

Overview

In accordance with long-established agency practice and the requirements of the NHPA, the Tonto National Forest regularly conducts government-to-government consultation with tribes in Arizona and elsewhere in the Southwest that may be affected by Federal decision-making. The Resolution Copper Project and Land Exchange has a very high potential to directly, adversely, and permanently affect numerous cultural artifacts, sacred seeps and springs, traditional ceremonial areas, resource-gathering localities, burial locations, and other places and experiences of high spiritual and other value to tribal members. This section describes the interactions to date between the Tonto National Forest and the 11 Indian Tribes actively participating in consultation related to the project.

3.14 Tribal Values and Concerns

3.14.1 Introduction

This project is located in an area that is important to many tribes and has been for many generations, and continues to be used for cultural and spiritual purposes. Tonto National Forest has consulted regularly with 11 federally recognized tribes that are culturally affiliated with the lands that would be affected and have had the opportunity to be active in the consultation, review, and comment processes of the project. No tribe supports the desecration/destruction of ancestral sites. Places where ancestors have lived are considered alive and sacred. It is a tribal cultural imperative that these places should not be disturbed or destroyed for resource extraction or for financial gain. Continued access to the land and all its resources is necessary and should be accommodated for present and future generations. Participation in the design of this destructive activity has caused considerable emotional stress and brings direct harm to a tribe's traditional way of life; however, it is still deemed necessary to ensure that ancestral homes and ancestors receive the most thoughtful and respectful treatment possible.

By law, Federal agencies must consult with Indian Tribes about proposed actions that may affect lands and resources important to them, in order to comply with the NHPA for NRHP-listed historic properties (see Section 3.14.3, Affected Environment, for the list of laws and regulations). Section 3003 of the NDAA also requires that the Secretary of Agriculture engage in government-to-government consultation with affected tribes concerning issues

related to the land exchange. The Secretary of Agriculture mandated that Tonto National Forest consult with Resolution Copper to seek mutually acceptable measures to address the concerns of the affected tribes and minimize the adverse effects from mining and related activities on the conveyed lands.

Beginning in 2015, the Tonto National Forest began consultation with 11 tribes regarding the proposed mine, the land exchange, and the development of alternate tailings locations to identify issues of tribal concern and possible measures to mitigate the adverse effects on tribal issues. Tonto National Forest also consulted the tribes regarding the management plan for the Apache Leap SMA, as required by Section 3003 of the NDAA.

Government-to-government consultations are ongoing between Tonto National Forest and the Fort McDowell Yavapai Nation, Gila River Indian Community, Hopi Tribe, Mescalero Apache Tribe, Pueblo of Zuni, Salt River Pima-Maricopa Indian Community, San Carlos Apache Tribe, Tonto Apache Tribe, White Mountain Apache Tribe, Yavapai-Apache Nation, and Yavapai-Prescott Indian Tribe. The four O'odham tribes (the Four Southern Tribes Cultural Committee) have delegated consultation with the Tonto National Forest to the Salt River Pima-Maricopa Indian Community and to the Gila River Indian Community. The BLM has also identified four tribes that may be affected if the alternative on BLM land is affected: the Ak-Chin Indian Community, Fort Sill Apache Tribe, Pascua Yaqui Tribe, and Tohono O'odham Nation. See Chapter 4, Consulted Parties, for a full account of consultation to date.

Tribal values and concerns regarding the land exchange and the proposed GPO include resources with traditional or cultural significance, some of which are also described in Section 3.12 Cultural Resources. Resources of traditional or cultural significance can be traditional cultural properties (TCPs) as defined by National Register Bulletin 38, “Guidelines for Documenting and Evaluating Traditional Cultural Properties” (Parker and King 1998), sacred places, holy places, and traditional ecological knowledge places (TEKPs)—including burial locations, landforms, viewsheds, and named locations in the cultural landscape; water sources; and traditional resource-gathering locations for food, materials, minerals, and medicinals.

3.14.2 Analysis Methodology, Assumptions, and Uncertain and Unknown Information

3.14.2.1 Analysis Area

The direct, indirect, and atmospheric analysis areas for tribal values and concerns are the same as for cultural resources, found in section 3.12.2. The direct analysis area for the proposed project is defined by several factors: the acreage of ground disturbance expected for each mine component described in the GPO and the acreage of land leaving Federal stewardship as a result of the land exchange. The direct analysis area for the proposed action (GPO and land exchange) is approximately 40,988 acres and consists of the following, which includes access roads and other linear infrastructure:

- East Plant Site and subsidence area, including the reroute of Magma Mine Road (1,539 acres of which is within the Oak Flat Federal Parcel), which is NFS and ASLD lands;
- 2,422-acre Oak Flat Federal Parcel, which is NFS land to be exchanged with Resolution Copper;
- 940-acre West Plant Site;
- 6.96-mile Silver King to Oak Flat transmission line;

- 169-acre MARRCO railroad corridor and adjacent project components;
- 553-acre filter plant and loadout facility; and
- Alternatives 2–6 tailings storage facilities and tailings corridors: tailings storage facility and tailings corridor for Alternatives 2 and 3; and Alternative 4 – Silver King, Alternative 5 – Peg Leg, and Alternative 6 – Skunk Camp, which have different locations and overall footprints from the GPO tailings storage facility and tailings corridor.

The indirect analysis area consists of a 2-mile buffer around all project and alternative components and contains approximately 320,693 acres. The 2-mile buffer is designed to account for impacts on resources not directly tied to ground disturbance and outside the direct analysis area.

The atmospheric analysis area consists of a 6-mile buffer around all project and alternative components. This distance is consistent with the indirect analysis area for visual impacts in section 3.11, which is based on BLM visual guidance and Forest Service guidance, modified by the addition of a small portion of land south of Picketpost Mountain, the extension another 1 mile farther east to the San Carlos Apache Indian Reservation boundary, and the extension to the southeast to encompass Kearny and historical use of that area. The indirect impacts analysis area encompasses approximately 750,229 acres. The analysis area for tribal values is shown in figure 3.14.2-1.

3.14.2.2 Analysis Approach

The Forest Service and NEPA team worked collaboratively with the tribes to gather information on tribal values and resources via an ethnographic study (Hopkins et al. 2015) and through ongoing consultation. Resolution Copper collected cultural resources information important to tribal members through Class I records searches and Class III pedestrian surveys. Tribal monitors also surveyed to specifically look for TEKPs and other tribal resources that archaeologists might not otherwise have recognized.

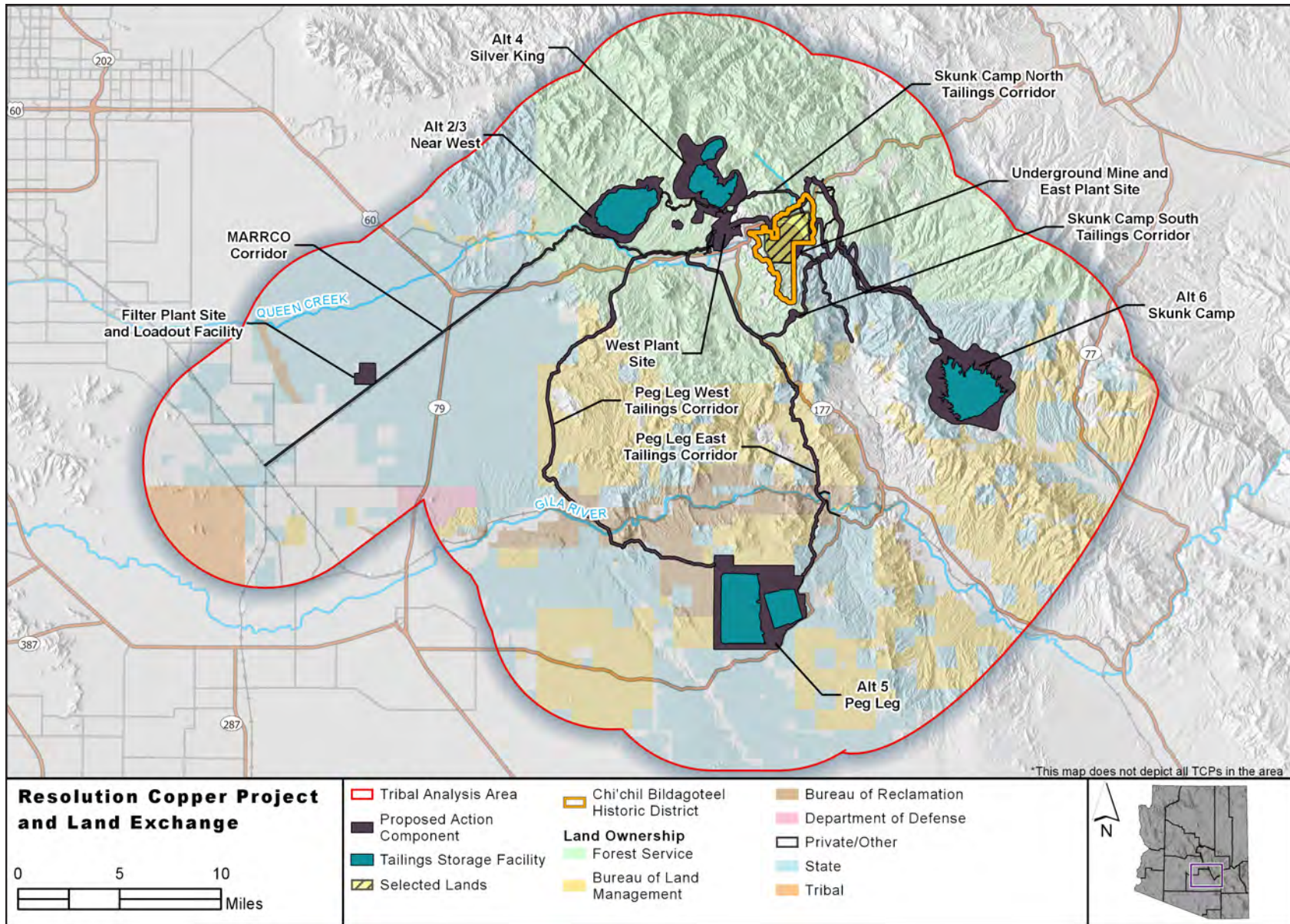


Figure 3.14.2-1. Tribal resources analysis area

Survey of Alternative 5 – Peg Leg pipeline routes and some small areas of other project components that have moved as a result of design changes will occur in 2019, and the results will be updated in the FEIS.

Impact Indicators

Direct impacts on resources of traditional cultural significance (archaeological sites; burial locations; spiritual areas, landforms, viewsheds, and named locations in the cultural landscape; water sources; food, materials, mineral, and medicinal plant gathering localities; or other significant traditionally important places) would consist of damage, loss, or disturbance that would alter the characteristic(s) that make the resource eligible for listing in the NRHP or sacred to the respective cultural group(s). The loss might be caused by ground disturbance, loss of groundwater or surface water, or by the erection of facilities that alter the viewshed. Indirect impacts would consist primarily of visual impacts from alterations to setting and feeling, auditory impacts, or inadvertent disturbance.

Impact indicators for this analysis include the following:

- Loss, damage, or disturbance to historic properties, including TCPs listed in or eligible for listing in State or Federal registers, that are significant to Native American tribes.
- Loss, damage, or disturbance to burial sites; spiritual areas and viewsheds; cultural landscapes; sacred places; springs and other water resources; food and medicinal plants; minerals; and hunting, fishing, and gathering areas.
- Loss of access to burial sites; spiritual areas and viewsheds; cultural landscapes; sacred places; springs and other water resources; food and medicinal plants; minerals; and hunting, fishing, and gathering areas.
- Alterations to setting, feeling, or association of historic properties significant to Native American tribes, including

TCPs where those characteristics are important to their State or Federal register eligibility.

If the land exchange occurs, as mandated by Congress in the Southeast Arizona Land Exchange, the selected lands would be conveyed to Resolution Copper no later than 60 days after the publication of the FEIS, and the Oak Flat Federal Parcel would become private property and no longer be subject to the NHPA. Under Section 106 of the NHPA and its implementing regulations (38 CFR 800), historic properties leaving Federal management is considered an adverse effect regardless of the plans for the land, meaning that as analyzed under NEPA, the land exchange would have an adverse impact on resources significant to the tribes.

Adverse impacts on historic properties would be avoided, minimized, or mitigated through the Section 106 process of the NHPA and through Tonto National Forest’s consultations with Resolution Copper in accordance with Section 3003 of the NDAA. Adverse impacts on resources that may not be historic properties under Section 106 would be avoided, minimized, or mitigated through steps outlined in the FEIS and ROD.

3.14.3 Affected Environment

The primary legal authorities and agency guidance relevant to this analysis of anticipated project-related impacts on tribal resources are shown in the accompanying text box.

A complete listing and brief description of the regulations, reference documents, and agency guidance used in this effects analysis may be reviewed in Newell (2018i).

3.14.3.1 Existing Conditions and Ongoing Trends

Resolution Copper surveyed each of the areas comprising the proposed mine for NRHP-eligible historic properties, as outlined in section 3.12. Tribal monitors resurveyed or accompanied archaeological survey crews in those areas to identify TEKPs of importance to the four cultural groups with ties to the area (Puebloan, O’odham, Apache, and Yavapai), to include springs and seeps, plant and mineral resource collecting areas, landscapes and landmarks, caches of regalia and human remains, and sites that may not have been recognized by non-Native archaeologists. All springs and seeps are considered sacred by all of the consulting tribes.

Tonto National Forest conducted tribal monitor training sessions in January and October, as described in Section 4.7.1, Tribal Monitor Program. Tribal monitors were added to the contracted archaeological crews to survey the selected lands and all tailings alternatives; these surveys are anticipated to be complete by fall 2019. During the surveys, tribal monitors are identifying potential TEKPs and special interest areas or resources such as natural resources special interest areas, landforms, landscapes, and springs, as well as plants, animals, and minerals of special interest.

As a result of the tribal monitoring program, a draft Tribal Monitor report has been completed for Alternative 5 – Peg Leg. Draft Tribal Monitor reports on the Oak Flat Federal Parcel, Near West (Alternatives 2 and 3), Silver King (Alternative 4), and Skunk Camp (Alternative 6) are expected in the fall of 2019 and will be used for the FEIS analysis. In 2015, the Tonto National Forest, in partnership with the San Carlos Apache Tribe, composed a nomination for Oak Flat, the area originally known as *Chi’chil Bildagoteel*, to be listed on the National Register of Historic Properties as a TCP (Nez 2016). This effort consisted of extensive literature research and interviews with tribal members.

Principal Regulations, Policies, and Guidelines Used in the Effects Analysis for Tribal Values and Concerns

- National Historic Preservation Act of 1966 (54 U.S.C. 300101 et seq.)
- Archaeological Resources Protection Act (16 U.S.C. 470aa-470mm)
- American Indian Religious Freedom Act (AIRFA) of 1978 (42 U.S.C. 1996)
- Religious Freedom Restoration Act (42 U.S.C. 2000bb et seq.)
- Native American Graves Protection and Repatriation Act (NAGPRA) of 1990 (25 U.S.C. 3001–3013)
- Executive Order 12898 (February 16, 1994), “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations”
- Executive Order 13007 (May 24, 1996), “Indian Sacred Sites”
- Executive Order 13175 (November 6, 2000), “Consultation and Coordination with Indian Tribal Governments”
- Bald and Golden Eagle Protection Act of 1940 (16 U.S.C. 688–688d)
- Endangered Species Act (16 U.S.C. 1531-1543)
- Migratory Bird Treaty Act (16 U.S.C. 703-711)
- National Environmental Policy Act (42 U.S.C. 4321 et seq.)

In addition, an ethnographic study was completed titled “Ethnographic and Ethnohistoric Study of the Superior Area, Arizona” (Hopkins et al. 2015). The study consisted of archival and existing literature review and compilation, as well as oral interviews and field visits with tribal members to collect oral history and knowledge. Tribal members accompanied research staff to important places throughout the study area and shared information about those places. Members of the San Carlos Apache Tribe, Tonto Apache Tribe, White Mountain Apache Tribe, Yavapai-Apache Nation, Fort McDowell Yavapai Nation, Yavapai-Prescott Indian Tribe, Gila River Indian Tribe, Salt River Pima-Maricopa Indian Community, Hopi Tribe, and Pueblo of Zuni contributed to the study.

Direct Analysis Area

ARCHAEOLOGICAL SITES

In section 3.12, we discuss the 721 archaeological sites recorded to date in the direct analysis area. Twenty-five of those sites have components attributed to Apache/Yavapai peoples; 696 are attributed to Hohokam or Hohokam/Salado. The remaining sites or components are attributed to Archaic, Salado, Euro-American, or Mexican-American peoples.

TRADITIONAL CULTURAL PROPERTIES AND CULTURAL LANDSCAPES

A portion of the direct analysis area is within the *Chi’chil Bildagoteel* Historic District, which is listed on the NRHP as an Apache TCP. Apache Leap, Oak Flat, and 38 archaeological sites that contribute to the eligibility of the district are within the *Chi’chil Bildagoteel* Historic District. Apache Leap is within the indirect analysis area, but access to the Protohistoric/Historic Apache village at its summit is through the direct analysis area.

As required by the land exchange, the Tonto National Forest set aside Apache Leap, a sacred landscape for the Apache and Yavapai, as a special management area totaling 839 acres (Apache Leap SMA). The

Tonto National Forest was also directed in the NDAA to develop a management plan in consultation with the tribes. Meetings were held individually with tribes, with cultural groups, and an all-tribes meeting to discuss the management options for this sacred landscape. Tribes made the following requests regarding the Apache Leap SMA:

1. Leave it in its natural state;
2. Guarantee access, including possibly developing a new road, so that tribal members can reach the top to perform ceremonies once the current access route is closed due to subsidence;
3. Do not renew or reissue the extant grazing permits; and
4. Permit day-use only (no overnight camping), and do not permit any rock-climbing.

These requests were incorporated into the management plan as part of the environmental assessment of the SMA; a final decision notice, special area management plan, and corresponding forest plan amendment was issued December 26, 2017. When the new access route is designed, it will require an environmental assessment to determine whether the route poses any adverse effects on cultural and/or tribal resources.

Additional resources (TEKPs and special interest areas or resources) were recorded during the ethnographic study within the analysis areas (Hopkins et al. 2015) and by the tribal monitor survey conducted in 2018. These include a petroglyph panel near one of the springs; the Emory oak grove at Oak Flat, which has also been used as a ceremonial grounds by San Carlos Apache; a rock ring and several spring areas; ancestral settlement; and a beargrass resources area.

SPRINGS

A number of springs are located within the direct analysis area that could be directly disturbed or impacted by dewatering (see section 3.7.1). Springs are sacred to all the consulting tribes.

NATURAL RESOURCES AREA

A number of natural resources special interest areas are located within the direct analysis area: a rock formation, a dry spring, and three vantage points.

PLANT AND MINERAL RESOURCES

Forty-nine types of plants of special interest have been identified to date within the direct impacts analysis area and include the following: banana yucca (*Yucca baccata*), beargrass (*Nolina microcarpa*), buffalo gourd (*Cucurbita foetidissima*), fairyduster (*Calliandra eriophylla*), soap tree yucca (*Yucca elata*), queen of the night (*Peniocereus greggii*), ragweed (*Ambrosia ambrosioides*), thistle (*Cardus nutans*), and wild spinach (*Chenopodium* sp.).

Eight minerals or types of minerals important to tribal groups were identified in the direct impacts analysis area: Apache tear obsidian, caliche, mica, red ore, a polishing stone, several quartz crystals, an iron sand deposit, and schist.

Indirect Analysis Area

A portion of the *Chi'chil Bildagoteel* Historic District TCP is within the indirect analysis area outside of the direct analysis area. Specifically, Apache Leap to the west of Oak Flat is adjacent to the direct analysis area.

Atmospheric Analysis Area

Tonto National Forest's consultations and ethnohistoric study of the general area around Oak Flat have identified many named Western Apache locations and TEKPs, as well as Yavapai band traditional territories. This applies particularly to the areas within the U.S. 60 corridor—for example, the Superstition Mountains, Picketpost Mountain, Apache Leap, and Devil's Canyon are all named sacred locations. A portion of the *Chi'chil Bildagoteel* Historic District is within the atmospheric analysis area. At least four springs and the

Queen Creek watershed, which are sacred to all the tribes, are located within the indirect analysis area. The atmospheric analysis area also contains prehistoric sites and resources of interest to the tribes that are related to the prehistoric occupation of the area—the Gila River Indian Community, the Hopi Tribe, the Salt River Pima-Maricopa Indian Community, and the Pueblo of Zuni.

3.14.4 Environmental Consequences of Implementation of the Proposed Mine Plan and Alternatives

3.14.4.1 Alternative 1 – No Action

Direct Impacts

Under the no action alternative, the Forest Service would not approve the GPO, current management plans would remain except for the development of a new Tonto National Forest forest plan, and Resolution Copper would continue current activities on private property. As described in section 2.2.3, the no action alternative analysis analyzed the impacts of (1) the Forest Service's not approving the GPO, and (2) the land exchange's not occurring.

If the Forest Service does not approve the GPO, the mining operation would not occur; if the land exchange does not occur, the selected lands would remain under Forest Service management. Under either scenario, no direct impacts are anticipated to archaeological sites, TCPs, springs, or other resources significant to the tribes, including loss of access to resources.

Indirect and Atmospheric Impacts

If either the land exchange does not occur or the GPO is not approved, no adverse indirect or atmospheric impacts are anticipated to resources other than to some springs. With or without the land exchange, the continued dewatering of mine shafts on private land would occur,

lowering the water table in the area, which may have adverse indirect impacts on six springs. See section 3.7.1 for more information on dewatering and its potential effects on area resources.

3.14.4.2 Impacts Common to All Action Alternatives

The impacts on the Oak Flat Federal Parcel are common to all action alternatives. The Oak Flat Federal Parcel contains 31 NRHP-eligible historic properties and one NRHP-listed TCP, which is near an Emory oak stand that Apache and Yavapai use to harvest acorn. Because the Tribal Monitor report is not complete at this time, the total number and type of impacted resources on Oak Flat is unknown. All of these resources would be adversely impacted by leaving Federal management. In particular, the loss of the ceremonial area and acorn-collecting area in Oak Flat and/or the loss of access to them would be a substantial threat to the perpetuation of cultural traditions of the Apache and Yavapai tribes, because healthy groves are few and access is usually restricted unless the grove is on Federal land. Several springs located on the Oak Flat Federal Parcel would be lost due to the development of the subsidence area.

Effects of the Land Exchange

If the land exchange occurs, as mandated by Congress in the Southeast Arizona Land Exchange, the selected lands would be conveyed to Resolution Copper no later than 60 days after the publication of the FEIS, and the Oak Flat Federal Parcel would become private property and no longer be subject to the NHPA. Under Section 106 of the NHPA and its implementing regulations (38 CFR 800), historic properties leaving Federal management is considered an adverse effect regardless of the plans for the land, meaning that as analyzed under NEPA, the land exchange would have an adverse effect on resources significant to the tribes.

The Oak Flat Federal Parcel contains 31 NRHP-eligible historic properties, one NRHP-listed TCP, and the only developed campground on the Tonto National Forest, which is near an Emory oak stand that

Apache and Yavapai use to harvest acorn. All of these resources would be adversely affected by leaving Federal management. In particular, the loss of the ceremonial area and acorn-collecting area in Oak Flat would be a substantial threat to the perpetuation of cultural traditions of the Apache and Yavapai tribes, because healthy groves are few and access is usually restricted unless the grove is on Federal land.

Effects of Forest Plan Amendment

The Tonto National Forest Land and Resource Management Plan (1985b) provides guidance for management of lands and activities within the Tonto National Forest. It accomplishes this by establishing a mission, goals, objectives, and standards and guidelines. Missions, goals, and objectives are applicable on a forest-wide basis. Standards and guidelines are either applicable on a forest-wide basis or by specific management area.

A review of all components of the 1985 Forest Plan was conducted to identify the need for amendment due to the effects of the project, including both the land exchange and the proposed mine plan (Shin 2019). A number of standards and guidelines (10) were identified applicable to management of tribal resources. None of these standards and guidelines were found to require amendment to the proposed project, on either a forest-wide or management area-specific basis. For additional details on specific rationale, see Shin (2019). No standards and guidelines were identified that are strictly applicable to tribal resources; however, a great number of standards and guidelines are related to resources considered important or sacred by tribes, including wildlife, water resources, and scenic resources. The need for a forest plan amendment for these resources is discussed in the appropriate section.

Summary of Applicant-Committed Environmental Protection Measures

A number of environmental protection measures are incorporated into the design of the project that would act to reduce potential impacts on resources of tribal value and concern. These are non-discretionary measures and their effects are accounted for in the analysis of environmental consequences.

Applicant-committed environmental protection measures by Resolution Copper to reduce impacts on tribal resources are covered in detail in the Programmatic Agreement (see appendix O) and in the ROD. Specifically, Resolution Copper

- is sponsoring a tribal monitoring program to identify resources of interest to tribal groups as described in Section 4.7.1, Tribal Monitor Program;
- is currently working with tribal representatives on Emory oak restoration studies as described in Section 4.7.2, Emory Oak Restoration;
- would develop a TCP Redress Plan, which would include the tribal monitoring program and Emory oak restoration, as well as other measures to be taken to reduce impacts on resources; and
- would develop a monitoring and treatment plan of inadvertent discoveries of cultural resources significant to tribal groups. If previously unidentified cultural resources are discovered during construction activities on Tonto National Forest, work would cease within 100 feet of the location, and the Forest Service would be contacted for instruction before work would continue at that location.

3.14.4.3 Alternatives 2 and 3 – Near West

Direct Impacts

Under Alternatives 2 and 3, the land exchange would occur and the Forest Service would approve the GPO. For both alternatives, there are variations of the footprint and the type of storage facility proposed in the modified GPO location; however, the direct effects would be the same for both. Section 3.12.4.2 contains a description of the location of the 132 prehistoric and historic archaeological sites (31 of which have eligibility yet to be determined) that would be impacted by these alternatives and their associated mine operation areas (East Plant Site, subsidence area, West Plant Site, tailings facility and corridor, Silver King Mine Road, MARRCO corridor, and roads) (see table 3.12.4-1).

One large TEKP was recorded for the tailings facility and corridor proposed for Alternatives 2 and 3; it incorporates the active springs and a currently unknown number of historic properties that have been identified by the tribes as interconnected. Please note that the Tribal Monitor report for the Near West tailings area is pending, so all impacts are not known at this time. The area also contains many plants and minerals of use to tribes. All alluvial deposits would be removed to expose bedrock for the tailings storage facility, so all of these soil and vegetation resources would be destroyed by construction and use of the facility. Resources in the direct analysis area may be lost completely because of ground disturbance, or tribes may lose access to those resource once they are part of the mine.

Either tailings storage facility configuration would adversely reduce and affect the flow of water into Queen Creek; the long-term effects on groundwater quality due to tailings seepage are discussed in section 3.7.2.

Indirect Impacts

For both alternatives, a portion of the *Chi'chil Bildagoteel* Historic District TCP may be indirectly impacted from inadvertent damage from construction activities or increased non-tourism visitation to the area.

The effects of the subsidence area and the tailings facility on the local watershed are analyzed in section 3.7.2.

Atmospheric Impacts

The tailings location for Alternatives 2 and 3 is located directly opposite Picketpost Mountain, a mountain sacred to Western Apache bands, and the presence of the nearly 500-foot-high tailings would constitute an adverse visual effect on the landscape.

3.14.4.4 Alternative 4 – Silver King

Direct Impacts

This alternative contains a total of 137 prehistoric and historic archaeological sites that would be adversely impacted by the combined areas of the mine; 15 of these archaeological sites have eligibility yet to be determined (see table 3.12.4-3). Three TEKPs were identified by the tribal monitors and elders. As noted earlier in this section, impacts on resources on Oak Flat would be the same for Alternative 4 and Alternatives 2 and 3. Additionally, two springs are located within and two springs are adjacent to the tailings storage facility footprint. Resources in the direct analysis area may be lost completely because of ground disturbance, or tribes may lose access to those resource once they are part of the mine.

At this time, the Tribal Monitor report of the Silver King tailings location is ongoing; full impacts for this alternative are still unknown.

Indirect Impacts

Indirect impacts may occur on the portion of an NRHP-listed TCP that is within the fence line of Alternatives 2 and 3, while the rest of the site would remain outside the fence line and would not be directly impacted. A tailings storage facility at the Alternative 4 location would reduce the surface area of the local watershed and have long-term effects on local groundwater quality due to tailings seepage (see sections 3.7.2 and 3.7.3).

Atmospheric Impacts

The Silver King tailings storage facility is east of Alternatives 2 and 3, but still within the area of sacred landscapes that would be visually compromised by the 1,040-foot-high tailings.

3.14.4.5 Alternative 5 – Peg Leg

Direct Impacts

Alternative 5 with the east pipeline option contains 197 prehistoric and historic archaeological sites; Alternative 5 with the west pipeline option contains 125 prehistoric and historic archaeological sites. Two of these sites were also recorded as TEKPs with different boundaries, and an additional TEKP that tribal monitors identified as containing a feature that matches Western Apache oral tradition was also recorded. The two proposed tailings conveyance pipeline route options are being surveyed at this time, and results will be available prior to the FEIS.

Six natural resources special interest areas, 49 plants of special interest, and five minerals of special interest would also be impacted. These resources may be lost completely because of ground disturbance, or tribes may lose access to these resources once they are part of the mine.

The surface area of the watershed would be reduced due to the permanent tailings storage facility and water quality may also be impaired due to future tailings seepage; for more detail see sections 3.7.2 and 3.7.3.

Indirect Impacts

Indirect impacts for Alternative 5 are the same as for Alternatives 2 and 3.

Atmospheric Impacts

The Peg Leg tailings storage facility would likely be visible on the horizon as far away as the town of Florence; however, no TEKPs or

TCPs have been identified in the atmospheric analysis area for the tailings impoundment. No atmospheric impacts are anticipated.

3.14.4.6 Alternative 6 – Skunk Camp

Direct Impacts

Under Alternative 6 with the north pipeline option, 323 archaeological sites would be impacted; with the south pipeline option, 318 archaeological sites would be impacted (see section 3.12.4). The surface area of the watershed would be reduced due to the permanent tailings storage facility (see section 3.7).

At this time, the Tribal Monitor study of the Skunk Camp tailings location is ongoing; full impacts for this alternative are still unknown. Resources in the direct analysis area may be lost completely because of ground disturbance.

Indirect Impacts

The indirect impacts for Alternative 6 are the same as for Alternatives 2, 3, and 5.

Atmospheric Impacts

A tailings storage facility at Skunk Camp would be only marginally visible from as far as SR 77; however, no TEKPs or TCPs have been previously identified in the atmospheric analysis area for the tailings pile. No atmospheric impacts are anticipated.

3.14.4.7 Cumulative Effects

As noted earlier, the *Chi'chil Bildagoteel* Historic District, which comprises the Oak Flat and Apache Leap areas, is a Forest Service-recognized TCP. This project is located in an area that is important to many tribes and has been for many generations and continues to be used for cultural and spiritual purposes. No tribe supports the desecration/

destruction of ancestral sites. Places where ancestors have lived are considered alive and sacred. It is a tribal cultural imperative that these places should not be disturbed or destroyed for resource extraction or for financial gain. Continued access to the land and all its resources is necessary and should be accommodated for present and future generations.

Development of the Resolution Copper Mine would permanently alter lands that hold historical, cultural, and spiritual significance for many tribal members.

This said, the following identified reasonably foreseeable future actions in the analysis area are considered also likely to affect tribal concerns and values by disrupting the landscape. As noted in section 3.1, past and present actions are assessed as part of the affected environment; this section analyzes the effects of any RFFAs, to be considered cumulatively along with the affected environment and Resolution Copper Project effects.

- *Pinto Valley Mine Expansion.* The Pinto Valley Mine is an existing open-pit copper and molybdenum mine located approximately 8 miles west of Miami, Arizona, in Gila County. Pinto Valley Mining Corporation is proposing to expand mining activities onto an estimated 1,011 acres of new disturbance (245 acres on Tonto National Forest land and 766 acres on private land owned by Pinto Valley Mining Corporation) and extend the life of the mine to 2039.
- *Ripsey Wash Tailings Project.* ASARCO is planning to construct a new tailings storage facility to support its Ray Mine operations. The environmental effects of the project were analyzed in an EIS conducted by the USACE and approved in a ROD issued in December 2018. As approved, the proposed tailings storage facility project would occupy an estimated 2,574 acres and be situated in the Ripsey Wash watershed just south of the Gila River approximately 5 miles west-northwest of Kearny, Arizona, and would contain up to approximately 750 million tons of material (tailings and embankment material).

- *Ray Land Exchange and Proposed Plan Amendment.* ASARCO is also seeking to complete a land exchange with the BLM by which the mining company would gain title to approximately 10,976 acres of public lands and federally owned mineral estate located near ASARCO's Ray Mine in exchange for transferring to the BLM approximately 7,304 acres of private lands, primarily in northwestern Arizona. It is known that at some point ASARCO wishes to develop a copper mining operation in the "Copper Butte" area west of the Ray Mine; however, no specific details are currently available as to potential environmental effects resulting from this future mining operation. The Copper Butte area contains petroglyphs and many other historic and prehistoric sites of archaeological significance that would be adversely impacted by the land exchange.
- *Silver Bar Mining Regional Landfill and Cottonwood Canyon Road.* A private firm, Mineral Mountain LLC, is proposing to develop a landfill on land the company owns approximately 6 miles southeast of Florence Junction and 4 miles due east of SR 79. This private property is an inholding within an area of BLM-administered lands and cannot be accessed without crossing BLM land. The company received Master Facility Plan Approval for the proposed landfill from ADEQ in 2009 and a BLM right-of-way grant in 2017. As noted in the EA and FONSI for the right-of way, road improvements to allow for heavy truck haul traffic across BLM lands would adversely affect six cultural sites. This development would contribute to the overall regional changes adversely affecting traditional tribal cultural practices and places that have significance to tribal cultural identities.
- *Tonto National Forest Plan Amendment and Travel Management Plan.* The Tonto National Forest is currently in the process of revising its Forest Plan to replace the plan now in effect, which was implemented in 1985. Simultaneously, the Tonto National Forest is developing a Supplemental EIS to address certain court-identified deficiencies in its 2016

Final Travel Management Rule EIS. Both documents and their respective implementing decisions are expected within the next 2 years. Cultural resources may be impacted for any new road construction; however, the Tonto National Forest would conduct the appropriate surveys, consultation, and mitigation. Impacts on these sites would cumulatively impact cultural resources in the area in combination with the loss of sites that would take place with the Resolution Copper Project. Changes in travel management could change the locations in which people recreate or travel within the Tonto National Forest; while this has been considered and addressed for the Apache Leap SMA, other areas of importance to tribes may be impacted in this way. These impacts would be cumulative with the overall impacts on tribal cultural practices and places caused by the Resolution Copper Project.

Southwestern tribal historical and cultural affiliations, trading networks, and other intertribal communication pathways existed long before present-day governmental and administrative boundaries (including international boundaries) and continue to exist irrespective of current geographical demarcations. For this reason, it is recognized that in addition to the Resolution Copper Project, mining projects and other human-induced development expected to occur in the Copper Triangle, in the southwestern United States, and possibly elsewhere may also contribute to adversely affecting traditional tribal cultural practices and places that have significance to tribal cultural identities.

3.14.4.8 Mitigation Effectiveness

None of the tribes affiliated with the area believe the impacts on tribal resources can be mitigated.

The Forest Service is in the process of developing a robust mitigation plan to avoid, minimize, rectify, reduce, or compensate for resource impacts that have been identified during the process of preparing this EIS. Appendix J contains descriptions of mitigation concepts being considered and known to be effective, as of publication of the DEIS. Appendix J also contains descriptions of monitoring that would be needed to identify potential impacts and mitigation effectiveness. As noted in chapter 2 (section 2.3), the full suite of mitigation would be contained in the FEIS, required by the ROD, and ultimately included in the final GPO approved by the Forest Service. Public comment on the EIS, and in particular appendix J, will inform the final suite of mitigations.

This section contains an assessment of the effectiveness of design features from the GPO and mitigation and monitoring measures found in appendix J that are applicable to tribal concerns.

Mitigation Measures Applicable to Tribal Resources

Other mitigations could be developed via government-to-government consultation or through the consultations required by the NDAA. The mitigations that would arise through these processes could be kept confidential and would not be disclosed to the public in the DEIS or FEIS.

Two applicant-committed environmental protection measures (see section 3.14.4.2) evolved through these other consultations. The Tribal Monitor Program and Emory Oak Restoration highlight consultation and mitigation of project affects.

Conduct cultural and archaeological data recovery via the Oak Flat HPTP (RC-209): The Oak Flat Historic Properties Treatment

Plan (HPTP) sets out a plan for treatments to resolve the adverse effects on 42 historic properties that have been identified within the Oak Flat Federal Parcel. In accordance with the plan, Resolution Copper would conduct archaeological data recovery on sites eligible under Criterion D that would be adversely affected. Project materials and archaeological collections would be curated in accordance with 36 CFR 79 (Curation of Federally-Owned and Administered Archaeological Collections) with Gila River Indian Community, Salt River Pima-Maricopa Indian Community, and the Arizona State Museum. This measure is applicable to all alternatives and would be noted in the ROD/Final Mining Plan of Operations.

Conduct cultural and archaeological data recovery via the Research Design and data recovery plans (RC-210): The GPO Research Design and data recovery plans detail treatments to resolve adverse effects on historic properties within the GPO project area, with the exception of those in the Oak Flat Federal Parcel. Data recovery would be conducted on archaeological sites eligible under Criterion D within the GPO project area. Project materials and archaeological collections would be curated in accordance with 36 CFR 79 (Curation of Federally-Owned and Administered Archaeological Collections) with Gila River Indian Community, Salt River Pima-Maricopa Indian Community, and the Arizona State Museum. This measure is applicable to all alternatives and would be noted in the ROD/Final Mining Plan of Operations.

Mitigation Effectiveness and Impacts

According to the tribes consulted, adverse impacts on TCPs, TEKPs, and other places or resources of significant interest to tribes cannot be mitigated; therefore, mitigation strategies for tribal resources are designed to provide an exchange for the loss of resources. The mitigation strategies will have, and are having, positive impact on tribal communities such as providing jobs during the tribal monitoring and allowing unfettered access to Emory oak resources.

Unavoidable Adverse Impacts

Significant tribal properties and uses would be directly and permanently impacted. These impacts cannot be avoided within the areas of direct impact, nor can they be fully mitigated.

3.14.4.9 Other Required Disclosures***Short-Term Uses and Long-Term Productivity***

Physical and visual impacts on TCPs, TEKPs, and plant and mineral resources caused by construction of the mine would be immediate, permanent, and large in scale. Mitigation measures cannot replace or replicate the tribal resources and traditional cultural properties that would be destroyed by project construction. The landscape, which is imbued with specific cultural attributions by each of the consulted tribes, would also be permanently affected.

Irreversible and Irretrievable Commitment of Resources

The direct impacts on TCPs and TEKPs from construction of the mine and associated facilities constitute an irreversible commitment of resources. Traditional cultural properties cannot be reconstructed once disturbed, nor can they be fully mitigated. Sacred springs would be eradicated by subsidence or tailings storage construction and affected by groundwater water drawdown. Changes that permanently affect the ability of tribal members to use known TCPs and TEKPs for cultural and religious purposes are also an irreversible commitment of resources. For uses such as gathering traditional materials from areas that would be within the subsidence area or the tailings storage facility, the project would constitute an irreversible commitment of resources.