2016 – 2017 WILDLIFE CAMERA MONITORING REPORT

Resolution Copper

Prepared for:

RESOLUTION COPPER

102 Magma Heights – Superior, Arizona 85173

Project Number: 807.144

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WestLand Resources

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EXECUTIVE SUMMARY

WestLand Resources, Inc. (WestLand), was retained by Resolution Copper Mining, LLC (Resolution) to continue wildlife monitoring studies in support of the of the General Plan of Operations (GPO) submitted by Resolution to the U.S. Forest Service (USFS) for an underground copper mine, ore processing operation, tailings storage facility, and associated facilities and infrastructure (the Project).

WestLand has been monitoring wildlife in the vicinity of the Project through the use of motion-sensitive cameras since 2008 (WestLand 2009, 2012, 2014b, 2016). The objectives of this wildlife monitoring study are to document species occurrence (i.e., presence), species richness (i.e., the number of species encountered), and distribution of wildlife species recorded at specific locations in the vicinity of the Project.[1] To best accomplish these objectives, cameras were deployed in or near locations where wildlife would be likely to frequent such as shaded tree groves, game trails, springs, tinajas, and drainages.

Data summarized in this report include digital photographs taken between January 1, 2016 and December 31, 2017 (the Survey Period). During the Survey Period, motion-sensitive cameras were deployed at twelve total locations in the vicinity of the Project. Areas in which the cameras were deployed include the Oak Flat/East Plant Site, Devils Canyon, and the proposed Tailings Area; collectively, the Study Area.

When assessing the results of the survey, the distribution of capture events among camera locations and the number of days the cameras were recording (i.e., the number of camera days) should be considered. During this study, the number of camera days per camera location varied due to several factors including, theft, vandalism, intermittent camera malfunctions such as those caused by memory card error, battery failure, and flood damage, as well as other undetermined causes.

Data collected during this wildlife camera monitoring study provides a preliminary inventory of wildlife species in the vicinity of the Project and in the broader area. No images were captured of species designated as Endangered, Threatened, or Proposed for listing by the U.S. Fish and Wildlife Service (USFWS). One species listed as Sensitive by the Tonto National Forest (TNF), Sonoran desert tortoise (2 capture events), was documented at one location within the Tailings Area.

The wildlife monitoring cameras captured 8,331 events that recorded 80 taxa. Mammal taxa of all sizes (6,986 events) constitute approximately 84 percent of all capture events and approximately 36 percent of all recorded taxa. Javelina, the most commonly observed taxa (1,477 capture events), represents approximately 18 percent of all capture events. The second most commonly observed taxa (1,119 events) was raccoon, representing approximately 13 percent of all capture events. Capture events of domestic or feral cattle (850 events), dogs (42 events), and cats (1 event), are documented, however,

[1] No attempt to estimate population size, density, or abundance throughout the Study Area was made as part of this wildlife monitoring study.

these data are excluded from calculations regarding percentages and frequencies of wildlife taxa captured.

Among wildlife events captured, 26 mammal taxa were recorded (6,093 capture events). Forty-three avian taxa (1,292 capture events) were also recorded, constituting more than 17 percent of all wildlife capture events and 56 percent of recorded wildlife taxa. Approximately four reptile taxa, one amphibian taxa, and three invertebrate taxa (53 capture events) were also recorded, which account for less than 1 percent of all capture events, and approximately 10 percent of recorded wildlife taxa. Select photographs of wildlife recorded during the Survey Period are presented as an appendix to this report.

Fifteen of the 77 wildlife taxa recorded collectively account for almost 90 percent of all capture events during the Survey Period. Each of these 15 species represent between 1 and 20 percent (the highest percentage) of all wildlife capture events. The remaining species were relatively rare, each accounting for less than 1 percent of wildlife capture events.

Distribution of wildlife taxa also varied across wildlife monitoring areas. The Oak Flat/East Plant Site monitoring area had the highest number of wildlife taxa recorded (61), while the Devils Canyon monitoring area had the lowest (34). The number of recorded wildlife taxa also varied widely across the 11 camera locations that recorded wildlife during the Survey Period. The highest number of wildlife taxa recorded of any of the camera locations was 38. Excluding cameras that were stolen/damaged before or during the Survey Period, the lowest number of wildlife taxa recorded at any of the camera locations was 15.

1. INTRODUCTION

WestLand Resources, Inc. (WestLand), was retained by Resolution Copper Mining, LLC (Resolution) to continue wildlife monitoring studies in support of the of the General Plan of Operations (GPO) submitted by Resolution to the U.S. Forest Service (USFS) for an underground copper mine, ore processing operation, tailings storage facility, and associated facilities and infrastructure (the Project).

WestLand has been monitoring wildlife in the vicinity of the Project through the use of motion-sensitive cameras since 2008 (WestLand 2009, 2012, 2014b, 2016). The objectives of this wildlife monitoring study are to document species occurrence (i.e., presence), species richness (i.e., the number of species encountered), and distribution of wildlife species recorded at specific locations in the vicinity of the Project; collectively the Study Area (**Figure 1**)[2]. To best accomplish these objectives, cameras were deployed in locations where wildlife would be likely to frequent, such as shaded tree groves, game trails, springs, tinajas, and drainages.

This report builds upon information collected by WestLand throughout the same general areas monitored from April 2008 through February 2009 and March 2011 through October 2011 (WestLand 2009, 2012), as well as from October 2011 through November 2013 (WestLand 2014b) and October 2013 through December 31, 2015 (WestLand 2016). Data summarized in this report include digital photographs (with date and timestamp) taken between January 1, 2016 and December 31, 2017 (the Survey Period).

2. STUDY AREA DESCRIPTION

During the Survey Period, motion-sensitive cameras were deployed at twelve total locations across the Study Area (**Figure 1**). Monitoring areas in which the cameras were deployed include the Oak Flat/East Plant Site, formerly the "Oak Flat Area" (WestLand 2012, 2014b), Devils Canyon, and the proposed Tailings Area, formerly "Near West" (WestLand 2012, 2014b). Camera location identification numbers and their corresponding monitoring areas are listed in **Table 1** and provided graphically in **Figures 2 and 3**.

Table 1. Camera Locations and ID Numbers and Monitoring Areas

Camera Location ID*	Monitoring Areas
1, 1a, 1c, 2	Oak Flat/East Plant Site
3	Middle Devils Canyon
8	Lower Devils Canyon
11	Upper Devils Canyon
13, 16, 17, 18, 19	Tailings Area

* Camera location ID numbers correspond to location numbers provided in **Figures 2 and 3**

[2] Due to the biases in species detection, and the limitations of estimating population-level parameters that arise from camera trap studies (**Section 3**), no attempt to estimate population size, density, or abundance throughout the Study Area was made as part of this wildlife monitoring study.

Some identification numbers assigned to camera locations from 2008 through 2011 have since changed; therefore the identification numbers used in this report do not correspond with those provided in the 2012 report (WestLand 2012). The identification numbers used in this report do, however, correspond with those provided in the 2014 report summarizing monitoring efforts from 2011-2013 (WestLand 2014b) and the 2016 report summarizing monitoring efforts from 2013-2015 (WestLand 2016).

2.1. OAK FLAT/EAST PLANT SITE

The Oak Flat/East Plant Site is situated in the mountains immediately east of Superior, Arizona on private, State Trust, and Forest Service lands. This area is generally bounded on the north by US Highway 60 (US 60) and Queen Creek, on the east by Devils Canyon, on the south by Hackberry Creek, and on the west by the Apache Leap escarpment. Elevations range from approximately 3,100 feet (ft; 950 meters [m]) above mean sea level (amsl) near Queen Creek to approximately 4,650 ft (1,417 m) amsl near the Apache Leap escarpment. Much of the Oak Flat/East Plant Site exhibits rugged topography, although the northeastern portion is relatively flat. Most of the drainages in the Oak Flat East Plant Site flow north towards Queen Creek; however, in the southern portion of the Oak Flat/East Plant Site, drainages flow towards Rancho Rio Creek, which drains to the east towards Devils Canyon. Surface water features in the Oak Flat/East Plant Site include natural drainages and tinajas as well as manmade stock ponds and reservoirs (Montgomery & Associates 2017a). Data were recorded at four camera locations within The Oak Flat/East Plant Site monitoring area during the Survey Period; one camera overlooks a tinaja within a tributary of Queen Creek (Camera Location 1), one camera overlooks Rancho Rio Creek (Camera Location 2), and two cameras are located within unnamed tributaries to Queen Creek (Camera Locations 1a and 1c; **Figure 2**).

The Oak Flat/East Plant Site contains vegetation typical of four biotic communities as described by Brown and Lowe (1994): Interior Chaparral, Madrean Evergreen Woodland, Arizona Upland Subdivision of Sonoran Desertscrub, and Interior Riparian Deciduous Forest (WestLand 2017). Interior Chaparral is represented largely by manzanita (*Arctostaphylos pungens*) and shrub live oak (*Quercus turbinella*), which are prevalent throughout much of the Oak Flat/East Plant Site area. Madrean Evergreen Woodland is represented by Emory oak (*Quercus emoryi*), pinyon pine (*Pinus edulis*), one seed juniper (*Juniperus monosperma*), and mountain mahogany (*Cercocarpus montanus*), which occur along drainages containing deep alluvium as well as on north facing slopes above Queen Creek. Arizona Upland Subdivision of Sonoran Desertscrub is represented by saguaro (*Carnegiea gigantea*) and pinkflower hedgehog cactus (*Echinocereus fasciculatus*), which are prominent on a south facing hillslope above Rancho Rio Creek. Interior Riparian Deciduous Forest is represented by Fremont cottonwood (*Populus fremontii*) and Goodding's willow (*Salix gooddingii*), which occur in patches around stock ponds and other surface water features in the area (WestLand 2017).

2.2. DEVILS CANYON

Devils Canyon is a steep-walled north-south trending canyon located to the east of the Oak Flat/East Plant Site monitoring area on National Forest System lands managed by TNF and State Trust lands managed by Arizona State Land Department (ASLD). This reach of Devils Canyon contains stretches that are ephemeral and/or intermittent and areas where water is consistently present (Montgomery & Associates 2017b). Elevations along this reach of Devils Canyon range from approximately 2,400 ft at the confluence with Mineral Creek to approximately 4,000 ft at US 60. The Devils Canyon monitoring area includes three camera locations; one in the upper reach (Camera Location 11), one in the middle reach (Camera Location 3), and one in the lower reach (Camera Location 8) of the canyon (**Figure 2**).

The Devils Canyon monitoring area is mapped entirely within the Interior Chaparral biotic community (Brown and Lowe 1980); however, it contains patches of vegetation associated with Interior Chaparral, Interior Riparian Deciduous Forest, and Arizona Upland Subdivision of Sonoran Desertscrub (WestLand 2017).

Along the upper reach of Devils Canyon, riparian trees occur singly or in clusters, and include Goodding's willow, Fremont cottonwood, Arizona walnut (*Juglans major*), and Arizona sycamore (*Platanus wrightii*). Steeply sloping hillsides rise above the drainage bottom through groves of velvet mesquite (*Prosopis velutina*), eventually transitioning into Arizona Upland Sonoran Desertscrub or Interior Chaparral (WestLand 2017).

In the middle reach of the canyon is a closed canopy forest comprised mostly of Arizona alder (*Alnus oblongifolia*) in the overstory and button willow (*Cephalanthus occidentalis*) in the understory. Patches of velvet ash, Arizona sycamore, and Bonpland willow (*Salix bonplandiana*) are also present. South/downstream of this reach, the canyon is not easily accessible due to narrow canyon walls and considerable vertical drops at a series of large plunge pools identified as Crater Tanks.

In the lower reach of Devils Canyon, Arizona sycamore is the predominant riparian tree species. Arizona walnut is also present, along with Goodding's willow trees that occur singly or in small clusters, and a few scattered Fremont cottonwoods. In this reach of the canyon, springs occur at the contact of overlying Apache Leap Tuff rock and underlying Whitetail Conglomerate (Golder 2006; WestLand 2017).

2.3. TAILINGS AREA

The Tailings Area, which consists of the proposed Tailings Storage Facility, Tailings Corridor, and Borrow Areas, is located west of Superior on National Forest System lands managed by TNF. The area generally slopes downhill from the northeast to the southwest and is dissected by numerous ephemerally flowing washes that discharge to Queen Creek. Elevations within the Tailings Area range from approximately 2,240 ft (683 m) amsl to approximately 3,050 ft (930 m) amsl. The Tailings Area includes five camera locations: one at Bear Tank Canyon Spring, formerly "Bear Spring" (WestLand 2014a), a spring emanating

from a barren area in the drainage bottom of the canyon (Camera Location 13), one in Roblas Canyon overlooking a small ephemeral tributary of the canyon (Camera Location 16), one in Benson Spring Canyon downstream of Benson Spring (Camera Location 17), one in Whitford Canyon overlooking a game trail on an alluvial terrace (Camera Location 18), and one within an unnamed tributary of Happy Camp Canyon (Camera Location 19, **Figure 3**).

The Tailings Area lies within the Arizona Upland subdivision of the Sonoran desertscrub biotic community as mapped by Brown and Lowe (1980). Vegetation within the Tailings Area is generally described as a scrubland of leguminous trees with intervening open areas of shrubs and perennial succulents (Resolution 2016). Dominant vegetation includes jojoba (*Simmondsia chinensis),* mesquite (*Prosopis* spp.*),* palo verde (*Parkinsonia* spp.), catclaw acacia (*Senegalia greggii*), and numerous species of cacti. Interior Riparian Deciduous Forest vegetation consisting of cottonwood, Goodding's willow, and desert willow is present along portions of Roblas, Potts, and Whitford canyons. The majority of the Tailings Area is undisturbed, with the exception of historical mine features and forest roads (WestLand 2014a).

3. BACKGROUND ON WILDLIFE CAMERAS

The use of motion-sensitive wildlife cameras, commonly known as *camera traps*, is an established survey methodology in vertebrate ecology, particularly in studies of large or medium-sized mammals. Camera trapping is a particularly useful survey technique for examining species richness of large mammals at a particular locality and comparing results with species richness from other localities in different but adjacent habitats (Stein, Fuller, and Marker 2008). However, data from camera trap studies is of limited use for estimating overall species richness and relative abundance due to the inherent bias of the cameras towards detection of larger over smaller-bodied mammals (Dajun et al. 2006), as well as detection of gregarious species that forage or travel in groups compared to solitary species (Treves et al. 2010). Additional biases in species detection arise from sampling only a limited set of potential habitat features. In particular, the placement of cameras can have a considerable influence on species detection probability, thereby affecting inferences made at the community level (Cusack et al. 2015).

Cameras detect the infrared heat signal in a cone-shaped zone in front of the camera. The ability of a camera to detect a species is dependent on body size, temperature difference from the environment, distance from the camera, and presence of vegetation within the detection area of the camera (Dajun et al. 2006). The cone-shaped zone of the infrared detector is more sensitive closer to the camera. Thus, small species, such as mice and ground squirrels, are less likely to be "captured" by a camera trap compared to species that are ten to one thousand times larger, as they tend to trigger the camera only when they are close enough to be captured in the most sensitive part of this zone.

Camera trapping rates have also been shown to respond to population manipulation (Bengsen et al. 2011) and to be strongly correlated to density estimates based on other established methodologies, such as capture-recapture analyses (Rovero and Marshall 2009). As such, a growing trend in large mammal ecology studies is to incorporate camera trapping along with capture-recapture analyses to estimate

population densities (e.g., Rios-Uzeda, Gomez, and Wallace 2007) (Rovero and Marshall 2009). Because large mammals represent the top trophic levels in many ecosystems, camera trap surveys have even been proposed as the basis of a composite indicator of biodiversity for global monitoring efforts (O'Brien et al. 2010).

In this study, wildlife camera monitoring was employed to document species occurrence (i.e., presence), species richness (i.e., the number of species encountered), and distribution of the wildlife species at select locations throughout the Study Area. No attempt was made to estimate population size, species density, or relative abundance throughout the Study Area.

4. METHODS

4.1. CAMERA PLACEMENT

Camera locations were selected to document occurrence, richness, and distribution of wildlife species throughout the Study Area. Shaded tree groves, game trails, springs, tinajas, and drainages were selected because wildlife species were considered as likely to use them for cover, travel, and/or water. All twelve of the camera locations used during this Survey Period were also used during previous monitoring studies within the Study Area (WestLand 2009, 2012, 2014b, 2016).

Precautions were taken to protect the cameras from theft, vandalism, and damage from wildlife, water, and sun exposure. Each of the deployed cameras was enclosed in a protective metal housing and locked shut using a padlock or Master Lock Python™ Adjustable Locking Cable. The security enclosures were secured tightly to trees or rock walls with lag bolts or masonry screws. Cameras were positioned in shaded areas to minimize exposure to rain and direct sunlight. In riparian and/or flooding zones, cameras were mounted above the observed high-water mark and/or debris wrack line. After arming the cameras and locking them in their security enclosure, the biologists attempted to disguise the cameras so as not to draw attention to them; branches, mud, flood debris, and black tape were used to cover shiny materials, bright colors, and unnatural shapes of the camera, lock, and security enclosure.

4.2. CAMERA DESCRIPTION

Two models of motion-sensitive cameras were used for this study: Cuddeback® Attack IR (Infrared) and Reconyx™ HC600 Hyperfire™ High Output Covert IR. The 5.0-megapixel Cuddeback® camera model is powered by four D-cell alkaline batteries. These cameras have a trigger speed of 0.25 seconds and are capable of both daylight color digital photography and nighttime digital infrared photography. The Cuddeback® cameras used in this study were programmed to take one photograph after being triggered (i.e., the initiation of an event), and to delay for fifteen seconds before rearming to be triggered again. The 3.1-megapixel Reconyx™ camera is powered by twelve AA batteries. These cameras have a trigger speed of 0.2 seconds, and are capable of both daylight color digital photography and nighttime monochromatic infrared photography. The Reconyx™ cameras used in this study were

programmed to take five successive photographs (one photograph per second) after being triggered (i.e., the initiation of an event) and to delay for one minute before rearming to be triggered again. All photographs were recorded on either SanDisk® or PNY® Secure Digital (SD) or SD High Capacity (SDHC) memory cards, as they have proven to be the most reliable over the course of this study.

4.3. DATA COLLECTION

Cameras were serviced periodically, typically every four months between January 11, 2016 and February 13, 2018. During each service visit, WestLand and and/or Resolution personnel performed as-needed maintenance on each of the cameras. Camera maintenance included replacing batteries and memory cards, using a memory card viewer to briefly scan through photos to ensure that the camera was functioning properly throughout the service period, wiping down the camera lens and motion detector windows and IR lights, using a can of compressed air to remove dust and debris from the security enclosure and camera parts (battery terminals, SD card slot, button and switch interface), and clearing away vegetation and debris that might block the camera view or interfere with the camera triggering mechanism. If upon inspection, WestLand personnel determined that a camera was defective, the camera was replaced with an alternate as quickly as possible to minimize data gaps. Camera positions were also adjusted when necessary to maintain the view of the area(s) targeted for motion capture.

4.4. DATA ANALYSIS

After each survey visit, completed datasheets and the contents of the memory cards were uploaded onto WestLand or Resolution server networks, and the photographs were reviewed carefully for the presence of wildlife. Individual and groups of animals often triggered multiple events (i.e., multiple series of photographs) by lingering in front of cameras or continuously coming in and out of the frame during a short period of time. These behaviors and the resulting interpretation of the photographs caused the potential for data to be skewed, if, for example an individual animal's visit to a camera location at a discrete time (i.e., a single capture event) was mistaken as multiple events. Whenever possible, WestLand biologists used timestamps on photographs, characteristics of the animals (e.g., size, unique markings, color, etc.), and the location of the animals in the frame to help distinguish single capture events from multiple events and thus minimize skewing the data.

5. RESULTS AND DISCUSSION

5.1. DISTRIBUTION OF CAPTURE EVENTS

The number of capture events recorded at each location is heavily dependent on the number of days in which the camera was operational (i.e., the number of camera days) at that location. The number of camera days per camera location varied due to several factors including theft, vandalism, intermittent camera malfunctions such as those caused by memory card error, battery failure, water damage, overheating, and other undetermined causes. When assessing the results of the survey, in particular the distribution of capture events among camera locations, the number of camera days should be considered. The number of camera days for each location and the period of record are presented in **Table 2**.

Of the twelve camera locations, only nine produced photographs for a substantial portion of the Survey Period (the primary camera locations). The nine primary camera locations include two of the Devils Canyon locations (middle Devils Canyon and lower Devils Canyon), four of the Oak Flat/East Plant Site locations, and three of the locations in the Tailings Area. Cameras at the remaining three locations were operational for only short periods, ranging from a low of 0 camera days to a high of 11 camera days (**Table 2**).

The camera locations with no or very few camera days include one in upper Devils Canyon (Camera Location 11) and two within the Tailings Area (Camera Locations 13 and 19). The limited number of camera days for each of these locations is due to camera theft and/or vandalism. During a service event conducted on February 23, 2016, the camera service crew noted that the camera at Camera Location 11 was stolen and the protective metal casing was destroyed. During a service event conducted on May 25, 2016, the camera service crew noted that the camera at Camera Location 13 was vandalized beyond repair. On that same day, the camera service crew noted that the camera at Camera Location 19 was stolen (see **Table 2**).

Table 2. Wildlife Camera Periods of Record

Camera Location ID	Wildlife Monitoring Area	Camera Days[1]	Period of Record[2]	Comments
1	Oak Flat/East Plant Site	611	1/06/16 – 12/31/17	Multiple gaps in record. Most gaps are likely due to flood events. Other gaps are likely due to battery failure, and possibly due to a lack of wildlife activity correlated with high water levels at the site.
1a	Oak Flat/ East Plant Site	552	1/12/16 – 12/31/17	Two large gaps in the record, both due to memory card failure.
1c	Oak Flat/East Plant Site	716	1/01/16 – 12/31/17	No major gaps in record.
2	Oak Flat/East Plant Site	725	1/07/16 – 12/31/17	No major gaps in record.
3	Middle Devils Canyon	657	1/03/16 – 12/05/17	Multiple gaps in record. The gaps are likely due to battery depletion.
8	Lower Devils Canyon	731	1/01/16 –12/31/17	No gaps in record.
11	Upper Devils Canyon	0	--	Camera was stolen from this location sometime between 5/20/15 and 2/23/16.
13	Tailings Area	11	1/01/16 – 1/11/16	Camera at this location was vandalized beyond repair sometime between 1/11/16 and 5/25/16.
16	Tailings Area	635	1/01/16 – 12/31/17	One large gap due to battery depletion.
17	Tailings Area	702	1/12/16 – 12/31/17	Two gaps in record; one due to battery corrosion and one is unexplained.
18	Tailings Area	731	1/01/16 – 12/31/17	No gaps in record.
19	Tailings Area	11	1/01/16 – 1/11/16	Camera was stolen from this location sometime between 1/11/16 and 5/25/16.

Note: As discussed previously, the Survey Period is defined as January 1, 2016 through December 31, 2017.

[1] Camera Days are defined as the number of days during the Survey Period that a camera was functioning and during which data could be retrieved.

[2] The Period of Record is defined as the first date and last date during the Survey Period that the camera was known to be operational.

Camera Location 11 has the shortest number of camera days (0) because it was stolen sometime before or during the Survey Period. Camera Locations 13 and 19 each had only 11 camera days during the Survey Period. The camera at Camera Location 13 was vandalized beyond repair early in the Survey Period and the camera at Camera Location 19 was stolen early in the Survey Period. Of the nine remaining camera locations (the primary camera locations), Camera Location 1a had the fewest camera days (552) during the Survey Period. Camera Locations 8 and 18 each had the highest possible number of camera days during the Survey Period (731). Camera Location 8 recorded the highest number of capture events (2,283). Apart from the camera locations that were affected by theft and vandalism, Camera Location 1c recorded the lowest number of capture events (156).

5.2. Overview of Species Occurrence

Collectively, 8,331 capture events were recorded at the 11 camera locations that had at least one camera day during the Survey Period (**Table 3**). These capture events recorded 80 taxa, 68 of which could be identified to at least the genus level. Large- and medium-sized mammals are generally the target species of most wildlife camera monitoring surveys because these species are more likely to trigger camera traps due to their size (see **Section 3**). Therefore, results are presented in the context of relative body size as referenced in **Table 3**. Species listed in **Table 3** are categorized[3] as large (generally greater than 40 lbs [18 kg]), medium (generally 2 to 40 lbs [0.9 to 18 kg]), or small (generally less than 2 lbs; [0.9 kg]).

Although smaller-sized species are not as likely to trigger cameras, small mammals, birds, reptiles, amphibians, and invertebrates were also captured in photographs during this study (**Table 3**). Combined, observations of species within the small body size category comprised approximately 22 percent of the total capture events (i.e., single capture events; see **Section 4.4**) and 60 percent of the total taxa[4]. Results are therefore presented for taxa of all sizes to provide a broader, more complete baseline dataset for the Study Area.

Mammal taxa of all sizes (6,986 capture events) constitute approximately 84 percent of capture events and approximately 36 percent of recorded taxa. Javelina (*Tayassu tajacu)*, the most commonly recorded taxa (1,477 capture events), represents approximately 18 percent of all capture events. The second most commonly observed taxa (1,119 capture events), raccoon (*Procyon lotor*), represents over 13 percent of all capture events. The number of capture events for all taxa recorded in the Study Area are presented in **Table 3**. Select photographs of recorded taxa are presented in **Appendix A**.

No images were captured of species designated as Endangered, Threatened, or Proposed for listing by the USFWS. One species listed as Sensitive by the TNF, Sonoran desert tortoise (*Gopherus morafkai*; 2 capture events), was documented at one location within the Tailings Area [redacted]).

[3] Observations of species were placed in size categories based on reported masses for species.

[4] Taxa were identified to the lowest taxonomic level possible.

Table 3. Number of Recorded Events by Taxa at Camera Locations within the Study Area

Taxa[1] Species and Family	Camera Location ID											Total Events	Total No. of Camera Locations
	1	1a	1c	2	3	8	13	16	17	18	19		
LARGE MAMMALS													
American black bear *Ursus americanus* Ursidae	1	-	2	3	81	21	-	-	-	1	-	109	6
Coyote *Canis latrans* Canidae	-	-	-	3	2	1	1	7	70	1	-	85	7
Domestic/Feral cattle *Bos taurus* Bovidae	-	-	-	15	-	622	-	-	67	146	-	850	4
Domestic/Feral dog *Canis lupus familiaris* Canidae	-	6	1	4	4	-	-	1	24	2	-	42	7
Javelina *Tayassu tajacu* Tayassuidae	33	-	31	2	141	492	1	52	30	695	-	1477	9
Mountain lion *Puma concolor* Felidae	1	1	2	1	46	41	-	4	1	18	-	115	9
Mule deer *Odocoileus hemionus* Cervidae	-	-	-	-	-	-	6	-	32	23	-	61	3
Unidentified deer *Odocoileus* spp. Cervidae	-	-	-	-	-	-	-	-	4	1	-	5	2
White-tailed deer *Odocoileus virginianus* Cervidae	-	-	35	0	360	124	-	42	5	80	-	646	6

Table 3. Number of Recorded Events by Taxa at Camera Locations within the Study Area

Taxa[1] Species and Family	Camera Location ID											Total Events	Total No. of Camera Locations
	1	1a	1c	2	3	8	13	16	17	18	19		
MEDIUM-SIZED MAMMALS													
American badger *Taxidea taxus* Mustelidae	-	-	-	-	-	-	-	-	1	-	-	1	1
Black-tailed jackrabbit *Lepus californicus* Leporidae	-	-	-	-	-	-	1	2	-	-	-	3	2
Bobcat *Lynx rufus* Felidae	-	-	-	13	4	17	-	7	24	1	1	67	7
Cottontail rabbit *Sylvilagus* spp. Leporidae	-	-	1	1	41	-	-	98	2	11	3	157	7
Domestic/Feral cat *Felis catus* Felidae	-	-	1	-	-	-	-	-	-	-	-	1	1
Gray fox *Urocyon cinereoargentus* Canidae	16	32	11	37	29	172	-	91	73	94	-	555	9
Hog-nosed skunk *Conepatus leuconotus* Mephitidae	53	7	-	31	14	70	-	4	1	-	-	180	7
Hooded skunk *Mephitis macroura* Mephitidae	14	1	-	33	1	14	-	1	1	-	-	65	7
Raccoon *Procyon lotor* Procyonidae	1,075	26	2	12	-	1	-	0	2	1	-	1119	7
Ringtail *Bassariscus astutus* Procyonidae	13	8	0	0	0	11	-	-	4	4	-	40	5

Table 3. Number of Recorded Events by Taxa at Camera Locations within the Study Area

Taxa[1] Species and Family	Camera Location ID											Total Events	Total No. of Camera Locations
	1	1a	1c	2	3	8	13	16	17	18	19		
Spotted skunk *Spilogale gracilis* Mephitidae	-	-	-	1	-	3	-	-	-	-	-	4	2
Striped skunk *Mephitis* Mephitidae	1	-	-	30	0	20	-	3	-	-	-	54	4
Unidentified skunk Mephitidae	5	-	-	15	1	4	-	2	-	-	-	27	5
White-nosed coati *Nasua narica* Procyonidae	62	45	61	26	71	283	-	1	0	0	-	549	7
SMALL MAMMALS													
Cliff chipmunk *Tamias dorsalis* Sciuridae	6	48	1	22	-	8	-	4	-	-	-	89	6
Rock squirrel *Spermophilus variegates* Sciuridae	244	97	-	69	3	167	-	7	39	5	-	631	8
Unidentified bat	13	-	-	-	-	2	-	-	-	-	-	15	2
Unidentified rodent	1	-	-	3	-	3	-	-	-	1	-	8	4
White-throated woodrat *Neotoma albigula* Cricetidae	1	-	-	-	2	-	-	3	-	-	-	6	3
UNKNOWN-SIZED MAMMALS													
Unidentified mammal	4	4	4	-	1	3	-	3	5	1	-	25	8
MEDIUM-SIZED BIRDS													
Common black-hawk *Buteogallus anthracinus* Accipitridae	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	11	2

Table 3. Number of Recorded Events by Taxa at Camera Locations within the Study Area

Taxa[1] Species and Family	Camera Location ID											Total Events	Total No. of Camera Locations
	1	1a	1c	2	3	8	13	16	17	18	19		
Common raven *Corvus corax* Corvidae	129	33	-	-	-	-	-	-	-	-	-	162	2
Great horned owl *Bubo virginianus* Strigidae	-	-	-	-	-	-	-	1	-	-	-	1	1
Raptor species *Buteo* sp. Accipitridae	1	-	1	-	-	-	-	-	-	-	-	2	2
Red-tailed hawk *Buteo jamaicensis* Accipitridae	1	-	-	-	-	-	-	-	-	-	-	1	1
Turkey vulture *Cathartes aura* Cathartidae	20	3	-	-	-	-	-	-	-	-	-	23	2
Zone-tailed hawk *Buteo albonotatus* Accipitridae	72	-	-	-	-	-	-	-	-	-	-	72	1
SMALL BIRDS													
American kestrel *Falco sparverius* Falconidae	1	-	-	-	-	-	-	-	-	-	-	1	1
American robin *Turdus migratorius* Turdidae	-	-	-	1	-	-	-	-	-	-	-	1	1
Bewick's wren *Thryomanes bewickii* Troglodytidae	-	-	-	2	-	-	-	-	-	-	-	2	1
Black phoebe *Sayornis nigricans* Tyrannidae	6	-	-	-	-	-	-	-	-	-	-	6	1

Table 3. Number of Recorded Events by Taxa at Camera Locations within the Study Area

Taxa[1] Species and Family	Camera Location ID											Total Events	Total No. of Camera Locations
	1	1a	1c	2	3	8	13	16	17	18	19		
Cactus wren *Campylorhynchus brunneicapillus* Troglodytidae	-	-	-	1	-	-	-	1	-	-	-	2	2
Canyon towhee *Melozone fusca* Emberizidae	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	9	1
Canyon wren *Catherpes mexicanus* Troglodytidae	1	26	-	1	-	-	-	-	-	-	-	28	3
Cooper's hawk *Accipiter cooperii* Accipitridae	12	-	-	-	-	1	-	-	-	-	-	13	2
Curve-billed thrasher *Toxostoma curvirostre* Mimidae	-	-	1	4	-	2	-	1	-	1	-	9	5
Dark-eyed junco *Junco hyemalis* Emberizidae	1	7	-	-	-	-	-	-	-	-	-	8	2
Dove species *Zenaida* spp. Columbidae	-	-	-	2	-	-	-	-	-	-	-	2	1
Flicker species *Colaptes sp.* Picidae	1	-	-	-	-	-	-	1	-	-	-	2	2
Flycatcher species *Myiarchus sp.* Tyrannidae	2	-	-	-	-	2	-	1	-	2	-	7	4
Gambel's quail *Callipepla gambelii* Odontophoridae	-	-	-	431	-	159	-	85	46	-	9	730	5

Table 3. Number of Recorded Events by Taxa at Camera Locations within the Study Area

Taxa[1] Species and Family	Camera Location ID											Total Events	Total No. of Camera Locations
	1	1a	1c	2	3	8	13	16	17	18	19		
Gila woodpecker *Melanerpes uropygialis* Picidae	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	4	3
Gilded flicker *Colaptes chrysoides* Picidae	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	8	2
Greater roadrunner *Geococcyx californianus* Cuculidae	-	-	-	9	-	3	-	11	9	1	-	33	5
House finch *Haemorhous mexicanus* Fringillidae	-	-	-	2	-	-	-	-	-	8	-	10	2
Mourning dove *Zenaida macroura* Columbidae	1	-	-	2	-	1	-	2	5	-	-	11	5
Northern cardinal *Cardinalis* Cardinalidae	-	-	-	-	-	10	-	-	-	-	-	10	1
Northern mockingbird *Mimus polyglottos* Mimidae	-	-	-	2	-	-	-	1	-	-	-	3	2
Pyrrhuloxia *Cardinalis sinuatus* Cardinalidae	-	-	-	-	-	1	-	-	-	-	-	1	1
Rock wren *Salpinctes obsoletus* Troglodytidae	-	-	-	2	-	-	-	-	-	-	-	2	1
Rufous-crowned sparrow *Aimophila ruficeps* Emberizidae	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	3	1

Table 3. Number of Recorded Events by Taxa at Camera Locations within the Study Area

Taxa[1] Species and Family	Camera Location ID											Total Events	Total No. of Camera Locations
	1	1a	1c	2	3	8	13	16	17	18	19		
Spotted towhee *Pipilo maculatus* Emberizidae	-	-	-	1	-	-	-	-	-	-	-	1	1
Steller's jay *Cyanocitta stelleri* Corvidae	3	-	-	-	-	-	-	-	-	-	-	3	1
Thrasher species *Toxostoma sp.* Mimidae	-	-	-	-	-	-	-	1	-	-	-	1	1
Thrush species *Catharus* spp. Turdidae	-	1	-	-	-	-	-	-	-	-	-	1	1
Unidentified jay Corvidae	2	-	-	-	-	-	-	-	-	-	-	2	1
Unidentified small bird	25	-	-	10	2	18	-	10	5	14	1	85	8
Unidentified sparrow Passeridae	-	-	-	2	-	-	-	-	-	-	-	2	1
Unidentified wren Troglodytidae	-	-	-	2	-	-	-	-	-	-	-	2	1
Western screech-owl *Megascops kennicottii* Strigidae	-	-	-	-	-	-	-	-	1	-	-	1	1
Western scrub-jay *Aphelocoma californica* Corvidae	3	-	1	-	-	-	-	-	-	-	-	4	2
White-crowned sparrow *Zonotrichia leucophrys* Emberizidae	-	-	-	-	-	-	-	1	-	-	-	1	1
White-winged dove *Zenaida asiatica* Columbidae	1	-	-	5	1	5	-	-	-	-	-	12	4

Table 3. Number of Recorded Events by Taxa at Camera Locations within the Study Area

Taxa[1] Species and Family	Camera Location ID											Total Events	Total No. of Camera Locations
	1	1a	1c	2	3	8	13	16	17	18	19		
MEDIUM-SIZED REPTILES													
Sonoran desert tortoise *Gopherus morafkai* Testudinidae	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	2	1
SMALL AMPHIBIANS AND REPTILES													
Gila monster Heloderma suspectum Helodermatidae	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	1	1
Sonoran desert toad *Incilius alvarius* Bufonidae	-	-	-	-	-	-	-	-	1	-	-	1	1
Unidentified lizard	-	-	1	-	-	1	-	36	-	-	-	38	3
Western diamondback rattlesnake *Crotalus atrox* Viperidae	-	-	-	-	-	1	-	-	-	-	-	1	1
SMALL INVERTEBRATES													
Unidentified bee	-	-	-	-	-	-	-	-	-	1	-	1	1
Unidentified butterfly	-	-	-	-	-	-	-	5	-	-	-	5	1
Unidentified dragonfly	4	-	-	-	-	-	-	-	-	-	-	4	1
TOTAL	**1,843**	**347**	**156**	**813**	**804**	**2,283**	**9**	**497**	**452**	**1,113**	**14**	**8,331**	**11**

[1] Taxa were identified to the lowest taxonomic level possible.

To provide information pertinent to wildlife species, capture events of 1) domestic or feral cattle (850 capture events), 2) domestic or feral dogs (42 capture events), and 3) domestic or feral cats (1 capture event) are excluded from calculations regarding percentages and frequencies of wildlife taxa captured. For the remainder of this discussion, the data represents capture events for wildlife taxa only (77 taxa, 7,438 capture events).

Among wildlife events captured, a total of 26 mammal taxa were recorded (6,093 capture events), 22 of which could be identified to at least the genus level (6,018 capture events). Mammal taxa constitute 82 percent of all wildlife capture events and 34 percent of recorded wildlife taxa. Seven of these taxa were classified as large, 13 were classified as medium, five were classified as small, and one was classified as unknown (**Table 3**). Avian taxa (1,292 capture events) constitute more than 17 percent of all wildlife capture events and 56 percent of recorded wildlife taxa. Cameras captured 43 avian taxa, 39 of which could be identified at least to the genus level (1,201 capture events). Seven of the bird taxa were classified as medium, and the remaining 36 were classified as small (**Table 3**).

Reptile, amphibian, and invertebrate taxa were also recorded (53 capture events), all but Sonoran desert tortoise fall into the small body size category (**Table 3**). Reptiles, amphibians, and invertebrates combined account for less than 1 percent of all wildlife capture events, and approximately 10 percent of recorded wildlife taxa. Four reptile taxa were recorded, three of which were identified to the species level (4 capture events), and one that was recorded as an unidentified lizard (38 events). One amphibian taxon was recorded: Sonoran desert toad (*Incilius alvarius*, 1 capture event). Three invertebrate taxa were recorded (10 capture events); none of these could be identified to the genus or species level (**Table 3**).

5.3. WILDLIFE SPECIES RICHNESS

Fifteen of the 77 wildlife taxa recorded (19 percent), collectively account for almost 90 percent of all capture events during the Survey Period. Each of these 15 species represent between 1 and 20 percent (the highest percentage) of all capture events (**Table 4**). Many of the species on this list are gregarious (e.g., javelina, raccoon, Gambel's quail [*Callipepla gambelii*], white-tailed deer [*Odocoileus virginianus*], and white-nosed coati [*Nasua narica*]) and therefore had an increased chance of being captured by cameras (Treves et al. 2010). Only two wildlife species, javelina and raccoon, represent more than 10 percent of all capture events. Five species: Gambel's quail, white-tailed deer, rock squirrel (*Otospermophilus variegatus*), gray fox (*Urocyon cinereoargenteus*), and white-nosed coati, each represent between 5 and 10 percent of all capture events. Eight species account for between 1 and 5 percent of all capture events. The remaining species were relatively rarely recorded, each accounting for less than 1 percent of all capture events.

Table 4. Wildlife Species with the Highest Percentage of Capture Events

Species	Capture Events	Percentage of Capture Events
>10% of Events		
Javelina	1,477	19.9
Raccoon	1,119	15.0
5 - 10% of Events		
Gambel's quail	730	9.8
White-tailed deer	646	8.7
Rock squirrel	631	8.5
Gray fox	555	7.5
White-nosed coati	549	7.4
1 - 5% of Events		
Hog-nosed skunk	180	2.4
Common raven	162	2.2
Cottontail rabbit	157	2.1
Mountain lion	115	1.5
American black bear	109	1.5
Cliff chipmunk	89	1.2
Coyote	85	1.1
Unidentified small bird	85	1.1

5.4. DISTRIBUTION OF WILDLIFE TAXA

The number of recorded wildlife taxa varied between monitoring areas. The monitoring area with highest number of recorded wildlife taxa was the Oak Flat/East Plant Site (61 recorded wildlife taxa). The area with the second highest number of recorded wildlife taxa was the Tailings Area (46 recorded wildlife taxa). The Devils Canyon monitoring area had the lowest number of recorded wildlife taxa (34).

The number of wildlife taxa recorded during the Survey Period also varied widely across the 9 primary camera locations. The highest number of wildlife taxa recorded was at Camera Location 1 (38 wildlife taxa recorded). The lowest number of wildlife taxa recorded was at Camera Location 1c (15 wildlife taxa recorded). The second lowest was at Camera Location 1a, with only 16 wildlife taxa recorded.

Species with a high number of capture events were often recorded at the majority of camera locations. Gray fox and mountain lion (*Puma concolor*) were the only species to be recorded at all nine primary camera locations during the Survey Period. Javelina and rock squirrel were recorded at eight of these camera locations. Raccoon, hog-nosed skunk (*Conepatus leuconotus*), hooded skunk (*Mephitis macroura*), and white-nosed coati were recorded at seven of these camera locations. All other wildlife taxa were recorded at six or less of these camera locations. Thirty-one wildlife taxa (40 percent of all wildlife taxa) were only documented at a single camera location.

Although the more-commonly recorded wildlife species were often documented at many different camera locations, capture events were often concentrated at few camera locations; 80 percent of all

javelina capture events (1,477) were from Camera Locations 18 and 8 (695 capture events and 492 capture events, respectively), 96 percent of all raccoon capture events (1,119) were from Camera Location 1 (1,075 capture events), 81 percent of all Gambel's quail capture events (730) were from Camera Locations 2 and 8 (431 capture events and 159 capture events, respectively), 82 percent of all coyote (*Canis latrans*) capture events (85) were from Camera Location 17 (70 capture events; **Table 3**).

5.5. SUMMARY OF WILDLIFE MONITORING STUDIES THROUGHOUT THE STUDY AREA

This Survey Period (January 1, 2016 through December 31, 2017) employed more camera locations than the 2008–2009 and 2011 surveys, and less camera locations than the 2011–2013 and 2013–2 015 surveys. Cameras operated for a longer time period during this study than during the 2008–2009 and 2011 surveys, and for a shorter time than the 2011–2013 and 2013–2015 surveys. Other differences include the number of wildlife taxa recorded and the number of capture events among survey periods. Combined, WestLand's 2008–2009 and 2011 monitoring efforts recorded a total of 28 wildlife taxa, and 526 wildlife capture events. The 2011–2013 surveys recorded 68 wildlife taxa and a total of 6,953 wildlife capture events. The 2013–2015 surveys recorded 93 wildlife taxa and 9,348 wildlife capture events (WestLand 2016). The number of wildlife taxa (77) and wildlife capture events (7,438) recorded during this Survey Period are greater than all but the 2013-2015 surveys. Species that were documented during this Survey Period that were not documented during previous survey periods include American badger (*Taxidea taxus*), Gila monster (*Heloderma suspectum*), western diamondback rattlesnake (*Crotalus atrox*), and Steller's jay (*Cyanocitta stelleri*).

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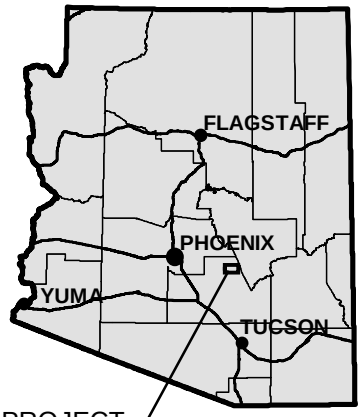
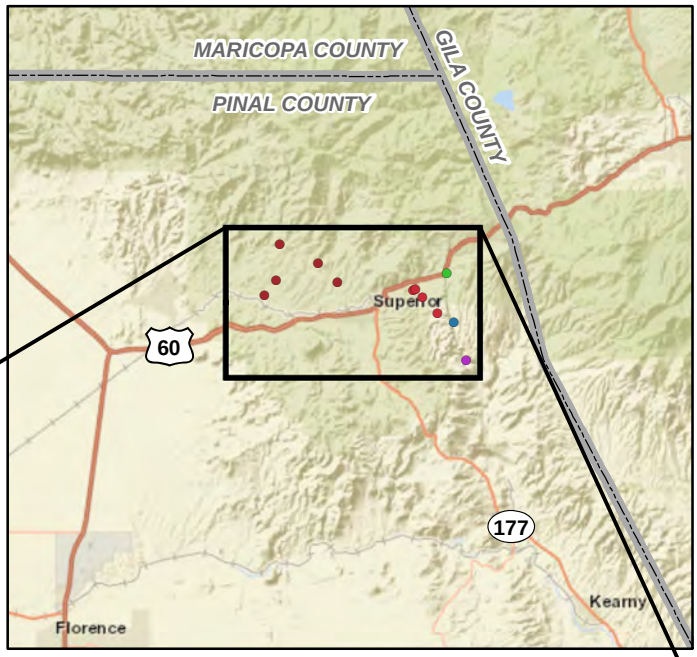
FIGURES

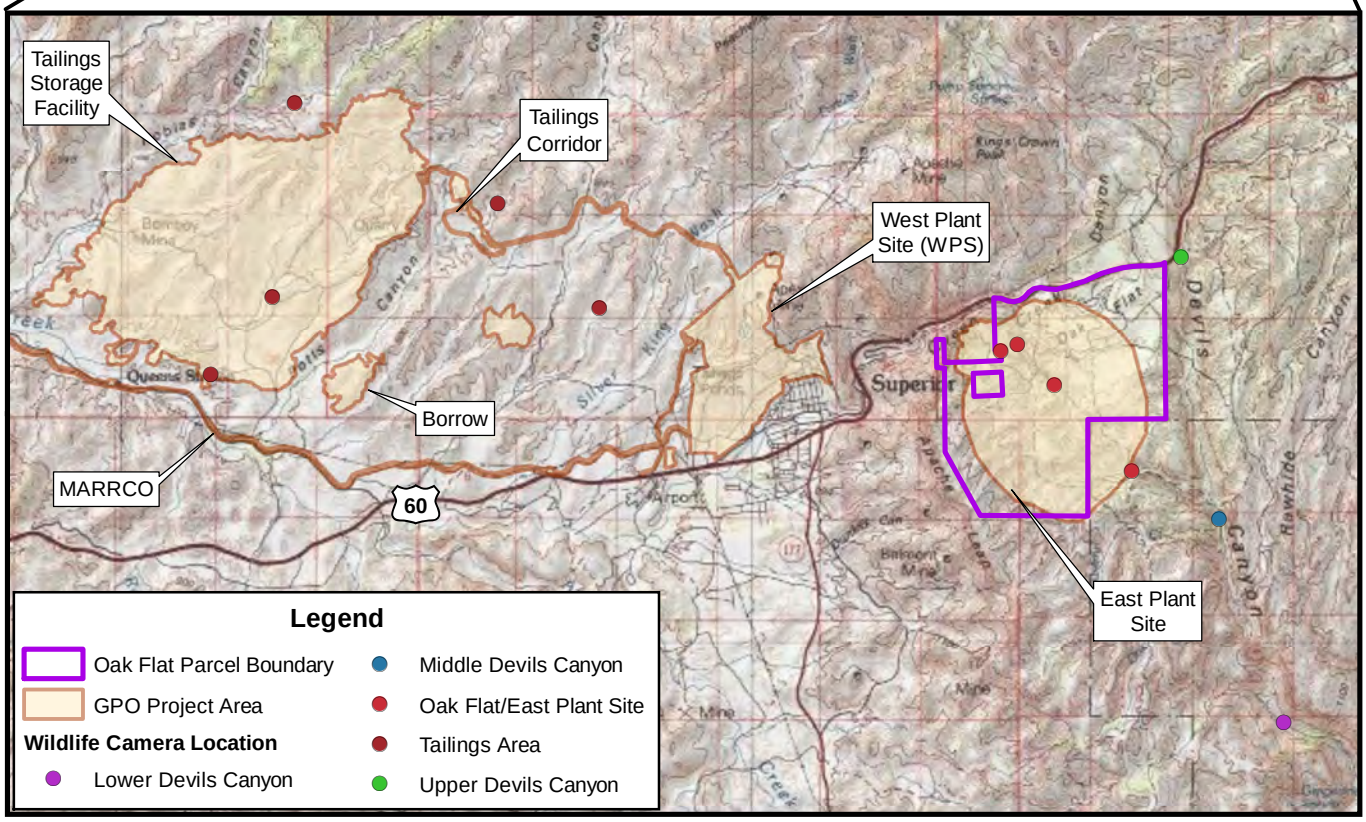
ARIZONA



PROJECT VICINITY



Approximate Scale 1 Inch = 10 Miles



Wildlife Cameras in
T1S, R11E, Portions of Sections 13, 25, and 35,
T1S, R12E, Portions of Sections 20, and 28,
T1S, R13E, Portions of Sections 27, and 32,
T2S, R13E, Portions of Sections 5, 9, and 21,
Pinal County, Arizona,
Mesa USGS 1:100,000 Quadrangle

WestLand Resources

N

0 5,000 10,000 Feet

0 1,500 3,000 Meters

RESOLUTION COPPER

2016-2017 Wildlife Camera Monitoring Report

VICINITY MAP
Figure 1

Path: M:\Jobs\800's\807.132\ENV\2017WildlifeCameraMonitoring\MXD\02 DevilsCanyon_OakFlat.mxd Date: 2/13/2018 User: evinson

Wildlife Cameras in
T1S, R13E, Portions of Sections 27, and 32,
T2S, R13E, Portions of Sections 5, 9, and 21,
Pinal County, Arizona,
Superior and Teapot Mountain USGS 7.5' Quadrangles (2014)

WestLand Resources

N

0 1,000 2,000 Feet

0 300 600 Meters

Legend

Oak Flat Parcel Boundary

GPO Project Area

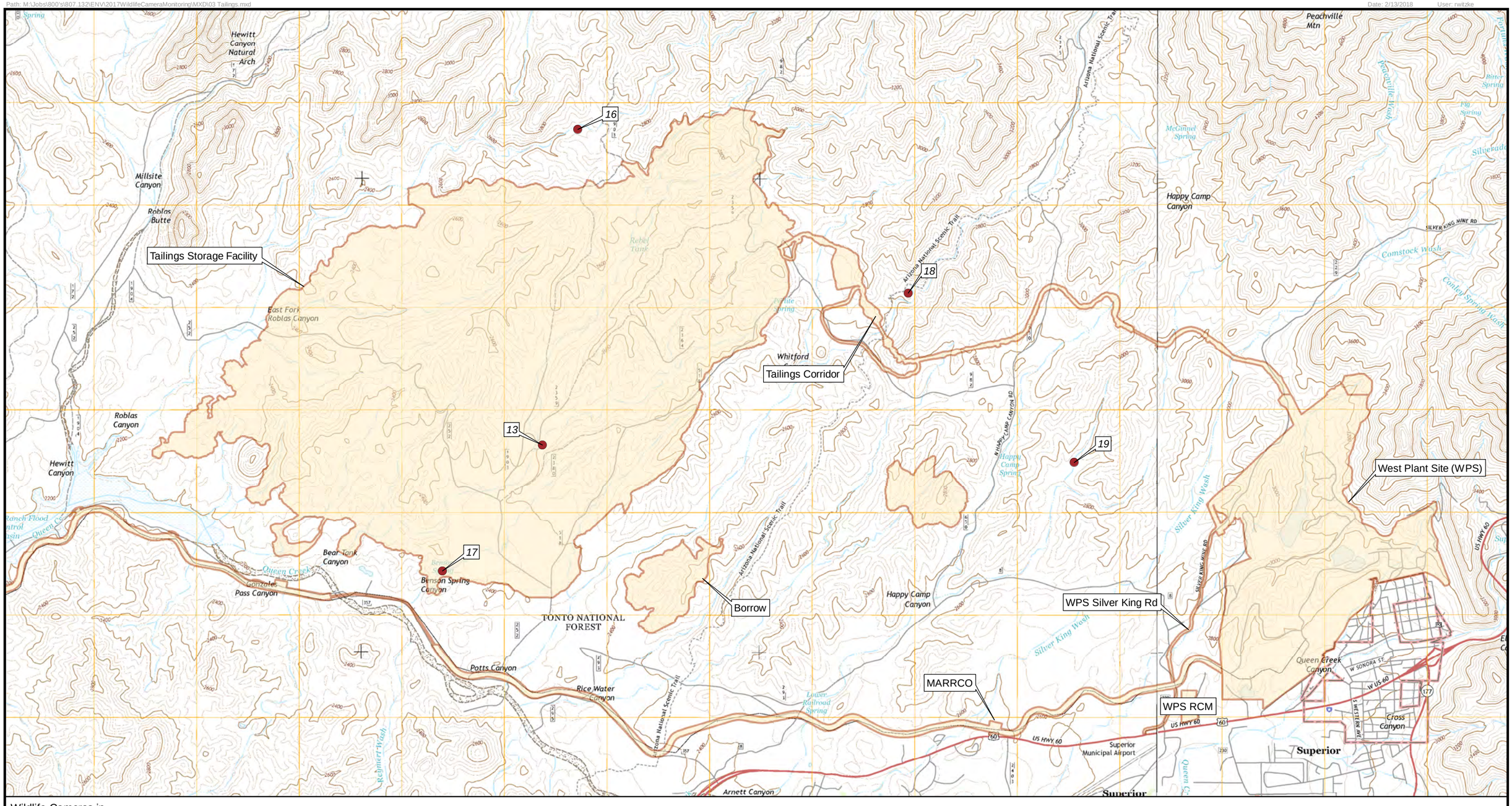
Wildlife Camera Location

- Lower Devils Canyon
- Middle Devils Canyon
- Oak Flat/East Plant Site
- Upper Devils Canyon

RESOLUTION COPPER

2016-2017 Wildlife Camera Monitoring Report

DEVILS CANYON AND
OAK FLAT/EAST PLANT SITE
WILDLIFE CAMERA LOCATIONS
Figure 2



Wildlife Cameras in
T1S, R11E, Portions of Sections 13, 25, and 35,
T1S, R12E, Portions of Sections 20, and 28,
Pinal County, Arizona,
Picketpost Mountain USGS 7.5' Quadrangle (2014)

WestLand Resources

N

0 1,500 3,000 Feet

0 500 1,000 Meters

Legend

GPO Project Area

Wildlife Camera Location

Tailings Area

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2016-2017 Wildlife Camera Monitoring Report

TAILINGS AREA
WILDLIFE CAMERA LOCATIONS
Figure 3

APPENDIX A

Select Photographs

Photo 1. Camera Location 1. A zone-tailed hawk standing at the edge of the tinaja.

Photo 2. Camera Location 8. A greater roadrunner with a lizard in its mouth.

Photo 3. Camera Location 8. A rock squirrel stares at a western diamondback rattlesnake (circled in red). This is the first time that a western diamondback rattlesnake has been documented during this study.

Photo 4. Camera Location 18. An American black bear. This is the first time that this species has been documented in the Tailings Area during this study.

Photo 5. Camera Location 1. Three rock squirrels foraging at the tinaja. The third squirrel is circled in red.

Photo 6. Camera Location 1. Juvenile raccoons interacting.

Photo 7. Camera Location 1. An American black bear entering the tinaja. This is the first time that this species has been documented at this Camera Location.

Photo 8. Camera Location 3. An American black bear mother with her cub.

Photo 9. Camera Location 3. A gray fox with a rodent in its mouth.

Photo 10. Camera Location 3. White-tailed deer fawns nursing.

Photo 11. Camera Location 8. A white-tailed deer with one antler.

Photo 12. Camera Location 3. A family of white-nosed coatis.

Photo 13. Camera Location 3. Juvenile white-nosed coatis. Note the time stamp on the photo.

Photo 14. Camera Location 3. This photo was taken approximately three minutes after Photo 13. The photo shows a mountain lion at far right, possibly in pursuit of the coatis pictured in Photo 13.

Photo 15. Camera Location 3. A family of javelinas resting.

Photo 16. Camera Location 16. A Sonoran desert tortoise. This is the first time that this species has been documented at this Camera Location.

Photo 17. Camera Location 18. A close-up of a mountain lion.

Photo 18. Camera Location 18. A spotted mule deer fawn between two adults.

Photo 19. Camera Location 1a. White-nosed coatis drinking from a puddle.

Photo 20. Camera Location 8. A mountain lion mother with cubs.

Photo 21. Camera Location 8. A mountain lion stares at the camera.

Photo 22. Camera Location 16. A large white-tailed deer buck.

Photo 23. Camera Location 17. A coyote stares at the camera.

Photo 24. Camera Location 1. A family of javelinas.

Photo 25. Camera Location 1a. A common black hawk. This is the first time that this species has been documented at this location.

Photo 26. Camera Location 1a. A gray fox resting.

Photo 27. Camera Location 1a. A rock squirrel carrying grass in its mouth.

Photo 28. Camera Location 1a. A common raven holding something in its beak.

Photo 29. Camera Location 1a. A coati family.

Photo 30. Camera Location 2. An American black bear with an ear tag.

Photo 31. Camera Location 1c. An American black bear with an ear tag. It is unclear if this is the same bear that is pictured in Photo 31.

Photo 32. Camera Location 3. A large javelina.

Photo 33. Camera Location 3. A white-tailed deer licking its nose.

Photo 34. Camera Location 3. An American black bear lying down.

Photo 35. Camera Location 3. A gray fox with a dove in its mouth.

Photo 36. Camera Location 3. An American black bear sitting down and looking back at the camera.

Photo 37. Camera Location 18. A white-tailed deer with two fawns.

Photo 38. Camera Location 1. A ringtail juvenile.

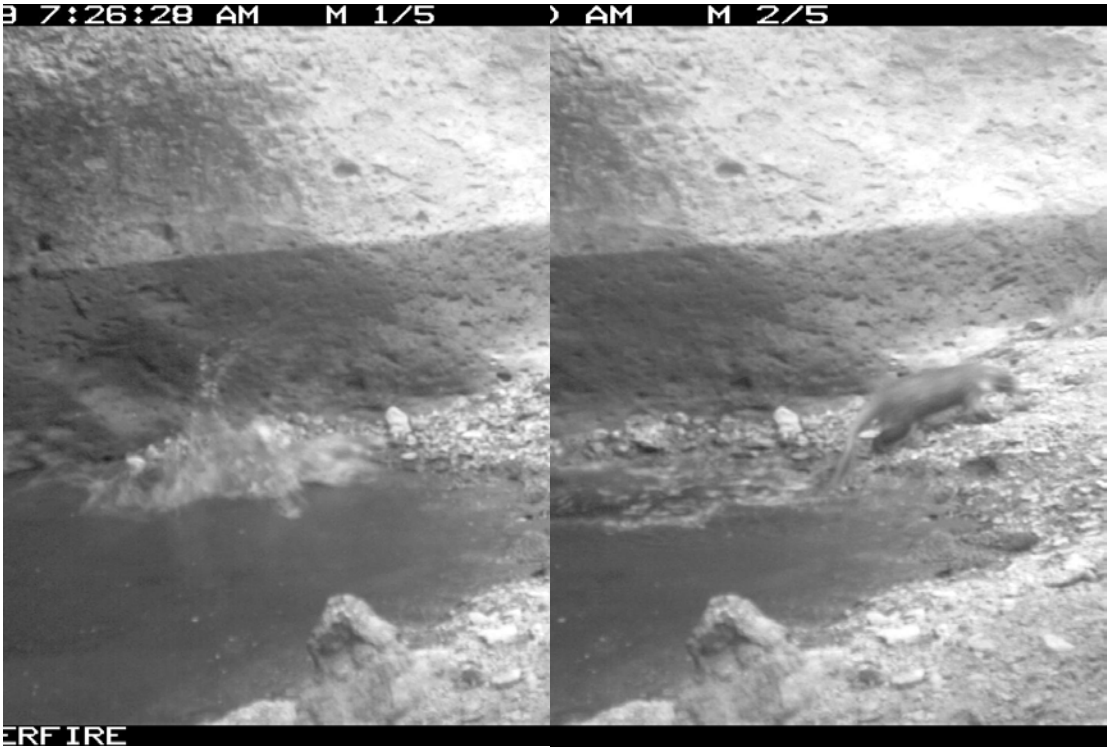

Photo 39. Camera Location 1. Two photos. Photos show a white-nosed coati falling or jumping into the water and then emerging.

Photo 40. Camera Location 1a. A ringtail photographed in daylight.

Photo 41. Camera Location 2. Two hooded skunks.

Photo 42. Camera Location 8. A close-up of a white-nosed coati.

Photo 43. Camera Location 8. A mountain lion grooming itself.

Photo 44. Camera Location 16. A white-tailed deer with a very dark tail.

Photo 45. Camera Location 16. A Gila monster. This is the first time that this species has been documented during this study.

Photo 46. Camera Location 16. A great horned owl walking. This is the first time that this species has been documented at this Camera Location.

Photo 47. Camera location 16. A large white-tailed deer buck.

Photo 48. Camera Location 17. A group of three coyotes.

Photo 49. Camera Location 17. A Sonoran desert toad. This is the first time that this species has been documented at this Camera Location.

Photo 50. Camera Location 17. An American badger. This is the first time that this species has been documented during this study.

Photo 51. Camera Location 17. A bobcat.

Photo 52. Camera Location 17. A ringtail with an unidentified mammal in its mouth.

Photo 53. Camera Location 17. A mountain lion. This is the first time that this species has been documented at this Camera Location.

Photo 54. Camera Location 18. Javelinas with a baby.

RESOLUTION COPPER

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June 22, 2018

US Forest Service
Supervisor's Office
2324 East McDowell Road
Phoenix, AZ 85006-2496

Subject: Resolution Copper Mining, LLC – Mine Plan of Operations and Land Exchange – Baseline Information for MPO and Alternatives Reference Documentation

Dear Ms. Rasmussen,

Enclosed for your review and consideration, please find copies of the following baseline reports for the Mine Plan of Operations and Alternatives:

Document Title	Document Date	Author (Organization)	File Key
2016-2017 Wildlife Camera Monitoring Report	JUN 2018	WestLand Resources	2016-17 Wildlife Monitoring Rpt.pdf
Biological Evaluation for the Proposed Skunk Camp Tailings Storage Facility, Gila and Pinal Counties, Arizona	JUN 2018	WestLand Resources	BE_SkunkCamp_TSF.pdf
Spring & Seep Catalog Resolution Copper Project Area Upper Queen Creek and Devils Canyon Watershed	JUN 2018	Montgomery & Associates	RC_Spring Catalog V2.0.pdf

Additionally, please find the attached report titled "*Tailings Storage Facility DEIS Designs Tailings Geotechnical Characterization*" by Klohn Crippen Berger. This report was referenced in all alternative tailings site DEIS reports.

Should you have any questions or require further information please do not hesitate to contact me.

Sincerely,

402 W. Main Street
Superior, Arizona
+1 (520) 689 9374

Vicky Peacey,
Senior Manager, Permitting and Approvals; Resolution Copper Company, as Manager of Resolution Copper Mining, LLC

Cc: Ms. Mary Morissette; Senior Environmental Specialist; Resolution Copper Company

Enclosure(s): *2016-2017 Wildlife Camera Monitoring Report*

Biological Evaluation for the Proposed Skunk Camp Tailings Storage Facility, Gila and Pinal Counties, Arizona

Spring & Seep Catalog Resolution Copper Project Area Upper Queen Creek and Devils Canyon Watershed

Tailings Storage Facility DEIS Designs Tailings Geotechnical Characterization