

3.6 Biological Resource Plan

Details of the biological resources occurring on the Property, as well as anticipated mitigation for impacts to these resources, are included in the technical report *Biological Resources and Mitigation Concept: Rosemont Project* (WestLand 2007). A summary is provided here.

3.6.1 Vegetation and Habitat Description

The Property ranges in elevation from 4,400 to 6,300 ft above msl and supports a variety of upland habitat with vegetation characteristic of Madrean Evergreen Woodlands and Semidesert Grassland. Madrean Evergreen Woodland covers the higher elevations of the Property, generally in the western and southern areas. This community is characterized by open woodlands or savanna, with trees interspersed with grasses and forbs. Semidesert grassland, characterized by open grasslands with widely scattered shrubs and cacti, covers the lower elevations of the Property.

Barrel Canyon is the principal drainage system for the east side of the Property. Wasp, McCleary, and Scholefield Canyons discharge to Barrel Canyon, which then discharges to Davidson Canyon east of the Property. The northwest side of the Property is drained by a series of unnamed headwater tributaries of Sycamore Canyon. Riparian areas are present along some of the major washes and in small patches at some of the more reliable springs. Ephemeral flow in Barrel Canyon, McCleary Canyon, and Wasp Canyon supports areas with tree and shrub species not present on drier upland ridges, including Arizona black walnut, netleaf hackberry, desert willow, and desert broom. Several springs, including Rosemont Spring, Scholefield Spring, and Figtree Spring, support a variety of trees, shrubs, and herbaceous plants not found elsewhere on the site. These species include Goodding's willow, coyote willow, common, poison ivy, seepwillow, desert false indigo, canyon grape, American brooklime, and southern cattail.

3.6.2 Special Status Species

A variety of mammals, birds, reptiles, and amphibians comprise the wildlife community on the Property. Special-status species considered to date include those covered by the Endangered Species Act (ESA) and those considered sensitive by the FS.

3.6.2.1 Endangered Species Act

A preliminary evaluation comparing habitat requirements of special-status species (including geographic and elevation ranges) with habitat occurring on the Property determined that three of the ESA-listed species known to occur in Pima County (the Huachuca water umbel, Chiricahua leopard frog, and lesser long-nosed bat [LLNB]) may be present on the Property. Several springs on the Property constitute potential (though marginal) habitat for the Huachuca water umbel and Chiricahua leopard frog. These springs were surveyed and no individuals of either species were identified. Additional surveys are not planned. Abandoned mine shafts and adits on the Property may provide roosting habitat for the LLNB, and evidence of nectar-feeding bats was identified in three of these features during the survey. However, no LLNB individuals were observed, and another nectar-feeding bat, the Mexican long-tongued bat, was

positively identified during surveys. A biological assessment will be completed for the project to support the FS NEPA process, and results of consultation with the US Fish and Wildlife Service will be incorporated into the Project plan.

3.6.2.2 Forest Sensitive Species

Forty-seven plant species in Pima County are listed as sensitive by the FS. These species have no specific protection under the ESA, but because much of this site is on CNF, the FS takes special interest in their possible presence on the site. One of these sensitive species, the Arizona giant sedge (*Carex ultra*), was observed in a dense stand with some cattails (*Typha domingensis*) at Scholefield Spring. This sedge is rare, with its distribution generally limited to one location in each of several mountain ranges in southern Arizona. Three other sensitive plant species have not been confirmed in the Property but their presence is considered probable because of suitable habitat and known occurrence very close to the site (ARPC 2001). These species are the Bartram stonecrop (*Graptopetalum bartramii*), Box Canyon muhly (*Muhlenbergia dubioides*), and weeping muhly (*Muhlenbergia xerophila*).

Thirty-two animal species in Pima County are listed as sensitive by the FS. As with the sensitive plants described above, these species have no legal status, but the FS takes special interest in their possible presence on the site. Three of these species—the Chiricachua leopard frog, yellow-billed cuckoo, and lesser long-nosed bat—are also ESA-listed and have been discussed above.

Six other FS-listed sensitive species are considered possibly or probably present on the site, based on geographic range and habitat requirements. This group of species includes three insects, one amphibian, one reptile, and one bird. Three sensitive butterfly species are potentially present on site: the Arizona giant skipper (*Agathymus aryxna*), Poling's giant skipper (*Agathymus polingi*), and Arizona metalmark (*Calephelis rawsoni arizonensis*). The Western barking frog (*Eleutherodactylus augusti cactorum*) is often found in caves, crevices, and abandoned mines in limestone, and it is known to be present in the Santa Rita Mountains. The canyon spotted whiptail (*Aspidoscelis burti*) is found in valley bottoms and riparian corridors in semidesert grassland and Madrean evergreen woodland—habitats well represented on this site (Brennan and Holycross 2006). The American peregrine falcon (*Falco peregrinus anatum*) is found in a wide variety of habitats, especially those with high topographic relief and available prey. Cliffs on the western edge of the Property could provide possible nest sites.

Additional biological investigations will be carried out during the NEPA process, as necessary.

3.6.3 Noxious Weeds

As necessary, Rosemont Copper will initiate and maintain a program to control noxious weeds occurring within the boundary of the Project. Reseeding activity will use exclusively certified seed, weed-free straw, and any equipment from outside the United States will be cleaned prior to use.

CNF approval will be obtained prior to initiating any weed control program on federal land. Weed control will be limited to chemicals and procedures approved by the CNF. The purpose of the program will be to control the growth and dissemination of noxious weeds on disturbed sites and soil stockpiles. A written annual report summarizing the noxious weed control program for the previous year will be submitted to the FS.

3.6.4 Pima County Conservation Lands System

The entire Property is included within the Pima County Conservation Land System (CLS). The CLS was adopted in 2001 by the Pima County Board of Supervisors as part of its Comprehensive Plan. These designations are used by Pima County to guide development and growth and to foster the conservation objectives of the Sonoran Desert Conservation Plan (SDCP). The development of the Project is not a discretionary action subject to Pima County's jurisdiction, therefore, these designations have no regulatory or other implication in regard to the development of the Project. However, WestLand (2007) considers Project impacts to CLS lands and provides a mitigation strategy for these impacts.