

MARIAN BEAR MEMORIAL PARK
NATURAL RESOURCE MANAGEMENT PLAN

PREPARED BY

PARK AND RECREATION DEPARTMENT
CITY OF SAN DIEGO

AND

MARIAN BEAR NATURAL PARK RECREATION COUNCIL

Adopted by City Council on
January 31, 1994 by Resolution No. 283344

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SUMMARY

The Marian Bear Memorial Park Natural Resource Management Plan recognizes the value of natural resources in the Park and provides for protection, enhancement, and management of these resources. The Plan establishes guidelines for present and future use and maintenance of the Park while protecting the resources. Use of the Plan can help bridge what can sometimes be a gap between human activities and natural resource protection and management. This Natural Resource Management Plan helps to clarify expectations for natural resource protection in the Park and to facilitate the granting of any Federal, State, or local permits required for projects in the Park.

Marian Bear Memorial Park, located in the City of San Diego, contains 467 acres of native coastal sage scrub, chaparral, and riparian woodland type habitats and over 12 miles of walking trails. The guidelines for development and park usage provided in the management plan include: community events limited to two areas; domestic animals constrained; all maintenance roads, parking lots, and trails unpaved; a 100-foot biological buffer zone established around sensitive habitats; new trails planned for chaparral and disturbed, non-native habitat areas; and, poison oak controlled only around highly used public areas.

Enhancement and maintenance guidelines outlined in the management plan include: areas suffering from public activity abuse closed and revegetated with native vegetation erosion areas vegetated with native vegetation; sensitive bird species nesting sites and sensitive plant areas posted "No Entry"; nonnative, exotic plants eradicated and replaced with native vegetation; trails closed to allow native vegetation to recover and to provide erosion control; City departments notify the Park and Recreation Department, Open Space Division, of any maintenance activities being conducted; and fences and gates kept in good repair. For projects which are unable to eliminate impacts or for maintenance activities resulting in habitat disturbance, mitigation and restoration guidelines are outlined in the Plan. These guidelines include: no net loss of riparian, coastal sage scrub, oak woodland, or chaparral habitat; mitigation and monitoring programs are required; revegetation projects should use a variety of habitat types, vertical and horizontal plant diversity, and irregular borders; temporary irrigation may be required; and appropriate native plants should be used as listed in Appendix E.

Suggested guidelines for interpretive and research opportunities include: signage with a rustic appearance; limit interior Park signage to major trails, restoration projects, and nature trail identification; kiosks placed at three major access locations for information and interpretive signage and brochures; development of self-guiding, interpretive trail booklets; a possible nature center dependent on future growth needs; and, research encouraged to gather unknown information on natural resources. The Plan also addresses implementation including which agencies have jurisdiction over various projects and mitigation planning, implementation and maintenance requirements. Responsibilities of various City departments and the Recreation Council are also discussed.

INTRODUCTION

PURPOSE

The purpose of this Natural Resource Management Plan is to provide guidance for the present and future development and maintenance of the Marian Bear Memorial Park. The Park is located south of State Route 52 between Interstate 5 and Interstate 805 in the City of San Diego (Figure 1). This Plan is intended not only to provide for protection and preservation of the natural resources, especially sensitive resources, but also to allow safe and accessible use of the Park to meet the needs of the present and future community. The Natural Resource Management Plan (NRMP) also provides for maintenance of the quality of the Park's natural environment and associated visual enjoyment of the Park's open space.

The City of San Diego recognizes the value of the natural resources found in the Marian Bear Memorial Park with this Plan. The NRMP is intended as a tool to protect the natural resources while accommodating human activities in the Park.

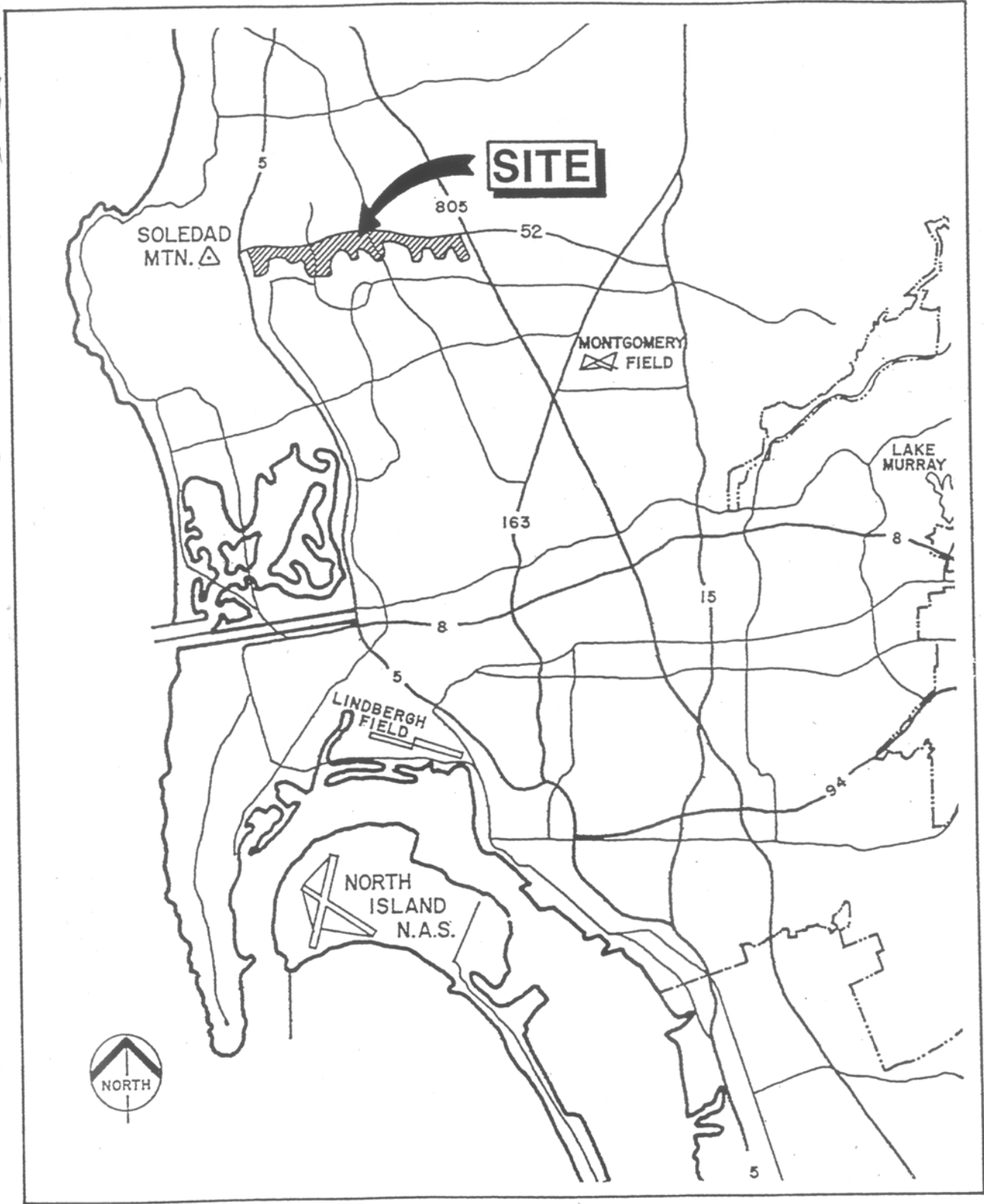
The purpose, goals, and objectives of this NRMP are established as long-range, 100-year goals. The guidelines outlined in the Plan should be updated at least every ten years with input from the Marian Bear Natural Park Recreation Council, the City, and trustee and resource agencies.

A major goal of this Plan is to demonstrate the City's and public's recognition of the biological resources found in Marian Bear Memorial Park. The Plan highlights the hiking, bicycling, bird-watching, and public enjoyment provided by these resources and recognizes them as an integral part of the City's Open Space system.

OBJECTIVES

The objectives of the Marian Bear Natural Resource Management Plan are:

1. To establish management practices which will preserve and protect biological resources while providing for future recreational use, maintenance, and land use in Marian Bear Memorial Park;
2. To emphasize improvements needed for environmental protection, interpretation, picnicking, hiking, bicycling, and other low-intensity recreational activities;
3. To ensure that all improvements and maintenance consider and provide for public safety;
4. To protect cultural, historical, paleontological, and archaeological resource sites;
5. To ensure all individual projects proposed within the Park meet California Environmental Quality Act (CEQA) and City environmental and construction standards;
6. To selectively enhance and restore the native vegetation in the Park;
7. To maintain access paths, trails, parking lots, and roads within the Park in a natural condition in order to blend with the native character of the Park;
8. To control problem erosion along trails and streambeds throughout the Park;
9. To discourage illegal activities;
10. To develop a reporting and enforcement procedure to prevent encroachment upon the canyons;



**MARIAN R. BEAR MEMORIAL PARK
LOCATION MAP**



CITY OF SAN DIEGO PARK & RECREATION DEPT.



FIGURE

1

11. To improve Park ingress and egress; and
12. To discourage the placement of a paved, Class 1 bikeway within the Park, encourage its placement within the CALTRANS right-of-way and other nonpark land, and ensure an environmental impact analysis is completed prior to any construction.

HISTORY

The Marian Bear Memorial Park is a natural Park within the City of San Diego. As illustrated in Figure 2, the Park is located within San Clemente Canyon. The Park comprises 467 acres of coastal sage scrub, chaparral, oak woodland, and riparian woodland habitats and over 12 miles of walking trails.

During the early 1900's, cattle grazed in the canyons and on the hillsides of San Clemente Canyon. Deer and other wildlife were often seen by San Diegans enjoying the natural beauty of the area.

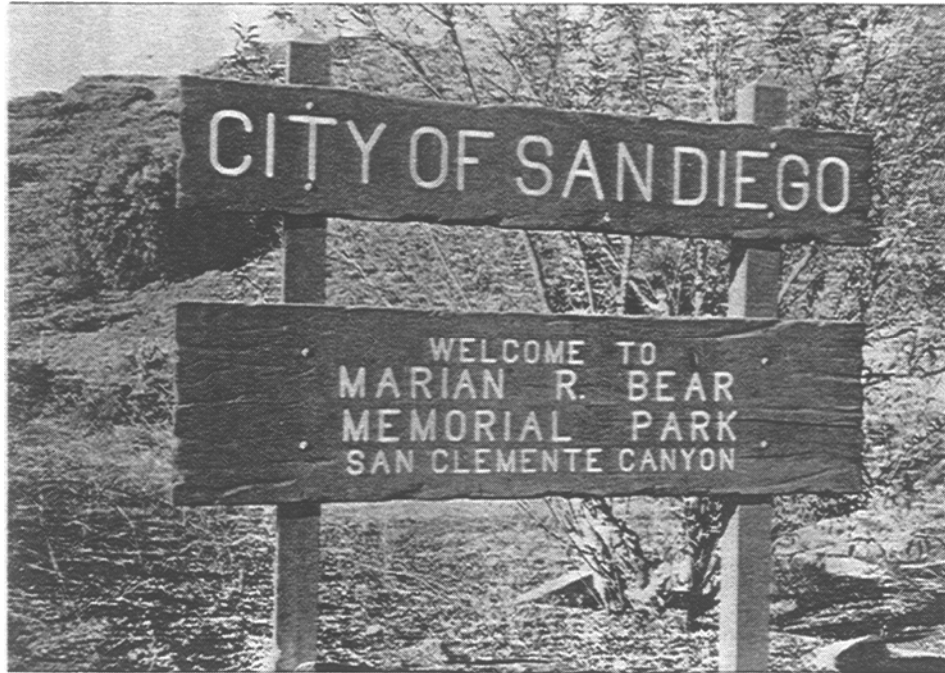
Some of the land in San Clemente Canyon was given to the City of San Diego in 1960. At the same time, CalTrans expressed the need for a major road to serve the developments of University City and Clairemont. A local environmentalist, Marian Bear, persuaded local and state representatives to place the needed road on the northern edge of the canyon to avoid the sensitive riparian habitat. By 1963, the City of San Diego and the State Division of Highways had an agreement for a landscaped parkway located to avoid direct impacts to riparian habitat. This road is known as State Route 52.

In 1968, 367 acres of land were dedicated as San Clemente Park. Eleven years later the Park was renamed as a memorial to Marian Bear. Since the dedication, small areas have been added to the Park. Proposition C (1968) money was used in 1984 to add the area between Limerick and Diane avenues when development was proposed for that area. About 73 acres of this added land and 27 acres of City land contiguous to the Park were dedicated as part of the Park in 1987. The Marian Bear Memorial Park was dedicated as a resource-based Park because of its distinctive scenic, natural, and cultural features and is intended for City-wide use.

The Marian Bear Natural Park Recreation Council was chartered by the City of San Diego in 1986. Article 2 of its bylaws states the purpose of the Recreation Council:

"The purpose of the Marian Bear Natural Park Recreation Council is to develop a proposed master plan for the optimum use, preservation, and maintenance of Marian Bear Memorial Park. The Council shall advise and assist any and all government agencies as may be appropriate in the preparation, adoption, and implementation of, or amendment to, the planning of Marian Bear Memorial Park. This organization shall investigate and advise on specific goals, standards, and recommendations for open space use in Marian Bear Memorial Park. The goals, standards, and recommendations shall provide for the maximum beneficial use of Marian Bear Memorial Park."

The Recreation Council provides a forum for views of all community members as well as citizen review of City and State plans which may impact the Park. Events, such as the City Park and Recreation Department's "Celebration of the Family Day," are used by the Recreation Council to inform the public about the Park with a photographic display of native plants and Park trails. The Recreation Council also provide a means for citizens who frequently use the Park to report conditions needing attention and, in turn, inform the City of these needs. Additional information on community participation is provided in Appendix A.



MARIAN REED BEAR MEMORIAL

Marian Bear Memorial Park didn't just "happen" - it is the result of Marian Bear's effort to preserve this beautiful canyon for all of San Diego to enjoy. Marian Bear was an active community leader and environmentalist who loved San Diego's canyons and fought relentlessly to preserve them in their natural state. She was the driving force behind realigning Highway 52 from the floor of the canyon to the hillside.

AGENCY JURISDICTION AND APPLICABLE CITY PLANS

AGENCY JURISDICTION

A number of agencies have direct or indirect involvement with land use planning, resource protection, and permit approvals for Marian Bear Memorial Park. The primary agencies and their degrees of involvement with activities in the Park are as follows:

City of San Diego: The day-to-day management of the Marian Bear Memorial Park is the responsibility of the Park and Recreation Department, operating under the authority of the City Manager. The Open Space Division of the Park and Recreation Department performs tasks such as trash removal, maintenance of all physical structures (such as fences, restrooms and signs), and brush management. The Park and Recreation Department also has a Natural Resource Management Section whose primary purpose is the protection and management of environmental resources within the City's parks and open space.

The Planning Department's involvement is centered around the permitting and environmental review process. Any individual project proposed within the Park is required to meet the Resource Protection Ordinance (RPO), CEQA, and City environmental and construction standards and requirements. The agencies and the public become involved with individual project proposals during this process. For projects requiring permitting, the Planning Department serves as a liaison between the City, the public, and the agencies. Other City departments involved in Marian Bear Memorial Park include the Police, Engineering and Development (erosion control), and General Services, Water Utilities departments.

U.S. Army Corps of Engineers: The Army Corps of Engineers (CORPS) exercises permit authority for projects which require permits under Section 404 of the Clean Water Act. Projects which involve the discharge of fill or dredge material into waters of the United States must secure a Section 404 permit. It is unlikely, however, that the type of project proposed in Marian Bear Memorial Park would require a CORPS permit. The CORPS would need to be consulted for a determination on an individual project's need for an ACE permit.

California Department of Fish and Game: Involvement of the California Fish and Game Department (CDFG) occurs one of three ways. For projects involving alteration of a streambed, a permit must be issued pursuant to Sections 1601-1606 of the CDFG Code. The second type of involvement would occur with the CDFG serving in an advisory capacity to the CORPS. The third area of involvement relates to plants and animals on the California list of endangered or threatened species which are protected under the California Endangered Species Act.

U.S. Fish and Wildlife Service: The U.S. Fish and Wildlife Service (USFWS) acts in an advisory role with projects which require a CORPS permit. The USFWS also services other agencies in an advisory capacity for permits. Of particular importance to the USFWS is the status of plants and animals on the List of Endangered and Threatened Species, which are protected under the Endangered Species Act of 1973.

County of San Diego: The County of San Diego Health Department performs monthly tests on water as part of their vector control program.

CITY PLANS APPLICABLE TO MARIAN BEAR MEMORIAL PARK RESOURCES

The only planning document, as of 1993, pertaining to Marian Bear Memorial Park is the Clairemont Mesa Community Plan.

The following community plan recommendations affect natural resources in the Park:

- o Privately owned areas which should be designated with very low residential densities (one dwelling unit per 40,000 square feet) in order to preserve existing canyon and natural open space systems include approximately 39 acres comprising the northern two thirds of Stevenson Canyon, a finger canyon of Tecolote Canyon, a finger canyon of San Clemente Canyon and approximately 5 acres comprising the northern one half of Padre Canyon.
- o Tecolote Canyon Natural Park and Marian Bear Memorial Park, which are City owned, dedicated parklands, should be rezoned from R1 5000/HR and R1-150000/HR to OS R in keeping with the purpose of this zone.
- o New development along the rim of Tecolote Canyon, San Clemente Canyon and all designated open space must be in accordance with the Tecolote Canyon Rim Development Guidelines and Hillside Review Overlay Zone to protect the open space system.
- o Development in the flood plain of Rose Creek should not encroach into the floodway in order to preserve the biological habitats and not obstruct the flood flow or alter the course of Rose Creek.
- o Development of hillsides in the Hillside Review Overlay Zone should conform to the development standards of the Hillside Review Overlay Zone and Design Development Guidelines.
- o Canyon areas adjacent to school sites and former school sites should be preserved in their natural state. If school sites should redevelop, those portions of the site which are adjacent to a designated open space area should be developed in a manner that is sensitive to the canyon area.
- o Any development proposed within or adjacent to the designated open space areas should be subject to development standards of the Hillside Review Overlay Zone and Design and Development Guidelines and the Tecolote Canyon Rim Development Guidelines in order to protect the natural resources and preserve community identity.
 - a. All public improvements, such as roads, drainage channels and utility service, and maintenance facilities should be developed in a manner which minimizes the visual and physical impacts of such improvements on the open space system.
 - b. Public property leased by the City should conform to the same development guidelines that apply to private property.
- o In order to preserve the native flora and fauna, development should not be permitted in the open space areas. If development does occur on property with sensitive environmental areas, development should be clustered and located away from sensitive plant and animal habitats.
- o Disturbed areas should be revegetated with native plant species placed in appropriate soils in accordance with the mitigation requirements specified by a qualified biologist during the environmental review process.
- o As part of development permit approval, requirements should be established in the environmental review process for the rehabilitation of disturbed on site open space areas. Plans should be reviewed by the Park and Recreation Department to ensure that plantings will be compatible with the native vegetation and will not be intrusive into existing open space.

- o A master plan (natural resource management plan) for Marian Bear Memorial Park should be developed by the City of San Diego Park and Recreation Department and the Marian Bear Park Advisory Committee (Recreation Council) in order to establish a long range comprehensive Park program for the management and preservation of the resource based Park.
- o Park rangers should be assigned to Tecolote Canyon Natural Park and Marian Bear Memorial Park to ensure their protection and provide educational/interpretive programs.
- o Acquire open space through open space easements and continue administering the City's acquisition program in accordance with the criteria established by the Park and Recreation Department.
- o Significant native tree stands should be preserved as part of the protection of sensitive habitat areas.

EXISTING CONDITIONS

Marian Bear Memorial Park is a 467-acre natural resource based Park in Southern California. Figure 1 shows the Park north of downtown San Diego bounded by State Route 52 on the north, interstate 5 on the west, interstate 805 on the east, and the community of North Clairemont to the south.

BIOLOGICAL RESOURCES

Biological surveys were conducted in Marian Bear Memorial Park for vegetation, birds, and sensitive plant and bird species. The plant survey was done primarily by Cindy Burrascano and aided by other volunteers, including Jim Dice of the California Native Plant Society, from May 1991, through June 1992. Mr. Robert Faught, RMF Biological Consultant, provided the bird survey. Bird data was collected over four seasons, specifically, May, June, August, and October 1991, and January 1992. These surveys are included in Appendix B and C, respectively, and are summarized in this section.

VEGETATION

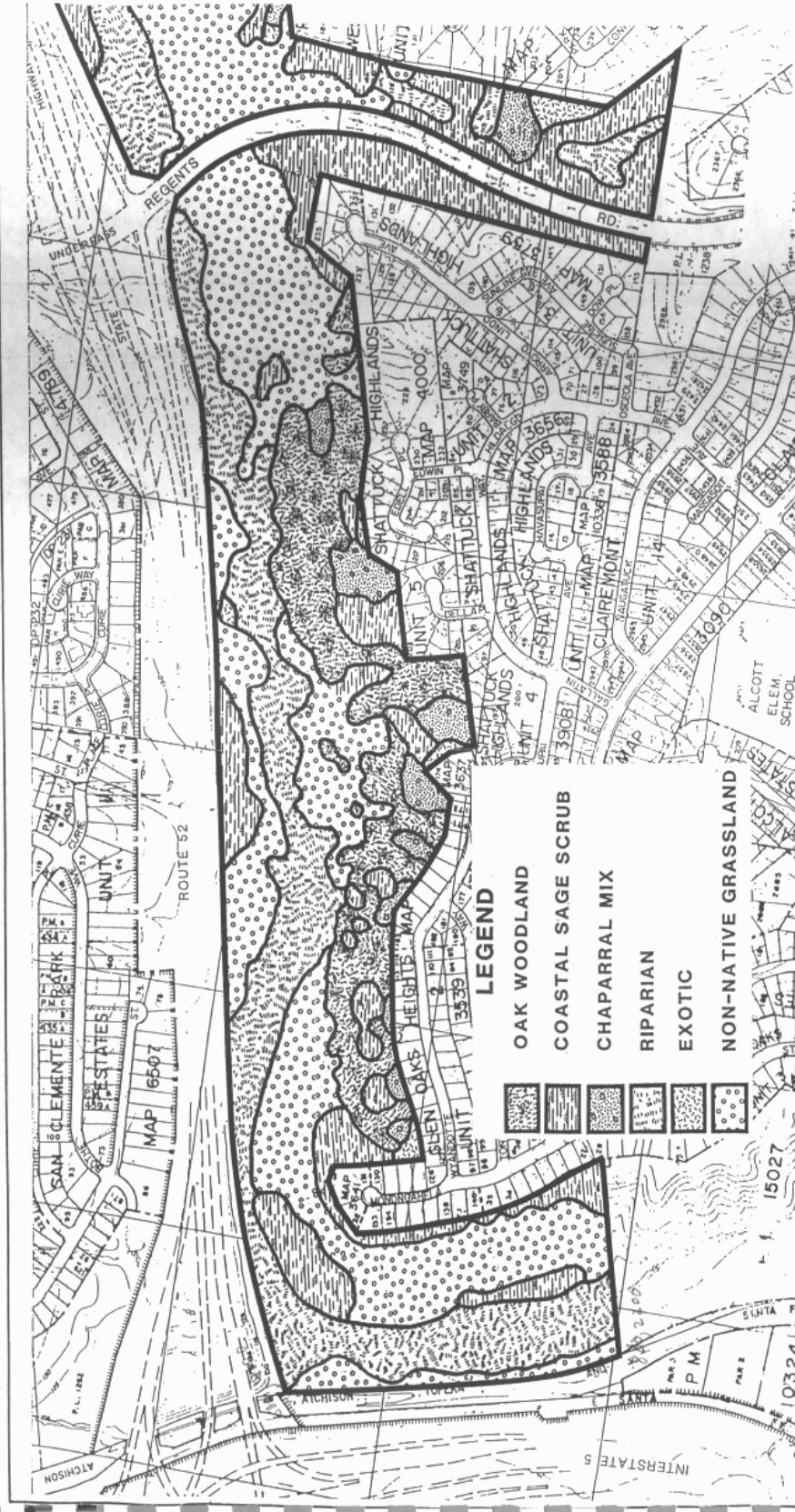
The vegetation in Marian Bear Memorial Park can be classified into eight habitat types, based on dominant plants present. Four of these habitats are considered sensitive, i.e., Diegan coastal sage scrub, coast live oak woodland, sycamore woodland, and southern willow scrub. The others include southern mixed chaparral, chamise chaparral, southern mulefat scrub, and non-native grassland. Habitats are mapped in Figure 3.

Diegan Coastal Sage Scrub - Diegan coastal sage scrub primarily occupies the drier west-facing and south-facing slopes throughout the length of San Clemente Canyon. Few south-facing slopes exist in the Park and the Diegan coastal sage scrub in these areas is usually a thin strip bordered by the freeway. The largest contiguous stretch of Diegan coastal sage scrub is in the Biltmore Trail area. This community type is dominated by low, soft-woody shrubs and subshrubs that are typically drought-deciduous such as California sagebrush (*Artemisia californica*), flat-top buckwheat (*Eriogonum fasciculatum*), white sage (*Salvia apiana*), black sage (*Salvia mellifera*), and laurel sumac (*Malosma laurina*).

Southern Mixed Chaparral - Southern mixed chaparral is found on east-facing, more moist north-facing slopes, and drainages throughout the Park. It is usually above or interspersed with oak woodland on north-facing slopes. Dominant plant species are evergreen, such as chamise (*Adenostoma fasciculatum*), mission manzanita (*Xvlococcus bicolor*), scrub oak (*Quercus berberidifolia*, formerly *Q. dumosa*), toyon (*Heteromeles arbutifolia*), black sage, and laurel sumac.

Chamise Chaparral - The small amount of chamise chaparral found in the Park is located in the eastern end. Chamise dominates this community and forms nearly pure stands in some areas. The brush is often so dense that a substantial understory cover develops. Some areas have ashy spike-moss (*Selaginella cinerascens*) in gaps in the chamise. Other species occurring occasionally in openings in this community are Mohave yucca (*Yucca schidigera*) and mission manzanita (*Xvlococcus bicolor*).

Southern Mulefat Scrub - The largest patches of southern mulefat scrub are found in the western end of the Park intermingled with sycamore woodland. This habitat, often a successional phase, occupies arroyos or washes which are too dry for perennial woodlands but too wet from frequent flooding for upland shrubs. Typical plants of this community are: broom baccharis (*Baccharis sarothroides*), mulefat (*Baccharis glutinosa*), and telegraph weed (*Heterotheca grandiflora*).



FIGURE

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MARIAN BEAR MEMORIAL PARK - Vegetation Map

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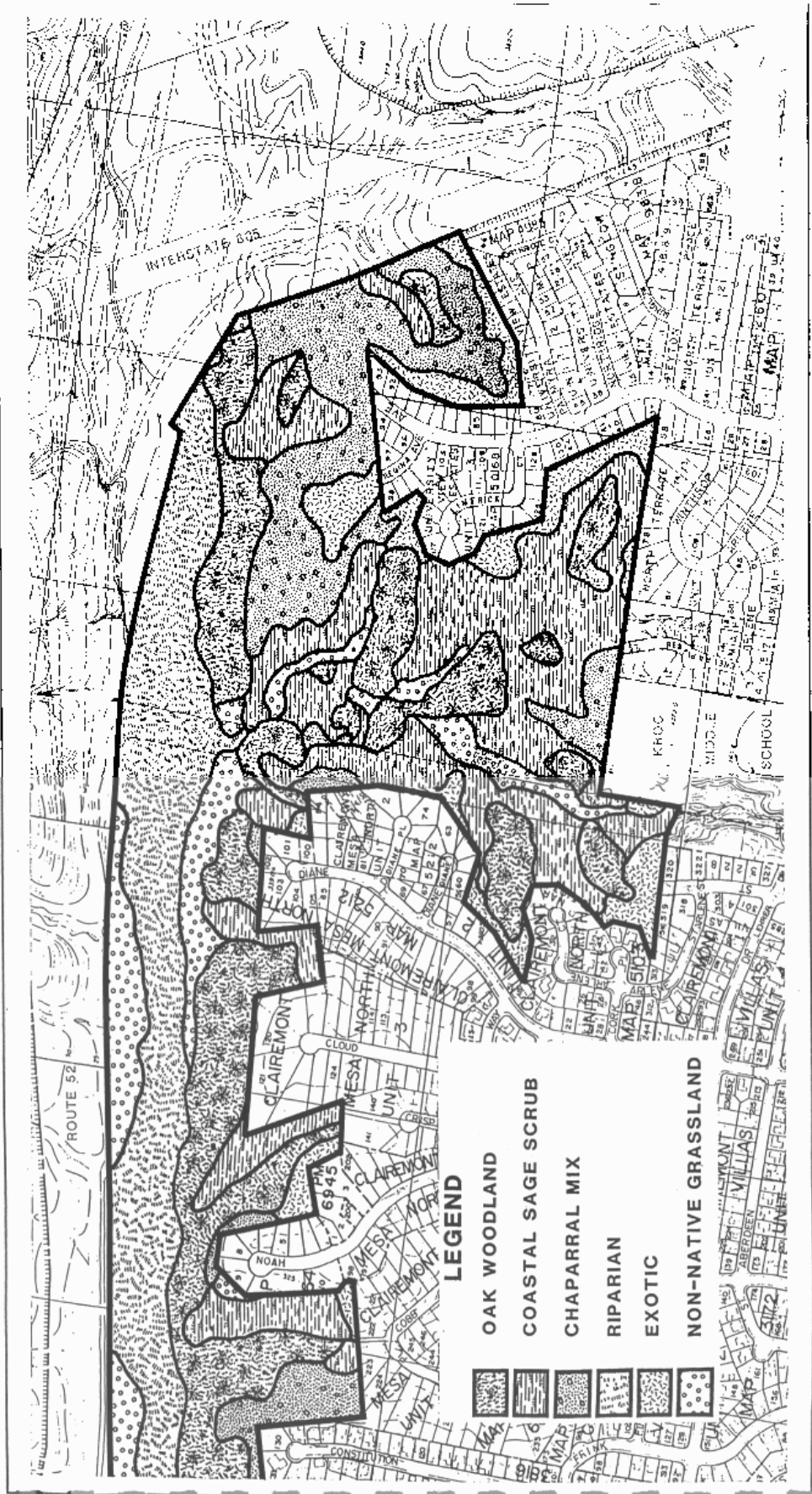


FIGURE 3C



MARIAN BEAR MEMORIAL PARK - Vegetation Map

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Coast Live Oak Woodland - Coast live oak woodland runs the length of the Park on north-facing slopes and in most of the side canyon drainages. This habitat was not completely surveyed due to the prevalence of poison oak. Some plant species may exist in these areas that are not included on the plant lists. Although limited in area on drier north slopes, this vegetation type can cover whole slopes in shaded canyons. Coast live oak (*Quercus agrifolia*) is the dominant tree species above the height of the surrounding shrub species. This habitat often co-occurs with mixed chaparral, thus understory species often include scrub oak or other mixed chaparral shrubs. Associated species are poison oak (*Toxicodendron diversilobum*), fuchsia-flowered gooseberry (*Ribes speciosum*), and toyon (*Heteromeles arbutifolia*).

Sycamore Dominated Southern Riparian Woodland - Sycamore dominated southern riparian woodland (sycamore woodland), as well as the coast live oak woodland, characterize the Park for most of its visitors and runs the length of the Park. This is found on wide, alluvial floodplains of intermittent streams and drainages. The alluvial substrates are often very cobbly to bouldery. Sycamore (*Platanus racemosa*) is the main indicator species of this community. Coast live oak are interspersed among the sycamores. Shrubs and subshrubs occurring in this habitat include mulefat and arroyo willow (*Salix lasiolepis*).

Southern Willow Scrub - Southern willow scrub, also known as riparian woodland, is interspersed with sycamore woodland along streams and drainages. Plants found in this habitat include mulefat, arroyo willow, black willow (*Salix gooddingii*), and curly dock (*Rumex crispus*).

Non-Native Grasslands - Patches of non-native grassland occur throughout the Park. The largest contiguous areas are adjacent to the Regents Road and Clairemont Mesa Boulevard parking lots. This community designation refers primarily to areas that have been disturbed, either by grazing, brush clearing, or frequent fires, resulting in the establishment of an annual grassland. The predominant grass species are red brome (*Bromus rubens*), slender wild oats (*Avena barbata*), smooth brome (*Bromus molis*), and ripgut grass (*Bromus diandrus*). Weedy herbaceous species observed include black mustard (*Brassica nigra*), sweet fennel (*Foeniculum vulgare*), filaree (*Erodium* spp.), and scarlet pimpernel (*Anagallis arvensis*). Native needlegrass (*Stipa* sp.) and blue-eyed grass (*Sisyrinchium bellum*) are also present.

Exotic Vegetation - Exotic vegetation is not considered a habitat type; however, the presence of exotic plants in the Park needs to be recognized. These plants are undesirable and in many cases out-compete the desirable, native vegetation. Encroachment of exotic plants from adjacent residential areas is considered a major threat to native habitats.

Sea-fig (*Carpobrotus acruilaterus*) is filling in canyon slopes, becoming established in riparian areas, and overgrowing areas with sensitive species. Star thistle (*Centaurea melitensis*) and non-native grasses (*Avena* sp.) are common enough that they cover large areas of the Park. Hemlock (*Conium maculatum*) and teasle (*Dipsacus sativus*) are expanding, predominantly in the western end of the Park. Mustard (*Brassica* sp.) lines trails and colors slopes and canyons. The following exotic species inhabit riparian areas: pine trees (*Pinus* sp.) east of Genesee Avenue; pepper trees (*Schinus terebinthifolius*); Japanese honeysuckle (*Lonicera japonica*) east of Genesee Avenue; Virginia creeper (*Parthenocissus* sp.) east of Genesee Avenue; English ivy (*Hedera helix*) east of Genesee Avenue; acacia (*Acacia retinodes*); pyracantha (*Pyracantha coccinea*) east of Genesee Avenue; bottlebrush (*Callistemon citrinus*) west of Genesee; tamarisk (*Tamarix* sp.) between Genesee Avenue and Regents Road; and various species of palm trees. Pampas grass (*Cortaderia atacamensis*) still remains in side

canyons and riparian areas in the west end of the Park. Horehound (*Marrubium vulgare*), fennel (*Foeniculum vulgare*), checkerbloom (*Sidalcea malvaeflora*), tree tobacco (*Nicotiana glauca*), and curly dock are abundant. Blooming artichoke thistle (*Cynara cardunculus*) was seen in the Park during the survey, just east of Genesee Avenue on the north side of the stream and in the east Clairemont picnic area. Castor bean (*Ricinus communis*) is expanding into the Lakehurst Avenue area from the Pocahontas Court access.

BIRDS

A wide variety of birds are supported by the diversity of habitats found in Marian Bear Memorial Park. A total of 93 species were observed within the Park during the 1991-92 bird survey (included in Appendix C). A complete species list is provided in Appendix C. The most common bird species observed include: California quail (*Callipepla californica*), mourning dove (*Zenaidura macroura*), bushtit (*Psaltriparus minimus*), yellow-rumped warbler (*Dendroica coronata*), white-crowned sparrow (*Zonotrichia leucophrys*), and lesser goldfinch (*Carduelis psaltria*). Other species of interest are red-tailed hawk (*Buteo iamaicensis*), American kestrel (*Falco sparverius*), acorn woodpecker (*Melanerpes formicivorus*), and brown-headed cowbird (*Molothrus ater*).

AMPHIBIANS AND REPTILES

The presence of an intermittent stream through the Park creates a favorable environment for amphibians. No survey for amphibians was conducted for this Plan. Common species, such as California toad (*Bufo boreas halophilcis*), Pacific treefrog (*Hyla regilla*), and bullfrog (*Rana catesbiana*), could occur within the Park.

The variety of habitats within the Park provides the opportunity to find a variety of reptiles. In the absence of a reptile survey, the following reptiles could be expected to occur in the Park: western fence lizard (*Sceloporus occidentalis*), western diamondback rattlesnake (*Crotalus atrox*), southern Pacific western rattlesnake (*Crotalus viridis helleri*), two-striped garter snake (*Thamnophis couchi hammondi*), racer (*Masticophis sp.*), California side-blotched lizard (*Uta stansburiana elegans*), San Diego horned lizard (*Phrynosoma coronatum blainvillei*), and orange-throated whiptail lizard (*Cnemidophorus hyperythrus*).

MAMMALS

The canyons, creeks, and fields support a variety of mammals. Due to secretive behavior and nocturnal activity, mammals are difficult for Park visitors to observe. Canyons, in particular, support excellent wildlife habitat, and the riparian areas along the creeks provide water and a variety of cover and food.

Mammal species observed by park users in the Park include: brush rabbit (*Sylvilagus bachmani*), raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), opossum (*Didelphis marsupialis*), California ground squirrel (*Spermophilus beecheyi nudipes*), desert woodrat (*Neotoma lepida*), dusky-footed woodrat (*Neotoma fuscipes*), kangaroo rat (agile) (*Dipodomys agilis*), mice (*Microtus sp.*, *Peromyscus sp.*, *Reithrodontomys sp.*), mule deer (*Odocoileus hemionus*), coyote (*Canis latrans*), and gray fox (*Urocyon cinereoargenteus*).

Bobcat (*Lynx rufus*) occurs in the canyon areas outside the Park, therefore, potentially in Marian Bear Memorial Park.

SENSITIVE RESOURCES

Several sensitive plants and animals occur within the Park and in the immediate vicinity. Sensitive animals and plants usually have become so, due to loss of suitable habitat for their specialized needs. Protection of sensitive habitats, therefore, is important in the preservation of sensitive species. These include species of concern to the U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Game (CDFG), California Native Plant Society (CNPS), and Audubon Society (Blue List).

Sensitive Plants

In San Diego County, the Diegan coastal sage scrub, riparian, and oak woodland habitats are considered sensitive. Diegan coastal sage scrub is considered sensitive because it supports a number of sensitive plant and bird species. Approximately 70 percent of the Diegan coastal sage scrub, which historically covered much of the coastal portion of the county, has been lost due to development and agricultural activities. Oak woodland is considered a sensitive habitat by the California Natural Diversity DataBase because of its limited extent and wildlife value. Oak woodland is known for supporting a variety of wildlife species including amphibians, mammals, and birds. Dense and sparse oak woodland is believed to make up less than four percent of the total County area. Wetlands are considered sensitive resources and U.S. Army Corps of Engineers permits are required for disturbance of a riparian area. Two types of riparian communities occur in the Park. Sycamore woodland is important for supporting a variety of wildlife species. Southern willow scrub is considered sensitive because of its riparian nature and support of bird species.

Suitable habitat for twelve sensitive plant species was identified in the Park Plant Survey (1992) (Appendix B). All twelve of these species are listed in Table 1. The four species actually observed in the Park during the plant survey are discussed below.

Ashy Spike-Moss (Selaginella cinerascens) - is a California Native Plant Society (CNPS) List 4 (watch list) plant. In the Park, this plant was found in Diegan coastal sage scrub and oak woodland habitats. Mapping of this species was limited due to available trail access.

San Diego Barrel Cactus (Ferocactus viridenscens) - is federally listed as a Category 2, and CNPS List 2 (rare in California but common elsewhere). A total of 112 plants were found in Diegan coastal sage scrub habitat, primarily in the eastern end of the Park. Not all potential habitat was surveyed due to density of vegetation and lack of existing access.

San Diego Sagewort (Artemisia palmeri) - is a CNPS List 2 species. This plant was found in riparian and Diegan coastal sage scrub habitats in the Park.

Willow monardella (Monardella linoides viminea) - is a state-listed endangered species. Willow monardella has not been seen in the Park in recent years; however, four individual plants were sighted in the 1993 survey. Willow monardella has been reported as being located at four sites in Marian Bear Natural Park in the Natural Diversity DataBase. A total of 60 plants were reported in 1980 and 1981. In 1987, a total of 29 plants were reported. No plants were located in 1991 and 1992 surveys. Willow monardella grows in open sunny, sandy, cobbly riparian areas.

TABLE 1
SENSITIVE SPECIES OCCURRING OR
POTENTIALLY OCCURRING IN
MARIAN BEAR MEMORIAL PARK

Species/ Status/Habitat	Presence or Reason not Present
<u>Acacia minuta</u> spp. <u>minuta</u> Coastal Scrub Acacia Federal: None State: None CNPS List 2 RED Code 3-1-1 Found in river bottoms.	Apparently not suitable; not observed. Not historically recorded.
<u>Ambrosia pumila</u> San Diego Ambrosia Federal: Category 2 State: None CNPS List 2 RED Code 3-2-2 Found in valleys below 150M in coastal scrub or grassland.	No historical collections known from San Clemente Canyon; not observed
<u>Artemisia palmeri</u> San Diego Sagewort Federal: None State: None CNPS List 2 RED Code 2-2-1 Found in riparian and coastal sage scrub.	Present.
<u>Chorizanthe orcuttiana</u> Orcutt's Spineflower Federal: Category 1 State: Endangered CNPS List 1A RED Code Found in low hills, coastal scrub.	Exceedingly rare; not observed. Extant population in Encinitas and possibly in Torrey Pines State Reserve. No historical collections known from San Clemente Canyon.
<u>Comarostaphylos diversifolia diversifolia</u> Summer Holly Federal: Category 2 State: None CNPS List 1B RED Code 2-2-2 Found in chaparral with <u>Rhus integrifolia</u> and <u>Xylococcus bicolor</u> .	Apparently suitable; poison oak made survey problematical.
<u>Dudleya variegata</u> Variegated Dudleya Federal: Category 2 State: None CNPS List 4 RED Code 1-2-2 Found in rocky or clay soils; sometimes associated with vernal poois.	Not probable; not observed.
<u>Ferocactus viridescens</u> San Diego Barrel Cactus Federal: Category 2 State: None CNPS List 2 RED Code 1-3-1 Found in chaparral or Diegan coastal scrub on south facing slopes.	Present.

Species/Status/Habitat	Presence or Reason not Present
<u>Githopsis diffusa filicaulis</u> Mission Canyon Bluecup Federal: Category 2 State: None CNPS List 1B RED Code 3-3-2 Found in open, grassy places within chaparral	No historical collections known from this site. Not observed.
<u>Harpaqoella palmeri palmeri</u> Palmer's Grapplinghook Federal: None State: None CNPS List 2 RED Code 1-2-1 Found on sandy low in coastal sage scrub. Associated with Isomeris arborea and grasses.	Habitat apparently suitable, but plant not observed.
<u>Monardella linoides viminea</u> Willow Monardella Federal: Category 2 State: Endangered CNPS List 1B RED Code 2-3-2 Found in rocky and sandy places, sometimes in washes or floodplains. 300-1000 feet.	Present
<u>Muilla clevelandii</u> San Diego Goldenstar Federal: Category 2 State: None CNPS List 1B RED Code 2-2-2 Found in chaparral, coastal scrub, valley and foothill grassland, vernal pools.	Habitat apparently suitable, but not observed.
<u>Selaginella cinerascens</u> Ashy Spike-moss Federal: None State: None CNPS List 4 RED Code 1-2-1 Found in dry open spaces in coastal sage scrub and chaparral.	Present.

PLANT STATUS CODES

CNPS List 1: Plants that are rare and endangered in CA and elsewhere.
List 2: Plants that are rare and endangered in CA but more common elsewhere.
List 3: Plants about which more information is needed.
List 4: Plants of limited distribution (a watch list).

CNPS R-E-D Code:

R (Rarity) 1 - rare, but found in sufficient numbers and distributed widely enough that the potential for extinction or extirpation is low at this time.
 2 - occurrence confined to several populations or to one extended population.
 3 - occurrence limited to one or a few highly restricted populations, or present in such small numbers that it is seldom seen.

E (Endangerment) 1 - not endangered
 2 - endangered in a portion of it's range
 3 - endangered throughout it's range

D (Distribution) 1 - more or less widespread outside of CA
 2 - rare outside of CA
 3 - endemic to CA

SENSITIVE ANIMALS

Amphibians No sensitive amphibians are known to occur within the Park or the immediate vicinity.

Reptiles - The two-striped garter snake, a candidate for Federal C2 listing, was reported in the Park (C. Burrascano, 1993). No other sensitive reptiles have been reported in the Park. Two reptile species, however, are found in the area and could occur in the Park. One of these species is the orange-throated whiptail (Cnemidophorus hyperythus beldingi), a candidate species for federal listing (Category 2) and a CDFG protected species. The whiptail occurs in scrub habitats on mesas and in sandy canyon bottoms. Both of these habitats occur within the Park. The other sensitive reptile, the San Diego horned lizard, is also a candidate for federal listing (Category 2) and a CDFG protected species. The horned lizard lives in low scrub habitats on mesas and is threatened by habitat destruction and pet collection.

Birds - Of the 93 bird species observed within the Park, 8 species are considered sensitive within San Diego County. These birds include:

Bewick's Wren (Thryomanes bewickii) - Audubon Blue List.
HABITAT - scrub habitat;

Yellow warbler (Dendroica petechia) CDFG species of concern,
Priority 2. HABITAT willow scrub;

Yellow-breasted chat (Icteria virens) CDFG species of concern,
Priority 2. HABITAT - riparian woodland;

Rufous-crowned sparrow (Aimophila ruficeps canescens) - Candidate 2
Federal listing (USFWS) and CDFG species of concern.
HABITAT - coastal sage scrub and chaparral;

Black-shouldered kite (Elanus caeruleus mauculos) - CDFG protected
species. HABITAT - riparian or oak woodland adjacent to
grassland;

American Kestrel - (Falco sparverius) Audubon Blue List.
HABITAT - most habitats except dense woodlands; and

Northern harrier (Circus cyaneus) - Audubon Blue List.
HABITAT - grasslands; and

Cooper's hawk (Accipiter cooperii) - CDFG species of concern,
Priority 3. HABITAT - oak or riparian woodland.

Habitats for two other species, which were not observed, are found within the Park. These species are:

Least bell's vireo (Vireo bellii pusillus) Federally (USFWS) and
State (CDFG) listed endangered species. HABITAT - riparian
woodland; and

California coastal black-tailed gnatcatcher (Poliioptila melanura californica) - Federally (USFWS) listed threatened species.
HABITAT coastal sage scrub.

Mammals No sensitive, rare, or endangered mammals were observed or are expected to occur within the Park boundaries.

CULTURAL RESOURCES

In 9,500 B.C., the San Dieguito people inhabited San Diego County. Their campsites were located near waterholes, streams, and seashore. The San Dieguito people were nomadic and centered their lives around hunting and fishing.

About 5,500 B.C., the San Dieguito people assimilated, or possibly evolved, into the La Jolla people. "La Jollans" left signs of their occupation that are sometimes uncovered. They were a semi-nomadic people who gathered shellfish and hunted for food. Nuts, berries, and seeds were also gathered and ground for food.

The Yuman-speaking Kumeyaay Indians migrated into the area in the late Prehistoric era. They brought with them new ideas and customs. It is the descendants of these people who greeted the first Europeans who founded the Mission of San Diego in 1769.

Numerous archaeological sites have been identified and recorded by the San Diego Museum of Man in the immediate vicinity of Marian Bear Memorial Park. The recorded sites are scattered winter camps belonging to the La Jolla and Kumeyaay cultural groups as evidenced by fire hearths, shell middens, and grinding implements. One of the sites (SDM W-2415), a Kumeyaay Indian bedrock milling site, is located within the Park. This site measures two by two meters and consists of six bedrock mortars on a large sandstone slab.

GEOLOGY

The primary topographic feature of Marian Bear Memorial Park is San Clemente Canyon with an east to west orientation and several north to south tributary canyons. Geological formations within the Park include the four sedimentary rock groups found in San Clemente Canyon. These formations are the Ardath Shale (oldest); Scripps Formation; Friars Formation; and Stadium Conglomerate (youngest). All these formations originated in the Eocene age (between 40 and 60 million years ago). From Interstate 5 eastward to Regents Road, Ardath Shale is the principal formation. The Scripps Formation occurs as the primary geological formation between Regents Road and Genesee Avenue. The area from Genesee Avenue to Interstate 805 is composed of combinations of three formations: Scripps Formation, Friars Formation, and Stadium Conglomerate. Additional information is included in Appendix D.

Ancient seas planed the areas currently known as mesas. Small areas of ancient stream terraces still exist along upper parts of the canyon where valley floors were elevated and streams cut downward.

Faults - No faults are exposed in the walls of San Clemente Canyon. Faults may exist but lie within the rock. The Rose Canyon fault is located west of the mouth of San Clemente Canyon.

Paleontological Resources - The San Diego Museum of Natural History has identified several fossil sites within the Park. The recorded site numbers are 0138, 0166, 0174, 0356, 2318, and 2330. The fossils date back to the Eocene Age and are found primarily in the Canyon walls. The majority of fossils found include mollusks, such as clams, snails, and nautilus.

HYDROLOGY

Two creeks, San Clemente Creek and Rose Creek, flow within Marian Bear Memorial Park. San Clemente Creek meanders along the Canyon floor flowing westward further cutting the creek channel below the valley floor. This creek collects water from the Park, adjacent tributary canyons, residential runoff, and the undeveloped area of the Miramar Naval Air Station. Flow

levels in the Creek correspond to rainfall. The Creek is dry most of the time between August and December. San Clemente Creek joins and becomes Rose Creek near the western edge of the Park. Rose Creek continues flowing south into Mission Bay, 1.5 miles downstream.

No known water quality data currently exists for this section of San Clemente Creek. The City of San Diego, however, initiated sampling surface water in the Creek just to the east of the Park in 1992. In addition, the City will also be monitoring surface water quality near storm drains as part of the Clean Water Program beginning in three or four years.

LAND USE AND RECREATION

Consistent with its natural resource character, Park improvements are kept to a minimum. Improvements include restrooms, picnic tables, viewing benches, and designated trails.

Recreation within the Park is primarily passive and includes birdwatching, running, hiking, bicycling, and picnicking. Occasional special outdoor events are allowed near the parking area at the Regents Road Park entrance.

STATEMENT OF PROBLEM

Management of natural resources in Marian Bear Memorial Park must consider impacts from human use and erosion.

PUBLIC USE

Marian Bear Memorial Park is used not only by adjacent communities but also attracts people from other communities. The Park is in almost constant use throughout the year for hiking, bicycling, running, picnicking, and nature appreciation. This degree of use and the Park's setting, as a large natural open space in an urban area, bring attendant problems such as litter control, graffiti, and illegal activities. The Park's proximity to residential areas results in some encroachment of backyards into the Park. Non-native landscape plants also invade the Park from other sources. Some Park users (off-trail hikers, bicyclists, transients, motorcyclists, and sledders) often enter inappropriate, sensitive areas. This misuse results in damage to trails and natural resources. The constant pressure of human use can have a negative effect on the Park's natural resources. This pressure will continue to increase as the population and new types of recreation increase and require open spaces in which to recreate.

EROSION

Erosion problems exist in several areas of the Park. Bank erosion is a problem in several places along nature trails and in tributary canyons. Sand and gravel are carried from surrounding slopes onto roadways, trails, and into San Clemente Creek during rainstorms. The eroded material entering the Creek eventually is deposited in Mission Bay contributing to an ongoing siltation problem at the mouth of Rose Creek.

Much of the erosion and redeposition should continue undisturbed as part of the natural process of succession. Urban runoff, storm drains, and human disturbance, however, have accelerated the natural process by concentrating flows, increasing flow velocity, and damaging slope vegetation. The resultant erosion is causing safety hazards, extreme siltation redeposition, and loss of valuable habitat. In these areas, remedial action is needed to reduce the negative impact of the accelerated erosion-siltation process.

CONSTRAINTS AND OPPORTUNITIES

Marian Bear Memorial Park offers an opportunity to combine recreational and community planning with the protection and enhancement of natural resources.

The Marian Bear Memorial Park Natural Resource Management Plan recognizes the following constraints:

- o The primary purpose of this Management Plan is to protect, preserve, and enhance natural resources in Marian Bear Memorial Park. Since, however, the Park is in an urban setting, the Park must serve multiple purposes and cannot serve solely as wildlife habitat.
- o The extent of adjacent development and recreational pressures in Marian Bear Memorial Park preclude ever returning all of the Park to the undisturbed habitat it was originally.
- o Protection of natural resources, as required by state and federal law precludes certain human activities (e.g., construction, dredging, recreation) from certain areas and during certain seasons.

Opportunities for preserving wildlife habitat and maintaining a recreational resource include the following:

- o Comprehensive planning and management can provide adequate protection measures for natural resources.
- o Areas of degraded habitat can be restored to improve the overall natural resource system in the Park.
- o Habitat improvement or conversion can be used as mitigation for future losses.
- o The Park preserve system can be used for educational and research purposes.
- o Most recreational activities in the Park are compatible with most natural resources.

LAND USE PROPOSALS

Scheduled future land use projects in Marian Bear Memorial Park fall into three categories: sedimentation control, recreation projects, and Park maintenance. The Marian Bear Natural Park Recreation Council proposed sedimentation control projects with support from the City of San Diego. The City identifies and conducts, maintenance projects within the Park. Private development projects are not permitted with Park boundaries. All projects will need to comply with the Marian Bear Memorial Park Natural Resource Management Plan guidelines and obtain a permit, as needed, consistent with City and CEQA requirements. Any mitigation programs required should incorporate the guidelines set forth in this Plan, as appropriate.

SEDIMENTATION CONTROL PROJECTS

In 1986, the City hired Woodward-Clyde Engineering to conduct an erosion control study for Rose and San Clemente canyons. The report identified 54 sites contributing to the estimated 5,000 cubic yards of sediment per year carried by San Clemente and Rose creeks into Mission Bay. Of these 54 sites, 28 were located within Marian Bear Park as listed in Table 2 and shown in Figure 4. The Woodward-Clyde report listed the sites in priority of cost-effectiveness. Also in Table 2 is a list of adjusted priorities based on the Recreation Council's greater emphasis on impacts to Park trails and potential impacts to adjacent land use. Neither list should remain unchanged over the long-term due to the unpredictable nature of available funding and of yearly rainfall and its effect on erosion.

Because of insufficient funds, the City was unable to implement the recommended erosion control measures. In January 1991, the Recreation Council in conjunction with the City applied for funding from the Urban Streams Restoration Program for erosion control measures at Site SC-28. This site was chosen as the first site for remedial action as it is the Most severely affected by erosion. For example, erosion in this area is undermining an existing trail affecting public access and safety. Runoff from adjacent urban land uses, particularly a school yard storm drain system and a San Diego Gas & Electric (SDG&E) access road, have intensified the erosion problem. Measures proposed for SC-28 (SC refers to San Clemente Canyon erosion site) erosion control were rock check dams, revegetation of slopes, water bars, palmetiers and filling and recontouring scour holes.

In May 1991, the State Water Resources Control Board authorized the grant of \$52,000 for erosion control purposes but stipulated the money should not be used for SC-28 because rock check dams are not an eligible grant expense. The City used the grant funds for erosion control at sites SC-7, SC-16, SC-22, and SC-23 (Figure 4). Gabion weirs, constructed with wire mesh cages filled with rocks, were placed along the stream bank at two creek locations, SC-7 and SC-22/SC-23. The main objective is to reduce further erosion along the streambank which was heavily affected by the heavy rains from Spring 1992 and 1993. This included the loss of plant material and exposure of the roots of a 150-year old oak at SC-7, which was once 10 feet from the streambank. SC-16 is a site of severe erosion at the confluence of two drainages. Remedial action included restoration grading; installation of gabion baskets and riprap; revegetation to reduce erosion; and restoration of a main trail.

RECREATION PLANS AND PROJECTS

Trail Development and Closure

An existing minor trail in the eastern portion of the Park will be upgraded To a main trail designation, as shown on Figure 4. The new trail, named Limerick Mesa Trail, will be considered one of the permanent, main trails In the Park and be maintained appropriately.

Table 2

PRIORITY RANKING OF 28 EROSION CONTROL SITES

Woodward-Clyde	Adjusted
SC-26	SC-28
SC-28	SC-16
SC-16	SC-27
SC-10	SC-14
SC-12	SC-10
SC-24	SC-4
SC-21	SC-22
SC-1	SC-23
SC-19	SC-26
SC-20	SC-18
SC-27	SC-15
SC-6	SC-12
SC-18	SC-24
SC-22	SC-21
SC-8	SC-1
SC-15	SC-19
SC-3	SC-20
SC-5	SC-6
SC-25	SC-8
SC-17	SC-3
SC-23	SC-5
SC-7	SC-25
SC-2	SC-17
SC-11	SC-7
SC-4	SC-2
SC-13	SC-11
SC-14	SC-13
SC-9	SC-9

NOTE: "SC" refers to San Clemente Canyon erosion site

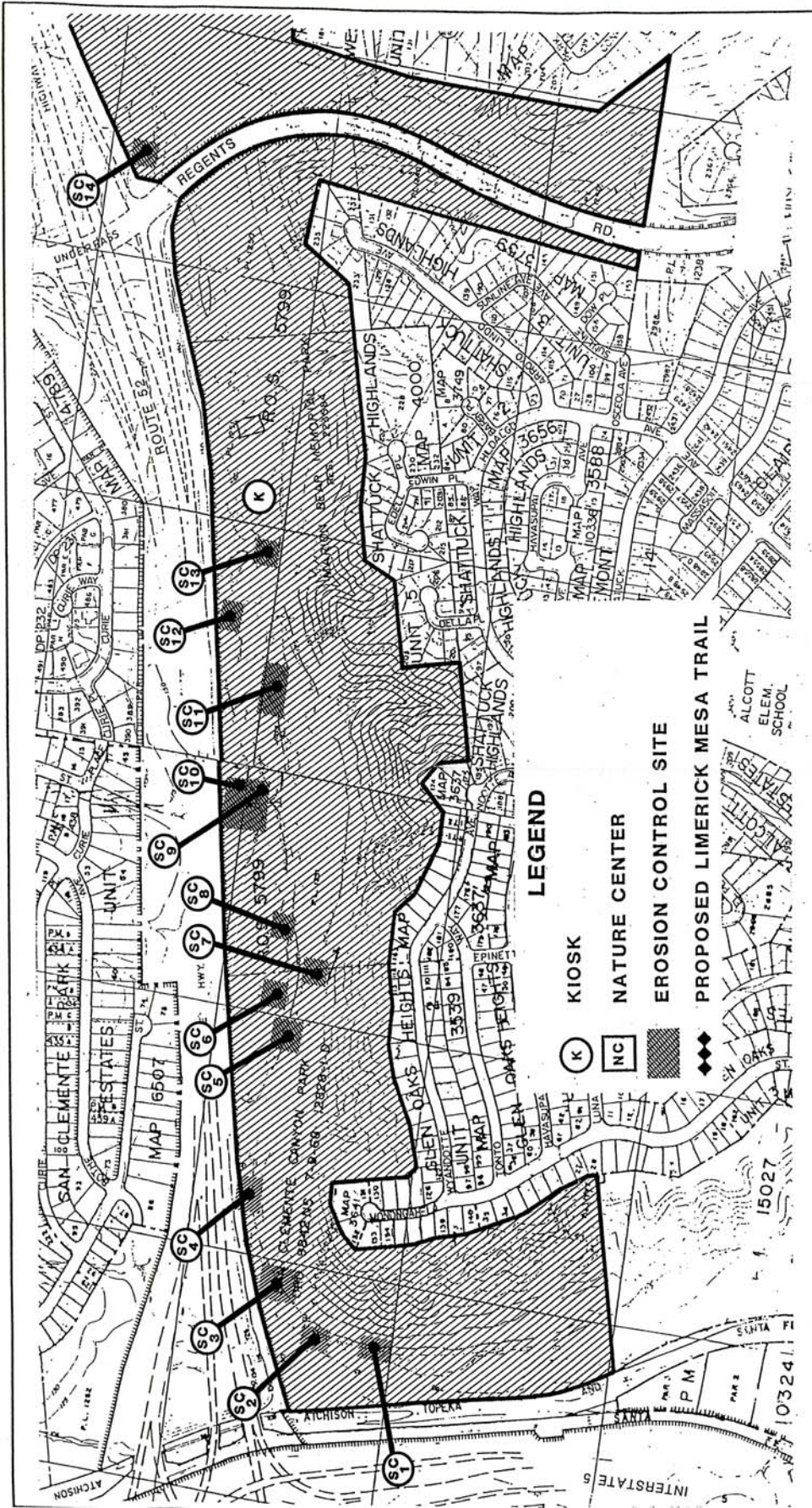


FIGURE 4A



MARIAN BEAR MEMORIAL PARK - Future Park Improvements

CITY OF SAN DIEGO PARK & RECREATION DEPT.



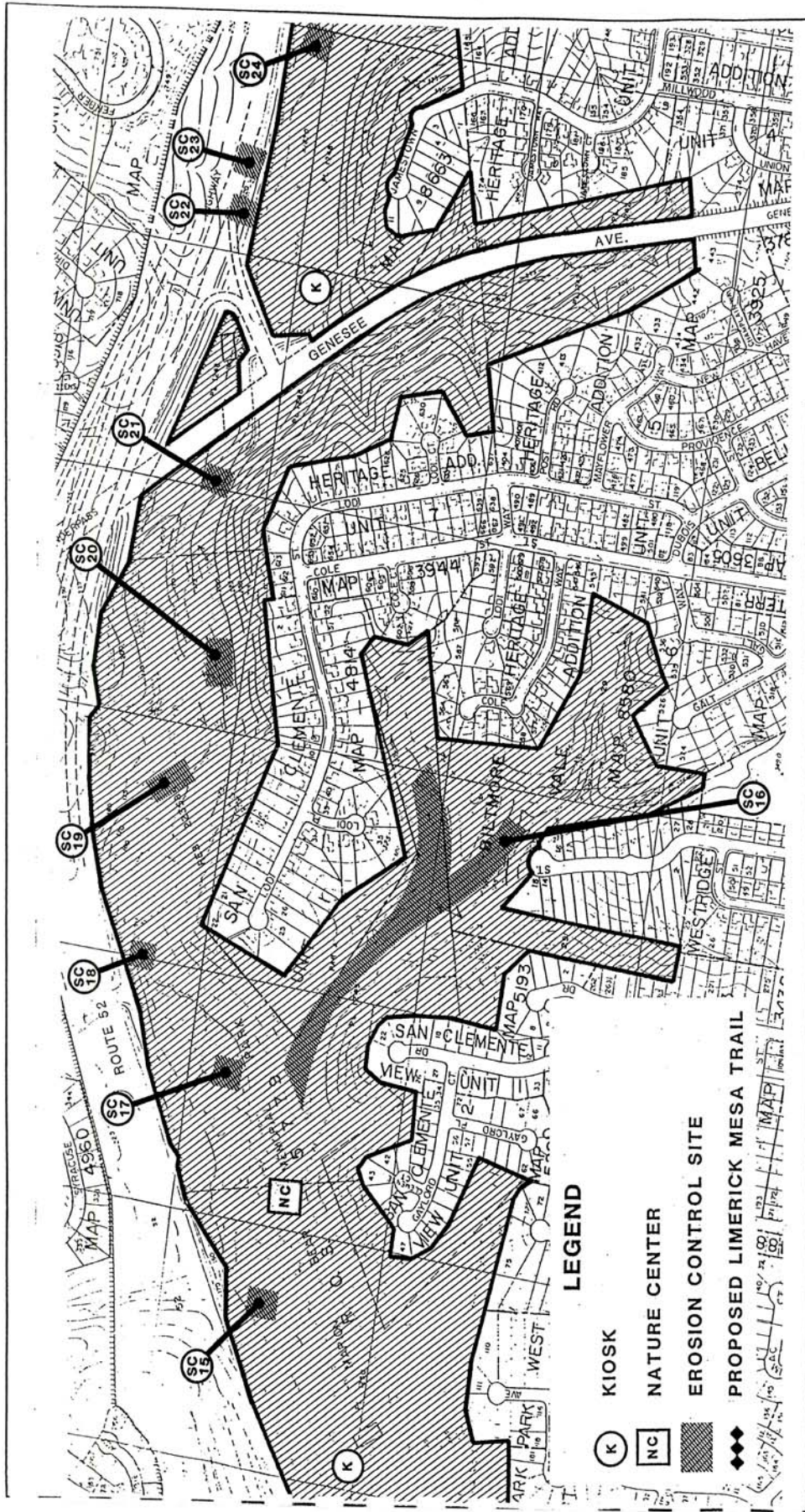


FIGURE 4B



MARIAN BEAR MEMORIAL PARK - Future Park Improvements

CITY OF SAN DIEGO PARK & RECREATION DEPT.



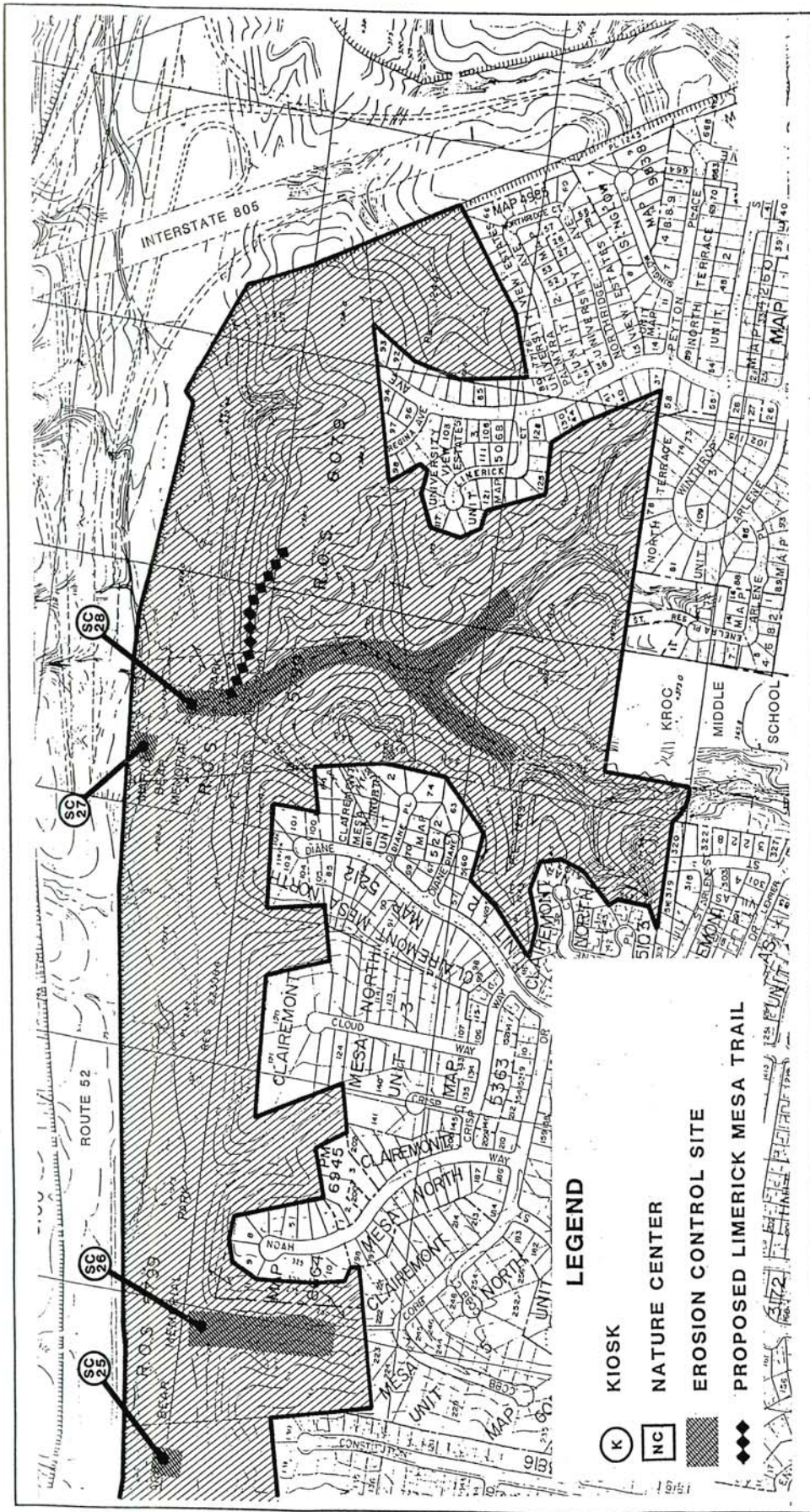


FIGURE 4C



MARIAN BEAR MEMORIAL PARK - Future Park Improvements

CITY OF SAN DIEGO PARK & RECREATION DEPT.



In general, there are many existing trails in addition to the main trails (Figure 2) in the Park but these tend to be volunteer trails made by individuals. A trail closure program will be implemented focusing on closing these volunteer trails, especially in areas outside Genesee and Regents parking lots. Closures will also target redundant trails; trails in the oak woodland west of Regents parking lot; and trails too close to sensitive plants or in sensitive habitats. Interpretive Projects

1. Nature Center - A nature center would be built to house interpretive Nature displays, administrative offices, and meeting areas. A possible location being considered is the east side of Regents Road, east of the current restrooms. For more information, see the interpretive and Research Guidelines section.
2. Educational or Informational Kiosks - Three freestanding kiosks are proposed to display educational and Park information. Possible locations are Regents Road West, Genesee Avenue East, and Limerick Mesa. Kiosks would be designed to have a rustic appearance and be maintained by the Recreation Council members. For more information, see Section the Interpretive and Research Guidelines section.
3. Community picnic area at West Limerick Mesa - unknown schedule.
4. Park lookout at Limerick Mesa - unknown schedule.
5. Trails providing access for the physically-impaired will be considered if funding becomes available - unknown schedule.

PARK MAINTENANCE

The City of San Diego needs to maintain Marian Bear Memorial Park for safety, sanitation, and habitat management reasons. The following maintenance activities are conducted within the Park:

1. Restroom cleaning (Park and Recreation Department) - once a day.
2. Litter Control (Park and Recreation Department) - twice a week in parking lots and picnic areas and an annual cleanup in other areas.
3. Removal of illegally dumped material (Park and Recreation Department) - as soon as possible, where needed.
4. Graffiti removal (Park and Recreation Department) - as needed from Park structures.
5. Maintenance and installation of gates, chains, and locks (Park and Recreation Department) - needed to prevent illegal entrance as needed.
6. Signs (Park and Recreation Department) - replacement, cleaning, repairing as needed.
7. Picnic areas (Park and Recreation Department) - flail mow and weed to prevent fire and safety hazards east and west off Regents Road - spring after native plants go to seed (April or May).
8. Removal of safety hazards (Park and Recreation Department) - safety hazards, such as fallen trees or hanging limbs, along the trails are removed and placed elsewhere in the Park as needed.

9. Removal of improper public activities (Park and Recreation Department) - activities, such as transient encampments, tree houses, swings, or ropes in trees, placed in the Park illegally by the public, are removed as needed.
10. Removal of exotic, non-native plants (Park and Recreation Department) - as needed, where needed.
11. Brush management (Park and Recreation Department) - brush removed within 100 feet from structures on adjacent property to address Category I fire hazards on an as needed based on an annual evaluation.
12. Maintenance road repair (General Services Department) - once a year after rainy season.
13. Grading parking lots (General Services Department) - once a year after rainy season to repair damage.
14. Manhole Service (Water Utilities Department) - once a year.

PARK DEVELOPMENT AND USAGE GUIDELINES

Marian Bear Memorial Park is open to the public and is heavily used. The following guidelines are outlined in order to protect and preserve the natural park experience for everyone. These guidelines also help protect the native habitat and wildlife.

1. Domestic animals will be constrained within the Park.
2. Two areas will be available for community events: Regents Road Park access area (currently available) and West Limerick Mesa (available in future).
3. The east/west bikeway route, proposed by the City in the State Route 52 corridor as part of the continuous paved bikeway system, should be located in the CALTRANS right-of-way and other nonpark land, except for agreed upon minor portions which may need to enter the Park. Any route should not be approved without a full environmental impact review.
4. Use of the San Diego Gas and Electric right-of-way should be coordinated with the City Park and Recreation Department, Open space Division.
5. Biking will be allowed in the future on designated trails only. Trails will be identified subsequent to a park ranger being assigned to Marian Bear Memorial Park.
6. Within Park boundaries, maintenance roads, trails, foot paths, biketrails, and parking lots will be unpaved to preserve the natural character of the Park, except as discussed under Item 3.
7. Any new project within the San Clemente watershed (Figure 5) affecting water quality or quantity downstream should follow Regional Water Quality Control Board (RWQCB) standards and conduct Monitoring studies for a period of time to include one season of normal rainfall. Any impact discovered during this monitoring period will require mitigation. Any upstream project resulting in future changes to stream flows should consider the natural resource management policies for Marian Bear Memorial Park.
8. A biological buffer zone of at least 100 feet should be established around sensitive habitats, listed in the Sensitive Resources section, and areas of heavy public use, such as trails, interpretive displays, picnic areas, or restrooms.
9. Poison oak should be controlled only around highly used public areas (picnic sites, restrooms, trails, parking lots, and interpretive displays). In other areas it should be allowed to remain part of the natural system.
10. If barriers are needed, preference should be given to using a rustic style, such as split rail fence, or natural barriers, such as wild rose (*Rosa californica*), blackberry (*Rubus ursinus*), cactus (*Opuntia* sp.), or logs from fallen trees.
11. Any lighting needed for public safety in the Park or adjacent to the Park should be hooded, directional low intensity sodium vapor lights used especially near biological buffers.

12. New trails should be planned on north-facing slopes in chaparral, away from the coastal sage scrub habitat of the threatened gnatcatcher which is usually found on south-facing slopes.
13. Concentrate noise activities away from habitats where sensitive animal species occur or are likely to occur.

MITIGATION AND RESTORATION GUIDELINES

Although Marian Bear Memorial Park is a natural habitat park, needed structures and some maintenance activities will be required which will impact existing natural habitat. These impacts should be minimized or eliminated as much as possible during design and planning phases. Maintenance activities should be planned in advance using the least disturbing methods and restricted to the project area. Prior to any trail addition or other park development, the area should be surveyed for sensitive species, as identified in Table 1, at the appropriate time of year. Surveying for San Diego barrel cactus, San Diego sage wart, and summer holly can take place year round but surveys for willow monardella, San Diego ambrosia, Orcutt's spine flower, Mission canyon bluecup, Palmer's grapplinghook, San Diego goldenstar, variegated dudleya, and ashy spike-moss are seasonally dependent. Erosion control projects should be evaluated with consideration given to willow monardella.

If unavoidable impacts, direct or indirect, occur, the following guidelines provide an appropriate structure for mitigation. Mitigation options for impact to or loss of riparian, coastal sage scrub, oak woodland, and chaparral habitats are the creation of new habitat and/or the enhancement of existing disturbed or degraded habitat. These guidelines are also appropriate for any restoration of degraded habitat and for maximization of wildlife value. Mitigation for riparian habitat requires special treatment to ensure habitat value is offset. Additional requirements may be added should they be necessary for creation of viable riparian habitat.

1. No net loss of riparian, coastal sage scrub, oak woodland, or chaparral habitat will be permitted without replacement of equal or greater habitat value.
2. Mitigation is required within the Park, preferably on the project site.
3. Streambed crossing requires a CDFG permit. Any crossing should be done during seasons of low water flow (e.g., summer) to minimize the impacts on the stream.
4. Revegetation efforts are best scheduled in the fall, after the first rain.
5. Any disturbance to stream banks which would cause erosion and/or create a potential erosion risk should be mitigated by revegetating the disturbed area as soon after the disturbance as possible. Bank protection, such as mulch, may be required in the interim period.
6. A mitigation and monitoring program will need to be developed for any mitigation projects. The program should outline: what will be done; what criteria will be used to determine success; what success criteria will be; a schedule of work and monitoring; and a plan for remedial measures should they be necessary.
7. A variety of habitat types should be created to encourage diversity of species.
8. vertical and horizontal plant diversity should be established.
9. Irregular, rather than straight, borders should be created between habitat types to maximize the edge effect.
10. wildlife areas of concentration should be created where vegetation is especially dense and extensive.

11. only appropriate native plants should be used in revegetation. Appendix E provides native plant lists appropriate for revegetating habitats found in the Park.
12. Human impacts should be considered in designing revegetation projects, such as the use of thorny shrubs to limit access to sensitive areas.
13. Temporary irrigation, if necessary, should be provided to help establish new vegetation.
14. Non-native or invasive species should be removed on a regular basis.
15. Revegetation sites should be monitored regularly. Appropriate recommendations should be made for enhancing revegetation efforts to ensure success criteria are met.
16. Prior to their implementation, all projects involving revegetation and/or mitigation within Marian Bear Memorial Park must be reviewed and approved by the Park and Recreation Department.

ENHANCEMENT AND MAINTENANCE GUIDELINES

These guidelines are provided for the enhancement and protection of natural resources in Marian Bear Memorial Park. Maintenance activity guidelines necessary for public safety and preservation of natural resources are also provided. If any maintenance activity adversely impacts the existing conditions, mitigation will be required as outlined in the Mitigation and Restoration Guidelines section.

ENHANCEMENT GUIDELINES

1. Native vegetation should be restored in damaged or degraded areas. Areas suffering from public activity abuse should be closed and rehabilitated. The following are damaged areas requiring restoration with native vegetation:
 - a. Sledding slopes south of the existing East Regents comfort station;
 - b. Sledding slopes south of the road east of the existing West Regents comfort station;
 - c. Areas north and west of East Regents comfort station;
 - d. Area south and east of East Regents parking lot;
 - e. Picnic area on south side of West Regents parking lot, southeast of comfort station; and
 - f. Area on north entrance of road/parking lot, northeast of West Regents comfort station.
2. Additional trees native to specific areas should be planted in disturbed and upland areas.
3. All erosion and potential erosion areas should be vegetated with native vegetation.
4. Areas where sensitive bird species are likely to nest (i.e., eastern San Clemente Canyon and southern willow scrub habitat) or where sensitive plants are found should be closed to public access. These areas should be posted: "No entry during breeding/nesting season" or "No entry due to sensitive habitat/plants", as appropriate.
5. Continuing sensitive species surveys should be conducted for San Diego barrel cactus, ashy spike-moss, and willow monardella to monitor their abundance.
6. A recovery program with U.S. Fish and Wildlife Service for willow monardella should be considered.
7. In the future, if least Bell's vireo are found within the Park, an annual cowbird trapping program should be considered from April 1 - June 30.
8. Creek crossings should be cobble-lined to be environmentally suitable for protection of the creek bed. The two locations west of Regents Road restrooms will require on-going replenishment of cobble.
9. A program to control the spread of poison oak should be implemented to keep open the Park trails and other designated visitor areas.
10. A program to eradicate non-native vegetation and replace it with native vegetation should be designed for any areas currently

dominated by exotics, such as iceplant, pampas grass, castor bean, fennel, acacia, Japanese honeysuckle, pyracantha, bottlebrush, sea fig, artichoke thistle, pine trees, tree tobacco, pepper trees, Virginia creeper (Parthenocissus auinguefolia), giant reed (Arundo donax), and tamarisk (Tamarix spp.). Non-native, invasive weedy plant species should be manually removed semi-annually from biological buffers and willow scrub.

Specific areas where iceplant should be replaced with native vegetation are two finger canyons on the south side between Diane and Arlene courts, the south side of Limerick Mesa, and the side canyon east of Cobb Trail (down from Crisp Street).

MAINTENANCE ACTIVITY GUIDELINES

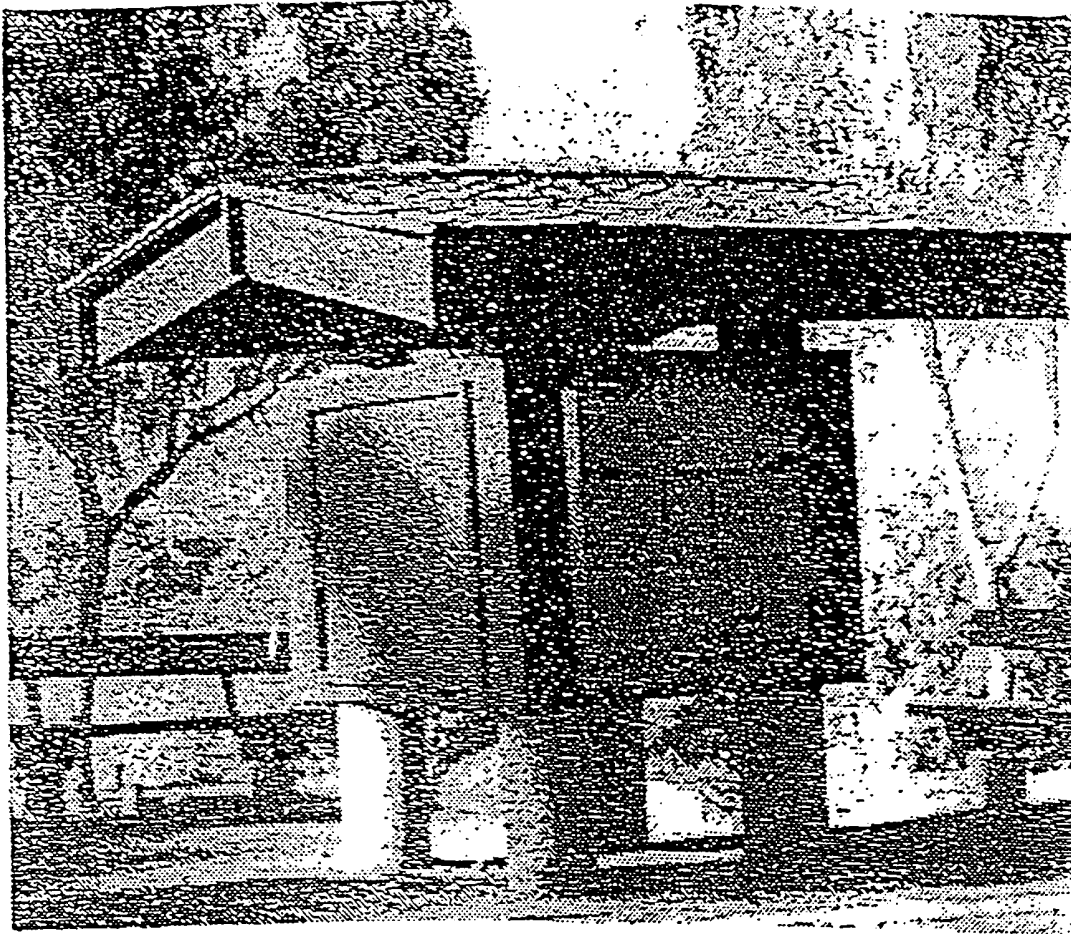
1. Trails should be closed to: 1) allow native vegetation to recover; 2) provide erosion control; 3) ensure public safety; and 4) allow for trail maintenance.
2. Access should be maintained for emergency and maintenance vehicles. Such activities should be limited to clearing brush and smoothing the road surface within the existing roadway.
3. A Park ranger should be employed for enforcement of City ordinances and Park policies and for interpretive activities.
4. A reporting and enforcement procedure should be developed to prevent residential and/or landscape encroachment into the Park.
5. Brush management activities will be done in accordance with city Fire and Planning Department regulations. Brush management actions are exempt from mitigation requirements, in this document. Brush management activities in coastal sage scrub habitat, however, are subject to U.S. Fish and Wildlife restrictions upon the listing of the California gnatcatcher as threatened. These restriction are unknown at the time of printing.
6. The General Services, Water Utilities and any other City departments conducting maintenance activities will notify the Park and Recreation Department, Open Space Division, prior to undertaking such activities and will follow the guidelines in this Natural Resource Management Plan. Open Space will in turn notify the Recreation Council.
7. All road repair and maintenance activity should be confined to roads themselves.
8. All fences and gates will be kept in good repair and, when necessary, promptly replaced.
9. If a maintenance activity could result in indirect or direct impacts to surrounding habitat or sensitive resources, the immediate area undergoing maintenance should be coned or flagged to aid the maintenance personnel in keeping the impact confined to the project area.
10. In the future, consideration should be given to providing separate water sources for fire hydrant and restroom/drinking fountain water.

INTERPRETIVE AND RESEARCH GUIDELINES

The natural habitat preserve system in Marian Bear Memorial Park provides significant interpretive and research opportunities. The following measures are designed to utilize these opportunities in a wise, nondisruptive manner.

INTERPRETIVE AND INFORMATIONAL DISPLAYS

1. Signage program in Marian Bear Memorial Park will be in keeping with the rustic nature of the Park and consistent with Standards set by Park and Recreation, Open Space Division.
2. only the official logo, as shown on the cover of this Plan, will be used, as appropriate, on signs within the Park.
3. Appropriate signage will be used to identify Park entries and boundaries.
4. Signs at Park entries will carry the Park logo and provide Park rules, regulations, and any other appropriate Park use information.
5. Signage within the Park interior will be limited to: major trail identification; restoration project site identification; and resources, such as habitat and nature trail, identification and/or interpretation.
6. Signs will be strategically placed for maximum benefit and designed or placed to avoid use by foraging raptors.
7. Major trailhead signs will be located at Cobb, Biltmore, Standley Park, Dawne, and Limerick Mesa trails.
8. Standard informational and educational signs will be developed for the Park and for riparian, coastal sage scrub, and chaparral habitats and sensitive species.
9. A kiosk or similar free-standing structure, such as the one illustrated in Figure 6, will be placed at major access locations to centralize interpretive and Park information and limit the number of individual signs in the Park. Three locations currently considered are near the restrooms and parking lot at the two main entries (Regents Road and Genesee Avenue) and at Limerick Mesa. These structures would be rustic in appearance, in keeping with the character of the Park. The structure design and location would make it easily seen; allow the displays to be easily changed; incorporate a container accessible to the public for distribution of interpretive brochures; be easily maintained; and be accessible to small children and wheelchairs. Information displayed would include but not be limited to Park rules and regulations, Park maps, Park history, and Recreation Council meeting notices. Interpretive displays would be changed periodically and focus on educating the public about natural resources and systems within the Park, such as cultural resources, evapo-transpiration, habitat and plant identification, interrelationships of plants and animals, animal identification, sensitive species, ecosystems, food chains, and animal behaviors and adaptations.
10. Park rules, regulations, and interpretive signs will be placed in kiosks when kiosks are available. Until then, the Park and Recreation four- and six-pack sign system will provide Park rules and regulations; the bulletin boards attached to the restrooms at Regents Road and Genesee Avenue entries will carry Park maps, history, and Recreation council meeting notices; and interpretive signs will be posted at the main entries.



KIOSKS-educational displays with information on numerous subjects of interest pertaining to the park.



EXAMPLE OF INTERPRETIVE KIOSK
CITY OF SAN DIEGO PARK & RECREATION DEPT.



FIGURE

6

11. Before sign placement, consultation with the Marian Bear Natural Park Recreation Council and final approval from the City is required. Posting notices on the bulletin board requires approval of the Recreation Council.

NATURE TRAILS

1. The existing nature trail beginning at the Regents Road entry point will be maintained. The number posts, corresponding to the interpretive information in the trail booklet, will gradually be replaced with sign plates identifying the tree or plant species and the corresponding number given in the booklet.
2. Interpretive signage will be added to existing signage at Genesee Avenue and Limerick Mesa trails to complete nature trail systems at each of the three main access locations. The trail at Limerick Mesa should also include a lookout over the Park.
3. All nature trails will have a self-guiding trail booklet available at the kiosks provided at the three main access locations.
4. Trail booklets will include, information such as:
 - Identification of key plant and tree species;
 - Physical description of species, growth habit, role in surrounding habitat, uses by wildlife and man;
 - Description of wildlife common in the surrounding habitat including feeding, foraging, sleeping, and mating behaviors;
 - Identification of animal tracks, preserved along the trail in plastic or metal castings; and
 - Overall discussion of how the habitats in the area function as an ecosystem, such as food webs.
5. Major trailhead signs will be located at Cobb, Biltmore, Standley Park, Dawne, and Limerick Mesa trails.
6. All nature trail signage will include sign posts with plant species listed and number corresponding to a description in a trail booklet.
7. As appropriate, casting of animals, animal tracks, or animal droppings will be located along the nature trails as an interpretive resource.

NATURE CENTER

A nature center will be built in Marian Bear Memorial Park if future growth warrants it. The area east of Regents Road, east of the restrooms is a logical location due to existing parking, restrooms, and picnic tables, and to its location at a major access point. Figure 4 identifies this location. The proposed nature center will include interpretive exhibits and displays; rooms for meetings, slide shows, or nature talks; and an administrative office, possibly for a Park ranger. A nature trail system will also be part of the nature center complex. The nature center will be designed to keep its size limited to what can be accommodated by the Park, including parking, and its appearance from being intrusive in the Park. A designer knowledgeable of interpretive centers will prepare a design, provide site location recommendations, and submit a conceptual design for interpretive displays within the nature center. Telephone and electrical hookups will be needed.

RESEARCH

Research proposals for studies to gather unknown information on natural resources will be reviewed by the Recreation Council. The Council's recommendations and the proposals will be forwarded to the City Park and Recreation Department (Open Space Division and Natural Resource Manager). Potential funding would come from grants or the City. If City funds are used, the City would have the ultimate choice of which study to fund.

IMPLEMENTATION

FEDERAL AND STATE AGENCY PERMITS AND AGREEMENTS

The City of San Diego will be the lead agency for almost any project proposed within Park boundaries. Federal and state agencies will be notified during the public review process of all proposed projects affecting natural resources. These agencies could include CDFG, USFWS, Regional Water Quality Control Board and/or Corps. Mitigation plans and mitigation monitoring reports for individual projects will also be submitted to these agencies for their review and comment.

In some instances, such as streambed alteration or erosion control, another agency may be the lead agency. This is the case in streambed alteration or erosion control when a specific permit must be obtained from CDFG. Any deposition of fill or other material into United States waters requires a Corps permit. These lead agencies would then consult with other resource agencies for review and comment on the proposed project and mitigation plan, if there is one.

DEVELOPMENT RESPONSIBILITIES

This Natural Resource Management Plan covers four types of possible development projects: 1) erosion and/or sedimentation control; 2) new Park structures; 3) Park maintenance activities; and 4) habitat enhancement. It will be the responsibility of the City or project applicant to plan, implement, maintain, and monitor any required mitigation effort.

Mitigation Planning: For any erosion control, new Park structure, or Park maintenance activity involving habitat or streambed disturbance, a pre-project, site-specific field survey will be conducted by a qualified biologist. This survey will determine the type and extent of natural resources and identify possible mitigation requirements.

If a revegetation plan is required, a qualified biologist will outline the mitigation proposal. Revegetation plans will include the following: a landscape plan which addresses in detail the compensation concept and design criteria; the types and extent of habitats to be developed; grading requirements (if any); plant materials to be used; method of planting; and plans for maintenance and monitoring of the revegetation. The City will review and approve revegetation plans before project approval is granted.

A binding mechanism will be instituted to ensure a project applicant will implement, maintain, and monitor the mitigation effort as planned and approved. This mechanism can be a bond or other means of assuring funds will be available to complete the mitigation program. In cases where mitigation habitat area is to be purchased from an already existing City mitigation bank, the acceptability of the project as a participant in the bank will need to be approved by the City and resource agencies and the required mitigation area purchased prior to project development.

Mitigation Implementation: Mitigation programs will be implemented according to mitigation plans preceding or coincident with project construction. This includes the purchase of mitigation area from a mitigation bank. Wherever necessary, exotic or invasive vegetation will be removed and an irrigation plan will be implemented to water plants until they have become established.

After project construction is complete, a second habitat survey of impacted areas will be conducted by a qualified biologist to ensure the success of the mitigation plan.

Mitigation Maintenance: Mitigation and enhancement plans will include a long-term monitoring program to determine the success of the plan and identify maintenance needs. In the first three to five years after plan implementation, monitoring will be conducted and reports made to the Park

and Recreation Department on a regular basis. The frequency of monitoring will be determined during the mitigation plan approval process. After the first three to five years, mitigation sites will be monitored to obtain information regarding species and quantity and quality of their growth. An annual report of the monitoring effort will be prepared and submitted to the Park and Recreation Department. The report will address plant survival, vegetative cover, the success of establishing designated habitats, and recommended actions necessary to accomplish full mitigation. Resource agencies will receive copies of mitigation monitoring reports.

The applicant will be responsible for maintaining revegetated mitigation sites for three to five years from the date the planting is completed.

Replacement of vegetation and elimination of undesirable species will be undertaken as part of the mitigation maintenance program.

Any vegetation that dies or is otherwise damaged within the first few years due to flooding, disease, over- or under-watering, vandalism, etc., will be replaced by the applicant. Vegetation should be monitored on a regular basis and replaced as needed to fulfill mitigation plan conditions.

In order for mitigation areas to be successfully established, non-native plants which compete with native plants for light and space must be controlled. Non-native species, such as iceplant, giant reed, tree tobacco, fennel, pampas grass, acacia, castor bean, and tamarisk must be removed from all mitigation sites. Any non-native plants should be removed biannually during the three to five-year maintenance period. Once removed, the plants should be disposed of in a landfill.

CITY RESPONSIBILITIES

The City Planning and Park and Recreation departments are responsible for the administration of the Natural Resource Management Plan. The Planning Department will review all public and City development proposals to determine conformity with the Natural Resource Management Plan. The California Environmental Quality Act (CEQA) process will be applied to determine the environmental impacts of development proposals and identify mitigation measures and alternatives to reduce impacts to Marian Bear Memorial Park natural resources.

The Park and Recreation Department is responsible for conducting maintenance activities in the Park in compliance with the Natural Resource Management Plan. The Park and Recreation Department will review public and City project plans along with revegetation and mitigation plans to ensure the projects meet the requirements and objectives of the Natural Resource Management Plan. Enhancement projects, Park improvements, and a current data base are also the responsibility of the Park and Recreation Department.

General Services and Water Utility departments also conduct maintenance activities for their facilities within the Park. These maintenance activities will be in compliance with the measures outlined in this Natural Resource Management Plan. If emergency work is needed, Park and Recreation must be notified of what, why, when, and how these measures will be taken. Mitigation plans, if necessary, will require Park and Recreation approval prior to implementation, as well as sign off to determine when mitigation criteria are met.

Funding for enhancement, management, and preserve maintenance for the Park's natural resource system can come from a variety of sources. Items outlined in this management plan are listed below with possible funding sources:

1. Informational, Directive, and Educational Signs/Kiosks. Potential Funding: Environmental License Plate Grant; Coastal Conservancy Grant; possible future state bond initiatives; operating budget; and/or recreation council fundraising.

2. Nature Center Complex - includes nature trails, observation platform, structure, fence, signs, and interpretive displays. Potential funding: Environmental License Plate Grant; Coastal Conservancy Grant; State Parks Grant; possible future state bond initiatives; operating budget; and/or recreation council fundraising.
3. Habitat enhancement - includes restoration of damaged areas, addition of native trees and stabilization of erosion or potential erosion areas with native vegetation. Potential funding: Environmental License Plate Grant; Coastal Conservancy Grant; operating budget; and/or recreation council fundraising.
4. Park Ranger. Potential Funding: General Fund.

RECREATION COUNCIL RESPONSIBILITIES

Recreation councils are part of the City/public interface. These councils make recommendations to the City on management needs, enhancement, and development of City Parks and open space. In addition, the Marian Bear Natural Park Recreation Council is undertaking the following in support of City management of Marian Bear Memorial Park:

1. Conduct fundraising activities for Park enhancement and educational and/or interpretive efforts;
2. Develop a logo for Park identification;
3. Provide volunteers needed for Park improvements, environmental education, and some maintenance activities, primarily for trails;
4. Advise and assist any and all government agencies as may be appropriate in the preparation, adoption, implementation of, or amendment to the planning of Marian Bear Memorial Park;
5. Input public views and comment on city or other proposed projects or plans affecting the Park; and
6. Investigate and advise on specific goals, standards, and recommendations for open space use in Marian Bear Memorial Park.

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ACKNOWLEDGEMENTS

Former Marian Bear Recreation Council Members

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Les Blakely

Bob Glaser

Dave Hall

Pam Mall

Ruth Manzi

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Cynthia Burrascano, California Native Plant Society - Plant Survey

City of San Diego

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I

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APPENDIX

APPENDIX A - Community Participation

APPENDIX B - Plant Survey

APPENDIX C - Bird Survey

APPENDIX D - Geology of San Clemente Canyon

APPENDIX E - Revegetation Plant Lists

Chaparral

Coastal Sage Scrub

Riparian Woodland

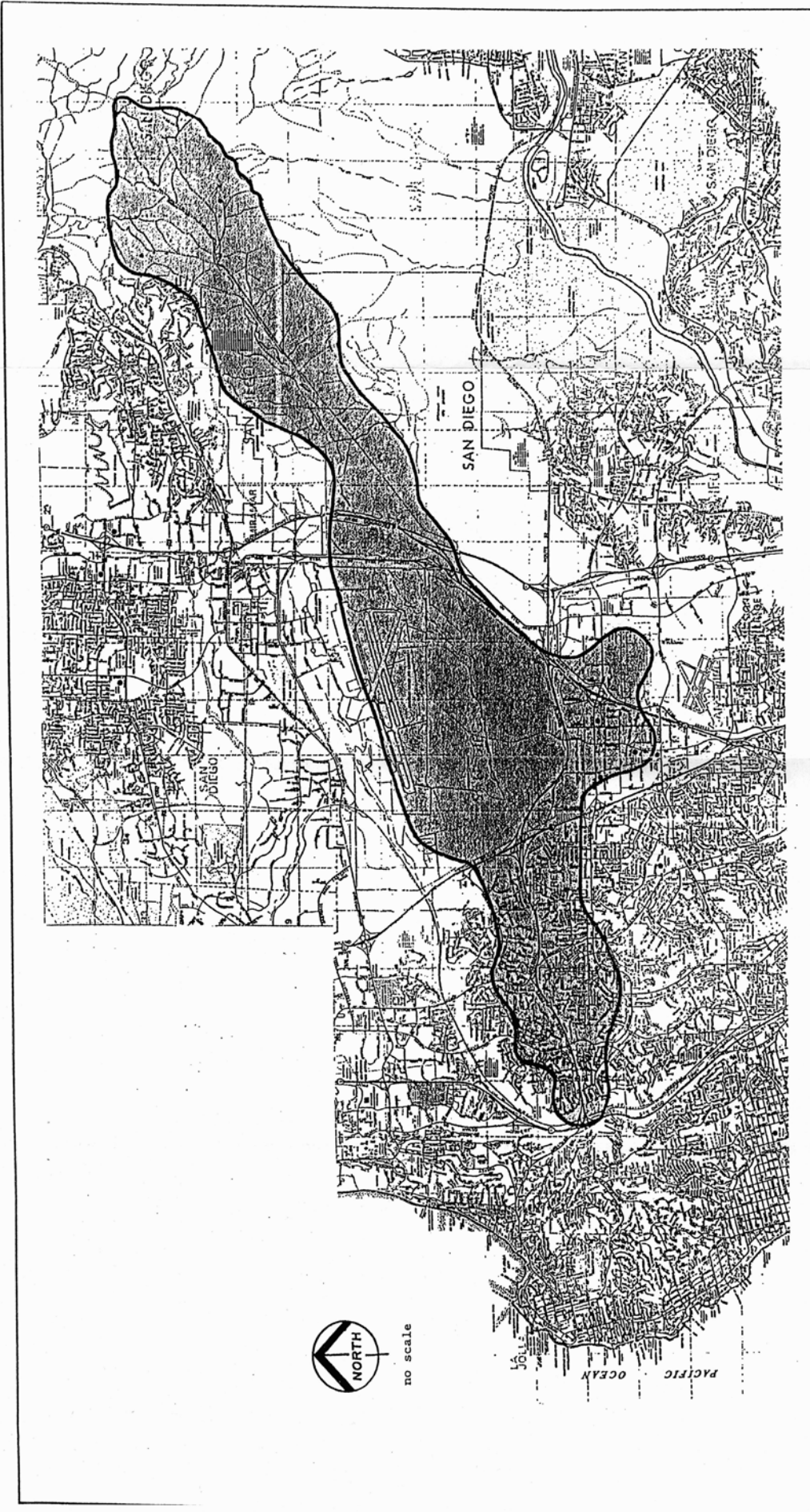


FIGURE 5



SAN CLEMENTE CREEK WATERSHED

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