

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

USDA Forest Service
Tonto National Forest
Arizona

October 28, 2020

Process Memorandum to File

Post-DEIS Update: Determination of Reasonably Foreseeable Actions Considered in Cumulative Effects Analysis

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

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Purpose of Process Memorandum

The purpose of this process memorandum is to document the process used by the National Environmental Policy Act (NEPA) interdisciplinary (ID) team to identify and consider reasonably foreseeable future actions (RFFAs) for inclusion in the cumulative effects analysis of the Resolution Copper Project final environmental impact statement (FEIS). A review of RFFAs was completed and disclosed in the draft environmental impact statement (DEIS). After publication of the DEIS, the list of RFFAs was reviewed and added to, which allowed for a fresh cumulative effects analysis in response to comments received and new information.

General Overview

Before conducting the final cumulative effects analysis, the Tonto National Forest ID team undertook an effort to re-identify reasonably foreseeable actions. Past and present actions that may have had or that currently have impacts in analysis areas are not included in this memorandum because these actions are addressed as part of the current condition in each resource's affected environment section.

Three criteria are necessary for an RFFA to be included in the cumulative effects analysis:

- 1) The future action and/or impacts from the action must **spatially overlap** the corresponding direct and indirect effects analysis area for the Resolution Copper Project (or alternatives). To give a hypothetical example, impacts from increased traffic along U.S. 60 between Superior and Miami due to construction activities at the East Plant Site could overlap with increased traffic from the proposed Pinto Valley Mine expansion, and could also overlap with decreased traffic from the closure of the Carlota Mine.
- 2) The future action and/or impacts from the action must **temporally overlap** the Resolution Copper Project (or alternatives) and/or the impacts from the Resolution Copper Project. To give a hypothetical example, impacts to vegetation from grazing could temporally overlap the vegetation clearing of the Resolution Copper Project tailings storage facility during the construction phase.
- 3) The future action must be **"reasonably foreseeable."** According to Forest Service Handbook 1909.15 and 36 Code of Federal Regulations (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 Bureau of Land Management (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." **To give a hypothetical non-Federal example:** a future housing subdivision project near Superior would only be considered reasonably foreseeable if a proposed plan or preliminary design had been submitted to either the

Town of Superior or Pinal County, depending on the location of the proposed project. If the proposed subdivision had not started the agency review or permitting process by submitting documentation, then the action would be considered speculative. **To give a hypothetical Federal example:** a proposed fuels reduction project (vegetation thinning) by the U.S. Forest Service (Forest Service or USFS) would be considered reasonably foreseeable if the public had been notified about the project in the Forest Schedule of Proposed Actions (SOPA), or by legal advertisement in the newspaper of record, in a mailing, or in a listing in the Federal Register. If the Forest Service had not yet notified the public about the proposed project, then the project would be considered speculative. Speculative actions are not reasonably foreseeable and do not provide resource specialists with enough information to be able to conduct a cumulative effects analysis.

For an RFFA to be considered in the cumulative effects analysis, the effects of the action must occur in the same place and at the same time as similar effects from the Resolution Copper Project. To be considered reasonably foreseeable, the action must have started any official approval/permitting process, thus providing resource specialists with sufficient detail with which to conduct an effects analysis.

Resource-specific “cumulative effect analysis areas” are identified in each resource section (e.g., air quality, noise). The use of the resource cumulative effect analysis areas at the stage described in this process memorandum was solely to provide initial geographic areas within which to search for potential RFFAs.

Spatial overlap was determined on a resource-by-resource basis and documented in the FEIS cumulative effects analysis (FEIS chapter 4), largely using geographic information system (GIS) analysis. Assessments of spatial overlap are not included in this process memorandum. Only temporal overlap and the determination if a project is reasonably foreseeable are screened in this memorandum. For determining temporal overlap, we used the information from table 1 that identifies the mine phases and years for cross referencing with potential reasonably foreseeable future actions (from Rigg 2018).¹

Table 1. Mine phases and time frames (years) used to determine temporal overlap

Mine Phase	Description	Years*
Care and Maintenance/ Baseline	Now through final record of decision (ROD).	Through 2021
Construction	Starts after signing ROD and receiving final authorizations. Some infrastructure on private land could proceed earlier. Site preparation/start dam construction. No ore production. (Mine Years 1 through 9)	2022–2030

¹ Rigg, J. 2018. *Mine Life Phase Durations*. Process memorandum to file. Phoenix, Arizona: SWCA Environmental Consultants. February 26.

Mine Phase	Description	Years*
Operations	Ramping up of ore production for roughly 7 years; full throughput for roughly 24 years; ramping down of ore production for roughly 10 years (Mine Years 6 through 46). Tailings facility gradually expands throughout period.	2027–2067
Closure and Reclamation	Cessation of ore production and closure (Mine Years 46 through 56)	2067–2076

* The inclusion of calendar years is necessary when considering temporal overlap with potential RFFAs. The years shown in this table are estimates only and should not be construed as a decision on project schedule.

Identification of New RFFAs for the Final Environmental Impact Statement

Public Comments

Public comments received on the DEIS were reviewed for additional RFFAs to include in the cumulative effects analysis process. While there were activities noted within comments, they included ones that were already considered in the RFFA and cumulative effects analysis review. No new RFFAs were identified from public comments meeting the screening criteria.

Federal Agencies

Resources provided by the following Federal agencies were used to identify potential RFFAs within the cumulative effects analysis areas: Forest Service, BLM, Bureau of Indian Affairs, the Federal Register for the Interior Department (including the Western Area Power Administration), and the Federal Register for the Energy Department.

The Forest Service publishes a Schedule of Proposed Actions (SOPA) on a quarterly basis and contains a list of proposed actions that will soon begin or are currently undergoing environmental analysis and documentation. The most recent SOPA at the time of our analysis was published in October 2020. Each National Forest publishes an individual SOPA which is broken down into sections, identifying projects occurring nationwide, within the forest region (in the case of this project, Region 3), Forest-wide projects, projects occurring in multiple districts, and projects occurring in each individual district. Four National Forests manage portions of land encapsulated by the cumulative effects analysis areas: the Apache-Sitgreaves National Forests, the Coconino National Forest, the Prescott National Forest, and the Tonto National Forest. In order to identify all potential large projects that could be occurring within the analysis area, the SOPA for each forest was reviewed. We searched for RFFAs including, but not limited to, prescribed burns, vegetation treatments, forest thinning, noxious weed or invasive species removal, as well as additional projects that may impact large areas of vegetation. From this search, 44 additional potential reasonably foreseeable future actions were identified as potential RFFAs and are shown in table 2 below.

The Bureau of Land Management manages lands within the cumulative effects analysis area and thus was identified as a source for potential RFFAs. The BLM ePlanning site was used as an initial method

of identifying potential RFFAs. The ePlanning site and the National NEPA Register provide public access to ongoing land-use planning and NEPA documents. In addition to the BLM National NEPA Register, the website for the BLM Arizona State Office as well as the three BLM District Offices within the state of Arizona (Gila District Office, Phoenix District Office, and the Colorado River District Office) were reviewed in order to thoroughly research potential projects. Additional BLM sites searched include the Arizona Planning and NEPA webpage and the BLM “Programs” webpage. Ultimately, BLM sources only provided one new potential RFFA within the cumulative effects analysis areas that was added to table 2 below.

Programs and services offered by the Bureau of Indian Affairs were also reviewed for applicable programs that would need to be included in the list of reasonably foreseeable future actions. Programs administered by the Bureau of Indian Affairs include natural resources management on Trust lands, subsurface minerals estates, repair and maintenance of roads, and operation of a series of irrigation systems and provision of electricity to rural parts of Arizona. Websites for the Bureau of Indian Affairs Western and Navajo Regions were also reviewed; however, these searches did not yield any potential RFFAs for inclusion in this analysis.

Another resource from which potential projects were sourced included the Electric Power Monthly reports made available by the U.S. Energy Information Administration (EIA). The past 3 years of reports (May 2017 through May 2020) were reviewed for potential large-scale generation projects. This search yielded a variety of potential projects, which are included in table 2 below.

The final Federal agency from which potential RFFAs were sourced was the Federal Register websites for the Interior Department and Western Area Power Administration. The Interior Department provides a list of sub-agencies which were briefly reviewed for projects. These sub-agencies include:

- U.S. Fish and Wildlife Service
- U.S. Geological Survey
- Bureau of Indian Affairs
- Bureau of Land Management
- National Civilian Community Corps
- National Indian Gaming Commission
- National Park Service
- Bureau of Reclamation
- Office of the Special Trustee for American Indians
- Office of Surface Mining Reclamation and Enforcement
- Bureau of Safety and Environmental Enforcement
- Office of Natural Resources Revenue

The Western Area Power Administration, part of the Department of Energy Federal Register webpage, was reviewed for potential new transmission lines or other energy projects within the analysis area. This Federal Register resource provided no potential RFFAs.

Additional Information Sources

Actions and programs occurring on tribal lands were also important to consider, as they overlap with some cumulative effects analysis areas. Therefore, resources made available on the websites for the San Carlos Apache Tribe, Gila River Indian Community, Fort McDowell Yavapai Nation, Salt River Pima-Maricopa Indian Community, and White Mountain Apache Tribe were reviewed for potential RFFAs. This search did not yield any actions for inclusion.

The project poses potential effects on the Arizona National Scenic Trail (Arizona Trail); therefore, we identified projects that may be occurring along the Arizona Trail in order to best account for cumulative effects on the trail. Resources used to determine potential actions or projects along the trail which helped identify potential RFFAs are identified here, and yielded 13 potential RFFAs that are added to table 2 below:

- The Arizona Trail Association website
- Re-review of the SOPA for the Apache-Sitgreaves, Coconino, Prescott, and Tonto National Forests
- Review of cumulative effects on the trail by similar projects (Rosemont Copper EIS)
- Review of the Southwest Area Transmission Map for transmission projects
- Google searches for planned wind farms
- Google searches for new highway projects

The following resources were also reviewed for potential RFFAs that would contribute to cumulative effects on the Arizona Trail but did not yield any for inclusion in this analysis:

- 10-year plan filings for energy companies, including Arizona Public Service Company (APS) and Salt River Project (SRP)
- Re-review of BLM ePlanning site
- Review of projects listed under Western Area Power Administration's Southwest Region

News articles were gathered and reviewed for the time after the DEIS. News articles were gathered from various sources and include:

- Google alerts set for key mine operations
- Mine and Economic Development articles for Arizona
- Local community news articles to document recreation, infrastructure, and economic considerations

Information gathered from articles was further researched if it included proposed projects or impacts in the areas of analysis.

Changes from the Draft Environmental Impact Statement

We made several updates to the list of potential RFFAs after publication of the DEIS. The updated list of potential RFFAs is shown in table 2. The changes to table 2 include the following:

- About a dozen projects that previously were planned or underway are now complete, canceled, or on hold. These remain in table 2 for screening, but are no longer considered RFFAs.
- Approximately 70 to 80 new potential RFFAs have been added and screened. Many of these are included in this process memorandum because they appear on Forest Service SOPA lists; however, many projects on the SOPA lists do not have adequately developed plans or details, and even though these are likely to overlap temporally, they are unable to be analyzed for impacts and therefore are not reasonably foreseeable. For transportation projects, Tier 1 assessments (which provide general study corridors but not specific project details) were deemed to be insufficient to define project effects; only Tier 2 assessments were considered as reasonably foreseeable.
- A number of potential RFFAs related to future population growth, land development, and water use do not pass the screening in this process memorandum to be considered in the cumulative effects analysis, either because specific details are lacking, or because there would be a lack of temporal overlap. However, based on public comments and concerns, Chapter 4 (Cumulative Effects Analysis) of the FEIS includes a special discussion of competing uses for water, potential water shortages, and regional water supplies, as they pertain to Resolution Copper Mining, LLC's (Resolution Copper's) water supply from the Desert Wellfield in the East Salt River valley. The potential RFFAs that are included in this holistic assessment are:
 - Planned developments within the town of Florence
 - Overall population growth
 - The Arizona State Land Department's Superstition Vistas planned development area
 - Future assured water supplies
 - Resolution Copper's Central Arizona Project allocation
 - Arizona Drought Contingency Plan
 - Recent modeling reports projecting water shortages in Pinal County

How to Interpret Table 2

Table 2 contains information for each potential RFFA, including the source of the RFFA, the likely schedule, the general location, and a description of the RFFA.

Each RFFA is then screened for these criteria, shown in the rightmost columns of the table:

1. Is the potential RFFA reasonably foreseeable?
2. Does the potential RFFA overlap in time with the Resolution Copper Project impacts?
3. Does the potential RFFA overlap in space with the Resolution Copper Project impacts? Note that this third criteria is no longer analyzed in this screening table (as was done for the DEIS), but is now analyzed quantitatively in chapter 4 of the FEIS.

The two shaded columns reflect the screening criteria that a potential RFFA must meet in order to be considered as an RFFA in the cumulative effects analysis. Only these RFFAs that are both reasonably foreseeable and overlap in time with the Resolution Copper Project are brought forward to the next phase of the cumulative effects analysis.

Table 2. Potential RFFAs considered for the FEIS within the cumulative effects analysis areas

Project	Agency(ies)	Source	Schedule	Location	Description	Reasonably Foreseeable?	Temporal Overlap?	Spatial Overlap?
Town of Superior Land Exchange Parcels	Tonto National Forest; Town of Superior	Directed by Congress to occur in Public Law 113-291, if requested by the Town	As of the date of this memorandum, the Town has not requested the exchange of these parcels. No estimate exists for when this request might be made.	30 acres associated with the Fairview Cemetery 250 acres associated with parcels contiguous to the Superior Airport 265 acres of Federal reversionary interest associated with the Superior Airport	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 October 2020, the transfer has still not been requested. The NFS lands to be conveyed to be 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.	No. Because the Town of Superior has not made a formal request to purchase the NFS lands transfer at the time of this memorandum (October 2020) and therefore these potential actions are not considered reasonably foreseeable future actions.	Unknown	Not assessed
High-Speed Rail Connection between Tucson and Phoenix	Federal Railroad Administration/ Arizona Department of Transportation (ADOT), Pima, Pinal, and Maricopa Counties	Tier 1 EIS record of decision (ROD) issued on December 2016: https://origin.azdot.gov/planning/transportation-studies/PassengerRail	No schedule information about a Tier 2 EIS. No construction schedule has been identified, and no funding has been secured.	Two alignment options in Pinal County will be analyzed in Tier 2 EIS. Both options would cross Magma Station at the terminus of the Magma Arizona Railroad Company (MARRCO) corridor. Construction schedule of project is unknown.	The Tier 1 EIS has selected the “yellow corridor alternative” for detailed analysis in the Tier 2 EIS.	No. Sufficient detail does not exist at this time to analyze impacts; Tier 1 studies provide general corridor alternatives, but not specific plans.	Unknown	Not assessed
Silver King Mine	Arizona Department of Environmental Quality (ADEQ) Aquifer Protection Permit (APP)	ADEQ APP: http://azdeq.gov/sites/default/files/factsheet_silver_king_mine.pdf	Unknown	Silver King Mine is located on Tonto National Forest lands on Silver King Road (NFS Road 229), Superior, Pinal County, Arizona, in Township 1 South, Range 12 East in the NW¼ of the SE¼ of the S½ of Section 24.	Silver King Mine has previously proposed reactivating the historic underground mine to recover silver ore from a standard square set drift development with open stoping mining operation. Silver King Mine would mill the ore on-site using grinding and crushing with a jawcrusher, double-deck screen, cone crusher, and ball mill. From the ball mill, the crushed and ground ore will go to the flotation facilities using a conditioning tank, flotation cells, a thickener, filter plant, dryer holding tank, and concentrating table. The tailings slurry would then be placed within the tailings impoundment. Awaiting suitable plan of operations for future work. Project is not currently on Tonto National Forest SOPA.	No. Sufficient detail does not exist at this time to analyze impacts.	Unknown	Not assessed
Carlota Mine leaching and closure	ADEQ, KGHM	KGHM website: http://kgm.com/en/our-business/mining-and-enrichment/carlota	Current to 2020	North of town of Miami, adjacent to Pinto Valley Mine	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. No firm date for closure established.	Yes	Yes	See FEIS cumulative effects analysis.

Project	Agency(ies)	Source	Schedule	Location	Description	Reasonably Foreseeable?	Temporal Overlap?	Spatial Overlap?
Florence Copper	Florence Copper, ADEQ, U.S. Environmental Protection Agency (EPA)	Florence Copper: https://www.florencecopper.com/	Production Test Facility (PTF) in operation. Working towards commercial production.	Northwest of Florence	In-situ Copper Recovery facility near Florence. The Production Test Facility was constructed in 2017 and is currently in operation. ADEQ issued a draft Aquifer Protection Permit on August 6, 2020 which is one of two key permits required to advance to commercial production.	Yes	Yes	See FEIS cumulative effects analysis.
Town of Florence Development Projects	Town of Florence	Town of Florence: http://www.florenceaz.gov/wp-content/uploads/documents/Community%20Development/2020%20General%20Plan/Florence%2020%20General%20Plan.pdf	Unknown	North of Florence; several are near MARRCO corridor and filter plant and loadout facility.	Various large-scale master planned communities are identified in the Florence General Plan: Merrill Ranch, Dobson Farms (near MARRCO corridor), Arizona Farms (near MARRCO corridor), Skyview Farms, Palorosa. Merrill Ranch plans a capacity of 26,000 residences. The General Plan was written soon after the housing bust and will be updated soon in accordance with Arizona law.	Yes. While insufficient detail exists to analyze individual developments, the overall anticipated water use overlaps with Resolution Copper water supply in East Salt River valley. This is handled as a special discussion in the FEIS cumulative effects analysis.	Likely	See FEIS cumulative effects analysis.
Population change	ADOT, Maricopa County, Pinal County, Gila County	Various, including transportation plans for Pinal and Maricopa Counties	2040	Pinal, Gila, and Maricopa Counties	By 2040, populations in Apache Junction, Queen Creek, and Florence are expected to double; populations in other towns may increase or decrease.	Yes. General population increase is not specific enough to be actionable. However, the growth in the area and the effect on water use overlaps with the Resolution Copper water supply in the East Salt River valley. This is handled as a special discussion in the FEIS cumulative effects analysis. In addition, increasing population trends may be included in the Affected Environment discussion as appropriate (i.e., traffic growth).	Likely	See FEIS cumulative effects analysis.

Project	Agency(ies)	Source	Schedule	Location	Description	Reasonably Foreseeable?	Temporal Overlap?	Spatial Overlap?
Future assured water supplies	Arizona Department of Water Resources (ADWR)	ADWR Assured Water Supply records	Ongoing	East Salt River valley	<p>The ADWR Assured and Adequate Water Supply programs were created to address the problem of limited groundwater supplies in Arizona. Both the Assured and Adequate Water Supply programs evaluate the availability of a 100-year water supply considering current and committed demand, as well as growth projections. The Assured Water Supply Program operates within Arizona's five Active Management Areas (AMAs). It is designed to sustain the state's economic health by preserving groundwater resources and promoting long-term water supply planning. AMAs are those areas of the state where significant groundwater depletion has occurred historically and include portions of Maricopa, Pinal, Pima, Santa Cruz, and Yavapai Counties.</p> <p>Availability of water in the future will influence the growth of housing developments in the east valley in areas such as Florence, where there are already a series of master planned communities considered within Florence's 2020 General Plan, and the Superstition Vistas area, as master planned communities must demonstrate assured water supplies prior to recording plats or selling parcels. ADWR will need to consider the needs of those who already hold assured water supply analyses or certificates before it can issue new ones to the above-mentioned proposed housing developments.</p> <p>The area analyzed for assured water supplies incorporates Pinal County south of U.S. 60 through the Town of Florence.</p>	Yes. This RFFA is reasonably foreseeable. This is handled as part of a special discussion in the FEIS cumulative effects analysis that focuses on regional water supplies, but existing permitted assured water supplies have also been explicitly incorporated into a cumulative effects model, described in chapter 4.	Yes	See FEIS cumulative effects analysis.

Project	Agency(ies)	Source	Schedule	Location	Description	Reasonably Foreseeable?	Temporal Overlap?	Spatial Overlap?
Drought Contingency Plan	Arizona Department of Water Resources (ADWR)	ADWR Website	2019–2026	State of Arizona	<p>The Drought Contingency Plan (DCP) is a set of recently approved agreements between seven western states that are dependent on water from the Colorado River system, including from Lake Mead and Lake Powell. These seven states are divided into an Upper Basin group (Colorado, New Mexico, Utah, and Wyoming) and a Lower Basin group (California, Nevada, and Arizona). A separate, companion agreement to the DCP has been reached between the U.S. government and Mexico. In each state, numerous public and private stakeholder groups have also been participants in the DCP agreements; in Arizona alone nearly 40 stakeholder groups have been involved.</p> <p>The DCP is essentially a follow-on water management plan to the earlier Seven States' Agreement that went into effect in 2007, which itself was an outgrowth of earlier Colorado River water rights and allocation management plans between the same seven states, dating back to the "Colorado River Compact" of 1922.</p> <p>Negotiations on the DCP began in earnest in 2015, in response to long-term drought conditions in the southwestern United States, which had led to Lake Mead and Lake Powell recording some of the lowest water levels ever recorded at those locations due to significant decreases in annual precipitation and runoff rates region-wide. Drought conditions were forecast to continue for some years to come, even for as long as another decade or longer.</p> <p>The DCP aims to set targets for voluntary reductions in water use as well as greater conservation efforts by participant states to avoid even more dire water availability conditions throughout the Colorado River Basin. A primary larger purpose of the plan is to establish prudent water use reductions throughout the participating states during forecast region-wide extended drought conditions while the states (and stakeholder groups in each state) work to establish even more effective long-term water management standards.</p>	Yes This RFFA is reasonably foreseeable, except it will likely expire prior to Resolution Copper using any water. Regardless, this is handled as part of a special discussion in the FEIS cumulative effects analysis that focuses on regional water supplies, and the possibility of impacts to available Central Arizona Project (CAP) water.	No	See FEIS cumulative effects analysis.
Town of Superior Transfer Station Remediation	Town of Superior, ADEQ	Media sources	Complete	101 Airport Road, Superior, Arizona 85173	Transfer station was issued a Notice of Violation in 2012 for waste containing asbestos. The Town of Superior proposed a remediation plan in 2016, which ADEQ approved. This project was ongoing when the DEIS was published but has now been completed.	No. The completed project is now part of the Affected Environment, and is analyzed if appropriate in chapter 3 of the FEIS.	No. Project has been completed.	Not assessed

Project	Agency(ies)	Source	Schedule	Location	Description	Reasonably Foreseeable?	Temporal Overlap?	Spatial Overlap?
Ripsey Wash Tailings Project	ASARCO, U.S. Army Corps of Engineers (USACE), BLM, Arizona State Land Department (ASLD)	USACE DEIS: http://www.spl.usace.army.mil/Portals/17/docs/regulatory/Projects/Ray_Mine/Draft_EIS/Ray_Mine_DEIS-508.pdf	USACE Permit approved December 2018; but construction not yet completed	South of Kelvin, near Peg Leg Alternative	ASARCO is proposing to construct a new tailings storage facility to support its Ray Mine operation. 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. A segment of the Arizona Trail would be relocated east of the tailings storage facility. A section of Florence–Kelvin Highway and a power line would be rerouted. The proposed tailings storage facility, situated within the Ripsey Wash watershed, would be located on 2,627 acres of private lands and 9 acres of BLM lands.	Yes	Yes	See FEIS cumulative effects analysis.
Arizona Public Service Company Right-of-Way (ROW) Vegetation Management with Herbicides	USFS	Tonto National Forest SOPA: https://www.fs.usda.gov/project/?project=45771	Decision Notice published in 2019, vegetation management ongoing	Tonto National Forest lands, Gila County, Maricopa County	APS transmission ROW within NFS lands.	Yes	Yes	See FEIS cumulative effects analysis.
Arizona National Scenic Trail Comprehensive Plan	USFS, BLM	Tonto National Forest SOPA: https://www.fs.usda.gov/project/?project=49535	Under analysis. Next milestone expected 2020	Tonto National Forest, BLM, ASLD, etc., Arizona Trail corridor	Plan will develop administrative and management goals, objectives, and practices for the Arizona Trail and management corridor. Planning level-document that does not implement or authorize any specific project or activity.	Yes	Yes	See FEIS cumulative effects analysis.
Arizona National Scenic Trail Teacup Segment Realignment	BLM, ASLD	https://www.fs.usda.gov/nfs/11558/www/nepa/104401_FSPLT3_4047026.pdf	Completed	BLM and ASLD	Realignment of approximately 5.5 miles of trail segment across BLM and ASLD lands.	No. The completed project is now part of the Affected Environment and is analyzed if appropriate in chapter 3 of the FEIS.	No. Project has been completed.	See FEIS cumulative effects analysis.
ASARCO Ray Mine, including the Hayden Concentrator and Smelter, and Superfund Site	ASARCO, BLM	ADEQ: http://www.asarco.com/about-us/our-locations/ray-operations/;	Currently operational until 2044	Kelvin, north of Peg Leg Alternative	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 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. While these activities are ongoing and part of the Affected Environment, the long lifespan of the mine and the variety of mining activities suggest that changes could occur in the future, particularly because of the land exchange.	Yes	Yes	See FEIS cumulative effects analysis.

Project	Agency(ies)	Source	Schedule	Location	Description	Reasonably Foreseeable?	Temporal Overlap?	Spatial Overlap?
Ray Land Exchange and Proposed Plan Amendment Supplemental EIS	ASARCO, BLM	https://eplanning.blm.gov/eplanning-ui/project/82268/510	Supplemental EIS completed in July 2019, ROD published October 2019. While the process has been completed, development of these lands by ASARCO has not yet occurred.	Kelvin, north of Peg Leg Alternative	As ASARCO originally proposed to the BLM in 1994, 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.	Yes. While specific development plans have not been made public, mining activities are anticipated on the exchanged lands.	Yes	See FEIS cumulative effects analysis.
Wild and Scenic River Eligibility	USFS	Tonto National Forest Draft Wild and Scenic Rivers Eligibility Study (1993 and 2017): https://www.tontoplan.org/public-involvement/wild--scenic-rivers	Final Wild and Scenic Rivers documentation will be included as part of the EIS for Forest Plan Revision.	Telegraph Canyon; Arnett Creek	Possible eligible segments of Telegraph and Arnett identified by Tonto National Forest in October 2017. This segment was previously identified in the 1993 Wild and Scenic River Study. Arizona Game and Fish Department (AGFD) plans to stock Gila topminnow in Telegraph Canyon after USFS finishes oleander removal. No further plans to restock Arnett Creek at this time.	Yes	Yes	See FEIS cumulative effects analysis.
Tonto National Forest Motorized Travel Management Plan	USFS	Tonto National Forest SOPA: https://www.fs.usda.gov/project/?project=28967	Final Supplemental EIS and Draft ROD published October 2019	Tonto National Forest lands	Establishes system of roads, trails, and areas designated for motorized vehicle use and determines suitable locations for dispersed camping. The final supplemental environmental impact statement prepared in response to objections received to the draft Record of Decision, was issued June 6, 2016. The proposed action for this project includes designating roads, trails, and areas that would be open for motorized use to the public. It would also designate a corridor adjacent to designated roads and trails for motorized big game retrieval of legally harvested elk and bear.	Yes	Yes	See FEIS cumulative effects analysis.
Tonto National Forest Plan Revision	USFS	Tonto National Forest SOPA: https://www.fs.usda.gov/project/?project=51592	Draft Forest Plan published December 2019	Tonto National Forest lands	Revises the Land and Resource Management Plan for the Tonto National Forest. This planning-level document does not implement or authorize any specific project or activity.	Yes. If necessary, consistency with, and an amendment to the revised forest plan will be handled explicitly in the FEIS. Otherwise this is not an action, but a management plan that establishes goals with future actions, and lacks specific detail to analyze impacts.	Yes	Not assessed

Project	Agency(ies)	Source	Schedule	Location	Description	Reasonably Foreseeable?	Temporal Overlap?	Spatial Overlap?
Locatable Mining Rule – 36 CFR 228, subpart A. EIS	USFS	Tonto National Forest SOPA: https://www.fs.usda.gov/project/?project=57214	DEIS expected in late 2020	Locatable mineral operations on National Forest System lands	Revisions to U.S. Department of Agriculture proposes revision to regulations at 36 CFR 228, Subpart A governing locatable minerals operations on National Forest System lands.	No. Not an action but revision to agency regulations that minimize adverse environmental impacts on NFS surface resources in connection with operations authorized by the Mining Law of 1872.	Yes	Not assessed
Apache Leap Special Management Area	USFS	Tonto National Forest SOPA: https://www.fs.usda.gov/project/?project=51530	Management plan approved in 2018	Tonto National Forest lands	Land management plan for the Apache Leap Special Management Area. This planning-level document does not implement or authorize any specific project or activity.	No. 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, these management directions are already incorporated into project effects.	Yes	Not assessed
Copper King Exploratory Drilling/Superior West Exploration	USFS	Tonto National Forest SOPA: https://www.fs.usda.gov/project/?project=54119	Canceled	Copper King: Tonto National Forest lands immediately north of West Plant Site and near Silver King Alternative. Superior West: Several potential drill sites overlap Resolution Copper Project area. Most are south of town of Superior.	This project combines the environmental review of two mineral exploration projects, Copper King and Superior West, which has been proposed by Bronco Creek. 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. Copper King Exploratory Drilling Project has been withdrawn by the proponent.	No. Project has been canceled.	No	Not assessed
Superior West Exploration	USFS	Tonto National Forest SOPA: https://www.fs.usda.gov/project/?project=54119	Forest received Plan of Operations and will need to process	Superior West: Several potential drill sites overlap Resolution Copper Project area. Most are south of town of Superior.	A total of 79 possible drill site locations, of which the proponent would be authorized to select up to 25 to be drilled over a 10-year period. Use of existing roads and helicopter to access drill sites. As proposed, Kennecott Exploration Company would be field representative and Bronco Creek Exploration is mineral claimant and operator. Public comments raised the concern that Kennecott Exploration Company is working on behalf of Resolution Copper to conduct this exploration. This is not accurate. Kennecott Exploration Company and Resolution Copper are separate corporate entities, and there is no evidence of shared interest in this exploration project. However, both companies are Rio Tinto subsidiaries.	Yes	Yes	See FEIS cumulative effects analysis.

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Jasper Canyon Mineral Exploration	USFS	Tonto National Forest SOPA: https://www.fs.usda.gov/project/?project=58483	Under analysis, next milestone expected in 2020	The project area is located approximately 2 miles north of U.S. 60 and State Highway 188 junction at Globe, Arizona.	Proposed activities include the construction of up to five drill sites out of seven possible drill site locations identified. Bronco Creek Exploration identified themselves as operator and field representative.	Yes	Yes	See FEIS cumulative effects analysis.
Red Top Exploration	USFS	Tonto National Forest SOPA: https://www.fs.usda.gov/project/?project=46318	Analysis complete in 2016. Project not yet implemented.	Located at sites along NFS Road 650, south of Superstition Wilderness boundary	Proposed activities include the construction of up to 10 drill sites out of 22 possible drill site locations identified. Bronco Creek Exploration is mineral claimant and operator.	Yes	Yes	See FEIS cumulative effects analysis.
South Mesa Abandoned Mines	USFS	Tonto National Forest SOPA: https://www.fs.usda.gov/project/?project=58787	Under analysis, next milestone expected in 2020	Project includes abandoned mine land features located south and west of Superstition Wilderness Area, in Maricopa County, Arizona	Twenty abandoned mine lands features proposed for closure, using methods based on Bat Conservation International recommendations.	Yes	Yes	See FEIS cumulative effects analysis.
Copper Springs	USFS	Tonto National Forest SOPA: https://www.fs.usda.gov/project/?project=39477	Complete	Tonto National Forest lands east of East Plant Site and south of Miami/Claypool	Copper Springs proposes exploration drilling at six sites near Globe.	No. The completed project is now part of the Affected Environment and is analyzed if appropriate in chapter 3 of the FEIS.	No. Project has been completed.	Not assessed
Hicks-Pikes Peak Allotment Grazing Authorization Environmental Assessment (EA)	Tonto National Forest, Globe Ranger District	Tonto National Forest SOPA: https://www.fs.usda.gov/project/?project=3775	Draft EA Comment period ended July 2019, next milestone anticipated September 2020	Globe Ranger District, 8 miles north and northwest of Globe, Arizona	Project is a new planning effort to authorize livestock grazing on the Hicks-Pikes Peak Allotment in a manner that is consistent with the goals, objectives, and standards and guidelines of the Tonto National Forest Plan.	Yes	Yes	See FEIS cumulative effects analysis.
Pinaladera Fuels Management	USFS	Tonto National Forest SOPA: https://www.fs.usda.gov/project/?project=3775	On hold	Tonto National Forest lands	Fuels reduction on 83,558 acres south of Globe.	Yes	Unknown; project on hold	Not assessed
Sedow and Haystack Butte Allotment Range Improvements	USFS	Tonto National Forest SOPA: https://www.fs.usda.gov/project/?project=52597	2018. As of 2020, project is no longer on SOPA. Believed to be completed.	Tonto National Forest lands	Authorize additional range improvements to supply additional water for livestock.	No. The completed project is now part of the Affected Environment and is analyzed if appropriate in chapter 3 of the FEIS.	No. Project has been completed.	Not assessed
Dagger, Poison Spring, Black Mesa, and A-Cross Grazing Allotment Management Plans	USFS	Tonto National Forest SOPA: https://www.fs.usda.gov/project/?project=49896	On hold	Tonto National Forest lands	Authorize grazing on these allotments.	Yes	Unknown, project on hold	Not assessed
Resolution Copper Baseline Geotechnical and Hydrological Data Gathering Activities	USFS	Tonto National Forest files	Initial authorization was 2016, 10-year authorization period for testing and monitoring.	Tonto National Forest lands	Resolution Copper was authorized in 2016 to gather and evaluate geotechnical and hydrological data in an area proposed for a tailings storage facility.	No. A legal decision ruled that this is not a connected action to the Resolution Copper Project.	Yes	Not assessed

Project	Agency(ies)	Source	Schedule	Location	Description	Reasonably Foreseeable?	Temporal Overlap?	Spatial Overlap?
Silver Bar Mining Regional Landfill and Cottonwood Canyon Road Improvements Elder South – Carlota	Private, BLM, ASLD, ADEQ, Pinal County	https://eplanning.blm.gov/epl-front-office/eplanning/projectSummary.do?method=renderDefaultProjectSummary&projectId=40151 ; http://www.copperarea.com/pages/carlota-copper-begin-satellite-mining-operation/	Cottonwood Road cultural resources mitigation work occurring in 2018–2021	BLM, ASLD, and west of Miami	In 2007, Pinal County rezoned the private land to authorize development of a solid waste landfill. In 2009, the owners/developers received a master facility small satellite copper oxide deposit, known as Elder South, on Carlota’s patented claims. The mine will consist of a small open pit, one main haul road, and several support roads. There is no way to access the proposed Silver Bar Mining Regional Landfill without crossing BLM land. Approximately 6 miles of Cottonwood Canyon Road, including approximately 0.4 mile on BLM-administered land and approximately 5 miles on Arizona State Trust land, and approximately 0.6 mile of Sandman Road on BLM-administered land would be improved. On BLM-administered land, the access road would be widened to 44 feet, as needed.	Yes	Yes	See FEIS cumulative effects analysis.
LEN Range Improvements and Road Maintenance	BLM	https://eplanning.blm.gov/epl-front-office/eplanning/projectSummary.do?method=renderDefaultProjectSummary&projectId=60831	2017–2027	Mineral Mountains north of Florence	Re-drill 11 existing wells and equip them with solar pumps, storage tanks and water troughs. Some may have water lines going to troughs at locations away from the storage tank. The roads on the allotment are in disrepair and are not passable in anything but high clearance 4-wheel drive vehicles. The roads will need to be maintained to allow drilling equipment into the project sites to re-drill the existing wells.	Yes	Yes	See FEIS cumulative effects analysis.
Imerys Perlite Mine	USFS and Private	Plan	2034	West of Superior	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 NFS Roads 229, 989, and 2403 for hauling; and mining at the Forgotten Wedge and Rosemarie Exception No. 8 claims. This project would continue previous mining activities. An environmental assessment completed for this action resulted in a Finding of No Significant Impact (FONSI).	No. While the mine will continue to operate, the actions including water use, transportation, and air emissions are anticipated to remain the same. These impacts are assessed already as part of the Affected Environment and are analyzed if appropriate in chapter 3 of the FEIS.	Yes	Not assessed
Pinto Valley Mine Expansion	USFS and Private	Proposed Plan	Update to 2020 for authorization; Anticipate authorization to go to 2039	West of Miami	The Pinto Valley Mine is an existing open pit copper and molybdenum mine. 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.	Yes	Yes	See FEIS cumulative effects analysis.
Superior to Silver King 115-kilovolt (kV) Relocation Project	Private, SRP	https://srpnet.com/electric/transmission/projects/superiorsilverking/application.aspx	Currently in design	North of Superior on Resolution Copper private property on the West Plant Site	Relocate a segment of the existing Superior-Silver King 115-kV transmission line on private property near Superior.	Yes	Yes	See FEIS cumulative effects analysis.

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Abel-Pfister-Ball 230-kV Transmission Project (previously Abel-Moody 230-kV Transmission Project)	Private	https://www.srpnet.com/electric/transmission/projects/abelmoody/abelmoody.aspx	Transmission line construction within the next 5 years, substation construction within the next 15 years	Near Magma Junction, some follows MARRCO corridor	To meet increased electricity demand and growth, SRP plans to construct an approximately 20-mile, double-circuit, 230-kV transmission line connecting two SRP-owned and previously sited 230/69-kV substations. The new transmission line will also connect to a new 230/69-kV substation named Pfister that was sited as part of this project. This project has been put on hold with no updates since 2009. As such, there is insufficient spatial information at this time to evaluate potential cumulative effects.	No. Sufficient detail does not exist at this time to analyze impacts.	Yes	Not assessed
Resolution Copper Pre-Feasibility Activities Plan of Operations (#03-12-02-006).	USFS	Tonto National Forest files	Initial authorization was 2010; exploratory drilling continues today under the plan and authorized through 2025. Groundwater testing and monitoring, as well as road use and maintenance is authorized through 2025.	Portion of this Plan would remain on Tonto National Forest lands after land exchange completed	Resolution Copper was authorized in 2010 to gather and evaluate geological, geotechnical, and hydrologic data to support pre-feasibility studies for exploration of a deep copper ore deposit.	Yes. Reasonably foreseeable activities would be only ongoing monitoring and maintenance; other activities are already completed and are part of the Affected Environment and are analyzed if appropriate in chapter 3 of the FEIS.	Yes	See FEIS cumulative effects analysis.
Resolution Copper reclamation and post-closure monitoring of historic Magma Copper activities (tailings, impacted soils, smelter facilities)	ADEQ (APP, Voluntary Remediation Program [VRP])	ADEQ	2020 with post-reclamation monitoring to follow	Resolution Copper private land	Under ADEQ's APP program and VRP, Resolution Copper is excavating soils impacted from historic mining activities, removing smelter buildings, and reclaiming tailings on-site. These major reclamation earth-moving activities will continue through 2020. After that, Resolution Copper will continue post-reclamation monitoring of groundwater and revegetation.	Yes	Yes	See FEIS cumulative effects analysis.

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Southwest Transmission Cooperative (SWTC) Apache-Hayden Powerline ROW Renewal and Pole Replacement	BLM	https://eplanning.blm.gov/eplanning-ui/project/109550/510	Completed 2018	BLM Tucson and Safford Field Offices	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. The width of the ROW is 100 feet (50 feet from centerline). 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 wide (10 feet from centerline). SWTC filed a renewal application on March 10, 2015. The power line is administratively divided into two distinct segments. Segment 1 (0.6 mile, 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, 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. 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.	No. The completed project is now part of the Affected Environment and is analyzed if appropriate in chapter 3 of the FEIS.	No. Project has been completed.	Not assessed
Omya	USFS	Plan	40-year plan to cover 2 phases. Phase 1 is up in 2023.	North of Oak Flat	Limestone quarry in interim shutdown; maintenance of NFS Road 2458; persistent water in pit	Yes	Yes	See FEIS cumulative effects analysis.
Recreation Special Use Permits	USFS	Lands Point of Contact			Existing recreation and outfitter guides Existing utility permits	Yes	Yes	See FEIS cumulative effects analysis.
Van Dyke Project	Private	https://www.copperfoxmetals.com/projects/van-dyke/overview/	Advanced stage	Globe-Miami mining district	Mine plan not submitted. Test holes already in place, project proponent is trying to determine if economically feasible.	No. Sufficient detail does not exist at this time to analyze impacts.	Unknown	Not assessed
Pavement Preservation	ADOT	https://www.azdot.gov/docs/default-source/planning/five-year-program-fy2019-2023.pdf?sfvrsn=10	Project complete early fall 2020		Superior to Gila County Line	No. Project will likely be complete by publication of FEIS and before any Resolution Copper Project activities.	No. Project will be completed by early fall 2020.	Not assessed
MARRCO Waterline	Private	Baseline Hydrological Final Environmental Assessment (EA)	Ongoing use through Resolution Copper production years (approximately 2027)	Superior to Magma Junction	Resolution Copper has constructed a water pipeline within the MARRCO corridor 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.	No. These activities are part of the Affected Environment and are analyzed if appropriate in chapter 3 of the FEIS.	No. These activities will cease when Resolution Copper construction begins.	Not assessed

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ADOT Vegetation Treatment	ADOT	Baseline Hydrological Final EA	Ongoing; based on request by either USFS or ADOT to treat areas along the highway	U.S. 60, up to 200 feet beyond road easement	ADOT plans to conduct annual treatment programs using 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.	Yes	Yes	See FEIS cumulative effects analysis.
Rangeland Improvements	USFS	Baseline Hydrological Final EA	Cancelled	Millsite Allotment West of Superior	Three livestock water developments on the Millsite grazing allotment. The Environmental Quality Incentives Program funded developments consist of pumping water from two existing windmills and a private well to three new water storage tanks and then conveying the water to two new troughs.	No. Project has been canceled.	No	Not assessed
Grazing Allotments	USFS, ASLD, BLM	Baseline Hydrological Final EA	Ongoing	Project area	Ongoing use of grazing allotments	No. These activities are part of the Affected Environment and are analyzed if appropriate in chapter 3 of the FEIS.	Yes	Not assessed
Superior Soil Study Area	ADEQ (VRP)	ADEQ files	Final human health risk assessment expected late 2020.	Private land in the vicinity of Superior, Arizona	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.	Yes	No. Project will be completed by early 2021.	Not assessed
Kalamazoo Superior Pit	Private	BLM	Ongoing	Township 2 South, Range 12 East, Section 6, Lots 3 and 4	Mineral material sale. Decorative rock quarry. Quarrying and reclamation is expected to continue.	No. While the mine will continue to operate, the actions including water use, transportation, and air emissions are anticipated to remain the same. These impacts are assessed already as part of the Affected Environment and are analyzed if appropriate in chapter 3 of the FEIS.	Yes	Not assessed

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Desert Sunset Red Hills Quarry	BLM	BLM	Ongoing	Township 4 South, Range 11 East, Sections 33 and 35	Mineral material sale. Decorative rock quarry. Quarrying and reclamation expected to continue.	No. While the mine will continue to operate, the actions including water use, transportation, and air emissions are anticipated to remain the same. These impacts are assessed already as part of the Affected Environment and are analyzed if appropriate in chapter 3 of the FEIS.	Yes	Not assessed
Pinal County Whitlow Pit	BLM	BLM	Ongoing	Township 5 South, Range 15 East, Section 5	Mineral material free use permit. Mining and reclamation expected to continue.	No. While the mine will continue to operate, the actions including water use, transportation, and air emissions are anticipated to remain the same. These impacts are assessed already as part of the Affected Environment and are analyzed if appropriate in chapter 3 of the FEIS.	Yes	Not assessed
Government Spring Pipeline Project	AZGFD Commission & private	AGFD	Unknown	Existing water storage tank at Government Spring (NAD 12S E0505352 N3678558) to the existing south side water storage tank and water trough on NFS Road 248 (NAD 12S E05088 N3679103)	Landowner Relations Program Cooperative Stewardship Agreement for Habitat Improvement between AZGFD Commission and Government Spring Ranch, LLC. Pipeline will start at the existing water storage tank at Government Spring (NAD 12S E0505352 N3678558) then be installed above ground for remaining distance to the existing south side water storage tank and water-trough on NFS 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.	Yes	Unknown	See FEIS cumulative effects analysis.

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AGFD Wildlife Water Catchment Improvement Projects	AGFD, USFS	AGFD	Various; February 2019, one on hold, unknown/pending funding	GMU 24B in vicinity of tailings storage facility Alternative 2 or 3 Near West, Alternative 4 Silver King, and Alternative 5 Peg Leg	<p>All projects have been scoped through the Tonto National Forest, two have additional clearances to complete, four have materials funded and one is fully funded.</p> <p>Currie Wood (AGFD ID# 69), NEPA complete, Tonto National Forest, Globe Ranger District, scheduled for construction in February 2019; north of tailings storage facility Alternatives 2/3 and 4</p> <p>Silver King (AGFD ID#70), NEPA complete, Tonto National Forest, Globe Ranger District, Materials funded. Within footprint of tailings storage facility Alternative 4; project on hold due to proposed Resolution Copper Project.</p> <p>Gonzales Pass (AGFD ID#71), NEPA complete, Tonto National Forest, Mesa Ranger District, not funded yet, south of tailings storage facility Alternative 2/3.</p> <p>Cactus Patch (AGFD ID#989), NEPA 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.</p>	Yes	Likely	See FEIS cumulative effects analysis.
Bighorn sheep capture	AGFD	AGFD	Completed	37B Mineral Mountains, Region 5, Maybe GMU 24B	Proposed bighorn sheep capture from 37B Mineral Mountains and relocation to Region 5 was planned for November 2019. Capture from GMU 24B sheep populations in Superstitions may also be included.	No. The completed project is now part of the Affected Environment and is analyzed if appropriate in chapter 3 of the FEIS.	No. Project has been completed.	Not assessed
ADOT Potential Transportation Infrastructure Projects	ADOT	AGFD	Unknown, but on 5-year plan	Florence Junction, Globe, Oracle, Superior, Winkelman, Kearney, Gila River	<p>Potential upcoming transportation projects include:</p> <ul style="list-style-type: none"> • U.S. 60 between Florence Junction and Globe • SR 79 between Florence Junction and Oracle • SR 177 between Superior and Winkelman/Kearney • SR 77 between Globe and Winkelman/Kearney • Any transportation or rail development along the Gila River between Winkelman/Kearney and the Magma Junction area southwest of Florence • Queen Creek Canyon bridge rehabilitation • Pinto Creek/U.S. 60 bridge replacement 	Yes, if plan exists or part of ADOT 5-year plan	Likely	See FEIS cumulative effects analysis.

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ASLD Superstition Vistas Development Projects	Pinal County Community Development, ASLD	Pinal County, ASLD	Development of Pinal County Comprehensive plan began 2008	Southwest of Highway 79 and U.S. 60 intersection	175,000 acres of State Trust Land located east and southeast of Gilbert, Apache Junction, and Queen Creek. Pinal County and ASLD are developing a Pinal County Comprehensive Plan for a community within Superstition Vistas. Although the precise time frame for sale and development of these lands will be dependent upon market conditions, it is probable much of the development will occur contemporaneously with the Resolution Copper Project.	Yes. No specific plans have been produced, and general population increase is not specific enough to be actionable. However, the growth in the area and the effect on water use overlaps with the Resolution Copper water supply in the East Salt River valley. This is handled as a special discussion in the FEIS cumulative effects analysis.	Unknown	See FEIS cumulative effects analysis.
Pinal County Joint Land Use Study	Arizona National Guard and Pinal County	Pinal County	Final Pinal County Joint Land Use Study (JLUS) was formally accepted by the JLUS Policy Committee on February 4, 2020	Central north-south corridor of Pinal County	The Pinal County Joint Land Use Study is a planning effort to assess compatibility concerns in the regions surrounding four Arizona National Guard installations in Pinal County – Florence Military Reservation, Rittenhouse Training Site, Silverbell Army Heliport, and Picacho Peak Stagefield.	No. Not an action, but a management plan that establishes goals with future actions undetermined	Likely	Not assessed
CAP Trail Plan	Pinal County Open Space and Trails	Pinal County	Master Plan completed November 2015, trail construction underway	Central Arizona Project Aqueduct	Recreational trail planned to be constructed alongside the Central Arizona Project Aqueduct.	Yes	Yes	See FEIS cumulative effects analysis.
Peg Leg Hydrological, Geologic and Geotechnical Investigations	BLM	Resolution Copper	Completed	12 miles east of Florence and south of Cochran, Pinal County, Arizona	Resolution Copper plans to do exploratory (hydrologic, geologic, and geotechnical) drilling at drill pads approx. 80' x 120' wide for a total of 11 drill sites as well as two test trenches 20' x 30'. These activities would require the use of existing access roads and 0.23 miles of TARs (TARs would be 12 feet wide). Once drilling is complete, solids and desiccated drillings muds in the mid pits would be excavated and removed from the site.	No. The completed project is now part of the Affected Environment and is analyzed if appropriate in chapter 3 of the FEIS.	No. Project has been completed.	Not assessed
Skunk Camp Hydrological, Geologic and Geotechnical Investigations	ASLD, Private, BLM	Resolution Copper	Completed	Skunk Camp project location	RCM plans to do exploratory (hydrologic, geologic, and geotechnical) drilling at drill pads (various sizes: 50' x 50', 80' x 120', and 20' x 30') for a total of 17 drill sites.	No. The completed project is now part of the Affected Environment and is analyzed if appropriate in chapter 3 of the FEIS.	No. Project has been completed.	Not assessed

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Unpermitted discharge of recycled water into Queen Creek	ADEQ	ADEQ	January 2019 until discharge is stopped	Queen Creek in San Tan Valley area	ADEQ has issued a Water Quality Advisory for the unpermitted discharge of recycled water into Queen Creek in the San Tan Valley area. ADEQ is making this recommendation because a discharge of recycled water occurred from the Pecan Water Reclamation Plant. This issue could be ongoing due to population growth.	Yes	Yes	See FEIS cumulative effects analysis.
A-Diamond Allotment, Grazing Lease Renewals	BLM, ASLD, private	BLM	Ongoing	Approx. 1.2 miles south of SR 177 and 11.5 miles east of the town of Superior	Grazing lease authorizations for approximately 22,389 acres.	Yes	Yes	See FEIS cumulative effects analysis.
Battle Axe Allotment, Grazing Lease Renewals	BLM, ASLD, USFS, private	BLM	Ongoing	Approx. 7 miles south of U.S. 60 and the Town of Superior	Grazing lease authorizations for approximately 20,275 acres.	Yes	Yes	See FEIS cumulative effects analysis.
Devil's Canyon Allotment, Grazing Lease Renewals	USFS, ASLD, private	USFS, ASLD	Ongoing	Approx. 2.5 miles east of the town of Superior and 12.5 miles west of the city of Globe	Grazing lease authorizations for approximately 26,605 acres.	Yes	Yes	See FEIS cumulative effects analysis.
Ellsworth Desert Allotment, Grazing Lease Renewals	BLM, ASLD, private	BLM	Ongoing	Adjacent to the Florence Military Reservation and 3.3 miles east of San Tan Valley	Grazing lease authorizations for approximately 29,546 acres.	Yes	Yes	See FEIS cumulative effects analysis.
Government Springs (Lyons Fork) Allotment, Grazing Lease Renewals	BLM, ASLD, USFS, private	ASLD, BLM, USFS, USFWS	Ongoing	Approx. 3 miles south of U.S. 60 and about 5.5 miles east of the town of Superior	Grazing lease authorizations for approximately 8,370 acres.	Yes	Yes	See FEIS cumulative effects analysis.
Helmwheel (Box-O) Allotment, Grazing Lease Renewals	BLM, ASLD, private	BLM, ASLD	Ongoing	Approx. 2.3 miles northeast of SR 79 and 8.3 miles southeast of the Town of Florence	Grazing lease authorizations for approximately 52,037 acres.	Yes	Yes	See FEIS cumulative effects analysis.
Horsetrack Allotment, Grazing Lease Renewals	BLM, ASLD, private	BLM, ASLD	Ongoing	Approx. 4 miles northeast of the Town of Florence and 11 miles southwest the Town of Superior	Grazing lease authorizations for approximately 28,187 acres.	Yes	Yes	See FEIS cumulative effects analysis.
Myers Allotment, Grazing Lease Renewals	BLM, private	BLM	Ongoing	Approx. 1 mile southeast of the Florence Military Reservation and 4.9 miles northeast of the town of Florence	Grazing lease authorizations for approximately 6,052 acres.	Yes	Yes	See FEIS cumulative effects analysis.
Nichols Ranch Allotment, Grazing Lease Renewals	ASLD, private	ASLD	Ongoing	Approx. 4 miles north of the Florence Military Reservation and 10.5 miles west of the town of Superior	Grazing lease authorizations for approximately 13,859 acres.	Yes	Yes	See FEIS cumulative effects analysis.
Ruiz Allotment, Grazing Lease Renewals	BLM, ASLD, private	BLM, ASLD	Ongoing	Adjacent to U.S. 60 and approx. 9 miles east of the town of Superior	Grazing lease authorizations for approximately 13,843 acres.	Yes	Yes	See FEIS cumulative effects analysis.
Slash S Allotment, Grazing Lease Renewals	ASLD, private	ASLD	Ongoing	Approx. 10 miles southeast of U.S. 60 and the town of Superior	Grazing lease authorizations for approximately 18,398 acres.	Yes	Yes	See FEIS cumulative effects analysis.
Superior Allotment, Grazing Lease Renewals	USFS, BLM, private	BLM	Ongoing	Adjacent to U.S. 60 and the town of Superior	Grazing lease authorizations for approximately 58,671 acres.	Yes	Yes	See FEIS cumulative effects analysis.

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Teacup Allotment, Grazing Lease Renewals	BLM, ASLD, private	BLM, ASLD	Ongoing	Approx. 12.5 miles from U.S. 60 and the Town of Superior	Grazing lease authorizations for approximately 41,316 acres.	Yes	Yes	See FEIS cumulative effects analysis.
Whitlow Allotment, Grazing Lease Renewals	BLM, ASLD, private	BLM, ASLD	Ongoing	Approx. 15 miles southwest of U.S. 60 and the Town of Superior	Grazing lease authorizations for approximately 23,276 acres.	Yes	Yes	See FEIS cumulative effects analysis.
Victory Cross Allotment, Grazing Lease Renewals	BLM, ASLD, private	BLM, ASLD	Ongoing	Approx. 14 miles southeast of U.S. 60 and the Town of Superior	Grazing lease authorizations for approximately 8,974 acres.	Yes	Yes	See FEIS cumulative effects analysis.
Peralta Regional Park	Pinal County, BLM	Pinal County	BLM lease issues, finalizing construction/design plans	Northwest of Florence Junction on east side of Peralta Road	Approx. 498-acre park on the outer edge of the Phoenix metropolitan area.	Yes	Yes	See FEIS cumulative effects analysis.
North South Corridor Study	ADOT, Federal Highway Administration	ADOT	DEIS published September 2019	Between U.S. 60 in Apache Junction and I-10 in Eloy	Under a new environmental review process, a highway study to evaluate alternatives to improve regional connectivity, provide an additional way traveling in a growing area of the Sun Corridor, and address current and future transportation needs is underway in Pinal County. 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 combined Tier 1 EIS and Record of Decision are expected to be completed in 2020.	No. Sufficient detail does not exist at this time to analyze impacts; Tier 1 studies provide general corridor alternatives, but not specific plans.	Unknown	Not assessed
Adobe Bypass	ADOT, Association for the Development of a Better Environment (ADOBE) Roads Committee	The Apache Junction & Gold Canyon News	Petition circulated August–September 2019	Parallel to U.S. 60 near Gold Canyon	Gold Canyon Bypass plan starts where the Superstition Freeway ends at Mountain View Road, goes around Gold Canyon and reconnects to the existing US-60 by the Renaissance Festival.	No. Plan exists as a petition only at this time.	No	Not assessed
Copper King 2019	USFS	USFS	Under analysis, next milestone expected in 2020	Near NFS Roads 342 and 2458, approximately two miles northeast of the Town of Superior	Bronco Creek Exploration proposes drilling from a maximum of four drill sites (the four largest drill sites plus the laydown yard measure 1.02 acres, with a 50-foot buffer surrounding the sites). 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% of the total proposed disturbance lies within the pre-disturbed Omya Queen Creek Quarry. This is a smaller exploration than previously scoped in area.	Yes	Yes	See FEIS cumulative effects analysis.
Pumping water from other regions	ADWR, GSC Farm LLC, Town of Queen Creek	ADWR	Request for consultation sent August 2019	Town of Queen Creek	Proposed transfer of GSC Farm LLC's Colorado River Water Entitlement to the Town of Queen Creek	Yes	Yes	See FEIS cumulative effects analysis.
Rockfall at Claypool Tunnel on LOST trail	Resolution Copper	Hike Arizona	August/September 2019	Near Superior tunnel on U.S. 60 in Queen Creek Canyon	Rockfall occurred in August/September 2019 on Resolution Copper private property so they temporarily closed the Claypool tunnel. It has since reopened.	No. This is a short-term condition that has since ceased.	No	Not assessed

Project	Agency(ies)	Source	Schedule	Location	Description	Reasonably Foreseeable?	Temporal Overlap?	Spatial Overlap?
Bureau of Reclamation CAP Non-Indian Agriculture Reallocation	U.S. Bureau of Reclamation	U.S. Bureau of Reclamation	FONSI published November 2019	CAP service area in the Phoenix, Pinal, and Tucson AMAs	Resolution Copper was approved to receive 2,238 acre-feet annually NIA allotment of CAP	Yes. While the reallocation is reasonably foreseeable, the availability of water may be constrained. Due to the overlap with regional water supply issues, this is handled as a special discussion in the FEIS cumulative effects analysis.	Yes	See FEIS cumulative effects analysis.
Mexican Spotted Owl Timber Injunction	USFS Region 3	USFS Region 3 Office	Stop Order sent September 2019	Region 3 forests	Court order to stop timber/vegetation cutting/prescribed fires/ or issuing forest product permits on Tonto National Forest or any Region 3 forest pending formal USFWS consultation on Mexican spotted owl. 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.	No. Injunction has been dissolved.	No	Not assessed
Superior Waters and Trails action plan	Town of Superior, National Parks Service	Town of Superior	Some tasks have occurred but additional trails to be constructed with ongoing maintenance for perpetuity	Tonto National Forest, LOST trails	National Park Service grant – Adam Milnor, Town of Superior approved plan in early 2020. Actions include: Connecting LOST trails to Tonto National Forest trails; Provide trails, access points, and related facilities to contribute to making Superior a recreational destination; Provide improved access to Queen Creek channel for recreation and educational activities; Enhance aesthetic quality of trails and creek corridors for community and visitors. Actual actions focus between Magma Avenue bridge and the wastewater treatment plant: Removal of three target invasives (tamarisk, oleander, and fountain grass); Debris removal; Add flows to Queen Creek, just above Magma Avenue bridge (by either water piped from Never Sweat Tunnel or piped up from wastewater treatment plant)	No. Many of the aspects of this plan are aspirational and not funded, and lack enough detail to analyze impacts.	Yes	Not assessed

Project	Agency(ies)	Source	Schedule	Location	Description	Reasonably Foreseeable?	Temporal Overlap?	Spatial Overlap?
Perlite Pits OHV staging area	Tonto National Forest	USFS	Construction anticipated October 2020–March 2021	Adjacent to intersection of NFS Roads 230 and 2421, approximately 1 air mile south of Superior	A new OHV staging area approx. 1.5 acres in size, located mainly on existing disturbance and along both official and illegal OHV use area. Work will occur by CCC or USFS personnel or volunteers, anticipate funding for construction during October 2020 – March 2021 by Arizona State Park grant. Is one of the two staging areas considered in the Revised RUG recreation mitigation plan, but Tonto National Forest Globe District would like grant funding to construct sooner than TMP or Resolution approvals would occur. This is due to impacts by random/non-directed use that are damaging the ground and vegetation. Located adjacent to corner of NFS Roads 230 and 2421, in Township 2S, Range 12E, Section 16. This project has recently been incorporated into the multi-trail recreation mitigation package included as a required mitigation measure in the Resolution Copper Project FEIS. It is fully analyzed as part of the project and is no longer considered a reasonably foreseeable action.	No. Project is now incorporated into Resolution Copper required mitigation and analyzed for impacts in the FEIS.	Yes	Not assessed
Mount Baldy shooting sports site	BLM Phoenix District, Hassayampa Field Office	BLM press release	Construction began May 4, 2020, anticipated completion November 2020	2.4 miles north of State Route 74 and 2.5 miles west of Lake Pleasant	Shooting sports site north of Phoenix, north of State Route 74, west of Lake Pleasant. The site will be minimally developed including backstop berms, steel targets, gravel parking, handicap parking, kiosk, along with other amenities.	Yes	Yes	See FEIS cumulative effects analysis.
Apache-Sitgreaves National Forests Public Motorized Travel Management Plan	Apache-Sitgreaves National Forest	Apache-Sitgreaves National Forest SOPA	DEIS published August 2019	Roads, trails, and areas designated for motor vehicle use on Apache-Sitgreaves National Forests	A proposal to designate motorized travel routes (roads and trails) in areas on Federal lands administered by the USFS within the Apache-Sitgreaves National Forests in order to comply with the Travel Management Rule (36 CFR 212).	Yes	Yes	See FEIS cumulative effects analysis.
Alpine Water System Improvement Project	Apache-Sitgreaves National Forest, Alpine Ranger District	Apache-Sitgreaves National Forest SOPA	Scoping letter published May 2020	Apache County, south of Alpine, Arizona, on lots 6 & 7, Section 19, Township 5N, Range 31E	Alpine Domestic Water proposes to install a water storage tank, with a short access road, and pipeline to supply water to residents of southeastern Alpine, Arizona. The Alpine RD would issue a Special Use Permit for construction on, and use of USFS land.	No. Sufficient detail does not exist at this time to analyze impacts.	Yes	Not assessed
Black River Restoration Project	Apache-Sitgreaves National Forest, Alpine Ranger District	Apache-Sitgreaves National Forest SOPA	Under analysis, next milestone anticipated July 2020 Decision expected January 2021	12 miles south of Springerville, Arizona, bordering Fort Apache Reservation on the west	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.	No. Sufficient detail does not exist at this time to analyze impacts.	Yes	Not assessed
Heber Allotment Analysis	Apache-Sitgreaves National Forest, Black Mesa Ranger District	Apache-Sitgreaves National Forest SOPA	FONSI authorizing grazing was published in August 2020	Located around the community of Heber Overgaard, southern boundary borders Fort Apache Indian Reservation and northern boundary borders Apache-Sitgreaves National Forests	Allotment analysis to determine re-issuance of a term grazing permit, what grazing management strategy will be implemented in the allotment management plan (AMP), treatments for grassland restoration and maintenance, and placement of tanks and fence.	Yes	Yes	See FEIS cumulative effects analysis.
Wilson ROW	Apache-Sitgreaves National Forest, Black Mesa Ranger District	Apache-Sitgreaves National Forest SOPA	Project on hold	Navajo County Parcel 208-23-004, a 5-acre parcel of private lands surrounded on all sides by NFS lands	To issue a right-of-way permit for NFS Roads 9853W and 9854F to allow a private property owner to maintain the road for access to his land.	No. Sufficient detail does not exist at this time to analyze impacts.	Unknown; project on hold	Not assessed

Project	Agency(ies)	Source	Schedule	Location	Description	Reasonably Foreseeable?	Temporal Overlap?	Spatial Overlap?
East Eagle/Mud Springs Hazardous Fuels Reduction	Apache-Sitgreaves National Forests, Clifton Ranger District	Apache-Sitgreaves National Forests SOPA	Decision Notice published March 2020, Ongoing	91,029 acres within Clifton Ranger District	Hazardous fuels reduction project to maintain and restore fire adapted ecosystems to their natural fire regimes condition classes, using vegetation treatments, mechanical and/or hand thinning and pretreatments, prescribed fire, and managed wildfire.	Yes	Yes	See FEIS cumulative effects analysis.
Woodland Connector Trail	Apache-Sitgreaves National Forests, Lakeside Ranger District	Apache-Sitgreaves National Forests SOPA	Project on hold, NOI was anticipated March 2020	Woodland Lake Park, Mountain Meadow Recreation Complex	The Town of Pinetop-Lakeside currently has no direct access from Mountain Meadow Recreation Complex to trails in the Woodland Lake Park. Thus, two connector trails proposed that would create that connection and allow for better access to this area.	No. Sufficient detail does not exist at this time to analyze impacts.	Unknown; project on hold	Not assessed
Four Forest Restoration Initiative EIS - Rim Country Project	Apache-Sitgreaves National Forests, Coconino National Forest, Tonto National Forest	USFS	20-year span upon implementation, DEIS was published August 2019	Portions of Coconino, Apache-Sitgreaves, and Tonto National Forests	Landscape-scale restoration on the Coconino, Apache-Sitgreaves, and Tonto National Forests of ponderosa pine ecosystems, designed to maintain, improve, and restore ecosystem structure, pattern, function, and resiliency.	Yes	Yes	See FEIS cumulative effects analysis.
Arizona Public Service Master Permit Reissuance	Coconino National Forest	Coconino National Forest SOPA	Developing proposal, NOI anticipated July 2020	Aerial/buried distribution power lines in various locations throughout Coconino National Forest	Reissue permit for operation and maintenance of aerial/buried distribution power lines, including facilities like gates/utility boxes/pads/other communication poles and equipment. Vegetation removal and equipment replacement is included with permit.	No. Sufficient detail does not exist at this time to analyze impacts.	Yes	Not assessed
APS Transmission and Distribution Line Permit Reissuances (several Lines)	Coconino National Forest, Red Rock Ranger District	Coconino National Forest SOPA	Under analysis, next milestone (NEPA or Forest Plan Amendment Decision Document) was predicted for March 2020, has not been updated since January 2020	Various locations crossing from the Verde Valley north to the Coconino National Forest boundary	Reissuance of expired power line permits: Quail Springs to McGuireville 69-kV line, Flagstaff-Leupp 230-kV line, Tuba City 69-kV line, Flagstaff-Prescott 115/69-kV line and all distribution lines.	No. Sufficient detail does not exist at this time to analyze impacts.	Yes	Not assessed
AT&T Permit Reissuances	Coconino National Forest, Red Rock Ranger District	Coconino National Forest SOPA	Currently on hold, NOI was originally estimated March 2019	Existing lines crossing Hwy 180 to Hwy 89A; Doney Park east along I-40 and south to I-17; Parallel to I-17 to Schnebly Hill Road to Sedona and south along Hwy 89A to Cottonwood	Reissuances of three buried communication lines. 1) Hwy 180 near Kendrick Park to Hwy 89 to Doney Park 2) Doney to I-40 east and south to JW Powell 3) I-17 to Schnebly Hill to Sedona south along Hwy 89A to Cottonwood.	No. Sufficient detail does not exist at this time to analyze impacts.	Unknown; project on hold	Not assessed
NPG Cable of Arizona/Suddenlink Issuance of New Permit	Coconino National Forest, Red Rock Ranger District	Coconino National Forest SOPA	Project currently on hold, last completed milestone was NOI in 2008	Several locations on the Flagstaff and Red Rock Ranger Districts	Proposal to re issue a permit to NPG Cable/Suddenlink for existing aerial and buried television cable lines on the Red Rock and Flagstaff Ranger Districts.	No. Sufficient detail does not exist at this time to analyze impacts.	Unknown; project on hold	Not assessed
Unisource Energy Permit Reissuance	Coconino National Forest, Red Rock Ranger District	Coconino National Forest SOPA	Developing proposal, NOI was estimated for April 2020	Various locations around Flagstaff and the Verde Valley	Reissuances of expiring master permit for buried natural gas lines in various locations around Flagstaff and the Verde Valley.	No. Sufficient detail does not exist at this time to analyze impacts.	Yes	Not assessed
APS McGuireville-Village of Oak Creek 69-kV Transmission Line	Coconino National Forest, Red Rock Ranger District	Coconino National Forest SOPA	Under analysis, next milestone anticipated August 2020	McGuireville to the Village of Oak Creek, via Cornville and Beaverhead Flat Roads	Arizona Public Service Co. proposes a route for an aboveground 69-kV electric powerline to improve electric reliability from McGuireville to the Village of Oak Creek. Because the line would cross USFS land, APS requests to build facilities.	No. Sufficient detail does not exist at this time to analyze impacts.	Yes	Not assessed

Project	Agency(ies)	Source	Schedule	Location	Description	Reasonably Foreseeable?	Temporal Overlap?	Spatial Overlap?
Qwest dba CenturyLink, Fiber Optic Line Permit Reissuance	Coconino National Forest, Red Rock Ranger District	Coconino National Forest SOPA	Developing proposal, next milestone anticipated September 2020	Hwy 260 to NFS Road 708 to Fossil Creek Road	Reissuance of a fiber-optic line permit to Qwest, dba CenturyLink. Fiber-optic line starts at Hwy 260 to NFS Road 708 then to Fossil Creek Road.	No. Sufficient detail does not exist at this time to analyze impacts.	Yes	Not assessed
Verde Connect	Coconino National Forest, Red Rock Ranger District	Verde Connect	Final EA published July 2020	Between State Route 260 and Cornville Road	A new road to connect Cornville Road to State Route 260	Yes	Yes	See FEIS cumulative effects analysis.
Wickiup Creek Flow Restoration	Coconino National Forest, Red Rock Ranger District	Coconino National Forest SOPA	Under analysis, next milestone anticipated August 2020	Wickiup Creek	Restoration of Wickiup Creek is needed to re-establish a surface-flow channel through excavation of accumulated sediment and addition of grade controls to maintain a stable, alluvial channel through the reach of Wickiup draw.	No. Sufficient detail does not exist at this time to analyze impacts.	Yes	Not assessed
Emory Oak Restoration	Coconino National Forest, Red Rock Ranger District, Tonto National Forest, Payson Ranger District	Coconino National Forest SOPA	Under analysis, next milestone anticipated October 2020	Eight Emory oak groves on Red Rock Ranger District in Coconino National Forest and one grove on the Tonto National Forest Payson Ranger District	USFS in partnership with the Yavapai-Apache Nation, Tonto Apache, San Carlos Apache, and White Mountain Apache tribes are developing proposals to manage and restore culturally important Emory oak groves.	Yes	Yes	Not assessed
Blue Bell/Wolf Creek Allotments Range	Prescott National Forest, Bradshaw Ranger District	Prescott National Forest SOPA	Project currently on hold	Blue Bell and Wolf Creek grazing allotments (Prescott National Forest)	An analysis to determine whether to re-authorize grazing on the Blue Bell/Wolf Creek Allotment.	No. Sufficient detail does not exist at this time to analyze impacts.	Unknown; project on hold	Not assessed
Highland Pines Domestic Water Improvement District Pipeline Replacement Project	Prescott National Forest, Bradshaw Ranger District	Prescott National Forest SOPA	Unknown	unknown	Replacement of an existing domestic water transmission pipeline owned and operated by the Highland Pines Domestic Water Improvement District (DWID) located on Prescott National Forest lands under an existing FLPMA permit	No. Sufficient detail does not exist at this time to analyze impacts.	Unknown	Not assessed
Jack's Project	Prescott National Forest, Bradshaw Ranger District	Prescott National Forest SOPA	Draft EA published April 2020, authorization would last 20 years	Big Bug Creek, Eugene Gulch, Poland Creek, Crooks Canyon, Wolf Creek, and Copper Basin Wash (all Prescott National Forest)	The project would authorize mining placer deposits from approximately 11 acres for up to 20 years. Mining would be conducted with suction dredges, sluice boxes, dry washers, high bankers, metal detectors, gold pans, and hand tools.	Yes	Yes	See FEIS cumulative effects analysis.
Pine Creek Mining River Bend Placer Project	Prescott National Forest, Bradshaw Ranger District	Prescott National Forest SOPA	Supplemental EA published April 2020, next milestone anticipated July 2020. Mine life estimated to be 15 years.	Just south of and adjacent to the existing Gold Basin mine, south of Wilhoit along the Hassayampa River	This project would include gold mining operations on approximately 48 acres (10 acres in the Red Hill #2 placer mining claim (PMC) and 38 acres in the Riverbend PMC), with an additional 4 acres for processing facilities, settling ponds, and roads.	Yes	Yes	See FEIS cumulative effects analysis.
Drake Limestone Quarry Expansion	Prescott National Forest, Chino Valley Ranger District	Prescott National Forest SOPA	Draft EA published February 2020	Northeastern portion of the Prescott National Forest in the Chino Valley Ranger District in the vicinity of Paulden	The Prescott National Forest is proposing to approve an amendment to Drake Cement LLCs existing Plan of Operations to allow Drake to expand their existing quarry operations on an additional 287 acres of National Forest System lands.	Yes	Yes	See FEIS cumulative effects analysis.
Red Creek, Six Bar, and Skeleton Ridge Grazing	Tonto National Forest, Cave Creek Ranger District	Tonto National Forest SOPA	Project currently on hold	Cave Creek Ranger District along the Verde River	To improve ecological conditions within three grazing allotments using tools such as adaptive grazing and wildlife habitat improvement and by maintaining or replacing aging structural range improvements such as fences, water developments.	No. Sufficient detail does not exist at this time to analyze impacts.	Unknown; project on hold	Not assessed

Project	Agency(ies)	Source	Schedule	Location	Description	Reasonably Foreseeable?	Temporal Overlap?	Spatial Overlap?
Hawes Trail System Master Development Plan Project	Tonto National Forest, Mesa Ranger District	Tonto National Forest SOPA	Under analysis, designed to accommodate current use plus estimated increase over 15 years	In the Hawes Trail System area, identified as Forest lands west of Utery Pass, south and east of Bush Highway, and north of the Forest boundary and the City of Mesa	The purpose of this project is to authorize a Master Development Plan for the Hawes Trail System and the adjacent area.	No. Sufficient detail does not exist at this time to analyze impacts.	Yes	Not assessed
Sonoran Desert Ecosystem Restoration	Tonto National Forest, Mesa Ranger District	Tonto National Forest SOPA	Project currently on hold	Northern part between Fort McDowell and Four Peaks Wilderness, southern part between Ft. McDowell and Superstitions Wilderness	Obliterate approximately 145 miles of unauthorized and uninventoried user-created motorized routes in the Rolls, Bulldog Canyon, and Hewitt Canyon areas in the Mesa Ranger District.	No. Sufficient detail does not exist at this time to analyze impacts.	Unknown; project on hold	Not assessed
Pine Mountain Area Improvement Project	Tonto National Forest, Mesa Ranger District, Tonto Basin Ranger District	Tonto National Forest SOPA	Decision memo published June 2020, Ongoing	On the Mesa and Tonto Basin Ranger Districts at Pine Mountain, Brushy Basin areas near Forest Service Road 422, approximately 25 air miles northeast from Mesa, Arizona	The purpose of this project is to utilize prescribed fire or naturally occurring wildfire to reduce hazardous fuel accumulation and mitigate effects from an unplanned wildfire that could be catastrophic to Mexican spotted owl habitat.	Yes	Yes	See FEIS cumulative effects analysis.
Alder Mesa Trail Re-Route of the Arizona National Scenic Trail	Tonto National Forest, Payson Ranger District	Tonto National Forest SOPA	Decision memo published January 2020. Project has been completed.	Mazatzal Wilderness Area, Payson Ranger District	To relocate the trail to a more sustainable location.	Yes	No. Project has been completed.	See FEIS cumulative effects analysis.
Cragin-Payson TSA Water Treatment Plant	Tonto National Forest, Payson Ranger District	Tonto National Forest SOPA	Project currently on hold	3 miles north of the Town of Payson limits on the east side of West Houston Mesa Road just south of Mesa del Caballo subdivision	Sell approximately 7 acres to the Town of Payson for a water treatment plant to implement the Decision Notice and FONSI for the Cragin Water Pipeline and Treatment Plant Project signed November 2, 2011.	No. Sufficient detail does not exist at this time to analyze impacts.	Unknown; project on hold	Not assessed
Taurus Exploration Plan	Tonto National Forest, Payson Ranger District	Tonto National Forest SOPA	Project canceled as of July 2020	Near Thompson Wash, near Forest Service Roads 414 and 1549, approximately three air miles northwest from Rye, Arizona	Vortex Technology LLC has submitted a Plan of Operations for a trenching exploration project. Up to nine trenches, three short (30' x 2' x 6') and 6 long (6' x 4' x 4').	No. Project has been canceled.	No	Not assessed
Silent Hill Mineral Exploration	Tonto National Forest, Payson Ranger District	Tonto National Forest SOPA	Under analysis, next milestone anticipated July 2020. Project would begin immediately after approval of MPO and last approximately 1 year.	About 5 miles Southeast of Pine, Arizona. General location of project occurs along NFS Road 74, in Shannon Gulch area	Operations will include exploratory trenching at three separate sites and milling and gravity concentration at the existing tailings pile where bulk samples would be collected.	Yes	Yes	See FEIS cumulative effects analysis.
North Zone 2019 Range Betterment Project	Tonto National Forest, Payson Ranger District, Pleasant Valley Ranger District	Tonto National Forest SOPA	Under analysis	Payson and Pleasant valley Ranger Districts	New water sources and handling facilities to improve livestock management.	No. Sufficient detail does not exist at this time to analyze impacts	Yes	Not assessed
Flying V and Flying H Allotment Management Plans	Tonto National Forest, Pleasant Valley Ranger District	Tonto National Forest SOPA	Project currently on hold	North, East, and South of Young, Arizona	Update and reauthorize two allotment management plans.	Yes	Unknown; project on hold	Not assessed
Flying V&H Prescribed Fire	Tonto National Forest, Pleasant Valley Ranger District	Tonto National Forest SOPA	Project anticipated to last 10 years, however no recent activity since 2018	Approximately 10 air miles east of Young, Arizona with its western boundary on Cherry Creek and eastern boundary at the Fort Apache Reservation	The purpose of this project is to use prescribed fire to improve timber stand conditions and wildlife habitat by reducing catastrophic fire hazard and natural fuel build-up.	No. Sufficient detail does not exist at this time to analyze impacts	Yes	Not assessed

Project	Agency(ies)	Source	Schedule	Location	Description	Reasonably Foreseeable?	Temporal Overlap?	Spatial Overlap?
Haigler Fuels Analysis	Tonto National Forest, Pleasant Valley Ranger District	Tonto National Forest SOPA	Project currently on hold	Pleasant Valley Ranger District, Management Areas 5D, 5G, and 4F, including areas around Haigler Creek Estates	Manage timber and other woody vegetation to help maintain forest health, reduce forest fuels, and improve wildlife habitat and range conditions on approximately 43,435 acres of the Tonto National Forest.	No. Sufficient detail does not exist at this time to analyze impacts.	Unknown; project on hold	Not assessed
Pleasant Valley Northwest Grazing Allotments Analysis	Tonto National Forest, Pleasant Valley Ranger District	Tonto National Forest SOPA	Project is currently on hold	Bar X, Haigler Creek, Colcord Canyon, Young, and Marsh Creek grazing allotments located north and west of Young, Arizona	This analysis covers five grazing allotments and will address actions needed to formalize an adaptive management livestock grazing strategy to maintain or move resources toward desired conditions in the project area as in the Tonto National Forest Plan.	No. Sufficient detail does not exist at this time to analyze impacts.	Unknown; project on hold	Not assessed
Spring Prescribed Fire Project	Tonto National Forest, Pleasant Valley Ranger District	Tonto National Forest SOPA	Decision memo published 2019, Ongoing	South and west of Young, Arizona	Prescribed burning is proposed on 211,218 acres within the Spring Fuel analysis area to manage timber and other woody vegetation. The proposed action would help maintain the health of the forest and woodland vegetation.	Yes	Yes	See FEIS cumulative effects analysis.
Poison Springs Structural Range Improvements	Tonto National Forest, Tonto Basin Ranger District	Tonto National Forest SOPA	Decision memo published May 2020, Ongoing	Poison Springs Allotment, Tonto Basin Ranger District, T3N, R14E, Sections 20, 28, 29, 33 as well as T3N, R13E, Section 14	Structural measures are proposed to facilitate the management of livestock by evenly distributing cattle on the allotment, restricting access to sensitive areas and provide livestock with additional reliable water sources.	Yes	Yes	See FEIS cumulative effects analysis.
Highway Tanks Tribal Forest Protection Act Project	Tonto National Forest, Tonto Basin Ranger District	Tonto National Forest SOPA	Under analysis, Decision memo is expected September 2020	Western Globe Ranger District	This project would focus on restoration of fire-adapted ecosystems, including mechanical thinning and prescribed burning to accomplish landscape restoration objectives as proposed by the Tribe that are on the Tonto National Forest and Tribal Land. Implement an adaptive management strategy on about 115,000 acres in the Upper Gila Sub-Basin watershed over the next 5 to 10 years.	No. Sufficient detail does not exist at this time to analyze impacts.	Yes	Not assessed
Copper Crossing Energy Center	SRP	EIA	Permit application submitted October 2017	Pinal County parcel numbers 210-24-001J, 210-24-001M, and 210-24-001R in Florence, Arizona	New natural gas power plant operated by SRP Agricultural Improvement and Power District	No. Sufficient detail does not exist at this time to analyze impacts.	Yes	Not assessed
DeMoss Petrie Substation to Tucson Substation 138kV/46kV	Tucson Electric Power (TEP)	EIA	Construction complete Summer 2014	2.4 miles in length, following a route that starts as Demoss Petrie (DMP) Substation, located near the northeast corner of I-10 and West Grant Road, and terminates at the Tucson Substation, located at the intersection of West 5th Street and North 11th Avenue.	TEP is planning to build a new 138-kV transmission line and relocate an existing 46-kV transmission line to link the DMP 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.	No. Sufficient detail does not exist at this time to analyze impacts.	Yes	Not assessed
East Line Solar	NextEra Energy Resources	EIA	Construction expected to be complete December 2020	Coolidge, Arizona between Steele Road and Selma Hwy	1,167-acre solar site operated by Saint Solar, LLC, a subsidiary of NextEra Energy Resources	No. Sufficient detail does not exist at this time to analyze impacts.	Yes	Not assessed
Punkin Center Battery Storage	APS	EIA	Proposed 2017	Punkin Center, Arizona	Two 1-MW/4-MW-hr storage systems for the small town of Punkin Center	No. Sufficient detail does not exist at this time to analyze impacts.	Yes	Not assessed

Project	Agency(ies)	Source	Schedule	Location	Description	Reasonably Foreseeable?	Temporal Overlap?	Spatial Overlap?
APS 69-kV Power Line Permit for Childs-Irving Line	Tonto National Forest, Payson Ranger District, Coconino National Forest, Red Rock Ranger District	Tonto National Forest SOPA	Under analysis, but no activity since 2015. Project likely on hold.	Line that travels from Childs substation to Irving power plant area	Issuance of a permit to replace the expired Federal Energy Regulatory Commission Hydropower License. Existing 69-kV line that was part of the Childs Irving Power operation and covered under the old license. Has been in continuous operation.	Yes	Unknown; project on hold	Not assessed
APS Coconino-Verde 230-kV Fiber-Optic Improvement Project	Coconino National Forest, Red Rock Ranger District, Flagstaff Ranger District	Coconino National Forest SOPA	Final EA published May 2020, decision document expected July 2020	Existing powerline goes from the west side of Sedona, up Casner Mountain Trail and northeast towards Flagstaff	Issuance of a permit authorizing APS to upgrade an existing 230-kV power line with fiber-optic cable through the modification of an existing special use permit.	Yes	Yes	See FEIS cumulative effects analysis.
United States–Mexico Border Wall	Coronado National Forest, Coronado National Memorial	Arizona Trail Association	Comment period ended May 15, 2020	74-miles along Arizona-Mexico border, including Huachuca Mountains withing Coronado National Memorial	CBP is constructing approximately 74 miles of border barrier projects, including areas where the existing barrier no longer meets the U.S. Border Patrol’s operational needs	No. Sufficient detail does not exist at this time to analyze impacts.	Yes	Not assessed
Bush Fire	Tonto National Forest	Arizona Trail Association	Extinguished but recovery continues	Tonto National Forest west of Roosevelt Lake	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. 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.	No. Sufficient detail does not exist at this time to analyze impacts.	Yes	Not assessed
Chevelon Butte Wind Farm	sPower, APS	sPower	Special use permit approved December 2019	Approximately 20 miles south of Winslow, Arizona, Coconino, and Navajo Counties	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. While originally included as possibly being near enough to affect wildlife resources, it was later determined that this project is well outside of the cumulative effects analysis areas for any resources, and therefore it dropped as being reasonably foreseeable.	No. Project is well beyond any resource cumulative effects analysis areas.	Yes	Not assessed
Interstate 11 Corridor	ADOT	ADOT	Draft Tier 1 EIS published April 2019	Nogales, Arizona to Wickenburg	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.	No. Sufficient detail does not exist at this time to analyze impacts; Tier 1 studies provide general corridor alternatives, but not specific plans.	Unknown	Not assessed
Magnum Fire	Kaibab National Forest	Arizona Trail Association	Extinguished but recovery continues	Grand Canyon North Rim	The Magnum Fire burned a large area on the Grand Canyon North Rim.	No. Sufficient detail does not exist at this time to analyze impacts.	Yes	Not assessed
Southline Transmission Project	BLM, Western Area Power Administration	BLM	Construction Start 2021	New build between Afton Substation, south of Las Cruces, New Mexico and Apache substation, south of Willcox, Arizona	Proposed transmission line designed to collect and transmit electricity across southern New Mexico and southern Arizona, bringing electric system benefits to the desert Southwest.	Yes	Yes	See FEIS cumulative effects analysis.

Project	Agency(ies)	Source	Schedule	Location	Description	Reasonably Foreseeable?	Temporal Overlap?	Spatial Overlap?
Saguaro-Winchester	SRP	SRP	Permitted, but not yet in design or construction	Between Saguaro Generating Station northwest of Tucson and proposed Winchester Substation	Construction of a 500-kV transmission line from the existing Saguaro Substation to and including the proposed Winchester Substation	No. Sufficient detail does not exist at this time to analyze impacts	Yes	Not assessed
Sulphur Springs Valley - Fish Canyon Electric Line Maintenance	Coronado National Forest, Nogales Ranger District	Coronado National Forest SOPA	Construction is expected to occur in Fall 2020	Fish Canyon, Kentucky Camp, Nogales Ranger District, Coronado National Forest	Sulphur Springs Valley Electric Cooperative will replace aging Fish Canyon Distribution Line on the Nogales Ranger District - 2.11 miles total	Yes	No. Project will be completed by early 2021.	Not assessed
SunZia Southwest Transmission Project	BLM, New Mexico State Office	BLM	ROD published January 2015	Route from Lincoln County, New Mexico, to Pinal Central Substation in Pinal County, Arizona	The proposed project would include two new, single-circuit 500-kV transmission lines located on Federal, State, and private lands.	Yes	Yes	See FEIS cumulative effects analysis.
Kaibab Plateau (NKRD) Wireless Communications Sites Development - aka VT & Telephone Hill Communications Sites	Kaibab National Forest, North Kaibab Ranger District	Kaibab National Forest SOPA	Scoping letter published June 2018, Decision memo expected July 2020	VT Hill site is near De Motte Park, at F.S. VT Hill Comm. site (~ 20 miles south of Jacob Lake, Arizona); Telephone Hill site is on Telephone Hill (~ 12 miles south of Jacob Lake, Arizona)	Construct or place two new 180-foot-tall communication towers on the North Kaibab Ranger District to provide reliable wireless telephone/emergency service for the Highway 67 corridor from Jacob Lake to the North Rim of the Grand Canyon National Park.	No. Sufficient detail does not exist at this time to analyze impacts	Yes	Not assessed
Silver King-New Oak Flat-New Superior 230-kV line	Salt River Project	SWAT materials	Currently in development with an in-service date of 2026	Superior, Arizona	Approximate 6.5-mile 230-kV transmission line. The 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. The location of the New Oak Flat and the New Superior sites are still being determined. This project is one of the transmission lines analyzed as part of the Resolution Copper Project and is included in the FEIS. It is fully analyzed as part of the project and is no longer considered a reasonably foreseeable action.	No. Project is part of Resolution Copper project and analyzed for impacts in the FEIS.	Yes	Not assessed