

# **GRIFFITH PARK MASTER PLAN DRAFT, REDRAFT OF CHAPTER FOUR**

formerly entitled “The Natural Environment”

Submitted by the Subcommittee of the Working Group, December 5, 2005

(Changes to the November 11, 2005 draft appear in italics)

## **THE PLANT AND ANIMAL WORLD**

### **I. INTRODUCTION**

*Griffith Park is designated as a Significant Ecological Area (SEA) within the County of Los Angeles. The Park is a largely natural and open environment overlaid with an existing built environment. Its natural identity is apparent in its seasonal changes. After winter rains, seasonal streams appear in its canyons. In the spring, scores of native wildflowers come into bloom, and by April, mustard grass grows to shoulder height. With summer comes an apparent die-off: the Park’s green hillsides turn gold, then fade to dun. In winter, the Park’s native shrubs are laden with berries, and after new rains, the cycle begins again. The Park’s fauna – its mammals, insects, amphibians, reptiles and birds - are adapted to and dependent on these cycles. Preservation and enhancement of the Park’s Urban Wilderness Identity requires that all environments of the Park be managed as a natural area consistent with that identity. Changes or improvements to both the built and natural environment must be accomplished in a manner that is integrated functionally and aesthetically with the Urban Wilderness Identity.*

### **II. THE EXISTING NATURAL ENVIRONMENT**

#### **A. THE PARK SETTING**

The Park is located in the easternmost Santa Monica Mountains with a Mediterranean-type climate that results in an environment of low rainfall. There are two major watersheds in the Park which are divided by a single ridge traversing the Park from northwest to southeast, parallel to Vista Del Valle Drive. Elevations range from approximately 384 to 1,625 feet above mean sea level with Mount Hollywood being the highest peak. The topography drops from the ridge with steep and gentle slopes and canyons transitioning to flatter areas including the L.A. River flood plain on the north. (See, Topography Map, currently figure 4.1 of proposed Master Plan.)

The northern watershed contains many smaller watersheds (20 or more) that collect and divert rainfall to various canyon areas. Watersheds to the north have remained relatively undisturbed with the exception of the base of the watershed near the Old Zoo, leading to Bee Rock, portions of Camp Road, and the Toyon Canyon Landfill.

The southern watershed is also composed of ridges and canyons that create many smaller watersheds (20 or more) that collect and divert rainfall water to Vermont Canyon, the Bird

Sanctuary, Fern Dell Road, Canyon Drive (which has the most significant riparian habitat in the Park) and areas to the West of Canyon Drive. The watersheds to the south, with the exception of where the landscape has been altered by paved areas which accelerate water flow, such as the Bird Sanctuary and Fern Dell Drive, are relatively unaltered. The original land of the Park has been substantially altered by the channelization of the L.A. River, construction of the 134 Freeway and Interstate 5, the urbanization around the Park, and the buildings and facilities that have been placed in the Park.

Griffith Park is characterized by two distinct types of soil: the Tujunga-Soboba association in the extreme northern portion of the Park along the L.A. River (flood plain), near the Headworks and the Los Angeles Zoo, and the San Andreas-San Benito association in the remainder of the Park. The Tujunga-Soboba association is a deep (to 60 inches), very well drained, coarse, sandy loam on alluvial fans with 0 to 5 percent slopes from sea level to 3,700 feet. This soil has a low runoff and erosion potential due to its quick absorption properties. This soil is of low natural fertility and typically supports grasses, forbs (herbaceous plants), and areas of brush.

The San Andreas-San Benito association is characterized by relatively deep (up to 48 inches) well-drained, sandy, clay loam on steep slopes (30 to 75 percent) between 200 to 1,500 feet in elevation. These deposits overlay sandstone or shale that is relatively fine-grained, but often excludes plant roots except in joints. This association has a moderate to high runoff and erosion potential because of the slope. These soils are of moderate to high natural fertility and typically support wildlife and vegetation.

## **B. THE PARK VEGETATION (FLORA)**

Ten thousand to 20,000 years ago, following human occupation of the region, human-generated fires caused chaparral to become the most widespread plant community in the Park and vicinity since chaparral readily regenerates after fires. Over the past 200 years, grasses native to Europe and others parts of the world have been introduced for livestock grazing and have resulted in encroachment into native plant communities by non-native grasses and weeds, and the ultimate disappearance of native grasses from the Park. Since the Park became City property, management of the vegetation has included planting other non-native species, including pine, eucalyptus, silk oak, lawns, golf course greens, and horticultural shrubs and trees.

There are areas of the Park with disturbed habitat from grading or other activities that have so modified the original topography and environment of the area that they are generally devoid of vegetation. These areas include Toyon Canyon Landfill, Headworks, the composting facility, and the various areas in the Park used for maintenance storage and work.

Within the remainder of the areas of the Park, there are at least nine types of plant communities that have been identified and mapped within the Park (see Existing Vegetation Map, currently figure 4.2 of proposed Master Plan document). Every plant community within

the Park includes vegetation that is both native and non-native to Southern California. The Park boasts rare native chaparral species such as Nevins Barberry and showy natives such as matilija poppies and prickly pear.

The Oak-Walnut Woodland areas are generally found on slopes and elevations above high-use areas and have not been substantially impacted by recreational activities. The same is true of the Oak Woodland community which is generally found on north-facing slopes surrounded by steep terrain. Within the Oak Woodland communities are found non-native species such as the California fan palm and the castor bean (an-invasive).

The Oak-Sycamore Riparian community occurs along creeks and moist areas in the lower elevations of the Park including Canyon Drive and Fern Dell Canyon, and smaller canyons such as those above the Merry-Go-Round and the Old Zoo. Within this community are non-native invasive species such as castor bean and giant reed. This community is impacted by human incursion and recreational uses.

The Pine areas of the Park are all comprised of trees that have been planted because the Santa Monica Mountains have no naturally occurring pine forests. A variety of pine species is represented, but most large stands are Canary Island Pine. The largest areas are adjacent to the Greek Theater and the Griffith Observatory. In most areas, the understory consists of plants of the mixed chaparral community.

Mixed Chaparral is the most widespread plant community in the Park. It occurs in a nearly uniform canopy of chamise and toyon north-facing slopes and is generally more sparse on steeper slopes. On lower slopes, it is interspersed with non-native trees. Because of its dense canopy, except for official and non-official trails, the community is relatively undisturbed by Park visitors and recreation. The Mixed Chaparral integrates with mixed scrub, ruderal and non-native landscaped communities and occasionally supports non-native planted trees such as pine and silk oak.

Mixed Scrub is the second most widespread plan community in the Park, occurring in scattered patches. The community is dominated by coastal sagebrush, California buckwheat, California encelia and white sage, and in some areas supports several non-native species, including short-pod mustard, wild oats, and tree tobacco. On lower slopes in the southern portion of the Park, this community is subject to disturbance by visitors and recreation resulting in degradation of its quality.

The ruderal, or weedy plant community is found throughout the Park both within patches of native plant communities and in areas that have been heavily disturbed by human use. It frequently borders ornamental landscape and mixed scrub communities. In the past, these areas likely supported grasslands, mixed scrub, mixed chaparral and riparian habitats. The community is typically dominated by non-native species such as short-pod mustard, Italian thistle, wild oats, tree tobacco, tocalote and annual sunflower.

These plant communities provide food and shelter for a diversity of wild creatures who make their dens, nests, burrows and hives in the Park.

## **C. MAMMALS, INSECTS, AMPHIBIANS, REPTILES, AND BIRDS (FAUNA)**

### **1. Mammals**

*Mammals making their home in the Park include deer, coyotes, raccoons, red fox, grey fox, opossum, striped skunk, Beechey ground squirrel, and the non-native Eastern fox squirrel and house mouse. Bobcats have been observed in the northwest and eastern portions of the Park, and recently there have been sightings of a mountain lion that some believe may have incorporated Griffith Park into its range.*

### **2. Insects**

The last survey of insects in the Park was in spring 2003, a year of a cool late spring and it is not clear how that impacted the survey results. During that survey, the most frequently observed butterfly was the gulf fritillary, which uses ornamental passion vines as a host plant. Bumblebees and honeybees were the most abundant bee species, although carpenter bees were also observed. Sand wasps were observed along some of the hiking trails where sandy patches are present. *Scorpions, tarantulas and other spiders are commonly observed.*

### **3. Amphibians and Reptiles**

Amphibians observed in the Park have included arboreal salamander, Pacific slender salamander, Pacific tree frog and California toad. Non-native amphibians found in many streams in the Park are the bullfrog and the African clawed frog. *In addition to stream habitats, the Los Angeles River, on the Park's eastern side provides abundant habitat for amphibians.*

Reptiles identified in the Park include the western fence lizard, western skink, southern alligator lizard, California whiptail, side-blotched lizard, California legless lizard, California whipsnake, coachwhip, California kingsnake, ring-neck snake, gopher snake, and western rattlesnake.

### **4. Birds**

Ornithologists have identified 166 bird species in the Park. The Park is also an important stopover for migrating birds and provides an abundance of habitat for wintering birds. Resident birds during the 2003 survey included the acorn woodpecker, American crow, Anna's hummingbird, Bewick's wren, bushtit, California towhee, California quail, California thrasher, common raven, European starling (non-native), great horned owl and the red-tailed hawk. Migratory birds included the ash-throated flycatcher, black-chinned hummingbird, black-headed grosbeak and western wood pewee. *Aquatic species such as herons, egrets, ducks and migrating geese are seen in the Los Angeles River as it flows through the Park. These species are also observed on golf course water features within the Park.*

## 5. Special Status Species

Special status species are designated as such generally because of declining or limited population sizes resulting from, in most cases, loss of habitat. Within the Park are Nevin's Barberry, with several individuals of this large shrub occurring in to separate areas of the Park. No wildlife species listed as threatened or endangered are known to occur in the Park due to a lack of suitable habitat. However, several other special interest species designated California Species of Special Concern are known to occur or expected to occur in the Park.

These include Cooper's hawk, loggerhead shrike, sharp-shinned hawk, southern California rufous-crowned sparrow, northern harrier, yellow warbler, San Diego horned lizard, south coast garter snake, San Diego desert woodrat, and several bat species. No threatened or endangered butterflies or other insects were detected during the spring 2003 surveys.

### III. WILDLIFE CORRIDORS

*In company with other reservoirs of native species surviving in L.A. County, such as the Santa Monica Mountains, Verdugo Mountains, San Gabriel Canyon and Joshua Tree Woodlands, the Educational Research center of the University of California at Los Angeles has designated Griffith Park as a Significant Ecological Area (SEA). Griffith Park draws much of its importance as an SEA from its "greater than might be expected function" and role "as a corridor for many gene flow and species movement between the Santa Monica, San Gabriel, and Verdugo Mountains."*

Wildlife corridors are patches of vegetation and topography that facilitate movement between areas of suitable habitat for various species of wildlife. Wildlife corridors are essential for maintaining the genetic health and genetic diversity for species of both plants and animals. Roads (especially freeways), urbanized space, and other man-made impediments create "genetic barriers." Without sufficient mix/diversity of genes within a population, gene pools become limited, with the species becoming genetically weak and eventually experiencing a population extinction. Plant populations, as well as animals, benefit from genetic mixing, as seeds are carried by wildlife with wide-reaching ranges.

There is a second way by which corridors benefit wildlife ecosystems. Population imbalances which inevitably occur in isolated ecosystems can be remedied with the immigration and/or emigration provided by wildlife corridors. Third, wildlife corridors provide routes for avoiding the road-kill hazard and allow a safe means for escaping natural and man-made disasters, such as flood and fires.

Griffith Park has become increasingly isolated from the rest of the Santa Monica Mountain Range, the Los Angeles River and the basin because of the freeways, concrete river projects and urbanization that surround it. *Although some species have disappeared from the Park, including the ringtail, the gray fox is still seen.*

River-bed vegetation is quickly returning to the L.A. River and should be encouraged to do so. Already major bird and mammal populations exist on the re-vegetated portions of the River. Although some stretches of the L.A. River may not currently provide suitable primary corridors, it is important to reinstate the Park's connection to the L.A. River for the future.

The undisturbed natural areas in the northwest portion of the Park should remain natural. Much of the land outside the Park boundaries on that side of the Park is also natural, providing primary linkage westward on the Santa Monica Mountain Range.

Secondary corridors within the Park are also essential. The Park itself should become free of fences and barriers which limit movement. To the extent possible, the periphery of the Park should allow for non-obstructive transition to outside natural areas.

#### **IV. SPECIFIC GOALS AND OBJECTIVES**

##### **A. Manage The Natural Habitat Of The Park To Maintain, Rehabilitate And Restore Existing Ecosystems In All Areas Of The Park**

1. Include in the full-time staff for the Park a properly educated, trained and experienced ecologist and a properly educated, trained and experienced forester/restoration specialist.
2. *Educate and train all Park executives and staff about the Park's ecosystems and strategies to preserve and protect its biological resources.*
3. Identify all existing native species and take the steps necessary to continuously preserve native species.
4. Identify existing non-native species and develop plan for possibly replacing such species with native species.
5. *Encourage use of native plant species and prohibit use of invasive non-native species in the Park, including in all areas held by leaseholders and concessionaires.*
6. Identify unique biological resources for wildlife and protect such areas by appropriate seasonal closure.
7. Eliminate and prohibit the use of the natural areas of the Park as "lay down areas" and restore those areas that have previously used to the natural state of the area.

8. Prohibit any further development within the *existing open spaces of the Park*.

**B. Manage And Maintain Watersheds Within The Park To Support Aquatic Biodiversity and Riparian Habitat In The Park's Watercourses And The L.A. River**

1. Reduce and prevent pollutant discharges into the environment.
2. Break up the areas of impermeable surfacing and replace with permeable surfaces to allow water infiltration.
3. Develop a naturalized drainage system of bioswales or riparian swales woven through all existing functions of the Park.

**C. Manage The Rehabilitation Of All Areas Of The Park Consistent With The Urban Wilderness Identity**

1. All work with regard to Toyon Canyon Landfill is to adhere to the previously developed Bureau of Sanitation Toyon Canyon Reclamation Plan.
2. Headworks restoration is to be done in such a manner as to (1) improve the habitat linkage between the Park and the L.A. River; (2) restore a vital seasonal wetlands area; (3) retain and treat surface water runoff within the watershed in a bioswale, and (4) improve the quality of water that enters the L.A. River..
3. The Bird Sanctuary shall be restored and maintained as a natural environment friendly to the Park's native bird species without any physical plant. The stream course shall be lined and paved with natural materials and rocks so that water is captured, erosion is avoided, and a small pumping system installed to ensure a continual water source.
4. Fern Dell shall be restored and maintained consistent with its historical status and a small pumping system installed to ensure a continual water source.
5. Golf courses in The Park shall be environmentally responsible including applying for Audubon International certification.

6. The Los Angeles River in Griffith Park shall be restored and maintained consistent with the Park's Urban Wilderness Identity.

**D. Manage The Park Trails To Prevent Undesirable Impacts On Native Vegetation, Wildlife Habitat And Hillsides**

1. Close, prohibit and enforce a policy of no unofficial trails.
2. Re-sign official trails and upgrade such trails as necessary to minimize erosion.
3. Regularly maintain official trails.

**E. Acquire Additional Adjacent Open Space**

1. Acquire land bordering the Park on the northwest.
2. Keep all acquired land that is in a natural state in that state.

**F. Create, Restore And Maintain Wildlife Corridors**

1. A primary wildlife corridor between the Park and the L.A. River shall be restored in the area of the Headworks by the removal of fencing near the River and the planting of sycamores, oaks, and native riparian shrubs. Culverts and land bridges should be considered for safe passage across Forest Lawn Drive, as well as other vehicular roads of the Park.
2. Management of all facilities within the Park will be done in such a manner as to not impair natural secondary corridors.
3. Any acquired or existing space in the Northwest area of the Park will be utilized as a wildlife area with limited human access to encourage the corridor westward on the Santa Monica Mountain Range.
4. Barriers, fencing and other impediments along the periphery of the Park should be removed to allow safe passage to outside natural areas, unless those barriers provide protection from hazards or channel wildlife to other areas where safe passage is possible.