

Addendum to Biological Evaluation
 Rosemont Copper Project
 Santa Rita Mountains
 Nogales Ranger District

The 2007 Regional Forester’s Sensitive Species (RFSS) list was updated and finalized by the Regional Office Threatened, Endangered, and Sensitive Species (TES) program staff in September of 2013. Based on Regional Office direction, projects that are already in the analysis process outlined by the National Environmental Protection Act of 1969, as amended (NEPA), which have been through scoping and where issues have been identified, are not required to utilize the updated RFSS list. However, for this project, the Coronado National Forest reviewed the proposed project and 2013 RFSS list to determine if there were major issues or of if the project could cause a trend toward federal listing for a species on the 2013 RFSS list that was not on the 2007 RFSS list.

As part of that review it was determined that the following Sensitive Species (Table 1) were known or had potential to occur in project area and warranted additional evaluation.

For details regarding the project and analysis areas, the action alternatives, activities associated with the action alternatives, the ecological setting of the affected environment, impacts of alternatives, mitigation measures, and figures, refer to the biologists’ report (SWCA Environmental Consultants 2013).

Table 1: 2013 Regional Forester’s Sensitive Species that are known or have potential to occur in the analysis area.

CORONADO NATIONAL FOREST SENSITIVE SPECIES – September 2013

Common Name	Scientific Name	Heritage Global Rank	Heritage State Rank AZ/NM	State
REPTILES (1)				
CHIHUAHUAN BLACK-HEADED SNAKE	<i>Tantilla wilcoxi</i>	G4	S1	AZ
INVERTEBRATES (4)				
SONORAN TALUSSNAIL	<i>Sonorella magdalenensis</i>	G2G3	S2	AZ
A CADDISFLY	<i>Limnephilus granti</i>	G1	SNR	AZ
A CAVE OBLIGATE PSEUDOSCORPION	<i>Tuberochernes ubicki</i>	G1G2	SNR	AZ
SUNRISE SKIPPER	<i>Adopaeoides prittwitzii</i>	G2G4	S2/SNR	AZ/NM
BIRDS (3)				
SULFUR-BELLIED FLYCATCHER	<i>Myiodynastes luteiventris</i>	G5	S3	AZ
YELLOW-EYED JUNCO	<i>Junco phaeonotus</i>	G5	S3/S2B, S2N	AZ/NM

ARIZONA WOODPECKER	<i>Picoides arizonae</i>	G5	S3/S2B, S2N	AZ/NM
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Impacts to 2013 Regional Forester's Sensitive Species

Chihuahuan black-headed snake (*Tantilla wilcoxi*)

The black-headed snake occurs at elevations ranging from about 3,000 to 8,000 feet on rocky hills with cactus, grasslands, and pine-oak forests (AZGFD 2013). It is associated with Madrean evergreen woodland and Petran montane conifer forest. It is most often found under rocks, logs, and other surface cover in shaded rocky canyons and relatively open rocky slopes. The black-headed snake preys mainly on arthropods, including grubs, centipedes, and spiders. This snake is known from extreme southeastern Arizona down to San Luis Potosi, Mexico. In Arizona, it is found in the Santa Rita, Patagonia, and Huachuca Mountains in Cochise, Pima, and Santa Cruz Counties within Arizona.

The black-headed snake is ranked by NatureServe as G5T4T5 (Globally Apparently Secure), N1–N2 (Critically Imperiled to Imperiled), and S1 (Critically Imperiled) in the state of Arizona. No threats to this species are currently known (Hammerson et al. 2007).

A species-specific survey targeting Chihuahuan black-headed snakes was not conducted, and the species may occur within the analysis area.

Direct impacts (i.e., crushing, trampling, etc.) to this species are not anticipated because there are no documented occurrence records for this species within the project area or the footprints of the connected actions; however, any individuals present within the project area or in the path of either of the connected actions could be crushed or trampled as a result of project activities. Any individuals present in the project area could experience impacts from fugitive dust and air pollutants, groundwater drawdown, noise, vibration, artificial night lighting, and increased traffic volumes on SR 83 and other roads. Indirect impacts on black-headed snakes could also result from its prey species experiencing the same impacts as the snake from proposed project activities, hence altering their predator-prey relationships. Given the fairly broad range of the species (Arizona through central Mexico), the project is unlikely to result in effects that reduce the entire population.

For all action alternatives, the proposed project may impact individuals but is not likely to result in a downward trend toward Federal listing as threatened or endangered or a loss of viability.

Sonoran talussnail (*Sonorella magdalenensis*)

The Sonoran talussnail occurs in Arizona and Mexico as far south as Sierra Pajaritos. It is thought to occur in Pima County in the Roskrige Mountains, the south part of the Tucson Mountains, the north foothills of the Santa Rita Mountains, and Tumamoc Hill near Tucson. In Santa Cruz County, it occurs in San Cayetano and the Tumacacori Mountains. These gastropods use talus slopes and crevices in rocks as habitat (AGFD 2008).

The Sonoran talussnail is ranked by NatureServe as G2–G3 (Globally Imperiled to Vulnerable), N2–N3 (Nationally Imperiled to Vulnerable), and S2 (Imperiled) in the state of Arizona. The main threat to this species is destruction and disturbance of talus slopes (AGFD 2008).

Surveys of the analysis area were completed, and indicate that there are several talus/rocky locations within the analysis area (WestLand Resources 2010). Surveys indicated that there were approximately 5.25 acres of potential habitat for talussnails on the east slope of the project area (directly adjacent to the proposed mine pit), and surveyors documented 16 talussnails in this area. Approximately 22.5 acres occur on the west slope of the mountain range, and over 70 talussnails were found in this area and outside the analysis area. Areas on the west side of the ridgeline are likely to have some protection from mining effects/disturbance occurring on the east side of the ridge. Mitigations specifically for talussnails and for maintenance of water quality and quantity should reduce impacts to Sonoran talussnails.

Direct impacts on the Sonoran talussnail may occur as a result of the development of the mine pit associated with the proposed project; no direct impacts resulting from connected actions are anticipated. Any individuals present in the project area could experience indirect impacts from fugitive dust and air pollutants, and any individuals present in the analysis area could experience impacts from decreased surface water flow in Barrel and Davidson Canyons, groundwater drawdown, noise, vibration, and artificial night lighting.

For all action alternatives, the proposed project may impact individuals but is not likely to result in a downward trend toward Federal listing as threatened or endangered or a loss of viability.

A caddisfly (*Limnephilus granti*)

Location information for this species of caddisfly is limited to the type locality (Grant Creek, Pinaleño Mountains, Graham County) and two locations near Greer, Arizona (Apache County) (NatureServe 2013). This species occurs in flowing water in Ponderosa pine habitats. Because this habitat type does not occur within the project area, this caddisfly is not expected to occur in the analysis area.

No further analysis for this species will occur.

A cave obligate pseudoscorpion (*Tuberochernes ubicki*)

This pseudoscorpion occurs in Santa Cruz County of Arizona. It has been documented within a cave area within the Sawmill Canyon of the Santa Rita Mountains (AGFD 2005). Known locations of this species are approximately 7 miles south of the analysis area, and due to limited mobility of the species, the pseudoscorpion is not expected to occur within the analysis area.

No further analysis for this species will occur.

Sunrise skipper (*Adopaeoides prittwitzi*)

The sunrise skipper occurs in Arizona and Mexico and is thought to occur in Pima, Santa Cruz, and Cochise Counties within Arizona. These orange and black skippers have been documented using cienegas in arid grasslands of southeastern Arizona (AGFD 2001).

The sunrise skipper is ranked by NatureServe as G2–G4 (Globally Imperiled to Apparently Secure), N1–N2 (Nationally Critically Imperiled to Imperiled), S2 (Imperiled) in the state of Arizona, and not ranked in the state of New Mexico. The main threat to this species could be lowering water tables, which could cause loss of habitat and/or mortality (AGFD 2001).

There are no known surveys for the species near the project area. Habitat matching the description above is present within the analysis area and the analysis area is within the known range of the species, so it is possible that this species occurs within the analysis area.

Direct impacts on the sunrise skipper are not anticipated as a result of the proposed project because there are no known occurrences of this species within the project area, and no direct impacts resulting from connected actions are anticipated. Any individuals present in the project area could experience impacts from fugitive dust and air pollutants, and any individuals present in the analysis area could experience impacts from decreased surface water flow in Barrel and Davidson Canyons, groundwater drawdown, noise, vibration, artificial night lighting, and increased traffic volumes on SR 83 and other roads. Factoring in the range of this species encompassing three counties and extending into Mexico, it is unlikely that localized impacts will result in broader-scale effects.

For all action alternatives, the proposed project may impact individuals but is not likely to result in a downward trend toward Federal listing as threatened or endangered or a loss of viability.

Sulfur-bellied flycatcher (*Myiodynastes luteiventris*)

These flycatchers eat insects caught in flight or on trees and shrubs during the breeding season, and mainly fruits during the non-breeding season (Lowther and Stotz 1999). They mainly occupy riparian forest areas in Arizona, and further south in their range, they occupy evergreen and deciduous tropical forests. In Arizona, they are found breeding from the Baboquivari Mountains east to the Chiricahua Mountains, and north as far as the Pinaleno Mountains. Their range extends south through Mexico and into Central America as far as Costa Rica. The sulfur-bellied flycatcher is ranked by NatureServe as G5 (Globally Secure), N3B (Breeding Population considered Nationally Vulnerable), and S3 (Vulnerable) in the state of Arizona.

Habitat matching the description above may be present at higher elevations within the analysis area, so it is possible that this species occurs within the analysis area.

Direct impacts on the sulfur-bellied flycatcher are not anticipated as a result of the proposed project because they are highly mobile and will likely avoid disturbance areas, and no direct impacts resulting from connected actions are anticipated. Any individuals present in the project area could experience impacts from fugitive dust and air pollutants, and any individuals present in the analysis area could experience impacts from groundwater drawdown, noise, vibration, artificial night lighting, and increased traffic volumes on SR 83 and other roads. Indirect impacts on the flycatcher could also result from prey species experiencing the same impacts as the flycatcher from proposed project activities, hence altering their predator-prey relationships. Additionally, because the mine pit lake water quality could exceed wildlife standards for three contaminants that are known to bioaccumulate (i.e., cadmium, mercury, and selenium), impacts to this species could occur from eating aquatic invertebrates originating from the mine pit lake.

Due to the broad distribution of this species and based on its relatively secure status, for all action alternatives, the proposed project may impact individuals but is not likely to result in a downward trend toward Federal listing as threatened or endangered or a loss of viability.

Yellow-eyed junco (*Junco phaeonotus*)

Juncos eat insects, arthropods, and seeds (Sullivan 1999). In Arizona, they mainly occupy Ponderosa pine, pine-oak, shrublands and grasslands. They occupy the most of the mountain ranges in southern Arizona, as well as the mountains of extreme southwest New Mexico. Their range extends south to Guatemala. The yellow-eyed junco is ranked by NatureServe as G5 (Globally Secure), S3 (Vulnerable) in

the state of Arizona, and S2B, S2N (Breeding and Non-breeding populations considered Vulnerable) in the state of New Mexico.

Habitat matching the description above may be present at higher elevations within the analysis area, so it is possible that this species occurs within the analysis area.

Direct impacts on the yellow-eyed junco are not anticipated as a result of the proposed project because there are highly mobile and will likely avoid disturbance areas, and no direct impacts resulting from connected actions are anticipated. Any individuals present in the project area could experience impacts from fugitive dust and air pollutants, and any individuals present in the analysis area could experience impacts from groundwater drawdown, noise, vibration, artificial night lighting, and increased traffic volumes on SR 83 and other roads. Indirect impacts on the junco could also result from prey species experiencing the same impacts as the junco from proposed project activities, hence altering their predator-prey relationships. The broad range of this species makes effects above the population level unlikely.

For all action alternatives, the proposed project may impact individuals but is not likely to result in a downward trend toward Federal listing as threatened or endangered or a loss of viability.

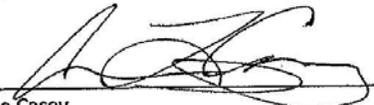
Arizona woodpecker (*Picoides arizonae*)

Arizona woodpeckers are montane woodpeckers that utilize Madrean oak woodland, pine-oak forests, and associated riparian areas (Johnson et al. 1999). Their diet consists mainly of larval and adult insects, fruits, and acorns. They occupy the most of the mountain ranges in southern Arizona, as well as the mountains of extreme southwest New Mexico. Their range extends south through Mexico. The Arizona woodpecker is ranked by NatureServe as G5 (Globally Secure), S3 (Vulnerable) in the state of Arizona, and S2B, S2N (Breeding and Non-breeding populations considered Vulnerable) in the state of New Mexico. Habitat loss in southern portions of the Arizona woodpecker range may be causing a decline. Habitat matching the description above may be present within the analysis area, so it is possible that this species occurs within the analysis area. The area represents only a small fraction of forest available as habitat for this species; the Coronado National Forest manages over 748,000 acres of Madrean oak woodland, as well as approximately 141,000 acres of pine-oak forest.

Direct impacts on the Arizona woodpecker are not anticipated as a result of the proposed project because there are highly mobile and will likely avoid disturbance areas, and no direct impacts resulting from connected actions are anticipated. As mentioned above, hundreds of thousands of acres of alternative habitat are available outside the proposed mine area. Any individuals present in the project area could experience impacts from fugitive dust and air pollutants, and any individuals present in the analysis area could experience impacts from groundwater drawdown, noise, vibration, artificial night lighting, and increased traffic volumes on SR 83 and other roads. Indirect impacts on the Arizona woodpecker could also result from prey species experiencing the same impacts as the woodpecker from proposed project activities, hence altering their predator-prey relationships.

For all action alternatives, the proposed project may impact individuals but is not likely to result in a downward trend toward Federal listing as threatened or endangered or a loss of viability.

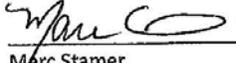
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