



United States Department of Agriculture

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# Apache Leap Special Management Area Management Plan



Forest Service

Tonto National Forest

Globe Ranger District

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## **ACRONYMS AND ABBREVIATIONS**

Apache Leap SMA	Apache Leap Special Management Area
CFR	Code of Federal Regulations
forest plan	Tonto National Forest Land and Resource Management Plan
FR	Forest Road
MA	Management Area
NDAA	the Carl Levin and Howard P. “Buck” McKeon National Defense Authorization Act for Fiscal Year 2015
PL	Public Law
Resolution Copper	Resolution Copper Mining, LLC
U.S.C.	United States Code

## Chapter 1

# INTRODUCTION

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## 1.1 PURPOSE OF THE MANAGEMENT PLAN

This document is a management plan for the Apache Leap Special Management Area (Apache Leap SMA), which was designated a special management area through the Carl Levin and Howard P. “Buck” McKeon National Defense Authorization Act for Fiscal Year 2015 (NDAA) (Public Law [PL] 113–291) (113th Congress, 2014). The management direction in this plan is designed to protect the values for which the area was designated, and to guide limited uses compatible with the area’s primary purpose.

This management plan establishes a comprehensive framework for managing the natural character of the Apache Leap SMA as specified in the NDAA (NDAA, Section 3003(g)(5)(A)). The plan also provides the management direction and monitoring strategy necessary to protect the area’s values. This plan has been developed by the Forest Service, an agency within the United States Department of Agriculture, in consultation with affected Indian tribes,<sup>1</sup> the Town of Superior, Resolution Copper Mining, LLC (Resolution Copper), and interested members of the public. Direction contained in this plan will be incorporated into the 1985 Tonto National Forest Land and Resource Management Plan (forest plan). See Section 1.5, “Planning Process,” for more information.

## 1.2 OVERVIEW OF THE APACHE LEAP SMA

The area covered by this plan lies within the administrative boundaries of the Globe Ranger District of the Tonto National Forest in Pinal County, Arizona. The Apache Leap SMA is located on the eastern edge of the Town of Superior (Figure 1). The Apache Leap SMA includes approximately 839 acres of land currently under federal and private ownership. Upon completion of the Southeast Arizona Land Exchange (directed as part of the NDAA), the Apache Leap SMA will include only federal lands.

The Apache Leap SMA is named after its signature feature, an escarpment of sheer cliff faces, hoodoos, and buttresses known as “Apache Leap.” The escarpment is the dominant feature of the western area of the Apache Leap SMA (see cover photo), while the eastern portion gradually slopes down eastward from the top of the escarpment toward Oak Flat and Globe, Arizona.

The Apache Leap SMA is extremely rugged. Present uses of the Apache Leap SMA include Native American traditional and ceremonial use, public recreation (hiking, rock climbing, mountain biking), livestock grazing, hunting, and energy distribution (power transmission corridor). There are existing routes (both Forest Service roads and remnants of old, mining-related roads) that occur around and within the Apache Leap SMA that are currently used for both motorized and non-motorized access into the area. This includes Forest Road (FR)315, used to access the east side of the Apache Leap SMA, and FR2440 and FR282, each used to access the west side of the Apache Leap SMA (Figure 2). Resolution Copper has authorized motorized use of FR2440 to access two hydrological monitoring wells (QC-4 and MB-03) currently permitted under the 2010 Pre-feasibility Plan of Operations (Forest Service, 2010).

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<sup>1</sup> San Carlos Apache Tribe, Tonto Apache Tribe, Mescalero Apache Tribe, White Mountain Apache Tribe, Yavapai-Apache Nation, Fort McDowell Yavapai Nation, Yavapai Prescott Indian Tribe, Gila River Indian Community, Salt River Pima-Maricopa Indian Community, Hopi Tribe, Pueblo of Zuni, and Ak-Chin Indian Community.

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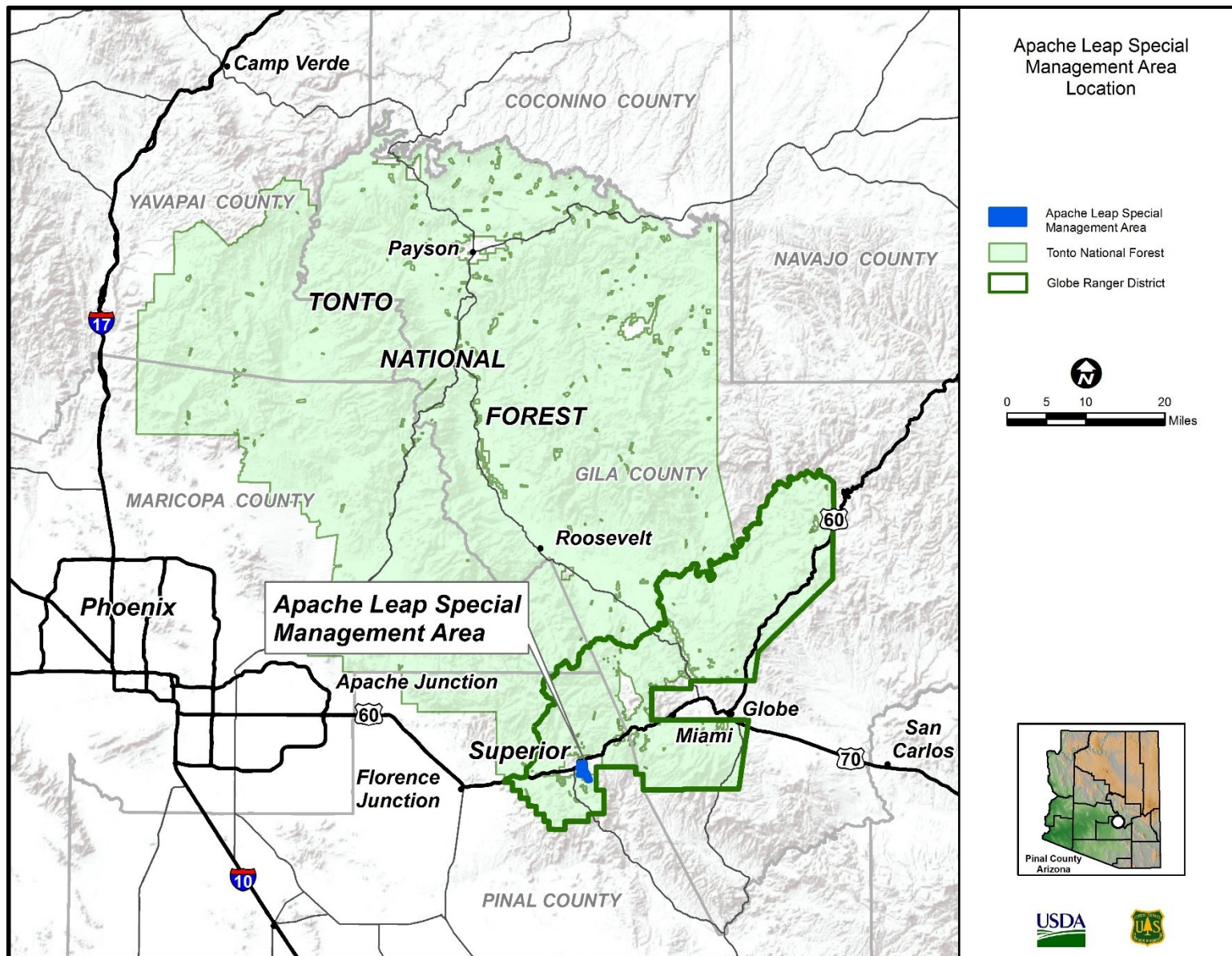
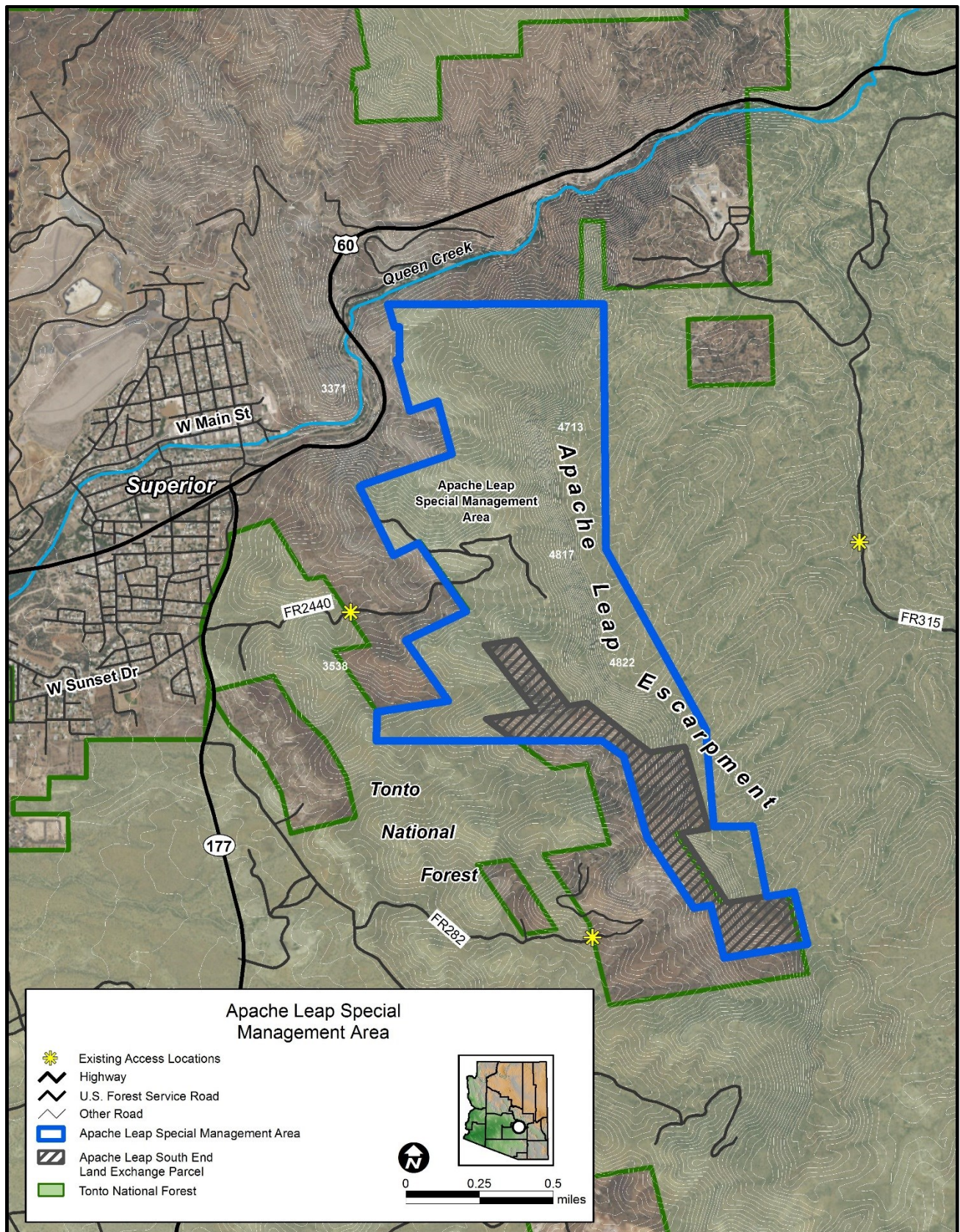


Figure 1. Apache Leap SMA location.

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**Figure 2.** Apache Leap SMA: boundary.



## 1.3 WHAT IS A SPECIAL MANAGEMENT AREA?

Applied to federal public lands, a special management area is “an area or feature identified and managed to maintain its unique special character or purpose” (Title 36 Code of Federal Regulations [CFR] 219.19). Congress designated Apache Leap a special management area for the purpose of preserving the natural character of Apache Leap, allowing traditional uses by Indian tribes, and protecting and conserving the cultural and archaeological resources of the area.

## 1.4 LEGISLATIVE DIRECTION

The Carl Levin and Howard P. “Buck” McKeon National Defense Authorization Act for Fiscal Year 2015 (NDAA) (PL 113–291) (113th Congress, 2014), directs the Forest Service to prepare a management plan for the Apache Leap SMA in consultation with affected Indian tribes, the Town of Superior, Resolution Copper, and interested members of the public (NDAA, Section 3003(g)(5)(A)). See Appendix A for the full text of Section 3003 of the NDAA.

The NDAA outlines the primary purposes, authorized activities, and additional considerations for the management of the Apache Leap SMA (NDAA, Section 3003(g)(2)). The purposes of the Apache Leap SMA are to:

- preserve the natural character of Apache Leap;
- allow for traditional uses of the area by Native American people; and
- protect and conserve the cultural and archaeological resources of the area.

Activities specifically authorized by Section 3003(g)(4)(B) of the NDAA and related to the proposed adjacent mining operation include:

- installation of seismic monitoring equipment on the surface and subsurface to protect the resources located within the special management area;
- installation of fences, signs, or other measures necessary to protect the health and safety of the public; and
- operation of an underground tunnel and associated workings, as described in the Resolution Copper Mine “General Plan of Operations,” subject to any terms and conditions the Secretary of Agriculture may reasonably require.

The NDAA further directs the Forest Service to consider whether additional measures are necessary to protect the cultural, archaeological, or historical resources of the Apache Leap SMA, including permanent or seasonal closures of all or a portion of the Apache Leap SMA; and provide access for recreation (NDAA, Section 3003(g)(5)(B)).

Section 3003 also includes direction for the exchange of the approximately 142-acre Apache Leap South End Parcel, presently owned by Resolution Copper, to the Forest Service (NDAA, Section 3003(c)).<sup>2</sup> This parcel will be added to an existing area of the Tonto National Forest (about 697 acres) to form the approximately 839-acre Apache Leap SMA (see Figure 2).

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<sup>2</sup> Using updated survey information provided by Resolution Copper, the Forest Service revised the Apache Leap South End Parcel from 110 acres (as presented in the NDAA) to 142 acres.

The NDAA withdrew the Apache Leap SMA from future mining in Section 3003, subsection (f), which states, “Subject to valid existing rights, Apache Leap and any land acquired by the United States under this section are withdrawn from all forms of:

1. entry, appropriation, or disposal under the public land laws;
2. location, entry, and patent under the mining laws; and
3. disposition under the mineral leasing, mineral materials, and geothermal leasing laws.”

The withdrawal in subsection (f) is subject to valid existing rights; therefore, as a further condition of the land exchange, in subsection (g)(3): “Resolution Copper shall surrender to the United States, without compensation, all rights held under the mining laws and any other law to commercially extract minerals under Apache Leap.”

Resolution Copper is permitted to operate two existing hydrological monitoring wells (Forest Service, 2010) that are located along FR2440 within the Apache Leap SMA. Section (g)(6), “Mining Activities,” of the NDAA provides the authority for this use: “The provisions of this subsection (subsection g Apache Leap SMA) shall not impose additional restrictions on mining activities carried out by Resolution Copper adjacent to, or outside of, the Apache Leap area beyond those otherwise applicable to mining activities on privately owned land under Federal, State, and local laws, rules and regulations.”

## **1.5 PLANNING PROCESS**

Establishment of the Apache Leap SMA and the development of new plan components to manage the special area triggers the need to amend the 1985 Tonto National Forest Land and Resource Management Plan. Section 36 CFR 219.13(a) of the 2012 National Forest System Land Management Planning Rule specifies that a forest plan amendment is required to add, modify, or remove one or more plan components, or to change how or where one or more plan components apply to all or part of the plan area (including management areas or geographic areas).

An amendment to the forest plan is being prepared to (1) identify the Apache Leap SMA as a new management area (MA) (MA 2G Globe Ranger District – Apache Leap SMA); (2) modify the description and acreage of the former management area (MA 2F Globe Ranger District – General Management Area); and (3) incorporate new plan components that were developed to meet the primary purpose of the special management area (see Chapter 3, “Plan Components”).

The Forest Service began the planning process for the Apache Leap SMA in summer 2016 by consulting affected Indian tribes, the Town of Superior, interested members of the public, and Resolution Copper for input on the plan development. These consultation processes ended on January 31, 2017, with the exception of tribal consultation, which will continue as needed, including formal government-to-government consultation. Appendix B provides a detailed list of the planning consultation meetings and presentations. Following the consultation process, the Forest Service prepared a proposed management plan for the Apache Leap SMA in March 2017.

As part of the Forest Service’s mandate to comply with the National Environmental Policy Act, an environmental review was conducted to determine the consequences of amending the forest plan to incorporate the Apache Leap SMA management direction; and to determine whether the implementation of the new management plan will result in significant impacts to the human environment. As part of the environmental review process, public comments concerning the proposed management plan were collected during a 45–calendar day scoping period from March 17, 2017, to May 1, 2017 (the proposed management plan was released on April 1, 2017).

A 30–calendar day public comment period was offered for the modified management plan in July 2017, starting with a legal notice announcing that the adoption of the Apache Leap management plan would require a forest plan amendment.

The results of the environmental review are being published in August 2017 as a set of environmental documents and draft decision document. Approving the management plan for the Apache Leap SMA and amending the forest plan are decisions subject to the predecisional objection procedures described at 36 CFR 219, subpart B. These procedures provide for review and resolution of issues from objectors prior to issuing a final decision.

Though the Forest Service has the jurisdictional authority for writing and implementing the Apache Leap SMA management plan, there are key partnerships and roles that include agencies beyond the Forest Service that are identified both in the NDAA and in other relevant laws. The public provides one such key partnership and invaluable input to planning and decision making, through participation in public meetings and submission of written comments. The public includes not only individuals but many non-governmental organizations that support specific interests related to the use of public lands. Non-public entities are described below.

## **1.6 MANAGEMENT ROLES**

The Forest Service developed this management plan in consultation with affected Indian tribes, the Town of Superior, Resolution Copper, and interested members of the public, as directed by the NDAA. In addition, state agencies, including the Arizona State Historic Preservation Office and the Arizona Game and Fish Department, have jurisdiction over certain resources of the Apache Leap SMA. Efforts to engage these partners are ongoing, and are critical to the successful implementation of the management plan.

### **1.6.1 Forest Service**

The Forest Service is the federal agency charged with managing the Apache Leap SMA. The management direction in this plan amends portions of the 1985 Tonto National Forest Land and Resource Management Plan, as amended (Forest Service, 1985).

Two levels of planning exist within the Forest Service. The first level of planning is programmatic and is represented by forest plans and their amending documents, such as this document, the Apache Leap SMA management plan. The second level of planning is the project level. Individual projects proposed for the Apache Leap SMA would be analyzed for potential site-specific environmental impacts and for compliance with desired conditions and management standards established in this plan. The Forest Service is the agency charged with ensuring that future projects comply with applicable laws and regulations.

### **1.6.2 Town of Superior**

The Town of Superior is located just to the west of the Apache Leap SMA. Incorporated in 1976, the Town is surrounded by the Tonto National Forest and geographically proximate to the Apache Leap SMA. Apache Leap provides a visual backdrop to the community, as well as an area that allows for recreation and other uses. The Town of Superior is also specifically mentioned in the NDAA as a consulting party for the development of the Apache Leap SMA management plan. As part of the Town's involvement in the consultations that took place from October 2016 through January 2017, a vision

statement for the Town’s preferences on the management of the Apache Leap SMA was provided to the Forest Service, and considered in the development of this management plan (Appendix C).

### **1.6.3 Affected Indian Tribes**

The NDAA, Section 3003(g)(5)(A), specifies that affected Indian tribes shall be consulted regarding the preparation of the Apache Leap SMA management plan. In addition, the preparation and approval of the Apache Leap SMA management plan is a federal undertaking subject to compliance with Section 106 of the National Historic Preservation Act, which requires federal agencies to take into account the effects of a proposed undertaking on historic properties eligible for the National Register of Historic Places in consultation with the Arizona State Historic Preservation Office, affected tribes, and interested parties. Consultation with Indian tribes must be government-to-government. The Tonto National Forest is conducting ongoing consultation with 12 Indian tribes, in accordance with Forest Service Handbook Section 1509.13, Chapter 10, “Consultation with Indian Tribes and Alaska Native Corporations” (Forest Service, 2016).

### **1.6.4 Resolution Copper Mining, LLC**

Resolution Copper Mining, LLC (Resolution Copper), is currently operating in the area east of the Apache Leap SMA, with plans to expand its operations in the Oak Flat area. As authorized in the Southeast Arizona Land Exchange and Conservation Act set forth in Section 3003 of PL 113–291, Resolution Copper, in cooperation with the Forest Service, will incorporate the following into its activities in the Apache Leap SMA: (1) install seismic monitoring equipment on the surface and subsurface to protect the resources located within the Apache Leap SMA; and (2) operate an underground tunnel and associated workings just beyond the northern boundary of the Apache Leap SMA, as described in the Resolution Copper Mine “General Plan of Operations,” subject to reasonable terms and conditions.

### **1.6.5 Arizona State Historic Preservation Office**

The Arizona State Historic Preservation Office is a state office with a federal mandate. Under Section 106 of the National Historic Preservation Act of 1966, as amended, and its implementing regulations at 36 CFR 800, federal agencies are required to consult with the State Historic Preservation Office regarding the eligibility of cultural resources (known by the general term “historic properties”) for nomination to the National Register of Historic Places, and on determinations of effect from federal undertakings and management decisions.

### **1.6.6 Arizona Game and Fish Department**

The Arizona Game and Fish Department is the agency responsible for managing and protecting Arizona’s fish and wildlife resources. The Apache Leap SMA lies within Arizona Game and Fish Department Game Management Unit 24A. The agency sets game animal harvest levels, hunting seasons, and similar wildlife population regulatory actions for each game management unit throughout the state.

The Arizona Game and Fish Department identifies species with population viability issues through research and surveys, including some known to occur in the Apache Leap SMA. The agency actively participates with the Forest Service in protection of these species. Surveys for sensitive wildlife species are conducted to monitor populations, such as raptor surveys.

## **1.6.7 Arizona Department of Forestry and Fire Management**

The mission of the Department of Forestry and Fire Management is to manage and reduce fire risk to protect Arizona's people, communities, and wildland areas and to champion the health of Arizona's natural resources. The department provides fire protection to 22 million acres of state and private lands, and responds to incidents on federal lands by cooperative agreement. The department supports local fire departments and helps coordinate fire response activities statewide.



## Chapter 2

# IMPORTANCE OF APACHE LEAP

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## 2.1 WHAT MAKES APACHE LEAP UNIQUE?

The Apache Leap Special Management Area (Apache Leap SMA) is a geographically, culturally, and historically unique area.

The geographic feature referred to as Apache Leap is scenically unique within the surrounding landscape. This dramatic escarpment visually dominates the eastern skyline from the basin below. The area provides a scenic backdrop for the Town of Superior, and provides many recreational opportunities for local residents and visitors. The escarpment's eastern slopes include numerous drainages and canyons that lead to the Oak Flat area, located approximately 2 air miles away.

The Apache Leap area, including Oak Flat, has been recognized by Indian tribes throughout prehistoric and historic times for its bounty of life-sustaining natural resources, which include acorns, medicinal and other edible plants, wild game, and water. The area is also a place of religious importance. Apache ancestors used this area as a means to connect to their Creator God, as a place where they could offer prayers and ceremony. In the hearts and minds of many, this place is sacred and belongs to the Apache people.

Over the course of the twentieth century, many copper mines were developed in the region surrounding Superior, Arizona, and the area came to be known as the Copper Triangle. The Copper Triangle has a long history of mining, and most of the towns in the area originated as mining communities, including Miami, Globe, Superior, Kearny, Hayden, and Winkelman (Hopkins et al., 2015). Several old, small-scale mining/prospecting remnants remain (e.g., adits, roads, frames, and other workings), but the landscape within the Apache Leap SMA boundary is otherwise largely undeveloped.

A recent application to renew mining in the area, if approved, would result in subsidence within the mine permit area, which is adjacent to the Apache Leap SMA. The eastern boundary of the Apache Leap SMA was established in part to be beyond the expected limit of subsidence effects.

The Apache Leap SMA is a relatively undisturbed area within this disturbed landscape. As the area is currently managed for rangeland resources, there are existing pasture fences (e.g., four-string barbed wire) and gates. An existing utility line crosses the northern portion of the Apache Leap SMA. There are also limited existing roads that provide motorized access to hydrological monitoring wells owned and managed by Resolution Copper; no roads reach the top of Apache Leap. The extremely rugged nature of the topography of the Apache Leap SMA has preserved the area's natural character. The Apache Leap SMA's combination of ecological values, scenic resources, and recreation opportunities makes it unique in southeastern Arizona.

## 2.2 TRIBAL IMPORTANCE

Apache Leap is sacred to 12 southwestern tribes: the San Carlos Apache Tribe, White Mountain Apache Tribe, Yavapai-Apache Nation, Tonto Apache Tribe, Mescalero Apache Tribe, Fort McDowell Yavapai Nation, Yavapai Prescott Indian Tribe, Hopi Tribe, Gila River Indian Community, Salt River Pima-Maricopa Community, Ak-Chin Indian Community, and Pueblo of Zuni. Evidence of Indian tribe use of the area dates to the Hohokam culture, predominantly to the Middle Formative period (A.D. 700–1100), to the Late Formative period Salado culture (A.D. 1100–1450), and to Apache and Yavapai occupations

in the protohistoric and Historic periods (A.D. 1100–1880s). Very little is known about the region before the Hohokam. The Apache/Yavapai presence in the western Pinal Mountains during the protohistoric and historical eras has been confirmed through archaeological surveys, ethnographic studies, and tribal cultural traditions. However, this presence on the landscape is often hard to detect archaeologically due to the ephemeral nature of the Apache and Yavapai imprint on the land and their tendency to reoccupy prehistoric sites. The higher-elevation areas in the Pinal Mountains were used to gather wild plant foods and hunt large animals during the warm months, and the western and southern flanks were occupied during the winter months.

The majority of the Apache Leap SMA falls within the boundaries of the *Chi'chil Bildagoteel* Historic District, which is listed in the National Register of Historic Places (January 4, 2016 [Nez, 2016]) as an Apache Traditional Cultural Property. Private property (owned by Resolution Copper) that is currently part of the Apache Leap SMA was not included in the listing. *Chi'chil Bildagoteel* is eligible for the National Register of Historic Places under Criterion A, “associated with events that have made a significant contribution to the broad patterns of our history,” because it is associated with traditional Apache oral history, is a venue for ongoing Apache participation in traditional social activities, and is associated with traditions rooted in the history of the Western Apache Tribes. *Chi'chil Bildagoteel* is also eligible under Criterion B as a place “associated with the lives of persons significant in our past,” and is eligible under Criterion C as a place “representative of a significant and distinguishable entity whose components may lack individual distinction,” because of the oak groves that figure prominently in traditional Apache subsistence patterns and other important natural resources. Finally, *Chi'chil Bildagoteel* is eligible under Criterion D as a place “that has yielded, or may be likely to yield, information important in prehistory or history,” because of opportunities available to record the oral histories of the Western Apache people and the information contained in the Apache archaeological sites.

## 2.3 GEOGRAPHIC LOCATION

The location and layout of the Apache Leap SMA are shown in Figures 1 and 2, on pages 3 and 5. Apache Leap is a prominent geological buttress with elevations that range from 3,680 to 4,720 feet (1,122 to 1,439 m) above mean sea level.

The highest point of the area is on a portion of the escarpment that overlooks Superior. The Apache Leap SMA boundary is established primarily along existing mining claim boundaries, staked as early as 1917. Surrounding lands include additional Tonto National Forest lands, state lands, and privately held land near the Town of Superior.

## 2.4 PHYSICAL AND BIOLOGICAL CHARACTERISTICS

The western portion of the special management area includes the west-facing Apache Leap escarpment, which is composed of sheer cliff faces, hoodoos, and buttresses. Apache Leap itself is formed from horizontal, stratified volcanic rocks (tuff), and overlies sedimentary rocks that have similarly eroded into ridges and canyons to form the foothills below (to the west of) the Apache Leap escarpment. Within the special management area, these foothills include ephemeral drainages that primarily flow westward to Queen Creek. Surface water features are absent within the special management area, and soils are shallow and not well developed. Exposed bedrock consists of Apache Leap Tuff and Precambrian sedimentary rocks. The eastern portion of the special management area gradually slopes from the top of Apache Leap down to the Oak Flat area, and primarily consists of exposed Apache Leap Tuff eroded into numerous canyons, plateaus, and scarps. The Apache Leap SMA is ecologically unique to most of the surrounding area of the Globe Ranger District, with the physical characteristics of the Apache Leap escarpment offering

protection to native vegetation. In addition, the convergence of Sonoran Desertscrub and Interior Chaparral biotic communities provides diverse habitat for species in a relatively small area.

The biotic communities and vegetation within the special management area include the Arizona Upland subdivision of the Sonoran Desertscrub biotic community in lower elevations, with the Interior Chaparral community along the top of the Apache Leap escarpment (Brown, 1994). Interior Chaparral species also occur on north-facing slopes in lower elevations west of the Apache Leap escarpment.

Vegetation found in the Arizona Upland subdivision typically consists of shrubs, cacti, and leguminous trees such as foothills paloverde (*Parkinsonia microphylla*) and mesquite (*Prosopis velutina*). Within the special management area, this subdivision is best represented by the saguaro (*Carnegiea gigantea*) and foothills paloverde association. Additional species common to this area include, but are not limited to, golden flower century plant (*Agave chrysantha*), Mormon tea (*Ephedra* sp.), fairyduster (*Calliandra eriophylla*), barrel cactus species (*Ferocactus* sp.), catclaw mimosa (*Mimosa aculeaticarpa*), jojoba (*Simmondsia chinensis*), cat claw acacia (*Acacia greggii*), wolfberry (*Lycium* spp.), brittle bush (*Encelia farinosa*), teddybear cholla (*Cylindropuntia bigelovii*), buckhorn cholla (*Opuntia acanthocarpa*), prickly pear (*Opuntia engelmannii*), hedgehog (*Echinocereus engelmannii*), shrubby buckwheat (*Eriogonum wrightii*), flattop buckwheat (*Eriogonum fasciculatum*), Louisiana sagewort (*Artemisia ludoviciana*), desert marigold (*Baileya multiradiata*), desert senna (*Senna covesii*), globemallow (*Sphaeralcea ambigua*), and purple three-awn (*Aristida purpurea*). Non-native species are also present in the Apache Leap SMA, including red brome (*Bromus rubens*), an annual grass that presents a fire hazard. Additional non-native species include Mediterranean grass (*Schismus* sp.), buffelgrass (*Pennisetum ciliare*), fountain grass (*Pennisetum setaceum*), filaree (*Erodium cicutarium*), Malta starthistle (*Centaurea solstitialis*), silver-leaf nightshade (*Solanum elaeagnifolium*), and wild oats (*Avena fatua*).

Drainages within the Apache Leap SMA do not contain permanent surface water features and do not support riparian vegetation. Instead, the drainages generally contain greater densities of the vegetation present throughout the adjacent uplands.

The Interior Chaparral vegetation type is characterized by dense stands of woody, evergreen trees and shrubs. A common (diagnostic) species of Interior Chaparral in central Arizona is scrub live oak. In the Apache Leap SMA, this community is best represented by scrub live oak (*Quercus turbinella*), manzanita (*Arctostaphylos pungens*), barberry (*Berberis haematocarpa*), mountain mahogany (*Cercocarpus montanus*), deer brush (*Ceanothus integerrimus*), and sugar sumac (*Rhus trilobata*). Other common species include crucifixion thorn (*Castela emoryi*), hopbush (*Dodonaea viscosa*), silktassel (*Garrya wrightii*), and broom snakeweed (*Gutierrezia sarothrae*).

Wildlife in the special management area is typical of that encountered in Arizona Upland and Interior Chaparral communities. The following list captures some of the more common species found in the Apache Leap SMA.

Mammal species in the special management area include, but are not limited to, black bear (*Ursus americanus*), cottontail rabbit (*Sylvilagus audubonii*), black-tailed jackrabbit (*Lepus californicus*), gray fox (*Urocyon cinereoargenteus*), coyote (*Canis latrans*), cliff chipmunk (*Tamias dorsalis*), white-throated woodrat (*Neotoma albigula*), pocket mouse (*Chaetodipus intermedius*), white-tailed deer (*Odocoileus virginianus*), mule deer (*Odocoileus hemionus*), and javelina (*Pecari tajacu*).

Bat species that have been recorded within and in close proximity to the project area include pallid bat (*Antrozous pallidus*), big brown bat (*Eptesicus fuscus*), and western small-footed myotis (*Myotis ciliolabrum*) (WestLand Resources, 2004).

Reptiles include, but are not limited to, eastern fence lizard (*Sceloporus undulatus*), Sonoran whipsnake (*Coluber bilineatus*), western patch-nosed snake (*Salvadora hexalepis*), side-blotched lizard (*Uta stansburiana*), western diamondback rattlesnake (*Crotalus atrox*), glossy snake (*Arizona elegans*), Sonoran desert tortoise (*Gopherus morafkai*), and Gila monster (*Heloderma suspectum*).

Amphibians are unlikely within the project area due to the lack of perennial water, but Sonoran desert toad (*Incilius alvarius*) has been recorded within 3 miles (Arizona Game and Fish Department, 2017) and may occur in the cattle tanks on the border of the Apache Leap SMA.

The Apache Leap escarpment supports numerous bird species that nest, migrate, or winter in the area. Bird species common to the Apache Leap SMA include, but are not limited to, peregrine falcon (*Falco peregrinus*), turkey vulture (*Cathartes aura*), Gambel's quail (*Callipepla gambelii*), elf owl (*Micrathene whitneyi*), red-tailed hawk (*Buteo jamaicensis*), mourning dove (*Zenaida macroura*), pyrrhuloxia (*Cardinalis sinuatus*), Gila woodpecker (*Melanerpes uropygialis*), gilded flicker (*Colaptes chrysoides*), ladder-backed woodpecker (*Dryobates scalaris*), curve-billed thrasher (*Toxostoma curvirostre*), and cactus wren (*Campylorhynchus brunneicapillus*), along with the more scrub-adapted species western scrub jay (*Aphelocoma californica*), canyon wren (*Catherpes mexicanus*), Crissal thrasher (*Toxostoma crissale*), black-chinned sparrow (*Spizella atrogularis*), bushtit (*Psaltiriparus minimus*), and rufous-sided towhee (*Pipilo erythrophthalmus*).

One federally listed endangered species, the Arizona hedgehog cactus (*Echinocereus triglochidiatus* var. *arizonicus*), has the potential to occur within the special management area in limited areas. Individual plants are known to occur north and east of the special management area. This species is more abundant in the area north of U.S. Route 60, adjacent to the special management area. One other federally listed endangered species, the lesser long-nosed bat (*Leptonycteris yerbabuenae*), currently has no records of occurrence within the Tonto National Forest, including the Apache Leap SMA.

## 2.5 SOCIAL AND CULTURAL CHARACTERISTICS

The Apache Leap landform provides the scenic background for the community of Superior. Land use within the Apache Leap SMA boundary historically and currently includes cultural and spiritual use by tribal members, mining, dispersed recreational activities, and cattle grazing. Cattle grazing on the special management area is related to two active grazing allotments on National Forest System lands: the Devil's Canyon Allotment, held by Resolution Copper; and the Superior Allotment, held by the Herron Ranch. Grazing also occurs on the private lands owned by Resolution Copper that will become part of the Apache Leap SMA.

The legend of Apache Leap holds that an Apache campsite located within what is now the Apache Leap SMA was attacked by U.S. Cavalry troops in the late 1800s. A number of Apaches, driven to the edge of the escarpment, leaped over the cliff to death rather than surrender. When the women and children discovered their beloved husbands, fathers, and sons dead at the bottom of the cliff, they began to weep. And as their tears fell, black stones formed on the white, sandy earth for every tear that hit the ground. These small obsidian nodules are known as Apache Tears because of this event. It is important to note that the reported details of this event, as related in numerous accounts, often conflict with oral history accounts by the Apache people.

The Historic period in and around Superior is defined by hardrock mining. Hardrock mining in the area is marked by two distinct periods: an early period dominated by silver mining from 1875 to 1893, and a later copper mining era from 1902 to present (WestLand Resources, 2004). Mineral Survey plats and Arizona Bureau of Mines data indicate that lands within the special management area were federally patented in the 1910s and early 1920s (WestLand Resources, 2004). No major operations were ever erected within the

special management area. A few mining/prospecting remnants have been recorded and evaluated to date, but were assessed as not eligible for the National Register of Historic Places.

Otherwise, portions of the Apache Leap SMA are located entirely or partially within a number of patented lode claims. Historically, these lode claims were explored for the presence of economic minerals using surface methods (open cuts) and underground methods (shafts and tunnels), and in a few cases exploration appears to have led to actual development (WestLand Resources, 2004). Many of these past mining features remain on the landscape today. All patented and unpatented mineral claims currently existing in the special management area are owned by Resolution Copper.

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## Chapter 3

# MANAGEMENT DIRECTION FOR THE APACHE LEAP SPECIAL MANAGEMENT AREA

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The management direction contained in this chapter guides the Forest Service in carrying out its stewardship responsibilities for the lands and resources found within the Apache Leap Special Management Area (Apache Leap SMA). As described in Section 1.5, “Planning Process,” the forest plan will be amended by adding MA 2G Globe Ranger District – Apache Leap SMA and removing 697 acres from existing MA 2F to incorporate the management direction contained in this chapter. The plan components found in this chapter will also be considered during the forest plan revision process.

This management direction provides a framework for sustaining and protecting the values for which the area was designated and for informing future decisions to ensure that activities and uses are compatible with the primary purposes for which the area was designated.

It is important to note that this management plan is strategic in nature and does not authorize site-specific prohibitions or activities; rather, it establishes broad direction, similar to zoning in a community. Future project or activity decisions will occur only after specific proposals are identified and analyzed and there is the opportunity for public involvement in compliance with the National Environmental Policy Act.

Guidance for plan content and development is provided in the CFR under the 2012 Planning Rule (as amended 36 CFR 219). Forest Service Handbook 1909.12, Chapter 20 (Forest Service, 2015) provides the directives related to plan content, including plan components. Management plans for congressionally designated areas such as the Apache Leap SMA must include the following plan components: desired conditions, objectives, guidelines, standards, and suitability of lands. Each of these plan components has a specific definition (see below) as well as a purpose in the plan and must be clearly identified.

Management plans may include information other than the required plan components, such as explanatory narrative, management approaches, and referenced material. This plan uses “management approaches” to describe management intent and possible management strategies, and to identify potential partnership opportunities and coordination activities, including area or resource monitoring.

Management direction provided in this plan is specific to the Apache Leap SMA. Additional laws, regulations, and agency policy may also apply and should be consulted, including forest-wide management direction found in the Tonto National Forest Land and Resource Management Plan (as amended).

## Plan Components

Definitions for plan components addressed in this management plan, as described in the 2012 Planning Rule, are as follows:

- *Desired conditions.* A desired condition is a description of specific social, economic, and/or ecological characteristics of the plan area, or a portion of the plan area, toward which management of the land and resources should be directed. Desired conditions must be described in terms that are specific enough to allow progress toward their achievement to be determined, but do not include completion dates (36 CFR 219.7(e)(1)(i)).
- *Objectives.* An objective is a concise, measurable, and time-specific statement of a desired rate of progress toward a desired condition or conditions. Objectives should be based on reasonably foreseeable budgets (36 CFR 219.7(e)(1)(ii)).

- *Standards.* A standard is a mandatory constraint on project and activity decision-making, established to help achieve or maintain the desired condition or conditions, to avoid or mitigate undesirable effects, or to meet applicable legal requirements (36 CFR 219.7(e)(1)(iii)).
- *Guidelines.* A guideline is a constraint on project and activity decision-making that allows for departure from its terms, so long as the purpose of the guideline is met (36 CFR 219.15(d)(3)). Guidelines are established to help achieve or maintain a desired condition or conditions, to avoid or mitigate undesirable effects, or to meet applicable legal requirements (36 CFR 219.7(e)(1)(iv)).
- *Suitability of lands.* Specific lands within a plan area will be identified as suitable for various multiple uses or activities based on the desired conditions applicable to those lands. The plan will also identify lands within the plan area as not suitable for uses that are not compatible with desired conditions for those lands. The suitability of lands need not be identified for every use or activity. Suitability identifications may be made after consideration of historic uses and of issues that have arisen in the planning process. Every plan must identify those lands that are not suitable for timber production (36 CFR 219.11 and 219.7(e)(1)(v)).

The following sections, 3.1 through 3.11, detail the plan components for the Apache Leap SMA management plan for natural character and scenery, tribal, cultural/historic, access, recreation, mineral resources, wildlife, vegetation, livestock grazing, wildland fire, and suitability of lands. Each resource below begins with a description of the resource (Schwarz et al., 1976) and how it may or may not pertain to the Apache Leap SMA.

## 3.1 NATURAL CHARACTER AND SCENERY

*Natural character* refers to an area's physical and biological characteristics, in as near a natural condition as possible, that exemplify typical or unique vegetation and associated biotic, soil, geologic or aquatic features. Natural character can be defined in terms of retaining or losing natural condition, and the amount of human intervention that may or may not be present. *Scenery* refers to an area's current characteristic landscape views. Scenery often takes into consideration the natural character, outstanding features that have unique appeal, and the presence or non-presence of human-made alterations to the landscape. The natural and scenic character of the Apache Leap SMA includes the dominant west-facing Apache Leap escarpment, which is composed of sheer cliff faces, hoodoos, and buttresses. Other features of the Apache Leap SMA's natural and scenic character include the eastern slopes containing canyons and drainages leading to Oak Flat, relatively undisturbed landscape, open space, dominant backdrop of the Town of Superior, and the adjacent U.S. Route 60 (a designated State Scenic Highway).

### 3.1.1 Desired Conditions

1. The landscape appears natural within the context of native vegetation and landforms and remains generally unaltered by human activity. Deviations from the natural landscape are limited and may include valued cultural landscape features and essential management elements that blend with the natural landscape.
2. Natural character and scenery is consistent with "High" scenic integrity according to the Scenery Management System, or the "Retention" visual quality objective according to the Visual Management System (Forest Service, 1995), throughout the Apache Leap SMA. The landscape character "appears" intact, and any deviations repeat the form, line, color, texture, and pattern common to the landscape character so completely and at such scale that they are not evident.
3. The Apache Leap SMA persists in a substantially natural condition to be used and enjoyed by the public, and the special characteristics for which it was designated are protected.



Subsidence associated with any future mining adjacent to the area does not impair the special characteristics for which it was designated.

### **3.1.2 Standards**

1. Natural character and associated values, including natural quiet, dark skies, and limited encounters with other visitors, shall take precedence over recreation uses where conflicts occur.

### **3.1.3 Guidelines**

1. All proposed developments (including vegetation manipulation and ground-disturbing activities/construction) should be designed to blend with the natural setting by remaining consistent with the form, line, color, texture, and pattern common to the landscape character.
2. Construction of new communications sites, utility lines, or transmission lines should not occur within the Apache Leap SMA.
3. Regular maintenance activities, such as utility line clearing, should be performed in a manner consistent with protection of the natural character and values of the Apache Leap SMA.
4. If seismic monitoring indicates that the natural character or values of the Apache Leap SMA are being negatively impacted, rehabilitation and closures may be used to mitigate impacts.
5. The Apache Leap SMA should be managed for the visual quality objective of “Retention” under the Visual Management System and a scenic integrity objective of “High” under the Scenery Management System.
6. To meet the desired conditions for natural character, a data collection strategy should occur to monitor, estimate, and anticipate the effects of future proposed mining activities adjacent to the special management area.
  - To provide an adequate period to collect baseline information, implementation of the strategy should occur as soon as practicable, and before the commencement of any mine-related activities that may be authorized under Resolution Copper’s proposed “General Plan of Operations” and related documents.
  - The strategy, at a minimum, should include these design criteria: seismic monitoring equipment on the surface and subsurface, surface monuments (e.g., wooden or concrete post) that would be surveyed for movement, monitoring locations for collecting rock mechanics data, and a baseline survey using state-of-the-art methods, such as LiDAR, to establish pre-mine conditions against which future surveys could be compared.
  - The strategy should specify what, where and how data is to be collected and the frequency for evaluating and reporting results.
  - The strategy should identify and explore solutions to remediate and mitigate surface conditions that could threaten the integrity of the Apache Leap SMA as allowed by pertinent laws and regulations.

## 3.2 TRIBAL

The terms “federally recognized Indian tribe,” “Indian tribe,” and “tribe” are used to refer to any Indian or Alaska Native tribe, band, nation, pueblo, village, or other community, the name of which is included on a list published by the Secretary of the Interior pursuant to Section 104 of the Federally Recognized Indian Tribe List Act of 1994 (25 United States Code [U.S.C.] 479a-1). See also Executive Order 13175, Sec. 1(b). The Forest Service, like other federal agencies, has a duty to consult and coordinate with Indian tribes on a government-to-government basis, as directed in Executive Order 13175, “Consultation and Coordination with Indian Tribal Governments.”

According to Forest Service Manual 1563.8f (Forest Service, 2016), the Forest Service’s responsibility to protect tribal cultural resources and sacred sites is codified in executive orders, legislation, regulations, and other statutory authorities. Some authorities relate to cultural resources as sites of historical importance, and other authorities relate to sacred sites as places held sacred because of religious or spiritual importance.

The majority of the Apache Leap SMA falls within the boundaries of the *Chi’chil Bildagoteel* Historic District, an Apache Traditional Cultural Property formally listed on the National Register of Historic Places. The *Chi’chil Bildagoteel* Historic District also encompasses slopes on the east side of the Apache Leap SMA that drain toward Oak Flat.

### 3.2.1 Desired Conditions

1. The landscape appears natural within the context of native vegetation and landforms and remains unaltered by human activity. Deviations from the natural landscape are limited. Natural character, scenery, and integrity are priorities.
2. Traditional resources are preserved in place wherever feasible.
3. Tribal members have access to the Apache Leap SMA for individual and group prayer and traditional ceremonies and rituals. There are opportunities for solitude and privacy for ceremonial activities.
4. Traditional uses such as the collection of medicinal plants and wild plant foods are valued as important uses. Traditionally important plant species are available for traditional uses. Healthy populations are sustained or expanded within the Apache Leap SMA.

### 3.2.2 Standards

1. The Forest Service shall, to the full extent allowed under the law, maintain the confidentiality of culturally sensitive information provided by tribes with the express expectation of confidentiality.
2. Consideration in planning for federal, federally licensed, and federally assisted projects shall include tribal input on standards for maintaining archaeological sites, traditional use areas, and natural resources (e.g., monitoring strategies). When there is a “substantial direct effect” to the land on one or more of the tribes from the proposed decision or action, consultation must be initiated.
3. Consultation with tribes shall occur at the early stages of planning and project design, and tribal perspectives, needs, and concerns, as well as traditional knowledge, should be incorporated into project design and decisions, as appropriate.

### 3.2.3 Guidelines

1. Tribal perspectives, needs, and concerns should be prioritized. Where activities may affect places important to tribes, the Forest should work to avoid impacts to the fullest extent of applicable laws and regulations.
2. The responsible line officer should work with Indian tribes to comply with the Cultural and Heritage Cooperation Authority (25 U.S.C. 3054) under which the tribes may request temporary closures of specific areas for traditional cultural purposes.
3. If historic properties or traditional use areas are found to be impacted by recreation or other allowable uses, permanent or temporary closures to protect the affected sites and/or use areas should be considered until restorative measures can be identified and implemented.
4. When access to traditional use areas by tribal members is hampered by land exchanges, road decommissioning, or other actions outside and adjacent to the Apache Leap SMA, the responsible line officer should work with landowners and other pertinent agencies to allow tribes reasonable access while protecting the natural character and cultural values of the Apache Leap SMA.
5. If additional cultural resources within the Apache Leap SMA that are not currently included in the existing Historic District, are determined eligible for listing in the National Register of Historic Places, and Forest Service guidelines for National Register nominations are met, nomination(s) should be prepared and submitted to the Keeper of the National Register for consideration in the National Register of Historic Places within 5 years of initial determination of eligibility.

### 3.2.4 Management Approaches

Work with tribes to develop a monitoring strategy and timeline to ensure that Traditional Cultural Property values are protected from vandalism, looting, and other forms of human disturbance.

Consider implementing actions to secure and stabilize sites, including permanent or seasonal closures pending assessment and determination of appropriate actions to protect the sites or traditional use areas.

Develop a strategy to incorporate the private land in the Apache Leap SMA into the *Chi'chil Bildagoteel* Historic District to be included on the formal National Register listing.

Work with tribes to ensure that healthy sustainable plant populations are available for traditional uses.

## 3.3 CULTURAL/HISTORIC

The Forest Service defines *cultural resources* as an object or definite location of human activity, occupation, or use identifiable through field survey, historical documentation, or oral evidence. Cultural resources are prehistoric, historic, archaeological, or architectural sites, structures, places, or objects and traditional cultural properties (Forest Service Manual 2361.05 [Forest Service, 2008]). As stated in Sections 2.1 and 2.2, the Apache Leap SMA is rich in historically and culturally significant resources. To date, approximately 94% of the Apache Leap SMA has been surveyed for cultural resources.

### 3.3.1 Desired Conditions

1. Visitors to the Apache Leap SMA have access to information for a general understanding of the cultural and historic values present, the role of human activity in shaping the landscape of the area, and the importance of protecting these resources.

2. Heritage resources are preserved in place wherever feasible. Archaeological sites are protected from vandalism, looting, and other forms of human-caused deterioration. Excessive forms of natural deterioration such as gully erosion and animal trampling/burrowing that threaten the integrity of features or cultural deposits are rare or not evident on the landscape. Adverse effects from management activities, visitor impacts, and damaging levels of natural deterioration are rare, and known occurrences are mitigated.
3. The significance of the historic and cultural resources of the Apache Leap SMA is recognized in nomination(s) for the National Register of Historic Places.

### **3.3.2 Standards**

1. Include tribal input on the criteria for monitoring and maintaining archaeological sites, traditional use areas, and natural resources.

### **3.3.3 Guidelines**

1. If historic properties or traditional use areas are found to be impacted by recreation or other allowable uses, temporary closures to protect the affected sites or use areas should be employed until restorative measures can be identified and implemented.

### **3.3.4 Management Approaches**

Develop a framework to inventory archaeological and cultural sites in the Apache Leap SMA (94% of which has been previously surveyed), traditional tribal use areas, and places of traditional or religious significance as opportunities arise.

Develop a monitoring strategy and timeline to ensure that historic properties and traditional resources are protected from vandalism, looting, and other forms of unnatural deterioration. Consider implementing actions to secure and stabilize sites, including temporary closures pending assessment and determination of appropriate actions to protect the sites or traditional use areas.

Although it is not anticipated that additional mitigation measures will be needed, if necessary, develop mitigation strategies specific to the resources within the Apache Leap SMA to limit significant effects on heritage resources.

## **3.4 ACCESS**

Access refers to the relative ease or difficulty with which the public can get to and from a place. For example, National Forest System lands with high concentrations of routes and trails open to the public, relatively smooth topography and sparse vegetation, and large tracts of Forest Service–owned land would be considered easy and convenient for the public to access; conversely (and applicable to the Apache Leap SMA), areas with low concentrations of routes and trails, rough topography and thick vegetation, and broken, multi-jurisdictional tracts (i.e., private or state land that may be fenced and/or gated) would be considered difficult for the public to access. Motorized access refers to motorized vehicle access, typically on Forest Service roads, while non-motorized access refers to hiking, horseback riding, cycling, etc. The Tonto National Forest transportation system route relevant to the Apache Leap SMA consists of FR2440, located within the special management area. Adjacent routes FR315 and FR282 provide access to the surrounding areas east and south of the Apache Leap SMA. These routes provide public and administrative access to public and private land and for recreation opportunities, mining activities, and

resource management. Currently, access to the top of the Apache Leap escarpment requires overland hiking across extremely difficult terrain.

### **3.4.1 Desired Conditions**

1. Public access within the Apache Leap SMA is consistent with the protection of scenic and cultural/historic values.
2. The transportation system supports access for dispersed recreation opportunities, resource management activities, and authorized uses. Roads and motorized trails are only evident within the Apache Leap SMA on the west side of the escarpment, where FR2440 is located, if approved as part of the travel management decision. Non-motorized trails are the primary source of public access for most of the area's rugged, remote landscapes. Road access for seismic and hydrological monitoring is maintained.

### **3.4.2 Standards**

1. Only designated roads, motorized trails, and motorized use areas as depicted and described on the motor vehicle use map<sup>3</sup> are open to public motorized vehicle use.

### **3.4.3 Guidelines**

1. Road and trail signs and barriers should be installed where needed to inform the public about travel management regulations and to prevent unauthorized motorized use. These improvements should be consistent with the Recreation Opportunity Spectrum and Scenery Management System guidelines.
2. Roads on private lands within the Apache Leap SMA acquired by the Tonto National Forest should be evaluated to determine whether to decommission the road and convert them to non-motorized trails.
3. Roads that are decommissioned and converted to trails should be narrowed and restored to meet a semi-primitive non-motorized character, consistent with soil and watershed protection.

### **3.4.4 Management Approaches**

Develop a management approach with the goal of collaborating with consulting parties, stakeholders, and the public to ensure availability of future opportunities to access the Apache Leap SMA for dispersed recreation and traditional uses. Review travel management road designations to allow for motorized access to the Apache Leap SMA. Consider developing access "nodes" on the west and south sides of Apache Leap for future public access. These nodes would provide locations for non-motorized trail junctions and trailheads and could also be considered for parking areas if at a road terminus.

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<sup>3</sup> At the time of publication of this management plan in August 2017, the motor vehicle use map that designates motorized vehicle access on the Tonto National Forest is under development and will be available when the travel management process is completed.

## **3.5 RECREATION**

Recreation as a resource refers to an area of Forest Service land that combines the natural qualities of land and water areas and the ability and desire of humanity to use this combination for personal satisfaction and enjoyment. Recreation as leisure refers to activities such as walking/hiking, hunting, or nature viewing and may be undertaken individually or with others. Recreation may be passive or active and may or may not require specialized skills (e.g., rock climbing or walking, respectively). The environment and landscape of the Apache Leap SMA offer settings for a range of high-quality recreation opportunities and experiences.

### **3.5.1 Desired Conditions**

1. The Apache Leap SMA offers dispersed recreation opportunities that emphasize non-motorized recreation. Recreation activities occur at appropriate locations and intensities such that cultural and natural values are protected. Recreation opportunities and activities are primarily nature based and offer opportunities for experiencing scenic beauty and the intrinsic cultural and natural resources associated with the Apache Leap SMA.
2. Recreation-related project-level decisions and implementation activities are consistent with mapped classes and setting descriptions. Recreation opportunities associated with the Apache Leap SMA enhance the quality of life for local residents (e.g., social interaction, physical activity, connection with nature), provide tourist destinations, and contribute monetarily to local economies.
3. Facilities for dispersed recreation activities are appropriate for the Recreation Opportunity Spectrum class and scenic integrity objective of the location and are designed to the minimum necessary to protect natural and cultural resources. Day-use recreation opportunities are offered within a predominantly undeveloped setting. Overnight camping does not occur. Recreation user conflicts are minimal.

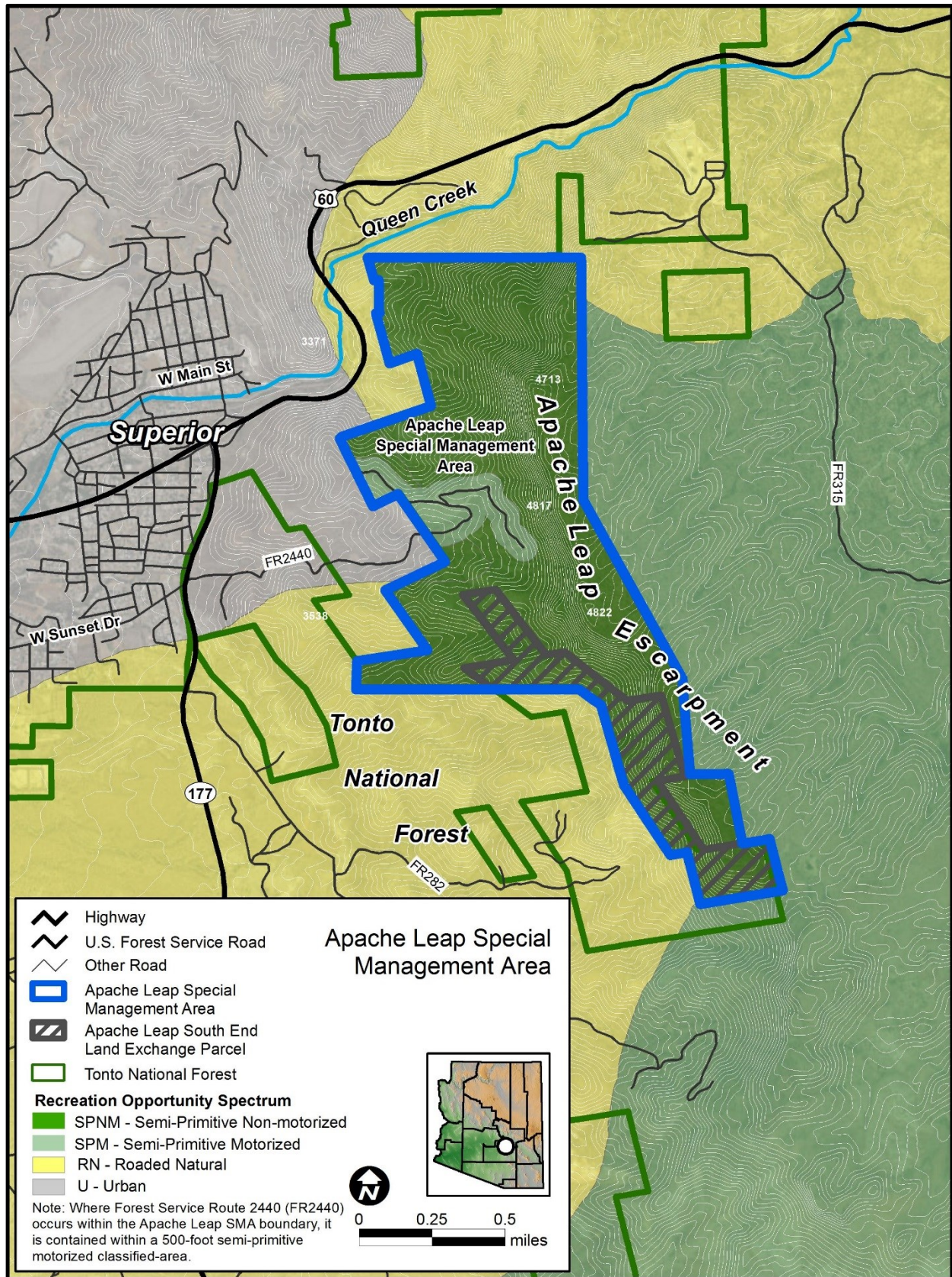
### **3.5.2 Objectives**

1. Within 3 years of plan approval, establish a closure order and complete associated National Environmental Policy Act documentation to exclude overnight camping under 36 CFR 261, "Prohibitions."

### **3.5.3 Guidelines**

1. Where agency or applicant objectives can be met outside of the designated area, special use permits should not be issued for the Apache Leap SMA.
2. New trails and associated structures should be designed and constructed to blend with the natural setting to the greatest extent possible without compromising their function or resource benefit.
3. The Apache Leap SMA should be managed for recreational settings consistent with the Recreation Opportunity Spectrum classification of semi-primitive motorized and semi-primitive non-motorized, as mapped in Figure 3.





**Figure 3.** Apache Leap SMA: Recreation Opportunity Spectrum designations.

### **3.5.4 Management Approaches**

As opportunities arise, consider ways to integrate and develop non-motorized trails within the Apache Leap SMA. Review trail proposals as they are received from non-governmental organizations, local governments, and citizen initiatives and work with all consulting parties, stakeholders, and the public to ensure that any future trail development is consistent with the purposes for which the Apache Leap SMA was designated. Consider existing and proposed non-motorized trails that are adjacent (e.g., the LOST [Legends of Superior Trails]) for connectivity to future proposed trails within the Apache Leap SMA.

Work with local non-governmental organizations, local governments, tribes, and recreation groups to establish sustainable rock climbing and bouldering expectations in the Apache Leap SMA. Develop an Apache Leap Special Management Area Climbing Management Plan in a manner consistent with the stated purposes of the Apache Leap SMA, as identified in the NDAA. Within the Climbing Management Plan, consider designating approaches to the escarpment from the west side, identifying existing and future climbing routes, and defining how climbing routes would be managed to minimize natural and cultural resource impacts.

## **3.6 MINERAL RESOURCES**

A substance is a “mineral” under the general U.S. mining laws (1) if it is scientifically recognized as such, (2) if it is classified commercially as such, or (3) if it derives from the earth and possesses economic value and utility aside from the agricultural purposes of the surface itself. As identified in the NDAA, all lands contained within the Apache Leap SMA are withdrawn from leasable and locatable mineral entry, and all rights held under the mining laws and any other law to commercially extract minerals under Apache Leap are surrendered, without compensation.

### **3.6.1 Desired Conditions**

1. Exploration and development of mineral resources does not occur within the Apache Leap SMA. Evidence of historic mining exists, but it does not dominate the landscape. Lands where past mineral development or exploration has occurred recover to more stable natural conditions over time. Areas requiring site-specific reclamation measures are rare or non-existent.
2. Abandoned mine lands do not endanger people or the environment.
3. Archaeological, geological, and biological features of caves and abandoned mines are not adversely affected by visitors.

### **3.6.2 Standards**

1. The Apache Leap SMA is withdrawn from all forms of location, entry, and patent under the mining laws; and disposition under the mineral leasing, mineral materials, and geothermal leasing laws pursuant to Section 3003 of the NDAA.
2. Filing of mineral claims, mineral exploration, mineral development, and removal of mineral material is not authorized within the Apache Leap SMA.

### **3.6.3 Guidelines**

1. Adits and other remnants of historic mining should be evaluated for public safety hazards.



2. Public safety hazards associated with adits and other remnants of historic mining operations should be mitigated within 5 years of detection.

### **3.6.4 Management Approaches**

Consider conducting a site-wide inventory of mining-related safety hazards within 3 years of adopting the Apache Leap SMA management plan. Mitigate known hazards within 5 years and any subsequent discovered hazards within 5 years of detection.

## **3.7 WILDLIFE**

Wildlife consists of all mammals, birds, reptiles, and amphibians living in a natural environment, including game and nongame species. The convergence of the Sonoran Desertscrub and Interior Chaparral biotic communities within the Apache Leap SMA provides diverse habitat for wildlife species along the edges of these biotic communities (Figure 4). Topographical, geological, and climatic conditions provide for variation in wildlife distribution and habitat use. The spatially different nature of the western and eastern portions of the Apache Leap SMA influences movement patterns of a wide range of wildlife. The Tonto National Forest is primarily responsible for managing habitat to maintain species diversity on national forest lands. The Forest Service has ultimate responsibility over National Forest System lands, but the Arizona Game and Fish Department is responsible for managing wildlife populations in Arizona, including forest lands.

### **3.7.1 Desired Conditions**

1. The Apache Leap SMA provides wildlife habitat (food, water, and shelter) over a relatively undisturbed landscape.
2. Current habitat characteristics enable continued use by wildlife for movement, cover (protective/breeding), and forage across the landscape. Diverse vegetation and functioning ecosystem processes ensure ongoing sustainability for a variety of wildlife species.

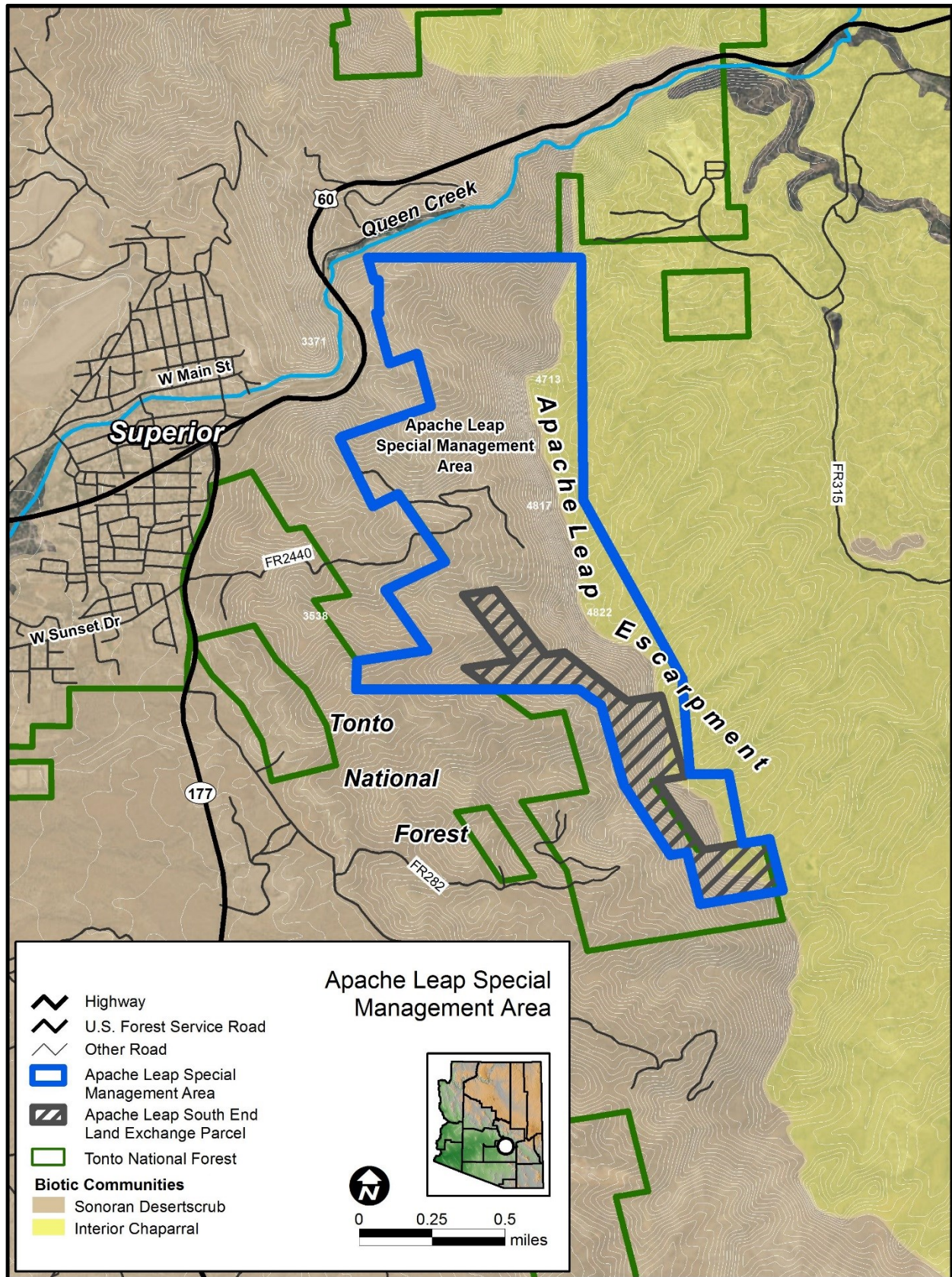
### **3.7.2 Guidelines**

1. Adits and other remnants of historic mining that do not pose a public safety hazard should be evaluated for continued wildlife use (bats, owls, javelina, etc.).

### **3.7.3 Management Approaches**

Manage to provide diverse habitats with ecological conditions that enable native species to persist long term. In conjunction with Resolution Copper, develop and implement a monitoring plan to assess impacts to wildlife from mining activities, including low-frequency effects from blasting, conveyor and machinery operation, and mining-induced micro-seismic responses.

Support wildlife by implementing management practices that reduce or eliminate negative impacts and take into special consideration species that may be imperiled. Work with the Arizona Game and Fish Department to minimize or avoid impacts to seasonally permitted hunting opportunities within the Apache Leap SMA.



**Figure 4.** Apache Leap SMA: biotic communities.

## 3.8 VEGETATION

Vegetation communities within the Apache Leap SMA are mapped based on the potential natural vegetation type that would occur in the presence of natural disturbance processes such as drought, wind, insects, and fire. The assortment of plant species expected to occur within the special management area varies by location and type of biotic community, as shown in Figure 4. The Sonoran Desertscrub type, found in lower elevations and west of the escarpment, supports desert shrubs, cacti, and leguminous trees. The Interior Chaparral type, located along the top of the Apache Leap escarpment and at the eastern edge of the special management area, supports relatively dense stands of woody, evergreen trees and shrubs. These vegetation types provide valuable habitat for both resident and migratory birds, mammals, and reptiles. Some non-native species in the Apache Leap SMA have invasive tendencies and may threaten native species, ecosystem function, and the quantity and quality of habitat (e.g., noxious weeds such as buffelgrass and non-native species such as red brome and Mediterranean grass).

### 3.8.1 Desired Conditions

1. Natural ecological processes (e.g., plant growth and die-off, nutrient cycling, soil formation) and disturbances (e.g., fire, insects, drought, and disease) are the primary forces affecting the composition, structure, and growth of vegetation.
2. Plant communities within the Apache Leap SMA are dominated by native species. Woody and herbaceous native vegetation is present and consistent with potential composition, density, and structural diversity.
3. Undesirable non-native species do not adversely affect ecosystem composition, structure, or function, including native species populations or the natural fire regime. Introduction of additional invasive species rarely occurs and is detected at an early stage.

### 3.8.2 Management Approaches

Develop an integrated management approach with the goal of preventing, controlling, or eradicating invasive species. This should involve prioritizing species and areas for treatment and identifying the most appropriate method(s) for control and eradication. Treatment efforts should focus on areas of high use (roads/trails) and on drainages, washes, and low-lying areas subject to flowing or standing water, due to increased dispersal means in these habitats.

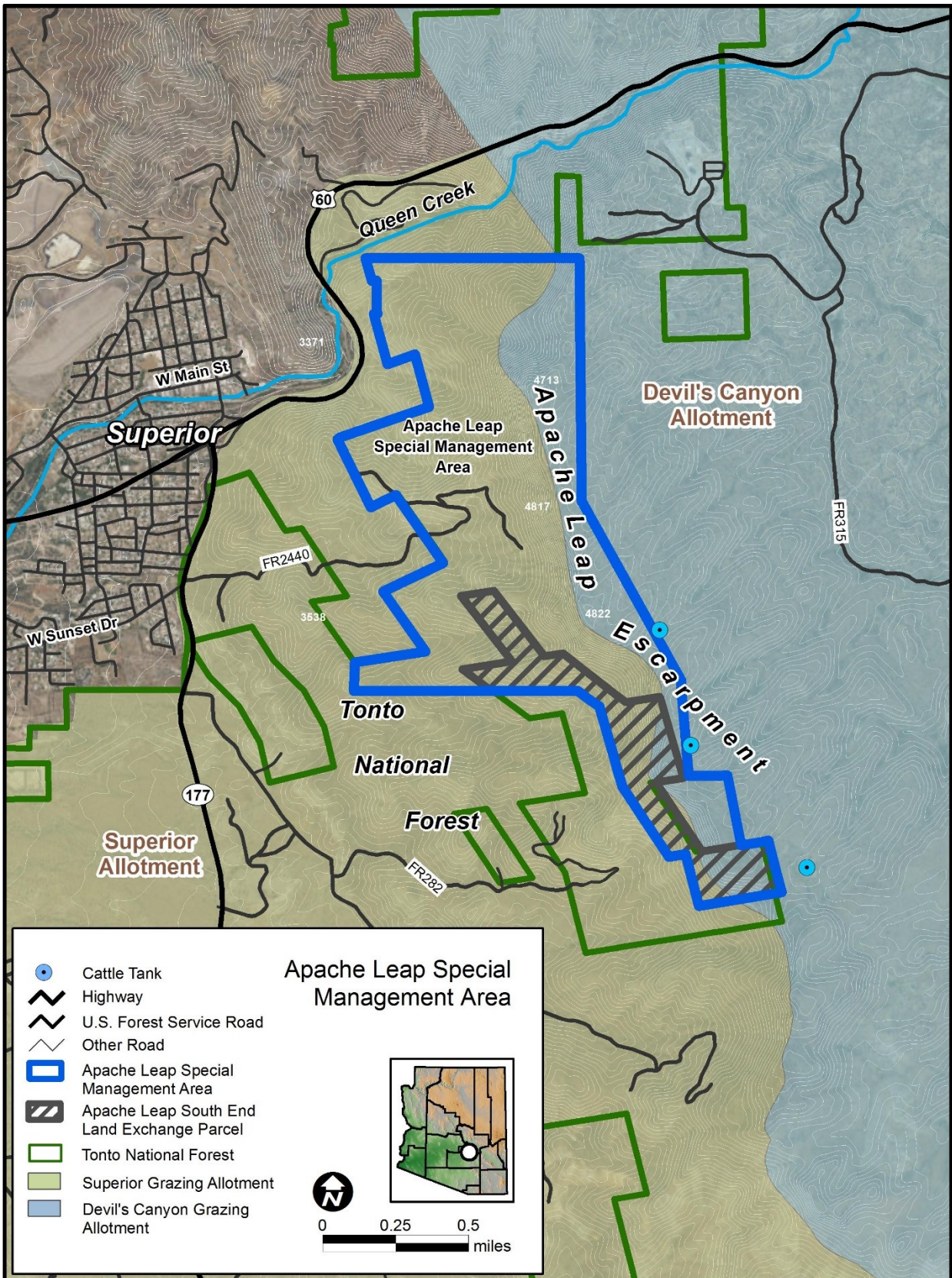
Inventory areas of invasive species' occurrence. Because of the often aggressive and tenacious nature of invasive species, apply timely initial treatments with follow-up for appropriate intervals to meet objectives.

Consider management tools that include, but are not limited to, timing restrictions, signage, visitor outreach, or physical barriers as a means to reduce impacts on the vegetative community.

## 3.9 LIVESTOCK GRAZING

Livestock grazing is one of a number of permitted uses on the Tonto National Forest. The Forest Service manages livestock grazing through grazing allotments. Allotments are designated for the use of a prescribed number of livestock under a plan of management. The Apache Leap SMA has historically contained two allotments: Superior and Devil's Canyon (Figure 5).





**Figure 5.** Apache Leap SMA: historic grazing allotments.

### **3.9.1 Desired Conditions**

1. Evidence of current livestock grazing is not found within the Apache Leap SMA. Impacts to vegetation and soils associated with historic use recover over time, sustaining the natural character of the landscape.

### **3.9.2 Objectives**

1. Efforts to exclude livestock from the Apache Leap SMA are completed within 2 years following approval of the management plan, in collaboration with grazing allotment permittees.

### **3.9.3 Standards**

1. Livestock grazing shall be excluded from the portions of the Superior and Devil's Canyon Allotments located within the Apache Leap SMA boundary. New livestock grazing permits are not authorized within the Apache Leap SMA.
2. When necessary, fences to exclude livestock shall be located and constructed with materials that minimize their visibility to the extent practicable and avoid any significant cultural or natural resources.

### **3.9.4 Guidelines**

1. As opportunities arise, existing fencing and other grazing-related improvements within the Apache Leap SMA should be decommissioned.

### **3.9.5 Management Approaches**

Work with permittees to identify any livestock issues within the Apache Leap SMA, including adjustments to existing grazing allotment plans.

## **3.10 WILDLAND FIRE**

Wildland fire is any non-structure fire that occurs in vegetation or natural fuels on the landscape (National Wildfire Coordinating Group, 2017). Wildland fire includes prescribed fire and wildfire. The wildland-urban interface consists of areas where structures and other human development meet or intermingle with undeveloped wildland. These areas are often the focus for mitigation actions to prevent damage or loss from wildfire. The Apache Leap SMA is considered a wildland for purposes of identifying and implementing fire management strategies. The policies of the National Wildfire Coordinating Group provide broad interagency direction for managing wildland fire on public lands, including in the Apache Leap SMA. Every wildland fire start is evaluated to determine an appropriate response. Wildland fire responses often involve resources from cooperating federal, state, and municipal fire protection units.

### **3.10.1 Desired Conditions**

1. Human life, property, and natural and cultural resources are protected from damaging wildfires within and adjacent to the Apache Leap SMA.

### 3.10.2 Guidelines

1. Determinations of responses to wildfire should be based on risk assessments that include preseason analysis and review as well as on-scene and immediate risk assessments by those initially responding to the wildfire incident. Such assessments should be on an appropriate scale and timeline relative to the time of the assessment and the time available during the incident. Such risk assessments should include, but not be limited to, the following:
  - Evaluation of the threats to firefighter and public safety.
  - Evaluation of the threats to both natural and human-made resource values.
  - Evaluation of seasonal and/or climatic conditions.
  - Evaluations of cost-effective strategies that contribute to the success of the appropriate wildfire objective(s).
2. Firelines, helispots, and fire camps should be located outside of the Apache Leap SMA when feasible to avoid disturbance to critical species and impacts to cultural resources.
3. Within the Sonoran Desertscrub vegetation type, fire should not be used as a tool for management, and all fires should be suppressed.
4. Within the Interior Chaparral vegetation type, strategies to manage wildland fire (wildfire and prescribed fire) that restore and maintain the natural fire regime should be encouraged.

### 3.10.3 Management Approaches

Wildfires may be concurrently managed for one or more objectives (e.g., protection, resource enhancement) that can change as the fire spreads across the landscape. Strategies chosen for wildfires include interdisciplinary input to assess site-specific values to be protected. These strategies are used to develop incident objectives and courses of action to enhance or protect those values. Managers use a decision support process to guide and document wildfire management decisions that provide for firefighter and public safety, minimize costs and resource damage, and are consistent with the values to be protected.

## 3.11 SUITABILITY OF LANDS

In the context of managing National Forest System lands, suitability of lands refers to the appropriateness of applying certain resource management practices to a particular area of land, in consideration of the relevant social, economic, and ecological factors. Suitability determinations are one of the decisions made as part of creating a management plan.

Suitability is determined based on compatibility of a given use with the desired conditions applicable to those lands. Lands within the plan area are not identified as suitable for a certain use if the use is prohibited by law, regulation, or policy; if the use would result in substantial and permanent impairment of the productivity of the land or resources; or if the use is incompatible with the desired conditions for the relevant portion of the area. The identification of an area as suitable for a particular use does not mean that the use will occur over the entire area.

The suitability of lands for this plan is summarized in Table 1 below.

**Table 1. Land Suitability Determinations**

Land Use Categories		
<b>Livestock Grazing</b> Livestock grazing is not a suitable use of the Apache Leap SMA because it is not compatible with many desired conditions put forth in the management plan. These desired conditions direct managing the special management area to enhance natural ecological processes on an undisturbed landscape where disturbance by human activity to the natural landscape is limited. See the "Desired Conditions" section for the following resources: "Natural Character and Scenery" (Section 3.1.1), "Tribal" (Section 3.2.1), "Cultural/Historic" (Section 3.3.1), "Wildlife" (Section 3.7.1), and "Vegetation" (Section 3.8.1).	<b>Timber Production</b> The lands within the Apache Leap SMA are not suitable for timber production because the following factor from 36 CFR 219.11a applies: <i>the land is not forest land</i> . The vegetation composition is a mix of the Sonoran Desertscrub and Interior Chaparral communities, which do not support commercial tree species.	<b>Mining</b> The Apache Leap SMA was withdrawn from future mining activity, pursuant to PL 113–291, NDAA Section 3003, subsection (f); therefore, lands within the management area are not suitable for mining by law. See Section 3.11.1, "Suitable Uses Designated by Legislation," for more information.
<b>Not Suitable*</b>	<b>Not Suitable*</b>	<b>Not Suitable*</b>

Notes:

**Suitable** – The area or site is appropriate for the activity, whether the opportunity is available or not.

**\* Not Suitable** – The area or site is not appropriate for the activity or the activity is not allowed by law or regulation within the area.

### 3.11.1 Suitable Uses Designated by Legislation

In the legislation creating the Apache Leap SMA (Section 3003 of the Carl Levin and Howard P. "Buck" McKeon National Defense Authorization Act for Fiscal Year 2015 (NDAA) (Public Law [PL] 113–291) (113th Congress, 2014), several uses are allowed by Congress. The Apache Leap SMA was withdrawn from future mining activity, pursuant to PL 113–291, NDAA Section 3003, subsection (f), and therefore the area is currently not suitable for mining by law. However, the NDAA authorizes uses related to public safety and monitoring concerns associated with the proposed adjacent mine, which means they are suitable by law. More specifically, in NDAA 3003(g)(4)(B), Congress authorized the installation of seismic monitoring equipment, necessary measures for public safety (e.g., fences, signs, etc.), and the operation of an underground tunnel adjacent to the northern boundary of the Apache Leap SMA (approximately 3,400 feet below grade). For the complete language of the NDAA, please refer to Appendix A.

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## Chapter 4

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# APPENDIX A

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## NDA Section 3003

### Sec. 3003 Southeast Arizona Land Exchange and Conservation.

- (a) Purpose. – The purpose of this section is to authorize, direct, facilitate, and expedite the exchange of land between Resolution Copper and the United States.
- (b) Definitions. – In this section:
- (1) APACHE LEAP. – The term “Apache Leap” means the approximately 807 acres of land depicted on the map entitled “Southeast Arizona Land Exchange and Conservation Act of 2011-Apache Leap” and dated March 2011
  - (2) FEDERAL LAND. – The term “Federal land” means the approximately 2,422 acres of land located in Pinal County, Arizona, depicted on the map entitled “Southeast Arizona Land Exchange and Conservation Act of 2011-Federal Parcel-Oak Flat” and dated March 2011.
  - (3) INDIAN TRIBE. – The term “Indian tribe” has the meaning given the term in section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450b).
  - (4) NON-FEDERAL LAND. – The term “non-Federal land” means the parcels of land owned by Resolution Copper that are described in subsection (d)(1) and, if necessary to equalize the land exchange under subsection (c), subsection (c)(5)(B)(i)(I).
  - (5) OAK FLAT CAMPGROUND. – The term “Oak Flat Campground” means the approximately 50 acres of land comprising approximately 16 developed campsites depicted on the map entitled “Southeast Arizona Land Exchange and Conservation Act of 2011-Oak Flat Campground” and dated March 2011.
  - (6) OAK FLAT WITHDRAWAL AREA. – The term “Oak Flat Withdrawal Area” means the approximately 760 acres of land depicted on the map entitled “Southeast Arizona Land Exchange and Conservation Act of 2011-Oak Flat Withdrawal Area” and dated March 2011.
  - (7) RESOLUTION COPPER. – The term “Resolution Copper” means Resolution Copper Mining, LLC, a Delaware limited liability company, including any successor, assign, affiliate, member, or joint venturer of Resolution Copper Mining, LLC.
  - (8) SECRETARY. – The term “Secretary” means Secretary of Agriculture.
  - (9) STATE. – The term “State” means the State of Arizona.
  - (10) TOWN. – The term “Town” means the incorporated town of Superior, Arizona.
  - (11) RESOLUTION MINE PLAN OF OPERATIONS. – The term “Resolution mine plan of operations” means the mine plan of operations submitted to the Secretary by Resolution Copper in November, 2013, including any amendments or supplements.
- (c) LAND EXCHANGE
- (1) IN GENERAL. – Subject to the provisions of this section, if Resolution Copper offers to convey to the United States all right, title, and interest of Resolution Copper in and to the non-Federal land, the Secretary is authorized and directed to convey to Resolution Copper, all right, title, and interest of the United States in and to the Federal land.
  - (2) CONDITIONS ON ACCEPTANCE. – Title to any non-Federal land conveyed by Resolution Copper to the United States under this section shall be in a form that-
    - A. is acceptable to the Secretary, for land to be administered by the Forest Service and the Secretary of the Interior, for land to be administered by the Bureau of Land Management; and

- B. conforms to the title approval standards of the Attorney General of the United States applicable to land acquisitions by the Federal Government.

(3) CONSULTATION WITH INDIAN TRIBES. –

- A. IN GENERAL. – The Secretary shall engage government-to-government consultation with affected Indian Tribes concerning issues of concern to the affected Indian tribes related to the land exchange.
- B. IMPLEMENTATION. – Following the consultations under paragraph (A), the Secretary shall consult with Resolution Copper and seek to find mutually acceptable measures to –
  - i. address the concerns of the affect Indian tribes; and
  - ii. minimize adverse effects on the affected Indian tribes resulting from mining and related activities on the Federal land conveyed to Resolution Copper under this section.

(4) APPRAISALS. –

- A. IN GENERAL. – As soon as practicable after the date of enactment of this Act, the Secretary and Resolution Copper shall select an appraiser to conduct appraisals of the Federal land and non-Federal land in compliance with the requirements of section 254.9 of title 36, Code of Federal Regulations.
- B. REQUIREMENTS. –
  - i. IN GENERAL. – Except as provided in clause (ii), an appraisal prepared under this paragraph shall be conducted in accordance with national recognized appraisal standards, including –
    - I. the Uniform Appraisals Standards for Federal Land Acquisitions; and
    - II. the Uniform Standards of Professional Appraisal Practice.
  - ii. FINAL APPRAISED VALUE. – After the final appraised values of the Federal land and non-Federal land are determined and approved by the Secretary, Secretary shall not be required to reappraise or update the final appraised value –
    - I. for a period of 3 years beginning on the date of the approval by the Secretary of the final appraised value; or
    - II. at all, in accordance with section 254.14 of title 36, Code of Federal Regulations (or a successor regulation), after an exchange agreement is entered into by Resolution Copper and the Secretary.
  - iii. IMPROVEMENTS. – Any improvements made by Resolution Copper prior to entering an exchange agreement shall not be included in the appraised value of the Federal land.
  - iv. PUBLIC REVIEW. – Before consummating the land exchange under this section, the Secretary shall make the appraisals of the land to be exchange (or a summary thereof) available for public review.
- C. APPRAISAL INFORMATION. – The appraisal prepared under this paragraph shall include a detailed income capitalization approach analysis of the market value of the Federal land which may be utilized, as appropriate, to determine the value of the Federal land, and shall be the basis for calculation of any payment under subsection (e).

(5) EQUAL VALUE LAND EXCHANGE. –

- A. IN GENERAL. – The value of the Federal land and non-Federal land to be exchanged under this section shall be equal or shall be equalized in accordance with this paragraph.
- B. SURPLUS OF FEDERAL LAND VALUE. –
  - i. IN GENERAL. – If the final appraised value of the Federal land exceeds the value of the non-Federal land, Resolution Copper shall –
    - I. convey additional non-Federal land in the State to the Secretary or the Secretary of the Interior, consistent with the requirements of this section and subject to the approval of the applicable Secretary;
    - II. make a cash payment to the United States; or
    - III. use a combination of the methods described in subclauses (I) and (II), as agreed to by Resolution Copper, the Secretary, and the Secretary of the Interior.
  - ii. AMOUNT OF PAYMENT. – The Secretary may accept a payment in excess of 25 percent of the total value of the land or interests conveyed, notwithstanding section 206(b) of the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1716(b)).
  - iii. DISPOSITION AND USE OF PROCEEDS. – Any amounts received by the United States under this subparagraph shall be deposited in the fund established under Public Law 90-171 (commonly known as the “Sisk Act” 16 U.S.C. 484a) and shall be made available to the Secretary for the acquisition of land or interests in land in Region 3 of the Forest Service.
- C. SURPLUS OF NON-FEDERAL LAND. – If the final appraised value of the non-Federal land exceeds the value of the Federal land –
  - i. the United States shall not make a payment to Resolution Copper to equalize the value; and
  - ii. except as provided in subsection (h), the surplus value of the non-Federal land shall be considered to be a donation by Resolution Copper to the United States.

(6) OAK FLAT WITHDRAWAL AREA. –

- A. PERMITS. – Subject to the provisions of this paragraph and notwithstanding any withdrawal of the Oak Flat Withdrawal Area from the mining, mineral leasing, or public land laws, the Secretary, upon enactment of this Act, shall issue to Resolution Copper –
  - i. if so requested by Resolution Copper, within 30 days of such request, a special use permit to carry out mineral exploration activities under the Oak Flat Withdrawal Area from existing drill pads located outside the Area, if the activities would not disturb the surface of the Area; and
  - ii. if so requested by Resolution Copper, within 90 days of such request, a special use permit to carry out mineral exploration activities within the Oak Flat Withdrawal Area (but not within the Oak Flat Campground), if the activities are conducted from a single exploratory drill pad which is located to reasonably minimize visual and noise impacts on the Campground.

- B. CONDITIONS. – Any activities undertaken in accordance with this paragraph shall be subject to such reasonable terms and conditions as the Secretary may require.
  - C. TERMINATION. – The authorization for Resolution Copper to undertake mineral exploration activities under this paragraph shall remain in effect until the Oak Flat Withdrawal Area land is conveyed to Resolution Copper in accordance with this section.
- (7) COSTS. – As a condition of the land exchange under this section, Resolution Copper shall agree to pay, without compensation, all costs that are –
- A. associated with the land exchange and any environmental review document under paragraph (9); and
  - B. agreed to by the Secretary.
- (8) USE OF FEDERAL LAND. – The Federal land to be conveyed to Resolution Copper under this section shall be available to Resolution Copper for mining and related activities subject to and in accordance with applicable Federal, State, and local laws pertaining to mining and related activities on land in private ownership.
- (9) ENVIRONMENTAL COMPLIANCE. –
- A. IN GENERAL. – Except as otherwise provided in this section, the Secretary shall carry out the land exchange in accordance with the requirements of the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.).
  - B. ENVIRONMENTAL ANALYSIS. – Prior to conveying Federal land under this section, the Secretary shall prepare a single environmental impact statement under the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.), which shall be used as the basis for all decisions under Federal law related to the proposed mine and the Resolution mine plan of operations and any related major Federal actions significantly affecting the quality of the human environment, including the granting of any permits, rights-of-way, or approvals for the construction of associated power, water, transportation, processing, tailings, waste disposal, or other ancillary facilities.
  - C. IMPACTS ON CULTURAL AND ARCHAEOLOGICAL RESOURCES. – The environmental impact statement prepared under subparagraph (b) shall –
    - i. assess the effects of the mining and related activities on the Federal land conveyed to Resolution Copper under this section on the cultural and archeological resources that may be located on the Federal land; and
    - ii. identify measures that may be taken, to the extent practicable, to minimize potential adverse impacts on those resources, if any.
  - D. EFFECT. – Nothing in this paragraph precludes the Secretary from using separate environmental review documents prepared in accordance with the National Environmental Policy Act of 1969 (42 U.S.C. 4321 et seq.) or other applicable laws for exploration or other activities not involving –
    - i. the land exchange; or
    - ii. the extraction of minerals in commercial quantities by Resolution Copper on or under the Federal land.
- (10) TITLE TRANSFER. – Not later than 60 days after the date of publication of the final environmental impact statement, the Secretary shall convey all right, title, and interest of the United States in and to the Federal land to Resolution Copper.
- (d) CONVEYANCE AND MANAGEMENT OF NON-FEDERAL LAND. –
- (1) CONVEYANCE. – On receipt of title to the Federal land, Resolution Copper shall simultaneously convey –

- A. to the Secretary, all right, title, and interest that the Secretary determines to be acceptable in and to –
  - i. the approximately 147 acres of land located in Gila County, Arizona, depicted on the map entitled “Southeast Arizona Land Exchange and Conservation Act of 2011-Non-Federal Parcel-Turkey Creek” and dated March 2011;
  - ii. the approximately 148 acres of land located in Yavapai County, Arizona, depicted on the map entitled “Southeast Arizona Land Exchange and Conservation Act of 2011-Non-Federal Parcel-Tangle Creek” and dated March 2011;
  - iii. the approximately 149 acres of land located in Maricopa County, Arizona, depicted on the map entitled “Southeast Arizona Land Exchange and Conservation Act of 2011-Non-Federal Parcel-Cave Creek” and dated March 2011;
  - iv. the approximately 640 acres of land located in Coconino County, Arizona, depicted on the map entitled “Southeast Arizona Land Exchange and Conservation Act of 2011-Non-Federal Parcel-East Clear Creek” and dated March 2011; and
  - v. the approximately 110 acres of land located in Pinal County, Arizona, depicted on the map entitled “Southeast Arizona Land Exchange and Conservation Act of 2011-Non-Federal Parcel-Apache Leap South End” and dated March 2011; and
- B. to the Secretary of Interior, all rights, title, and interest that the Secretary of Interior determines to be acceptable in and to –
  - i. the approximately 3,050 acres of land located in Pinal County, Arizona, identified as “Lands to DOI” as generally depicted on the map entitled “Southeast Arizona Land Exchange and Conservation Act of 2011- Non-Federal Parcel-Lower San Pedro River” and dated July 6, 2011;
  - ii. the approximately 160 acres of land located in Gila and Pinal Counties, Arizona, identified as “Lands to DOI” as generally depicted on the map entitled “Southeast Arizona Land Exchange and Conservation Act of 2011- Non-Federal Parcel-Dripping Springs” and dated July 6, 2011; and
  - iii. the approximately 940 acres of land located in Santa Cruz County Arizona identified as “Lands to DOI” as generally ‘depicted’ on the map entitled “Southeast Arizona Land Exchange and Conservation Act of 2011-Non-Federal Parcel-Appleton Ranch” and dated July 6, 2011.

(2) MANAGEMENT OF ACQUIRED LAND. –

A. LAND ACQUIRED BY THE SECRETARY. –

- i. IN GENERAL. – Land acquired by the Secretary under this section shall –
  - (I) become part of the national forest in which the land is located; and
  - (II) be administered in accordance with laws applicable to the National Forest System.
- ii. BOUNDARY REVISION. – On the acquisition of land by the Secretary under this section, the boundaries of the national forest shall be modified to reflect the inclusion of the acquired land.



- iii. LAND AND WATER CONSERVATION FUND. – For purposes of section 7 of the Land and Water Conservation Fund Act of 1965 (16 U.S.C. 4601-9), the boundaries of a national forest in which land acquired by the Secretary is located shall be deemed to be the boundaries of that forest as in existence on January 1 1965.
  - B. LAND ACQUIRED BY THE SECRETARY OF INTERIOR. –
    - i. SAN PEDRO NATIONAL CONSERVATION AREA. –
      - (I) IN GENERAL. – The land acquired by the Secretary of the Interior under paragraph (1)(B)(i) shall be added to, and administered as part of, the San Pedro National Conservation Area in accordance with the laws (including regulations) applicable to the Conservation Area.
      - (II) MANAGEMENT PLAN. – Not later than 2 years after the date on which the land is acquired, the Secretary of the Interior shall update the management plan for the San Pedro National Conservation Area to reflect the management requirements of the acquired land.
    - ii. DRIPPING SPRINGS. – Land acquired by the Secretary of the Interior under paragraph (1)(B)(ii) shall be managed in accordance with the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.) and applicable land use plans.
    - iii. LAS CIENEGAS NATIONAL CONSERVATION AREA. – Land acquired by the Secretary of the Interior under paragraph (1)(B)(iii) shall be added to, and administered as part of, the Las Cienegas National Conservation Area in accordance with the laws (including regulations) applicable to the Conservation Area.
- (e) VALUE ADJUSTMENT PAYMENT TO UNITED STATES. –
  - (1) ANNUAL PRODUCTION REPORTING. –
    - A. REPORT REQUIRED. – As a condition of the land exchange under this section, Resolution Copper shall submit to the Secretary of the Interior an annual report indicating the quantity of locatable minerals produced during the preceding calendar year in commercial quantities from the Federal land conveyed to Resolution Copper under subsection (c). The first report is required to be submitted not later than February 15 of the first calendar year beginning after the date of commencement of production of valuable locatable minerals in commercial quantities from such Federal land. The reports shall be submitted February 15 of each calendar year thereafter.
    - B. SHARING REPORTS WITH STATE. – The Secretary shall make each report received under subparagraph (A) available to the State.
    - C. REPORT CONTENTS. – The reports under subparagraph (A) shall comply with any recordkeeping and reporting requirements prescribed by the Secretary or required by applicable Federal laws in effect at the time of production.
  - (2) PAYMENT OF PRODUCTION. – If the cumulative production of valuable locatable minerals produced in commercial quantities from the Federal land conveyed to Resolution Copper under subsection (c) exceeds the quantity of production of locatable minerals from the Federal land used in the income capitalization approach analysis prepared under subsection (c)(4)(C), Resolution Copper shall pay to the United States, by not later than March 15 of each applicable calendar

- year, a value adjustment payment for the quantity of excess production at the same rate assumed for the income capitalization approach analysis prepared under subsection (c)(4)(C).
- (3) STATE LAW UNAFFECTED. – Nothing in this subsection modifies, expands, diminishes, amends, or otherwise affects any State law relating to the imposition, application, timing, or collection of a State excise or severance tax.
- (4) USE OF FUNDS. –
- A. SEPARATE FUNDS. – All funds paid to the United States under this subsection shall be deposited in a special fund established in the 'treasury and shall be available, in such amounts as are provided in advance in appropriation Acts, to the Secretary and the Secretary of the Interior only for the purposes authorized by subparagraph (B).
  - B. AUTHORIZED USES. – Amounts in the special fund established pursuant to subparagraph (A) shall be used for maintenance, repair, and rehabilitation projects for Forest Service and Bureau of Land Management assets.
- (f) WITHDRAWAL. – Subject to valid existing rights, Apache Leap and any land acquired by the United States under this section are withdrawn from all forms of –
- (1) entry, appropriation, or disposal under the public land laws;
  - (2) location, entry, and patent under the mining laws;
  - (3) disposition under the mineral leasing, mineral materials, and geothermal leasing laws.
- (g) APACHE LEAP SPECIAL MANAGEMENT AREA. –
- (1) DESIGNATION. – To further the purpose of this section, the Secretary shall establish a special management area consisting of Apache Leap, which shall be known as the “Apache Leap Special Management Area” (referred to in this subsection as the “special management area”).
  - (2) PURPOSE. – The purposes of the special management area are –
    - A. to preserve the natural character of Apache Leap;
    - B. to allow for traditional uses of the area by Native American people; and
    - C. to protect and conserve the cultural and archeological resources of the area.
  - (3) SURRENDER OF MINING AND EXTRACTION RIGHTS. – As a condition of the land exchange under subsection (c), Resolution Copper shall surrender to the United States, without compensation, all rights held under the mining laws and any other law to commercially extract minerals under Apache Leap.
  - (4) MANAGEMENT. –
    - A. IN GENERAL. – The Secretary shall manage the special management area in a manner that furthers the purposes described in paragraph (2).
    - B. AUTHORIZED ACTIVITIES. – The activities that are authorized in the special management area are –
      - i. installation of seismic monitoring equipment on the surface and subsurface to protect the resources located within the special management area;
      - ii. installation of fences, signs, or other measures necessary to protect the health and safety of the public; and
      - iii. operation of an underground tunnel and associated workings, as described in the Resolution mine plan of operations, subject to any terms and conditions the Secretary may reasonably require.
- (5) PLAN. –
- A. IN GENERAL. – Not later than 3 years after the date of enactment of this Act, the Secretary, in consultation with affected Indian tribes, the Town, Resolution Copper, and other interested members of the public, shall prepare a management plan for the Apache Leap Special Management Area.

- B. CONSIDERATIONS. – In preparing the plan under subparagraph (A), the Secretary shall consider whether additional measures are necessary to –
  - i. protect the cultural, archaeological, or historical resources of Apache Leap, including permanent or seasonal closures of all or a portion of Apache Leap; and
  - ii. provide access for recreation.
- (6) MINING ACTIVITIES. – The provisions of this subsection shall not impose additional restrictions on mining activities carried out by Resolution Copper adjacent to, or outside of, the Apache Leap area beyond those otherwise applicable to mining activities on privately owned land under Federal, State, and local laws, rules and regulations.
- (h) CONVEYANCES TO TOWN OF SUPERIOR, ARIZONA. –
  - (1) CONVEYANCES. – On request from the Town and subject to the provisions of this subsection, the Secretary shall convey to the Town the following:
    - A. Approximately 30 acres of land as depicted on the map entitled “Southeast Arizona Land Exchange and Conservation Act of 2011-Federal Parcel-Fairview Cemetery” and dated March 2011.
    - B. The reversionary interest and any reserved mineral interest of the United States in the approximately 265 acres of land located in Pinal County, Arizona, as depicted on the map entitled “Southeast Arizona Land Exchange and Conservation Act of 2011-Federal Reversionary Interest-Superior Airport” and dated March 2011.
    - C. The approximately 250 acres of land located in Pinal County, Arizona, as depicted on the map entitled “Southeast Arizona Land Exchange and Conservation Act of 2011-Federal Parcel-Superior Airport Contiguous Parcels” and dated March 2011.
  - (2) PAYMENT. – The Town shall pay to the Secretary the market value for each parcel of land or interest in land acquired under this subsection, as determined by appraisals conducted in accordance with subsection (c)(4).
  - (3) SISK ACT. – Any payment received by the Secretary from the Town under this subsection shall be deposited in the fund established under Public Law 90-171 (commonly known as the “Sisk Act”) (16 U.S.C. 484a) and shall be made available to the Secretary for the acquisition of land or interests in land in Region 3 of the Forest Service.
  - (4) TERMS AND CONDITIONS. – The conveyances under this subsection shall be subject to such terms and conditions as the Secretary may require.
- (i) MISCELLANEOUS PROVISIONS. –
  - (1) REVOCATION OF ORDERS; WITHDRAWAL. –
    - A. REVOCATION OF ORDERS. – Any public land order that withdraws the Federal land from appropriation or disposal under a public land law shall be revoked to the extent necessary to permit disposal of the land.
    - B. WITHDRAWAL. – On the date of enactment of this Act, if the Federal land or any Federal interest in the non-Federal land to be exchanged under subsection (c) is not withdrawn or segregated from entry and appropriation under a public land law (including mining and mineral leasing laws and the Geothermal Steam Act of 1970 (30 U.S.C. 1001 et seq.)), the land or interest shall be withdrawn, without further action required by the Secretary concerned, from entry and appropriation. The withdrawal shall be terminated –
      - i. on the date of consummation of the land exchange; or
      - ii. if Resolution Copper notifies the Secretary in writing that it has elected to withdraw from the land exchange pursuant to section 206(d) of the Federal Land Policy and Management Act of 1976, as amended (43 U.S.C. 1716(d)).

- C. RIGHTS OF RESOLUTION COPPER. – Nothing in this section shall interfere with, limit, or otherwise impair, the unpatented mining claims or rights currently held by Resolution Copper on the Federal land, nor in any way change, diminish, qualify, or otherwise impact Resolution Copper’s right and ability to conduct activities on the Federal land under such unpatented mining claims and the general mining laws of the United States, including the permitting or authorization of such activities.
- (2) MAPS, ESTIMATES, AND DESCRIPTIONS. –
- A. MINOR ERRORS. – The Secretary concerned and Resolution Copper may correct, by mutual agreement, any minor errors in any map, acreage estimate, or description of any land conveyed or exchanged under this section.
  - B. CONFLICT. – If there is a conflict between a map, an acreage estimate, or a description of land in this section, the map shall control unless the Secretary concerned and Resolution Copper mutually agree otherwise.
  - C. AVAILABILITY. – On the date of enactment of this Act, the Secretary shall file and make available for public inspection in the Office of the Supervisor, Tonto National Forest, each map referred to in this section.
- (3) PUBLIC ACCESS IN AND AROUND OAK FLAT CAMPGROUND. – As a condition of conveyance of the Federal land, Resolution Copper shall agree to provide access to the surface of the Oak Flat Campground to members of the public, including Indian tribes, to the maximum extent practicable, consistent with health and safety requirements, until such time as the operation of the mine precludes continued public access for safety reasons, as determined by Resolution Copper.

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## **APPENDIX B**

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### **Agencies and Persons Consulted**

The Forest Service has engaged with Resolution Copper, the Town of Superior, and interested members of the public through the following efforts:

- Public input period from October 6, 2016, through January 31, 2017;
- Public workshop held in Superior on October 20, 2016;
- Development of the Apache Leap Special SMA website ([www.ApacheLeapSMA.us](http://www.ApacheLeapSMA.us)), which went live on October 7, 2016;
- A presentation to the Community Working Group on November 9, 2016;
- A presentation to the Recreation User Group, a subcommittee of the Community Working Group, on December 7, 2016;
- A presentation to the Superior Town Council on January 12, 2017;
- Public meeting on proposed management plan and scoping for EA on April 4, 2017; and
- A presentation to the Community Working Group on May 10, 2017.

Consultation with Indian tribes was initiated regarding the Apache Leap SMA management plan via letter on September 26, 2016, with the following tribes:

- San Carlos Apache Tribe
- Tonto Apache Tribe
- Mescalero Apache Tribe
- White Mountain Apache Tribe
- Yavapai-Apache Nation
- Fort McDowell Yavapai Nation
- Yavapai Prescott Indian Tribe
- Gila River Indian Community
- Salt River Pima-Maricopa Indian Community
- Hopi Tribe
- Pueblo of Zuni

Between September 2016 and July 2017, the Forest Service held tribal consultation meetings to discuss the Apache Leap SMA management plan on the following dates:

- November 29, 2016, with the Fort McDowell Yavapai Nation and Yavapai Prescott Indian Tribe
- December 9, 2016, with the Mescalero Apache Tribe, San Carlos Apache Tribe, and Tonto Apache Tribe
- December 13, 2016, with the Pueblo of Zuni
- December 14, 2016, with the San Carlos Apache Tribe

- December 20, 2016, with the Fort McDowell Yavapai Nation and Yavapai-Apache Nation
- December 30, 2016, with the Salt River Pima-Maricopa Indian Community and Gila River Indian Community
- January 10, 2017, with the Salt River Pima-Maricopa Indian Community and Gila River Indian Community
- February 16, 2017, with the Yavapai-Apache Nation
- March 8, 2017, with the Mescalero Apache Nation
- March 29, 2017, with the Hopi Tribe
- April 27, 2017, with the Mescalero Apache Tribe, San Carlos Apache Tribe, Tonto Apache Tribe, White Mountain Apache Tribe, Yavapai-Apache Nation, Ak-Chin Indian Community, Gila River Indian Community, and Salt River Pima-Maricopa Indian Community
- May 16, 2017, with the Mescalero Apache and Ak-Chin Indian Community
- July 5, 2017, with the Yavapai-Apache Nation

The Forest Service and the Arizona State Historic Preservation Office coordinated the determinations of the Heritage Specialist Report, as required by Section 106 of the National Historic Preservation Act, in June 2017.

The Forest Service and the U.S. Fish and Wildlife Service coordinated the findings of the biological evaluation, as required by Section 7 of the Endangered Species Act, in June 2017.



## APPENDIX C

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### Town of Superior Vision Statement

Referenced on page 8.



## Town of Superior

199 N Lobb Avenue, PO Box 218, Superior AZ 85173  
520) 689 – 5752, Fax (520) 689 – 5822

### Vision Statement

The Town of Superior's vision is to work with the Tonto National Forest and incorporate the Town's recreational objectives along with future considerations in the Forest Service's management plan for the area. The Apache Leap Special Management Area is an important component in the Town's plans to develop an ecotourism program and to stimulate economic diversity in the area, as well as a site important to the cultural identity of the residents of the Town of Superior. Protecting this resource is important for the future of our community, and the town values the following items for inclusion in the plan:

1. Preservation of iconic footprint of the escarpment, to include measures for monitoring neighborhood mining activities to ensure that they do not adversely affect Apache Leap.
2. Preserves the free access by the citizens for current and future uses.
  - a. Climbing
  - b. Hunting
  - c. Hiking
  - d. Ziplines
  - e. Grazing
3. Existing motorized routes should be maintained. The plan should include motorized access to a trailhead for hiking, mountain biking and horseback riding.
4. Want to maintain opportunities for development of future recreation trails, and suggests the plan consider allowing new non-motorized trails if they can be developed in an ecologically reasonable manner.
5. Fire protection access: the fuel mixture and slopes of this area make it a high-risk fire area. The access plan needs to be designed so that firefighters can get to fires safely.
6. The Town prefers allowing reasonable use without closures. Closures are a significant management challenge unless there is onsite management. If closures are deemed necessary, they should be implemented in the most economical way possible and influence the lowest number of users possible.
7. The Town of Superior would like to be a part of current and future management decisions for Apache Leap, and to be consulted and included in discussions of development and implementation of the plan.

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## APPENDIX D

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### Glossary

#### A

**Adit**—A horizontal passage leading into a mine or tunnel for the purposes of access, ventilation, or drainage.

**Affected environment**—The resource values potentially affected by the proposed action and alternatives, analyzed in a National Environmental Policy Act document.

**Access road**—A motorized route giving access to a place or to another motorized route.

**Archaeological resources**—See Cultural resources.

#### C

**Closure (management area)**—An order that may be made by the Authorized Officer restricting public access and use of a specified portion or parts of the special management area for a specified time.

**Consultation (Section 106 of the NHPA)**—See National Historic Preservation Act Section 106 consultation.

**Council on Environmental Quality**—An advisory council to the President of the United States established by the National Environmental Policy Act of 1969. It reviews federal programs for their effect on the environment, conducts environmental studies, and advises the President on environmental matters.

**Cultural resources**—An object or definite location of human activity, occupation, or use identifiable through field survey, historical documentation, or oral evidence. Cultural resources are prehistoric, historic, archaeological, or architectural sites, structures, places, or objects and traditional cultural properties.

#### D

**Decision notice**—A concise written record of a responsible official's decision when an environmental assessment and a finding of no significant impact (FONSI) have been prepared (36 CFR 220.3).

**Decommissioned road**—A road that is or may have been part of the National Forest System road network but that is proposed for decommissioning or has been decommissioned by abandoning the road and removing it from the National Forest System road database. Decommissioning activities may range from simply closing the road administratively, to actively closing and scarifying the road surface, to recontouring the road.

**Designation (road)**—A National Forest System road that is designated by vehicle class, and if appropriate, by time of year, pursuant to 36 CFR 212.51 on a motor vehicle use map.

**Desired condition**—A desired condition is a description of specific social, economic, and/or ecological characteristics of the plan area, or a portion of the plan area, toward which management of the land and resources should be directed. Desired conditions must be described in terms that are specific enough to allow progress toward their achievement to be determined, but do not include completion dates (36 CFR 219.7(e)(1)(i)).

**Dispersed recreation opportunities**—In contrast to developed recreation sites, dispersed recreation areas are the lands and waters under Forest Service jurisdiction that are not developed for intensive recreation use. Dispersed areas include general undeveloped areas, roads, trails, and water areas not treated as developed sites.

## **E**

**Endangered species (federally listed)**—Any species that is in danger of extinction throughout all or a significant portion of its range.

**Environmental assessment**—A concise public document for which a federal agency is responsible that briefly provides sufficient evidence and analysis for determining whether to prepare an environmental impact statement or a finding of no significant impact.

## **F**

**Forest land and resource management plan**—A plan written for the management of a National Forest. These plans were mandated by the National Forest Management Act of 1976.

## **G**

**Game management unit**—An area established by the Arizona Game and Fish Department Commission for management purposes, commonly referred to as GMU or Unit.

**General plan of operations**—A description of proposed mineral exploration or mining, including name and address of the operator, location of the operation, access to the operation, the period in which the operation would take place, and other information as required by the Forest Service in accordance with agency regulations at 36 CFR 228.4.

**Grazing allotment**—A designated area of land available for livestock grazing.

**Grazing permit**—Any document authorizing livestock to use National Forest System or other lands under Forest Service control for the purpose of livestock production, including temporary grazing permits and term permits.

**Guidelines**—A constraint on project and activity decision-making that allows for departure from its terms, so long as the purpose of the guideline is met (36 CFR 219.15(d)(3)). Guidelines are established to help achieve or maintain a desired condition or conditions, to avoid or mitigate undesirable effects, or to meet applicable legal requirements (36 CFR 219.7(e)(1)(iv)).

## **H**

**Heritage resources**—See Cultural resources.

## J

**Jurisdiction**—The legal right to control or regulate use of land or a facility. Jurisdiction requires authority but not necessarily ownership.

## L

**Land exchange (federal)**—An exchange of federal land for a package of multiple ownership parcels of non-Federal land consolidated for purposes of one land exchange transaction (36 CFR 254).

**Landscape character**—The combination of physical, biological, and cultural features that makes each landscape visually identifiable and unique.

## M

**Management area**—An area that has common direction throughout that differs from neighboring areas. The entire Forest is divided into management areas. Each is described, and policies and prescriptions relating to their use are listed.

**Management direction**—A statement of multiple use and other goals and objectives, management prescriptions, and associated standards and guidelines for governing them.

**Mineral development**—Extraction and processing of certain mineral materials (locatable minerals) that is legally conducted under the Mining Law of 1872.

**Mineral entry**—The right under the Mining Law of 1872 to enter nonwithdrawn public domain land, such as National Forests, and to explore for, extract, and sell certain mineral materials (locatable minerals), protected by the filing of a lode, placer, or mill site claim.

**Mineral exploration**—Testing, drilling, or measuring of certain mineral materials (locatable minerals) that is legally conducted under the Mining Law of 1872 to determine suitability of mineral development.

**Mineral reserves**—Known mineral deposits that are recoverable under present conditions but are as yet undeveloped.

**Mineral rights**—An ownership interest in minerals that may or may not be owned by the person or party having title to the surface estate.

**Mineral withdrawal**—An action that withdraws federal public domain land from any mining and mineral development activity or staking of a mining claim within the boundaries of the designated area, excluding areas with valid prior existing rights.

**Mitigate, mitigation**—To cause to become less severe or harmful; actions to avoid, minimize, rectify, reduce, eliminate, or compensate for impacts to environmental resources.

**Motor vehicle use map**—A map reflecting designated roads, trails, and areas on an administrative unit or a Ranger District of the National Forest System.

**Motorized trail**—A National Forest System trail that is designated by vehicle class, and if appropriate, by time of year, pursuant to 36 CFR 212.51 on a motor vehicle use map.

Motorized use area—A National Forest System area that is designated by vehicle class, and if appropriate, by time of year, pursuant to 36 CFR 212.51 on a motor vehicle use map.

## **N**

National Environmental Policy Act of 1969—The national charter for protecting the environment. The National Environmental Policy Act establishes policy, sets goals, and provides means for carrying out the policy. Regulations from 40 CFR 1500 to 1508 implement the act.

National Historic Preservation Act Section 106 consultation—If historic properties are found to be affected by an undertaking, the responsible federal official must identify the appropriate State Historic Preservation Officer/Tribal Historic Preservation Officer to consult with during the process, involving the public, and identify other potential consulting parties. If the responsible federal official determines that it has no undertaking, or that its undertaking is a type of activity that has no potential to affect historic properties, the agency has no further Section 106 obligations.

National Register of Historic Places—A listing (maintained by the National Park Service) of areas which have been designated as being of historical significance.

Non-motorized—Activity or equipment that is not operated by motor, engine, or other power source.

## **O**

Objective—An objective is a concise, measurable, and time-specific statement of a desired rate of progress toward a desired condition or conditions. Objectives should be based on reasonably foreseeable budgets (36 CFR 219.7(e)(1)(ii)).

Objection period—The allotted filing period following publication of a public notice in the applicable newspaper of record (or the Federal Register, if the responsible official is the Chief) of the availability of the appropriate environmental documents and draft decision document, including a plan, plan amendment, or plan revision during which an objection may be filed with the reviewing officer (36 CFR 219.62).

## **P**

Patent—A document by which the United States conveys, to those entitled thereto, legal title to some portion of the public lands.

Patented claims—A mining claim to which the federal government has granted the claimant all surface and some or all mineral rights. Patented mining claims are private land and may be sold or used for other than mining activity, such as residential or recreational use.

Plan of operations—See General plan of operations.

Property boundary—A landownership division line between two parcels of land. A separation of real property rights.

Proposed plan of operations—See General plan of operations.

## R

**Ranger District**—Administrative subdivisions of the forest supervised by a district ranger who reports to the forest supervisor.

**Recreation Opportunity Spectrum**—A land classification system that categorizes National Forest System land into six classes, each class being defined by its setting and by the probable recreation experiences and activities it affords. The six classes in the spectrum are: primitive, semi-primitive non-motorized, semi-primitive motorized, roaded natural, rural, and urban. Recreation Opportunity Spectrum classes present within and in the immediate surroundings of the Apache Leap SMA include:

**Roaded natural**—Characterized by providing for a wide range of recreation activities that are generally focused along the primary and secondary travel routes in a natural-appearing, roaded, motorized setting

**Semi-primitive motorized**—Characterized by moderately dominant alterations by man, with strong evidence of primitive roads and/or trails

**Semi-primitive non-motorized**—Characterized by few and/or subtle modifications by man, and with a high probability of isolation from the sights and sounds of man

**Urban**—Characterized by areas or recreation sites that can be utilized by large numbers of people at one time

**Region 3**—A Forest Service organizational unit—the Southwestern Region—consisting of all national forests in New Mexico and Arizona, plus four national grasslands in Texas, Oklahoma, and New Mexico.

**Road closure**—Not allowing motorized vehicles on a road by physically blocking access and/or posting notices and/or signs. The road remains on the forest transportation inventory system with the intent of reusing the road at a future time.

**Roaded natural**—See Recreation Opportunity Spectrum definition.

## S

**Scenery Management System**—A Forest Service tool for integrating the benefits, values, desires, and preferences regarding aesthetics and scenery for all levels of land management planning on all National Forest System lands. It provides an overall framework for the orderly inventory, analysis, and management of scenery.

**Scenic integrity**—The degree to which the landscape character is, or appears to be, intact, unaltered, and natural appearing. High scenic integrity means the human activities and impacts are not obviously visible in the landscape; low scenic integrity means that the landscape has been obviously altered and impacted by human activity.

**Scenic quality**—The attributes of a landscape that, when viewed by individuals, can elicit a sense of the beauty of nature and a sense of pleasure. This response to the landscape can help to produce and maintain psychological and physical health.

**Scoping**—A term used to identify the process for determining the range of issues related to a proposed action and for identifying significant issues to be addressed in an environmental impact statement. Scoping may involve public meetings, field interviews with representatives of agencies and interest groups, discussions with resource specialists and managers, and comments received by the lead federal



agency in response to news releases, direct mailings, articles, and Internet postings about the proposed action.

Scoping period—An early and open process with an allotted time period for determining the scope of the issues to be addressed by the environmental assessment, seeking input from affected federal agencies, Indian tribes, state agencies, local governments and non-governmental organizations, stakeholders, and the general public.

Semi-primitive motorized—See Recreation Opportunity Spectrum definition.

Semi-primitive non-motorized—See Recreation Opportunity Spectrum definition.

Semi-primitive trail—A Forest Service trail with users who do not rely on a motor of any type to provide a source of power.

Sensitive species—Those plant and animal species identified by a Regional Forester for which population viability is a concern, as evidenced by: 1. Significant current or predicted downward trends in population numbers or density; and 2. Significant current or predicted downward trends in habitat capability that would reduce a species existing distribution (Forest Service Manual 2670.5.19).

Special management area—An area or feature identified and managed to maintain its unique special character or purpose (36 CFR 219.19).

Special use permit—A permit that grants rights or privileges of occupancy and use subject to specified terms and conditions on National Forest System land. These permits are used to authorize a broad range of activities.

Standard—A standard is a mandatory constraint on project and activity decision-making, established to help achieve or maintain the desired condition or conditions, to avoid or mitigate undesirable effects, or to meet applicable legal requirements (36 CFR 219.7(e)(1)(iii)).

State Historic Preservation Office—A state governmental function created by the federal government in 1966 under Section 101 of the National Historic Preservation Act.

Suitability of lands—Specific lands within a plan area will be identified as suitable for various multiple uses or activities based on the desired conditions applicable to those lands. The plan will also identify lands within the plan area as not suitable for uses that are not compatible with desired conditions for those lands. The suitability of lands need not be identified for every use or activity. Suitability identifications may be made after consideration of historic uses and of issues that have arisen in the planning process. Every plan must identify those lands that are not suitable for timber production (36 CFR 219.11 and 219.7(e)(1)(v)).

## U

Unpatented claim—A claim made by a qualified person for possession of locatable minerals on public land (e.g., National Forests). A properly recorded claim entitles the claimant to reasonable access to the claim and exclusive right to extract and sell valuable minerals from the claim. Unpatented mining claims may be occupied and used solely for mining and related activity.

Urban—See Recreation Opportunity Spectrum definition.

## **V**

Visual or scenic resources—The visible physical features of a landscape (topography, water, vegetation, animals, structures, and other features) that constitute the scenery of an area. Used to describe the landscapes and scenery in a given area. Visual resources encompass all the visible natural features in the landscape, such as mountains, forests, rocks, open water, estuaries, and streams. Visual resources also include the existing manmade structures on the landscape, such as cabins, houses, commercial buildings, utility corridors, and roads.

Visual quality objectives—The degree of acceptable alteration of the characteristic landscape.

Visual sensitivity—Areas or landscapes that are most interesting and appealing to the public and whose changed scenic values would be of concern to the public.

## **W**

Wildfire—Any fire on wildlands that was not intentionally set for management purposes and confined to a predetermined area.

Withdraw, withdrawn—See Mineral withdrawal.