Mello Aff #2, Par 12h

1,900 meters]), piñon-juniper woodland (6,200 to 6,900 feet [1,900 to 2,100 meters]), ponderosa pine forest (6,900 to 7,500 feet [2,100 to 2,300 meters]), and mixed conifer forest (7,500 to 9,500 feet [2,300 to 2,900 meters]) (see **Figure 3–7**). The vegetative communities on and near LANL are very diverse, with over 900 species of vascular plants identified in the area. As noted in Section 3.2.1, the 1,000-acre (405-hectare) White Rock Canyon Reserve, located in the southeast portion of LANL, was dedicated in 1999 because of its ecological and cultural resources and research potential. DOE will continue to own and control access to the property. The National Park Service will cooperatively manage the reserve to enhance and ensure protection of habitat and wildlife (DOE 1999c).

Terrestrial animals associated with vegetation zones in the LANL area include 57 species of mammals, 200 species of birds, 28 species of reptiles, and 9 species of amphibians. Common animals found on LANL include the black-headed grosbeak (*Pheuclicus melanocephalus*), western bluebird (*Sialia mexicana*), elk (*Cervus elaphus*), and raccoon (*Procyon lotor*). The most important and prevalent big game species at LANL are mule deer (*Odocoileus hemionus*) and elk. Elk populations have increased in the area from 86 animals introduced in 1948 and 1964 to an estimated population of over 10,000 animals. Hunting is not permitted onsite. Numerous raptors, such as the red-tailed hawk (*Buteo jamaicensis*) and great-horned owl (*Bubo virginianus*), and carnivores, such as the black bear (*Ursus americanus*) and bobcat (*Lynx rufus*), are also found on LANL (DOE 1999c). A variety of migratory birds have been recorded at the site and are protected under the Migratory Bird Treaty Act.

In May 2000, the Cerro Grande Fire burned across 7,684 acres (3,110 hectares) of forest area within LANL (DOE 2002c). Fire suppression activities resulted in the clearing of an additional 130 acres (52 hectares). Depending on fire intensity, vegetation will either be replaced by new species or recover in a relatively short period. Where the fire intensity was high, it is likely that recolonization will be by other than the original species, with the possibility that exotic plants may predominantly occur in areas previously dominated by native species (DOE 2000b).

Throughout LANL's history, developments within various TAs have caused significant alterations in the terrain and the general landscape of the Pajarito Plateau. These alterations have resulted in significant changes in land use by most groups of wildlife, particularly birds and large mammals that have large seasonal and daily ranges. Certain projects required the segregation of large areas such as mesa tops and, in some cases, project areas were secured by fences around their perimeters. These alterations have undoubtedly caused some species of wildlife, such as elk and mule deer, to alter their land-use patterns by cutting off or changing seasonal or daily travel corridors to wintering areas, breeding and foraging habitats, and bedding areas (DOE 1996c). The Cerro Grande Fire dramatically altered the habitat of many animals. While initially eliminating or fragmenting the habitats of many animals (such as reptiles, amphibians, small mammals, and birds), the habitat for other species (such as large mammals) will increase or improve by the newly created foraging areas. During the fire, individuals of many species died. Population recovery is expected within the next several breeding seasons. Elk and mule deer populations are expected to increase in response to the additional foraging areas resulting from postfire vegetation regrowth (DOE 2000b).