in accordance with Clean Water Act requirements, no pollutants would be discharged.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.
Wildlife	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Drilling would take place in mostly previously disturbed areas and the project includes mitigation measures to reduce impacts to wildlife.
Recreation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Tailings are not involved in the proposed project.
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Equipment containing hazardous materials will be used, however quantities and types are unknown. Typical drilling actions use containment ponds and best management practices to minimize potential for hazardous materials to impact the environment.
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource. Approximately 70 percent of the total proposed disturbance lies within the pre-disturbed Omya Queen Creek Quarry.
Cultural Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource. Approximately 70 percent of the total proposed disturbance lies within the pre-disturbed Omya Queen Creek Quarry.
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource. Approximately 70 percent of the total proposed disturbance lies within the pre-disturbed Omya Queen Creek Quarry.
Tribal Values and Concerns	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource. Approximately 70 percent of the total proposed disturbance lies within the pre-disturbed Omya Queen Creek Quarry.
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.
Livestock and Grazing	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.

Sources:

U.S. Forest Service. 2019. Copper King SOPA. Available at:
<https://www.fs.usda.gov/project/?project=56690>. Accessed October 28, 2020.

U.S. Forest Service. 2019. Letter initiating Scoping, Copper King. Available at:
https://www.fs.usda.gov/nfs/11558/www/nepa/112130_FSPLT3_4806125.pdf. Accessed October 28, 2020.

Devil's Canyon Allotment, Grazing Lease Renewals

Overview of RFFA

The Devil's Canyon Grazing Allotment is approximately 26,605 acres including 18,700 acres of lands administered by the Forest Service, 7,002 acres of lands administered by the Arizona State Land Department (ASLD), and 903 acres of private land. Grazing on private lands is administered by the owner. Each agency/private owner administers grazing leases on their respective lands, and not the entire allotment. The allotment is approximately 2.5 miles east of the town of Superior and 12.5 miles west of the city of Globe. *Note: all acreages are approximate.*

U.S. Forest Service

The Devil's Canyon allotment is an active grazing allotment that has 303 adult livestock (authorized for year-round use) and 54 yearling livestock (authorized from January 1 to May 31) on Forest Service portions of the allotment. Authorized use began on January 12, 2015, and will continue through March 1, 2025, for Integrity Land and Cattle LLC. The Forest Service portions of the allotment are authorized for approximately 1,104 AUMs. A 2017 inspection of the Forest Service portions of the allotment determined that the allotment was in stable condition with no evidence of soil movement or loss. No invasive species were observed during the inspection. Under NEPA, the Forest Service's lease renewal will require an EA reauthorizing the grazing within the allotment and any proposed rangeland improvements.

This evaluation assumes that grazing will continue to occur on the BLM portions of this allotment and the EA will allow for minor range improvements such as repair or maintenance of existing fences, cattle guards, stock tanks, etc. It is anticipated that no new roads or other facilities would be constructed under the grazing lease.

ASLD

For the purposes of this evaluation, we have assumed that the ASLD grazing lease within the Devil's Canyon Allotment is active and would include renewal of the lease. The ASLD portions of the allotment are authorized for approximately 1,104 AUMs. The lease holder is Integrity Land and Cattle LLC (Lease 5-1411). It is assumed that the lease renewal would include renewal of the lease for a term of up to 10 years and would provide for minor range improvements such as repair or maintenance of existing fences, cattle guards, stock tanks, etc. No new roads or other facilities would be constructed under the grazing lease.

Private Ownership

For the purposes of this evaluation, we have assumed that existing grazing practices on private lands would continue unchanged with no term limits. We have assumed that grazing on private lands would likely include minor range improvements such as repair or maintenance of existing fences, cattle guards, stock tanks, etc. Substantial private development such as roads, housing, and commercial facilities are possible, but none are anticipated.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

The exact timing of grazing lease renewals and/or rangeland improvements is not known. However, a reasonable assumption is that they would be implemented on the allotment throughout the expected life of the Resolution Copper mine (50 to 55 years).

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

Spatial rationale is presented within chapter 4 of the FEIS.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Overall conclusion: Range allotment plans are used to actively manage authorized livestock grazing to address potentially adverse effects of permitted activities on natural and cultural resources. This RFFA would renew existing permits involving the same acres and AUMs. Minor and localized impacts would be addressed via active management by way of the range allotment management plans. With the exception of livestock grazing itself, existing conditions and trends would continue but there would be no cumulative effect.

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Soils, Vegetation, and Reclamation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Noise and Vibration	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Transportation and Access	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Wildlife	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Recreation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.

Resource Category	Results of RFFA Screening
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Cultural Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Tribal Values and Concerns	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Livestock and Grazing	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Grazing allotments will be affected in varying degrees by proposed Resolution Copper Project activities and alternatives. The degree of impacts would be dependent upon the activity.

Source:

Arizona State Land Department. 2019. State Land Department Online Map Server, showing parcel ownership and grazing allotment data. Available at: <http://gis.azland.gov/webapps/parcel/>. Accessed April 22, 2019.

U.S. Forest Service. 2019. Projects list for current major projects and project archives. Available at: <https://www.fs.usda.gov/wps/portal/fsinternet/cs/projects/tonto/landmanagement/projects?archive=1&sortby=1>. Accessed April 22, 2019.

U.S. Fish and Wildlife Service. 2003. *Biological Opinion: Livestock Grazing on 18 Allotments Along the Middle Gila River Ecosystem*. AESO/SE 02-21-00-F-0029. Phoenix, Arizona: U.S. Fish and Wildlife Service. October 23.

Drake Limestone Quarry Expansion

Overview of RFFA

Drake Cement LLC has proposed to expend their existing quarry operations on an additional 222.2 acres of land on the Prescott National Forest.

Rationale for Resource Analysis (Temporal Overlap with Resolution Copper Project)

Operations are estimated to continue for 35 years to meet current and projected regional needs for limestone used in the production of cement.

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

Spatial rationale is presented within chapter 4 of the FEIS.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Geologic features and composition within the project area would be permanently modified as a result of being quarried. Impacts from the quarry include excavation and burial of underlying geologic formations.
Soils, Vegetation, and Reclamation	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. The proposed action would result in long-term impacts to soils within the project area. Native soils within the area would be removed or disturbed. Soil loss and compaction would also result from the construction of the additional Limestone Canyon road crossing and re-routing of FR 680. Reclamation activities would reduce impacts to soils and provide soil stabilization over the long-term. The proposed action would also result in the loss of up to 197.2 acres of juniper woodlands as well as pockets of open grasslands. However, these impacts would be reduced via reclamation measures such as recontouring, scarifying, and reseeding with native seed mix; additionally, it is expected that junipers, which are common to the area, would revegetate the area relatively rapidly.
Noise and Vibration	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action is not expected to result in additional noise and vibration impacts from current quarry operations.
Transportation and Access	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action is not expected to impact transportation and access since it would result in the continuing use of the quarry.

Resource Category	Results of RFFA Screening
Air Quality	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. The proposed action includes activities that could potentially impact air quality such as loading and unloading limestone and overburden into haul trucks, haul truck travel along unpaved roads, and maintenance of the access road. Overall, the proposed project would be consistent with the current mining practices and not result in additional emissions except for fugitive emissions from unpaved roads due to increased haul distance at the expanded quarry. Emissions would be minimized through continued implementation of dust control practices enforced under the current air permit.
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No impacts to groundwater would occur from the quarry expansion. No increase in groundwater withdrawals is proposed.
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action is not anticipated to result in adverse impacts to water quality.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action is not anticipated to result in adverse impacts to surface water quantity.
Wildlife	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Adverse impacts to wildlife are expected as a result of the proposed action due to the loss of up to 197.2 acres of wildlife habitat associated with juniper woodland vegetation. Wildlife would be expected to move to habitat in adjacent areas to avoid construction impacts; however, mortality could occur for individuals who do not move out of the construction area. Displaced individuals may also experience some level of mortality. Negative impacts to wildlife would continue until reclamation measures restore lost habitat characteristics through revegetation.
Recreation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Current recreation uses at the project area are minimal and therefore impacts are considered negligible.
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. An EA was completed as part of the authorization of a Supplemental Plan of Operations submitted in 2016 for an overburden storage area and is not included in the proposed project.
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.
Scenic Resources	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Long-term visual impacts would result from the removal of junipers and other vegetation as well as quarrying of soils which would expose the white limestone across the project area. Long-term impacts would be reduced through reclamation activities such as salvaging topsoil, scarification, and seeding to restore vegetation with juniper and pockets of grasslands.

Resource Category	Results of RFFA Screening
Cultural Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No National Register of Historic Places (NRHP)-eligible sites are located within the proposed project area; therefore, the project would not have an effect on cultural resources.
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not change employment levels or cause an increase in population as it is the continuation of an ongoing operation.
Tribal Values and Concerns	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No NRHP-eligible sites are located within the proposed project area; therefore, the project would not have an effect on tribal concerns and values.
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No environmental justice communities were identified within the or in the vicinity of the project area.
Livestock and Grazing	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. The proposed action would reduce the Limestone Allotment by 222.2 acres.

Sources:

U.S. Forest Service. 2020. Drake Limestone Quarry Expansion project page. Available at: http://www.fs.fed.us/nepa/nepa_project_exp.php?project=57628. Accessed October 28, 2020.

Ellsworth Desert Allotment, Grazing Lease Renewals

Overview of RFFA

The Ellsworth Desert Grazing Allotment is approximately 29,546 acres including 840 acres of lands administered by the BLM, 26,125 acres of lands administered by the Arizona State Land Department (ASLD), and 2,582 acres of private land. Grazing on private lands is administered by the owner. Each agency/private owner administers grazing leases on their respective lands, and not the entire allotment. This allotment is adjacent to the Florence Military Reservation and is 3.3 miles east of San Tan Valley. *Note: all acreages are approximate.*

BLM

For the purposes of this evaluation, we have assumed that the BLM grazing lease within the Ellsworth Desert Allotment (840 acres) is active and would include renewal of the lease. However, no publicly available information is available for the BLM portions of the Ellsworth Desert allotment. It is assumed that the lease renewal would provide for minor range improvements such as repair or maintenance of existing fences, cattle guards, stock tanks, etc. No new roads or other facilities would be constructed under the grazing lease. Under NEPA, BLM's lease renewal will require an EA reauthorizing the grazing within the allotment and any proposed rangeland improvements.

ASLD

For the purposes of this evaluation, we have assumed that the ASLD grazing lease within the Ellsworth Desert Allotment (26,125 acres) is active and would include renewal of the lease. Lease details are not readily available; therefore, this evaluation assumes that the ASLD grazing lease would include renewal of the lease for a term of up to 10 years. The ASLD portions of the allotment are authorized for approximately 2,250 AUMs and are leased to Ellsworth Land and Livestock Inc. (Lease 5-1568). It is assumed that the lease renewal would provide for minor range improvements such as repair or maintenance of existing fences, cattle guards, stock tanks, etc. No new roads or other facilities would be constructed under the grazing lease.

Private Ownership

For the purposes of this evaluation, we have assumed that existing grazing practices on private lands (2,582 acres) would continue unchanged with no term limits. We have assumed that grazing on private lands likely would include minor range improvements such as repair or maintenance of existing fences, cattle guards, stock tanks, etc. Substantial private development such as roads, housing, and commercial facilities are possible, but none are anticipated.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

The exact timing of grazing lease renewals and/or rangeland improvements is not known; however, it can be reasonably assumed that they would be implemented on the allotment throughout the expected life of the Resolution Copper mine (50 to 55 years).

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

Spatial rationale is presented within chapter 4 of the FEIS.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Overall conclusion: Range allotment plans are used to actively manage authorized livestock grazing to address potentially adverse effects of permitted activities on natural and cultural resources. This RFFA would renew existing permits involving the same acres and AUMs. Minor and localized impacts would be addressed via active management by way of the range allotment management plans. With the exception of livestock grazing itself, existing conditions and trends would continue but there would be no cumulative effect.

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Soils, Vegetation, and Reclamation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Noise and Vibration	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Transportation and Access	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Wildlife	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Recreation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.

Resource Category	Results of RFFA Screening
Cultural Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Tribal Values and Concerns	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Livestock and Grazing	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Grazing allotments would be affected in varying degrees by proposed Resolution Copper Project activities and alternatives. The degree of impacts would be dependent upon the activity.

Source:

Arizona State Land Department. 2019. State Land Department Online Map Server, showing parcel ownership and grazing allotment data. Available at: <http://gis.azland.gov/webapps/parcel/>. Accessed April 22, 2019.

Bureau of Land Management. 2019a. Rangeland Administration System Reports, showing Authorization Used by Allotment for the Tucson Field Office. Available at: <https://reports.blm.gov/report/ras/3/Authorization-Use-by-Allotment>. Accessed April 22, 2019.

_____. 2019b. BLM Grazing Allotment Polygons, spatial data for geographic information systems. Available at: <https://catalog.data.gov/dataset/blm-grazing-allotment-polygons>. Accessed April 15, 2019.

U.S. Fish and Wildlife Service. 2003. *Biological Opinion: Livestock Grazing on 18 Allotments Along the Middle Gila River Ecosystem*. AESO/SE 02-21-00-F-0029. Phoenix, Arizona: U.S. Fish and Wildlife Service. October 23.

Florence Copper In Situ Mining Project

Overview of RFFA

In situ Copper Recovery facility near Florence. The Production Test Facility was constructed in 2017. This includes 24 wells: four injection wells, nine recovery wells, and 11 groundwater monitoring-related wells. The test facility will test whether the full proposed full production facility will be a safe and permittable venture. Solvent Extraction and Electrowinning Plan is next phase.

Environmental resource impacts are expected to be very minimal because (1) in situ leaching operation would involve no earthmoving aside from site surface clearing/blading and development of injection, recovery, and monitoring wells, (2) there would be no blasting, no shafts or adits, no waste rock stockpiles, and no tailings impoundment, (3) on-site processing of leached ore solution would be limited to industry standard solvent extraction/electrowinning (SX/EW) process, (4) resulting copper plates would be trucked off-site for any further refining and for distribution to market, and (5) project site consists mainly of privately owned, previously disturbed agricultural lands.

Considerable attention has been paid to the potential for the Florence Copper in situ mining project to impact the aquifer. Regardless of the technical analysis of potential groundwater impacts, the in situ leach area is beyond the boundaries of any of the Resolution Copper Project water analysis areas and there would be no overlap of impacts.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

Full life of mine, according to company fact sheets, will be approximately 25 years, including 2 years core facilities construction, 1- or 2-year test run of production test wells, approximately 20 years of commercial/operational life, and 1–2 years of site closure and reclamation.

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

Spatial rationale is presented within chapter 4 of the FEIS.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. In situ leaching would remove mineral resources from the area.
Soils, Vegetation, and Reclamation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Area of mine consists mainly of previously disturbed agricultural land.
Noise and Vibration	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Noise from the mining operations would be exceedingly minimal, consisting primarily of highly localized sounds of pump operations and some employee-related traffic to and from site.

Resource Category	Results of RFFA Screening
Transportation and Access	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Traffic associated with a renewed mining operation would be minimal and limited to the northwest Florence area, not regional.
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Air emissions from this project are anticipated to be minimal.
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. In court filings and elsewhere, the Company claims that in-situ leaching and copper leachate recovery will take place well below, and segregated from, the local aquifer that provides potable water to the Town of Florence and others. Additionally, the Company claims it would have no impact to local water supplies or surface waters. This project does not overlap with groundwater resources analysis area for the Resolution Copper Project EIS.
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. All stormwater in contact with facilities would be retained on site and not discharged downstream. This project does not overlap with groundwater resources analysis area for the Resolution Copper Project EIS.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The area consists of flat agricultural-type land area, stormwater runoff is readily controlled with standard best management practices.
Wildlife	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. This previously disturbed agricultural land has no known listed or sensitive species.
Recreation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. This previously disturbed agricultural land has no history of recreational use.
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No tailings are involved in this proposed mining operation.
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. As in in-situ leaching operation, mechanized equipment during operations is minimal, and no increased fire risk is foreseen.
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Leaching solutions of 99.5 percent water and 0.5 percent acid would be isolated from the upper aquifer and are not considered a public health risk. No other hazardous materials issues are anticipated. There has been local public controversy over transportation of sulfuric acid into Florence to use in in-situ leaching. Traffic associated with a renewed mining operation would be minimal and limited to northwest Florence area—not regional.
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Project area is primarily flat, previously disturbed agricultural land.
Cultural Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Project area consists primarily of previously disturbed agricultural land of no known cultural or archaeological significance.

Resource Category	Results of RFFA Screening
Socioeconomics	<p>Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Beneficial socioeconomic effects on the Town of Florence and nearby areas are expected. According to company fact sheet:</p> <p>“-The project is projected to produce an average of 55 million pounds of copper annually for the first six years and 85 million pounds of copper annually for 14 years.</p> <ul style="list-style-type: none"> - The project is estimated to create \$3.4 billion in economic uplift for the State of Arizona, and \$2.1 billion will remain in Pinal County. - Florence Copper is expected to generate \$468 million in state revenues and royalties. Approximately \$68.5 million will directly accrue to the Town of Florence, and \$33.5 million will accrue to Pinal County. - The operation will create and support an annual average of 796 direct and indirect jobs in Arizona. 480 of those jobs will be in Pinal County.”
Tribal Values and Concerns	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Project area consists primarily of previously disturbed agricultural land of no known cultural or archaeological significance.
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No environmental justice communities are present in the project area or vicinity.
Livestock and Grazing	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. General project area previously was used as cropland. There are no grazing allotments or grazing uses present.

Source:

Florence Copper Inc. 2020. Florence Copper Homepage. Available at:
<https://www.florencecopper.com/> Accessed September 8, 2020.

Government Springs (Lyons Fork) Grazing Allotment – Grazing Lease Renewals

Overview of RFFA

The Government Springs Allotment (also known as Lyons Fork) is approximately 8,370 acres and is primarily located on 7,256 acres of land administered by the Arizona State Land Department (ASLD). The allotment also includes 769 acres of private land, 113 acres of land administered by the BLM Tucson Field Office, and 231 acres of land administered by the U.S. Forest Service, Tonto National Forest. Grazing on private lands is administered by the owner. Each agency/private owner administers grazing leases on their respective lands, and not the entire allotment. The Government Springs Allotment is located about 3 miles south of U.S. 60 and about 5.5 miles east of the town of Superior in Pinal County, Arizona. *Note: all acreages are approximate.*

ASLD

The grazing lease for state lands in this allotment is held by Government Springs Ranch LLC., consisting of approximately 7,256 acres over multiple parcels from ASLD. The lease (KE-5-539) allows grazing for up to 924 AUMs. Lease details are not readily available. Therefore, this evaluation assumes that the ASLD grazing lease would include renewal of the lease for a term of up to 10 years. It is assumed that the lease renewal would provide for minor range improvements such as repair or maintenance of existing fences, cattle guards, stock tanks, etc. No new roads or other facilities would be constructed under the grazing lease.

Private Ownership

Approximately 769 acres of private land exists within the Government Springs Allotment; however, grazing on private lands is administered by the owner, and public records are not available. For the purposes of this evaluation, we have assumed that existing grazing practices on private lands would continue unchanged with no term limits. We have assumed that grazing on private lands would likely include minor range improvements such as repair or maintenance of existing fences, cattle guards, stock tanks, etc. Substantial private development such as roads, housing, and commercial facilities are possible, but none are anticipated.

BLM

The BLM administers only 113 acres of land in the Government Springs Allotment (BLM allotment AZ45440), and grazing lease information indicates two head of cattle, totaling 24 AUMs are permitted on BLM lands within the allotment. The existing lease was scheduled to expire in September 2019. Under NEPA, BLM's lease renewal will require an EA, reauthorizing grazing within the allotment and any proposed rangeland improvements. There is no current EA, however, this evaluation assumes that cattle grazing and minor range improvements are currently occurring on the BLM portions of the Government Springs Allotment, and that the grazing lease for these activities will be renewed when it expires.

U.S. Forest Service

Approximately 231 acres of Lyons Fork Allotment, managed by the Tonto National Forest, overlap the Government Springs Allotment. No Forest Service grazing allotment information or supporting NEPA documentation for Lyons Fork Allotment was retrievable from the Tonto National Forest's website. However, for the purposes of this evaluation, we have assumed that the Forest Service does permit grazing and minor range improvements on their 231 acres of the Government Springs Allotment, and that grazing practices include a similar AUM per fractional area as the BLM, e.g., about 49 AUMs. This evaluation assumes that, like BLM, the Forest Service grazing lease renewal will require an EA be completed when the current lease expires.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

The exact timing for all grazing lease renewals and/or rangeland improvements is not known; however, it can be reasonably assumed that they would be implemented on the Government Springs Allotment throughout the expected life of the Resolution Copper mine (50 to 55 years).

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

Spatial rationale is presented within chapter 4 of the FEIS.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Overall conclusion: Range allotment plans are used to actively manage authorized livestock grazing to address potentially adverse effects of permitted activities on natural and cultural resources. This RFFA would renew existing permits involving the same acres and AUMs. Minor and localized impacts would be addressed via active management by way of the range allotment management plans. With the exception of livestock grazing itself, existing conditions and trends would continue but there would be no cumulative effect.

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Soils, Vegetation, and Reclamation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Noise and Vibration	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Transportation and Access	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.

Resource Category	Results of RFFA Screening
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Wildlife	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Recreation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Cultural Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Tribal Values and Concerns	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Livestock and Grazing	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Grazing allotments will be affected in varying degrees by proposed Resolution Copper Project activities and alternatives. The degree of impacts would depend upon the activity.

Source:

Arizona State Land Department. 2019. State Land Department Online Map Server, showing parcel ownership and grazing allotment data. Available at: <http://gis.azland.gov/webapps/parcel/>. Accessed April 22, 2019.

Bureau of Land Management. 2019a. Rangeland Administration System Reports, showing Authorization Used by Allotment for the Tucson Field Office. Available at: <https://reports.blm.gov/report/ras/3/Authorization-Use-by-Allotment>. Accessed April 22, 2019.

_____. 2019b. BLM Grazing Allotment Polygons, spatial data for geographic information systems. Available at: <https://catalog.data.gov/dataset/blm-grazing-allotment-polygons>. Accessed April 15, 2019.

U.S. Forest Service. 2019. Projects list for current major projects and project archives. Available at: <https://www.fs.usda.gov/wps/portal/fsinternet/cs/projects/tonto/landmanagement/projects?archive=1&sortby=1>. Accessed April 22, 2019.

_____. 2019. Tonto National Forest GIS Data; Rangeland. Available at: <https://www.fs.usda.gov/detail/r3/landmanagement/gis/?cid=stelprdb5209307>. Accessed April 15, 2019.

U.S. Fish and Wildlife Service. 2003. *Biological Opinion: Livestock Grazing on 18 Allotments Along the Middle Gila River Ecosystem*. AESO/SE 02-21-00-F-0029. Phoenix, Arizona: U.S. Fish and Wildlife Service. October 23.

Heber Allotment Analysis

Overview of RFFA

The Heber Allotment is located on the Black Mesa Ranger District of the Apache-Sitgreaves National Forests. The allotment covers approximately 157,000 acres and surrounds the community of Heber-Overgaard on the north, east, and south sides extending from the Fort Apache Indian reservation boundary on the south boundary to the National Forests boundary on the north. The allotment is composed of 12 pastures.

Management and monitoring of livestock grazing on the Heber Allotment needs to be analyzed and updated from the 1989 Range Management Plan to a type and level of management that would maintain and improve understory vegetation, soil, and watershed resource conditions; move resources on the allotment toward Forest Plan objectives and desired conditions; and provide more flexibility to adapt management to fit conditions of resources on the allotment as they change.

Rationale for Resource Analysis (Temporal Overlap with Resolution Copper Project)

The Finding of No Significant Impact (FONSI) for the Heber Allotment Analysis was published in August 2020, and authorized grazing on the allotment.

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

Spatial rationale is presented within chapter 4 of the FEIS.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Overall conclusion: Range allotment plans are used to actively manage authorized livestock grazing to address potentially adverse effects of permitted activities on natural and cultural resources. This RFFA would involve analysis intended to rectify adverse conditions on the allotment. Minor and localized impacts would be addressed via active management by way of the range allotment management plans. With the exception of livestock grazing itself, existing conditions and trends would continue but there would be no cumulative effect.

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Soils, Vegetation, and Reclamation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Noise and Vibration	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Transportation and Access	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.

Resource Category	Results of RFFA Screening
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Wildlife	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Recreation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Cultural Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Tribal Values and Concerns	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Livestock and Grazing	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Grazing allotments will be affected in varying degrees by the proposed Resolution Copper Project activities and its alternatives. The degree of impacts would be dependent upon the activity.

Sources:

U.S. Forest Service. 2020. Heber Allotment Analysis: Environmental Assessment. Available at: https://www.fs.usda.gov/nfs/11558/www/nepa/97734_FSPLT3_5331679.pdf. Accessed October 28, 2020.

Helmwheel - (Box O) Allotment, Grazing Lease Renewals

Overview of RFFA

The Helmwheel Grazing Allotment (also known as the Box O) is approximately 52,037 acres including 14,811 acres of lands administered by the BLM, 30,623 acres of lands administered by the ASLD, and 6,604 acres of private land. Grazing on private lands is administered by the owner. Each agency/private owner administers grazing leases on their respective lands, and not the entire allotment. The allotment is approximately 2.3 miles northeast of SR 79 and 8.3 miles southeast of the town of Florence. *Note: all acreages are approximate.*

BLM

The BLM portion of the Helmwheel Allotment (14,811 acres) is active and includes approximately 119 cattle authorized for year-round use and includes 1,428 AUMs (BLM Allotment Number AZ06244). Authorization of the BLM portion began on March 1, 2014, and continues through February 28, 2024. For the purposes of this evaluation, we have assumed that the BLM would renew of the lease and that the lease renewal would provide for minor range improvements such as repair or maintenance of existing fences, cattle guards, stock tanks, etc. No new roads or other facilities would be constructed under the grazing lease. Under NEPA, BLM's lease renewal will require an EA reauthorizing the grazing within the allotment and any proposed rangeland improvements.

ASLD

For the purposes of this evaluation, we have assumed that the ASLD grazing lease within the Helmwheel Allotment (30,623 acres) is active and would include renewal of the lease for a term of up to 10 years. The ASLD portions of the allotment are authorized for approximately 2,843 AUMs and is leased to Box O Properties LLC (Lease 5-48244). It is assumed that the lease renewal would provide for minor range improvements such as repair or maintenance of existing fences, cattle guards, stock tanks, etc. No new roads or other facilities would be constructed under the grazing lease.

Private Ownership

For the purposes of this evaluation, we have assumed that existing grazing practices on private lands (6,604 acres) would continue unchanged with no term limits. We have assumed that grazing on private lands would include minor range improvements such as repair or maintenance of existing fences, cattle guards, stock tanks, etc. Substantial private development such as roads, housing, and commercial facilities are possible, but none are anticipated.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

The exact timing of grazing lease renewals and/or rangeland improvements is not known. However, a reasonable assumption is that they would be implemented on the allotment throughout the expected life of the mine (50 to 55 years).

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

Spatial rationale is presented within chapter 4 of the FEIS.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Overall conclusion: Range allotment plans are used to actively manage authorized livestock grazing to address potentially adverse effects of permitted activities on natural and cultural resources. This RFFA would renew existing permits involving the same acres and AUMs. Minor and localized impacts would be addressed via active management by way of the range allotment management plans. With the exception of livestock grazing itself, existing conditions and trends would continue but there would be no cumulative effects.

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Soils, Vegetation, and Reclamation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Noise and Vibration	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Transportation and Access	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Wildlife	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Recreation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Cultural Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.

Resource Category	Results of RFFA Screening
Tribal Values and Concerns	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Livestock and Grazing	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Grazing allotments would be affected in varying degrees by the proposed Resolution Copper Project activities and alternatives. The degree of impacts would depend upon the activity.

Source:

Arizona State Land Department. 2019. State Land Department Online Map Server, showing parcel ownership and grazing allotment data. Available at: <http://gis.azland.gov/webapps/parcel/>. Accessed April 22, 2019.

Bureau of Land Management. 2019a. Rangeland Administration System Reports, showing Authorization Used by Allotment for the Tucson Field Office. Available at: <https://reports.blm.gov/report/ras/3/Authorization-Use-by-Allotment>. Accessed April 22, 2019.

_____. 2019b. BLM Grazing Allotment Polygons, spatial data for geographic information systems. Available at: <https://catalog.data.gov/dataset/blm-grazing-allotment-polygons>. Accessed April 15, 2019.

U.S. Fish and Wildlife Service. 2003. *Biological Opinion: Livestock Grazing on 18 Allotments Along the Middle Gila River Ecosystem*. AESO/SE 02-21-00-F-0029. Phoenix, Arizona: U.S. Fish and Wildlife Service. October 23.

Hicks-Pikes Peak Allotment Grazing Authorization

Overview of RFFA

Project is a new planning effort to authorize livestock grazing on the Hicks-Pikes Peak Allotment north of Globe, in a manner that is consistent with the goals, objectives, and standards and guidelines of the Tonto National Forest Plan.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

The proposed project currently is on hold (U.S. Forest Service 2019). However, a reasonable assumption is that the proposed project would be implemented during the expected life of the Resolution Copper mine (50 to 55 years).

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

Spatial rationale is presented within chapter 4 of the FEIS.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Overall conclusion: The rationale for analysis is based on preliminary environmental assessment for the proposed project (U.S. Forest Service 2017). Range allotment plans are used to actively manage authorized livestock grazing to address potentially adverse effects of permitted activities on natural and cultural resources. This RFFA would renew existing permits involving the same acres and AUMs. Minor and localized impacts would be addressed via active management by way of the range allotment management plans. With the exception of livestock grazing itself, existing conditions and trends would continue but there would be no cumulative effects.

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Project will have no effect on geological resources.
Soils, Vegetation, and Reclamation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Areas in which soils and vegetation are disturbed by the Resolution Copper Project do not overlap this allotment.
Noise and Vibration	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No meaningful levels of noise or vibration would be associated with this allotment.
Transportation and Access	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Motor vehicle and ATV/UTV access to range improvement sites would be on existing roads where practicable. Off-road vehicle use by pickup, trailer, ATV, UTV, or motorcycle may be needed to transport materials or machinery to maintain or inspect structural range improvements, but would be limited in duration and area.
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. There would be no generation of emissions associated with designation of the Hicks-Pikes Grazing Allotment.

Resource Category	Results of RFFA Screening
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Spring developments would not dewater the spring and must maintain a residual flow for riparian-obligate vegetation and wildlife species.
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. For water quality, the desired condition is to maintain criterion that are currently rated as Attaining and improve criterion currently rated as Impaired by continuing to comply and cooperate with the Arizona Department of Environmental Quality. These efforts would be addressed by global management decisions on the Tonto National Forest, and specific allotment management decisions.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. There would be no effects on surface water quantity.
Wildlife	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. A biologist would determine if further consultation with the U.S. Fish and Wildlife Service is necessary for areas proposed for new improvements after surveying.
Recreation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Recreational use would remain unchanged.
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No tailings are involved in this proposed allotment.
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No increased fire risk is foreseen.
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No hazardous materials would be used in the implementation of this grazing allotment.
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The portion of the upper Salt River that flows through the allotment was classified as potentially eligible for inclusion into the National Wild and Scenic Rivers System. The river was identified to include scenic, geologic, wildlife, recreational, and ecological values.
Cultural Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. An archaeological survey would be conducted for areas proposed for surface disturbance which have no previous survey coverage, have outdated surveys, or which do not conform to current standards.
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. It is Forest Service policy to continue contributions to the economic and social well-being of people by providing opportunities for economic diversity and by promoting stability for communities that depend on range resources for their livelihood.
Tribal Values and Concerns	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. An archaeological survey would be conducted for areas proposed for surface disturbance which have no previous survey coverage, have outdated surveys, or which do not conform to current standards.

Resource Category	Results of RFFA Screening
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No environmental justice communities are present in the project area or vicinity.
Livestock and Grazing	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Grazing allotments would be affected in varying degrees by the proposed Resolution Copper Project activities and alternatives. The degree of impacts would depend upon the activity.

Source:

U.S. Forest Service. 2017. Hicks-Pikes Peak Allotment Grazing Authorization Preliminary Environmental Assessment. Available at: https://www.fs.usda.gov/nfs/11558/www/nepa/107404_FSPLT3_4052292.pdf. Accessed February 2019.

U.S. Forest Service. 2019. Schedule of Proposed Actions January 2019 to March 2019. Available at: <https://www.fs.fed.us/sopa/components/reports/sopa-110312-2019-01.html>. Accessed March 2019.

Horsetrack Allotment, Grazing Lease Renewals

Overview of RFFA

The Horsetrack Grazing Allotment is approximately 28,187 acres including 11,208 acres administered by the BLM, 16,520 acres of lands administered by the ASLD, and 458 acres of private land. The allotment also covers approximately 3,406 acres of the Florence Military Reservation managed by the Department of Defense. However, it is assumed that no grazing is permitted on Department of Defense lands, therefore, it is not evaluated. Grazing on private lands is administered by the owner. Each agency/private owner administers grazing leases on their respective lands, and not the entire allotment. This allotment is approximately 4 miles northeast of the town of Florence and 11 miles southwest of the town of Superior. *Note: all acreages are approximate.*

BLM

The BLM portion of this allotment (11,208 acres) is currently authorized for 102 cattle for year-round use and is authorized for 1,224 AUMs (BLM Allotment Number AZ06111). Authorization of this allotment began on March 1, 2019, and continues through February 28, 2029. An inspection of the allotment in 1998 determined that it was in good condition and improving (U.S. Fish and Wildlife Service 2003). Under NEPA, BLM's lease renewal will require an EA reauthorizing the grazing within the allotment and any proposed rangeland improvements.

This evaluation assumes that grazing will continue to occur on the BLM portions of this allotment and that the EA written for the lease renewal will allow for minor range improvements such as repair or maintenance of existing fences, cattle guards, stock tanks, etc. It is anticipated that no new roads or other facilities would be constructed under the grazing lease.

ASLD

For the purposes of this evaluation, we have assumed that the ASLD grazing lease within the Horsetrack Allotment (16,520 acres) is active and would include renewal of the lease for a term of up to 10 years. The ASLD portions of the allotment are authorized for approximately 1,414 AUMs. This allotment is leased to Seibert Cattle Company (Lease 5-52558). It is assumed that the lease renewal would provide for minor range improvements such as repair or maintenance of existing fences, cattle guards, stock tanks, etc. No new roads or other facilities would be constructed under the grazing lease.

Private Ownership

For the purposes of this evaluation, we have assumed that existing grazing practices on private lands (458 acres) would continue unchanged with no term limits. We have assumed that grazing on private lands would likely include minor range improvements such as repair or maintenance of existing fences, cattle guards, stock tanks, etc. Substantial private development such as roads, housing, and commercial facilities are possible, but none are anticipated.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

The exact timing of grazing lease renewals and/or rangeland improvements is not known; however, it can be reasonably assumed that they would be implemented on the allotment throughout the expected life of the Resolution Copper mine (50 to 55 years).

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

Spatial rationale is presented within chapter 4 of the FEIS.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Overall conclusion: Range allotment plans are used to actively manage authorized livestock grazing to address potentially adverse effects of permitted activities on natural and cultural resources. This RFFA would renew existing permits involving the same acres and AUMs. Minor and localized impacts would be addressed via active management by way of the range allotment management plans. With the exception of livestock grazing itself, existing conditions and trends would continue but there would be no cumulative effect.

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Soils, Vegetation, and Reclamation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Noise and Vibration	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Transportation and Access	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Wildlife	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Recreation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.

Resource Category	Results of RFFA Screening
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Cultural Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Tribal Values and Concerns	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Livestock and Grazing	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Grazing allotments would be affected in varying degrees by the proposed Resolution Copper Project activities and alternatives. The degree of impacts would depend upon the activity.

Source:

Arizona State Land Department. 2019. State Land Department Online Map Server, showing parcel ownership and grazing allotment data. Available at: <http://gis.azland.gov/webapps/parcel/>. Accessed April 22, 2019.

Bureau of Land Management. 2019a. Rangeland Administration System Reports, showing Authorization Used by Allotment for the Tucson Field Office. Available at: <https://reports.blm.gov/report/ras/3/Authorization-Use-by-Allotment>. Accessed April 22, 2019.

_____. 2019b. BLM Grazing Allotment Polygons, spatial data for geographic information systems. Available at: <https://catalog.data.gov/dataset/blm-grazing-allotment-polygons>. Accessed April 15, 2019.

U.S. Fish and Wildlife Service. 2003. *Biological Opinion: Livestock Grazing on 18 Allotments Along the Middle Gila River Ecosystem*. AESO/SE 02-21-00-F-0029. Phoenix, Arizona: U.S. Fish and Wildlife Service. October 23.

Jack's Project

Overview of RFFA

Roadrunner Prospectors Club Inc. has submitted a Plan of Operations for Jack's Project, a 20-year placer mine project for 93 mining claims within the Bradshaw Ranger District of the Prescott National Forest.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

Operations would last 20 years and occur year-round.

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

Spatial rationale is presented within chapter 4 of the FEIS.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Gold would be physically removed from the earth and therefore irreversibly and irretrievably committed to human use, resulting in a long-term impact to mineral resources.
Soils, Vegetation, and Reclamation	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. The proposed action may increase the quantity of existing and new invasive plant species within the project area through the transfer and spread of weed seeds and ground disturbance associated with access and staging actions. The proposed action would not directly affect sensitive plant species because suitable habitat does not occur "below the high-water mark of the streambed channels". Above the high-water mark, sensitive species could be affected through access and staging activities. Applicant committed environmental protection measures would reduce negative impacts of the proposed project to soil and vegetation resources as well as reduce negative impacts from noxious weeds and invasive plants.
Noise and Vibration	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.
Transportation and Access	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.

Resource Category	Results of RFFA Screening
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Through incorporation of applicant committed environmental protection measures, impacts to water quality would be either eliminated or mitigated so that they are not deemed significant.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Through incorporation of applicant committed environmental protection measures, impacts to surface water quantity would be either eliminated or mitigated so that they are not deemed significant.
Wildlife	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Mexican spotted owl and their designated critical habitat occur within and adjacent to the project area; however, implementing protection measures such as timing restrictions would reduce direct effects on the species during the breeding season. Timing restrictions would also be used to reduce impacts to Forest Service sensitive species, golden eagles, and migratory bird species.
Recreation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action may impact the traditional Boy Scouts of America dispersed camping area. In addition, mining activities on the Viva Anne and Viva Anne 2 claims are likely to be highly visible and draw recreation visitors into the area. Mitigation measures are proposed to minimize impacts. With the implementation of mitigation measures, no long-term impacts are anticipated.
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Tailings are not involved in this project.
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Foot traffic from increased recreation use due to mine activity could develop user-created trails that cause disturbance to vegetation in the area and negatively impact the Scenic Integrity Objectives. Visual impacts would be mitigated by not allowing multiple trails and limiting the number of large groups and/or frequency of use of sites.
Cultural Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Monitoring for cultural resources will not be required for the proposed action because mining activities would be constrained to below the high-water mark of the streambed channels.
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.
Tribal Values and Concerns	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Heritage surveys will not be required for the proposed action because mining activities would be constrained to below the high-water mark of the streambed channels.
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.

Resource Category	Results of RFFA Screening
Livestock and Grazing	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not result in any impacts to current permittees or livestock rotations on allotments near the project area.

Sources:

U.S. Forest Service. 2020. Jack's Project. Available at:
http://www.fs.fed.us/nepa/nepa_project_exp.php?project=45642. Accessed October 28, 2020.

Jasper Canyon Mineral Exploration

Overview of RFFA

The Jasper Canyon exploratory drilling project area is located on lands managed by the Tonto National Forest near Bixby Road off of State Highway 188, 2 miles north of the U.S. 60 and State Highway 188 junction at Globe, Arizona. Bronco Creek Exploration (BCE) proposes development within a 1-year period of up to five drill sites out of seven possible sites the company has identified. BCE states that the sites are readily accessible via ground vehicles and that only limited improvements to existing roads may be required to maintain basic safety standards. These improvements are only likely to include levelling of severely uneven or rutted ground within the existing road footprint. The total area of surface disturbance is estimated at less than 1.55 acres.

Drilling depth at each site may vary between 1,000 and 4,000 feet. Water, rock cuttings, and drilling fluids would be removed from each site at the end of the drilling program and transported to the Gila County landfill in Globe, and disposed of per Arizona Department of Environmental Quality (ADEQ) standards.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

The exploratory drilling would begin in the next few years and continue over a 1-year period.

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

Spatial rationale is presented within chapter 4 of the FEIS.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Resource	Rationale for Analysis
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Installation of core holes for exploratory purposes is not likely to impact the ability to access geology or mineral resources in this area.
Soils, Vegetation, and Reclamation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Drilling will take place in mostly previously disturbed areas and all drill sites will be reclaimed to their initial state immediately upon cessation of drilling.
Noise and Vibration	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Drilling, helicopter use, and vehicles will create temporary noise and vibration impacts.
Transportation and Access	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. The proposed project would use National Forest System roads and has the potential to impact transportation and access in and around the project area.
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource and includes mitigation measures to control dust.

Resource	Rationale for Analysis
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource. There would be no discharges to surface tributaries, and, in accordance with Clean Water Act requirements, no pollutants would be discharged.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.
Wildlife	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Drilling will take place in mostly previously disturbed areas and the project includes mitigation measures to reduce impacts to wildlife.
Recreation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Tailings are not involved in the proposed project.
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Equipment containing hazardous materials will be used, however quantities and types are unknown. Typical drilling actions use containment ponds and best management practices to minimize potential for hazardous materials to impact the environment.
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource, or would only impact it temporarily until reclamation is completed and vegetation reestablished.
Cultural Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource. Pre-drilling clearance surveys would be conducted to avoid cultural resource sites.
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No major changes in employment or tax revenue are anticipated.
Tribal Values and Concerns	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource. Pre-drilling clearance surveys would be conducted to avoid cultural resource sites.
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.
Livestock and Grazing	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.

Sources:

2020 SOPA (Jasper Canyon Mineral Exploration):

https://www.fs.usda.gov/nfs/11558/www/nepa/114072_FSPLT3_5326533.pdf

2020 Scoping documents:

https://www.fs.usda.gov/nfs/11558/www/nepa/114072_FSPLT3_5350250.pdf

https://www.fs.usda.gov/nfs/11558/www/nepa/114072_FSPLT3_5350389.pdf

LEN Range Improvements

Overview of RFFA

Two actions were proposed relating to the LEN allotment, which is a large grazing allotment in the so-called “Copper Butte” area located south of Superior between SR 177 on the east side and the White Canyon Wilderness on the west side. The LEN allotment is administered by the BLM Tucson Field Office. The area is authorized a total of 2,956 AUMs across 25,553 acres of public land.

The first action would be to renew the grazing permit (#6197). The second action includes redrilling eight existing wells and drilling three new wells; equipping them with solar pumps, storage tanks, and water troughs; and performing maintenance of roads and access to the range improvements.

This proposed project is in response to existing information that shows resource concerns related to current livestock use that should be considered before lease issuance. These concerns include: the reconstruction of livestock waters that have reached the end of their productive lifespan and require reconstruction with more modern construction materials and techniques such as solar-powered electric pumps on windmills and water storage tanks rather than only water troughs; maintenance of roads to allow for access to the improvements which must be built by modern equipment such as rotary drilling trucks; and the need for additional water sources away from the Gila River so that livestock are provided separate sources of water during the breeding season for yellow-billed cuckoos and southwestern willow flycatchers. The effects analysis below is based on an EA currently being prepared by the BLM Tucson Field Office, as well as the BLM *Ray Land Exchange and Plan Amendment Final Supplemental Environmental Impact Statement* (March 2019).

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

2017–2027. The renewed grazing permit would be for a 10-year period.

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

Spatial rationale is presented within chapter 4 of the FEIS.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No mineral resources are involved with this project and the redrilling/drilling of 11 wells would not result in subsidence. Impacts to geologic resources have not been identified for detailed analysis within the EA.

Resource Category	Results of RFFA Screening
Soils, Vegetation, and Reclamation	<p>Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Most of the LEN allotment is composed of soil with a high rock component. Because of this, some erosion occurs during heavy rainfall events in areas where there is livestock trailing. However, this erosion and effects are comparable to what background levels of erosion would be without livestock and are therefore insignificant and discountable. The maintenance of roads for range improvements would result in less soil erosion on the roads and trails from loose soils stirred up by recreational vehicles.</p> <p>Analysis is not required for noxious weeds and non-native invasive plants. Weed infestations usually appear to be related to roads and recreational vehicles rather than livestock operations. Relatively little weed infestation has occurred from plants that recently were introduced to the area, therefore the issue will not be analyzed in detail in the EA. In addition, under the proposed action, there is reduced risk of noxious weed spread. Most invasive species are edible by livestock during their growth stages.</p> <p>The primary vegetation community on the LEN allotment is Sonoran-Paloverde-Mixed Cacti Desert Scrub.</p> <p>Although no specific acreages of new or existing surface disturbance in connection with the proposed action are specified yet in the EA currently being developed, the assumption is that new disturbance to soils and vegetation related to the redrilling of eight existing wells and drilling of three new wells and the improvement of access roads and other associated range facilities in the context of the 25,553-acre allotment area would be quite minimal. Any loss of soils and desert scrub vegetation for these improvements may well be offset by new restrictions of livestock away from the more valuable and sensitive soils and riparian vegetation in and around the Gila River.</p>
Noise and Vibration	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Noise and vibration were not identified as issues warranting detailed analysis in this project.
Transportation and Access	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Presently, some road conditions on the allotment are in disrepair and impassable to vehicles that are not high-clearance, four-wheel drive vehicles. The proposed project will include minimal road maintenance and repair to allow drilling equipment into the project sites.
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Road maintenance to allow equipment to access range improvements would produce minor amounts of dust for a short duration.
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Under the proposed action, upland perennial sources of water would supplement the existing upland water infrastructure on the allotment. The supplemental water sources would provide adequate water facilities for existing authorized grazing management activities.
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action will not impact groundwater or surface water quality.

Resource Category	Results of RFFA Screening
Water: Surface Water Quantity	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Under the proposed action, upland perennial sources of water would supplement the existing upland water infrastructure on the allotment. The supplemental water sources would provide adequate water facilities for existing authorized grazing management activities.
Wildlife	<p>Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Effects of the proposed action on wildlife/habitat was identified as an issue that will be analyzed in further detail in the EA. Analysis is still underway. However, a 2017 land health evaluation for the LEN allotment identified seven threatened and endangered species that may occur within the LEN allotment. In addition, 17 BLM sensitive species are known or have the potential to exist within the allotment.</p> <p>Under the proposed action, the grazing permit on the LEN allotment would be renewed and improvements which may change grazing patterns. Wildlife is impacted by livestock through behavioral disturbance, competition for forage, and by their presence.</p> <p>No analysis is required for impacts to migratory birds, as the proposed action will be removing livestock from the riparian corridor along the Gila River during the summer months when migratory birds are breeding. As a result, no disturbance to nesting would result from livestock operations.</p>
Recreation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Smoother roads may allow for increased recreational OHV traffic during the high-use months (fall through spring).
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No tailings are involved in this project.
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Under the proposed action, the grazing permit on the LEN allotment would be renewed and livestock grazing would continue. Livestock can alter fire regimes while foraging by reducing the amount of fine fuels available to carry fire. However, effects would be similar to those from existing grazing practices.
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No hazardous materials would be used in this project.
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Range improvements such as storage tanks would be colored similarly to the surrounding environment in order to reduce visual impacts on the landscape.
Cultural Resources	Contributes to cumulative effects, but insufficient information exists to analyze. A Class I cultural resource file search in August 2017 was performed for the LEN Allotment Land Health Evaluation which found no historic properties or areas likely to contain historic properties within areas of concentrated livestock use on the allotment. However, as this project constitutes a new range improvement, a Class III cultural resource survey is required.
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Socioeconomics has not been identified as a resource requiring detailed analysis in the EA.

Resource Category	Results of RFFA Screening
Tribal Values and Concerns	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Currently, there are no known adverse impacts to culturally significant sites, plants, items, or landscapes. However, BLM consultations with tribes who claim cultural affiliation to and/or traditional use of the area must be reinitiated in the case of any range improvement project. Previously consulted tribes include the Hopi Tribe, Pascua Yaqui Tribe, Tohono O'odham Nation, and the White Mountain Apache Tribe.
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Environmental justice communities would not be impacted by the proposed action.
Livestock and Grazing	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Under the proposed action, the grazing permit for the LEN allotment would be renewed. There would be no changes to present condition regarding grazing lease terms (AUMs, etc.). However, livestock would be removed from the riparian area along the Gila River during the summer months.

Source:

Bureau of Land Management. 2019. *Ray Land Exchange and Plan Amendment Final Supplemental Environmental Impact Statement*. Tucson, Arizona. Bureau of Land Management. March.

Bureau of Land Management. 2019. Lease Renewal, Construction of Range Improvements and Road Maintenance, LEN Allotment. Environmental Assessment DOI-BLM-AZ-G020-FY16_0018-EA. Available at: https://eplanning.blm.gov/epl-front-office/projects/nepa/60831/165798/202124/LEN_Chapter-1-and-2.pdf. Accessed October 28, 2020.

Bureau of Land Management. 2017. Land Health Evaluation, LEN Lease No. 6197. September. Available at: https://eplanning.blm.gov/epl-front-office/projects/nepa/60831/134930/165084/LEN_Allotment_Land_Health_Evaluation.pdf. Accessed October 28, 2020.

Mount Baldy Shooting Sports Site

Overview of RFFA

The Mount Baldy shooting sports site is one of five sites currently planned within the boundaries of the BLM Phoenix District. The site is located north of Phoenix, just north of State Route 74 and west of Lake Pleasant. The shooting site will ensure public safety, stewardship of natural resources, and protect critical telecommunications and energy infrastructure while also providing access for recreational shooting.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

Construction began in summer 2020 and is anticipated to last 6 months. The site will then be open to the public.

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

Spatial rationale is presented within chapter 4 of the FEIS.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The shooting site would not have any impact on geology, surface resources or claims, and would not result in subsidence.
Soils, Vegetation, and Reclamation	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Construction of the proposed shooting site would result in the localized, negligible to minor, short-term adverse impacts to vegetation. Operation of the site would result in adverse, minor, long-term loss of vegetation and associated wildlife habitat. The proposed action could potentially contaminate the soil via deposition of lead resultant from shooting. Ground disturbance confined to the project area, remaining vegetative ground cover, monitoring of soil pH, and development of berms to contain most bullets, along with implementation of the Environmental Stewardship Plan (ESP) and application of EPA's Best Management Practices for Lead at Outdoor Shooting Ranges, would address the accumulation of lead in the soil, including cleanup as needed. Overall impacts to soils would be adverse, long-term, and negligible to minor.
Noise and Vibration	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. The shooting site would result in an increase in shooting-caused sounds; however, it has been minimally designed for a low volume of use at any given time with a limit of 14 parking spaces available. Impacts would be long-term, adverse, and minor.
Transportation and Access	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The shooting site would not have an impact on transportation.

Resource Category	Results of RFFA Screening
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The shooting site would not have an impact on air quality.
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The shooting site would not have an impact on groundwater quantity and GDEs.
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action could potentially contaminate the groundwater and surface water quality via deposition of lead resultant from shooting. Depth to groundwater and development of berms to contain most bullets and containment basins to control water flow, along with implementation of the Environmental Stewardship Plan (ESP) and application of EPA's Best Management Practices for Lead at Outdoor Shooting Ranges, would address the accumulation of lead in the surface water and groundwater, including cleanup as needed. Overall impacts to surface water and groundwater quality would be adverse, long-term, and negligible to minor.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The shooting site would not have an impact on surface water quantity.
Wildlife	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. The introduction of a new recreational shooting site at Mount Baldy would likely displace wildlife from that area. Perimeter fencing is proposed to potentially reduce the incidence of large wildlife entering the project area; the Mount Baldy shooting site would fence off approximately 124 acres of general wildlife habitat and would result in localized, negligible to minor, long-term impacts to general wildlife. Mount Baldy is within Category II Sonoran tortoise habitat, for which perimeter fencing is proposed to be used as mitigation to achieve "no net loss" of tortoise habitat. The resulting impacts to Sonoran tortoise are expected to be adverse, negligible to minor, and long-term. In addition, Baldy Mountain is within the Lake Pleasant Herd Management Area (HMA) for burros. Installation of fencing would also deter wild burros from the project area and reduce hazards to burros. Impacts to the HMA would be adverse, negligible, and long-term.
Recreation	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. The proposed shooting site would have long-term adverse impacts to recreational uses by restricting entry into the Designated Target Zone and Hazardous Exclusion area within the Castle Hot Springs Special Management Area and Baldy Mountain Recreation Management Zone, but the impacts would be negligible due to the small size of the site and availability of other public land in the vicinity. Overall, the proposed project would have long-term beneficial impacts to recreational shooting sports users and adverse for non-recreational shooting sports users. Though a mix of adverse and beneficial impacts, these impacts are being carried through to the FEIS analysis.
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No tailings are involved in this project.

Resource Category	Results of RFFA Screening
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The shooting site would not have any impact on fuels or fire management.
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Use of the proposed shooting site would result in deposition of lead at the site, but with modern management techniques is unlikely to lead to a significant exposure of lead to humans.
Scenic Resources	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. The shooting site would introduce elements such as backdrop berms, target structures, gravel parking area and shooting platform, and fencing. These would introduce minimal geometric forms and lines to the landscape, expose the natural earth tones, and increase smooth texture, leading to long-term, adverse and minor impacts.
Cultural Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. There are no cultural resources present at the proposed Mount Baldy shooting site.
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The shooting site would not have an impact on socioeconomics.
Tribal Values and Concerns	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed shooting site would not have impacts to tribal values and concerns.
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The shooting site would not impact environmental justice communities.
Livestock and Grazing	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed shooting site would remove approximately 100 acres from the active Bo-Nine Allotment, approximately 0.4 percent of all land ownership within the allotment. Due to the negligible reduction of available grazing acreage, development of the shooting site would have a long-term, adverse and negligible effect on the livestock grazing operation.

Sources:

Bureau of Land Management: 2020. Recreational Shooting Spots Project. Available at: https://eplanning.blm.gov/public_projects/nepa/122638/20012121/250016499/01302020_Final_Environmental_Assessment.pdf. Accessed October 28, 2020.

Myers Allotment, Grazing Lease Renewals

Overview of RFFA

The Myer Grazing Allotment is approximately 6,052 acres including 4,618 acres of lands administered by the BLM and 1,424 acres of private land. Grazing on private lands is administered by the owner. Each agency/private owner administers grazing leases on their respective lands, and not the entire allotment. This allotment is approximately 1 mile southeast of the Florence Military Reservation and 4.9 miles northeast of the town of Florence. *Note: all acreages are approximate.*

BLM

The BLM portion of the Myers Allotment (4,618 acres) is active and includes approximately 47 cattle authorized for year-round use and includes 564 AUMs (BLM Allotment Number AZ06132). Authorization of the BLM portion of the allotment began on March 1, 2019, and continues through February 28, 2029. A 2000 survey of the BLM portions of the allotment determined that the Myers Allotment was meeting range condition standards and was in stable condition (U.S. Fish and Wildlife Service 2003). For this evaluation, we have assumed that the BLM would renew the lease and that renewal would provide for minor range improvements such as repair or maintenance of existing fences, cattle guards, stock tanks, etc. No new roads or other facilities would be constructed under the grazing lease. Under NEPA, BLM's lease renewal will require an EA reauthorizing the grazing within the allotment and any proposed rangeland improvements.

Private Ownership

For this evaluation, we have assumed that existing grazing practices on private lands (1,424 acres) would continue unchanged with no term limits. We have assumed that grazing on private lands likely would include minor range improvements such as repair or maintenance of existing fences, cattle guards, stock tanks, etc. Substantial private development such as roads, housing, and commercial facilities are possible, but none are anticipated.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

The exact timing of grazing lease renewals and/or rangeland improvements is not known; however, it can be reasonably assumed that they would be implemented on the allotment throughout the expected life of the Resolution Copper mine (50 to 55 years).

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

Spatial rationale is presented within chapter 4 of the FEIS.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Overall conclusion: Range allotment plans are used to actively manage authorized livestock grazing to address potentially adverse effects of permitted activities on natural and cultural resources. This RFFA would renew existing permits involving the same acres and AUMs. Minor and localized impacts would be addressed via active management by way of the range allotment management plans. With the

exception of livestock grazing itself, existing conditions and trends would continue but there would be no cumulative effects.

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Soils, Vegetation, and Reclamation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Noise and Vibration	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Transportation and Access	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Wildlife	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Recreation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Cultural Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Tribal Values and Concerns	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.

Resource Category	Results of RFFA Screening
Livestock and Grazing	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Grazing allotments would be affected in varying degrees by the proposed Resolution Copper Project activities and alternatives. The degree of impacts would depend upon the activity.

Source:

Bureau of Land Management. 2019a. Rangeland Administration System Reports, showing Authorization Used by Allotment for the Tucson Field Office. Available at: <https://reports.blm.gov/report/ras/3/Authorization-Use-by-Allotment>. Accessed April 22, 2019.

_____. 2019b. BLM Grazing Allotment Polygons, spatial data for geographic information systems. Available at: <https://catalog.data.gov/dataset/blm-grazing-allotment-polygons>. Accessed April 15, 2019.

U.S. Fish and Wildlife Service. 2003. *Biological Opinion: Livestock Grazing on 18 Allotments Along the Middle Gila River Ecosystem*. AESO/SE 02-21-00-F-0029. Phoenix, Arizona: U.S. Fish and Wildlife Service. October 23.

Nichols Ranch Allotment, Grazing Lease Renewals

Overview of RFFA

The Nichols Grazing Allotment is approximately 13,859 acres including 13,809 acres of lands administered by the Arizona State Land Department (ASLD) and 50 acres of private land. Grazing on private lands is administered by the owner. Each agency/private owner administers grazing leases on their respective lands, and not the entire allotment. This allotment is approximately 4 miles north of the Florence Military Reservation and 10.5 miles west of the town of Superior. *Note: all acreages are approximate.*

ASLD

For the purposes of this evaluation, we have assumed that the ASLD grazing lease within the Nichols Ranch Allotment (13,809 acres) is active and would include renewal of the lease for a term of up to 10 years. The ASLD portions of the allotment are authorized for approximately 1,300 AUMs. This allotment is leased by Seibert Cattle Company (Lease 5-95352). It is assumed that the lease renewal would provide for minor range improvements such as repair or maintenance of existing fences, cattle guards, stock tanks, etc. No new roads or other facilities would be constructed under the grazing lease.

Private Ownership

For the purposes of this evaluation, we have assumed that existing grazing practices on private lands (50 acres) would continue unchanged with no term limits. We have assumed that grazing on private lands would likely include minor range improvements such as repair or maintenance of existing fences, cattle guards, stock tanks, etc. Substantial private development such as roads, housing, and commercial facilities are possible, but none are anticipated.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

The exact timing of grazing lease renewals and/or rangeland improvements is not known; however, it can be reasonably assumed that they would be implemented on the allotment throughout the expected life of the Resolution Copper mine (50 to 55 years).

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

Spatial rationale is presented within chapter 4 of the FEIS.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Overall conclusion: Range allotment plans are used to actively manage authorized livestock grazing to address potentially adverse effects of permitted activities on natural and cultural resources. This RFFA would renew existing permits involving the same acres and AUMs. Minor and localized impacts would be addressed via active management by way of the range allotment management plans. With the exception of livestock grazing itself, existing conditions and trends would continue but there would be no cumulative effect.

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Soils, Vegetation, and Reclamation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Noise and Vibration	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Transportation and Access	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Wildlife	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Recreation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Cultural Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Tribal Values and Concerns	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Livestock and Grazing	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Grazing allotments will be affected in varying degrees by the proposed Resolution Copper Project activities and its alternatives. The degree of impacts would be dependent upon the activity.

Source:

Arizona State Land Department. 2019. State Land Department Online Map Server, showing parcel ownership and grazing allotment data. Available at: <http://gis.azland.gov/webapps/parcel/>. Accessed April 22, 2019.

U.S. Fish and Wildlife Service. 2003. *Biological Opinion: Livestock Grazing on 18 Allotments Along the Middle Gila River Ecosystem*. AESO/SE 02-21-00-F-0029. Phoenix, Arizona: U.S. Fish and Wildlife Service. October 23.

Peralta Regional Park

Overview of RFFA

Pinal County worked with the BLM since 2013 to secure permits and approvals needed for Peralta Regional Park implementation. In October 2019, the BLM issued a lease to Pinal County for Peralta Regional Park. County staff are working to finalize design and construction plans in order to move this project forward.

The primary value and attraction of the Peralta Regional Park will be the opportunity to provide visitors from the regional area with exposure to the unique natural character of this upper Sonoran Desert setting. The character of the landforms, the site's geology, the cultural and historic context, and the flora and the fauna, combined with the quietness and solitude of this natural area, will appeal to many outdoor recreational enthusiasts. The design intent is to artfully and sensitively arrange park facilities to provide the public with access and exposure to these natural attributes while minimizing the impacts to the environment. The programming and design objective for this park is to find the balance in terms of number and types of facilities that will provide a stimulating user experience yet to responsive to the natural conditions and minimize the disturbances and alternations to the natural setting, so that the park will "lay lightly on the land."

Pinal County Open Space and Trails developed the Peralta Regional Park Master Plan in November 2015.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

Master Plan design and engineering being finalized for construction.

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

Spatial rationale is presented within chapter 4 of the FEIS.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	<p>Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed project would not result in impacts to geology or minerals and would not result in subsidence.</p> <p>The Peralta Regional Park Final EA (July 2019) determined that "Direct effects to recipients of mining claim land use authorizations could occur during construction and operation of the proposed Peralta RP by temporarily preventing access to individual claims, but would be negligible because surface jurisdiction and mineral ownership would not change. Development of the recreation facilities and entry features would not prohibit existing mineral operations. Additionally, the BLM or existing mining claimants would retain surface and subsurface mineral rights within the lease area until such time as when Pinal County applies to patent and terminate the lease."</p>

Resource Category	Results of RFFA Screening
Soils, Vegetation, and Reclamation	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Development of Master Plan would include soil disturbance and vegetation removal.
Noise and Vibration	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed project would not result in noise and vibration impacts.
Transportation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed project would not result in transportation impacts.
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed project would not result in air quality impacts.
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Groundwater quantity and GDEs would not be impacted by the proposed action.
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. There are no floodplains, wetlands, or municipal watersheds within or adjacent to the project area.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. There are no floodplains, wetlands, or municipal watersheds within or adjacent to the project area.
Wildlife	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. A Small Project Biological Assessment was conducted and it was determined there would be no impacts to federally listed, threatened, or endangered species and associated designated or proposed critical habitat.
Recreation	RFFA contributes to cumulative effects and sufficient information exists to analyze; however, because impacts are overall beneficial, analysis is not carried forward for this resource. The proposed project would increase opportunities for developed and dispersed recreation experiences and provide for a variety of user experience levels. Since these are wholly beneficial effects, they are not being carried through to the FEIS analysis.
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Tailings are not involved in the proposed project.
Public Health & Safety: Fuels and Fire Management	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. The proposed project would require wildfire protection in design. The new roads would introduce a new fire break. Fire risks may increase as public use increases.
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Hazardous materials are not involved in the proposed action.
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Scenic resources would not change under the proposed action.
Cultural Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Four sites eligible for the National Register of Historic Places

Resource Category	Results of RFFA Screening
	(NRHP) are present within the project area. However, project design was modified in order to avoid adverse effects on these sites. On May 30, 2019, the BLM received concurrence from the State Historic Preservation Office that the project would have “no adverse effect” to these four sites.
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not have impacts to socioeconomics.
Tribal Values and Concerns	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Four sites eligible for the NRHP are present within the project area. However, project design was modified in order to avoid adverse effects on these sites. On May 30, 2019, the BLM received concurrence from the State Historic Preservation Office that the project would have “no adverse effect” to these four sites.
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact environmental justice communities.
Livestock and Grazing	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. The BLM canceled portions of the “Buzzard’s Roost” allotment, which will remove approximately 498 acres of public land available for grazing, and the 48 AUMs tied to those acres.

Sources:

Bureau of Land Management. 2019. Peralta Recreation and Public Purposes Act Project. Available at: <https://eplanning.blm.gov/eplanning-ui/project/93074/510>. Accessed October 28, 2020.

Pinal County. 2015. Peralta Regional Park: Master Plan: Available at: <https://www.pinalcountyz.gov/OpenSpaceTrails/Documents/Peralta%20Regional%20Park/Peralta%20RP%20draft%20Master%20Plan%20final%2011-18-2015%20with%20Maps.pdf>. Accessed October 28, 2020.

Pine Creek Mining River Bend Placer Project

Overview of RFFA

Pine Creek Mining, Inc., proposes to conduct placer mining, bulk testing, and reclamation in the Hassayampa River drainage near Orofino Wash east of Wilhoit, Arizona, on mining claims within the Bradshaw Ranger District of the Prescott National Forest.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

The estimated mine life is 15 years.

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

Spatial rationale is presented within chapter 4 of the FEIS.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Gold would be physically removed from the earth and therefore irreversibly and irretrievably committed to human use, resulting in a long-term impact to mineral resources.
Soils, Vegetation, and Reclamation	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Under the proposed action, approximately 90 acres of interior chaparral and 3 acres of riparian habitat would be removed during mine operations. Impacts to vegetation would be mitigated by reestablishing early seral vegetation according to the Reclamation plan. However a long time period—more than 33 years—may be required to return the project area to the interior chaparral vegetation that currently comprises the majority of the project area. The potential for spread of noxious weeds may increase as a result of soil-disturbing activities such as road improvements, mining excavation, truck traffic, and operation of the mining plant. Preventative measures would be incorporated to minimize the introduction and spread of noxious weeds into the project area.
Noise and Vibration	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Noise impacts are expected to be minimal because of the short duration, level of operations planned, and distance to nearby communities and rural residences.
Transportation and Access	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Road access to the Riverbend site is from Forest Road 72. Current public access to the area would continue under this proposal but the road would be realigned to its former position on the southeast side of the Hassayampa River channel to allow for mine workspace and to protect public safety.

Resource Category	Results of RFFA Screening
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Any air quality impacts that would result from the proposed action would be minimal, local, and short-term and not result in regional changes to air quality.
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Based on the comprehensive groundwater testing program, impacts to groundwater quantity would be minimal and short-term.
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. In terms of water quality, a centrifuge would be used to effectively filter nearly all fine materials from the mine process water to allow for water recycling and minimize any risk of sedimentation into the Hassayampa River. The refinement process would be completely free of chemicals; only naturally occurring water would be used. In addition, the two proposed ponds on a low terrace between the Hassayampa River floodplain and the toe of the ore-bearing slope would be lined with an impermeable liner to prevent infiltration of process water.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The depth of drawdown resulting from pumping the project demand is small in relation to existing water levels in the channel.
Wildlife	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. No federally listed, threatened, or endangered species occur within the project vicinity. Therefore, no impacts to those species are expected. The presence of humans and noise associated with construction activities could result in minor impacts to roosting and foraging pale Townsend's big-eared bats or western red bats. Bats may temporarily leave the area during mining activities but return after completion of the project. As a result, project activities are not likely to cause a trend toward listing or loss of viability. Potential impacts to migratory birds would be minimized by conducting new disturbance within the project area outside of nesting season.
Recreation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. There are no designated campgrounds or recreational sites near the project area.
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The waste stockpile area is approximately 60 × 60 feet and does not involve a tailings embankment.
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not affect fuels and fire management.
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Hazardous materials are not involved with the proposed project.
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Mining can cause degradation of visual quality. However, adverse impacts from the proposed action would be mitigated through concurrent reclamation and would result in negligible long-term impacts.

Resource Category	Results of RFFA Screening
Cultural Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Historic sites within the project area largely are related to mining and prospecting activities. A cultural resources inventory was conducted within the project area. However, the cultural materials identified were not considered eligible for the National Register of Historic Places and thus require not further management consideration.
Socioeconomics	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. The proposed project may result in impacts to employment or tax revenues.
Tribal Values and Concerns	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action was not found to adversely impact resources of tribal concern or value.
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact environmental justice communities.
Livestock and Grazing	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed project area lies within the Hassayampa Grazing Allotment. However, impacts to livestock grazing are expected to be minor in the short term and negligible in the long term due to the proposed mine's small acreage amount and planned concurrent reclamation.

Sources:

U.S. Forest Service. 2020. Pine Creek Mining River Bend Placer Project. Available at:
http://www.fs.fed.us/nepa/nepa_project_exp.php?project=45609. Accessed October 28, 2020.

Pinto Valley Mine Expansion

Overview of RFFA

The Pinto Valley Mine is an existing open-pit copper and molybdenum mine located approximately 8 miles west of Miami, Arizona, in Gila County. Pinto Valley Mining Corp. is proposing to expand mining activities onto the Tonto National Forest, extend the mine life to 2039, and to consolidate previous and ongoing authorizations for the mine. The proposed project would result in an estimated 1,011 acres of new disturbance (245 acres on Tonto National Forest land and 766 acres on private land owned by Pinto Valley Mining Corp.). The environmental impact statement (EIS) will evaluate and disclose the potential environmental effects from approval of the Mining Plan of Operations for activities on the Tonto National Forest. The EIS also will evaluate any necessary amendments to the Tonto National Forest Land and Resource Management Plan.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

The Tonto National Forest issued a Notice of Intent to prepare the Pinto Valley Mine EIS on March 28, 2017, and the scoping period closed on April 27, 2017. The draft EIS was released on December 13, 2019, and completion of the final EIS and issuance of a Record of Decision on the project is expected in 2021.

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

Spatial rationale is presented within chapter 4 of the FEIS.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. While subsidence is not considered a factor in the proposed expansion of open-pit operations, other mining activities may result in increased potential for acid rock drainage and possibly an increased potential for downstream contamination of water sources.
Soils, Vegetation, and Reclamation	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. The proposed action as described in the amended Pinto Valley Mine Plan of Operations (MPO) would result in the short-term (<5 years) or long-term (20–30 years) loss of soils and vegetation through surface disturbance of up to 1,011 acres. Some areas could later be reclaimed and revegetated, but there would also be the permanent, irreversible loss of other areas that would, for example, be buried beneath expanded tailings impoundments or waste rock stockpiles or would be permanently lost to expansion of the pit area.
Noise and Vibration	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Continuation of mine operations for another 20+ years will contribute to equivalent or possibly increased noise and vibration levels perceptible to nearby residences and/or recreational users of adjacent lands. Because the effects of noise and vibration at the mine property are

Resource Category	Results of RFFA Screening
	geographically limited and very quickly attenuate with distance, analysis of those effects as a cumulative effect is not considered necessary. However, noise and vibrations from increased haul truck traffic may contribute to cumulative effects for residences and along major roadways.
Transportation and Access	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Continued mine operations will contribute to heavy haul truck traffic along U.S. 60 and other roadways in the area, as well as vehicular traffic from mine employees, contractors, and others coming to and from the PV mine.
Air Quality	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Scoping comments received by the Forest Service indicate a potential for increased emissions of criteria air pollutants as a result of expanded mine operations, including potentially significant increases in particulate matter and greenhouse gases. These emissions may also negatively affect designated Class I airsheds in the vicinity (e.g., wilderness areas, national parks).
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. The primary issues related to groundwater resources that will be thoroughly analyzed prior to any Record of Decision for the project include impacts to groundwater quantity in the Pinto Creek watershed resulting from water use by the mine, impacts to surface and groundwater quality from geochemically impacted seepage and surface water runoff, and impacts to surface water and groundwater from the formation of a pit lake after the mine closes. According to the scoping and issues report for the project (Tonto National Forest 2017): “The PVM Project requires, on average, an estimated 9,722 gallons of water per minute for on-site milling, dust control, potable water, and other uses. These water requirements are met by two pipeline supply systems originating from different basins and through the reuse of water within the PVM site. A portion of the water required for the PVM Project would continue to be withdrawn from groundwater wells in the Pinto Valley watershed, which, combined with continued dewatering operations in the pit for mine water supply, would result in groundwater drawdown. Groundwater pumping reduces the water level and changes the flow direction in the aquifer, potentially affecting groundwater availability and water use. As a result, groundwater pumping could potentially reduce groundwater available to recharge springs and streams such as Pinto Creek, thereby reducing surface water flow and potentially impacting the survival and long-term persistence of riparian vegetation.”
Water: Groundwater and Surface Water Quality	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. As noted above under groundwater quality, the primary concern with regard to water quality centers around the potential for geochemical seepage or runoff from tailings or other mine facilities into groundwater and surface waters within the Pinto Creek watershed. (It should be noted that Pinto Creek is an Arizona Department of Environmental Quality [ADEQ]-listed impaired water under §303(d) of the Clean Water Act—the waterway exceeds Arizona Water Quality Standards for dissolved copper.)

Resource Category	Results of RFFA Screening
Water: Surface Water Quantity	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. As noted above, key issues with regard to surface water quantity include significant groundwater pumping at the mine, which may diminish inflow into Pinto Creek and other waterways and reduce overall surface water volumes. In addition, stormwater management controls at the mine could further reduce the amount of surface water moving downstream in the Pinto Creek drainage.
Wildlife	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. As with soil and vegetation resources (see above), loss of up to 1,011 acres of current habitat is anticipated. Some portions of these areas may later be successfully reclaimed and revegetated, but other areas would remain permanently altered.
Recreation	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. It is unclear at this time how public recreational use of lands in the vicinity of the mine—particularly for hiking and hunting—may change as a result of expanded mine operations.
Public Health & Safety: Tailings Safety	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. There remains a risk of potential tailings dam or stability failures, the effects of which may threaten residents or visitors along Pinto Creek downstream from the mine.
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. There initially appears to be low risk of increased wildfire as the area around the mine is already substantially disturbed and little potential fuel for wildfire is present. It is assumed that MSHA regulations governing fire control within the area of actual mine operations are sufficient.
Public Health & Safety: Hazardous Materials	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Potential impacts to public health and safety include the potential for exposure from accidental spills of hazardous materials being transported to or from the mine. Because chemicals and other hazardous materials will also be used at the Resolution Copper Mine, analysis as a potential cumulative effect for this resource is necessary.
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed project is likely to have little substantive effect on scenic resources in the area, given that the Pinto Valley Mine has already been operating for decades and the visual quality in the immediate area has already been altered.
Cultural Resources	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. There is a likelihood that expansion of present mine operations would result in the permanent disturbance of existing archeological sites and artifacts in proximity to the mine.

Resource Category	Results of RFFA Screening
Socioeconomics	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. The proposed expansion and continuation of operations at the Pinto Valley Mine may result in a range of impacts—potentially both beneficial and adverse—to social and economic conditions in the region. These effects may include changes in overall employment and the types of job opportunities in the area; housing availability and property values; the general quality of available community services and infrastructure; as well as quality of life issues such as air quality, water quality and quantity, ease of transportation and access, and recreation.
Tribal Values and Concerns	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. No potential impacts to tribal concerns and issues from the proposed action or alternatives have yet been identified, but such concerns and issues, if any, may become known through future government-to-government tribal consultation.
Environmental Justice	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Proposed expansion and continuation of operations at the Pinto Valley Mine may negatively and disproportionately affect environmental justice communities in the area. For example, large-scale mining projects often result in a decrease in available, affordable housing in a given area because of a relatively sudden influx of workers to that same area, which thereby pushes up prices. Activity at the Pinto Valley Mine, in combination with other mining in the Globe-Miami-Superior-Kearny-Hayden area, may contribute to this well-documented phenomenon.
Livestock and Grazing	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. As yet, no potential effects on grazing permittees or established allotments have been identified. Because the proposed area of disturbance would primarily be on private lands owned by Pinto Valley Mining Corp. and the disturbance to Tonto National Forest lands would be relatively small (245 acres), the contributing adverse effects on regional rangeland are considered negligible.

Source:

U.S. Forest Service. 2017. Pinto Valley Mine Environmental Impact Statement Draft-Final Scoping and Issues Report. Available at:

http://www.pintovalleymineeis.us/documents/PVM_Scoping%20Report_Draft-Final_2017_0928.pdf. Accessed October 28, 2020.

U.S. Forest Service. 2019. Pinto Valley Mine Draft Environmental Impact Statement. Available at:

http://www.pintovalleymineeis.us/documents/PVM_Draft_EIS_2019_1213_Vol_1.pdf. Accessed December 2019. Accessed October 28, 2020.

Ray Land Exchange and Proposed Plan Amendment

Overview of RFFA

As originally proposed in 1994 to the BLM by the mining firm ASARCO LLC, a land exchange between the two parties would include approximately 10,976 acres of public lands and federally owned mineral estate located near ASARCO's Ray Mine Complex in east-central Arizona being conveyed to ASARCO. In exchange for these Federal lands, the BLM would acquire approximately 7,304 acres of private lands, primarily in northwestern Arizona, that possess resource qualities considered to be of significant value to the public.

An FEIS analyzing the impacts of the proposed exchange was completed in June 1999, and a Record of Decision was signed in May 2000. However, the analysis in the FEIS and the subsequent decision were challenged by a consortium of environmental groups, first by appeal through the Interior Board of Land Appeals and then by litigation. This legal action ultimately moved up to the Ninth Circuit Court of Appeals, which, in 2010, ruled that there was a fundamental flaw in the EIS analysis and remanded the EIS back to the BLM to correct the document. A Final Supplemental FEIS was published in March 2019.

Overall, while specific mining plans are not known, the intent to use these lands for mining operations is known and impacts can be assessed on that basis.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

A Supplemental EIS was completed and the land transfer was announced in May 2020. One condition before actual conveyance of selected land exchange parcels takes place would be mandatory data recovery of all identified archaeological sites, which may take 2 years or longer to accomplish. Additional exploratory drilling and analysis of the Copper Butte ore deposit or other areas of the selected lands may require several years after that.

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

Spatial rationale is presented within chapter 4 of the FEIS.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. ASARCO would gain exclusive rights and control of development of mineral resources on the selected lands. Mineral rights on the offered lands would be managed by the BLM as a public resource, except where restricted.

Resource Category	Results of RFFA Screening
Soils, Vegetation, and Reclamation	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Under the proposed action, there would likely be total loss of existing natural upland and riparian vegetation communities in areas with foreseeable mining uses. There would be no requirements for riparian reclamation.
Noise and Vibration	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Under the proposed action, noise and vibration impacts would likely occur in areas on the selected lands with foreseeable mining uses.
Transportation and Access	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Under the proposed action, holders and lessees of current and existing ROWs would negotiate directly with ASARCO regarding their status, terms, and conditions.
Air Quality	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Impacts would be addressed through Clean Air Act permitting. No additional mitigation measures could occur.
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Impacts would depend on use; however, under the proposed action potential water demand outside of foreseeable uses would not be analyzed through an MPO.
Water: Groundwater and Surface Water Quality	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Under the proposed action, post-closure groundwater quality protection would be solely authorized by ADEQ. Foreseeable mining uses on the selected lands would result in impacts to groundwater and surface water quality.
Water: Surface Water Quantity	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Under the proposed action, foreseeable mining uses on the selected lands would result in impacts to surface water quantity.
Wildlife	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Under the proposed action, there would likely be total loss of existing wildlife habitat in areas where high and moderate habitat potential intersect with foreseeable mining uses. BLM sensitive species would no longer be assessed on the selected lands. BLM would acquire new potential wildlife habitat through the offered lands.
Recreation	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Dispersed recreation within the selected lands would become fully unavailable. However, the offered lands would become available for recreation under BLM management. The selected lands would also see impacts to the “solitude” characteristics of the White Canyon ACEC and White Canyon Wilderness. Recreational settings on the Arizona National Scenic Trail would also be impacted.
Public Health & Safety: Tailings Safety	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. It is known that at some point ASARCO wishes to develop a copper mining operation at the “Copper Butte” area west of the Ray Mine. Tailings may be part of this development.

Resource Category	Results of RFFA Screening
Public Health & Safety: Fuels and Fire Management	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Under the proposed action, fire management on the selected lands would no longer be managed by their current, respective resource management plans.
Public Health & Safety: Hazardous Materials	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Under the proposed action, BLM would relinquish all regulatory, management, and administrative responsibility for hazardous materials on the selected lands. These issues would still be regulated under the MSHA.
Scenic Resources	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Under the proposed action, the selected lands would likely undergo significant changes to visual conditions and be permanently altered. Views from the Arizona Trail could be impacted as well. VRM classifications for the offered lands would be designated by BLM and BLM visual resource policy would apply for future land authorizations.
Cultural Resources	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Fifty-seven NRHP-eligible properties would be directly and adversely impacted by the proposed action.
Socioeconomics	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Under the proposed action, Pinal and Gila Counties would see increases in tax revenues and decreases in PILT revenues. In addition, a significant increase in full-time employment opportunity and new average wages is expected. Grazing economics and recreation-related spending would decrease overall.
Tribal Values and Concerns	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Five traditional cultural properties would be adversely impacted by the proposed action.
Environmental Justice	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Under the proposed action, EO 12898 would no longer be applicable on the selected lands. The offered lands would comply with EO 12898.
Livestock and Grazing	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Under the proposed action, livestock grazing would cease on the selected lands, resulting in a reduction of 1,151 AUMs, however, the offered lands could become available for Federal grazing.

Source:

Bureau of Land Management. 1999. Final Environmental Impact Statement Ray Land Exchange/Plan Amendment. BLM/AZ/PL-98/0013. June. Available at: https://eplanning.blm.gov/epl-front-office/projects/nepa/82268/125056/152487/RayLandExchange-Final_EIS_1999.pdf

U.S. Department of the Interior. 2019. *Ray Land Exchange, Final Supplemental Environmental Impact Statement/Proposed Plan Amendments*. Arizona State Office, Gila District Office. DOI-BLM-AZ-G020-2017-0025-EIS. March.

Red Top Exploration

Overview of RFFA

Red Top is a minerals exploration project involving use of existing roads to provide access for exploratory drilling at sites approximately 4 miles north of Superior, Arizona, on lands managed by the Tonto National Forest. The Plan of Operations stipulated that the proponent, Bronco Creek Exploration, would actively drill on a maximum of 10 sites out of 22 potential drilling locations the company had identified, with a maximum drilling depth at each site of 4,000 feet. Test results from the first several drill sites would be used to determine which of the remaining sites would be drilled. All drilling-related activities, including any reclamation deemed necessary, would be completed within a 12-month time frame.

Scoping for this project occurred in March 2015, with notification letters sent to Forest users and potentially affected Tribes inviting them to submit comments or express any concerns they might have about the project. The Globe Ranger District of the Tonto National Forest issued a Decision Memo approving the project through a categorical exclusion in May 2016.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

The exploratory drilling would begin in the next few years and continue over a 1-year period.

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

Spatial rationale is presented within chapter 4 of the FEIS.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Resource	Rationale for Analysis
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Installation of core holes for exploratory purposes is not likely to impact the ability to access geology or mineral resources in this area.
Soils, Vegetation, and Reclamation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Drilling will take place in mostly previously disturbed areas all drill sites will be reclaimed to their initial state immediately upon cessation of drilling.
Noise and Vibration	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Drilling, helicopter use, and vehicles will create temporary noise and vibration impacts.
Transportation and Access	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. The proposed project would use Forest Roads and has the potential to impact transportation and access in and around the project area.
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource and includes mitigation measures to control dust.

Resource	Rationale for Analysis
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource. There would be no discharges to surface tributaries, and, in accordance with Clean Water Act requirements, no pollutants would be discharged.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.
Wildlife	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Drilling will take place in mostly previously disturbed areas and the project includes mitigation measures to reduce impacts to wildlife.
Recreation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Tailings are not involved in the proposed project.
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Equipment containing hazardous materials will be used, however quantities and types are unknown. Typical drilling actions use containment ponds and best management practices to minimize potential for hazardous materials to impact the environment.
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource, or would only impact it temporarily until reclamation is completed and vegetation reestablished.
Cultural Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource. Pre-drilling clearance surveys would be conducted to avoid cultural resource sites.
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No major changes in employment or tax revenue are anticipated.
Tribal Values and Concerns	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource. Pre-drilling clearance surveys would be conducted to avoid cultural resource sites.
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.
Livestock and Grazing	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.

Sources:

U.S. Forest Service. 2015. Copper King and Red Top Mineral Exploration Projects. Available at: https://www.fs.usda.gov/nfs/11558/www/nepa/100959_FSPLT3_2425053.pdf. Accessed October 28, 2020.

U.S. Forest Service. 2016. Decision Memo: Red Top Mineral Exploration Project. Available at: https://www.fs.usda.gov/nfs/11558/www/nepa/100959_FSPLT3_3040027.pdf. Accessed October 28, 2020.

Ripsey Wash Tailings Project

Overview of RFFA

ASARCO LLC is proposing to construct a new tailings storage facility to support its Ray Mine operations. The proposed tailings storage facility, situated within the Ripsey Wash watershed just south of the Gila River approximately 5 miles west-northwest of Kearny, Arizona, would be located on 2,627 acres of private lands and 9 acres of BLM lands. The tailings facility would include two starter dams, new pipelines to transport tailings and reclaimed water, a pumping booster station, a containment pond, a pipeline bridge across the Gila River, and other supporting infrastructure. ASARCO has determined the new facility would support up to approximately 750 million tons of material (tailings and embankment material). A segment of the Arizona National Scenic Trail (Arizona Trail) would be relocated east of the tailings storage facility. A section of Florence-Kelvin Highway and a power line would also be rerouted.

The preliminary cumulative effects determinations below are largely based on results of the impact analysis contained in the *Ray Mine Tailings Storage Facility Final Environmental Impact Statement* (U.S. Army Corps of Engineers 2018).

There are no meaningful cumulative effects of the Ripsey Wash tailings storage facility in combination with the proposed Resolution Copper Mine, *except* if Alternative 5, the Peg Leg tailings storage facility location, is selected as the agency-preferred alternative. In that case, the proximity of the Ripsey Wash tailings storage facility and the Peg Leg tailings storage facility would have multiple cumulative effects on area resources, as indicated under the resource sections below.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

ASARCO estimates that the new tailings storage facility at Ripsey Wash would be able to support continued Ray Mine operations for approximately the next 40–50 years.

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

Spatial rationale is presented within chapter 4 of the FEIS.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Contributes to cumulative effects under the Resolution Mine EIS Alternative 5, the Peg Leg alternative. Approximately 2,640 acres of land would be occupied by the tailings facility itself, thus effectively removing that acreage from any future possible mining or other uses. No subsidence effects are foreseen.

Resource Category	Results of RFFA Screening
Soils, Vegetation, and Reclamation	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Contributes to cumulative effects under the Resolution Mine EIS Alternative 5, the Peg Leg alternative. As noted directly above, approximately 2,640 acres would be occupied by the tailings facility itself, thus permanently burying existing soils and vegetation within the tailings storage facility boundary. Other existing surface soils and vegetation will, for approximately the next 50 years, be overlain by tailings storage facility maintenance roads, slurry and water pipelines, and other supporting tailings facility infrastructure. The majority of these linear facilities could be removed and the underlying soils and vegetation reclaimed following facility closure.
Noise and Vibration	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Noise and vibration impacts associated with the Ripsey Wash tailings storage facility site would be short-term and primarily occur during early site development and construction activities, an estimated 3-year period that would include road building, starter dam construction, seepage trench installation, detention dam and diversion ditch construction, and miscellaneous pipeline and utility installation. Noise and vibrations during the operations phase are expected to be exceedingly minimal and unlikely to affect any persons beyond immediate proximity of the tailings storage facility. Major construction activities generating noise and vibrations from the Ripsey Wash location are highly unlikely to coincide with those at the Resolution Copper Project Peg Leg site, if that alternative is selected.
Transportation and Access	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Minor increase of approximately 115 vehicles per day along SR 177 during 3-year construction phase; during operations, only a negligible increase in project-associated vehicular traffic. Approximately 1.4 miles of the existing, unpaved Florence-Kelvin Highway would be rerouted to the north and northeast of the tailings storage facility site and replaced with paved (asphalt) road.
Air Quality	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Contributes to cumulative effects under the Resolution Copper Project EIS Alternative 5, the Peg Leg alternative. Project activities at the tailings storage facility would create both fugitive dust (particulates) and gaseous emissions from vehicles and other equipment, primarily during the construction activities, but these emissions would be localized and are not expected to cause any discernible impacts to existing ambient air quality of the region.

Resource Category	Results of RFFA Screening
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	<p>Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Construction and operation of the tailings storage facility would temporarily increase recharge to the Quaternary deposits from the footprint area of the tailings storage facility. Down-gradient seepage trenches will be constructed to capture groundwater movement through the Quaternary deposits beneath the tailings storage facility, and this water would be returned to the Ray Concentrator for reuse. This activity would eliminate recharge to the Gila River. The loss of recharge to the Gila River Quaternary deposits would be less than 0.02 percent of Gila River basin recharge.</p> <p>Following closure, infiltration into the underlying alluvium and bedrock would decrease because tailings slurry would no longer be applied to the top of the tailings storage facility; the tailings themselves have low permeability and over time would consolidate, further decreasing permeability; and some water would be entrapped within the tailings. ASARCO will continue to operate its seepage collection and pump-back systems following closure to prevent seepage from entering the Gila River.</p>
Water: Groundwater and Surface Water Quality	<p>Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Results of geochemistry characterization and testing on the proposed tailings and borrow materials reveal a low potential to impact groundwater or surface water with the design and operational safeguards proposed for the tailings storage facility. Kinetic testing revealed a low potential for any acid generation from tailings materials and confirmed that alluvium material to be used for construction activities are not acid-generating. The meteoric water mobility testing on both tailings and alluvium material also revealed that possible dissolution and mobilization of minerals from these materials are low.</p>
Water: Surface Water Quantity	<p>Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. The construction and operation of the Ripsey Wash tailings storage facility would remove runoff potential from approximately 16 percent of the Ripsey Wash drainage basin and approximately 20 percent of the East Wash drainage basin. However, the overall runoff loss to the Gila River from the tailings storage facility is considered negligible, amounting to about 0.018 percent of the Gila River watershed.</p> <p>In addition, the tailings storage facility would result in the direct disturbance of approximately 130.91 acres of jurisdictional ephemeral drainages that would be filled, excavated, dewatered or subject to surficial disturbances, resulting in the loss or significant modification of their form, functions, and values.</p>
Wildlife	<p>Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. General effects on wildlife from the Ripsey Wash tailings storage facility would be the physical loss of habitat and habitat fragmentation. Impacts to threatened, endangered and sensitive species such as southwestern willow flycatcher (endangered) and the yellow-billed cuckoo (threatened) are expected to be indirect and minor.</p>

Resource Category	Results of RFFA Screening
Recreation	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Dispersed recreational opportunities such as OHV riding, hiking, camping, and hunting would be affected by the construction and operation of the Ripsey Wash tailings storage facility. The Arizona Trail immediately adjacent to the tailings storage facility footprint would require relocation of approximately 6.8 miles of existing trail with about 6.4 miles of new trail construction primarily along the eastern slopes of the Tortilla Mountains and about 0.2 miles of shared use along Riverside Drive. The Arizona Trail experience on the realigned trail would be affected over the short term (approximately 3 years) by noise and visual effects from construction of the tailings storage facility and the realigned Florence-Kelvin Highway. After construction, trail users would continue to experience visual impacts from the tailings storage facility and realigned highway, as well as some traffic noise.
Public Health & Safety: Tailings Safety	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. According to the Final EIS (U.S. Army Corps of Engineers 2017), The engineering design of the Ripsey Wash TSF embankment and seepage control system and other associated structures such as the detention dams, diversion channels and ponds must be in compliance with the Arizona DEQ APP regulations and guidelines. The APP considers geotechnical, geohydrological and stability issues. The Arizona DEQ specifies criteria in the APP application that the TSF design must meet Arizona BADCT. Specific criteria and the process to be followed in selecting Arizona BADCT are presented in the Arizona Mining Guidance Manual BADCT (ADEQ 2004) and in compliance with Arizona Revised Statute (ARS) 40- 243.B.1. The Arizona DEQ has approved the APP for the Ripsey Wash TSF. The approved APP complies with Arizona BADCT stability criteria.”
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The presence of the tailings storage facility is considered to present very low increased risk of wildfire, as virtually no flammable materials would be present other than gasoline in company and employee vehicles and construction equipment, lubricating oils for pumps and other machinery, and the like.
Public Health & Safety: Hazardous Materials	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. The potential for accidental spills always exists, although risk is considered low given safety awareness and safety precaution measures. The tailings pipeline across Gila River will be double-cased, and a tailings collection pond will be in place in the event of a problem or maintenance issue. Spill control contingency plans required by APP by ADEQ are in place to handle accidents and spills.

Resource Category	Results of RFFA Screening
Scenic Resources	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. The Ripsey Wash tailings storage facility would result in large-scale, permanent changes in the landscape that would create strong visual contrasts and cause major and highly noticeable changes to the area's existing character. The tailings storage facility at full build-out would be visible from portions of the Florence-Kelvin Highway, SR 177, the Arizona Trail, and various OHV routes in the vicinity. The facility would also be visible in the background view from the White Canyon Wilderness, although views of the tailings storage facility from the wilderness would be from relatively inaccessible areas with rugged and steep terrain that are expected to have limited public visitation.
Cultural Resources	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Twenty-two identified NRHP-eligible sites are located within the Ripsey Wash tailings storage facility permit area, and one nearby site (the Florence-Kelvin Highway bridge, known locally as the Kelvin Bridge) is already on the NRHP. Development of the tailings storage facility would adversely affect the 22 NRHP-eligible sites located within the project footprint, but the Kelvin Bridge would not be affected.
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The construction of a new tailings storage facility is estimated to provide up to 200 jobs to the Pinal County workforce during the estimated 3 years of construction activity, but employment levels would return to current levels once tailings storage facility operations commence, as the new tailings storage facility is simply designed to replace the existing Elder Gulch tailings storage facility and would be operated with the current on-site workforce. The relatively short duration of the construction period is not expected to result in any longer-term effects on local schools, law enforcement, hospitals, or other community infrastructure. Analysis for cumulative effects is not considered necessary, given the relatively low increase in economic activity associated with construction of the tailings storage facility and the fact there would be no temporal construction-time overlap between the Ripsey Wash tailings storage facility and the Resolution Copper Project EIS Peg Leg alternative tailings storage facility, if that location were selected.
Tribal Values and Concerns	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. No significant effects on tribal concerns or values as a result of the project have been identified. However, a cumulative effects analysis is required.
Environmental Justice	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Disproportionate impacts to environmental justice communities are expected.
Livestock and Grazing	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Contributes to cumulative effects under the Resolution Copper Project EIS Alternative 5, the Peg Leg alternative. There would be relatively minor change to existing grazing allotments, with the A Diamond allotment losing 2,426 acres or about 11.5 percent of area; and the Rafter Six allotment being reduced by 149 acres, or about 0.06 percent of allotment.

Source:

U.S. Army Corps of Engineers. 2018. *Ray Mine Tailings Storage Facility Final Environmental Impact Statement*. Phoenix, Arizona. August.

U.S. Army Corps of Engineers. 2018. *Ray Mine Tailings Storage Facility Final Environmental Impact Statement: Record of Decision*. Phoenix, Arizona. December 14.

Ruiz Grazing Allotment, Grazing Lease Renewals

Overview of RFFA

The Ruiz Grazing Allotment is approximately 13,843 acres including 710 acres of lands administered by the BLM Tucson Field Office, 11,561 acres of lands administered by the Arizona State Land Department (ASLD), and 1,557 acres of private land. Each agency/private owner administers grazing leases on their respective lands, and not the entire allotment. The southern boundary of the Ruiz Allotment is adjacent to U.S. 60, and is about 9 miles east of the town of Superior in Pinal County, Arizona. *Note: all acreages are approximate.*

BLM

There is no publicly accessible data for BLM portions of the Ruiz Allotment (710 acres) (BLM 2019a), therefore, the status of the Ruiz Allotment (active or non-active grazing allotment), number of cattle authorized for year-round use, and permitted AUMs on BLM lands is unknown.

Under NEPA, BLM's lease renewal will require an EA reauthorizing the grazing within the allotment and any proposed rangeland improvements. There is no current EA available for this allotment, however, this evaluation assumes that cattle grazing and minor range improvements are currently occurring on the BLM portions of the allotment, and that the grazing lease for these activities will be renewed when it expires.

ASLD

The grazing lease for ASLD portions of the Ruiz Allotment is held by Ruiz Ranch Inc., which leases about 11,561 acres over multiple parcels from ASLD. The lease (KE 5-103440) allows grazing for up to 1,246 AUMs. Lease details are not readily available. Therefore, this evaluation assumes that the ASLD grazing lease would include renewal of the lease for a term of up to 10 years. It is assumed that the lease renewal would provide for minor range improvements such as repair or maintenance of existing fences, cattle guards, stock tanks, etc. No new roads or other facilities would be constructed under the grazing lease.

Private Ownership

Approximately 1,557 acres of private land exists within the Ruiz Allotment. However, the owner administers grazing on private lands. Public records are not available. For the purposes of this evaluation, we have assumed that existing grazing practices on private lands would continue unchanged with no term limits. We have assumed that grazing on private lands likely would include minor range improvements such as repair or maintenance of existing fences, cattle guards, stock tanks, etc. Substantial private development such as roads, housing, and commercial facilities are possible, but none are anticipated.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

The exact timing of grazing lease renewals and/or rangeland improvements is unknown. However, a reasonable assumption is that they would be implemented on the Ruiz Allotment throughout the expected life of the Resolution Copper mine (50 to 55 years).

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

Spatial rationale is presented within chapter 4 of the FEIS.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Overall conclusion: Range allotment plans are used to actively manage authorized livestock grazing to address potentially adverse effects of permitted activities on natural and cultural resources. This RFFA would renew existing permits involving the same acres and AUMs. Minor and localized impacts would be addressed via active management by way of the range allotment management plans. With the exception of livestock grazing itself, existing conditions and trends would continue but there would be no cumulative effects.

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Soils, Vegetation, and Reclamation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Noise and Vibration	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Transportation and Access	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Wildlife	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Recreation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.

Resource Category	Results of RFFA Screening
Cultural Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Tribal Values and Concerns	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Livestock and Grazing	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Grazing allotments will be affected in varying degrees by the proposed Resolution Copper Project activities and alternatives. The degree of impacts would depend upon the activity.

Source:

Arizona State Land Department. 2019. State Land Department Online Map Server, showing parcel ownership and grazing allotment data. Available at: <http://gis.azland.gov/webapps/parcel/>. Accessed April 22, 2019.

Bureau of Land Management. 2019a. Rangeland Administration System Reports, showing Authorization Used by Allotment for the Tucson Field Office. Available at: <https://reports.blm.gov/report/ras/3/Authorization-Use-by-Allotment>. Accessed April 22, 2019.

_____. 2019b. BLM Grazing Allotment Polygons, spatial data for geographic information systems. Available at: <https://catalog.data.gov/dataset/blm-grazing-allotment-polygons>. Accessed April 15, 2019.

U.S. Fish and Wildlife Service. 2003. *Biological Opinion: Livestock Grazing on 18 Allotments Along the Middle Gila River Ecosystem*. AESO/SE 02-21-00-F-0029. Phoenix, Arizona: U.S. Fish and Wildlife Service. October 23.

Silver Bar Mining Regional Landfill and Cottonwood Canyon Road

Overview of RFFA

AK Mineral Mountain, LLC, NL Mineral Mountain, LLC, POG Mineral Mountain, LLC, SMT Mineral Mountain, LLC, and Welch Mineral Mountain, LLC proposed to build a municipal solid waste landfill on private property surrounded by BLM land in an area known as the Middle Gila Canyons area. In 2007, Pinal County rezoned the private land to authorize development of the landfill, known as the Silver Bar Mining Regional Landfill. In 2009, the owners/developers received a Master Facility Plan Approval from ADEQ.

There is no way to access the proposed landfill without crossing BLM land. The owners/developers and Pinal County have applied for a BLM ROW grant and Temporary Use Permit for two temporary construction sites to obtain legal access to the private property and authorization of the needed roadway improvements. The proposed action includes improving a portion of the existing Cottonwood Canyon Road and a portion of the existing Sandman Road in order to accommodate two-way heavy truck traffic to and from the proposed landfill. Both access roads are located on BLM land with a portion of Cottonwood Canyon Road also on land owned by ASLD.

A BLM Environmental Assessment for this proposed action was completed in April 2017, and a Finding of No Significant Impact (FONSI) for this action was issued on May 5, 2017. Under the proposed action, approximately 6 miles of Cottonwood Canyon Road, including approximately 0.4 miles on BLM-administered land and approximately 5 miles on State Trust land, and approximately 0.6 miles of Sandman Road on BLM-administered land, would be improved. The access road on BLM-administered land would be widened to 44 feet as needed.

The owners/developers are also requesting a Temporary Use Permit for two temporary construction sites on BLM-administered land for construction of two culverts as part of the proposed roadway improvements.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

The overall life of the proposed landfill is 50 years.

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

Spatial rationale is presented within chapter 4 of the FEIS.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed ROW is subject to valid, existing right of mining claimants. However, the project does not affect claimants' access to their claims.

Resource Category	Results of RFFA Screening
Soils, Vegetation, and Reclamation	<p>Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Construction on Cottonwood Canyon Road may increase the potential for introduction and/or spread of noxious weeds and invasive plants, however this impact would be minimal due to the small amount of new ground disturbance. In addition, landfill traffic and activities could increase potential for the introduction of weed seed.</p> <p>Approximately 4 acres of creosote bush-bursage vegetation and 11.2 acres of Arizona upland desert scrub would be removed to expand Cottonwood Canyon Road. Development of the landfill would result in the clearing of 350 acres of vegetation.</p> <p>Two BLM sensitive species, Pima Indian mallow and Tumamoc globeberry, have the potential to occur within the project limits and within the landfill parcel. However, no species occurrence records exist within the project vicinity and no individuals were located during surveys for protected native plants in either the landfill or the project limits.</p>
Noise and Vibration	<p>Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Noise and vibration impacts may increase slightly due to changes in traffic volumes as well as ground-disturbing activities.</p>
Transportation and Access	<p>Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Traffic generated by the planned landfill would significantly increase the overall annual daily traffic on Cottonwood Canyon Road. Greater safety risk may occur on this road due to the mixed use of OHVs and truck traffic to and from the proposed landfill.</p> <p>Mineral Mountain Road and Price Road are likely to be impacted by displaced traffic due to temporary closures and disruption of access on Cottonwood Canyon Road.</p>
Air Quality	<p>Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The overall impacts to air quality during construction would be minor. Dust would be managed through reasonably available control technologies and best management practices, and construction activities would be temporary. Construction activities would temporarily increase emissions; however these emissions are not likely to result in violations of ambient air quality standards and/or hazardous pollutant thresholds.</p> <p>During operations, increased truck traffic on Cottonwood Canyon Road would have a negligible impact on local air quality. Mitigation would be used to manage fugitive dust and as a result, the proposed action will not increase fugitive dust or add to particulate matter emissions from other sources. Net impacts to air quality would be negligible.</p>
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	<p>Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. A site groundwater monitoring plan (GWMP) has been prepared. As part of the GWMP, groundwater monitoring would be performed and is designed to identify environmental impacts associated with the landfill prior to beginning operations. Monitoring would continue for at least 2 years. Impacts to groundwater quantity would be measured through piezometers and the on-site well.</p>
Water: Groundwater and Surface Water Quality	<p>Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Water quality impacts that have the potential to occur would be minimized and mitigated through Stormwater Pollution Prevention</p>

Resource Category	Results of RFFA Screening
	<p>Plan (SWPPP) best management practices. Impacts are predicted to be minor and temporary. Road improvements may facilitate the movement of water and lessen the amount of silt, debris, and sand that typically is washed downstream and across the road.</p> <p>Portions of the landfill site would lie below current groundwater levels. The proposed landfill would have groundwater inflow (inward gradient) which results in reduced potential to impact groundwater. Groundwater will be collected and evaluated for any significant leachate leaks.</p> <p>Overall, the preoperational GWMP and closure and post-closure care (CPC) phase would ensure that the impacts within the project area of the proposed landfill on water quality are eliminated.</p>
Water: Surface Water Quantity	<p>Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. An unnamed ephemeral wash passing through the landfill site would be impacted by the landfill's construction. No proposed landfill may be located within 0.5 mile of a 100-year floodplain with flows in excess of 25,000 cubic feet per second (cfs), however the hydrological analysis generated 100-year peak flow on Cottonwood Canyon Wash of less than 3,800 cfs.</p>
Wildlife	<p>Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. One endangered, one proposed, and two candidate species were identified as having the potential to be affected by the proposed action: lesser long-nosed bat, acuña cactus, Sonoran desert tortoise, and Tucson shovel-nosed snake, respectively. It has been determined that this project will not affect the lesser long-nosed bat or the acuña cactus. It may impact individual Sonoran desert tortoises and Tucson shovel-nosed snakes but will not result in a trend toward Federal listing or loss of viability. Conservation measures will be implemented to alleviate impacts to the Sonoran desert tortoise and the Tucson shovel-nosed snake.</p> <p>Migratory birds would be directly impacted by the proposed action due to ground disturbance and/or vegetation removal during construction as well as temporary increases in noise associated with construction activities.</p> <p>Construction of the proposed landfill would result in the destruction of nesting substrate for migratory birds. This destruction would occur primarily in areas of undisturbed desert scrub. In addition, collection of water during landfill operations may attract migratory birds and could result in direct impacts if the contaminated water is consumed.</p>
Recreation	<p>Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. This project will improve and maintain road conditions on Cottonwood Canyon Road for landfill haul truck traffic. As a result, the road will be made more reliable for use by road and street vehicles used by recreational visitors.</p> <p>The proposed action would result in the loss of recreation parking areas on BLM land, however a new parking area for the public is proposed on the landfill property. Adverse effects are expected as the proposed new parking area does not appear to be sufficient for current recreational users. As a result, recreational users are likely to lead to resource damage by creating new turnouts or enlarging existing turnouts on BLM land east of the Sandman Road intersection.</p> <p>Recreational access would be temporarily impacted along Cottonwood Canyon Road during construction. Recreational users would be detoured and would be likely to impact existing parking areas along Mineral Mountain Road.</p>

Resource Category	Results of RFFA Screening
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. There are no tailings involved in this ROW and landfill development project.
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. A site health and safety plan would be prepared for possible emergency situations, including those involving fire.
Public Health & Safety: Hazardous Materials	<p>Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed project would have no impact on the generation of hazardous materials as the proposed landfill would adhere to Federal municipal solid waste landfill standards, therefore generation of hazardous materials are not expected.</p> <p>It is possible there may be spills of fuel, lubricants, and/or antifreeze during construction that would require clean-up and proper disposal. In addition, the designated parking site for recreation users on the private property would contain a waste disposal area for users of BLM-administered land which may help to reduce illegal dumping and excessive trash on State Trust and BLM-administered land.</p>
Scenic Resources	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. The slight widening of the road to accommodate drainage would not have an impact on the overall characteristics of the landscape, however the proposed landfill would be visible from State Route 79, U.S. Route 60, and Cottonwood Canyon Road. Visual impacts would be greatest on Cottonwood Canyon Road.
Cultural Resources	<p>Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. The proposed road improvements facilitated by the proposed action create an adverse effect on six NRHP-eligible cultural sites located along Cottonwood Canyon Road. Three sites of unknown NRHP eligibility would require eligibility testing and three sites that have been recommended eligible for the NRHP would require data recovery. Additionally, one cultural resource site that is outside the area of potential effects, but sufficiently close enough that it may be impacted, has been recommended eligible.</p> <p>Impacts are also associated with the development of the landfill. Three NRHP recommended eligible sites would be adversely impacted and mitigation is necessary to resolve the adverse effects.</p> <p>The proposed action will involve ground-disturbing activities that may have indirect impacts through increases in human activity which could result in additional surface disturbance where cultural resources exist as well as a potential increase in looting and artifact theft in an area that was previously low use. These indirect impacts would be both short- and long-term.</p>
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The project would allow for the development of a new municipal solid waste landfill in the east valley and northern Pinal County. Should contracts be secured, the size of the landfill would allow for the disposal of all Pinal County municipal solid waste to stay in Pinal County, resulting in less trash-hauling traffic and lower municipal solid waste disposal costs for residents of Pinal County and possibly eastern Maricopa County. However, the associated economic impacts of this development would be considered relatively minor on a larger scale.

Resource Category	Results of RFFA Screening
Tribal Values and Concerns	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. BLM management objectives require the protection and preservation of tribal cultural and sacred sites and access to those sites wherever possible. All areas of the proposed action were surveyed, and the BLM will devise a Memorandum of Agreement to be signed by the Tribes, State Historic Preservation Office, and all other cooperating agencies. Tribes will also be provided with periodic project updates and requests for participation.
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The project is not expected to have any impact on environmental justice communities.
Livestock and Grazing	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Grazing permits would not be altered by the proposed action.

Source:

Bureau of Land Management, 2017. Cottonwood Canyon Road Right-of-Way: Final Environmental Assessment. BLM Case File No. AZA 35539. BLM EA No. AZ-G020-2011-0017. Spring. Available at: https://eplanning.blm.gov/epl-front-office/projects/nepa/40151/106704/130522/Cottonwood_Canyon_Road_ROW_Final_EA_AZ-G020-2011-0017_ACS_05.15.pdf. Accessed October 28, 2020.

Bureau of Land Management, 2017. Finding of No Significant Impact. Right-of-Way Grant for Cottonwood Canyon Road and a Portion of Sandman Road. NEPA No. DOI-BLM-AZ-G020-2011-0017-EA. Available at: https://eplanning.blm.gov/epl-front-office/projects/nepa/40151/106707/130525/FONSI_Cottonwood_05.05.17_esignature.pdf. Accessed October 28, 2020.

Slash S Grazing Allotment, Grazing Lease Renewals

Overview of RFFA

The Slash S Grazing Allotment is approximately 18,398 acres including 15,351 acres of lands administered by the Arizona State Land Department (ASLD), and 2,971 acres of private land. Although there are 25 acres of land administered by the BLM Tucson Field Office, comments on the DEIS from BLM indicate that BLM does not maintain a grazing lease in this allotment. Each agency/private owner administers grazing leases on their respective lands, and not the entire allotment. The Slash S Allotment is located about 10 miles southeast of U.S. 60 and the town of Superior in Pinal County, Arizona. *Note: all acreages are approximate.*

ASLD

The grazing lease for ASLD portions of the Slash S Allotment is held by Webb Cattle Company, which leases about 11,351 acres over multiple parcels from ASLD. The lease (KE 5-804) allows grazing for up to 5,757 AUMs. Lease details are not readily available; therefore, this evaluation assumes that the ASLD grazing lease would include renewal of the lease for a term of up to 10 years. It is assumed that the lease renewal would provide for minor range improvements such as repair or maintenance of existing fences, cattle guards, stock tanks, etc. No new roads or other facilities would be constructed under the grazing lease.

Private Ownership

Approximately 2,971 acres of private land exists within the Slash S Allotment; however, grazing on private lands is administered by the owner, and public records are not available. For the purposes of this evaluation, we have assumed that existing grazing practices on private lands would continue unchanged with no term limits. We have assumed that grazing on private lands would likely include minor range improvements such as repair or maintenance of existing fences, cattle guards, stock tanks, etc. Substantial private development such as roads, housing, and commercial facilities are possible, but none are anticipated.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

The exact timing of grazing lease renewals and/or rangeland improvements is not known; however, it can be reasonably assumed that they would be implemented on the Slash S Allotment throughout the expected life of the Resolution Copper mine (50 to 55 years).

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

Spatial rationale is presented within chapter 4 of the FEIS.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Overall conclusion: Range allotment plans are used to actively manage authorized livestock grazing to address potentially adverse effects of permitted activities on natural and cultural resources. This RFFA would renew existing permits involving the same acres and AUMs. Minor and localized impacts would

be addressed via active management by way of the range allotment management plans. With the exception of livestock grazing itself, existing conditions and trends would continue but there would be no cumulative effect.

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Soils, Vegetation, and Reclamation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Noise and Vibration	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Transportation and Access	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Wildlife	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Recreation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Cultural Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Tribal Values and Concerns	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.

Resource Category	Results of RFFA Screening
Livestock and Grazing	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Grazing allotments will be affected in varying degrees by the proposed Resolution Copper Project activities and its alternatives. The degree of impacts would be dependent upon the activity.

Source:

Arizona State Land Department. 2019. State Land Department Online Map Server, showing parcel ownership and grazing allotment data. Available at: <http://gis.azland.gov/webapps/parcel/>. Accessed April 22, 2019.

Bureau of Land Management. 2019a. Rangeland Administration System Reports, showing Authorization Used by Allotment for the Tucson Field Office. Available at: <https://reports.blm.gov/report/ras/3/Authorization-Use-by-Allotment>. Accessed April 22, 2019.

_____. 2019b. BLM Grazing Allotment Polygons, spatial data for geographic information systems. Available at: <https://catalog.data.gov/dataset/blm-grazing-allotment-polygons>. Accessed April 15, 2019.

U.S. Fish and Wildlife Service. 2003. *Biological Opinion: Livestock Grazing on 18 Allotments Along the Middle Gila River Ecosystem*. AESO/SE 02-21-00-F-0029. Phoenix, Arizona: U.S. Fish and Wildlife Service. October 23.

South Mesa Abandoned Mines

Overview of RFFA

The South Mesa Abandoned Mines project is a proposal for closure of a variety of abandoned mining features using methods recommended by Bat Conservation International (BCI). The 20 features are located in the vicinity of the southern edge of the Superstition Wilderness, approximately 17 miles east of Apache Junction (in Pinal County, Arizona), and in the vicinity of the western edge of Superstition Wilderness approximately 7 miles north of Apache Junction (in Maricopa County, Arizona). Specific closure methods as recommended by BCI were proposed for each of the 20 identified shafts and adits.

A scoping document outlining the project purpose and need as well as descriptions of the various mine feature closure options that would be employed at each location was published in September 2020. It was envisioned that closure work would begin in November 2020, and be completed prior to November 2021.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

The mine closures could be completed before the Resolution Copper Project, if on schedule, but also have the potential to overlap with project activities.

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

Spatial rationale is presented within chapter 4 of the FEIS.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Resource	Rationale for Analysis
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Mineral development, if required, could be implemented in these areas if needed, regardless of closures.
Soils, Vegetation, and Reclamation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Areas affected are largely disturbed abandoned mine lands.
Noise and Vibration	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Closure would likely create some temporary noise impacts.
Transportation and Access	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Traffic for mine closure work would be no more than several vehicles and temporary in nature.
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource and includes mitigation measures to control dust.
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.

Resource	Rationale for Analysis
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource. There would be no discharges to surface tributaries, and, in accordance with Clean Water Act requirements, no pollutants would be discharged.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.
Wildlife	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Bats could presumably be present in the areas to be closed, with potential temporary impacts.
Recreation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Tailings are not involved in the proposed project.
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The actions would take place largely on already disturbed, hard-rock areas.
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Equipment containing hazardous materials likely will not be used.
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource or would only impact it temporarily until abandoned mines are closed.
Cultural Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource. Clearance surveys would be conducted to avoid cultural resource sites.
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No major changes in employment or tax revenue are anticipated.
Tribal Values and Concerns	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Clearance surveys would be conducted to avoid cultural resource sites.
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.
Livestock and Grazing	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.

Sources:

U.S. Forest Service. 2020. Purpose and Need: South Mesa Abandoned Mine Lands Project. Available at: https://www.fs.usda.gov/nfs/11558/www/nepa/114410_FSPLT3_5350816.pdf. Accessed October 28, 2020.

Southline Transmission Project

Overview of RFFA

The Southline Transmission Project is a proposed transmission line designed to collect and transmit electricity across southern New Mexico and southern Arizona, bringing electric system benefits to the Desert Southwest, one of America's fastest-growing regions. The project will provide up to 1,000 megawatts of transmission capacity in both directions, and will interconnect with up to 14 existing substation locations. The project consists of two sections:

- approximately 240 miles of new, 345-kilovolt (kV) double-circuit transmission lines between the existing substations at Afton (New Mexico) and Apache (Arizona); and
- a series of upgrades to approximately 120 miles of existing transmission lines (from single-circuit 115-kV to double-circuit 230-kV) between the Apache (Arizona) and Saguaro (Arizona) substations.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

Construction expected to begin in 2021.

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

Spatial rationale is presented within chapter 4 of the FEIS.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Any conflicts of surface uses with mining claims would be resolved as appropriate under mineral regulations.
Soils, Vegetation, and Reclamation	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. The proposed action may increase the quantity of existing and new invasive plant species within the project area through the transfer and spread of weed seeds and ground disturbance associated with access and staging actions. Project would result in permanent soil and vegetation disturbances.
Noise and Vibration	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.
Transportation and Access	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.

Resource Category	Results of RFFA Screening
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Through incorporation of applicant committed environmental protection measures, impacts to water quality would be eliminated or mitigated so that they are not deemed significant.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Through incorporation of applicant committed environmental protection measures, impacts to surface water quantity would be eliminated or mitigated so that they are not deemed significant.
Wildlife	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. The project has the potential to impact wildlife.
Recreation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Tailings are not involved in this project.
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.
Scenic Resources	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. The proposed action would have permanent impacts on scenic resources.
Cultural Resources	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. The proposed action will adversely impact cultural resources within the area of potential effects (APE).
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.
Tribal Values and Concerns	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. The proposed action will adversely impact cultural resources within the APE.
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.
Livestock and Grazing	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not result in any impacts to current permittees or livestock rotations on allotments near the project area.

Sources:

<http://www.southlinetransmissionproject.com/index.html>

SunZia Southwest Transmission Project

Overview of RFFA

A 520-mile, new 500-kV transmission line through central New Mexico and southern Arizona.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

Construction expected to begin in 2022.

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

Spatial rationale is presented within chapter 4 of the FEIS.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Any conflicts of surface uses with mining claims would be resolved as appropriate under mineral regulations.
Soils, Vegetation, and Reclamation	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. The proposed action may increase the quantity of existing and new invasive plant species within the project area through the transfer and spread of weed seeds and ground disturbance associated with access and staging actions. Project would result in permanent soil and vegetation disturbances.
Noise and Vibration	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.
Transportation and Access	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Through incorporation of applicant committed environmental protection measures, impacts to water quality would be eliminated or mitigated so that they are not deemed significant.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Through incorporation of applicant committed environmental protection measures, impacts to surface water quantity would be eliminated or mitigated so that they are not deemed significant.
Wildlife	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. The proposed action has the potential to impact wildlife.

Resource Category	Results of RFFA Screening
Recreation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Tailings are not involved in this project.
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.
Scenic Resources	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. The proposed action would have permanent impacts on resource.
Cultural Resources	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. The proposed action will adversely impact cultural resources within the APE.
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.
Tribal Values and Concerns	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. The proposed action will adversely impact cultural resources within the APE.
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.
Livestock and Grazing	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not result in any impacts to current permittees or livestock rotations on allotments near the project area.

Sources:

Sunzia. 2020. Sunzia Homepage. Available at: <https://sunzia.net/timeline/>. Accessed October 28, 2020.

Superior Grazing Allotment, Grazing Lease Renewals

Overview of RFFA

The Superior Grazing Allotment is approximately 58,671 acres and located on 56,139 acres of land administered by the Tonto National Forest, 233 acres of land administered by the BLM Tucson Field Office, and 2,971 acres of private land. Although 1.6 acres of land is administered by the Arizona State Land Department (ASLD), this evaluation assumes ASLD does not maintain a grazing lease for this allotment. Each agency/private owner administers grazing leases on their respective lands, and not the entire allotment. The Superior Allotment is adjacent to U.S. 60 and the town of Superior in Pinal County, Arizona. *Note: all acreages are approximate.*

U.S. Forest Service

Approximately 56,139 acres of the Superior Allotment are managed by the Tonto National Forest. An Application for Term Grazing Permit was submitted on March 5, 2010. It was recommended that 314 cattle graze on the allotment from January 1 through December 31, and 174 yearlings graze on the allotment from January 1 through May 31.

No information on AUM values is currently available from the Forest Service regarding this allotment and no supporting NEPA documentation is readily retrievable from the Tonto National Forest's website. However, for the purposes of this evaluation, we have assumed that the Forest Service does permit grazing and minor range improvements on their 56,139 acres within the Superior Allotment. This evaluation assumes that, like BLM, the Forest Service grazing lease renewal will require an EA be completed when the current lease expires.

The Superior Allotment was not listed as a Current Major Project, or listed in the Project Archives for Tonto National Forest (USDA Forest Service, Tonto National Forest 2019).

BLM

There is no BLM grazing allotment information or supporting NEPA documentation for BLM portions of the Superior Allotment (233 acres) (BLM 2019a), therefore, the status of the Superior Allotment (active or non-active grazing allotment), number of cattle authorized, and permitted AUMs on BLM lands is unknown.

Under NEPA, BLM's lease renewal will require an EA reauthorizing the grazing within the allotment and the proposed rangeland improvements. There is no current EA available for this allotment, however, this evaluation assumes that cattle grazing and minor range improvements are currently occurring on the BLM portions of the allotment, and that the grazing lease for these activities will be renewed when it expires.

Private Ownership

Approximately 2,971 acres of private land exists within the Superior Allotment; however, grazing on private lands is administered by the owner, and public records are not available. For the purposes of this evaluation, we have assumed that existing grazing practices on private lands would continue unchanged with no term limits. We have assumed that grazing on private lands would likely include

minor range improvements such as repair or maintenance of existing fences, cattle guards, stock tanks, etc. Substantial private development such as roads, housing, and commercial facilities are possible, but none are anticipated.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

The exact timing of grazing lease renewals and/or rangeland improvements is not known; however, it can be reasonably assumed that they would be implemented on the Superior Allotment throughout the expected life of the Resolution Copper mine (50 to 55 years).

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

Spatial rationale is presented within chapter 4 of the FEIS.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Overall conclusion: Range allotment plans are used to actively manage authorized livestock grazing to address potentially adverse effects of permitted activities on natural and cultural resources. This RFFA would renew existing permits involving the same acres and AUMs. Minor and localized impacts would be addressed via active management by way of the range allotment management plans. With the exception of livestock grazing itself, existing conditions and trends would continue but there would be no cumulative effect.

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Soils, Vegetation, and Reclamation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Noise and Vibration	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Transportation and Access	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Wildlife	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Recreation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.

Resource Category	Results of RFFA Screening
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Cultural Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Tribal Values and Concerns	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Livestock and Grazing	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Grazing allotments will be affected in varying degrees by the proposed Resolution Copper Project activities and its alternatives. The degree of impacts would be dependent upon the activity.

Source:

Bureau of Land Management. 2019a. Rangeland Administration System Reports, showing Authorization Used by Allotment for the Tucson Field Office. Available at: <https://reports.blm.gov/report/ras/3/Authorization-Use-by-Allotment>. Accessed April 22, 2019.

_____. 2019b. BLM Grazing Allotment Polygons, spatial data for geographic information systems. Available at: <https://catalog.data.gov/dataset/blm-grazing-allotment-polygons>. Accessed April 15, 2019.

U.S. Forest Service. 2019. Projects list for current major projects and project archives. Available at: <https://www.fs.usda.gov/wps/portal/fsinternet/cs/projects/tonto/landmanagement/projects?archive=1&sortby=1>. Accessed April 22, 2019.

_____. 2019. Tonto National Forest GIS Data; Rangeland. Available at: <https://www.fs.usda.gov/detail/r3/landmanagement/gis/?cid=stelprdb5209307>. Accessed April 15, 2019.

U.S. Fish and Wildlife Service. 2003. *Biological Opinion: Livestock Grazing on 18 Allotments Along the Middle Gila River Ecosystem*. AESO/SE 02-21-00-F-0029. Phoenix, Arizona: U.S. Fish and Wildlife Service. October 23.

Superior to Silver King 115-kilovolt Relocation Project

Overview of RFFA

Relocate a segment of the existing Superior-Silver King 115-kV transmission line on private property near Superior. At the request of the property owner, Resolution Copper Mining LLC, the approximately 1-mile segment would be moved approximately 0.25 mile to the northwest.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

The project received Arizona Corporation Commission (ACC) Certificate of Environmental Compatibility (CEC) and approval to proceed in October 2012. The project is expected to occur prior to Resolution Copper Mine production with construction lasting 4 months.

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

Spatial rationale is presented within chapter 4 of the FEIS.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No major impacts to geology or minerals are expected. Subsidence would not occur as a result of the proposed action.
Soils, Vegetation, and Reclamation	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Installation of the new transmission line would disturb a small area of vegetation and increase the potential for introduction and establishment of noxious weeds and invasive species.
Noise and Vibration	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Noise generated by the construction and operation of the proposed project would be consistent with other industrial development that already exists in the vicinity of the project area.
Transportation and Access	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would occur fully within Resolution Copper's private property.
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action does not have any impacts on air quality.
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact groundwater quantity and GDEs.
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not affect groundwater or surface water quality.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact surface water quantity.

Resource Category	Results of RFFA Screening
Wildlife	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Three special-status species have limited potential to occur within the project area, however impacts are considered to be unlikely due to the poor habitat quality within the project area.
Recreation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would occur fully within Resolution Copper's private property.
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Tailings are not involved with this project.
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Although the presence of the power line in the new area would represent a marginal increase in wildfire risk, the vegetation in the project area is sparse and the potential for wildfire is considered low. Therefore, impacts to fuels or fire management are not expected.
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not utilize hazardous materials.
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Residents of Superior do not have views of the current 115-kV transmission line nor of its proposed new location, so visual impacts are concluded to be of little concern.
Cultural Resources	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. The proposed action has the potential to affect one historic property that is recommended NRHP-eligible. It has been recommended for SRP and Resolution Copper to alter the project design in order to avoid affecting the historic property.
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No impacts to socioeconomics are expected.
Tribal Values and Concerns	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would occur fully within Resolution Copper's private property.
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would occur fully within Resolution Copper's private property and is not expected to affect any environmental justice communities.
Livestock and Grazing	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would occur fully within Resolution Copper's private property. No grazing currently occurs within the project area.

Source:

Salt River Project. 2012. Superior to Silver King 115kV Transmission Line Segment Relocation Project. Application for a Certificate of Environmental Compatibility. Available at: https://www.srpnet.com/electric/transmission/projects/superiorsilverking/pdfx/cec/SUSI_C EC_FullApp06-2012.pdf. Accessed October 28, 2020.

Superior West Exploration

Overview of RFFA

Bronco Creek Exploration (BCE) proposes to conduct exploratory drilling at locations immediately west and south of the town of Superior, Arizona, on lands managed by the Tonto National Forest. BCE has identified a total of 79 sites in the area as potential drilling locations; of these, a maximum of 25 sites would ultimately be drilled over a 10-year period, with decision-making on specific additional sites for drilling determined by analysis of core, cuttings, and other results from sites previously drilled.

BCE has determined that 16 of the 79 proposed sites would only be accessible by helicopter. In many of the remaining 63 cases, limited improvements (e.g., blading or filling) to certain existing Forest roads in the area would be necessary to allow drilling equipment to access the sites. Some minor clearing of vegetation may be necessary at certain sites. Total project disturbance is anticipated to be less than 6.33 acres. Drillings are expected to not exceed a depth of 7,500 feet. Boreholes will be backfilled and drill cuttings buried at the site and then fully covered, and the area reseeded with a Forest Service-approved seed mix as appropriate, or cuttings may be hauled away for disposal at a landfill.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

Once approved, exploratory drilling would begin within the next 1–3 years and continue intermittently over a 10-year period.

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

Spatial rationale is presented within chapter 4 of the FEIS.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Resource	Rationale for Analysis
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Installation of core holes for exploratory purposes is not likely to impact the ability to access geology or mineral resources in this area.
Soils, Vegetation, and Reclamation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Drilling will take place in mostly previously disturbed areas and all drill sites will be reclaimed to their initial state immediately upon cessation of drilling.
Noise and Vibration	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Drilling, helicopter use, and vehicles will create temporary noise and vibration impacts.
Transportation and Access	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. The proposed project would use National Forest System roads and has the potential to impact transportation and access in and around the project area.

Resource	Rationale for Analysis
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource and includes mitigation measures to control dust.
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource. There would be no discharges to surface tributaries, and, in accordance with Clean Water Act requirements, no pollutants would be discharged.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.
Wildlife	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Drilling will take place in mostly previously disturbed areas and the project includes mitigation measures to reduce impacts to wildlife.
Recreation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Tailings are not involved in the proposed project.
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Equipment containing hazardous materials will be used, however quantities and types are unknown. Typical drilling actions use containment ponds and best management practices to minimize potential for hazardous materials to impact the environment.
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource, or would only impact it temporarily until reclamation is completed and vegetation reestablished.
Cultural Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource. Pre-drilling clearance surveys would be conducted to avoid cultural resource sites.
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No major changes in employment or tax revenue are anticipated.
Tribal Values and Concerns	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource. Pre-drilling clearance surveys would be conducted to avoid cultural resource sites.
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.
Livestock and Grazing	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.

Sources:

U.S. Forest Service. 2018. Copper King and Superior West Mineral Exploration Projects. Available at: <https://www.fs.usda.gov/project/?project=54119>. Accessed October 28, 2020.

2018 Scoping documents:

https://www.fs.usda.gov/nfs/11558/www/nepa/109427_FSPLT3_4319858.pdf

https://www.fs.usda.gov/nfs/11558/www/nepa/109427_FSPLT3_4319859.pdf

https://www.fs.usda.gov/nfs/11558/www/nepa/109427_FSPLT3_4319860.pdf

Teacup Grazing Allotment, Grazing Lease Renewals

Overview of RFFA

The Teacup Grazing Allotment is approximately 41,316 acres, including 28,795 acres of lands administered by the BLM Tucson Field Office, 12,098 acres of lands administered by the Arizona State Land Department (ASLD), and 423 acres of private land. Grazing on private lands is administered by the owner. Each agency/private owner administers grazing leases on their respective lands, and not the entire allotment. The Teacup Allotment is located about 12.5 miles from U.S. 60 and the town of Superior in Pinal County, Arizona. *Note: all acreages are approximate.*

BLM

The BLM administers 28,795 acres of land in the Teacup Allotment (BLM allotment AZ06168), and grazing lease information indicates 392 head of cattle, totaling 3,058 AUMs are permitted on BLM lands within the allotment. This use was authorized on March 1, 2012, and is valid until February 28, 2022 (BLM authorization number 0202633).

As part of its lease renewal process for public lands in the Teacup Allotment, the BLM Gila District, Tucson Field Office is proposing to renew the grazing lease for a 10-year term, and provide new range improvements. Range improvements could include an upland perennial source of water to supplement the existing upland water infrastructure on the allotment, providing adequate water facilities (wells and storage tanks) for existing authorized grazing management activities (BLM 2019a).

Under NEPA BLM's lease renewal will require an Environmental Assessment (EA), reauthorizing grazing within the allotment and any proposed rangeland improvements, which is in progress. This evaluation assumes that cattle grazing and minor range improvements are currently occurring on the BLM portions of the Teacup Allotment, and that the grazing lease for these activities will be renewed when it expires.

ASLD

The grazing lease for ASLD portions of the Teacup Allotment is held by Rick Bader, who leases about 12,098 acres over multiple parcels from ASLD. The lease (KE 5-1230) allows grazing for up to 1,583 AUMs. Lease details are not readily available; therefore, this evaluation assumes that the ASLD grazing lease would include renewal of the lease for a term of up to 10 years. It is assumed that the lease renewal would provide for minor range improvements such as repair or maintenance of existing fences, cattle guards, stock tanks, etc. No new roads or other facilities would be constructed under the grazing lease.

Private Ownership

There is approximately 423 acres of private land within the Teacup Allotment; however, grazing on private lands is administered by the owner, and public records are not available. For the purposes of this evaluation, we have assumed that existing grazing practices on private lands would continue unchanged with no term limits. We have assumed that grazing on private lands would likely include minor range improvements such as repair or maintenance of existing fences, cattle guards, stock

tanks, etc. Substantial private development such as roads, housing, and commercial facilities are possible, but none are anticipated.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

The exact timing of grazing lease renewals and/or rangeland improvements is not known; however, it can be reasonably assumed that they would be implemented on the Teacup Allotment throughout the expected life of the Resolution Copper mine (50 to 55 years).

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

Spatial rationale is presented within chapter 4 of the FEIS.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Overall conclusion: Range allotment plans are used to actively manage authorized livestock grazing to address potentially adverse effects of permitted activities on natural and cultural resources. This RFFA would renew existing permits involving the same acres and AUMs. Minor and localized impacts would be addressed via active management by way of the range allotment management plans. With the exception of livestock grazing itself, existing conditions and trends would continue but there would be no cumulative effect.

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Soils, Vegetation, and Reclamation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Noise and Vibration	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Transportation and Access	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Wildlife	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Recreation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.

Resource Category	Results of RFFA Screening
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Cultural Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Tribal Values and Concerns	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Livestock and Grazing	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Grazing allotments will be affected in varying degrees by the proposed Resolution Copper Project activities and its alternatives. The degree of impacts would be dependent upon the activity.

Source:

Arizona State Land Department. 2019. State Land Department Online Map Server, showing parcel ownership and grazing allotment data. Available at: <http://gis.azland.gov/webapps/parcel/>. Accessed April 22, 2019.

Bureau of Land Management. 2019a. Rangeland Administration System Reports, showing Authorization Used by Allotment for the Tucson Field Office. Available at: <https://reports.blm.gov/report/ras/3/Authorization-Use-by-Allotment>. Accessed April 22, 2019.

_____. 2019b. BLM Grazing Allotment Polygons, spatial data for geographic information systems. Available at: <https://catalog.data.gov/dataset/blm-grazing-allotment-polygons>. Accessed April 15, 2019.

_____. 2019c. *Lease Renewal, Construction of Range Improvements and Road Maintenance, Teacup and Whitlow allotments; Environmental Assessment*. DOI-BLM-AZ-G020-FY201-0047-EA. Available at: https://eplanning.blm.gov/epl-front-office/projects/nepa/90798/165794/202118/Teacup-whitlow_Chapter-1-and-2.pdf. Accessed April 2019.

U.S. Fish and Wildlife Service. 2003. *Biological Opinion: Livestock Grazing on 18 Allotments Along the Middle Gila River Ecosystem*. AESO/SE 02-21-00-F-0029. Phoenix, Arizona: U.S. Fish and Wildlife Service. October 23.

Tonto National Forest Travel Management Plan

Overview of RFFA

The Tonto National Forest Travel Management Plan establishes the system of roads, trails, and areas designated for motorized vehicle use and determines suitable locations for dispersed camping. In April 2019, the TNF released a draft Supplemental Environmental Impact Statement (DSEIS) to respond to the objections received with the Travel Planning Final Environmental Impact Statement (FEIS) and associated Draft Record of Decision from 2016. This supplement will only address specific, narrowly focused issues raised in the formal objection process to the Draft Record of Decision, while the rest of the FEIS will be considered as still relevant in the other subjects. Additional analysis under 36 CFR 212 Subpart B include:

- Compliance with the Travel Management Rule;
- Objections of specific routes segments and areas;
- Impact of motorized travel on designated and eligible Wild and Scenic Rivers;
- Recommended minimum road system;
- Clean Air Act compliance; and,
- Compliance with the National Forest Management Act (USDA 2019).

The plan seeks to improve the management of motorized vehicle use on lands within the Tonto National Forest in accordance with the Travel Management Rule. The plan will produce the publication of a motor vehicle use map showing those roads, trails, and areas designated for motor vehicle use, after which travel on areas not designated for motor vehicle use will be prohibited unless authorized. As the Travel Management Plan is a planning document, there may not be concrete impacts to all resources, however, the outcome will include various changes in the National Forest System road network, which are outlined below.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

The DSEIS was released in April 2019. Based on this timeline, it is reasonable to assume the proposed plan would be effective during the expected life of the Resolution Copper mine project (50 to 55 years).

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

Spatial rationale is presented within chapter 4 of the FEIS.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed project is a planning document and has not outlined any concrete impacts to geology, minerals, and subsidence.

Resource Category	Results of RFFA Screening
Soils, Vegetation, and Reclamation	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. The proposed reduction in miles available for motor vehicle use would reduce the number of roads in areas mapped as soils with moderate or high risk of erosion and reduce the area of weed infestations by reducing use.
Noise and Vibration	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The Plan would alter localized traffic noise slightly, as the plan would include rerouting various NFS roads, but overall recreation noise would likely remain similar to current conditions.
Transportation and Access	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. The SEIS proposes a total of 3,708 miles of motorized routes open to the public, a reduction from the 4,959 miles of motorized open routes prior to the Travel Management Rule.
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Limiting availability of motorized routes open to the public would result in a reduction of air quality impacts resulting from OHV use. As these effects are wholly beneficial and would offset other adverse cumulative effects, this RFFA is not carried forward for quantitative analysis in the FEIS.
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed project is a planning document and has not outlined any concrete impacts to groundwater quantity and groundwater-dependent ecosystems.
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed project is a planning document and has not outlined any concrete impacts to groundwater and surface water quality.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed project is a planning document and has not outlined any concrete impacts to surface water quantity.
Wildlife	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. The proposed reduction in miles available for motor vehicle use would reduce the number of listed species that are exposed to roads as well as reduce road density within habitat-types for management indicated species. The number of roads within riparian areas would also be reduced, resulting in beneficial impacts to wildlife.
Recreation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Limiting availability of motorized routes open to the public would result in reduced access to recreational activities currently practiced on the Forest, including sightseeing, camping, hiking, hunting, fishing, recreational riding, and collecting fuelwood and other forest products. In addition, the proposed action would limit motorized retrieval of big game to 1 mile on either side of designated motorized routes for elk and bears only. The proposed action would designate 2,341 miles of motorized trails. Currently, there are no designated motorized trails on the Tonto National Forest.
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Tailings are not involved with this project.

Resource Category	Results of RFFA Screening
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Reducing unauthorized OHV use on illegal user routes will reduce the risk of wildland fire.
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed project is a planning document and has not outlined any concrete impacts to public safety regarding hazardous materials.
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Some of the illegal user routes that would be closed under the proposed action would be reclaimed and naturally revegetate over time, however the heavily used areas would be unlikely to revegetate without intensive rehabilitation. Overall, reducing illegal user routes would tend to improve scenic quality by resulting in less surface disturbance.
Cultural Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Limiting availability of motorized routes open to the public would result in reduced damage to cultural resources occurring from motor vehicle use off of designated roads. As these effects are wholly beneficial and would offset other adverse cumulative effects, this RFFA is not carried forward for quantitative analysis in the FEIS.
Socioeconomics	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Reducing the number of roads available to motor vehicle use would result in decreased costs that must be allocated to road maintenance.
Tribal Values and Concerns	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Limiting availability of motorized routes open to the public would result in reduced impacts to areas of tribal value occurring from motor vehicle use off of designated roads. As these effects are wholly beneficial and would offset other adverse cumulative effects, this RFFA is not carried forward for quantitative analysis in the FEIS.
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed project is a planning document and has not outlined any concrete impacts to environmental justice communities.
Livestock and Grazing	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed project is a planning document and has not outlined any concrete impacts to livestock and grazing.

Source:

U.S. Forest Service. 2019. Travel Management on the Tonto National Forest: Draft Supplemental Environmental Impact Statement. Available at: https://www.fs.usda.gov/nfs/11558/www/nepa/59232_FSPLT3_4634306.pdf. Accessed October 28, 2020.

_____. 2016. Travel Management on the Tonto National Forest, Final Environmental Impact Statement. Volume I. Available at: https://www.fs.usda.gov/nfs/11558/www/nepa/59232_FSPLT3_3086270.pdf. Accessed October 28, 2020.

Verde Connect

Overview of RFFA

The Federal Highway Administration (FHWA), as the lead Federal agency, with Yavapai County, as the project proponent, is proposing to build a new two-lane road between State Route (SR) 260 and Cornville Road with a connection to Middle Verde Road in Yavapai County, Arizona. Most of the land within the study area is under the jurisdiction of the Red Rock Ranger District of Coconino National Forest, with the area between SR 260 and the Verde River under the jurisdiction of the Verde Ranger District of Prescott National Forest and the ASLD.

The Verde Valley continually is growing in population and popularity with visitors, placing a growing demand on existing transportation infrastructure. With large portions of the study area within the national forests, roads available to meet this demand are limited. Congestion, the limited number of roads, and two bridges over the Verde River located 14 to 19 miles apart is resulting, and will continue to result, in declining and failing level of service. These factors have also resulted in out-of-direction travel, crossing through the Verde River, long emergency response times, lack of direct community connectivity between the Yavapai-Apache Nation's lands north and south of the river, lack of non-motorized travel or multimodal options, and a lack of alternative routes when one of the routes in the area is closed.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

Yavapai County is scheduled to complete final design in 2021 and construct Phase I of the project starting in 2021, and complete by August 2025.

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

Spatial rationale is presented within chapter 4 of the FEIS.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact geology, minerals, and subsidence.
Soils, Vegetation, and Reclamation	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Excavation and removal of native soils would be required that would result in the loss of native material from the environment.
Noise and Vibration	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. The new roadway would generate temporary noise during construction and then have permanent noise impact upon operation.

Resource Category	Results of RFFA Screening
Transportation and Access	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Construction activities would result in adverse impacts in the form of increased traffic congestion and travel times through construction areas. However, traffic congestion and travel times are expected to improve once the new roadway is in operation.
Air Quality	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Vehicle miles traveled in the area are expected to decrease because the new roadway provides a more direct route between I-17 and SR 89A than currently available. The new roadway will lead to lower mobile source air toxics emissions for the Build Selected Alternative on a regional level, although emissions would increase slightly on the existing local roadway network.
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The roadway would only result in permanent, minor adverse impact to the floodplain area, totaling either 0.005- or 0.007-acre total permanent disturbance, depending on which bridge design is selected. The flow patterns for the washes the Verde Connect and connector roads cross will maintain their existing flow patterns.
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The flow patterns for the washes the Verde Connect and connector roads cross will maintain their existing flow patterns.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The flow patterns for the washes the Verde Connect and connector roads cross will maintain their existing flow patterns.
Wildlife	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Construction of the Build Selected Alternative has the potential to affect ESA-listed species.
Recreation	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. The new roadway would lead to a loss of recreational opportunities.
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The project does not involve tailings.
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The new roadway would not impact fuels and fire management.
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The new roadway would not impact Public Health & Safety: Hazardous Materials.
Scenic Resources	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. The new roadway would result in a permanent change to the project area.
Cultural Resources	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. The new roadway would have adverse effects on cultural resources within the APE.

Resource Category	Results of RFFA Screening
Socioeconomics	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. The Build Alternative would have a long-term benefit on regional social and economic conditions by reducing congestion, and improving access, mobility, and connectivity.
Tribal Values and Concerns	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. The new roadway would have adverse effects on cultural resources within the APE.
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The Build Alternative would not result in disproportionately high and adverse human health and environmental effects on any minority or low-income populations.
Livestock and Grazing	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. The construction of a new road across the ASLD parcel west of the Verde River would cross the Beaverhead Grief Hill pasture and driveway. The introduction of the road and associated features would result in a loss of approximately 35 acres of the 1,995-acre pasture, or approximately 1.75 percent of the pasture

Sources:

U.S. Forest Service. 2020. Heber Allotment Analysis: Environmental Assessment. Available at: https://www.fs.usda.gov/nfs/11558/www/nepa/97734_FSPLT3_5331679.pdf. Accessed October 28, 2020.

Victory Cross Grazing Allotment, Grazing Lease Renewals

Overview of RFFA

The Victory Cross Grazing Allotment is approximately 8,974 acres including 2,862 acres of lands administered by the BLM Tucson Field Office, 4,470 acres of lands administered by the Arizona State Land Department (ASLD), and 1,542 acres of private land. Each agency/private owner administers grazing leases on their respective lands, and not the entire allotment. The Victory Cross Allotment is located about 14 miles southeast of U.S. 60 and the town of Superior in Pinal County, Arizona. *Note: all acreages are approximate.*

BLM

The Victory Cross allotment (BLM allotment number AZ45030) is an active grazing allotment that has 163 cattle authorized for year round use, and is permitted for 411 AUMs, for use on the BLM portions of the allotment (2,862 acres). This use was authorized on March 1, 2017, and is valid until February 28, 2027 (BLM authorization number 0200087).

Under NEPA, BLM's lease renewal will require an EA reauthorizing the grazing within the allotment and the proposed rangeland improvements. There is no current EA available for this allotment, however, this evaluation assumes that cattle grazing and minor range improvements are currently occurring on the BLM portions of the allotment, and that the grazing lease for these activities will be renewed when it expires.

ASLD

The grazing lease for ASLD portions of the Victory Cross allotment is held by Rick L. Jodasass, who leases about 4,470 acres over multiple parcels from ASLD. The lease (KE 5-94729) allows grazing for up to 1,048 AUMs. Lease details are not readily available; therefore, this evaluation assumes that the ASLD grazing lease would include renewal of the lease for a term of up to 10 years. It is assumed that the lease renewal would provide for minor range improvements such as repair or maintenance of existing fences, cattle guards, stock tanks, etc. No new roads or other facilities would be constructed under the grazing lease.

Private Ownership

Approximately 1,542 acres of private land exists within the Victory Cross Allotment; however, grazing on private lands is administered by the owner, and public records are not available. For the purposes of this evaluation, we have assumed that existing grazing practices on private lands would continue unchanged with no term limits. We have assumed that grazing on private lands would likely include minor range improvements such as repair or maintenance of existing fences, cattle guards, stock tanks, etc. Substantial private development such as roads, housing, and commercial facilities are possible, but none are anticipated.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

The exact timing of grazing lease renewals and/or rangeland improvements is not known; however, it can be reasonably assumed that they would be implemented on the Victory Cross Allotment throughout the expected life of the Resolution Copper mine (50 to 55 years).

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

Spatial rationale is presented within chapter 4 of the FEIS.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Overall conclusion: Range allotment plans are used to actively manage authorized livestock grazing to address potentially adverse effects of permitted activities on natural and cultural resources. This RFFA would renew existing permits involving the same acres and AUMs. Minor and localized impacts would be addressed via active management by way of the range allotment management plans. With the exception of livestock grazing itself, existing conditions and trends would continue but there would be no cumulative effect.

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Soils, Vegetation, and Reclamation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Noise and Vibration	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Transportation and Access	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Wildlife	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Recreation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.

Resource Category	Results of RFFA Screening
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Cultural Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Tribal Values and Concerns	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Livestock and Grazing	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Grazing allotments will be affected in varying degrees by the proposed Resolution Copper Project activities and its alternatives. The degree of impacts would be dependent upon the activity.

Source:

Arizona State Land Department. 2019. State Land Department Online Map Server, showing parcel ownership and grazing allotment data. Available at: <http://gis.azland.gov/webapps/parcel/>. Accessed April 22, 2019.

Bureau of Land Management. 2019a. Rangeland Administration System Reports, showing Authorization Used by Allotment for the Tucson Field Office. Available at: <https://reports.blm.gov/report/ras/3/Authorization-Use-by-Allotment>. Accessed April 22, 2019.

_____. 2019b. BLM Grazing Allotment Polygons, spatial data for geographic information systems. Available at: <https://catalog.data.gov/dataset/blm-grazing-allotment-polygons>. Accessed April 15, 2019.

U.S. Fish and Wildlife Service. 2003. *Biological Opinion: Livestock Grazing on 18 Allotments Along the Middle Gila River Ecosystem*. AESO/SE 02-21-00-F-0029. Phoenix, Arizona: U.S. Fish and Wildlife Service. October 23.

Whitlow Grazing Allotment, Grazing Lease Renewals

Overview of RFFA

The Whitlow Grazing Allotment is approximately 23,276 acres including 10,363 acres of lands administered by the BLM Tucson Field Office, 11,275 acres of lands administered by the Arizona State Land Department (ASLD), and 1,638 acres of private land. Each agency/private owner administers grazing leases on their respective lands, and not the entire allotment. The Whitlow Allotment is located about 15 miles southwest of U.S. 60 and the town of Superior in Pima County, Arizona. *Note: all acreages are approximate.*

BLM

The BLM administers 10,363 acres of land in the Whitlow Allotment (BLM allotment AZ06032), and grazing lease information indicates 136 head of cattle, totaling 588 AUMs are permitted for year round use on BLM lands within the allotment. This use was authorized on March 1, 2012, and is valid until February 28, 2022 (BLM authorization 0202633).

As part of its lease renewal process for public lands in the Whitlow Allotment, the BLM Gila District, Tucson Field Office is proposing to renew the grazing lease for a 10-year term, and provide new range improvements such as an upland perennial source of water to supplement the existing upland water infrastructure on the allotment, providing adequate water facilities (wells and storage tanks) for existing authorized grazing management activities (BLM 2019a).

Under NEPA BLM's lease renewal will require an Environmental Assessment (EA), reauthorizing grazing within the allotment and any proposed rangeland improvements, which is in progress. This evaluation assumes that cattle grazing and minor range improvements are currently occurring on the BLM portions of the Whitlow Allotment, and that the grazing lease for these activities will be renewed when it expires.

ASLD

The grazing lease for ASLD portions of the Whitlow Allotment is held by Rick Bader, who leases about 11,275 acres over multiple parcels from ASLD. The lease (KE 5-1441) allows grazing for up to 1,066 AUMs. Lease details are not readily available; therefore, this evaluation assumes that the ASLD grazing lease would include renewal of the lease for a term of up to 10 years. It is assumed that the lease renewal would provide for minor range improvements such as repair or maintenance of existing fences, cattle guards, stock tanks, etc. No new roads or other facilities would be constructed under the grazing lease.

Private Ownership

Approximately 1,638 acres of private land exists within the Whitlow Allotment; however, grazing on private lands is administered by the owner, and public records are not available. For the purposes of this evaluation, we have assumed that existing grazing practices on private lands would continue unchanged with no term limits. We have assumed that grazing on private lands would likely include minor range improvements such as repair or maintenance of existing fences, cattle guards, stock

tanks, etc. Substantial private development such as roads, housing, and commercial facilities are possible, but none are anticipated.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

The exact timing of grazing lease renewals and/or rangeland improvements is not known; however, it can be reasonably assumed that they would be implemented on the Whitlow Allotment throughout the expected life of the Resolution Copper mine (50 to 55 years).

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

Spatial rationale is presented within chapter 4 of the FEIS.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Overall conclusion: Range allotment plans are used to actively manage authorized livestock grazing to address potentially adverse effects of permitted activities on natural and cultural resources. This RFFA would renew existing permits involving the same acres and AUMs. Minor and localized impacts would be addressed via active management by way of the range allotment management plans. With the exception of livestock grazing itself, existing conditions and trends would continue but there would be no cumulative effect.

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Soils, Vegetation, and Reclamation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Noise and Vibration	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Transportation and Access	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Wildlife	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Recreation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.

Resource Category	Results of RFFA Screening
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Cultural Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Tribal Values and Concerns	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Livestock and Grazing	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Grazing allotments will be affected in varying degrees by the proposed Resolution Copper Project activities and its alternatives. The degree of impacts would be dependent upon the activity.

Source:

Arizona State Land Department. 2019. State Land Department Online Map Server, showing parcel ownership and grazing allotment data. Available at: <http://gis.azland.gov/webapps/parcel/>. Accessed April 22, 2019.

Bureau of Land Management. 2019a. Rangeland Administration System Reports, showing Authorization Used by Allotment for the Tucson Field Office. Available at: <https://reports.blm.gov/report/ras/3/Authorization-Use-by-Allotment>. Accessed April 22, 2019.

_____. 2019b. BLM Grazing Allotment Polygons, spatial data for geographic information systems. Available at: <https://catalog.data.gov/dataset/blm-grazing-allotment-polygons>. Accessed April 15, 2019.

U.S. Fish and Wildlife Service. 2003. *Biological Opinion: Livestock Grazing on 18 Allotments Along the Middle Gila River Ecosystem*. AESO/SE 02-21-00-F-0029. Phoenix, Arizona: U.S. Fish and Wildlife Service. October 23.

Wild and Scenic River Eligibility

Overview of RFFA

Segments of Arnett Creek and Telegraph Canyon were evaluated for their eligibility for inclusion in the National Wild and Scenic Rivers System in October 2017 as part of the Tonto National Forest Land and Resource Management Plan (forest plan) revision process. These river segments were identified as eligible for inclusion because they possess unique and outstandingly remarkable values for both scenery and fisheries. These two river segments were further classified as ‘Recreational’ per Chapter 80 of the Land Management Planning Handbook (FSH 1909-12 Chapter *80 Wild and Scenic River Evaluation*).

The factors considered for determining river segment classification included shoreline development, accessibility, water quality, special lands uses (such as utility corridors and other recreation special use permits), livestock grazing, and past management activities (such as timber harvesting, or exploration and development of oil and gas), based on what exists today.

The eligible river segments of Arnett Creek and Telegraph Canyon will be managed to protect their outstandingly remarkable values (scenery and fisheries) and to retain their classification as Recreational until such time as they are formally designated, or because of changed circumstances, no longer meet wild and scenic river eligibility criteria. Specific management direction is provided in the revised forest plan.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

The eligibility status for Arnett Creek and Telegraph Canyon is effective with the Record of Decision associated with revising the forest plan. This Record of Decision is anticipated in the next 3 years and would be in effect for 10–15 years from the date of signature.

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

Spatial rationale is presented within chapter 4 of the FEIS.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The wild and scenic river eligibility determination does not affect geological resources.
Soils, Vegetation, and Reclamation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The wild and scenic river eligibility determination does not affect soil or vegetation resources.
Noise and Vibration	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The wild and scenic river eligibility determination does not affect noise and vibration levels associated with Arnett Creek/Telegraph Canyon.

Resource Category	Results of RFFA Screening
Transportation and Access	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The wild and scenic river eligibility determination does not affect local or regional roadways.
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The wild and scenic river eligibility determination would not generate emissions.
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The wild and scenic river eligibility determination does not affect groundwater sources.
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The wild and scenic river eligibility determination does not affect groundwater or surface water sources.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The wild and scenic river eligibility determination protects the outstandingly remarkable fisheries values in perpetuity, and would not change surface flow patterns.
Wildlife	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The wild and scenic river eligibility determination does not affect wildlife resources along Arnett Creek/Telegraph Canyon.
Recreation	Continue analysis; RFFA contributes to cumulative effects and sufficient information exists to analyze. Eligibility status and public recognition of the outstandingly remarkable values may attract additional recreational use of the river segments or adjoining National Forest area.
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The wild and scenic river eligibility determination does not involve tailings.
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The wild and scenic river eligibility determination would not affect fuels and fire management of the river segments.
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The wild and scenic river eligibility determination would not affect exposure to hazardous materials.
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The wild and scenic river eligibility determination protects the outstandingly remarkable scenic values in perpetuity.
Cultural Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The wild and scenic river eligibility determination would not affect cultural resources in the area.
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The wild and scenic river eligibility determination would not likely change economic conditions.
Tribal Values and Concerns	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The wild and scenic river eligibility determination would not affect tribal values of the area.

Resource Category	Results of RFFA Screening
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The wild and scenic river eligibility determination would not affect environmental justice communities in the area.
Livestock and Grazing	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The wild and scenic river eligibility determination would not affect existing rangeland or grazing conditions as a result of Wild and Scenic River status.

Source:

National Wild and Scenic River System (official website). 2019. Available at: <https://www.rivers.gov>. Accessed April 2019.

U.S. Forest Service. 1993. *Preliminary Analysis of Eligibility and Classification for Wild/Scenic/Recreational River Designation – National Forests of Arizona*. Albuquerque, New Mexico: U.S. Fish and Wildlife Service, Southwest Region. January.

U.S. Forest Service. 2017a. *Tonto National Forest Draft Wild and Scenic Rivers Eligibility Study*. Available at: https://drive.google.com/file/d/0B1wq3f66mAw_X2JZTE11TzNCWms/view. Accessed March 2019.

U.S. Forest Service. 2017b. *Pinto Valley Mine Environmental Impact Study Draft: Final Scoping Issues Report*. Available at: http://www.pintovalleymineeis.us/documents/PVM_Scoping%20Report_Draft-Final_2017_0928.pdf. Accessed March 2019.

ATTACHMENT 2 – INFORMATION ON POTENTIAL RFFAS DISMISSED FROM ANALYSIS

The following information is included solely for reference. These actions were not found to be reasonably foreseeable for a variety of reasons, as contained in the initial screening. The information is included here to preserve it for the project record and to note sources that were reviewed.

Potential RFFA: Abel-Moody 230 kV Construction
<p>Description: In 2008, SRP identified a need for 2,500 MW of new summer peaking and intermediate generation in order to meet electricity demands. This additional infrastructure would support SRP's developing southeast service area, including Queen Creek, Gilbert, southeast Mesa, and nearby unincorporated communities, for current and future electricity demand. On December 15, 2009, the Arizona Corporation Commission voted unanimously to confirm the Certificate of Environmental Compatibility (CEC) for the Abel-Moody 230-kV line.</p> <p>The project originally was intended to accommodate anticipated new sources of generation to serve SRP's growing load in the region. However, in the decade following the CEC confirmation, several existing, independently owned power generation facilities were offered for sale. Over the years, SRP purchased several of these generation facilities for significantly less money than it would cost to construct new generation facilities. As a result, SRP met customers' power demands at a lower cost. Subsequently, SRP is seeking to delay the project until it is needed so that SRP can continue to provide reliable service at a lower cost to their customers.</p> <p>With ACC approval of the extension request, the line will be constructed within the next 5 years. The RS-24 substation will be constructed within the next 15 years when needed to meet demand.</p>
<p>Source:</p> <p>http://www.pinalenergyprojects.org/projectsoverview.aspx</p> <p>https://srpnet.com/electric/transmission/projects/abelmoody/abelmoody.aspx</p>
Reason not analyzed: Insufficient detail, not reasonably foreseeable. Temporal overlap unknown.

Potential RFFA: Adobe Bypass
<p>Description: This is a Gold Canyon Bypass plan that starts where the Superstition Freeway ends at Mountain View Road, goes around Gold Canyon and reconnects to the existing U.S. 60 by the Renaissance Faire Festival grounds.</p>
<p>Source: Media</p>
Reason not analyzed: This plan is not yet adopted by ADOT and exists only as a petition at this time.

Potential RFFA: Alder Mesa Trail Reroute of the Arizona National Scenic Trail
Description: The Tonto National Forest proposed to reroute a section of the Arizona Trail to provide a more suitable trail for hiking and equestrian use, increase opportunities for dispersed recreational use experiences and allow for safe access.
Source: Tonto National Forest
Reason not analyzed: Project has been completed at this time.

Potential RFFA: Alpine Water System Improvement Project
Description: Alpine Domestic Water has proposed to install a water storage tank, pipeline, and access road for improvements to residents' water system in Alpine, Arizona. Residents in the southeast Alpine area are experiencing water shortages and have reported that most wells will only pump for a few hours a day at a low GPM (gallons per minute) while others have completely dried up.
Source: https://www.fs.usda.gov/nfs/11558/www/nepa/113677_FSPLT3_5291404.pdf
Reason not analyzed: Insufficient detail, not reasonably foreseeable. Temporal overlap unknown.

Potential RFFA: Apache Leap Special Management Area
Description: This management plan establishes a comprehensive framework for managing the natural character of the Apache Leap Special Management Area and its values, as specified in Public Law 113-291. The plan also provides the management direction and monitoring strategy necessary to protect the area's values.
Source: Tonto National Forest SOPA: https://www.fs.usda.gov/project/?project=51530
Reason not analyzed: This is not an action, but a management plan that establishes goals; as the establishment of the Apache Leap Special Management Area was part of the same land exchange legislation (PL 291-113), these management directions are already incorporated into the analysis of Resolution Copper Project effects.

Potential RFFA: APS 69kV Power Line Permit for Childs-Irving Line
Description: APS has requested a reissuance of four special use permits for existing transmission lines on the Coconino National Forest, and has also requested that a new special use permit be issued for an existing 69-kV transmission power line in the Childs Irving area, also on the Coconino National Forest.
Source: https://www.fs.usda.gov/project/?project=47114&exp=overview
Reason not analyzed: Project likely on hold.

Potential RFFA: APS McGuireville-Village of Oak Creek 69kV Transmission Line
Description: APS has submitted a proposal for an aboveground 69-kV electric powerline to improve electric reliability from McGuireville to the village of Oak Creek. The proposed route would require building facilities on NFS land.
Source: http://www.fs.fed.us/nepa/nepa_project_exp.php?project=56977
Reason not analyzed: Insufficient detail, not reasonably foreseeable. Temporal overlap unknown.

Potential RFFA: APS Transmission and Distribution Line Permit Reissuances (several Lines)
Description: APS has requested reissuance of the following expired power line permits: Quail Springs to McGuireville 69kV line, Flagstaff-Leupp 230kV line, Tuba City 69kV line, Flagstaff-Prescott 115/69kV line and all distribution lines.
Source: http://www.fs.fed.us/nepa/nepa_project_exp.php?project=50848
Reason not analyzed: Insufficient detail, not reasonably foreseeable. Temporal overlap unknown.

Potential RFFA: Arizona National Scenic Trail Teacup Segment Realignment
<p>Description: Realignment of approximately 5.4 miles of trail segment across BLM- and ASLD-managed lands. While the land which the trail traverses is publicly owned and administered by the BLM or ASLD, the right-of-way for the Arizona National Scenic Trail in this area is managed by Pinal County.</p> <p>Pinal County, in cooperation with the BLM and ASLD, intends to relocate 2.41 miles of trail on BLM land to put greater distance between the trail and a livestock watering source. Another 2.92 miles of trail on ASLD lands would be realigned to move it off an existing two-track road, thereby eliminating potential future interactions between motorized and non-motorized users on the same segment of trail.</p>
<p>Source:</p> <p>Taylor, Kent A. 2018. "Proposed Arizona Trail Realignment – Teacup Ranch Area Amendment." Letter from the Director of the Pinal County Open Space and Trails Department to William Meyer of Haydon Combe Ranch, Florence, AZ. September.</p> <p>United States Forest Service. 2017. Planning for the Future of the Arizona National Scenic Trail: Arizona National Scenic Trail Comprehensive Plan: Public Scoping Document. Available at: https://www.fs.usda.gov/nfs/11558/www/nepa/104401_FSPLT3_4047026.pdf. Accessed January 2019.</p>
Reason not analyzed: Project is complete.

Potential RFFA: Arizona Public Service Master Permit Reissuance
Description: APS has requested to reissue their permit for operation and maintenance of aerial and buried distribution power lines as well as associated facilities such as gates, utility boxes, pads, other communication poles and equipment. Vegetation removal and equipment replacement is included with the permit application.
Source: http://www.fs.fed.us/nepa/nepa_project_exp.php?project=54198
Reason not analyzed: Insufficient detail, not reasonably foreseeable. Temporal overlap unknown.

Potential RFFA: AT&T Permit Reissuances
Description: AT&T requested to reissue permits for three buried communication lines: U.S. 180 near Kendrick Park to SR 89 to Doney Park; Doney to I-40 east and south to JW Powell; and I-17 to Schnebly Hill to Sedona south along SR 89A to Cottonwood.
Source: http://www.fs.fed.us/nepa/nepa_project_exp.php?project=51529
Reason not analyzed: Project on hold. Temporal overlap unknown.

Potential RFFA: Bighorn Sheep Capture and Relocation
Description: This project involves the proposed capture of bighorn sheep from 37B Mineral Mountains and relocation to Region 5. Capture from GMU 24B sheep populations in Superstitions may also be included, as would be use of helicopters in five wilderness areas within the Tonto National Forest (Four Peaks, Hellsgate, Mazatzal, Salt River Canyon, and Superstition). A preliminary EA for this project was completed in 2014. The Forest Service is developing a revised EA that will address public concerns expressed in response to the preliminary EA.
Source: USDA Forest Service. 2014. Preliminary Environmental Assessment for Authorization of Helicopter Landings in Wilderness, Tonto National Forest, Gila, Maricopa, Pinal, and Yavapai Counties, Arizona. Southwestern Region. August.
Reason not analyzed: Project is complete.

Potential RFFA: Black River Restoration Project
Description: The Black River Landscape Restoration Project is a planning effort designed to restore forest resiliency and ecosystem function in the project planning area on the Alpine and Springerville Ranger Districts.
Source: https://www.fs.usda.gov/project/?project=52740
Reason not analyzed: Insufficient detail, not reasonably foreseeable. Temporal overlap unknown.

Potential RFFA: Blue Bell/Wolf Creek Allotments Range
Description: The Prescott National Forest Bradshaw Ranger District is proposing to continue authorizing livestock grazing on the Wolf Creek and Blue Bell allotments. The proposed action would combine the two allotments into one and rename it the Blue Wolf Allotment. Grazing would be carried out under an adaptive management strategy.
Source: http://www.fs.fed.us/nepa/nepa_project_exp.php?project=53264
Reason not analyzed: Project on hold. Temporal overlap unknown.

Potential RFFA: Bush Wildfire
Description: The Bush Fire burned a large area of the Tonto National Forest west of Roosevelt Lake, and forced evacuations of nearby communities. The area burned by the fire is not yet recovered.
Source: https://aztrail.org/bush-fire-burn-severity-map/
Reason not analyzed: Insufficient detail exists about the effects to analyze. The area impacted by the Bush Fire has been ordered closed by the Tonto National Forest until March 15, 2021.

Potential RFFA: Chevelon Butte Wind Farm
Description: The Chevelon Butte Wind Farm is a planned 477-MW maximum capacity wind energy project in Coconino and Navajo Counties, Arizona, located approximately 20 miles south of Winslow. The project will consist of up to 164 wind turbines that will connect to Arizona's electrical grid via an existing adjacent transmission line.
Source: https://chevelonbuttewind.spower.com/
Reason not analyzed: This potential RFFA was captured during the process, but early screening indicated that the project is well beyond any resource cumulative effects analysis areas.

Potential RFFA: Copper Crossing Energy Center
Description: Recently constructed natural gas power plant operated by SRP Agricultural Improvement and Power District.
Source: https://www.fluor.com/projects/copper-crossing-solar-power-construction
Reason not analyzed: Insufficient detail, not reasonably foreseeable. Temporal overlap unknown.

Potential RFFA: Copper King Exploratory Drilling/Superior West Exploration

Description: This project combines the environmental review of two mineral exploration projects proposed by Bronco Creek Exploration, Copper King, and Superior West. While Bronco Creek Exploration is the mining claimant, the exploration would be funded and bonded by Kennecott Exploration Company (part of the Rio Tinto Group), which would be the operator of record for both Plans of Operations. The combined projects result in a total of 106 unique drill site locations identified, of which the proponent would be authorized to select up to 43 to be drilled over a 10-year period. Use of existing roads and helicopter to access drill sites. The Copper King Exploratory Drilling Plan of Operations has been withdrawn by the proponent and project now needs rescoping to only be Superior West Exploratory Drilling.

Source:

U.S. Forest Service, Tonto National Forest. 2018a. Copper King and Superior West Mineral Exploration Projects. Available at: <https://www.fs.usda.gov/project/?project=54119&exp=detail>. Accessed March 2019.

U.S. Forest Service, Tonto National Forest 2018b. Plan of Operations for the Copper King Exploratory Drilling Project. Available at: https://www.fs.usda.gov/nfs/11558/www/nepa/109427_FSPLT3_4319855.pdf. Accessed March 2019. Project withdrawn.

U.S. Forest Service, Tonto National Forest. 2018c. Plan of Operations for the Superior West Exploratory Drilling Project. Available at: https://www.fs.usda.gov/nfs/11558/www/nepa/109427_FSPLT3_4319858.pdf, Accessed March 2019.

Reason not analyzed: Copper King Exploration Drilling project has been withdrawn. Superior West is still proposed.

Potential RFFA: Copper Springs

Description: The Copper Springs project was an exploration drilling project in the Globe-Miami mining district designed to test an identified geologic target while achieving minimal surface disturbance. Copper Springs proposed exploration drilling at six sites near Globe; this was completed in 2018.

Source:

United States Department of Agriculture (USDA) Tonto National Forest Globe Ranger District. 2017. Decision Memo for the Copper Springs Project. Available at: https://www.fs.usda.gov/nfs/11558/www/nepa/89072_FSPLT3_4108680.pdf. Accessed March 2019.

USDA. 2018. Schedule of Proposed Actions April 2018 to June 2018. Available at: <https://www.fs.fed.us/sopa/components/reports/sopa-110312-2018-04.html>. Accessed March 2019.

United States Forest Service (Forest Service). 2019. Forest Service Schedule of Proposed Actions for the Tonto National Forest. Available at: <https://www.fs.fed.us/sopa/forest-level.php?110312>. Accessed March 2019.

Reason not analyzed: Project is complete.

Potential RFFA: Cragin-Payson TSA Water Treatment Plant
Description: The Tonto National Forest proposes to sell approximately 7 acres to the Town of Payson for a water treatment plant. This would implement the Decision Notice and FONSI for the Cragin Water Pipeline and Treatment Plant Project, originally signed in 2011.
Source: http://www.fs.fed.us/nepa/nepa_project_exp.php?project=49004
Reason not analyzed: Project on hold. Temporal overlap unknown.

Potential RFFA: Dagger, Poison Spring, Black Mesa, and A-Cross Grazing Allotment Management Plans
Description: A Notice of Initiation for environmental review of these proposed grazing reauthorizations was filed in May 2018. However, since that time the project has been placed on hold by the Tonto National Forest.
Source: https://www.fs.usda.gov/project/?project=49896&exp=detail
Reason not analyzed: There is no clear indication of any future time these grazing allotment reauthorizations may be removed from “hold” status. The project is therefore considered not reasonably foreseeable at this time.

Potential RFFA: DeMoss Petrie Substation to Tucson Substation 138kV/46kV
Description: Tucson Electric Power (TEP) has built a new 138-kV transmission line and relocated an existing 46-kV transmission line to link the DeMoss Petrie Substation near Interstate 10 and West Grant Road to the Tucson Substation near West 5th Street and North 11th Avenue. The new line will add transmission capability between these substations, increasing electrical system reliability throughout Tucson.
Source: https://www.tep.com/doc/projects/demoss/tep-demoss-petrie-newsletter.pdf
Reason not analyzed: Insufficient detail, not reasonably foreseeable. Temporal overlap unknown.

Potential RFFA: Desert Sunset Red Hills Quarry – BLM Mineral Material Sale

Description: The Desert Sunset pit operation is a decorative rock quarry owned and operated by Red Hills Mining LLC. It is located near Donnelly Wash, approximately 5 miles southwest of the old Cochran townsite on the southern bank of the Gila River in Pinal County. The quarry location may necessitate a rerouting of the proposed western alignment of the pipeline corridor to/from the Resolution Copper Project Peg Leg alternative tailings storage facility. Rerouting would occur if Peg Leg (Alternative 5) were to be ultimately selected by the Forest Service, in cooperation with the BLM, as the agency-preferred EIS alternative.

ADOT records show that an ADOT-approved EA, including a cultural consultation process, was completed for the Desert Sunset mining operations at this location on July 7, 2004. This analysis interprets the fact that ADOT approved the EA and green-lighted the Desert Sunset mining operation as meaning that the agency foresaw no substantial adverse environmental effects resulting from continued operation of the quarry.

According to Daniel Moore, Geologist with the BLM Tucson Field Office, “The Desert Sunset – Red Hills Quarry contracts expired in July 2019. This is an excavate/crush/screen/haul operation on 105 acres, in operation since at least 2002. I expect the operator will request new contracts for additional tonnage. This quarry is on state surface, federal minerals. I have no estimate for when this quarry will close.”

Source: Personal Communication with Daniel Moore, Geologist, BLM Tucson Field Office, regarding Desert Sunset Red Hills mining operations and potential timeline to site closure. Via email. February 11, 2019.

Arizona Department of Transportation (ADOT). 2013. “Material Sources Which Have Previously Completed the ADOT Environmental Analysis Process.” Available at: https://www.azdot.gov/docs/default-source/construction-group/material_sources_contractor_furnished_list_of_cleared_ms.pdf?sfvrsn=2. Accessed March 2013.

Reason not analyzed: Future activities and impacts same as current, incorporated into Affected Environment and not reasonably foreseeable.

Potential RFFA: East Line Solar

Description: The 100-MW solar plant built in Coolidge, Arizona, by SPower will provide power to Intel facilities in Chandler, Arizona.

Source: https://www.pinalcentral.com/business_and_technology/large-solar-projects-making-their-way-to-coolidge/article_ab58552d-b3d2-59c2-a770-277be8a029d6.html

Reason not analyzed: Insufficient detail, not reasonably foreseeable. Temporal overlap unknown.

Potential RFFA: Flying V&H Prescribed Fire
Description: The Tonto National Forest proposes to use prescribed burns on 59,124 acres to improve timber stand conditions and wildlife habitat by reducing fire hazard and natural fuel build-up. The proposed action would help to meet the direction from the forest plan by improving plant vigor, timber stand conditions, watershed conditions, and wildlife habitat diversity.
Source: http://www.fs.fed.us/nepa/nepa_project_exp.php?project=53190
Reason not analyzed: Project on hold. Temporal overlap unknown.

Potential RFFA: Flying V and Flying H Allotment Management Plans
Description: The Tonto National Forest proposed to continue authorized grazing on the Flying V and Flying H allotments in the vicinity of Young, Arizona. The proposed action would authorize grazing on the allotments in a manner that maintains or improves project area resource conditions and achieves the objectives and desired conditions described in the forest plan.
Source: https://www.fs.usda.gov/project/?project=30274
Reason not analyzed: An Environmental Assessment was initiated and a public comment period concluded in August 2013. However, since that time the project has been on hold; it is therefore considered not reasonably foreseeable at this time. Furthermore, this project would simply renew existing permits involving the same acres and AUMs. Existing conditions and trends would continue but would not be expected to contribute to any greater cumulative effects.

Potential RFFA: Grazing Allotments
Description: This potential RFFA was a generic suggestion to include the ongoing use of grazing allotments on National Forest lands under approved allotment management plans.
Source: Baseline Hydrological Final Environmental Assessment
Reason not analyzed: These grazing impacts are already part of the Affected Environment and as such are analyzed in chapter 3 of the EIS, and specifically described in section 3.16.

Potential RFFA: Haigler Fuels Analysis
Description: The Tonto National Forest is proposing to implement a hazardous fuels reduction project consistent with the forest plan. There is need to reduce high fuel loadings that are a result of years of suppression of natural fire. Suppression has led to increased potential for large, high-severity fires that pose significant threats to public health and safety as well as resources within the project area.
Source: https://www.fs.usda.gov/project/?project=34507&exp=overview
Reason not analyzed: Project on hold. Temporal overlap unknown.

Potential RFFA: Hawes Trail System Master Development Plan Project
Description: The Tonto National Forest proposes to authorize a Master Development Plan for the Hawes Trail System and the adjacent area. A plan is needed to address growing user demands for non-motorized trails in the Hawes Trail System, provide for user safety, and minimize user conflicts and resource damages.
Source: http://www.fs.fed.us/nepa/nepa_project_exp.php?project=57692
Reason not analyzed: Insufficient detail, not reasonably foreseeable. Temporal overlap unknown.

Potential RFFA: High-Speed Rail Connection between Tucson and Phoenix
Description: In a proposed action jointly overseen by Federal Railroad Administration, Arizona Department of Transportation (ADOT), and Pima, Pinal, and Maricopa Counties, a high-speed commuter rail connection between Phoenix and Tucson was evaluated in an environmental impact statement as a Tier 1 transportation project. A Tier 1 EIS record of decision (ROD) was issued in December 2016.
Source: https://azdot.gov/planning/transportation-programs/state-rail-plan/passenger-rail-study-tucson-phoenix
Reason not analyzed: As stated above, a Tier 1 EIS record of decision (ROD) was issued in December 2016. However, since that time no intent has been published about initiating a Tier 2 EIS. Furthermore, no potential construction schedule has been identified and no funding has been secured. This project is therefore not considered a reasonably foreseeable action at this time.

Potential RFFA: Highland Pines Domestic Water Improvement District Pipeline Replacement Project
Description: Replacement of an existing domestic water transmission pipeline owned and operated by the Highland Pines Domestic Water Improvement District (DWID) located on the Prescott National Forest under an existing Federal Land Policy and Management Act (FLPMA) permit.
Source: https://www.fs.fed.us/sopa/components/reports/sopa-110309-2020-07.html
Reason not analyzed: Insufficient detail, not reasonably foreseeable. Temporal overlap unknown.

Potential RFFA: Highway Tanks Tribal Forest Protection Act Project
Description: The Tonto National Forest proposes to implement an adaptive management strategy to move the project areas toward desired resource conditions and respond to the San Carlos Apache Tribe's request for restoration activities within the Highway Tanks project area. The proposed action focuses on restoration of fire-adapted ecosystems, including mechanical thinning and prescribed burns, to accomplish landscape restoration objectives.
Source: https://www.fs.usda.gov/project/?project=53161&exp=overview
Reason not analyzed: Insufficient detail, not reasonably foreseeable. Temporal overlap unknown.

Potential RFFA: Imerys Perlite Mine
Description: Imerys Perlite Mine submitted a plan of operations in 2013 which included plans for continued operation of the existing sedimentation basin at the millsite; continued use of segments of Forest Roads 229, 989, and 2403 for hauling; and mining at the Forgotten Wedge and Rosemarie Exception No. 8 claims. Previous mining activities would continue under this project. The effects analysis below is based on an existing environmental assessment, which resulted in a Finding of No Significant Impact (FONSI) for this project action.
Source: Imerys Perlite USA, Inc. 2015. Plan of Operations, Imerys Perlite Mine. 45156 Silver King Mine Road, Superior, Arizona, 85253. October. U.S. Forest Service. 2015. Imerys Perlite Mine, USA, Inc. Project Plan of Operations Environmental Assessment. Globe Ranger District, Tonto National Forest. April.
Reason not analyzed: Future activities and impacts same as current, incorporated into Affected Environment and not reasonably foreseeable.

Potential RFFA: Interstate 11 Corridor
Description: ADOT is currently funding and conducting the first step in a tiered environmental study to identify a potential corridor for I-11 between Nogales and Wickenburg.
Source: http://i11study.com/Arizona/Documents.asp
Reason not analyzed: Insufficient detail, not reasonably foreseeable. Temporal overlap unknown.

Potential RFFA: Kaibab Plateau (NKR D) Wireless Communications Sites Development - aka VT & Telephone Hill Communications Sites
Description: DW Tower LLC (DWT) has proposed to develop the VT Hill and Telephone Hill Wireless Communication Facilities on the North Kaibab Ranger District of the Kaibab National Forest. DWT is required to obtain a communications site lease under a Special Use Authorization Permit which would authorize the construction, operation, and maintenance of the two communication facilities.
Source: https://www.fs.usda.gov/project/?project=52587
Reason not analyzed: Insufficient detail, not reasonably foreseeable. Temporal overlap unknown.

Potential RFFA: Kalamazoo Superior Pit – BLM Mineral Material Sale

Description: This decorative rock quarry is owned and operated by Tucson-based Kalamazoo Materials, Inc. The company's Superior pit operation is located approximately 3 miles south-southeast of the town of Superior. The quarry location may necessitate a rerouting of the proposed eastern alignment of the pipeline corridor to/from the Peg Leg alternative tailings storage facility. Rerouting would occur if Peg Leg (Alternative 5) ultimately is selected by the Forest Service, in cooperation with the BLM, as the agency-preferred EIS alternative.

According to Daniel Moore, Geologist with the BLM Tucson Field Office, "Kalamazoo Superior Pit contracts expired in June 2019. This was an excavate/crush/screen/haul operation on 33 acres, in operation since 2000. The operator has been reclaiming as they sell off remaining stockpiled materials. No new mining is underway or expected. It is likely that the operator will request additional time or tonnage to complete the removal of stockpiled materials. I expect the quarry to be closed/reclaimed within three years."

Source: Personal Communication with Daniel Moore, Geologist, BLM Tucson Field Office, regarding Kalamazoo Superior Pit mining operations and timeline to site closure. Via email. February 11, 2019.

Reason not analyzed: Future activities and impacts same as current, incorporated into Affected Environment and not reasonably foreseeable.

Potential RFFA: Locatable Mining Rule - 36 CFR 228, subpart A. EIS

Description: The U.S. Department of Agriculture (USDA) is initiating an environmental impact statement to inform a decision to revise agency regulations that minimize adverse environmental impacts on National Forest System surface resources in connection with operations authorized by the Mining Law of 1872, as amended (United States mining laws). These rules and procedures govern prospecting, exploration, development, mining, and processing operations conducted on National Forest System lands authorized by the United States mining laws, subsequent reclamation of the land, and any necessary long-term post-closure resource management.

Source: Tonto National Forest SOPA: <https://www.fs.usda.gov/project/?project=57214>

Reason not analyzed: This is not a defined action but revision to agency regulations, with an unknown outcome and no defined effects.

Potential RFFA: Mangum Wildfire

Description: The Mangum Fire burned a significant portion of lands on the North Rim of the Grand Canyon from early June through mid-July 2020. The Kaibab National Forest has now lifted some road closures as well as the nearly 80,000-acre area closure that spanned the northernmost part of the North Kaibab Ranger District.

Source: <https://ein.az.gov/keywords/mangum-fire>

Reason not analyzed: Insufficient detail exists about the effects to analyze.

Potential RFFA: MARRCO Water line
Description: Resolution Copper has constructed a water pipeline within the MARRCO ROW to transport water collected from the No. 9 Shaft and treated at an existing water treatment facility on Resolution Copper's property to an irrigation canal operated by New Magma Irrigation and Drainage District near Florence, Arizona.
Source: Baseline Hydrological Final Environmental Assessment
Reason not analyzed: This water line is already part of the Affected Environment and as such is analyzed in chapter 3 of the EIS.

Potential RFFA: Mexican Spotted Owl Timber Injunction
<p>Description: In September 2019, the Forest Service received an order from the United States District Court for the District of Arizona stating that the agency's "timber management" actions must cease on five national forests in New Mexico and on the Tonto National Forest in Arizona pending formal consultation regarding potential effects on the Mexican spotted owl. In October 2019, a modification to the court-ordered injunction allowed for certain timber management activities to resume. The National Forests affected by the court's order remain open to the public for recreation and other activities.</p> <p>On December 27, 2019, the Forest Service in coordination with U.S. Fish and Wildlife Service (FWS) filed biological opinions related to the recent court-ordered injunction on select timber management activities on five National Forests in New Mexico and on the Tonto National Forest in Arizona. The submission of these biological opinions is in adherence with the court direction on formal consultation requirements between the Forest Service and FWS related to potential effects of timber activities on the Mexican spotted owl.</p> <p>As of October 28, 2020, a judge for the United States District Court of Arizona approved a joint stipulation for dismissal of the lawsuit and associated injunction concerning the Mexican spotted owl. The injunction, that has limited certain timber management activities across the five National Forests in New Mexico and on the Tonto National Forest in Arizona over the past year, was dissolved.</p>
Source: Region 3
Reason not analyzed: Condition no longer exists at this time.

Potential RFFA: Millsite Rangeland Improvements

Description: The Millsite Allotment consists of approximately 44,573 acres of National Forest System lands located approximately 20 miles east of Apache Junction, Arizona, on the southern end of the Mesa Ranger District.

The Mesa Ranger District is proposing to add three new 10,000-gallon storage tanks and two 600-gallon troughs to improve range condition through better livestock distribution and to provide additional wildlife waters in three pastures on the allotment. Water developments are proposed within the Cottonwood, Bear Tanks, and Hewitt pastures of the Millsite grazing allotment.

An Environmental Assessment reauthorizing grazing within the allotment and the proposed rangeland improvements was completed in August 2015, and a Decision Notice/Finding of No Significant Impact was issued that same month.

Improvements have not yet been completed but can proceed.

Source:

Mesa Ranger District, Tonto National Forest. 2010. Environmental Assessment: Millsite Allotment Analysis. Pinal and Maricopa Counties, Arizona. August.

United States Department of Agriculture (USDA). Forest Service Southwestern Region. January 2016. Final Environmental Assessment: Resolution Copper Mining Baseline Hydrological and Geotechnical Data Gathering Activities Plan of Operations. Available at: <https://portal.azoah.com/oedf/documents/17-001-WQAB/SCAT-13-Final%20EA.BaselineProject.2016.BATES.pdf>.

Accessed March 2019.

Reason not analyzed: Project was canceled.

Potential RFFA: North South Corridor Study

Description: The Arizona Department of Transportation (ADOT) is considering the construction and operation of a north-to-south transportation corridor in Pinal County, Arizona. If an action alternative is selected and constructed, the facility would improve connectivity and accessibility and introduce additional roadway capacity to support projected population and employment growth in Pinal County and across the larger region. The North-South Corridor Study (NSCS) Tier 1 Draft Environmental Impact Statement (DEIS, Project No. FHWA-AZ-EIS-19-02-D) has been prepared to evaluate the potential short-term and long-term impacts associated with proposed action corridor alternatives.

The North-South Corridor Study spans about 55 miles between U.S. 60 in Apache Junction and I-10 in Eloy, passing through the city of Coolidge, town of Florence, and portions of unincorporated Pinal County along the way. The study also incorporates the extension of State Route 24 from Ironwood Drive to the North-South Corridor.

Currently, there is no funding identified to build the proposed North-South Corridor. The Federal Highway Administration and ADOT have transitioned the North-South Corridor Study to be conducted as a Tier 1 Environmental Impact Statement (EIS). This Tier 1 process is prescribed by the NEPA and will conclude with a Record of Decision that selects a preferred alternative (a build corridor alternative or the no-build alternative).

This transition to a Tier 1 process allows the timing of final NEPA approval to be more closely correlated with actual timing of project funding and construction, as Tier 2 studies can be completed individually over time as construction funding becomes available. There is currently no funding for Tier 2 studies. The project will:

- address lack of capacity.
- improve the efficiency of existing freeway and arterial street networks.
- improve access to future activity centers.
- enhance transportation system linkages.
- create a more direct connection to the eastern portion of the Phoenix metropolitan area.
- perform functions and provide services identified in local, regional, and statewide plans.
- evaluate potential multimodal facility (rail and utility) opportunities in the area.

Source:

ADOT website: <https://azdot.gov/planning/transportation-studies/north-south-corridor-study-proposed-new-transportation-route-pinal>

Reason not analyzed: Insufficient detail, not reasonably foreseeable. Temporal overlap unknown.

Potential RFFA: North Zone 2019 Range Betterment Project

Description: The Tonto National Forest has proposed new water sources and handling facilities to improve livestock management on the Payson and Pleasant Valley Ranger Districts.

Source: http://www.fs.fed.us/nepa/nepa_project_exp.php?project=57300

Reason not analyzed: Insufficient detail, not reasonably foreseeable. Temporal overlap unknown.

Potential RFFA: NPG Cable of Arizona/Suddenlink Issuance of New Permit

Description: NPG Cable/Suddenlink has submitted a proposal to reissue a permit for existing aerial and buried television cable lines on the Red Rock and Flagstaff Ranger Districts.

Source: http://www.fs.fed.us/nepa/nepa_project_exp.php?project=33334

Reason not analyzed: Project on hold. Temporal overlap unknown.

Potential RFFA: Pavement Preservation
Description: The Arizona Department of Transportation (ADOT) began a pavement rehabilitation and guardrail project on U.S. 60 between Superior and Top-of-the-World in late November 2019. In addition to repaving, elements of the project included concrete sidewalk/curb and gutter work at the U.S. 60/State Route 177 interchange; bridge deck rehabilitation at Devils Canyon; signage upgrades; rumble strip installation; and shoulder improvements. The project was completed in December 2020.
Source: https://azdot.gov/projects/southeast-district-projects/us-60-pavement-rehabilitation-project-between-superior-and-top
Reason not analyzed: The pavement replacement and roadway improvements project along U.S. Route 60 was completed in December 2020 and therefore would not contribute to future cumulative effects of the Resolution Copper Project.

Potential RFFA: Peg Leg Hydrological, Geologic and Geotechnical Investigations
Description: Resolution Copper proposed to do exploratory (hydrologic, geologic, and geotechnical) drilling at 10 drill pads at the proposed Peg Leg alternative tailings storage facility location. Drill pad sites would measure approximately 80 × 120 feet. Two test trenches measuring 20 × 30 feet of varying depths would also be excavated. In addition, a temporary equipment laydown yard measuring approximately 200 × 200 feet would be constructed. Hydrologic monitoring wells using 4- to 6-inch-diameter casing would be installed at five of the 10 drill sites. Once drilling is complete and data collected from each of the drilling site locations, the drill pads, test pits, laydown yard site, and any access routes to each site would be recontoured and revegetated to restore each, as much as possible, to pre-disturbance conditions. Monitoring wells would remain in place.
Source: Westland Resources. 2018. “Notice to BLM for Resolution Copper Mining, LLC, Peg Leg Hydrological, Geologic and Geotechnical Investigations”. Tucson, Arizona. October 8.
Reason not analyzed: Any work already conducted at the Peg Leg location is already part of the Affected Environment and as such is analyzed in chapter 3 of the EIS. All further work has been canceled after the Skunk Camp location became the preferred alternative.

Potential RFFA: Perlite Pits OHV staging area
<p>Description: The Forest Service is pursuing establishing a designated staging area located along Arnette Drive south of Superior, Arizona. This area is specifically identified to fulfill the current use in this area, where OHV use is very popular. The staging area would provide convenient access to existing NFS roads, including NFS Roads 998 and 2476 in an area that is already heavily used by OHVs and other motorized vehicles.</p> <p>In 2020, this proposal was incorporated into a comprehensive recreation mitigation measure to be required for the Resolution Copper Project.</p>
Source: Tonto National Forest
Reason not analyzed: This action has been incorporated into the FEIS and is being analyzed; see appendix J for details of the mitigation measures.

Potential RFFA: Pinal County Joint Land Use Study
<p>Description: The Pinal County Joint Land Use Study (JLUS) is a planning effort between the Arizona National Guard, surrounding communities, state and Federal agencies, the public, and other affected stakeholders to identify and address compatibility issues. The four Arizona National Guard installations involved include the Florence Military Reservation, Rittenhouse Training Site, Silverbell Army Heliport, and Picacho Peak Stagefield. Involved communities are the Town of Florence, Marana, Queen Creek, and the City of Eloy. Proposed benefits to the Pinal County JLUS include protecting the health and safety of surrounding residents and workers, preserving long-term land use compatibility between the Arizona National Guard and the surrounding communities, promoting community planning that addresses compatibility issues, and enhancing cooperation between the Arizona National Guard and community officials.</p>
<p>Source: Pinal County and Arizona National Guard. 2019. Pinal County Joint Land Use Study: Project Overview. Available at: https://view.joomag.com/pinal-county-jlus-fact-sheet-1/0062203001519428244?short. Accessed March 2019.</p>
Reason not analyzed: Not an action, but a management plan that establishes goals with future actions undetermined.

Potential RFFA: Pinal County Whitlow Pit – BLM Mineral Material Sale
<p>Description: The Whitlow pit operation is a gravel pit owned and operated by Pinal County. It is located approximately 7 miles south of the town of Superior and 0.5 mile west of State Route 177. The quarry location may necessitate a rerouting of the proposed western alignment of the pipeline corridor to/from the Peg Leg alternative tailings storage facility. Rerouting would occur if Peg Leg (Alternative 5) ultimately is selected by the Forest Service, in cooperation with the BLM, as the agency-preferred EIS alternative.</p> <p>According to Daniel Moore, Geologist with the BLM Tucson Field Office, “The Pinal County Whitlow Pit is a gravel pit [that has been] used by Pinal County for road projects since 1983. This free use permit expired in October 2019. Pinal County has expressed interest in obtaining a new free use permit for the site. This is an excavate/haul operation on 15 acres. I have no estimate for when this pit will close. Based on development patterns I expect that Pinal County will have need of the pit well into the future.”</p>
<p>Source: Personal communication with Daniel Moore, Geologist, BLM Tucson Field Office, regarding Pinal County Whitlow Pit mining operations and timeline to potential site closure. Via email. February 11, 2019.</p>
<p>Reason not analyzed: Future activities and impacts same as current, incorporated into Affected Environment and not reasonably foreseeable.</p>
Potential RFFA: Pinaladera Fuels Management
<p>Description: This project was originally included in the DEIS and analyzed as a potential RFFA. However, upon review the Tonto National Forest believes the documentation in the Schedule of Proposed Actions is incorrect and not associated with this project but rather the Pine Mountain Area Improvement project (which is a separate RFFA).</p> <p>At this time, no details are known about the Pinaladera Fuels Management project, nor is there any indication that it still exists as a possible project.</p>
<p>Source: United States Department of Agriculture (USDA) U.S. Forest Service (Forest Service). 2017. Mesa Ranger District Letter. Available at: https://www.fs.usda.gov/nfs/11558/www/nepa/3803_FSPLT3_4125641.pdf. Accessed February 2019.</p> <p>Tonto National Forest. 2019. Schedule of Proposed Actions January 2019 to March 2019. Available at: https://www.fs.fed.us/sopa/components/reports/sopa-110312-2019-01.html. Accessed March 2019.</p>
<p>Reason not analyzed: Project on hold. Temporal overlap unknown.</p>

Potential RFFA: Pleasant Valley Northwest Grazing Allotments Analysis
Description: The Tonto National Forest seeks to formalize an adaptive management livestock grazing strategy to maintain or move resources toward desired conditions as directed by the Tonto National Forest plan.
Source: http://www.fs.fed.us/nepa/nepa_project_exp.php?project=30075
Reason not analyzed: Project on hold. Temporal overlap unknown.

Potential RFFA: Punkin Center Battery Storage
Description: Two 1-MW/4-MW-hr storage systems for the small town of Punkin Center.
Source: https://www.utilitydive.com/news/aps-to-deploy-8-mwh-of-battery-storage-to-defer-transmission-investment/448965/
Reason not analyzed: Insufficient detail, not reasonably foreseeable. Temporal overlap unknown.

Potential RFFA: Qwest dba CenturyLink, Fiber Optic Line Permit Reissuance
Description: Reissuance of a Fiber Optic Line permit to Qwest, dba CenturyLink. Fiber-optic line starts at SR 260 to NFS Road 708 then to Fossil Creek Road.
Source: https://www.fs.fed.us/nepa/nepa_project_exp.php?project=57896
Reason not analyzed: Insufficient detail, not reasonably foreseeable. Temporal overlap unknown.

Potential RFFA: Red Creek, Six Bar, and Skeleton Ridge Grazing
Description: The Tonto National Forest proposed to reauthorize permitted livestock grazing on the Red Creek, Six Bar, and Skeleton Ridge allotments within the Cave Creek Ranger District. The proposed action would continue cattle grazing and associated rangeland management activities on the allotment and follow an adaptive management strategy with monitoring and mitigation measures designed to maintain satisfactory rangeland conditions and improve rangeland conditions that are less than satisfactory.
Source: http://www.fs.fed.us/nepa/nepa_project_exp.php?project=40700
Reason not analyzed: The draft environmental assessment for this project was published in 2013; however, the project has since been placed on hold with no updates since 2015; it is therefore considered not reasonably foreseeable at this time. Furthermore, this project would simply renew existing permits involving the same acres and AUMs. Existing conditions and trends would continue but would not be expected to contribute to any greater cumulative effects.

Potential RFFA: Resolution Copper Baseline Geotechnical and Hydrological Data Gathering Activities
Description: Resolution Copper was authorized in 2016 to gather and evaluate geotechnical and hydrological data in an area approximately 1 mile west-northwest of the town of Superior and 1 mile north of U.S. Route 60 proposed for a tailings storage facility.
Source: U.S. Forest Service. 2016. Final Environmental Assessment. Resolution Copper Mining Baseline Hydrological and Geotechnical Data Gathering Activities Plan of Operations. Tonto National Forest, Globe and Mesa Ranger District, Pinal County. January. Available at: https://www.fs.usda.gov/nfs/11558/www/nepa/98906_FSPLT3_2640925.pdf .
Reason not analyzed: A legal decision ruled that this is not a connected action to the Resolution Copper Project.

Potential RFFA: Rockfall at Claypool Tunnel on LOST trail
Description: A rockfall occurred in August/September 2019 on Resolution Copper private property, resulting in a temporary closure of the Claypool tunnel. Public comments were received requesting it be reopened, but the tunnel has since already been reopened.
Source: Hike Arizona www.hikearizona.com
Reason not analyzed: Condition no longer exists at this time.

Potential RFFA: Saguaro-Winchester
Description: Construction of a 500-kV transmission line from the existing Saguaro Substation to and including the proposed Winchester Substation.
Source: https://www.srpnet.com/electric/transmission/permitted.aspx
Reason not analyzed: Insufficient detail, not reasonably foreseeable. Temporal overlap unknown.

Potential RFFA: Sedow and Haystack Butte Allotment Range Improvements
Description: The project proposes to authorize additional range improvements to supply additional water for livestock. This is necessary to allow the existing grazing authorization to achieve conservative utilization of forage and increase livestock distribution. A preliminary EA of this proposed action was published by the Tonto National Forest, Globe Ranger District, in January 2018. This study indicates there would be no significant adverse environmental impacts from the proposed water supply improvements.
Source: Tonto National Forest, Globe Ranger District. 2018. Sedow and Haystack Butte Allotment Range Improvements: Final Environmental Assessment. Available at: https://www.fs.usda.gov/nfs/11558/www/nepa/107755_FSPLT3_4311168.pdf . Accessed October 2020. U.S. Forest Service, Tonto National Forest. 2019. Schedule of Proposed Actions January 2019 to March 2019. Available at: https://www.fs.fed.us/sopa/components/reports/sopa-110312-2019-01.html . Accessed March 2019.
Reason not analyzed: Project believed to be completed.

Potential RFFA: Silver King Mine
<p>Description: Silver King Mine has submitted a new plan of operations to reactivate the historic underground mine. However, it is not complete under the regulatory definition at 36 CFR 228.4(c). The Forest Service currently is awaiting modifications by Silver King Mine to meet regulatory requirements for completeness and further processing.</p> <p>Previously, Silver King Mine had submitted a plan that was analyzed for impacts in 2003. However this plan is inappropriate for impact analysis because it no longer is “reasonably foreseeable”, per the submittal of the new plan.</p> <p>While the new plan is considered reasonably foreseeable, as previously stated it is incomplete and its details are unavailable. At this time it is not feasible to analyze the impacts of the project.</p>
Source: Silver King Mine project record.
Reason not analyzed: Insufficient detail, not reasonably foreseeable. Temporal overlap unknown.
Potential RFFA: Silver King-New Oak Flat-New Superior 230 kV line
<p>Description: The approximate 6.5-mile 230-kV transmission line starts at the Silver King Receiving Station, heading south and then turning southwest into the New Oak Flat 230-kV Substation. The alignment will then traverse to the west into the New Superior 230-kV Substation.</p>
Source: https://www.wecc.org/Reliability/2018%20APR%20SRP.pdf
Reason not analyzed: Project is part of the proposed action and analyzed in the FEIS.
Potential RFFA: Skunk Camp Hydrological, Geologic and Geotechnical Investigations
<p>Description: Resolution Copper proposed to do exploratory (hydrologic, geologic, and geotechnical) drilling at 14 drill pad sites measuring approximately 100 × 100 feet at the proposed Skunk Camp alternative tailings storage facility location. In addition, three test trenches measuring approximately 10 feet long × 5 feet wide × 10 feet deep were proposed to be excavated.</p>
Source: Westland Resources. 2019. “Skunk Camp Drilling Program General Plan”. Tucson, Arizona. January 29.
Reason not analyzed: This work has already been completed and is incorporated into the FEIS analysis. See section 3.2 specifically for a summary of reports produced.
Potential RFFA: Sonoran Desert Ecosystem Restoration
<p>Description: The Tonto National Forest has proposed to eliminate approximately 145 miles of unauthorized and un-inventoried, user-created motorized routes in the Rolls, Bulldog Canyon, and Hewitt Canyon areas within the Mesa Ranger District.</p>
Source: http://www.fs.fed.us/nepa/nepa_project_exp.php?project=51337
Reason not analyzed: Project on hold. Temporal overlap unknown.

Potential RFFA: Southwest Transmission Cooperative (SWTC) Apache-Hayden Powerline ROW Renewal and Pole Replacement

Description: The BLM originally granted AZAR-0032556 to Arizona Electric Power Cooperative in 1963 for a 115-kV transmission line. The length of the transmission line across BLM land was originally about 20 miles long total. The width of the ROW is 100 feet (50 feet from centerline). The portion of the line on public land contained 242.42 acres. On October 19, 1990, the BLM amended the grant to include the right to maintain 39 acres of previously constructed access roads. The access roads are all 20 feet in width (10 feet from centerline). On June 29, 2001, the BLM assigned the grant to Southwest Transmission Cooperative, Inc. (SWTC). On April 14, 2003, the BLM amended the grant again and converted it to a Federal Land Policy and Management Act (FLPMA) ROW. Throughout the term of the grant, various lands affected by the power line left BLM jurisdiction. AZAR-032556 expired on July 29, 2013. SWTC filed a renewal application on March 10, 2015. The power line is divided administratively into two distinct segments: Segment 1 (0.6 miles, BLM Safford Field Office): Apache-Winchester, 115/230 kV double-circuit transmission line on single-pole steel structures. The 2003 amendment to the ROW allowed SWTC to add the 230-kV line and a fiber-optic ground wire to the poles. Segment 2 (8.9 miles, BLM Tucson Field Office): Winchester-Hayden, 115-kV single-circuit transmission line on two-pole wood and some steel structures, built in 1963. In the renewal, SWTC would like to gain the right to add a fiber-optic ground wire to this segment as well. The fiber optic is for internal communication use only and can be installed without needing a temporary construction area. SWTC would also like the freedom to replace any existing wood two-poles with single-pole steel structures as needed. The proposed action is to renew the ROW for the entire transmission line and all previously designated access roads. SWTC will retain the rights to operate and maintain the line and the roads. SWTC wants express permission to be able to replace two-pole wood structures with single-pole steel structures as needed in Segment 2 as part of regular maintenance. Lastly, SWTC wants to amend their ROW to add a fiber-optic ground wire to Segment 2 (BLM 2018).

Source: Bureau of Land Management. ePlanning. 2018. DOI-BLM-AZ-G020-2018-0033-CX (SWTC Apache-Hayden Power Line ROW Renewal). Available at: <https://eplanning.blm.gov/epl-front-office/eplanning/projectSummary.do?methodName=renderDefaultProjectSummary&projectId=109550>. Accessed March 2019.

Reason not analyzed: Project is complete.

Potential RFFA: Sulphur Springs Valley - Fish Canyon Electric Line Maintenance

Description: The Sulphur Springs Valley Electric Cooperative will replace the aging Fish Canyon Distribution Line on the Nogales Ranger District - 2.11 miles total.

Source: Coronado National Forest Schedule of Proposed Actions (SOPA) - October through December 2020. <https://www.fs.fed.us/sopa/components/reports/sopa-110305-2020-10.html>

Reason not analyzed: Construction expected to begin fall 2020 and be completed by early 2021, and therefore would not contribute to future cumulative effects of the Resolution Copper Project.

Potential RFFA: Superior Soil Study Area
Description: Under ADEQ’s Voluntary Remediation program (VRP), BHP may be sampling and monitoring soils in the vicinity of/and surrounding the town of Superior to test for impacts from the historic mining activities during operation of the Magma Mine.
Source: Arizona Department of Environmental Quality. 2019. “Superior Soil Study Area VRP Site.” Available at: https://azdeq.gov/superior-soil . Accessed March 2019.
Reason not analyzed: Project completed.

Potential RFFA: Superior Waters and Trails Action Plan
<p>Description: The National Park Service (NPS) Rivers, Trails and Conservation Assistance (RTCA) program supports nonprofit organizations, community groups, Tribes, and local, state, and Federal government agencies. The NPS will assist the Town of Superior to improve ecological health, enhance aquifer recharge and trail connectivity in Superior, Arizona, by creating a practical and collaborative action plan. Note that NPS assistance does not include funding.</p> <p>The Superior Waters & Trails Action Plan will identify a practical road map for enhancing the recreational and natural values of the Town of Superior. Rather than a comprehensive plan or long-term management strategy, the action plan will serve as a catalyst and tool for identifying tangible steps and projects that can be accomplished within the next 5 years. The effort is a voluntary collaborative that includes the Town of Superior (project lead), Rebuild Superior, Legends of Superior Trail, Resolution Copper, Tonto National Forest, Central Arizona Council of Governments, and recreation users facilitated by the NPS.</p> <p>In 2019, the partnership created a concept plan for restoring Queen Creek through downtown Superior that includes direct discharge of supplemental water into the natural channel. The plan also calls for a reintegration of the creek into the historic downtown district via trail connections and overlooks.</p>
Source: https://www.nps.gov/orgs/rtca/upload/Arizona-2019.pdf
Reason not analyzed: Insufficient detail, not reasonably foreseeable. Many aspects of this plan are aspirational and not funded, and lack enough detail to analyze impacts.

Potential RFFA: Taurus Exploration Plan CE
Description: Vortex Technology LLC has submitted a Plan of Operations for a trenching exploration project. The proposed project would include up to nine trenches, three long (30 × 2 × 6 feet) and six short (6 × 4 × 4 feet).
Source: http://www.fs.fed.us/nepa/nepa_project_exp.php?project=54368
Reason not analyzed: Project was canceled.

Potential RFFA: Town of Superior Land Exchange Parcels

Description: If requested by the Town of Superior, Public Law 113-291 authorizes and directs the transfer of 545 acres of National Forest System (NFS) lands to the Town of Superior. The Town of Superior did not request the transfer before the DEIS, and as of December 2020, the transfer has still not been requested.

The NFS lands to be conveyed to available for purchase by the Town of Superior include a 30-acre parcel known as Fairview Cemetery and 250 acres contained in four parcels known as the Superior Airport Contiguous Parcels. In addition, the Town of Superior lands include a Federal reversionary interest to a 265-acre Superior Airport parcel. The Superior Airport parcel was originally owned by the Federal Government, then deeded to Pinal County, and subsequently conveyed to the Town of Superior with the condition that it could only be used as an airstrip. Any other use would cause the property to revert to Federal land (the reversionary interest). As part of the land exchange, the Federal reversionary interest would be removed, after which time the parcel could be used for non-airport purposes.

Source: <https://www.congress.gov/bill/113th-congress/house-bill/3979/text>

Reason not analyzed: In the 5 years since passage of Section 3003 of the “H.R.3979 - Carl Levin and Howard P. ‘Buck’ McKeon National Defense Authorization Act for Fiscal Year 2015,” which authorized this conveyance of land, the Town of Superior has not requested the land exchange. It is therefore not considered a reasonably foreseeable action.

Potential RFFA: Town of Superior Transfer Station Remediation

Description: Transfer station was issued a Notice of Violation in 2012 for waste containing asbestos. Superior proposed remediation plan in 2016, which ADEQ approved. Phase 1 and 2 are complete (took waste away and installed cleaner burners). Phase 3 will include decontaminating and grading the site where contaminants were removed.

According to a news article from July 2016 published on the website Copper.com:

“The [Town of Superior Town] Council...approved the Transfer Station Remediation Plan negotiated with the Arizona Department of Environmental Quality (ADEQ) that will enable Superior to avoid nearly \$1 million in immediate payments to clean up the site of the Superior Transfer Station, which has been closed since March 2012. At that time, the station, then operated by Orion Recycling, was found by ADEQ to be in violation of Arizona environmental regulations with the most egregious violations was the stockpiling of asbestos contaminated construction material. While some cleanup of the site was then performed, Superior lacked funding to continue the work and the station was put under an ADEQ consent decree in March 2014.

Under the approved plan, Superior is acquiring an air curtain burner that performs low-pollution burning of vegetative matter. To be installed by the end of September, the burner will immediately tackle the 6,500 yards of green waste (including wood) that has been sitting on the site since 2012. As the burner can reduce to ash green waste at the rate of four tons an hour, this project could take from 100 to 170 days. The resulting ash would be only about 3 percent the volume of the existing green waste.

<p>Beginning in mid-September, Superior also will initiate the removal of asbestos-contaminated material currently housed in two bulk containers on the site. Once completed, the area under these piles will be cleaned, decontaminated and graded, leaving behind 50,000 square feet of clear space. This part of the plan is expected to be completed by early April 2017.</p> <p>Once these two ADEQ mandated tasks are completed, Superior will continue to operate the Transfer Station handling in-coming materials.”</p>
<p>Source: Hodl, James. 2016. “Superior Town Council Approves 2017 Budget, Transfer Station Remediation Plan.” Available at: http://www.copperarea.com/pages/superior-town-council-approves-2017-budget-transfer-station-remediation-plan/. July 16. Accessed January 2019.</p>
<p>Reason not analyzed: Project is complete.</p>

<p>Potential RFFA: Unisource Energy Permit Reissuance</p>
<p>Description: Unisource Energy has requested a reissuance of an expiring master permit for buried natural gas lines in various locations around Flagstaff and the Verde Valley.</p>
<p>Source: http://www.fs.fed.us/nepa/nepa_project_exp.php?project=51531</p>
<p>Reason not analyzed: Insufficient detail, not reasonably foreseeable. Temporal overlap unknown.</p>

<p>Potential RFFA: US-Mexico Border Wall</p>
<p>Description: U.S. Customs and Border Protections (CBP) is constructing new border barrier projects in three Arizona counties within the U.S. Border Patrol Tucson Sector. In Cochise County, CBP will replace approximately 24 miles of existing primary pedestrian barrier with steel bollard fencing, construct approximately 7 miles of new steel bollard fencing, and replace approximately 1 mile of existing, secondary barrier with steel bollard fencing. In Pima County, CBP will replace approximately 7 miles of existing primary pedestrian barrier with new steel bollard fencing and construct approximately 8 miles of new steel bollard fencing. In Santa Cruz County, CBP will construct approximately 25 miles of new steel bollard fencing and replace approximately 2 miles of existing primary pedestrian barrier and vehicle barrier with new steel bollard fencing.</p>
<p>Source: https://www.cbp.gov/document/environmental-assessments/cochise-pima-and-santa-cruz-counties-border-barrier-projects</p>
<p>Reason not analyzed: Insufficient detail, not reasonably foreseeable. Temporal overlap unknown.</p>

<p>Potential RFFA: Van Dyke Mine</p>
<p>Description: The Van Dyke Mine is located adjacent to and east of the main Miami-Inspiration ore body, which is owned and operated by Freeport-McMoRan. The copper deposit at the Van Dyke property was discovered in 1916, and in 1919 a primary shaft was sunk to a depth of 1,692 feet. Over the following decades, the mine produced nearly 12 million pounds of copper. Large-scale production ceased in 1945.</p>

According to Mindat.org (Hudson Institute of Mineralogy), the orebody primarily consists of a deep, “low-grade, disseminated sulfide deposit. It contains ...small amounts of oxidized copper minerals.” Overall ore grade is estimated at 0.51 percent.

Kocide Mineral Corporation ran an in-situ leach-solvent operation at the Van Dyke Mine in the 1980s, but ceased operations in 1990. Tucson-based Arimetco International acquired the property in 1992, but does not appear to have actively mined the deposit and subsequently sold all interests to Canada-based Copper Fox Metals Inc. Copper Fox then established a subsidiary called Desert Fox Van Dyke Company., which now holds a “100% working interest in the Van Dyke project located in the Globe-Miami District in Arizona.”

Source: Copper Fox Metals, Inc. 2019. “Projects: Van Dyke: Overview”. Available at: <https://www.copperfoxmetals.com/projects/van-dyke/overview/>. Accessed March 2019.

Mindat.org. 2019. “Van Dyke Mine (Van Dyke shaft; Van Dyke deposit; Van Dyke claim; Oxymin's Van Dyke deposit), Miami, Miami-Inspiration District, Globe-Miami District, Gila Co., Arizona, USA.” Available at: <https://www.mindat.org/loc-25740.html>. Accessed March 2019.

Reason not analyzed: Insufficient detail, not reasonably foreseeable. Temporal overlap unknown.

Potential RFFA: Wickiup Creek Flow Restoration

Description: The Coconino National Forest Red Rock Ranger District intends to restore Wickiup Creek to historic patterns of surface flow. The proposed action would reestablish a surface flow channel resembling the channel from the mid-1940s, accomplished through excavation of accumulated sediment and the addition of grade control to maintain a stable, alluvial channel through the Wickiup draw.

Source: http://www.fs.fed.us/nepa/nepa_project_exp.php?project=57734

Reason not analyzed: Insufficient detail, not reasonably foreseeable. Temporal overlap unknown.

Potential RFFA: Wilson Right-of-Way

Description: A private landowner has requested a right-of-way permit for NFS Roads 9853W and 9854F to allow the owner to maintain the road for access to the owner’s land.

Source: <https://www.fs.usda.gov/project/?project=52892>

Reason not analyzed: Project on hold. Temporal overlap unknown.

Potential RFFA: Woodland Connector Trail

Description: The Town of Pinetop-Lakeside currently has no direct access from Mountain Meadow Recreation Complex to trails within the Woodland Lake Park. The Forest Service has proposed to build two connector trails that would create the connection and allow for better access to the area.

Source: <https://www.fs.usda.gov/project/?project=57775>

Reason not analyzed: Project on hold. Temporal overlap unknown.

**ATTACHMENT 3 – WORKSHEETS FOR POTENTIAL RFFAS
WITH ONLY BENEFICIAL OR NEGLIGIBLE EFFECTS**

APS Coconino-Verde 230-kV Fiber-Optic Improvement Project

Overview of RFFA

APS proposes to improve the Coconino-Verde 230-kV transmission line (APS Line Number 230-2) on the Coconino National Forest. The proposed action calls for replacement of existing static wire along the power line with fiber-optic cable for approximately 34 miles from the APS Coconino Substation in Flagstaff to just beyond the Verde Substation, approximately 5 miles north of Clarkdale.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

Final EA published on 5/19/2020.

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

As all impacts are either beneficial or negligible, this RFFA was not carried forward to chapter 4 of the FEIS for spatial analysis.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action requires limited ground disturbance and would not affect any ongoing exploration activities.
Soils, Vegetation, and Reclamation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would result in short- and long-term, negligible, localized, adverse impacts to vegetation through road maintenance and the installation of the fiber-optic cable. The proposed action has the potential to increase soil erosion and soil compaction and could result in short-term, direct and indirect, negligible adverse impacts to soils.
Noise and Vibration	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would result in increased noise levels during construction activities; however, there are no sensitive noise receptors within or adjacent to the project area. Additionally, noise generation would be limited to during the daytime.
Transportation and Access	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not result in any impacts to transportation.
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Short-term, localized, negligible to minor increases in air pollutants would occur during construction, and no impacts to air quality would occur once construction is completed.
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not result in impacts to groundwater quantity or GDEs.

Resource Category	Results of RFFA Screening
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Construction of the access road maintenance and installation of the fiber-optic cable would not occur within or adjacent to any perennial or ephemeral waters.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Construction of the access road maintenance and installation of the fiber-optic cable would not occur within or adjacent to any perennial or ephemeral waters.
Wildlife	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would result in short-term, negligible, localized, adverse impacts to general wildlife. No long-term impacts are anticipated. The proposed action was determined to have “no effect” on federally listed species such as yellow-billed cuckoo, narrow-headed gartersnake, and northern Mexican gartersnake. The proposed action may affect, but is not likely to adversely affect the Mexican spotted owl.
Recreation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Dispersed recreation and trails are present within the project area; however, the proposed action would not affect recreation activities.
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No tailings are involved in the proposed action.
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Fuels and fire management would not change as a result of the proposed action.
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No hazardous materials are involved in the proposed action.
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not deviate from the established Scenic Integrity Objective category currently associated with the ROW and would not result in any impacts to scenic resources.
Cultural Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action could increase erosion at NRHP-eligible sites. Effects from erosion would be minimized with the implementation of design elements. Overall, the proposed action could result in short- and long-term, negligible, adverse, localized impacts to cultural resources.
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No socioeconomics impacts are anticipated as a result of the proposed action.
Tribal Values and Concerns	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action could increase erosion at NRHP-eligible sites. Effects from erosion would be minimized with the implementation of design elements. Overall, the proposed action could result in short- and long-term, negligible, adverse, localized impacts to resources of tribal concern and value.

Resource Category	Results of RFFA Screening
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not cause displacement of residents nor disproportionately high or adverse health or environmental effects on low-income or minority populations.
Livestock and Grazing	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Limited ground disturbance to vegetation within the project area would result in short- and long-term, negligible, localized, adverse impacts to livestock grazing. However, design elements such as coordination with grazing permittees would avoid and minimize potential grazing impacts.

Sources:

<https://www.fs.usda.gov/project/?project=56974&exp=overview>

Arizona Department of Transportation (ADOT) Potential Transportation Infrastructure Improvement Projects

Overview of RFFA

Potential upcoming transportation projects include, but are not limited to:

- U.S. 60 between Florence Junction and Globe
- SR 79 between Florence Junction and Oracle
- SR 177 between Superior and Winkelman/Kearny
- SR 77 between Globe and Winkelman/Kearny
- Queen Creek Canyon bridge rehabilitation
- Pinto Creek/U.S. 60 bridge replacement

These projects will include various roadway preservation and improvement efforts, such as pavement replacement, bridge rehabilitation or replacement, sidewalk and other pedestrian access improvements/ replacements, roadway widening, drainage improvements and/or replacements, additional or replacement signage and pavement markings, and installation of new or replacement roadway lighting.

Each project temporarily will reduce traffic flow in specific project areas through lane restrictions and closures, reduced traffic speeds, and other measures that would last until project completion. However, in general these projects should improve traffic conditions and extend roadway life.

None of the proposed ADOT projects is expected to have any substantial or long-term environmental impact. This is because:

- such routine roadway infrastructure improvement actions are nearly always limited to areas that already are disturbed;
- adverse environmental effects (such as generation of dust or noise or light) typically occur only for the duration of construction; and
- ADOT construction management practices tend to limit adverse effects on surrounding vegetation, soils, and waters.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

Various times throughout the life of the Resolution Copper Project (~50 years).

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

As all impacts are either beneficial or negligible, this RFFA was not carried forward to chapter 4 of the FEIS for spatial analysis.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Overall conclusion: While these and other ADOT road projects may overlap in space and time with effects of the Resolution Copper Mine and other human activities within the larger cumulative assessment analysis area, no substantial or lasting environmental impacts are anticipated.

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Soils, Vegetation, and Reclamation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Noise and Vibration	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Transportation and Access	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Wildlife	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Recreation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Cultural Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Tribal Values and Concerns	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.

Resource Category	Results of RFFA Screening
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Livestock and Grazing	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.

Source:

Arizona Department of Transportation (ADOT). 2018. *2019-2023: Five-Year Transportation Facilities Construction Program*. June 18. Available at: <https://www.azdot.gov/docs/default-source/planning/five-year-program-fy2019-2023.pdf?sfvrsn=10>. Accessed March 2019.

Arizona National Scenic Trail (Arizona Trail) Comprehensive Plan

Overview of RFFA

The Southwestern Regional Office of the Forest Service (Region 3), in coordination with the Tonto National Forest and other National Forests in Arizona, is leading development of an Arizona National Scenic Trail Comprehensive Plan and accompanying NEPA Environmental Assessment (EA).

The Comprehensive Plan will develop administrative and management goals, objectives, and practices for the Arizona Trail and management corridor. This planning-level document would not implement or authorize any specific project or activity, but rather provide an overall vision and basis for future management.

One connecting trail from the Arizona Trail within the Tonto National Forest would be the Legends of Superior Trail (LOST), providing access to the community of Superior historic area. A reroute of the Arizona Trail is planned that would avoid impacts from a highway realignment.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

The Forest Service states that the Comprehensive Plan will guide Arizona Trail management for approximately 15–20 years. Scoping was completed in 2017, with 2021 indicated as a potential implementation date. No updates are available to this time frame.

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

As all impacts are either beneficial or negligible, this RFFA was not carried forward to chapter 4 of the FEIS for spatial analysis.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Rationale for each resource is based on Comprehensive Plan Public Scoping Document (USDA 2017b).

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No disturbance to geological resources is foreseen.
Soils, Vegetation, and Reclamation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The plan identifies areas of unstable soils and plans to restore the trail and trail corridor where there are existing trail erosion and drainage problems and impacts.
Noise and Vibration	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. This is a planning level-document; therefore, no additional noise would be associated with the plan.
Transportation and Access	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No disturbance to local or regional roadways would occur.

Resource Category	Results of RFFA Screening
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. There would be no generation of emissions associated with the implementation of the plan.
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Guidance to protect hydrology within the plan would consult with management plans (municipal, county/state, Federal).
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Guidance to protect hydrology within in the plan would consult with management plans (municipal, county/state, Federal).
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The Arizona Trail corridor is sustainable with no major soil erosion, water drainage, or water quality concerns caused by the use and management of the trail or other land uses within the corridor.
Wildlife	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Sections of the Arizona Trail may be relocated for purposes of special-status species and/or critical habitat protection only when other mitigation alternatives are found to be not possible, as determined through NEPA analyses.
Recreation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Users of the Arizona Trail in this portion of the state may have an improved trail experience with the implementation of this plan.
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No tailings are involved in the proposed plan.
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No fire risk is foreseen.
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No hazardous material risk is foreseen.
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Users of the Arizona Trail in this portion of the state may have an improved scenic experience with the implementation of this plan.
Cultural Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Trail corridors would be managed to include the identification of significant cultural resources to be preserved.
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Socioeconomics would be minimally affected from increased recreational users and construction.
Tribal Values and Concerns	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Cultural landscapes would be identified by the Tribes, communities, and preservation partners and significant visual qualities of tribal cultural property would be protected.

Resource Category	Results of RFFA Screening
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. There would be no effects on environmental justice communities in the area.
Livestock and Grazing	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. There would be no changes to livestock or grazing in the area as a result of the plan's implementation.

Source:

Tonto National Forest. 2019. "Schedule of Proposed Actions (SOPA) – 01/01/2019 to 03/31/2019." Available at: <https://www.fs.usda.gov/project/?project=49896&exp=detail>. Accessed March 2019.

United States Forest Service (Forest Service). 2017a. *Arizona National Scenic Trail Comprehensive Plan Public Engagement Summary - Scoping Phase, 2017*. Available at: https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fseprd567374.pdf. Accessed January 2019.

United States Forest Service (Forest Service). 2017b. *Planning for the Future of the Arizona National Scenic Trail: Arizona National Scenic Trail Comprehensive Plan: Public Scoping Document*. Available at: https://www.fs.usda.gov/nfs/11558/www/nepa/104401_FSPLT3_4047026.pdf. Accessed January 2019.

Central Arizona Project (CAP) Trail Plan

Overview of RFFA

Construction of a recreational trail is planned alongside the Central Arizona Project (CAP) canal in Pinal County.

According to the Pinal County Open Space and Trails Master Plan (2007), “As part of the planning effort for the CAP canal, [the Bureau of Reclamation] BOR committed itself to maintaining a 20-foot recreation corridor on the right side of the canal (facing downstream). The intent of the CAP is to include a 10-foot-wide paved, non-motorized path. Pinal County has over 53 miles of CAP canal that is also used as a connection to the Maricopa County Regional Trail System.”

The Pinal County *Master Plan for the Pinal County Segment of the Central Arizona Project CAP National Recreation Trail* (2015), the approved CAP trail within Pinal County would be located adjacent to the CAP canal from the south county line south of Redrock to the north county line adjacent to the city of Apache Junction. Notable features would include:

- Multi-use non-motorized trail opportunities
- Linking ongoing CAP trail projects in Pima County and Maricopa County
- Potential linkages to multiple cities in Pinal County
- Potential linkages to State Parks and future County Regional Parks
- Potential link to the conceptual Sun Corridor Trail, a multi-use, non-motorized trail from the border with Mexico to Clark County, Nevada.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

Construction of segments of the trail have already begun, but in the phased approach called for in the Master Plan it will take “many years” to complete all segments throughout Pinal County.

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

As all impacts are either beneficial or negligible, this RFFA was not carried forward to chapter 4 of the FEIS for spatial analysis.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Most of the CAP trail in Pinal County will be constructed within already disturbed areas adjacent to or near the CAP canal. No effects on this resource are anticipated.
Soils, Vegetation, and Reclamation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Most of the CAP trail in Pinal County will be constructed within already disturbed areas adjacent to or near the CAP canal. No effects on this resource are anticipated.
Noise and Vibration	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Most of the CAP trail in Pinal County will be constructed within already disturbed areas adjacent to or near the CAP canal. Construction impacts would be short-term and minimal and no adverse effects on area noise and vibration are anticipated.
Transportation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Most of the CAP trail in Pinal County will be constructed within already disturbed areas adjacent to or near the CAP canal. Construction impacts would be short-term and minimal and no adverse effects on area transportation are anticipated.
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Most of the CAP trail in Pinal County will be constructed within already disturbed areas adjacent to or near the CAP canal. Construction impacts would be short-term and minimal and no adverse effects on area air quality are anticipated.
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Most of the CAP trail in Pinal County will be constructed within already disturbed areas adjacent to or near the CAP canal. No effects on this resource are anticipated.
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Most of the CAP trail in Pinal County will be constructed within already disturbed areas adjacent to or near the CAP canal. No effects on this resource are anticipated.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Most of the CAP trail in Pinal County will be constructed within already disturbed areas adjacent to or near the CAP canal. No effects on this resource are anticipated.
Wildlife	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Most of the CAP trail in Pinal County will be constructed within already disturbed areas adjacent to or near the CAP canal. No effects on this resource are anticipated.
Recreation	RFFA contributes to cumulative effects and sufficient information exists to analyze; however, because impacts are overall beneficial, analysis is not carried forward for this resource. The effect on this resource would be an increase in recreational opportunities—a beneficial effect.

Resource Category	Results of RFFA Screening
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Most of the CAP trail in Pinal County will be constructed within already disturbed areas adjacent to or near the CAP canal. No adverse effects on public health and safety are anticipated.
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Most of the CAP trail in Pinal County will be constructed within already disturbed areas adjacent to or near the CAP canal. No adverse effects on public health and safety are anticipated.
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Most of the CAP trail in Pinal County will be constructed within already disturbed areas directly to or near the CAP canal. No adverse effects on public health and safety are anticipated.
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Most of the CAP trail in Pinal County will be constructed within already disturbed areas adjacent to or near the CAP canal. No effects on this resource are anticipated.
Cultural Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Most of the CAP trail in Pinal County will be constructed within already disturbed areas adjacent to or near the CAP canal. No effects on this resource are anticipated.
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No measurable effects on area socioeconomics are anticipated.
Tribal Values and Concerns	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Most of the CAP trail in Pinal County will be constructed within already disturbed areas adjacent to or near the CAP canal. No effects on this resource are anticipated.
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Most of the CAP trail in Pinal County will be constructed within already disturbed areas adjacent to or near the CAP canal. No effects on this resource are anticipated.
Livestock and Grazing	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Most of the CAP trail in Pinal County will be constructed within already disturbed areas adjacent to or near the CAP canal. No adverse effects on area livestock or grazing patterns are anticipated.

Source:

Pinal County. 2007. *Final Open Space and Trails Master Plan*. October. Available at: <http://www.pinalcountyyaz.gov/OpenSpaceTrails/Documents/FINAL%20Open%20Space%20and%20Trails%20Master%20Plan.pdf>. Accessed March 2019.

Pinal County. 2015. *Master Plan for the Pinal County Segment of the Central Arizona Project CAP National Recreation Trail*. November. Available at: <http://www.pinalcountyyaz.gov/OpenSpaceTrails/Pages/CAPRecTrail.aspx>. Accessed March 2019.

Carlota Mine Leaching Operations, Closure, and Reclamation

Overview of RFFA

The Carlota Mine area, located on an approximately 3,050-acre site west of the town of Miami, Arizona, and adjacent to the Pinto Valley Mine, was mined periodically since the early 1900s. Approximately 1,428 acres of the project area is located within National Forest System (Tonto National Forest) lands; the remainder is privately owned.

The mine includes: open-pit mining with blasting and ore hauling to heap leach since 2008; copper production on-site using the Solvent Extraction and Electrowinning process; Carlota and Cactus pits have been reclaimed and production currently occurring in the Eder South pit. There is no firm date for closure established, however the property will enter into a full-scale closure and reclamation phase upon completion of extraction and leaching.

The Carlota property, which is owned by the Poland-based mining firm KGHM, is pursuing a unique repurposing of the main waste rock stockpile area. The plan, which was granted a special use permit from the Forest Service in February 2016, is to utilize 48 acres of the main stockpile area for a solar array that is expected to generate approximately 25 million kWh of electricity annually, or enough to supply electricity to approximately 2,370 homes per year. Existing transmission lines, a substation, and other facilities that provided electrical power for previous mine operations will be repurposed for the transmission of electricity generated by the new solar array.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

Open-pit mining with blasting and ore hauling to heap leach will continue until at least 2022. Copper production continues on-site using the Solvent Extraction and Electrowinning process. Carlota and Cactus pits have been reclaimed and production is occurring in the Eder South pit. No firm date for closure established.

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

As all impacts are either beneficial or negligible, this RFFA was not carried forward to chapter 4 of the FEIS for spatial analysis and currently considered in the existing environmental conditions of the area.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Though heavily disturbed by past open-pit mining and related earth-moving activities, the area post-closure is not anticipated to be subject to future disturbance. No subsidence or other ground movement is likely to occur.
Soils, Vegetation, and Reclamation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No new surface disturbance is anticipated.

Resource Category	Results of RFFA Screening
Noise and Vibration	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No mine-related noises or vibrations are expected post-closure.
Transportation and Access	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No effects on local or regional transportation networks are expected post-closure.
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No effects on air quality are expected post-closure.
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. KGHM maintains that the Carlota Mine is a “zero-discharge facility,” meaning that no waters have had contact with mine tailings, waste rock, the pit area, or other facilities are allowed to be released or otherwise flow off-site, but instead are maintained on-site by groundwater cutoff walls, berms, pumps, and other control features. Furthermore, KGHM has, to date, been in compliance with its EPA-issued NPDES permit and with its ADEQ-issued Aquifer Protection Permit. No groundwater pumping for mine processes has occurred since 2019.
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. KGHM maintains that the Carlota Mine is a “zero-discharge facility,” meaning that no waters that have had contact with mine tailings, waste rock, or other facilities are allowed to be released or otherwise flow off-site, but instead are maintained on-site by groundwater cutoff walls, berms, pumps, and other control features. Furthermore, KGHM has, to date, been in compliance with its EPA-issued NPDES permit and with its ADEQ-issued Aquifer Protection Permit.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. KGHM maintains that the Carlota Mine is a “zero-discharge facility,” meaning that no waters that have had contact with mine tailings, waste rock, or other facilities are allowed to be released or otherwise flow off-site, but instead are maintained on-site by groundwater cutoff walls, berms, pumps, and other control features. Furthermore, KGHM has, to date, been in compliance with its EPA-issued NPDES permit, ADEQ-issued Aquifer Protection Permit, and with stipulations of the Corps of Engineers-issued Clean Water Act Section 404 permit.
Wildlife	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No current or future disturbances to wildlife or wildlife habitat are anticipated.
Recreation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No changes to current or future recreational use patterns in the area are foreseen as a result of activities at the Carlota Mine.
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No expansion or alterations to existing tailings storage facilities at the mine would occur.
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No increased wildfire risk is foreseen as a result of mine closure, reclamation, and development of the proposed solar array.

Resource Category	Results of RFFA Screening
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No increased use or transport of hazardous materials would occur as a result of mine closure and reclamation.
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed 48-acre solar array atop the main waste rock stockpile at the Carlota Mine would result in minimal perceived visual changes to the existing landscape, particularly given the many decades of previous and ongoing mine-related surface alterations in the general vicinity of Globe-Miami (e.g., Carlota and past, present, and future mine development at the Pinto Valley Mine).
Cultural Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No future disturbances to cultural resources at the Carlota facility are anticipated.
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Major reductions in staffing at Carlota already have occurred, following the cessation of active open-pit mining operations in 2014. The construction and operation of the proposed solar array at the site, as well as site reclamation and revegetation activities, would have beneficial but minimal socioeconomic effects on the local economy.
Tribal Values and Concerns	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No future disturbances to cultural or tribal resources are anticipated.
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No changes to current environmental justice conditions are foreseen.
Livestock and Grazing	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No grazing currently is allowed at the Carlota property and there are no plans for future livestock use of the site.

Source:

KGHM. 2019. Company website: “Carlota.” Available at: <https://kghm.com/en/our-business/mining-and-enrichment/carlota>. Accessed February 2019.

Mining Engineering Magazine. 2016. “KGHM’s Carlota Solar Project Receives Special Use Permit from US Forest Service.” Available at: http://me.smenet.org/docs/Publications/ME/Issue/Web_Only_July.pdf. Accessed February 2019.

U.S. Environmental Protection Agency, Region IX. 2002. “Amended Record of Decision/Finding of No Significant Impact - Final Environmental Impact Statement, U.S. Forest Service and Supplemental Environmental Assessment, U.S. Army Corps of Engineers - Carlota Copper Project.” February 27. Available at: <https://archive.epa.gov/region9/water/archive/web/pdf/carlotarod0202.pdf>. Accessed February 2019.

East Eagle/Mud Springs Hazardous Fuels Reduction

Overview of RFFA

The Forest Service has proposed fuels reduction treatments to restore and maintain ecosystems on 91,029 acres. These actions are proposed to be implemented on the Clifton Ranger District of the Apache-Sitgreaves National Forests.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

Treatments will be implemented across the project area for 10–25 years.

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

As all impacts are either beneficial or negligible, this RFFA was not carried forward to chapter 4 of the FEIS for spatial analysis.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Overall conclusion: Fuels reduction and fire management projects are used to address potentially adverse effects of wildfire. This RFFA would result in minor and localized impacts that would be minimized via active management by way of the appropriate planning process within the agency. By definition, any short-term adverse effects are outweighed by the long-term beneficial effects of the treatment, and the RFFA overall is beneficial to all resources by helping prevent catastrophic damage via wildfire.

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not affect this resource.
Soils, Vegetation, and Reclamation	RFFA contributes to cumulative effects and sufficient information exists to analyze; however, because impacts are overall beneficial, analysis is not carried forward for this resource. The proposed action will change vegetation from current conditions to conditions that support low- to moderate-intensity natural fire cycles. This will be accomplished via thinning and burning. Achieving the proposed vegetation conditions will also reduce long-term adverse impacts to soil by reducing the probability that high-intensity fires will occur. Rainfall events after a high-intensity wildfire will have a higher potential to overwhelm the capacity of drainages as sediment and ash are moved downslope at greater rates than would normally occur if the area had burned at a low or moderate intensity. Overall there may be short-term adverse impacts, but long-term beneficial impacts.
Noise and Vibration	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action could include noise affecting trail user experience. However, these impacts would be minimal and short-term. Long-term impacts are expected to be non-existent.
Transportation and Access	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not affect this resource.

Resource Category	Results of RFFA Screening
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not affect this resource.
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not affect this resource.
Water: Groundwater and Surface Water Quality	RFFA contributes to cumulative effects and sufficient information exists to analyze; however, because impacts are overall beneficial, analysis is not carried forward for this resource. Achieving the proposed vegetation conditions will also reduce long term adverse impacts to surface water quality by reducing the probability that high-intensity fires will occur. Rainfall events after a high-intensity wildfire will have a higher potential to overwhelm the capacity of drainages as sediment and ash are moved downslope at greater rates than would normally occur if the area had burned at a low or moderate intensity. Overall there may be short-term adverse impacts, but long-term beneficial impacts.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not affect this resource.
Wildlife	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Effects of the proposed action on sensitive species studied was determined to potentially impact individuals or habitat, but it is not expected to contribute to a trend toward Federal listing or result in a loss of viability to the population or species.
Recreation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Effects to recreation from the proposed action could include noise affecting trail user experience and visual effects of project activities. However, these impacts would be minimal and short-term. Long-term impacts are expected to be non-existent.
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Tailings are not involved in this project.
Public Health & Safety: Fuels and Fire Management	RFFA contributes to cumulative effects and sufficient information exists to analyze; however, because impacts are overall beneficial, analysis is not carried forward for this resource. The proposed action progresses the forest toward vegetation conditions that support a more historic low- to moderate-intensity natural fire cycle and lessen the probability that high-intensity fires would occur.
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Hazardous materials are not involved in this project.
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action could include visual effects of project activities. However, these impacts would be minimal and short-term. Long-term impacts are expected to be non-existent.

Resource Category	Results of RFFA Screening
Cultural Resources	RFFA contributes to cumulative effects and sufficient information exists to analyze; however, because impacts are overall beneficial, analysis is not carried forward for this resource. Mechanical thinning activities pose a threat to cultural resources. Adverse effects from treatments would be avoided through consultation and phased inventories prior to implementation. As a result, the proposed action would not result in adverse effects on cultural resources, rather, the proposed action may benefit sites by reducing the effects of uncharacteristically intense burning and site damage due to unnatural levels of fuel buildup. Overall there may be short-term adverse impacts, but long-term beneficial impacts.
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not affect this resource.
Tribal Values and Concerns	RFFA contributes to cumulative effects and sufficient information exists to analyze; however, because impacts are overall beneficial, analysis is not carried forward for this resource. Mechanical thinning activities pose a threat to cultural resources. Adverse effects from treatments would be avoided through consultation and phased inventories prior to implementation. As a result, the proposed action would not result in adverse effects on cultural resources, rather, the proposed action may benefit sites by reducing the effects of uncharacteristically intense burning and site damage due to unnatural levels of fuel buildup. Overall there may be short-term adverse impacts, but long-term beneficial impacts.
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not affect this resource.
Livestock and Grazing	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not affect this resource.

Sources:

https://www.fs.usda.gov/nfs/11558/www/nepa/105234_FSPLT3_4867928.pdf

Emory Oak Restoration

Overview of RFFA

In partnership with the Yavapai-Apache Nation, Tonto Apache, San Carlos Apache, and White Mountain Apache tribes, the Coconino National forest is developing proposals to manage and restore culturally important Emory oak groves across the Coconino, Tonto, and Prescott National Forests. This proposal is part of the Emory Oak Collaborative Tribal Restoration Initiative, which is a required mitigation under the Resolution Copper Programmatic Agreement. Seven Emory oak groves have been identified for restoration and management. The proposed project seeks to improve recruitment, increase resilience, and encourage conditions that favor acorn production of Emory oak trees for tribal use in order to ensure long-term persistence of this ecocultural resource.

Emory oak grove restoration would be initially addressed through removal of non-desirable over-story and under-story species by hand thinning and/or mastication. Thinning activities would consist of hand felling trees and shrubs; the resulting slash would be lopped and scattered, hand piled, chipped, or masticated in place. Potential actions at all seven locations also include burning of slash, fencing, or direct seeding.

The Decision Notice was issued in October 2020.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

The Emory oak initiative is anticipated to overlap with the Resolution Copper Project. Ten to 15 years following initial treatment of each grove, multiple follow-up treatments may occur to cut back undesirable species which are expected to sprout back after the initial treatments. Follow-up treatments include hand thinning, mastication, and or burning.

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

As all impacts are either beneficial or negligible, this RFFA was not carried forward to chapter 4 of the FEIS for spatial analysis.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Overall conclusion: Vegetation management projects are used to address potentially adverse effects. This RFFA would result in minor and localized impacts that would be minimized via active management as described in the Decision Notice. Any short-term adverse effects are outweighed by the long-term beneficial effects of the treatment, and the RFFA overall is beneficial not just for tribal uses but also to all resources by helping prevent catastrophic damage via wildfire.

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not affect this resource.
Soils, Vegetation, and Reclamation	RFFA contributes to cumulative effects and sufficient information exists to analyze; however, because impacts are overall beneficial, analysis is not carried forward for this resource. The proposed action will change vegetation from current conditions to more sustainable and healthy conditions. Overall there may be short-term adverse impacts, but long-term beneficial impacts.
Noise and Vibration	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Noise associated with planned activities would be minimal and short-term. Long-term impacts are expected to be non-existent.
Transportation and Access	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Traffic required for the proposed actions would be minimal and short-term.
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. While some burning may be undertaken as part of this action, it would be conducted under appropriate management protocols to avoid air quality impacts.
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not affect this resource.
Water: Groundwater and Surface Water Quality	RFFA contributes to cumulative effects and sufficient information exists to analyze; however, because impacts are overall beneficial, analysis is not carried forward for this resource. Achieving the proposed vegetation conditions will also reduce long-term adverse impacts to surface water quality by reducing the probability that high-intensity fires will occur. Rainfall events after a high-intensity wildfire will have a higher potential to overwhelm the capacity of drainages as sediment and ash are moved downslope at greater rates than would normally occur if the area had burned at a low or moderate intensity. Overall there may be short-term adverse impacts, but long-term beneficial impacts.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not affect this resource.
Wildlife	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The Forest Service biologist developed a biological review for the proposed project area, which considered potential impacts on threatened, endangered or proposed species and their habitats. The biological specialist review found this project will have no effect on any federally threatened, endangered, proposed, or candidate species or critical habitat (whether designated or proposed). Overall there may be short-term adverse impacts on other species, but long-term beneficial impacts. Since these are on the whole going to be beneficial effects, they are not carried through to the FEIS analysis.
Recreation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No impacts to recreational users are anticipated from the actions proposed.
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Tailings are not involved in this project.

Resource Category	Results of RFFA Screening
Public Health & Safety: Fuels and Fire Management	RFFA contributes to cumulative effects and sufficient information exists to analyze; however, because impacts are overall beneficial, analysis is not carried forward for this resource. The proposed action progresses the forest toward vegetation conditions that support a more historic low- to moderate-intensity natural fire cycle and lessen the probability that high-intensity fires would occur.
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Hazardous materials are not involved in this project.
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action could include visual effects of project activities. However, these impacts would be minimal and short-term. Long-term impacts are expected to be non-existent.
Cultural Resources	RFFA contributes to cumulative effects and sufficient information exists to analyze; however, because impacts are overall beneficial, analysis is not carried forward for this resource. Mechanical thinning activities pose a threat to cultural resources. Adverse effects from treatments would be avoided through consultation and phased inventories prior to implementation. As a result, the proposed action would not result in adverse effects on cultural resources, rather, the proposed action may benefit sites by reducing the effects of uncharacteristically intense burning and site damage due to unnatural levels of fuel buildup. Overall there may be short-term adverse impacts, but long-term beneficial impacts.
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not affect this resource.
Tribal Values and Concerns	RFFA contributes to cumulative effects and sufficient information exists to analyze; however, because impacts are overall beneficial, analysis is not carried forward for this resource. Mechanical thinning activities pose a threat to cultural resources. Adverse effects from treatments would be avoided through consultation and phased inventories prior to implementation. As a result, the proposed action would not result in adverse effects on cultural resources, rather, the proposed action may benefit sites by reducing the effects of uncharacteristically intense burning and site damage due to unnatural levels of fuel buildup. Overall there may be short-term adverse impacts, but long-term beneficial impacts.
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not affect this resource.
Livestock and Grazing	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Possible fencing would be considered for each allotment under the appropriate allotment management plan, and the areas involved are unlikely to substantially affect overall grazing allotments.

Sources:

https://www.fs.usda.gov/nfs/11558/www/nepa/111936_FSPLT3_5377878.pdf

Four Forest Restoration Initiative EIS - Rim Country Project

Overview of RFFA

The purpose of the 4FRI Rim Country Project is to restore and maintain the structure, pattern, health, function, and vegetation composition and diversity in ponderosa pine ecosystems, thus moving the project area toward the desired conditions in the respective land and resource management plans.

One outcome of restored ecosystems is increased resilience. Resilience is the ability of an ecosystem to survive natural disturbances such as fire, insects, and disease, without changing its inherent function (FSH 1909.12,05; SER 2004). This project is needed to:

- Increase forest resilience and sustainability
- Reduce hazard of undesirable fire effects
- Improve terrestrial and aquatic species habitat
- Improve the condition and function of streams, springs, and other aquatic and hydrological resources
- Restore riparian vegetation
- Preserve cultural resources
- Support sustainable forest products industries

To meet the purpose and need for action, the Apache-Sitgreaves, Coconino, and Tonto National Forests are proposing a suite of restoration activities on approximately 953,100 acres over a period of 20 years or when activities can be funded or completed. The area affected by the proposal includes approximately 540,020 acres on the Black Mesa and Lakeside Ranger Districts of the Apache-Sitgreaves National Forests, 398,880 acres on the Mogollon Rim and Red Rock Ranger Districts of the Coconino National Forest, and 299,710 acres on the Payson and Pleasant Valley Ranger Districts of the Tonto National Forest.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

20-year span upon implementation, DEIS was published August 2019.

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

As all impacts are either beneficial or negligible, this RFFA was not carried forward to chapter 4 of the FEIS for spatial analysis.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Overall conclusion: Fuels reduction and fire management projects are used to address potentially adverse effects of wildfire. This RFFA would result in minor and localized impacts that would be minimized via active management by way of the appropriate planning process within the agency. By definition, any short-term adverse effects are outweighed by the long-term beneficial effects of the

treatment, and the RFFA overall is beneficial to all resources by helping prevent catastrophic damage via wildfire.

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed project would not result in impacts to geology or minerals and would not result in subsidence.
Soils, Vegetation, and Reclamation	RFFA contributes to cumulative effects and sufficient information exists to analyze; however, because impacts are overall beneficial, analysis is not carried forward for this resource. All action alternatives would impact soils and vegetation. Overall there may be short-term adverse impacts, but long-term beneficial impacts.
Noise and Vibration	RFFA contributes to cumulative effects and sufficient information exists to analyze; however, because impacts are overall beneficial, analysis is not carried forward for this resource. All action alternatives would impact produce increased noise and vibrations. Overall there may be short-term adverse impacts, but long-term beneficial impacts.
Transportation and Access	RFFA contributes to cumulative effects and sufficient information exists to analyze; however, because impacts are overall beneficial, analysis is not carried forward for this resource. All action alternatives would utilize the National Forest System roads and construct temporary roads. Overall there may be short-term adverse impacts, but long-term beneficial impacts.
Air Quality	RFFA contributes to cumulative effects and sufficient information exists to analyze; however, because impacts are overall beneficial, analysis is not carried forward for this resource. All action alternatives would impact air quality. Overall there may be short-term adverse impacts, but long-term beneficial impacts.
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible.
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Most adverse impacts to groundwater and surface water quality will be minimized or mitigated through resource protection measures such as Soil and Water Conservation Practices and best management practices. These practices follow those outlined in the Soil and Watershed Conservation Practices Handbook.
Water: Surface Water Quantity	RFFA contributes to cumulative effects and sufficient information exists to analyze; however, because impacts are overall beneficial, analysis is not carried forward for this resource. All action alternatives would improve the ability of watersheds to intercept and retain water inputs such as precipitation and snowmelt. Overall there may be short-term adverse impacts, but long-term beneficial impacts.
Wildlife	RFFA contributes to cumulative effects and sufficient information exists to analyze; however, because impacts are overall beneficial, analysis is not carried forward for this resource. All action alternatives would impact wildlife. Overall there may be short-term adverse impacts, but long-term beneficial impacts.

Resource Category	Results of RFFA Screening
Recreation	Contributes to cumulative effects, but insufficient information exists to analyze. The project will not impact any developed recreation sites, however it has the possibility to temporarily displace some recreational users during some project activities such as active thinning. Overall there may be short-term adverse impacts, but long-term beneficial impacts. Since these are on the whole going to be beneficial effects, they are not being carried through to the FEIS analysis.
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Tailings are not involved in this project.
Public Health & Safety: Fuels and Fire Management	RFFA contributes to cumulative effects and sufficient information exists to analyze; however, because impacts are overall beneficial, analysis is not carried forward for this resource. All action alternatives would impact fuels and fire management.
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.
Cultural Resources	RFFA contributes to cumulative effects and sufficient information exists to analyze; however, because impacts are overall beneficial, analysis is not carried forward for this resource. All action alternatives would result in ground disturbance and have the potential to impact cultural resources. Overall there may be short-term adverse impacts, but long-term beneficial impacts.
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.
Tribal Values and Concerns	RFFA contributes to cumulative effects and sufficient information exists to analyze; however, because impacts are overall beneficial, analysis is not carried forward for this resource. All action alternatives would result in ground disturbance and have the potential to impact tribal concerns and values. Overall there may be short-term adverse impacts, but long-term beneficial impacts.
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.
Livestock and Grazing	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact this resource.

Sources:

<https://www.fs.usda.gov/detail/4fri/planning/?cid=stelprd3837085>

Government Springs Pipeline Project

Overview of RFFA

Proposed water pipeline improvement project under the “Landowner Relations Program Cooperative Stewardship Agreement for Habitat Improvement” between Arizona Game and Fish Department (AGFD) Commission and Government Springs Ranch, LLC.

The proposed pipeline would start at an existing water storage tank at Government Springs (NAD 12S E0505352 N3678558) then be installed aboveground for the remaining distance to the existing south-side water storage tank and water-trough on Forest Road 248 (NAD 12S E05088 N3679103). The existing pipeline will be disconnected from the south-side water storage tank and water trough. The new pipeline will extend 12,000 feet from an existing 3,000-gallon storage tank adjacent to a well that is 1,100 feet higher in elevation and will connect to an existing 3,000-gallon water storage tank and wildlife-friendly drinker. This tank and drinker were previously filled from a spring that is no longer producing water. This new pipeline will provide much-needed reliable water for wildlife, including elk, mule deer, and whitetail deer.

Government Springs Ranch is a 2,980-acre privately owned parcel located southwest of Globe, Arizona, in the Mineral Creek basin.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

Unknown, but assume that it may have temporal overlap with Resolution Copper Project construction.

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

As all impacts are either beneficial or negligible, this RFFA was not carried forward to chapter 4 of the FEIS for spatial analysis.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Replacement of a non-functional water pipeline with a new, functionally similar pipeline system would have no measurable effect on this resource.
Soils, Vegetation, and Reclamation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Replacement of a non-functional water pipeline with a new, functionally similar pipeline system would have no measurable effect on this resource.
Noise and Vibration	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Replacement of a non-functional water pipeline with a new, functionally similar pipeline system would have no measurable effect on this resource.

Resource Category	Results of RFFA Screening
Transportation and Access	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Replacement of a non-functional water pipeline with a new, functionally similar pipeline system would have no measurable effect on this resource.
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Replacement of a non-functional water pipeline with a new, functionally similar pipeline system would have no measurable effect on this resource.
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. While minor modifications to the hydrology of Mineral Creek may affect flows, there are not expected to be any impacts caused by Resolution Copper to Mineral Creek and there would be no overlap of effects.
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Replacement of an old, non-functional water pipeline with a new pipeline system would have no measurable effect on water quality.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Replacement of a non-functional water pipeline with a new, functionally similar pipeline system would have no measurable effect on overall surface water quantity.
Wildlife	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The new pipeline would charge the system with well water instead of an inconsistently wet spring. Stored water would be available for wildlife such as elk and deer, but it represents the replacement of an existing water source, not a new water source.
Recreation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Replacement of a non-functional water pipeline with a new, functionally similar pipeline system would have no measurable effect on this resource, except perhaps to benefit wildlife such as elk and deer and thereby prove favorable to hunters, photographers, and other wildlife enthusiasts.
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Replacement of a non-functional water pipeline with a new, functionally similar pipeline system would have no measurable effect on this resource.
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Replacement of a non-functional water pipeline with a new, functionally similar pipeline system would have no measurable effect on this resource.
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Replacement of a non-functional water pipeline with a new, functionally similar pipeline system would have no measurable effect on this resource.
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Replacement of a non-functional water pipeline with a new, functionally similar pipeline system would have no measurable effect on this resource.

Resource Category	Results of RFFA Screening
Cultural Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Replacement of a non-functional water pipeline with a new, functionally similar pipeline system would have no measurable effect on this resource.
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Replacement of a non-functional water pipeline with a new, functionally similar pipeline system would have no measurable effect on this resource.
Tribal Values and Concerns	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Replacement of a non-functional water pipeline with a new, functionally similar pipeline system would have no measurable effect on this resource.
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Replacement of a non-functional water pipeline with a new, functionally similar pipeline system would have no measurable effect on this resource.
Livestock and Grazing	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Replacement of an old water pipeline with a new, functionally similar pipeline system would have no measurable effect on this resource.

Source:

Headquarters West, LLC. 2019. "Government Springs Ranch, Gila and Pinal County." Available at: <http://www.headquarterswest.com/listings/govtsprings2/index.htm>. Accessed March 2019.

GSC Farms-Queen Creek Water Transfer

Overview of RFFA

The Arizona Department of Water Resources (ADWR), GSC Farm LLC, and the Town of Queen Creek partnering together to transfer GSC Farm LLC's Colorado River Water Entitlement to the Town of Queen Creek.

GSC Farm LLC proposes to transfer 2,083.1 acre-feet of its Arizona fourth-priority Colorado River water entitlement to the Town of Queen Creek. The water currently is held under contract directly between GSC and the U.S. Bureau of Reclamation and irrigates approximately 485 acres of farmland located within the Cibola Valley Irrigation and Drainage District in La Paz County. Under the proposal, the 485 acres of land will be retired from agricultural uses and the 2,083.1 acre-feet of Colorado River water will be transferred to Queen Creek. The Town proposes to use the water for municipal uses within its service area located in Maricopa and Pinal Counties.

This proposed conveyance would change the place of use and the type of use associated with the existing Colorado River water entitlement. The ADWR will evaluate the proposed transfer in accordance with ADWR's January 16, 2019, Policy and Procedures for Transferring an Entitlement of Colorado River Water (Colorado River Transfer Policy).

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

The transfer public comment period is underway, and comment rebuttal submittals are being considered by ADWR.

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

As all impacts are either beneficial or negligible, this RFFA was not carried forward to chapter 4 of the FEIS for spatial analysis.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed project would not result in impacts to geology or minerals and unknown subsidence impacts.
Soils, Vegetation, and Reclamation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed project would not result in soil disturbance and vegetation removal.
Noise and Vibration	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed project would not result in noise and vibration impacts.
Transportation and Access	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed project would not result in impacts to the exiting transportation network.

Resource Category	Results of RFFA Screening
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed project would not impact the current air quality.
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	RFFA contributes to cumulative effects and sufficient information exists to analyze; however, because impacts are overall beneficial, analysis is not carried forward for this resource. The effect on this resource would be the potential reduction in groundwater use. This would be a beneficial effect in the context of Resolution Copper's Desert Wellfield.
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed project would not impact the water quality.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed project would not impact the current surface water quantity in the project area.
Wildlife	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed project would not result in wildlife impacts.
Recreation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed project would not result in recreation impacts.
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Tailings are not involved in the proposed project.
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed project would not result in fuels and fire management impacts.
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Hazardous materials are not involved in the proposed project.
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed project would not result in changes to scenic resources.
Cultural Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed project would not result in cultural or heritage resource impacts.
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed project would not result in socioeconomic resource impacts.
Tribal Values and Concerns	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed project would not result in cultural or heritage resource impacts.
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed project would not result in socioeconomic resource impacts.
Livestock and Grazing	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed project would not result in livestock or grazing impacts.

Sources:

<https://new.azwater.gov/public-notice/proposed-transfer-gsc-farm>

OMYA Quarry

Overview of RFFA

Limestone quarry has been in interim shutdown for approximately 10 years due to low market prices; persistent water in pit. OMYA has instead been processing limestone/calcium carbonate and marble products from another quarry the company owns in southern California.

According to the Hydrologic Connectivity Analysis conducted by the Forest Service in 2018, as well as literature review of 2006, 2015, and 2017 investigations, the water in the pit is the result of stormwater runoff rather than hydrologic connectivity to Queen Creek or any springs in the area. There are no current plans to resume operations at the pit and ongoing monitoring and interim shutdown management is expected to continue to occur.

According to Arizona Department of Mines and Mineral Resources records:

“The Tonto National Forest reported that the Plan of Operations (Plan) for OMYA Arizona's white marble and limestone mining operation at the Queen Creek Limestone Mine is to be finalized and signed on Sept. 30, 2003. OMYA Arizona has been operating the mine on an extension of a prior existing Plan. The new Plan will allow continued quarry operations and expansion into an extended pit area.

The Queen Creek Limestone Mine supplies white calcium carbonate to OMYA Arizona's calcium carbonate processing plant in Superior and to Superior Marble Company's marble crushing and screening plant, also in Superior.

OMYA Arizona's plant produces finely ground, natural calcium carbonate products for functional fillers and extenders from calcium carbonate marble they mine at the Queen Creek Limestone Mine. They also process calcium carbonate in the same plant for food additives. Their calcium carbonate food additives come from a mine in the Southern California desert.”

OMYA Arizona is a relatively small-scale mining and processing operation involving approximately 30 employees total.

According to a company profile of OMYA included in a 2017 ADEQ report on total maximum daily loads for dissolved copper in Queen Creek:

“Omya Inc., Superior, AZ, a limestone quarry, has been operating since 1999. Its quarry is adjacent to Queen Creek in the headwaters area, approximately 3.5 miles north of Highway 60 with its processing facility located within Superior. The quarry produces limestone for use in high-grade food and pharmaceutical products.

Omya Inc. produces approximately 100,000 tons per year of calcium carbonate with 60 percent used for industrial purposes and the remaining 40 percent for food products. Omya's Arizona Pollution Discharge Elimination System (AZPDES) Multi- sector General Permits (AZMSG) include AZMSG-63038 for the quarry site and AZMSG-63037 for the in-town processing site.”

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

The mine plan filed with the Tonto National Forest in 2003 covers a proposed 40 years of activity in two 20-year phases. Phase 1 is scheduled to end in 2023. However, the company ceased active operations at Superior quarry approximately 10 years ago and continues to operate in interim shutdown.

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

As all impacts are either beneficial or negligible, this RFFA was not carried forward to chapter 4 of the FEIS for spatial analysis.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Quarry has ceased operations; unlikely to reopen.
Soils, Vegetation, and Reclamation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Quarry has ceased operations; unlikely to reopen.
Noise and Vibration	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Quarry has ceased operations; unlikely to reopen.
Transportation and Access	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Quarry has ceased operations; unlikely to reopen.
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Quarry has ceased operations; unlikely to reopen.
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Quarry has ceased operations; unlikely to reopen.
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Quarry has ceased operations; unlikely to reopen.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Quarry has ceased operations; unlikely to reopen.
Wildlife	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Quarry has ceased operations; unlikely to reopen.
Recreation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Quarry has ceased operations; unlikely to reopen.
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Quarry has ceased operations; unlikely to reopen.
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Quarry has ceased operations; unlikely to reopen.
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Quarry has ceased operations; unlikely to reopen.
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Quarry has ceased operations; unlikely to reopen.

Resource Category	Results of RFFA Screening
Cultural Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Quarry has ceased operations; unlikely to reopen.
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Quarry has ceased operations; unlikely to reopen.
Tribal Values and Concerns	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Quarry has ceased operations; unlikely to reopen.
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Quarry has ceased operations; unlikely to reopen.
Livestock and Grazing	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Quarry has ceased operations; unlikely to reopen.

Source:

Arizona Department of Environmental Quality. 2000. "Public Notice of the Preliminary Decision to Issue an Individual Aquifer Protection Permit No. P-I04187 to OMYA (Arizona) Inc." Phoenix, Arizona. September 6.

Arizona Department of Environmental Quality. 2017. "Queen Creek Dissolved Copper TMDL." Phoenix, Arizona. September 17. Publication Number OFR-17-03.

Arizona Department of Mines and Mineral Resources. 2002. AZMILS Data 753, Queen Creek Limestone (aka OMYA Arizona). Phoenix, Arizona. June 21.

Pine Mountain Area Improvement Project

Overview of RFFA

The Tonto National Forest proposes to reduce inter- and intra-vegetation competition and hazardous fuels accumulation on the Pine Mountain area within the Mesa and Tonto Basin Ranger Districts. The proposed action would involve prescribed burns or naturally occurring wildfires to achieve a more resilient, fire-adapted ecosystem. The proposed action also seeks to mitigate effects from an unplanned wildfire on Mexican spotted owl habitat.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

Fire cycles as part of the proposed action would be occur every 2 to 17 years.

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

As all impacts are either beneficial or negligible, this RFFA was not carried forward to chapter 4 of the FEIS for spatial analysis.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Overall conclusion: Fuels reduction and fire management projects are used to address potentially adverse effects of wildfire. This RFFA would result in minor and localized impacts that would be minimized via active management by way of the appropriate planning process within the agency. By definition, any short-term adverse effects are outweighed by the long-term beneficial effects of the treatment. Overall, the RFFA is beneficial to all resources by helping prevent catastrophic damage via wildfire.

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact geology or minerals, nor would it result in subsidence.
Soils, Vegetation, and Reclamation	RFFA contributes to cumulative effects and sufficient information exists to analyze; however, because impacts are overall beneficial, analysis is not carried forward for this resource. The proposed action would reduce inter and intra vegetation competition which would contribute toward returning the area to a more resilient, fire-adapted ecosystem. A backing fire method would be used for prescribed burns to preserve soil stability and reduce potential adverse impacts. Overall there may be short-term adverse impacts, but long-term beneficial impacts.
Noise and Vibration	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not result in noise or vibration impacts.
Transportation and Access	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not result in transportation impacts.

Resource Category	Results of RFFA Screening
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not result in impacts to air quality.
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact groundwater quantity or GDEs.
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact groundwater or surface water quality.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact surface water quantity.
Wildlife	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. It was determined the proposed action would have no adverse impacts to Forest Service sensitive species, migratory birds, or management indicator species.
Recreation	RFFA contributes to cumulative effects and sufficient information exists to analyze; however, because impacts are overall beneficial, analysis is not carried forward for this resource. The proposed action may include trail improvement operations if the trails are used as a fire holding feature. During prescribed burns or wildfires, trails would not be available for recreation, including a portion of the Arizona National Scenic Trail. However, there would not be any long-term adverse impacts to recreation. Overall there may be short-term adverse impacts, but long-term beneficial impacts.
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Tailings are not involved in this project.
Public Health & Safety: Fuels and Fire Management	RFFA contributes to cumulative effects and sufficient information exists to analyze; however, because impacts are overall beneficial, analysis is not carried forward for this resource. The proposed action would reduce hazardous fuels accumulation which would allow for the Pine Mountain area to return to a more resilient, fire-adapted ecosystem. Overall there may be short-term adverse impacts, but long-term beneficial impacts.
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Hazardous materials are not involved in this project.
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not result in impacts to scenic resources.
Cultural Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. By implementing design features and mitigation measures as recommended by the Forest Archaeologist, the proposed action would not affect cultural resources.
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not result in socioeconomic impacts.

Resource Category	Results of RFFA Screening
Tribal Values and Concerns	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. By implementing design features and mitigation measures as recommended by the Forest Archaeologist, the proposed action would not substantially affect areas of tribal concern or value.
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not result in impacts to environmental justice communities.
Livestock and Grazing	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Arrangements will be made with livestock grazing permit holders to ensure cattle are not in the area during prescribed burns.

Sources:

https://www.fs.usda.gov/nfs/11558/www/nepa/108355_FSPLT3_5312638.pdf

Poison Springs Structural Range Improvements

Overview of RFFA

The Tonto National Forest has proposed structural measures which would facilitate the management of livestock by evenly distributing cattle on the allotment, restrict access to sensitive areas, and provide livestock with additional reliable water sources.

There are four separate projects on the Poison Springs Allotment that are being proposed and grouped together for this analysis. The proposed projects are described as follows:

Poison Spring cattle guard installations – Five new cattle guards are to be installed on the Poison Springs allotment where pasture and allotment boundary fences intersect NFS Roads 1491, 1488, 369, and old SR 188. These cattle guards are a design of the permittees and will be installed and maintained by the permittee. Placing cattle guards in these locations will reduce the likelihood of gates being left open and livestock going into areas they are not authorized. Cattle guards will also make for a more pleasant riding experience for recreational users in the area.

Poison Spring Extension – Approximately 1 mile of new black high-density polyethylene (HDPE) poly pipe will be laid aboveground next to NFS Road 1490 from an existing pipeline to a single new livestock trough. This new pipeline will be connected to an existing water system supplied by Poison Spring that currently consist of three existing livestock troughs on 0.25-mile section of pipe.

Summit Well Connection Pipeline – Approximately 2 miles of new black HDPE poly pipe will be laid aboveground connecting an existing pipeline to the Summit Well then following NFS Road 1488 to connect two new livestock troughs. This project also will involve a relocation of one livestock trough previously authorized in the Klondike Water System to a new location that is better suited. Water for this pipeline originates from the Devore Well on the Globe Ranger District and connects to the existing pipeline through the Klondike Water System project authorized in 2017. These new livestock watering locations will replace the dry Summit Well and temporary water previously authorized in this pasture.

Summit Well Fence – Approximately 200 yards of new four-strand barb-wire fence will be constructed off of the Summit Corral to connect this corral will both the Klondike and Summit Pastures. Currently the corral is located solely in the Klondike Pasture and not easily used when livestock are in the Summit Pasture. These new sections of fence will allow the corral to be used from either pasture.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

Structural measures were approved in May 2020.

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

As all impacts are either beneficial or negligible, this RFFA was not carried forward to chapter 4 of the FEIS for spatial analysis.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Overall conclusion: The described improvements are minor and localized, and would not substantially change the use of the allotment. Minor and localized impacts would be addressed via active management by way of the range allotment management plans to address potentially adverse effects on natural and cultural resources. These minor activities are not anticipated to contribute to cumulative effects.

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Soils, Vegetation, and Reclamation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Noise and Vibration	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Transportation and Access	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Wildlife	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Recreation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Cultural Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.

Resource Category	Results of RFFA Screening
Tribal Values and Concerns	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Livestock and Grazing	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.

Sources:

http://www.fs.fed.us/nepa/nepa_project_exp.php?project=55711

Resolution Copper Pre-Feasibility Activities

Overview of RFFA

Resolution Copper submitted a plan of operations to the Tonto National Forest in February 2008 to conduct pre-feasibility assessment for the mine project on Forest Service land.

Total disturbance was approximately 80 acres, including drill sites, exploratory and monitoring activities at previous drill sites, monitoring well installation, roadway improvements and maintenance, and construction of new roads (0.33 miles).

The Tonto National Forest issued a Decision Notice and Finding of No Significant Impact in May 2010.

Most activities are complete; ongoing activities consist primarily of monitoring and maintenance of wells, and continued road maintenance.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

Continued monitoring and other activities under the plan of operation, including road maintenance, would likely overlap with the construction phase of the Resolution Copper Project, though the land exchange would result in most of these locations becoming Resolution Copper private land, with the Forest Service no longer having jurisdiction over land management.

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

As all impacts are either beneficial or negligible, this RFFA was not carried forward to chapter 4 of the FEIS for spatial analysis.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Most activities are completed; no mining activities are part of this plan of operation.
Soils, Vegetation, and Reclamation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Disturbance has already taken place, and continuing activities take place on previously disturbed areas.
Noise and Vibration	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Noise from monitoring and maintenance activities is short-lived and produces negligible noise.
Transportation and Access	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Improvements to roads has already taken place and maintenance of roads is short-lived and beneficial; traffic impacts from drilling and well installation have already occurred.
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Emissions from maintenance activities are minimal and short-lived, and similar to emissions from normal road use.

Resource Category	Results of RFFA Screening
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No substantial groundwater use or pumping is associated with these activities.
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. These activities would not result in any discharges that would result in changes to groundwater quality or surface water quality.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. These activities would not result in any changes in the amount or timing of surface water runoff.
Wildlife	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Disturbance of habitat has already taken place, and continuing activities take place on previously disturbed areas.
Recreation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Improvements to roads have already taken place and maintenance of roads is short-lived and beneficial; other potential impacts to recreationists such as noise are short-lived and negligible. Impacts to recreationists including lack of access from drilling and well installation activities have already occurred.
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No tailings are associated with these activities.
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Disturbance has already taken place, and continuing activities take place on previously disturbed areas; travel takes place on already existing road networks.
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Hazardous materials are not in use for regular monitoring and maintenance activities.
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Disturbance has already taken place, and continuing activities take place on previously disturbed areas.
Cultural Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Disturbance has already taken place, and continuing activities take place on previously disturbed areas; cultural resource clearance has already taken place.
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Most activities have already occurred, and no additional impact to socioeconomics is anticipated.
Tribal Values and Concerns	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. While Oak Flat is considered a traditional cultural property, the disturbance to this area has already taken place, and continuing activities take place on previously disturbed areas.

Resource Category	Results of RFFA Screening
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No environmental justice issues were identified in the Forest Service analysis.
Livestock and Grazing	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Disturbance to grazing allotments has already taken place, and continuing activities take place on previously disturbed areas.

Source:

U.S. Forest Service. 2010. Environmental Assessment: Resolution Copper Mining Pre-feasibility Activities Plan of Operations. May.

Resolution Copper Reclamation Activities and Post-Closure Monitoring at the West Plant Site

Overview of RFFA

Under the Arizona Department of Environmental Quality's (ADEQ's) Aquifer Protection Permit (APP) program and its Voluntary Remediation Program (VRP), Resolution Copper has been excavating soils impacted from historic mining activities—particularly from the old Magma Mine and smelter—at the Resolution Copper West Plant Site adjacent to and just north of the town of Superior. These ADEQ-approved remediation actions have included removing smelter buildings and the smelter stack, reclaiming tailings on-site, installing new soil covers, and revegetating these areas. Major reclamation earth-moving activities will continue through 2020. After that, Resolution Copper will continue post-reclamation monitoring of groundwater and continue to revegetate and monitor revegetation success in remediated areas.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

Resolution Copper's remediation activities at the West Plant Site will have concluded long before the Resolution Mine, if approved, becomes operational (estimated to occur in 2026 or 2027).

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

As all impacts are either beneficial or negligible, this RFFA was not carried forward to chapter 4 of the FEIS for spatial analysis.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Overall conclusion: There will be no temporal overlap between these soil remediation activities and operation of the Resolution Copper Mine. Furthermore, these activities will not result in adverse environmental effects—they will, in fact, prove beneficial toward improving scenic aspects in this area north of the town of Superior as well as significantly decreasing potential human health risks from exposure to contaminated soils and wind-blown particulate matter.

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Soils, Vegetation, and Reclamation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Noise and Vibration	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Transportation and Analysis	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.

Resource Category	Results of RFFA Screening
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Wildlife	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Recreation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Cultural Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Tribal Values and Concerns	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.
Livestock and Grazing	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. See overall conclusion.

Source:

Arizona Department of Environmental Quality. 2019. "Resolution Copper Mining - West Plant | VRP Site." Available at: <https://azdeq.gov/resolution-copper-mining>. Accessed March 2019.

Golder Associates Inc. 2016. *Remedial Action Work Plan for Smelter Affected Soil in the Industrial Area South: West Plant Site, Superior, Arizona*. Tucson, Arizona. March.

Resolution Copper. 2018. "Reclamation Brochure 2018: Claiming the Future by Reclaiming the Past." Superior, Arizona.

Recreation Special Use Permits

Overview of RFFA

The Tonto National Forest manages recreation special use permits pursuant to 36 CFR 251, and the analysis area is used by a number of permitted recreation and commercial special use activities. Recreation events are commercial activities requiring temporary, authorized use of National Forest Service (NFS) land. Commercial activity on Tonto National Forest lands occurs when an entry or participation fee is charged by the applicant, and the primary purpose is the sale of a good or service. Most of these applicants offer guided tours that provide the safety, knowledge, and experience of qualified guides with quality equipment, while others provide in-demand equipment and basic instruction for visitors to explore on their own. Activities include hiking, camping, climbing, canyoneering, horseback riding, jeep tours, motorcycle riding, UTV and ATV tours, road biking, and mountain biking. Each company follows strict operating procedures, safety practices, and Forest Service regulations to protect the environment.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

It is anticipated that the Tonto National Forest will continue to issue recreational special use permits throughout the estimated life of the Resolution Copper Project (50 or 55 years), however, the specific types of recreational permits to be issued are unknown.

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

As all impacts are either beneficial or negligible, this RFFA was not carried forward to chapter 4 of the FEIS for spatial analysis.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Recreation special use permits are temporary in nature and are unlikely to measurably impact this resource.
Soils, Vegetation, and Reclamation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Recreation special use permits are temporary in nature and are unlikely to measurably impact this resource.
Noise and Vibration	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Recreation special use permits are temporary in nature and are unlikely to measurably impact this resource.
Transportation and Access	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Recreation special use permits are temporary in nature and are unlikely to measurably impact this resource.
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Recreation special use permits are temporary in nature and are unlikely to measurably impact this resource.

Resource Category	Results of RFFA Screening
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Recreational special use permits are temporary in nature and are unlikely to measurably impact this resource.
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Recreational special use permits are temporary in nature and are unlikely to measurably impact this resource.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Recreational special use permits are temporary in nature and are unlikely to measurably impact this resource.
Wildlife	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Recreational special use permits are temporary in nature and are unlikely to measurably impact this resource.
Recreation	Contributes to cumulative effects, sufficient information exists to analyze. Recreational special use permits are likely to positively contribute towards recreational activities and access. As these impacts are wholly beneficial for recreational resources, they are not being carried forward into the FEIS.
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Recreational special use permits are temporary in nature and are unlikely to measurably impact this resource.
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Recreational special use permits are temporary in nature and are unlikely to measurably impact this resource.
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Recreational special use permits are temporary in nature and are unlikely to measurably impact this resource.
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Recreational special use permits are temporary in nature and are unlikely to measurably impact this resource.
Cultural Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Recreational special use permits are temporary in nature and are unlikely to measurably impact this resource.
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Recreational special use permits are temporary in nature and are unlikely to measurably impact this resource.
Tribal Values and Concerns	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Recreational special use permits are temporary in nature and are unlikely to measurably impact this resource.
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Recreational special use permits are temporary in nature and are unlikely to measurably impact this resource.
Livestock and Grazing	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Recreational special use permits are temporary in nature and are unlikely to measurably impact this resource.

Source:

No specific information sources were identified for this RFFA.

Silent Hill Mineral Exploration

Overview of RFFA

Electrum Avenue Mining has submitted a Plan of Operations to conduct mining operations which would include exploratory trenching at three separate sites, on-site milling and gravity concentration at the existing waste rock pile, and road repair.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

The proposed action was approved in July 2020, and is anticipated to last 1 year after project start.

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

As all impacts are either beneficial or negligible, this RFFA was not carried forward to chapter 4 of the FEIS for spatial analysis.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Electrum Avenue Mining owns the mineral claims affected by the proposed action.
Soils, Vegetation, and Reclamation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed trench sites are largely void of vegetation except for a few shrubs. The proposed action also involves timely reclamation activities that would occur within 1 year of project start.
Noise and Vibration	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Design features will be implemented to reduce potential noise and vibration impacts. Mechanical equipment will be set up on the south side of the hill in order to obscure direct sound to the north. Equipment would only be run during the daytime.
Transportation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Design features will be implemented to reduce potential impacts to transportation. Temporary roads would be ripped and graded to pre-project conditions in order to discourage future use. Reclamation of affected roads would be completed within 1 year of project startup.
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Design features, such as not running the mill on windy days, will be implemented to reduce potential impacts to air quality. No Air Quality Permit would be required from the ADEQ.
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not result in impacts to groundwater quantity or GDEs.
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Design features will be implemented to reduce potential impacts to water quality. All exploration activities will be dry operations.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No floodplains, wetlands, or municipal watersheds occur in the project area.

Resource Category	Results of RFFA Screening
Wildlife	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. There are no federally threatened or endangered species, or designated or proposed critical habitat in the project area, nor is there habitat for Forest Service sensitive species present within the project area.
Recreation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact recreation.
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The waste rock pile is existing and not part of the proposed action.
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Design features will be implemented to reduce risk of fire. Fire extinguishers will be present on site and fuels would not be stored on site.
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Design features will be implemented to reduce impacts from hazardous materials. Hazardous materials such as diesel fuel and lubricant would not be kept on site. A spill kit will be on site at all times.
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action includes timely and effective reclamation of newly disturbed sites to reduce scenic impacts.
Cultural Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. A field visit of the project area found two previously identified cultural resource sites within the footprint. However, these sites are not eligible for the National Register of Historic Places and the proposed action was determined to have no effect on historic properties.
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not result in socioeconomic impacts.
Tribal Values and Concerns	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. A field visit of the project area found two previously identified cultural resource sites within the footprint. However, these sites are not eligible for the National Register of Historic Places and the proposed action was determined to have no effect on historic properties.
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not result in impacts to environmental justice communities.
Livestock and Grazing	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Design features, such as temporary fencing in active grazing allotments, will be implemented to reduce impacts to livestock and grazing.

Sources:

http://www.fs.fed.us/nepa/nepa_project_exp.php?project=58057

Spring Prescribed Burns Project

Overview of RFFA

The Tonto National Forest proposes to use prescribed burns to improve timber stand conditions and wildlife habitat by reducing fire hazards and natural fuel build-up. The proposed action would help meet the direction of the Forest Plan by improving plant vigor, timber stand conditions, watershed conditions, and wildlife habitat diversity.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

The proposed action was implemented in 2018.

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

As all impacts are either beneficial or negligible, this RFFA was not carried forward to chapter 4 of the FEIS for spatial analysis.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Overall conclusion: Fuels reduction and fire management projects address potentially adverse effects of wildfire. This RFFA would result in minor and localized impacts that would be minimized via active management by way of the appropriate planning process within the agency. By definition, any short-term adverse effects are outweighed by the long-term beneficial effects of the treatment. Overall, the RFFA is beneficial to all resources by helping prevent catastrophic damage via wildfire.

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact geology or minerals, nor would it result in subsidence.
Soils, Vegetation, and Reclamation	Contributes to cumulative effects, but insufficient information exists to analyze. The proposed action would improve plant vigor and timber stand conditions by reducing fire hazard and natural fuel build-up. Overall, there may be short-term adverse impacts but long-term beneficial impacts. Since these are overall beneficial effects, they are not being carried through to the FEIS analysis.
Noise and Vibration	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not result in noise or vibration impacts.
Transportation and Access	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not result in transportation impacts.
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not result in air quality impacts.

Resource Category	Results of RFFA Screening
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact groundwater quantity or GDEs.
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not result in water quality impacts.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact surface water quantity.
Wildlife	Contributes to cumulative effects, but insufficient information exists to analyze. The proposed action would improve wildlife habitat diversity by reducing fire hazard and natural fuel build-up. Overall there may be short-term adverse impacts, but long-term beneficial impacts. Since these are, on the whole, going to be beneficial effects, they are not being carried through to the FEIS analysis.
Recreation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not impact recreation.
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No tailings are involved in the proposed action.
Public Health & Safety: Fuels and Fire Management	RFFA contributes to cumulative effects and sufficient information exists to analyze; however, because impacts are overall beneficial, analysis is not carried forward for this resource. Fire is a natural component of the ecosystem that was suppressed over the past few decades, resulting in increased potential for large, high-severity wildfires. Prescribed burns would be planned each year to imitate historic, naturally occurring fires.
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. No hazardous materials are involved in the proposed action.
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not result in impacts to scenic resources.
Cultural Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Mitigation measures provided through consultation with the State Historic Preservation Officer would reduce impacts to cultural resources.
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed project would not result in socioeconomic impacts.
Tribal Values and Concerns	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Mitigation measures provided through consultation with the State Historic Preservation Officer would reduce impacts to resources of tribal concern and value.

Resource Category	Results of RFFA Screening
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed project would not impact any environmental justice communities.
Livestock and Grazing	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The proposed action would not result in impacts to livestock and grazing.

Sources:

http://www.fs.fed.us/nepa/nepa_project_exp.php?project=53824

Unpermitted Discharge of Recycled Water into Queen Creek

Overview of RFFA

In January 2019, ADEQ issued a Water Quality Advisory for the unpermitted discharge of recycled water into Queen Creek in the San Tan Valley area. ADEQ issued this public advisory because a discharge of recycled water occurred from the Pecan Water Reclamation Plant.

Periodic controlled discharges of recycled water into Queen Creek in the San Tan Valley from treated effluent ponds at the Pecan Water Reclamation Plant were deemed necessary in early 2019 by the plant's management company, EPCOR, to avoid potential berm failure and/or overtopping of these basins. The excess of stored water has been the result of unusually cool and wet weather and consequently a reduced demand by local area farmers and others for the treated water for irrigation and other purposes. To date (March 2019), discharges from the plant into Queen Creek have totaled more than 15 million gallons, according to the company.

The Pecan Water Reclamation Plant is located just north of Queen Creek on Gantzel Road in the San Tan Valley, approximately 23 miles due west of the town of Superior.

The company has stated it will conduct water quality sampling downstream of any future discharges to ensure water remains in compliance with ADEQ standards for treated effluent.

ADEQ issued the advisory to let the public know to avoid drinking or otherwise being in contact with the recycled water, although it is not otherwise considered a threat to public health and safety.

Rationale for Resource Analysis—Temporal Overlap with Resolution Copper Project

Similar intermittent discharges are possible at any time in the future. EPCOR has stated it is working to increase treated effluent storage basin capacity to help alleviate this issue.

Rationale for Resource Analysis—Spatial Overlap with Resolution Copper Project

The Pecan Water Reclamation Plant is located downstream and approximately 10 miles from the Magma Arizona Railroad Company and Filter plant and Loadout Facility.

Rationale for Analysis as Cumulative Effect in EIS, by Resource

Resource Category	Results of RFFA Screening
Geology, Minerals, and Subsidence	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The discharges of treated effluent water from the plant would not affect this resource.
Soils, Vegetation, and Reclamation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The discharges of treated effluent water from the plant would not affect this resource.
Noise and Vibration	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The discharges of treated effluent water from the plant would not affect this resource.

Resource Category	Results of RFFA Screening
Transportation and Access	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The discharges of treated effluent water from the plant would not affect this resource.
Air Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The discharges of treated effluent water from the plant would not affect this resource.
Water: Groundwater Quantity and Groundwater-Dependent Ecosystems	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Future discharges from the reclamation facility are not planned and therefore cannot be predicted, but they are possible. However, based on the past discharges, effects would be temporary, very short-lived, and would not overlap with impacts from the Resolution Copper Project.
Water: Groundwater and Surface Water Quality	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Future discharges from the reclamation facility are not planned and therefore cannot be predicted, but they are possible. However, based on the past discharges, effects would be temporary, very short-lived, and would not overlap with impacts from the Resolution Copper Project.
Water: Surface Water Quantity	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. Future discharges from the reclamation facility are not planned and therefore cannot be predicted, but they are possible. However, based on the past discharges, effects would be temporary, very short-lived, and would not overlap with impacts from the Resolution Copper Project.
Wildlife	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The discharges of treated effluent water from the plant could have minor effects on this resource but would represent only temporary, very short-term changes.
Recreation	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The discharges of treated effluent water from the plant would not affect this resource.
Public Health & Safety: Tailings Safety	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The discharges of treated effluent water from the plant would not affect this resource.
Public Health & Safety: Fuels and Fire Management	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The discharges of treated effluent water from the plant would not affect this resource.
Public Health & Safety: Hazardous Materials	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The discharges of treated effluent water from the plant would not affect this resource.
Scenic Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The discharges of treated effluent water from the plant would not affect this resource.
Cultural Resources	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The discharges of treated effluent water from the plant would not affect this resource.

Resource Category	Results of RFFA Screening
Socioeconomics	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The discharges of treated effluent water from the plant would not affect this resource.
Tribal Values and Concerns	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The discharges of treated effluent water from the plant would not affect this resource.
Environmental Justice	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The discharges of treated effluent water from the plant would not affect this resource.
Livestock and Grazing	Dismiss from further analysis; RFFA would not contribute to cumulative effects or effects are negligible. The discharges of treated effluent water from the plant would not affect this resource.

Source:

Arizona Department of Environmental Quality (ADEQ). 2019. Press Release: Water Quality Advisory. February 20. Available at: <https://azdeq.gov/press-releases/press-release-adeq-issues-water-quality-advisory-unpermitted-discharge-treated-water>. Accessed March 2019

Northern Arizona Gazette. 2019. "Potential unpermitted discharge of treated water from Pecan Water Reclamation Plant into Queen Creek." February 28. Available at: <http://www.northernarizonagazette.com/tag/pecan-water-reclamation-plant/>. Accessed March 2019.

**ATTACHMENT 4 – LIST OF ALL RFFAS AND SCREENING
OUTCOMES**

Project	Not reasonably foreseeable, or no temporal overlap (see RFFA memo 10/28/2020) Brief summary of project included in Attachment 2	Not reasonably foreseeable, but special consideration given in chapter 4 of FEIS	Potential RFFA, but only beneficial or negligible impacts, and not carried forward to chapter 4 of FEIS Screening of potential impacts in Attachment 3	Potential RFFA with adverse impacts, carried forward to chapter 4 of FEIS for spatial analysis and cumulative effects analysis Screening of potential impacts in Attachment 1	Already analyzed in FEIS as part of project
Town of Superior Land Exchange Parcels	X				
High-Speed Rail Connection between Tucson and Phoenix	X				
Silver King Mine	X				
Carlota Mine leaching and closure			X		
Florence Copper				X	
Town of Florence Development Projects		X			
Population change		X			
Future assured water supplies		X			
Drought Contingency Plan		X			
Town of Superior Transfer Station Remediation	X				
Ripsey Wash Tailings Project				X	
Arizona Public Service (APS) Right-of-Way (ROW) Vegetation Management with Herbicides				X	
Arizona National Scenic Trail (Arizona Trail) Comprehensive Plan			X		

Project	Not reasonably foreseeable, or no temporal overlap (see RFFA memo 10/28/2020) Brief summary of project included in Attachment 2	Not reasonably foreseeable, but special consideration given in chapter 4 of FEIS	Potential RFFA, but only beneficial or negligible impacts, and not carried forward to chapter 4 of FEIS Screening of potential impacts in Attachment 3	Potential RFFA with adverse impacts, carried forward to chapter 4 of FEIS for spatial analysis and cumulative effects analysis Screening of potential impacts in Attachment 1	Already analyzed in FEIS as part of project
Arizona Trail Teacup Segment Realignment	X				
ASARCO Ray Mine, including the Hayden Concentrator and Smelter, and Superfund Site				X	
Ray Land Exchange and Proposed Plan Amendment Supplemental EIS				X	
Wild and Scenic River Eligibility				X	
Tonto National Forest Motorized Travel Management Plan				X	
Tonto National Forest Plan Revision					X
Locatable Mining Rule - 36 CFR 228, subpart A. EIS	X				
Apache Leap Special Management Area					X
Copper King Exploratory Drilling/Superior West Exploration	X				
Superior West Exploration				X	
Jasper Canyon Mineral Exploration				X	
Red Top Exploration				X	

Project	Not reasonably foreseeable, or no temporal overlap (see RFFA memo 10/28/2020) Brief summary of project included in Attachment 2	Not reasonably foreseeable, but special consideration given in chapter 4 of FEIS	Potential RFFA, but only beneficial or negligible impacts, and not carried forward to chapter 4 of FEIS Screening of potential impacts in Attachment 3	Potential RFFA with adverse impacts, carried forward to chapter 4 of FEIS for spatial analysis and cumulative effects analysis Screening of potential impacts in Attachment 1	Already analyzed in FEIS as part of project
South Mesa Abandoned Mines				X	
Copper Springs	X				
Hicks-Pikes Peak Allotment Grazing Authorization EA				X	
Pinaladera Fuels Management	X				
Sedow and Haystack Butte Allotment Range Improvements	X				
Dagger, Poison Spring, Black Mesa, and A-Cross Grazing Allotment Management Plans	X				
Resolution Copper Baseline Geotechnical and Hydrological Data Gathering Activities	X				
Silver Bar Mining Regional Landfill and Cottonwood Canyon Road Improvements Elder South – Carlota				X	
LEN Range Improvements and Road Maintenance				X	
Imerys Perlite Mine	X				
Pinto Valley Mine Expansion				X	

Project	Not reasonably foreseeable, or no temporal overlap (see RFFA memo 10/28/2020) Brief summary of project included in Attachment 2	Not reasonably foreseeable, but special consideration given in chapter 4 of FEIS	Potential RFFA, but only beneficial or negligible impacts, and not carried forward to chapter 4 of FEIS Screening of potential impacts in Attachment 3	Potential RFFA with adverse impacts, carried forward to chapter 4 of FEIS for spatial analysis and cumulative effects analysis Screening of potential impacts in Attachment 1	Already analyzed in FEIS as part of project
Superior to Silver King 115-kilovolt (kV) Relocation Project				X	
Abel-Pfister-Ball 230-kV Transmission Project (previously Abel-Moody 230-kV Transmission Project)	X				
Resolution Copper Pre-Feasibility Activities Plan of Operations (#03-12-02-006).			X		
Resolution Copper reclamation and post-closure monitoring of historic Magma Copper activities (tailings, impacted soils, smelter facilities)			X		
Southwest Transmission Cooperative (SWTC) Apache-Hayden Powerline ROW Renewal and Pole Replacement	X				
Omya			X		
Recreation Special Use Permits			X		
Van Dyke Project	X				
Pavement Preservation	X				

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MARRCO Water line	X				
ADOT Vegetation Treatment				X	
Rangeland Improvements - Millsite	X				
Grazing Allotments	X				
Superior Soil Study Area	X				
Kalamazoo Superior Pit	X				
Desert Sunset Red Hills Quarry	X				
Pinal County Whitlow Pit	X				
Government Spring Pipeline Project			X		
AGFD Wildlife Water Catchment Improvement Projects				X	
Bighorn sheep capture	X				
ADOT Potential Transportation Infrastructure Projects			X		
ASLD Superstition Vistas Development Projects		X			
Pinal County Joint Land Use Study	X				
CAP Trail Plan			X		

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Peg Leg Hydrological, Geologic and Geotechnical Investigations	X				
Skunk Camp Hydrological, Geologic and Geotechnical Investigations	X				
Unpermitted discharge of recycled water into Queen Creek			X		
A-Diamond Allotment, Grazing Lease Renewals				X	
Battle Axe Allotment, Grazing Lease Renewals				X	
Devil's Canyon Allotment, Grazing Lease Renewals				X	
Ellsworth Desert Allotment, Grazing Lease Renewals				X	
Government Springs (Lyons Fork) Allotment, Grazing Lease Renewals				X	
Helmwheel (Box-O) Allotment, Grazing Lease Renewals				X	
Horsetrack Allotment, Grazing Lease Renewals				X	

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Myers Allotment, Grazing Lease Renewals				X	
Nichols Ranch Allotment, Grazing Lease Renewals				X	
Ruiz Allotment, Grazing Lease Renewals				X	
Slash S Allotment, Grazing Lease Renewals				X	
Superior Allotment, Grazing Lease Renewals				X	
Teacup Allotment, Grazing Lease Renewals				X	
Whitlow Allotment, Grazing Lease Renewals				X	
Victory Cross Allotment, Grazing Lease Renewals				X	
Peralta Regional Park				X	
North South Corridor Study	X				
Adobe Bypass	X				
Copper King 2019				X	
Pumping water from other regions			X		
Rockfall at Claypool Tunnel on LOST trail	X				

Project	Not reasonably foreseeable, or no temporal overlap (see RFFA memo 10/28/2020) Brief summary of project included in Attachment 2	Not reasonably foreseeable, but special consideration given in chapter 4 of FEIS	Potential RFFA, but only beneficial or negligible impacts, and not carried forward to chapter 4 of FEIS Screening of potential impacts in Attachment 3	Potential RFFA with adverse impacts, carried forward to chapter 4 of FEIS for spatial analysis and cumulative effects analysis Screening of potential impacts in Attachment 1	Already analyzed in FEIS as part of project
Bureau of Reclamation CAP Non-Indian Agriculture Reallocation		X			
Mexican Spotted Owl Timber Injunction	X				
Superior Waters and Trails action plan	X				
Perlite Pits OHV staging area					X
Mount Baldy shooting sports site				X	
Apache-Sitgreaves National Forests Public Motorized Travel Management Plan				X	
Alpine Water System Improvement Project	X				
Black River Restoration Project	X				
Heber Allotment Analysis				X	
Wilson ROW	X				
East Eagle/Mud Springs Hazardous Fuels Reduction			X		
Woodland Connector Trail	X				
Four Forest Restoration Initiative EIS - Rim Country Project			X		

Project	Not reasonably foreseeable, or no temporal overlap (see RFFA memo 10/28/2020) Brief summary of project included in Attachment 2	Not reasonably foreseeable, but special consideration given in chapter 4 of FEIS	Potential RFFA, but only beneficial or negligible impacts, and not carried forward to chapter 4 of FEIS Screening of potential impacts in Attachment 3	Potential RFFA with adverse impacts, carried forward to chapter 4 of FEIS for spatial analysis and cumulative effects analysis Screening of potential impacts in Attachment 1	Already analyzed in FEIS as part of project
Arizona Public Service Master Permit Reissuance	X				
APS Transmission and Distribution Line Permit Reissuances (several Lines)	X				
AT&T Permit Reissuances	X				
NPG Cable of Arizona/Suddenlink Issuance of New Permit	X				
Unisource Energy Permit Reissuance	X				
APS McGuireville-Village of Oak Creek 69kV Transmission Line	X				
Qwest dba CenturyLink, Fiber Optic Line Permit Reissuance	X				
Verde Connect				X	
Wickiup Creek Flow Restoration	X				
Emory Oak Restoration			X		
Blue Bell/Wolf Creek Allotments Range	X				
Highland Pines Domestic Water Improvement District Pipeline Replacement Project	X				

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Jack's Project				X	
Pine Creek Mining River Bend Placer Project				X	
Drake Limestone Quarry Expansion				X	
Red Creek, Six Bar, and Skeleton Ridge Grazing	X				
Hawes Trail System Master Development Plan Project	X				
Sonoran Desert Ecosystem Restoration	X				
Pine Mountain Area Improvement Project			X		
Alder Mesa Trail Re-Route of the Arizona National Scenic Trail	X				
Cragin-Payson TSA Water Treatment Plant	X				
Taurus Exploration Plan	X				
Silent Hill Mineral Exploration			X		
North Zone 2019 Range Betterment Project	X				
Flying V and Flying H Allotment Management Plans	X				

Project	Not reasonably foreseeable, or no temporal overlap (see RFFA memo 10/28/2020) Brief summary of project included in Attachment 2	Not reasonably foreseeable, but special consideration given in chapter 4 of FEIS	Potential RFFA, but only beneficial or negligible impacts, and not carried forward to chapter 4 of FEIS Screening of potential impacts in Attachment 3	Potential RFFA with adverse impacts, carried forward to chapter 4 of FEIS for spatial analysis and cumulative effects analysis Screening of potential impacts in Attachment 1	Already analyzed in FEIS as part of project
Flying V&H Prescribed Fire	X				
Haigler Fuels Analysis	X				
Pleasant Valley Northwest Grazing Allotments Analysis	X				
Spring Prescribed Fire Project			X		
Poison Springs Structural Range Improvements			X		
Highway Tanks Tribal Forest Protection Act Project	X				
Copper Crossing Energy Center	X				
Demoss Petrie Substation to Tucson Substation 138kV/46kV	X				
East Line Solar	X				
Punkin Center Battery Storage	X				
APS 69kV Power Line Permit for Childs-Irving Line	X				
APS Coconino-Verde 230-kV Fiber-Optic Improvement Project			X		
US-Mexico Border Wall	X				
Bush Fire	X				

Project	Not reasonably foreseeable, or no temporal overlap (see RFFA memo 10/28/2020) Brief summary of project included in Attachment 2	Not reasonably foreseeable, but special consideration given in chapter 4 of FEIS	Potential RFFA, but only beneficial or negligible impacts, and not carried forward to chapter 4 of FEIS Screening of potential impacts in Attachment 3	Potential RFFA with adverse impacts, carried forward to chapter 4 of FEIS for spatial analysis and cumulative effects analysis Screening of potential impacts in Attachment 1	Already analyzed in FEIS as part of project
Chevelon Butte Wind Farm	X				
Interstate 11 Corridor	X				
Mangum Fire	X				
Southline Transmission Project				X	
Saguaro-Winchester	X				
Sulphur Springs Valley - Fish Canyon Electric Line Maintenance	X				
SunZia Southwest Transmission Project				X	
Kaibab Plateau (NKRd) Wireless Communications Sites Development - aka VT & Telephone Hill Communications Sites	X				
Silver King-New Oak Flat- New Superior 230-kV line					X