Sepulveda Dam and Basin
FIRE STATION #88 ROPE TOWER PROP
Draft Environmental Assessment

Los Angeles County, California

July 2013

U.S. Army Corps of Engineers
Los Angeles District
P.O. Box 532711
Los Angeles, CA 90053-2325

NOTICE OF PREPARATION
ENVIRONMENTAL ASSESSMENT

This is to inform the general public that the United States Army Corps of Engineers Los Angeles District (Corps) has preliminarily determined that the following project proposal could be adequately evaluated under the National Environmental Policy Act (NEPA) through conducting an Environmental Assessment (EA).

Proposal Title Fire Station #88 Rope Tower Prop
at Sepulveda Flood Control Basin

Proponent City of Los Angeles Fire Department

Proposed Implementation Date - 2013

Proposed Federal Action Los Angeles Fire Department would exercise its Outgrant from the US Army Corps of Engineers and would build a Rope Tower Training Facility.

This Environmental Assessment (dEA) has been prepared to assess the environmental impacts associated with a Proposal from the Los Angeles Fire Department, a U.S. Army Corps of Engineers (Corps) lessee. The Fire Department requesting is permission to construct a Rope Tower Prop for training purposes on lands leased from the Corps at Fire Station 88, near Sepulveda Dam, on Corps-controlled lands location downstream of the Dam. The street address of Fire Station 88 is 5101 Sepulveda Boulevard, Sherman Oaks, CA 91403-1530, Los Angeles County, California. The existing facility is located within Sepulveda Flood Control Basin which is operated for Flood Risk Management by the Corps. The Fire Department's outgrant with the Corps is DAC-W09-1-72-20.

Public Involvement

If you have comments concerning this proposal, Please direct your comments to
carvel.h.bass@usace.army.mil or by mail to
Carvel Bass, Asset Management Division
U.S. Army Corps of Engineers
915 Wilshire Boulevard, Ste. 11098, Los Angeles, CA, 90017.

This public notice is in effect from July 25-August 24, 2013. Please provide comments postmarked or emailed no later than August 24, 2013.

If you have questions or would like additional information, please contact
Carvel Bass, Asset Management Division, at 213) 452-3392.


SEPULVEDA BLVD
SEPULVEDA BLVD
SEPULVEDA BLVD
SEPULVEDA BLVD
SEPULVEDA BLVD
HARTSOOK ST
OTSEGO ST
HESBY ST
VALLEYHEART DR
410
411
SCALE 1 : 1,624
100
0
100
200
300
FEET
N

Bay City Geology

Plot Map Explanation	
TP-2	Location of Test Pits
A — A'	Line of Cross Section
Bay City Geology, Inc.	
Scale 1"=40'	
May, 2012	Project Number: 1286-1
Project Address:	5101 N. Sepulveda Boulevard Sherman Oaks, California

DRAFT ENVIRONMENTAL ASSESSMENT

FIRE STATION #88 ROPE TOWER PROP

SEPULVEDA DAM AND BASIN

TABLE OF CONTENTS

TABLE OF CONTENTS (CONTINUED):

V ALTERNATIVES IMPACT ASSESSMENT TO BASELINE RESOURCES, CONTINUED:

DRAFT ENVIRONMENTAL ASSESSMENT
For
Proposed Action on Corps-Managed Federal Land

Proposal Name: Construction of a US&R Rope Tower Prop Project
Proposed Implementation Date: 2013
Proponent: City of Los Angeles, Fire Department
Requested Location: LAFD Regional Training Facility at Fire Station 88
County: Los Angeles County

1.0 INTRODUCTION AND BACKGROUND

This Environmental Assessment (dEA) has been prepared to assess the environmental impacts associated with a Proposal from the Los Angeles Fire Department, a U.S. Army Corps of Engineers (Corps) lessee. The Fire Department requesting is permission to construct a Rope Tower Prop for training purposes on lands leased from the Corps at Fire Station 88, near Sepulveda Dam, on Corps-controlled lands location downstream of the Dam. The street address of Fire Station 88 is 5101 Sepulveda Boulevard, Sherman Oaks, CA 91403-1530, Los Angeles County, California. The existing facility is located within Sepulveda Flood Control Basin which is operated for Flood Risk Management by the Corps. The Fire Department's outgrant with the Corps is DAC-W09-1-72-20.

This dEA has been prepared to comply with the requirements of the National Environmental Policy Act (NEPA) 42 USC 4321 et seq), Council on Environmental Quality (CEQ) regulations published in 42 Code of Federal Regulations (CFR) part 1500, and the U.S. Army Corps of Engineers (Corps) *Implementing NEPA*, Engineering Regulation (ER) 200-2-2. Federal laws, regulations, and Executive Orders support environmental protection and conservation. Corps' policies recognize a need for environmental stewardship that includes conservation and protection of the Nation's natural resources. The purpose of this EA is to provide sufficient information on potential environmental effects of the proposed building addition and alternatives, for the purpose of determining whether to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI).

The Proposal is reviewed in light of the above and other Federal guidelines, as well with guidance from the 2011 Sepulveda Basin Master Plan which concerns existing and future land uses and resources within the Basin, the needs and desires of community stakeholders, and land use classifications for Basin lands based on Corps management principles.

1.1 Project Location

The Sepulveda Dam and Flood Risk Management Basin, which are comprised of a Dam and lands that support the construction, operation and/or maintenance of the Dam (/Basin), is on the upper Los Angeles River in the San Fernando Valley about 17 miles northwest of downtown Los Angeles and 2 miles southwest of the community of Van Nuys. The Basin is accessible by two major freeways: the Ventura Freeway (U.S. Highway 101) and the San Diego Freeway (Interstate 405), and lies at the northwest corner of the junction of these freeways. The area included in the Corps Sepulveda Dam Basin Master Plan (2011) includes 2,131.9 acres acquired

by the Federal government for the Project and includes the Dam, its associated operations structures, and other acreage primarily utilized for recreation under lease by Los Angeles City.

Fire Station 88, in a portion of the City's lease, is a developed facility located at 5101 Sepulveda Boulevard. Sherman Oaks, CA on the west side of Sepulveda Blvd., Sherman Oaks, CA at a location with the proposed construction area located on Corps-controlled land outside the Basin proper.

1.2 Authorized Purpose

Flood Risk Management Although the authorized Project purpose in the legislation for the Project was originally referred to as flood control, it is now referred to as flood risk management. The Project purpose is to provide flood risk management to the communities downstream of the Basin, and any other activities that may occur within the Basin must not impede or diminish the purpose of flood risk management.

Sepulveda Dam Basin was authorized pursuant to two acts of Congress. The Flood Control Act (FCA) of 1936 (Public Law [P.L.] 74-738) provides for the construction of the dam and related flood risk management works for the protection of metropolitan Los Angeles County, California. The FCA of 1938 (P.L. 75-761), amended the 1936 Act by providing for the acquisition of land, easements, and right-of-way for Dam and Basin projects, channel improvements, and channel rectification for flood risk management. This flood risk management Project is an important part of a comprehensive plan for such management in Los Angeles County. Sepulveda Dam is managed by the Corps, Los Angeles District.

Recreation Section 4 of the FCA of 1944 (P.L. 78-534) as amended, authorizes the Corps to construct, maintain, and operate public park and recreation amenities at water resource development projects and to permit the construction, maintenance, and operation of such amenities. It authorizes the Corps to grant leases of lands, including structures or amenities that are suitable for public parks and recreation purposes to Federal, state, or local government agencies when such action is determined to be in the public interest.

1.3 Land-Use Classifications at Sepulveda Basin

The land use classifications at Sepulveda Dam Basin were recently revised (Sepulveda Dam Master Plan, 2011) to improve compatible uses and to ensure social, economic, and environmental sustainability of Basin lands.

Project Operations Project Operations lands are those necessary to enable the Corps to operate and maintain the Dam for its primary purpose of flood risk management. While limited activities may occur within this classification, its primary components are the Dam, spillway, and any areas needed for access for operation and maintenance of the Dam, and to conduct flood risk management operations; as a result, activities on this land must not interfere with flood risk management operations. Land extent and area identified under this classification have not changed since the previous Master Plan was implemented, and are not recommended for change under the updated Master Plan. The total area of operations land is 313.0 acres, which includes a total of 157.8 acres of roadways.

Recreation The Recreation land use classification allows the most intensive recreation uses and may be used for athletic fields, parking lots, restrooms and other amenities. Structures within recreation areas must be compatible with periodic flood inundation as provided in Corps guidance regarding structures within given flood surface water elevations (SPDR 1110-2-1). Though the number of acres of land that is classified as Recreation has increased, the updated Master Plan does not recommend changes to existing recreation amenities.

The subject areas at Fire Station 88 are located on lands described in the current Master Plan as *suitable for Inactive [use] and/or for Future Recreation*. The proposed use of land by City Fire Department, which is already the subject of an approved outgrant, is not incompatible with this designation.

1.4 Purpose and Need for this Proposal and Its Related Objectives

a. PURPOSE AND NEED

Under the authority of the Flood Control Act and amendments, the Corps has permitted the construction, operation, and maintenance of Fire Department amenities at the property through its lease with the City. Likewise, the Corps' purpose in its land management is being met with administration of the ongoing outgrant for Los Angeles Fire Department activities in this region of the San Fernando Valley. As it applies to this action, the amenities are Fire Station 88, Supply and Maintenance Division including Valley Shops, Urban Search and Rescue 88, and Disaster Preparedness Sections. The action would permit the construction of a Regional Training Equipment – US&R Rope Tower Prop - for use by the Urban Search and Rescue team, and by using Federal grant funding.

Such proposals as this may be anticipated under the existing, referenced lease agreement and supplement, in order to update the Department's regional training center to meet current needs. The driving need for this proposal is the regional training needs assessment completed by the Los Angeles Area Fire Chiefs Association (LAAFCA), in conjunction with grant funding available from the Federal Government.

Existing regional training locations require the Los Angeles Fire Department and its regional partners to travel many miles to access the training. Fire companies will be removed from service to attend the training, occasionally in adjacent Cities. While the fire department can use other facilities, the reduction in the current operating budget and reduction of units available for response have dictated the need for a centrally located Regional Training Center within L.A. City. The Sepulveda facility already has parking available for units and security for apparatus while attending training courses. The location of the US&R Rope Tower Prop on this site would create a more accessible and usable facility for all of the Department's Urban Search and Rescue training, including: Rescue Systems 1, Structural Collapse Technician, Confined Space Rescue, Low Angle Rope Rescue Technician, Advanced Rope Technician, GPS/Land Navigation, and Search Technician.

The City has further identified several objectives of the proposed action, including:

- Provide high quality, regional training props for the advancement of the Fire Service, and increase the safety and sustainability of programs based on fire department needs assessment;
- Develop long-range capital improvements to training facilities based on criteria, standards, and assessment;

b. SCOPE OF ANALYSIS

This Environmental Assessment (EA) evaluates the proposed construction and operation of a regional training center – US&R Rope Tower Prop on the proposed site. The land is owned in fee by the Federal government. The City of Los Angeles, Fire Department is requesting approval of specific improvements to training amenities authorized under an existing lease and supplemental agreements. This EA analyzes potential effects of the proposed action by comparing a No Action Alternative with the Preferred Alternative which would provide approval to the City to permit the improvements as well as construction and operation of a new regional training center – US&R Rope Tower Prop at the requested location. This analysis is offered to the interested public to solicit input on the proposed action and would be made available for review and public input for 30 days.

II. PROPOSED ACTION

The Corps would approve this improved improvement at the regional training center improvement which is maintained and operated by the City, including the installation and construction of a regional training center – US&R Rope Tower Prop. The proposed project would replace and expand capabilities of an older, wooden structure currently being used for similar purposes. The improvements would include:

- Construction of a new, 5-story Rope Prop, to allow for regional training with Fire and Police services. The Rope Prop construction would include removal of minimal existing, ruderal ground vegetation. Grading of the ground would result in the disturbance depth of up to approximately 2 feet to allow for leveling and footings. Additional information is provided below, in Proposed Action Alternative.

III. ALTERNATIVES

This section describes the alternatives considered that would meet the purpose and need of the proposed action. NEPA requires that Federal agencies consider a reasonable range of alternatives that may meet this need and, for alternatives eliminated from detailed study, provide a brief discussion of the reasons for their having been eliminated. In the following section, the proposed action alternative, no action alternative, and reason for elimination of other alternatives are described.

A. No Action – Under the No Action Alternative, the Corps would not provide approval of the renovations to the City under the terms of the lease. This could occur in several ways but without approval and use of the grant, no funds would currently be available to perform the proposed improvements and no action would result.

This alternative would not meet the City's stated purpose and need, and it is considered equivalent to the baseline condition in this EA. The City operates the US&R Regional Training Center at Fire Station 88, which includes their use by the LAFD US&R Task Forces and Regional Fire Departments. Under this alternative, the US&R Regional Training Center would continue to be used without any improvements, and the use of temporary or other training locations would continue to be used, as funds allow. The closest US&R Regional Training Center would continue to be located at Del Valle in Castaic, Los Angeles County, CA.

B. Proposed Action Alternative – Under the Proposed Action Alternative, the City would construct a state of the art 5-story US&R Rope Tower Prop at the US&R Regional Training Center, located at Fire Station 88. The existing, wooden Rope Tower was constructed approximately 17 years ago (constructed in 1996) and has not been improved since.

When completed, the Rope Prop would measure approximately 60-feet in height and the ground footprint would have dimension of approximately 22 x 25 feet. Construction of the Rope Prop would not impact either the dam or flood control basin, or the berm which separates the training yard from the Fire Department's administrative buildings and parking lot.

All construction work areas would be restored to existing conditions, including existing grade, or better. Construction of the improvements would take approximately four months. Construction is expected to start in the Summer/Fall of 2013. Under the noise provisions, construction is allowed to occur during the week between the hours of 7:00 a.m. and 5:00 p.m.

During construction, the close proximity of the US&R Rope Tower Prop construction site will be temporarily closed. Construction material and equipment would be staged to be located separate from public access roads and walkways, and also distant from the adjacent Corps-maintained Los Angeles River channel. As renovation work is completed, equipment and materials would be removed from the site. Paving access roads would be the last phase of the renovation before the US&R Rope Tower Prop is opened for training use.

An offsite alternative was not considered because the proposed action is the construction of the US&R Rope Tower Prop at Fire Station 88. No other alternative was considered, due to restrictions on the use of funds provided by the approved grant. Funding for the construction activities described under the Preferred Alternative has been received under the UASI Grant Program. The grant which was awarded does not allow for use of funds at any other location or for any other purpose. Because of this, no offsite alternatives are considered reasonable or feasible. Corps Engineering Division has reviewed the proposal and found no objection.

IV. BASELINE CONDITIONS

Existing Conditions - The EA provides information on existing conditions within and around the Basin using current and best available data. Existing resource conditions are considered Baseline Conditions which may also be generally considered Future-Without-Project Conditions, if No Action were implemented.

Resource Objectives - Corps' water and land management objectives reflect an evolving Corps vision and mission goals. Existing development and uses identify current land uses within the Basin, and land-use classifications are based on use and guidance (EP 1130-2-550).

4.1 Physical Land Resources

The Sepulveda Dam Basin is located in the San Fernando Valley (Valley), surrounded by the Santa Susana and San Gabriel Mountains to the north, the Santa Monica Mountains to the south, the Verdugo Hills to the east, and the Simi Hills to the west. The Valley is approximately 20 miles long and ranges in width from 2 to 12 miles. Topography of the drainage area includes approximately 55% (85 square miles) of relatively steep mountainous terrain and 45% (67 square miles) of comparatively flat valley floor. While the average elevation in the Santa Susana Mountains is about 2,000 feet, the highest point in this drainage area is San Fernando Peak at an elevation of 3,741 feet. Elevations in the highly urbanized valley vary from 1,200 feet at the base of the foothills to 668 feet at the base of the Sepulveda Dam.

4.1.1 Geology

The San Gabriel, Verdugo, Santa Susana, and Santa Monica Mountains are part of the Transverse Ranges. The San Gabriel Mountains are generally composed of Mesozoic and older igneous and metamorphic rock. The Verdugo Mountains are in an uplifted sliver of crystalline rock, along the south side of the San Gabriel Mountains. The Santa Monica Mountains are composed mainly of Cretaceous to Miocene sedimentary and volcanic rock. The Santa Susana Mountains are composed mainly of Miocene to Pleistocene marine and non-marine sedimentary rock. The adjacent Santa Susana Knolls are composed of upper Cretaceous marine sedimentary rock.

4.1.2 Soils

The greater part of the Valley is overlain by recent alluvium, consisting of unconsolidated and un-weathered, poorly graded clay, silt, gravel, and boulders. The eastern half of the Valley is dominated by the Tujunga Wash and contains coarser alluvium that is granitic in origin. Along the Los Angeles River above the confluence with Tujunga Wash, the alluvium is notably lacking in boulders and in appreciable quantities of coarse gravel. The Sepulveda Basin area is almost entirely covered by recent alluvium composed of relatively fine material.

4.1.3 Earthquake Faults

The Sepulveda Dam Basin lies within a State of California designated Seismic Zone. These are areas that are based on historic occurrences of liquefaction, local geological, geotechnical, or groundwater conditions and have the potential for permanent ground displacements.

The Alquist-Priolo Earthquake Fault Zoning Act (Section 7.5, Division 2 of the California Public Resources Code) was passed in 1972 in order to identify hazard areas along active faults (fault zones) that should be avoided when planning areas of human occupancy. This California state law was chiefly influenced by impacts from the 1971 San Fernando Earthquake. Although the

Sepulveda Dam Basin does not lie within a fault zone (CADC 2010), several active Quaternary faults (faults less than 1.6 million years old) are found in the immediate area:

- Northridge Hills Fault is 15.5 miles long, runs in a northwesterly direction, and is located 3.5 miles north of the Sepulveda Dam Basin.
- Chatsworth Fault is 12.5 miles long, runs in a northeasterly direction and is located 4 miles northwest of the Sepulveda Dam Basin.
- Verdugo Fault is 13 miles long, runs in a northwesterly direction, and is located approximately 6.5 miles east of the Sepulveda Dam Basin.
- Malibu Coast Fault is located immediately adjacent to the Basin.

4.2 Water Resources

Water supply to an area can be described in such indices as precipitation, snow pack, and runoff. Analysis of data and weather records are studied to determine the trend and the variability in the indices (e.g., precipitation and runoff), which affect water availability.

Most precipitation events in California occur between October and April. There is evidence that the amount of precipitation that occurs on an annual basis is becoming more variable (i.e., periods of both high and low rainfall are becoming more common). A study by CDWR (2006) indicates that present day variability in annual precipitation is about 75 % greater than that of the early 20th century and precipitation across California appears to have increased over the past century with individual water years having become more variable in terms of the amount of precipitation occurring. Similar trends are observed for runoff although, for summer months, the average runoff from April to July appears to be decreasing.

4.2.1 Los Angeles River Watershed

The drainage area of the Los Angeles River, including tributaries upstream of Sepulveda Dam, comprises 152 square miles and occupies the northwestern Los Angeles River watershed covering virtually the entire San Fernando Valley and the surrounding mountain slopes west of Interstate 405. The drainage area is bounded on the south by the Santa Monica Mountains; on the west by the Simi Hills; on the north by the Santa Susana Mountains; and on the east by a line extending north and south along the San Diego Freeway. The headwaters of the Los Angeles River are in the Simi Hills on the west, formed by Chatsworth Creek, Dayton Canyon Wash, Bell Creek, and Arroyo Calabasas. The longest watercourse upstream of the Dam is about 19 miles long with an average slope of 143 feet per mile.

The Los Angeles River immediately downstream of the Dam is a rectangular reinforced concrete channel with a hydraulic capacity of 16,900 cubic feet per second (cfs). The River flows east and then south in a lined channel of varying cross sectional shape that increases in size as it accumulates urban tributary runoff on its way to the Pacific Ocean.

4.2.2 Hydrology

Normal annual precipitation ranges from less than 15 inches over much of the Valley to more than 22 inches atop both the Santa Susana Mountains and the Santa Monica Mountains, with great year-to-year variability in monthly as well as annual precipitation. Most precipitation in the southern California coastal drainages occurs from November though early April, as mid-latitude cyclones from the north Pacific Ocean move down the west coast bringing precipitation to southern California. Most of these storms are light to moderate, steady precipitation with occasional heavy showers or thunderstorms, typically of less than 12 hours duration and nearly always less than 48 hours. Upper watershed runoff into Sepulveda Dam Basin is a result of high flood peaks of short duration from high-intensity rainfall and inflow rates drop rapidly between storms. Based on Corps operation records, the long-term average inflow to Sepulveda Dam Basin for the water years 1943 through 2007 is 60,692 acre-feet per year (or 84 cfs). There has been a dramatic increase in peak water inflow, or the maximum amount of water flowing into the Basin, in response to increasing watershed urbanization. Most of the valley area is urbanized, with a high percentage of the ground surface covered by paving or structures, which collects rain and forces it to runoff through surface drainage. In 1989 the watershed was estimated to have about 35% impervious cover, preventing rain from soaking into the ground and percolating into groundwater and, as a result of increasing impervious surfaces, average peak inflow has risen with the mean annual discharge varying from the lowest runoff of 7.2 cfs in 1950 to the highest runoff of 393 cfs in water year 1998.

4.2.3 Dam Operation

Sepulveda Dam Basin, completed in December 1941, is operated to provide flood risk management to communities downstream of the Dam.

4.2.4 Floodplain Management

The primary authorized purpose of Sepulveda Dam is flood risk management. Flood risk management is the ability to contain flood inflows in the Basin to minimize risk to life and safety to downstream communities. The Corps has managed Basin land use since the Dam's completion in 1941, to prevent activities and development that would compromise the operation of the Dam for flood risk management to downstream communities.

Baseline development within the Basin is consistent with the Floodplain Development Executive Order (/EO 11988) and with Corps guidance for floodplain management. No human habitation is permitted within the Basin and existing structures and improvements are either floodable, flood-proofed, or protected by flood walls up to at least the base flood (100-year) elevation. The proposed construction would be located above the 100-yr. inundation line.

4.2.5 Surface Water Quality

The urban storm runoff entering the Basin is generally of poor quality. Routine base flow (usually less than 10 cfs) is typically high in salinity, whereas storm runoff is generally low in salinity (Corps 1989). Also passing through the outlet works is tertiary treated effluent from the Donald C. Tillman Water Reclamation Plant (TWRP) operated by the City of Los Angeles

Department of Public Works Bureau of Sanitation (BOS), which is located within the Basin (BOS 2010). The average flow of tertiary effluent produced by the TWRP is approximately 26 million gallons of water per day, or 40 cfs. About 2.5 million gallons per day are recycled at the plant for treatment processes, landscape irrigation, cooling of plant equipment, air conditioning, and other plant applications; over 23 million gallons per day are recycled to the Japanese Garden Lake, the Wildlife Area Lake, Lake Balboa, and Bull Creek, all within Sepulveda Basin. The remainder of the plant's treated water is discharged to the Los Angeles River through Haskell Creek and the plant's discharge, combined with outflow from the three lakes, provides a minimum of 20 million gallons per day (31 cfs) to the Los Angeles River.

Beneficial Uses

Water quality throughout the state of California is protected by the State Water Resources Control Board's water quality objectives. Water quality objectives are designated to protect Beneficial Uses, which sets the degree of water quality protection needed to support current and future human and wildlife utilization. The Los Angeles Regional Water Quality Control Board (LARWQCB) Region 4 has designated Beneficial Uses for the Sepulveda Dam Basin including:

- Municipal (MUN) – Water used for military, municipal, individual water systems, and may include drinking water.
- Industrial Service Supply (IND) – Water supply for industrial uses that do not depend on water quality.
- Ground Water Recharge (GWR) – Natural or artificial Ground Water Recharge for future extraction, to balance natural hydrologic processes, and to maintain navigable channels.
- Recreation Contact 1 (REC1) – Recreation Contact 1 is protective of activities where body with water contact or possible ingestion may occur. Examples of these activities include: wading, swimming, diving, surfing, white water rafting, etc.
- Recreation Contact 2 (REC2) – Recreation Contact 2 is protective of activities near water, but not occurring in water. Examples of these activities include picnicking, sunbathing, hiking, beach combing, camping, boating, tide pool exploration, etc.
- Warm-water Habitat (WARM) – Water used for the support of warm water ecosystems for the preservation and maintenance of aquatic habitat and wildlife species (flora and fauna).
- Limited Warm Freshwater Habitat (LWRM) – Areas that support warm water habitats and are severely limited in species biodiversity and lack finfish due to extensive hydro-modification (concrete lined channels).
- Wildlife Habitat (WILD) – Waters support wildlife habitats that may include, but are not limited to, the preservation and enhancement of vegetation and prey species used by waterfowl and other wildlife.
- Rare, Threatened or Endangered Species (RARE) – Habitat types that are necessary for the survival and livelihood of plant and animal species listed by the state/Federally as rare, threatened, or endangered.
- Wetlands (WET) – Water used for the support of wetland ecosystems and habitat for the preservation of species of flora and fauna. WET beneficial uses also include flood and erosion control, natural treatment of impaired water quality, and stream bank restoration.

Table 0.1 Sepulveda Basin Beneficial Uses										
Surface Streams	**MUN**	**IND**	**GWR**	**REC1**	**REC2**	**WARM**	**LWRM**	**WILD**	**RARE**	**WET**
Los Angeles River Reach 4	P		E	E	E		E	E	E	E
Los Angeles River Reach 5	P		E	E	E		E	E	E	
Los Angeles River Reach 6	P	P	E	E	E	E		E		E
Bull Creek	P		I	I[1]	I	I		E		
I:Intermittent Use, P:Potential Use, E:Existing Use, [1]Access Prohibited by the City in concrete lined channel										

Table 0.2 Sepulveda Basin TMDLs and Year Established						
Reach	Ammonia	Copper	Lead	Nutrients	Selenium	Trash
Los Angeles River Reach 4	2004	2005	2005	2004	NA	2008
Los Angeles River Reach 5 (including Bull Creek)	2004	2005	2005	2004	NA	NA
Los Angeles River Reach 6	NA	NA	NA	NA	2005	NA

4.2.6 Groundwater

The Basin sits on top of the San Fernando Valley Groundwater Basin (SFVGB). The 226 square mile water bearing-sediment basin boundaries include the Tujunga Valley, Brown's Canyon, and the alluvial areas of the Verdugo Mountains close to La Crescenta and Eagle Rock. The basin's groundwater is confined and bounded in the south by the Santa Monica Mountains and the Chalk Hills, in the west by Simi Valley, and in the North by the Santa Susana Mountains.

Groundwater quality monitoring efforts in the SFVGB are conducted by the Upper Los Angeles River Area Watermaster (ULARAW). Groundwater quality is under the jurisdiction of LARWQCB Region 4, which has designated Beneficial Uses for the SFVGB including:

- Municipal (MUN) – Water used for military, municipal, individual water systems, and may include drinking water.
- Industrial Service Supply (IND) – Water supply for industrial uses that do not depend on water quality.
- Industrial Process Supply (PROC) – Water supply for industrial activities that depend primarily on water quality.
- Agricultural (AGR) – Uses of water for farming, horticulture, or ranching including, but not limited to, irrigation, stock watering, or support of vegetation for range grazing.

Groundwater Quality

The eastern portion of the SFVGB can be characterized as calcium sulfate bicarbonate-dominated groundwater supply, while the western part is characterized as calcium bicarbonate-dominated (ULARAW 1999). Calcium sulfate-bicarbonate and calcium biocarbonate are naturally occurring solutions created by carbon dioxide from the atmosphere entering a water body and mixing with different types of minerals found in a groundwater basin. A more common name for this is "water hardness." Hardness levels in the SFVGB do not have an appreciable effect on the Sepulveda Dam Basin, and are measured to characterize a water body and rate the quality for water supply.
Total Dissolved Solids (/TDS) are the amount of all organic and inorganic substances contained within a volume of water. High levels of TDS indicate that sources of pollutants like agricultural and residential runoff, leaching of soil contamination, and point source water pollution discharge from industrial or sewage treatment plants may exist in the water body. Well monitoring data taken from 125 public supply wells in San Fernando Valley shows an average (TDS) content of 499 mg/L and a range from 176-1,160 mg/L, while values in the Basin range from 326-615 mg/L and thus meet Water Quality Objectives of 700 mg/L.

Electrical conductivity is also used to measure dissolved solids in a water body and is usually used as an indicator of the presence of salinity due to agricultural and sewage contaminants. The LARWQCB does not have a Water Quality Objective set for electrical conductivity, but the EPA states that the average conductivity levels for water bodies in the United States is between 50 and 1500 µmhos/cm, and because levels in the SFVGB range from 540 to 996 µmhos/cm, then dissolved solids in Sepulveda Basin are not regarded as abnormal values.

4.2.7 Wetlands

The National Wetlands Inventory (NWI) identifies four distinct wetland areas within Sepulveda Basin. The classification system encompasses wetlands and deepwater habitats, ranging from open water lakes, rivers, marshes and vernal pools. Two freshwater ponds within Woodley Lake Golf Course and within the Wildlife Management Area would each be classified as wetlands. Protection of any existing wetlands is important for ecological function within the Basin. Thorough and comprehensive wetland delineation would be required prior to alteration or development of lands within the Basin that may contain wetlands or other waters of the US, in order to meet permitting requirements for regulatory compliance.

Table 0.3 Wetland Types and Acreages

NWI Designation	Description	Acres
PEMKC	Palustrine, Emergent, Artificially Flooded, Seasonally Flooded	1.02
PSS/EMKC	Palustrine, Scrub-Shrub/Emergent, Artificially Flooded, Seasonally Flooded	28.02
PSSKC	Palustrine, Scrub-Shrub, Artificially Flooded, Seasonally Flooded	24.71
PUBKh	Palustrine, Unconsolidated Bottom, Artificially Flooded, Diked/Impounded	7.25

	Total	61.0
Source: Cowardin *et al.* 1979 classifications, NWI 2010.		

4.3 Air Quality

The Sepulveda Basin lies within boundaries of the South Coast Air Basin (SCAB), which is managed by South Coast Air Quality Management District (SCAQMD). The SCAB, which covers an area of approximately 6,745 square miles, is bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east, and encompasses Orange County, Riverside County, Los Angeles County except for Antelope Valley, and non-desert portions of San Bernardino County.

4.3.1 Regional Climate Factors

The primary factors that determine air quality in a particular area include the types of pollutants released to the atmosphere, the locations of air pollutant sources, and the amounts of pollutants emitted. Important contributing factors are meteorological and topographical conditions. Atmospheric conditions such as wind speed, wind direction, and air temperature gradients interact with the physical features of the landscape to determine the movement and dispersal of air pollutants.

The SCAB is primarily a coastal plain with interconnected valleys and low hills progressing into high mountain ranges on the perimeter. The region is located within a semi-permanent high-pressure system that lies off the coast. As a result, the weather is mild, tempered by a daytime sea breeze and a nighttime land breeze. This mild climate is infrequently interrupted by periods of extremely hot weather, winter storms, and Santa Ana winds. Rainfall in the SCAB mainly occurs from November through April, with rainfall annual totals usually within a range of 15 to 18 inches.

The SCAB has a low average wind speed of 4 miles per hour and as a result air contaminants in the SCAB do not readily disperse. On spring and summer days, most pollution is moved out of the SCAB through mountain passes or is lifted by the warm vertical currents produced by the heating of the mountain slopes. From late summer through the winter months, lower wind speeds and the earlier appearance of offshore breezes combine to trap pollution in the SCAB. Strong, dry, north or northeasterly winds, known as Santa Ana winds, occur during the fall and winter months, dispersing air contaminants. These conditions tend to last for several days at a time.

SCAB experiences a persistent temperature inversion as a result of the Pacific high, a large subtropical high pressure system, which holds air contaminants relatively near the ground. Under normal atmospheric conditions, temperature decreases with altitude. During an inversion condition temperature increases with altitude. As the air pollutants rise in the atmosphere they reach an altitude where the ambient temperature exceeds the temperature of the pollutants. This causes the pollutants to sink back to the earth's surface. This phenomenon acts to trap and concentrate air pollutants near the surface. In summer, the longer daylight hours and bright sunshine combine to cause a reaction between hydrocarbons and oxides of nitrogen to form

ozone. In winter, the greatest pollution problems are carbon monoxide and nitrogen oxides, which are trapped and concentrated by the inversion layer.

Periodically, the SCAB experiences an intermittent weather condition known as El Niño-Southern Oscillation (ENSO) and its counterpart La Niña. During El Niño years, the SCAB experiences warmer air and ocean temperatures, and higher than normal precipitation. ENSO occurs in the tropical Pacific Ocean on an average of every 5 years, but varies from 3 to 7 years. The driving factor in ENSO conditions is warmer-than-normal ocean surface temperatures in the tropical Pacific, which causes the reversal, or in milder years the slowing or stopping of circulation patterns between Asia and the Americas. This change in circulation patterns shifts the "normal" pattern of rising warm wet air and rainfall from Southeast Asia to South and North America. La Niña is a counterpart to El Niño and usually has an opposite effect on weather patterns: wetter than normal conditions across the Pacific Northwest and dryer and warmer than normal conditions across much of the southern tier. La Niña brings dry weather to the SCAB and the southwest and southeastern states, usually prevailing strongest from November to January.

4.3.2 Local Climate

The climate of the San Fernando Valley has characteristics similar to that of the Mediterranean region including warm, dry summers and moderately cool winters. Temperature records range from the low 20º F to well in excess of 100º F. Precipitation is distributed through the winter and spring months reaching its maximum rainfall in the months of December through February. Annual rainfall averages between 15 and 18 inches. Because of the influences of the Santa Monica Mountains blocking the Pacific Ocean sea breezes, temperature variation in the San Fernando Valley is normally 7 to 12 degrees higher in summer or lower in winter than temperatures of the coastal plain.

4.3.3 Regional Air Quality

Regulation of air pollution is achieved through both national and state ambient air quality standards and emission limits for individual sources of air pollutants. As required by the Federal Clean Air Act, the EPA has identified criteria pollutants and has established national ambient air quality standards (NAAQS) to protect public health and welfare. The NAAQS are defined as the maximum acceptable concentration that may be reached, but not exceeded more than once per year. The EPA has established the NAAQS for ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter, and other related substances.

Table 0.4 Ambient Air Quality Standards for Criteria Pollutants

Pollutant	Averaging Time	State Standard	National Standard	Health Effects, Pollutant Characteristics and Major Sources
Ozone (O_3)	1 Hour	0.090 ppm	NA	Short term exposures to high concentrations can irritate eyes and lungs. Long-term exposure may cause permanent damage to lung tissue. Ozone is a secondary pollutant that is formed in the atmosphere through reactions between

	8 Hour	0.070 ppm	0.075 ppm	reactive organic gases (ROGs) and nitrogen oxides (NOx) in the presence of sunlight. Major sources of ROGs and NO_x include combustion processes (including motor vehicle engines) and evaporative solvents, paints and fuels.
Carbon Monoxide (CO)	1 Hour	20 ppm	35 ppm	Classified as a chemical asphyxiate, CO interferes with the transfer of fresh oxygen to the blood and deprives sensitive tissues of oxygen. Exposure to high CO concentrations can cause headaches, dizziness, fatigue, unconsciousness, and even death. CO is an odorless, colorless gas that is formed by incomplete combustion of fuels. The primarily source of CO is the internal combustion engine, primarily gasoline-powered motor vehicles.
	8 Hour	9.0 ppm	9 ppm	
Nitrogen Dioxide (NO_2)	1 Hour	0.18 ppm	NA	Irritating to eyes and respiratory tract. NO_2 is a reddish brown gas that is a by-product of combustion. Motor vehicles and industrial operations are the main sources of NO_2.
	Annual	0.030 ppm	0.053 ppm	
Sulfur Dioxide (SO_2)	1 Hour	0.25 ppm	NA	Irritates upper respiratory tract; injurious to lung tissue. Can yellow the leaves of plants, destructive to marble, iron, and steel. Limits visibility and reduces sunlight. SO_2 is a colorless acid gas with a strong odor. Fuel combustion, chemical plants, sulfur recovery plants, and metal processing are the main sources of this pollutant.
	3 Hour	NA	0.5 ppm	
	24 Hour	0.04 ppm	0.14 ppm	
	Annual	NA	0.03 ppm	
Respirable Particulate Matter (PM10)	24 Hour	50 $\mu g/m^3$	150 $\mu g/m^3$	May irritate eyes and respiratory tract, decreases in lung capacity, cancer and increased mortality. Produces haze and limits visibility. Solid or liquid particles in the atmosphere. Sources include dust and fume-producing industrial and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	Annual	20 $\mu g/m^3$	50 $\mu g/m^3$	
Fine Particulate Matter (PM2.5)	24 Hour	NA	35 $\mu g/m^3$	Increases respiratory disease, lung damage, cancer, and premature death. Reduces visibility and results in surface soiling. Solid or liquid particles in the atmosphere. Major sources include fuel combustion in motor vehicles, equipment, and industrial sources; residential and agricultural burning. PM2.5 may also be formed from photochemical reactions of other pollutants, including NO_x, SO_2, and organics.
	Annual	12 $\mu g/m^3$	15.0 $\mu g/m^3$	
Lead (Pb)	Monthly	1.5 µg/m3	– 1.5	Disturbs the nervous system, kidney function, immune system, reproductive and developmental systems, and the cardio vascular system. Present source: lead smelters, battery manufacturing and recycling facilities. Past source: combustion of leaded gasoline.
	Quarterly	NA	µg/m3	
Source: CARB 2010, EPA 2010a.				

(PM10, PM2.5), and lead (Pb). These pollutants are called "criteria" pollutants because standards have been established for each of them to meet specific public health and welfare criteria.

In comparison to national standards, California has adopted more stringent ambient air quality standards (i.e. California Ambient Air Quality Standards [CAAQS]) for most of the criteria air pollutants. Table 3.9 presents the national and state ambient air quality standards and provides a brief description of the related health effects and principal sources for each pollutant.

4.3.4 Local Air Quality

The California Air Resources Board (CARB) coordinates and oversees state and Federal air pollution control programs in California, oversees activities of local air quality management agencies, and maintains air quality monitoring stations throughout the state in conjunction with the EPA and local air districts. The air quality monitoring station closest to the Sepulveda Dam Basin is in the Western San Fernando Valley, station number (State ID) #70074, which monitors most criteria pollutants except for suspended particulates (PM10). Typical ambient air quality data from this station and other Sepulveda Basin air quality information for 2006, 2007, and 2008 is shown in Tables, below.

The existing levels of criteria pollutants in the Basin summarized in Table 3.11 show regular exceedance of state standards for O_3 in recent sampling years. Fine particulate matter (PM2.5) had a high number of Federal exceedences in the 2008 sampling year and one in both 2006 and 2007. Data collected at monitoring stations are used by the CARB to classify air basins as "attainment" or "nonattainment" with respect to each pollutant and to monitor progress in attaining air quality standards. Table 3.11 identifies the attainment status for the criteria pollutants in the SCAB.

Table - Ambient Air Quality in the Sepulveda Dam Basin Vicinity

Pollutant	Averaging Time	Maximum Concentration by Year			Number of Days State Standard Exceeded		
		2006	2007	2008	2006	2007	2008
Ozone	1-hour (ppm)	.16	.129	0.123	-	21S	51S
	8-hour (ppm)	.108	.104	0.103	-	43S	65S
Carbon Monoxide	1-hour (ppm)	5	4	4	-	-	-
	8-hour (ppm)	3.4	2.8	2.9	-	-	-
Nitrogen Dioxide	1-hour (ppm)	.07	.08	0.09	-	-	-
	24-hour (ppm)	.04	-	-	-	-	-
PM 2.5	24-hour ($\mu g/m^3$)	44.1	43.3	50.5	1 F	1 F	10 F

Source: AQMD 2006; 2007; 2008. S:State Standards, F:Federal Standards.

Table - Attainment Status of Criteria Pollutants

Pollutant	State[1]	Federal[2]
Ozone	Nonattainment	Severe 17 Nonattainment
$PM_{2.5}$	Nonattainment	Nonattainment
PM_{10}	Nonattainment	Serious Nonattainment[2]

Table - Attainment Status of Criteria Pollutants		
Pollutant	**State[1]**	**Federal[2]**
Carbon Monoxide	Attainment	Unclassified/Attainment[2]
Nitrogen Dioxide	Attainment	Unclassified/Attainment
Sulfur Dioxide	Attainment	Attainment
Sulfates	Attainment	Not Available
Lead	Attainment	Attainment
[1]2006 State Area Designations, [2]2008 National Area Designations, Source: CARB 2006, EPA 2010b.		

4.3.5 Greenhouse Gas Emissions

Greenhouse gases are compounds in the atmosphere that absorb infrared radiation and reradiate a portion of that back toward the earth's surface, thus trapping heat and warming the earth's atmosphere. The most important naturally occurring greenhouse gas (GHG) compounds are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), ozone, and water vapor. CO_2, CH_4, and N_2O are produced naturally by respiration and other physiological processes of plants, animals, and microorganisms; by decomposition of organic matter; by volcanic and geothermal activity; by naturally occurring wildfires; and by natural chemical reactions in soil and water. Ozone is not released directly by natural sources, but forms during complex chemical reactions in the atmosphere among organic compounds and nitrogen oxides in the presence of ultraviolet radiation. While water vapor is a strong greenhouse gas, its concentration in the atmosphere is primarily a result of, not a cause of, changes in surface and lower atmospheric temperature conditions.

Although naturally present in the atmosphere, concentrations of CO_2, CH_4, and N_2O also are affected by emissions from industrial processes, transportation technology, urban development, agricultural practices, and other human activity. The Intergovernmental Panel on Climate Change (IPCC) estimates the following changes in global atmospheric concentrations of the most important greenhouse gases (IPCC 2001; 2007):

- Atmospheric concentrations of CO_2 have risen from a preindustrial background of 280 ppm by volume (ppm) to 379 ppm in 2005.
- Atmospheric concentrations of CH_4 have risen from a preindustrial background of about 0.70 ppm to 1.774 ppm in 2005.
- Atmospheric concentrations of N_2O have risen from a preindustrial background of 0.270 ppm to 0.319 ppm in 2005.

The IPCC has concluded that these changes in atmospheric composition are almost entirely the result of human activity, not the result of changes in natural processes that produce or remove these gases.

CO_2, CH_4, and N_2O have atmospheric residence times ranging from about a decade to more than a century. Several other important GHG compounds with long atmospheric residence times are produced almost entirely by various industrial processes; these include sulfur hexafluoride (SF_6)

and a wide range of fluorinated hydrocarbons (HFCs). Fluorinated compounds typically have atmospheric residence times ranging from a few decades to thousands of years.

Overall global warming potential of GHG emissions is typically presented in terms of carbon dioxide equivalents (CO_2e), using equivalency factors developed by the IPCC. The IPCC has published sets of CO_2e factors as part of its periodic climate change assessment reports issued in 1995, 2001, and 2007. The latest IPCC data assign global warming potential multipliers of 1 to CO_2, 25 to CH_4, and 298 to N_2O (IPCC 2007). The global warming potential multiplier for SF_6 is 22,800; global warming potential multipliers for HFCs vary widely according to the specific compound.

4.3.6 Global Climate Change

Climate change (CC) is a shift in the average weather patterns observed on earth, which can be measured by such variables as temperature, wind patterns, storms, and precipitation. Scientific research to date indicates that observed climate change is most likely a result of increased emission of GHGs associated with human activity (IPCC 2007). In California, the transportation sector is the largest emitter of GHGs (accounting for 40.7 % of the total GHG emissions in the state in 2004), followed by electricity generation. California produced 492 million gross metric tons of CO_2 equivalents in 2004 and, if a country, California would rank between the planet's 12th and 16th largest C02 emitters.

The many effects of GHG emissions are still being researched and are not fully known, but are expected to include increased temperatures, which could reduce snowpack, which in most areas is a primary source of fresh water. Climate change is expected to exacerbate air quality problems and adversely affect human health by increasing heat stress and related deaths; increase the incidence of infectious diseases, asthma and respiratory health problems; cause sea level rise threatening urban and natural coastal areas; cause variations in natural plant communities affecting wildlife; and cause variations in crop quality and yields. CC is also expected to result in more extreme weather events and heavier precipitation events that can lead to flooding as well as more extended drought periods.

California Wildlife and Climate

Rising temperatures, increases in storm events, prolonged droughts, and sea level rise will likely change the makeup of entire ecosystems, increasing adaptation pressures that would shift wildlife distributions and in some cases, increase the frequency of local extinctions. While some species adapted to arid environments may increase their ranges or densities or both, species closely tied to the dwindling natural water resources in southern California may be particularly at risk. Stream systems supporting aquatic species would be degraded by loss of cold-water habitat and reduced stream flows for spawning, incubation, and rearing. Increased scouring of stream channels by surges of storm runoff could damage eggs and egg laying habitat. Amphibians may also be directly impacted by these changes, although secondary effects related to climate change such as increases in infectious diseases and increased input of pollutants and sediments through storm runoff may have the greatest impacts.

Bird species that rely on remnant patches of riparian habitat in southern California may also be at risk from climate change. Shifts in timing and rate of migration, habitat loss, increased frequency of punctuated storm events, loss of prey base, and shifts in plant species regimes are all predicted to occur and would negatively impact local populations. In many cases, a severely degraded riparian habitat currently present in southern California has already led to some riparian bird populations to be depressed or even threatened, making them increasingly susceptible to future environmental changes brought upon by climate change.

CC, at a regional level, could contribute to more frequent and intense El Niño events, triggering a number of large-scale environmental changes and the frequency of environmental impacts such as those caused by the 1997-98 and 2009-2010 El Niño events would be expected to increase (in inland areas, the frequency and intensity of droughts and wildfires increased, substantially altering upland vegetation. Subsequent heavy rains triggered extensive erosion in the burned areas, which removed topsoil from the upper reaches of local watersheds. Powerful storm runoff events moved high sediment loads downstream where they scoured and buried riparian vegetation and physically altered the floodplains in local ecosystems.

The heavily altered natural environment of the Sepulveda Basin and its geographic location within an arid, water-stressed biome, make it particularly susceptible to future impacts from climate change. These impacts would undoubtedly stress local wildlife populations and further impact sensitive species already susceptible to environmental shifts and stochastic events.

4.4 Noise

Noise can be defined as unwanted sound or combination of sounds that may interfere with conversation, work, rest, recreation, and sleep, or in the extreme may produce physiological or psychological damage. Sound travels from a source in the form of wave, which exerts a pressure on a receptor such as a human ear. The amount of pressure a sound wave exerts is referred to as sound level, commonly measured in decibels (dB). As a reference, a sound level of zero dB corresponds roughly to the threshold of human hearing, and a sound level in the range of 120 to 140 dB can produce human pain.

Sound has two main components to a human ear; pitch and loudness. While the pitch of a sound is generally associated with an annoyance, sound loudness can interfere with activities such as conversation, sleep, and learning, and can even have lasting physiological effects, such as hearing loss. Those who are more sensitive to noise such as children and the elderly are at higher risk of being adversely affected by excessive noise levels. Table 3.12 lists some of the sources and effects associated with a typical range of noise levels.

Noise can be one of the most widespread environmental pollutants affecting communities. “Community noise,” or environmental noise, in any given area varies continuously over a period of time depending on the contributing sound sources within and surrounding the area. This community noise is typically made up of a combination of relatively stable background noise, where individual contributors are not identifiable, and the periodic addition of short duration noise sources such as aircraft flyovers, motor vehicles, sirens, etc. Some land uses can be considered more sensitive to community noise levels than others, and are often referred to as sensitive receptors. These include residences, schools, hotels, hospitals, nursing homes,

churches, libraries, and cemeteries. Shopping centers, commercial parks, strip malls, industrial areas, and active recreation areas can be considered less noise-sensitive receptors.

In addition, wildlife may be sensitive receptors to noise and vibrations. Animals rely on meaningful sounds for communication, navigation, avoiding danger and finding food. "Noise" may be defined for wildlife as any human- or other exterior sound that alters the behavior of animals or interferes with their functioning. The level of disturbance may be qualified as damage, which may harm health, reproduction, survivorship, habitat use, distribution, abundance or genetic distribution, or disturbance which causes a detectable change in behavior. Behavioral and physiological responses of wildlife to noise have the potential to cause injury, energy loss, decrease in food intake, habitat avoidance and abandonment, and reproductive losses.

Table 0.5 Source and Effects of Common Noise Levels

Noise Level	Effects	Evidence	Source
130	Hearing Loss	Pain Threshold	Hard Rock Band
120		Deafening	Thunder
110			Jet Take-Off
100			Loud Auto Horn at 10 feet
90		Very Loud	Noisy City Street
85			
80			School Cafeteria
75			
70	Physiological Effects	Loud	Vacuum Cleaner at 10 Feet
65			
60	Interference with Conversation		Normal Speech at 3 Feet
55			
50	Sleep Interruption	Moderately Loud	Average Office Dishwasher in Next Room
45			
40	Sleep Disturbance		Soft Radio Music Quiet Residential Area
35			
30		Faint	Interior of Average Residence
20			Average Whisper at 6 Feet
10			Rustle of Leaves in Wind
5		Very Faint	Human Breathing
0		Hearing Threshold	

Source: Los Angeles County 2008.

4.4.1 Existing Noise Environment

Roadway vehicle traffic is the primary source of noise in and around the Sepulveda Dam Basin. The Basin is bordered by Interstate 405 on the east and by U.S. Highway 101 on the south; the Basin lies in the northwest corner of the junction of these freeways. The Basin is also bordered by several other main traffic arteries including Sepulveda Boulevard, Ventura Boulevard, White

Oak Boulevard, Van Nuys, and Victory Boulevards. Woodley Avenue, Burbank Boulevard and Balboa Boulevard pass through the Basin. Operation of the Van Nuys Airport, located at approximately 2.6 miles north of the Basin, also contributes to the existing noise levels in the area. At the proposed Fire Station #88 location, traffic from Sepulveda Boulevard and 405 Freeway contribute to a steady background source, which is masked at the facility by 1) distance from the streets and 2) by the buildings' materials which diminish street sounds which would otherwise reach the location.

4.5 Biological Resources

4.5.1 Plant Resources

Vegetation in the Basin has been altered from its natural state by the establishment of agriculture and urbanization, followed by the construction of the Dam and associated works and, further, by periods of several, cyclic droughts, natural and human-caused erosion, establishment of invasive (non-native) plant species, and ongoing planting and maintenance of ornamental landscaping. Native vegetation alliances within the Basin are fragmented, degraded, and small in size.

In preparing the 2011 Sepulveda Basin Master Plan, the Corps conducted a reconnaissance-level vegetation survey to capture sufficient detail to fully describe each vegetation alliance and other dominant vegetation features present within the Basin. Vegetation features were determined in the field using tools such as current aerial photography, regionally appropriate plant identification keys, and data from other available sources. All Federally-owned lands within the Basin boundaries were surveyed and common plant species were identified and listed; vegetation alliances were mapped; non-native habitat types, which are defined as human-altered areas dominated by non-native vegetation features, were also identified and mapped (Corps, 2011).

Native vegetation alliances identified in the Basin include *Populus fremontii* Forest Alliance, *Salix exigua* Shrubland Alliance, *Baccharis salicifolia* Shrubland Alliance, *Quercus agrifolia* Woodland Alliance, *Eriogonum fasciculatum* Shrubland Alliance, and *Baccharis pilularis* Shrubland Alliance (Sawyer *et al.* 2009). Several non-native habitat types include ornamental tree/maintained lawn, disturbed riparian, agriculture, and ruderal land.

4.5.2 Animal Resources

The Basin is comprised of a variety of habitat types, including a variety of native vegetation alliances, disturbed vegetation communities, agricultural land, constructed open water, disturbed wetlands, and developed parks or urbanized areas. Animal species were observed during the 2010 vegetation surveys and a list of species is presented in the Corps 2011 Master Plan.

Species common to the Basin include native and non-native fishes, amphibians, reptiles, mammals, and birds Over 120 species of birds have been documented within the Basin. Open water areas in the Basin attract waterfowl and shorebirds while upland habitats host a diversity of passerine species. Dry upland areas host common lizard and snake species. Only two amphibians are somewhat common, including the California toad and Pacific tree frog. Non-native species such as feral cats and dogs are also found in the Basin.

Altered seasonal flows and existing barriers to fish passage severely limit fish presence in the Basin. Native non-game freshwater fishes that have been historically but not currently found in waters of the Basin include arroyo chub, Santa Ana speckled dace, Santa Ana sucker, threespine stickleback, and rainbow trout. Common non-native species that may occur in the Basin include largemouth bass, bluegill, western mosquito fish, channel catfish, fathead minnow, common carp, and goldfish.

4.5.3 Special Status Listed Species

Species status taxa include those protected by the Endangered Species Act (ESA). Each Federally protected species that may potentially occur within the Basin is described per NEPA compliance, along with an assessment of whether that species is likely or not likely to currently occur within the Basin.

The USFWS maintains a database of Federally protected special status taxa, which reports over 20 species as occurring in Los Angeles County (USFWS 2010). The California Department of Fish and Game (CDFG) maintains the California Natural Diversity Database (CNDDB), which compiles reported observations of special status species (CDFG 2010b).

According to the CNDDB, a single, special status species has been recently observed within Sepulveda Dam Basin. The least Bell's vireo (*Vireo bellii pusillus*) has been observed in the Basin since the 1990's by various observers, mostly along Los Angeles River margins near the Dam. The vireo was Federally-listed as Endangered in May 1986 and Critical Habitat for the species was designated in 1994, though it does not extend into the Basin. The vireo is a spring and summer breeding resident which migrates south for fall and winter feeding and which primarily inhabits riparian woodlands, scrublands, and thickets for breeding. The vireo is found to select nest locations primarily within willows, where vegetation is minimally disturbed, along riparian areas or at the edges of riparian and upland habitats, where vegetation is complex and has shrubby willows in the understory, and where overstory is comprised of Fremont cottonwoods and willows. Population declines of this species are primarily due to urban and agricultural development, habitat alteration, and brood parasitism by the brown-headed cowbird.

4.5.4 Wildlife Corridors

The nearest non-urbanized and relatively natural habitat is relatively near to Sepulveda Basin, at the nearby Santa Monica Mountains which is identified by the California State Parks Department as having significant wild lands. However, there are no corridors of connectivity available to terrestrial or aquatic species between the Santa Monica Mountains and the Basin. Both birds and bats may pass between the two areas although no data is available on this potential link. Both barriers and filters to wildlife are present throughout the Basin. Several major roadways pass through the Basin, including Balboa Boulevard, Burbank Boulevard, and Woodley Avenue. In addition, there are significant areas of development within the Basin. Overall, the Basin is land locked and has very little connectivity to natural areas. Except for birds and bats, most mammals, reptiles and amphibians in the area are precluded from migration in or out of the Basin. Coyotes or other animals that have become adapted to urbanized settings may be present on occasion.

Though highly disturbed, the Sepulveda Basin Wildlife Area is the only area within the Basin that is specifically designated and managed for wildlife habitat although even here, there are significant barriers to wildlife passage. Woodley Avenue and Burbank Boulevard both bisect the more natural areas of the Basin, effectively restricting movement of small ground-dwelling species and larger mammals within the area. A tunnel has been constructed beneath Burbank Boulevard to extend the trail system throughout the Basin and it is possible that larger mammals utilize this tunnel for passage, although no data is available.

4.6 Cultural Resources

Cultural resources are locations of human activity, occupation, or use. They include expressions of human culture and history in the physical environment, such as archaeological sites, historic buildings and structures, or other culturally significant places. Cultural resources can also be natural features, plants, and animals or places that are considered to be important or sacred to a culture, subculture, or community. Resources may be important individually or as part of a grouping of complementary resources, such as a historic neighborhood. Cultural resources that may be present include three general categories: archaeological resources, historic buildings and structures, and traditional cultural properties.

Archaeological resources refer to surface or buried material remains, buried structures, or other items used or modified by people. Prehistoric archaeological resources date to the time before the European presence in the planning area and can include village or campsites, food remains, and stone tools and tool-making debris. Ethnohistoric or protohistoric archaeological resources are relatively rare but include evidence of European contact, such as trade beads in a site that otherwise appears to be prehistoric. Historic archaeological sites are those deposits that post-date European contact. Examples of historic archaeological sites are structural ruins, trash deposits, agricultural features, water control, and privies. Archaeological sites can have components from multiple time periods and are typically discovered and recorded through pedestrian survey. A pedestrian survey is a method of examining an area for archaeological artifacts and features in which surveyors, spaced at regular intervals, systematically walk over the area being investigated. In urban or other disturbed areas, archival research, selective trenching, and construction monitoring are often the only way to determine archaeological presence or sensitivity.

Consideration of "important historic, cultural, and natural aspects of our natural heritage" is required through NEPA and principally regulated by the National Historic Preservation Act (NHPA) of 1966, as amended (16 USC Section 470). Under Section 110 of the NHPA, Federal agencies are required to fully integrate the management of cultural resources in ongoing programs and to proactively identify, evaluate, nominate and protect historic properties. Historic properties are cultural resources that meet specific criteria for listing on the National Register of Historic Places (NRHP). Agencies are not required to preserve all historic properties, but agencies must follow a process to ensure that their decisions concerning the treatment of these places result from meaningful consideration of cultural and historic values and the options available to protect the properties. Section 106 of the NHPA describes the procedures for identifying and evaluating historic properties, for assessing the effects of Federal actions on historic properties, and for project proponents consulting with appropriate agencies, including the State Historic Preservation Officer (SHPO), to avoid, reduce, or minimize adverse effects.

4.6.1 Cultural Resources Within the Basin

As in all arid and semiarid lands, water sources and river systems were Native centers for settlement and food procurement. Prior to channelization, wetlands and marshes were associated with the changing course of the formerly free-flowing Los Angeles River.

At the time of Spanish contact, the Tongva or Gabrieleno Indians occupied most of the greater Los Angeles Basin, the Los Angeles, San Gabriel and Santa Ana River watersheds, coastal regions from Topanga Canyon in the north to Aliso Creek in the south, and the San Clemente, San Nicholas and Santa Catalina Islands. The Tongva utilized an extensive inventory of tools and implements to gather collect and process food resources. Tongva oral traditions speak of the importance and use of the rivers in the inland valleys, and named settlements have been documented at locations along nearly every river and ephemeral stream.

In 1769, the Portolá Expedition crossed the San Fernando Valley and encountered a village of 205 persons at a village called *Siutcanga*, which was located in present-day Encino just south of the Sepulveda Basin. Later, a land grant that included the Sepulveda Basin area was conveyed to the *alcalde* or mayor of Los Angeles, in exchange for a grant he had held in the north valley and was the site of Mission San Fernando. Structures related to the Rancho El Encino land grant and subsequent occupants are now a state park and, on the major travel route the *El Camino Real*, had also been a popular resting area for travelers, later becoming a stop on the Butterfield Overland Mail stagecoach and the Old Santa Susana Stage Road.

A literature review and records search of Sepulveda Basin and vicinity was conducted in 1977 and was followed by an intensive field survey of land surfaces that had not been significantly altered to the degree that cultural materials would have been destroyed. Results of these investigations were negative; no significant prehistoric or historic archaeological or other cultural resources were recorded. Two prehistoric archaeological sites in the vicinity of the Encino Golf Course had been recorded but subsequently destroyed. Prior studies and field information indicate a low potential for intact cultural resources in the Basin.

4.7 Hazardous Materials and Wastes

In preparation of the Corps' 2011 Master Plan, a preliminary Hazardous and Toxic Waste and Materials (HTWM) investigation was conducted to determine the presence of current or historical contamination within Sepulveda Dam Basin. The EDR database search included lists compiled by the EPA and the state of California for sites within or near to the Sepulveda Dam Basin that have had recent or historical unauthorized releases of hazardous materials or hazardous waste, may store and use hazardous materials, or be generators and/or transporters of hazardous wastes.

4.8 Socioeconomics and Environmental Justice

Federal agencies are required, by EO 12898 Environmental Justice (59 FR 7629, 1994), to "make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low income populations."

The Council on Environmental Quality (CEQ), identifies minority groups as Asian, American Indian or Alaskan Native, Pacific Islander, Black not of Hispanic origin, and Latino (CEQ 1997). It defines a minority population as any group of minorities that exceed 50% of the existing population within the market area or where a minority group comprises a meaningfully greater percentage of the local population than in the general population. Additionally, the CEQ (CEQ 1997) identifies low income using 2000 Census data for "individuals living below the poverty level." For the purposes of this study, a low income population will be defined similarly as a local or market area population with more than 50% of people living below the poverty level.

Table - Market Area Demographics

Census Data	Los Angeles County	City of Los Angeles
Asian	11.9%	10.0%
Black	9.8%	11.2%
Latino	44.6%	46.5%
Native American	0.8%	0.8%
Native Islander	0.3%	0.2%
White	48.7%	46.9%
Other	23.5%	25.7%
Individuals Living Below Poverty Level	17.4%	22.1%

[1]Local Communities include Encino, Lake Balboa, Reseda, Sherman Oaks, Tarzana, and Van Nuys. Note: Mixed-race ethnicities reported resulting in a total greater than 100%. Not all ethnicities were tabulated in all cities in the 2000 Census data.

Ensuring environmental justice means to protect existing local and market area minority and low income populations from adverse human health or environmental effects of any management strategy undertaken or authorized in development of Proposals on Federal land.

The communities surrounding the Sepulveda Dam Basin are overwhelmingly white and Latino with large populations of Asian, Black, and other races. The number of individuals living below the poverty level is less than 23%. The market area does not have a significant minority or low income population.

4.9 Traffic and Transportation

Travel to the Basin occurs by car, bicycle, bus and walking. The Basin is located in the northwest quadrant of the intersection of Interstate 405 and U.S. Highway 101. Both freeways are operated by California's Department of Transportation (Caltrans). Access into the Basin can be attained via main entrances along Woodley Avenue from the north, Burbank Boulevard (which runs along the southern portion of the Basin) from the east or west, Balboa Boulevard from the west, or from Victory Boulevard from the north. A secondary Burbank Boulevard entrance accesses the Hjelte Sports Complex and agricultural areas in the southern portion of the Basin. The Burbank Boulevard entrances can also be accessed from Hayvenhurst Avenue to the south. On a larger scale, the Southern California area is serviced by numerous airports in Los Angeles (LAX), Van Nuys, Burbank (Bob Hope), and Long Beach.

Table 0.6 Roadways and Traffic Volumes			
Roadway Name	**Average Daily Two-way Traffic (in thousands of cars)**	**Roadway Designation**	**Number of Lanes**
Interstate 405	223,000	Freeway	12
US Route 101	275,000	Freeway	12
Victory Boulevard	47,000	Arterial	6
Balboa Boulevard	36,000	Arterial	4
Burbank Boulevard	33,000	Arterial	6
Source: Caltrans 2009			

Visitors may access the Basin using public transit via the Metrolink Orange bus line or by train to the nearby Van Nuys Metrolink Station.

Visitors traveling to the Basin on bicycle can make use of a network of designated bikeways and trails. Los Angeles County has developed a bicycle master plan and maintains a bikeways Map online, which differentiates between the following three types of bike paths:

- Class I - Separate off-road paved bike path.
- Class II - On-road bikeway with lane striping.
- Class III - On-road bikeway with signage only.

The Basin is nearly surrounded by Class I bike paths, along Victory, Balboa and Burbank Boulevards. A short stretch of a Class II pathway is available to the east of the Basin. These bike paths connect to various other neighborhoods along Balboa Boulevard, Woodley Avenue, and Oxnard Street (Metro 2010b). For visitors who prefer to walk to the Basin, there are continuous sidewalks on most connecting streets. Approximately 10 miles of roadways and numerous parking lots throughout the Basin provide access to recreation amenities. A 3-mile bicycle loop is available within the Basin, connects to a 2 mile bike trail located outside of the Basin perimeter. Several miles of walking trails are traverse the Basin Roadways and trails are maintained jointly by the City and the Corps. Emergency vehicles can access the Basin through the main public access nodes along Woodley Avenue, Burbank Boulevard, Balboa Boulevard, or Victory Boulevard. The two Burbank Boulevard entrances can also be accessed from Hayvenhurst Avenue to the south. No additional non-public access points are available for emergency vehicles.

4.10 Utilities

A variety of utilities such as water, electrical power, heating fuel, and sanitary sewerage services are provided within the Basin to the various recreation amenities such as the Balboa Sports Complex and Hjelte Sports Center, Woodley Park, Sepulveda Basin Wildlife Area, Anthony C. Beilenson Park, Sepulveda Garden Center, Sepulveda Basin Off-Leash Dog Park, Sherman Oaks Castle Park, and the Encino, Balboa, and Woodley Lakes Municipal Golf Courses.

The utility network is also utilized by several other entities for non-recreation purposes including the headquarters for the City's RAP Valley Region, which includes a warehouse and several offices, several Federal or State military amenities in the Basin which include an armory and maintenance yards, and agricultural plots. Overhead utilities include electrical and telephone poles and lines. Buried and underground utility corridors include potable and irrigation water, gas, telephone lines, storm-water, and sewer lines.

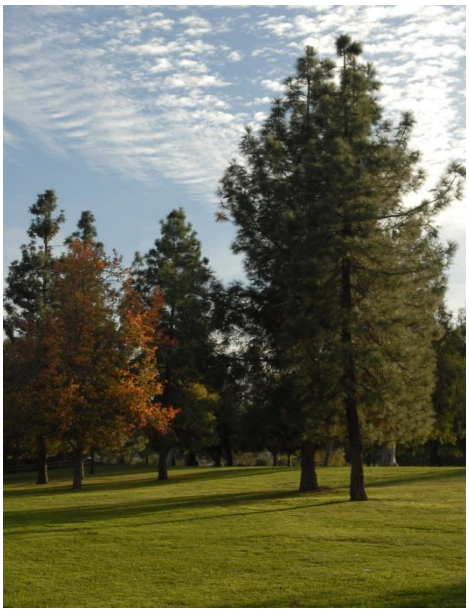
The following utility owners are represented in the Basin:

- Sewer – City of Los Angeles Bureau of Sanitation
- Potable water – City of Los Angeles Department of Water and Power
- Irrigation water – City of Los Angeles Department of Water and Power
- Reclaimed water – City of Los Angeles Department of Water and Power / City of Los Angeles Bureau of Sanitation
- Electrical power – City of Los Angeles Department of Water and Power
- Street Lighting – City of Los Angeles Bureau of Street Lighting
- Telephone – AT&T
- Stormwater drainage – County of Los Angeles Department of Public Works
- Gas – Southern California Gas Company

4.11 Aesthetics

Visual resources within and around the Basin have been dramatically changed by development. The once dominant feature was the Los Angeles River, its natural floodplain and associated vegetation communities. The river is now channelized and the floodplain has been converted to residential, commercial, and industrial uses. The topography of the area is relatively flat and major visual features include the Los Angeles River, Sepulveda Dam, Lake Balboa, adjacent parks and golf courses, and the Wildlife areas.

The Los Angeles River is a highly disturbed, channelized waterway that passes through the center of the Basin. Invasive species and channelization have compromised its ecosystem function and its visual appeal has suffered.



The Sepulveda Dam outlet structure and spillway is visible from the southeast portions of the Basin. It is a soaring geometric structure rising above the landscape. Several motion pictures have showcased this giant structure as a result of its unique visual appeal.

The man-made Lake Balboa attracts numerous waterfowl as well as shore birds, birdwatchers, fisherman and walkers and joggers. Surrounding the lake are several acres of well maintained lawns with ornamental trees and picnic tables.

Long Range Views Across Wildlife Management Area

Wildlife Management Area Lake

The Wildlife Area in the eastern and southeast portion of the Basin include an expanse of scrub vegetation west of Woodley Avenue, south of Burbank Boulevard, and a manmade lake and additional acreage of scrub vegetation to the east of Woodley Avenue. These areas are criss-crossed with trails. Views in these areas are short-range due to trees, except to the west of Woodley Avenue, where mid-range views sweep over the scrub shrub habitat below the model airplane airspace.

There are few long-range views within the Basin that are suitable for identification as overlooks, primarily due to the presence of tall trees and the absence of elevated topographic areas. However, Burbank Boulevard passes over the Dam into the Basin near the southeastern corner, providing a long range view of the wildlife area, lake, Dam, and Los Angeles River.

4.12 Recreation Resources

A large variety of recreation amenities are available in the Sepulveda Dam Basin, including golf courses, park land, a sports center, baseball fields, garden center, model airplane field, cricket fields, tennis courts, trails for hiking/jogging, bicycle trails, a lake, and soccer fields. Bicycle

and pedestrian trails are discussed above in Section 3.9 (Traffic and Transportation) and the below references are described in greater detail in the Corps Sepulveda Basin Master Plan (2011).

Pedlow Field Skate Park was developed and completed by the City in 2001, and is located on approximately 3.4 acres in the northwestern portion of the Basin adjacent to Victory Boulevard. The 8,500 square foot concrete skate bowl includes rails, steps, and walls. All skaters are required to wear helmets and knee and elbow pads.

Other major recreation amenities include:

Sepulveda Golf Courses The Sepulveda Golf Courses consist of two 18-hole public golf courses, Encino Municipal and Balboa Municipal. The two courses are on approximately 313 acres of land bounded on the north/northeast by the Los Angeles River, on the south by Burbank Boulevard, and on the west by Balboa Boulevard. The courses are irrigated with water from the Tillman Water Reclamation Plant.

Woodley Lakes Municipal Golf Course, which was built in 1976, is a public course with 18 holes with a total length of 6,803 yards, located south of Victory Boulevard and west of Woodley Boulevard and occupies approximately 184 acres of land. The course is irrigated using water from the Donald C. Tillman Water Reclamation Plant.

Anthony C. Beilenson Park occupies approximately 80 acres and is bounded by the Los Angeles River to the south, Balboa Boulevard to the west, Victory Boulevard on the north, and the Woodley Lakes Golf Course on the east (Corps 2009b). The centerpiece of the park is Lake Balboa, a 27 acre recreation lake which is filled with water from the Donald C. Tillman Water Reclamation Plant and surrounding the lake are picnic areas including barbecue pits, picnic tables, drinking fountains, rest rooms, shelters, a 1.3 mile jogging/walking path with benches and covered benches provided along the path, as well as a first aid/lifeguard station, a fly casting area, fishing, boat, and remote-control boating.

Universally Accessible Playground (UAP) is located at the southern portion of the Anthony C. Beilenson Park and has two separate play areas (one section for two to five-year olds and one for five- to twelve-year olds) and feature swings, ladders, and a variety of balancing elements, climbers and slides. The ground in the play area is covered with rubber matting to provide fall protection.

Bull Creek Restoration Area is located east of Balboa Boulevard and west of the Anthony C. Beilenson Park and is approximately 29 acres. The area includes 3,000 feet of the re-contoured reek and features an oxbow channel that forms a small island. Reclaimed water from Lake Balboa is piped and released in the upper creek to supplement existing flow. Aquatic, riparian, and native upland habitat has been established on the site and pedestrian bridges and walkways have been established in the area to provide access. Interpretative signage has been established at key locations in the area to offer educational opportunities to visitors.

Balboa Sports Complex is an 85 acre facility located northwest of the intersection of Balboa and Burbank Boulevards. It includes restrooms, four lighted baseball diamonds with bleachers for

spectator seating, a tennis center with 16 lighted courts, a tennis pro shop, outdoor basketball courts which are lighted, children's play areas at two locations with metal and plastic play equipment and sand and rubber ground cover, an unlighted soccer field, a lighted football field, lighted volleyball courts, and also includes the Balboa Park Community Center which has an indoor gymnasium.

Woodley Park is an 80-acre facility that borders the western and southern side of the Tillman Water Reclamation Plant and includes turfed areas, barbeque pits, an unlighted baseball diamond, children's play area, picnic tables, and restrooms.

A *Japanese Garden* is located on the grounds of the Tillman Plant and covers an area of 6.5 acres and is three gardens in one. The dry garden features a Tortoise Island, a "three Buddha" stone arrangement, a wisteria viewing arbor, a tea garden, and a stroll garden with waterfalls, lakes, and streams, abundant greenery and stone lanterns carved by artisans in Japan. Reclaimed water from the TWRP is used to supply the water features in the garden.

Woodley Park Archery Range is located in the extreme northeastern portion of the Basin on approximately 8 acres of land and includes restrooms and two archery ranges: an 18 meter short range and a 90 meter long range with 12 lanes and is ADA-accessible.

Sepulveda Basin Cricket Fields are located in the northeastern portion of the Basin and the facility includes two fields on land leased to the City of Los Angeles Department of Public Works, with bleachers, a picnic area with picnic tables, restroom amenities, and a parking lot.

A *Model Airplane Field* is located northeast of the confluence of Woodley Creek and the Los Angeles River. The field occupies approximately 15 acres and includes an open graded field for radio controlled and tethered model airplanes. The field has a parking lot and restroom amenities. The field was developed by the City. The restrooms were developed jointly by the Corps and the City under the Code 710 cost sharing program.

Sepulveda Basin Wildlife Lake Management Area covers an area of 200 acres and is located in the northeastern portion of the Basin and is bounded by Burbank Boulevard on the south, Woodley Avenue on the west, Woodley Park on the north, and the Sepulveda Dam Embankment to the east. The wildlife area features a 12 acre wildlife lake with a 0.75 acre bird-refuge island. Water is supplied to the wildlife lake from the TWRP. Native annuals, shrubs, and trees have been planted throughout the reserve. The wildlife area also has an educational staging area and amphitheatre, various pathways with signage and viewing areas.

Hjelte Sports Center is an approximately 12-acre facility located in the southern portion of the Sepulveda Basin between Burbank Boulevard to the north and the Sepulveda Dam embankment to the south, with lighted baseball fields, bleachers, restroom amenities, a concession stand, and a storage facility.

Sepulveda Garden Center is an approximately 12 acre facility located south of U.S. Route 101, west of Hayvenhurst Avenue, and north of Magnolia Boulevard, and provides 800 garden plots for local citizens to grow fruits, vegetables, flowers, and herbs. Additional amenities include public telephones, first aid supplies, restrooms, and a greenhouse.

Libbit Park is located south of U.S. Route 101, on 3.6 acres of land without picnic or play ground equipment, located east of the Sepulveda Dam Saddle Dike on the west side of Libbit Avenue.

The 12-acre *Encino Baseball Complex* is located south of U.S. Route 101 and east of Hayvenhurst Avenue and consists of five lighted baseball fields, rest room amenities, snack stand, batting cages, and lighted scoreboards.

Sherman Oaks Castle Park, with 3 miniature 18-hole golf courses, occupies approximately 5.3 acres and is located in an area bounded by U.S. Route 101 on the north, Interstate 405 on the west, the Los Angeles River on the north, and Sepulveda Boulevard on the east. The facility also has an arcade with video games, batting cages, a concession stand, and areas for parties.

Franklin Fields are on approximately 33 acres of land, of which about 28 acres is lease to Encino Franklin Fields, Inc. The fields are located in the northwestern portion of the Basin and are south of the Los Angeles River and east of the Orange Line Bus Way. The fields include 15 lighted little league baseball fields, electronic scoreboards, concession stands, and bleachers. The fields were developed by Encino Franklin Fields, Inc., a non-profit organization.

White Oak Avenue Fields is an approximately 13 acre facility located in the northwest portion of the Basin. The facility is located south of the Los Angeles River and east of White Oak Avenue. The facility includes four baseball fields, a snack bar, equipment storage, an unpaved parking lot, and restrooms. The facility is operated by the Valley Christian Athletic Association with a sublease from the City.

A *Velodrome* is located in the northwestern portion of the Basin and is adjacent to the Franklin Fields. The Facility includes a lighted, banked, 250 meter oval bicycle racing track and a concession stand. The facility was developed by a private interest in 1961.

Sepulveda Basin Off- Leash Dog Park is a 13.7 acre facility located in the extreme northwestern portion of the Basin, southwest of the intersection of Victory Boulevard and White Oak Avenue. The dog park includes a 0.5 acre off-leash area for small-dogs and a 5-acre off-leash area for large dogs. Both areas are enclosed with a 4 foot high cyclone fence. The facility also has a picnic area, a parking lot for 100 cars, and public telephones are available. Sepulveda Off-Leash Dog Park was developed by the City.

The *ONEgeneration S. Mark Taper Intergenerational Center* is located in a building in the northwest portion of the Basin adjacent to Victory Boulevard. The Center and surrounding grounds occupy approximately 7 acres and is operated by the non-profit organization One Generation with a grant under the City's Recreation outgrant. The Center, which was formerly known as the Valley Youth Center, provides various services to seniors and infants and children age 6 months to 6 years. Included in the services provided is an intergenerational (adult daycare and children daycare in a shared setting) services and programs that intertwine human needs for both giving and receiving meaningful daily contact. In summer months, the Center serves as a cooling site for those who do not have air conditioning in their homes.

Approximately nine miles of bike trails are located in the Basin. The bike trails run along the perimeter of the Basin and through the Basin parallel to Balboa Boulevard and Woodley Avenue. The bike trail system shares a parking lot and staging area with the Woodley Lakes Golf Course. The parking lot is paved and has parking for 300 cars. The parking lot was developed jointly by the City and the Corps under the Code 710 cost sharing program.

4.13 Public Health and Safety, Including Flood Risk Management

Public health and safety focuses on potential risks to the public from hazards that may occur within the Basin or may impact public services adjacent to the Basin. Health and safety hazards to the public can arise from recreation uses, plants and wildlife, flooding, hazardous materials, and criminal activity. Nearby public services, such as law enforcement, fire protection, hospitals and schools, may be designated as respondents to health and safety issues within the Basin, may be impacted by activities in the Basin, or may depend on access through the Basin.

Onsite law enforcement at the recreation amenities within the Basin is provided by the City of Los Angeles, Department of General Services Office of Public Safety. General Services Park Rangers are dedicated exclusively to patrolling the city's parks, beaches, libraries and other city amenities. They are backed up by the Los Angeles Police Department in Van Nuys.

The Basin includes naturally vegetated areas that are susceptible to wild fire. Fire protection and EMT services are provided by the Los Angeles Fire Department, Fire Station 39. Emergency Room and Hospital Services are found at Valley Presbyterian Hospital in Van Nuys approximately 1 mile east.

Flood Risk Management

The Basin is usually dry, but heavy rainfall may result in flooding throughout the Basin. In the event of flooding, hazards could occur both within and downstream of the Basin. There is no formal evacuation plan for Sepulveda Basin because the primary hazard is flood inflows which can be forecast with sufficient lead-time to clear the Basin of recreation users. The Corps does have a formal notification process in which the Reservoir Regulation Section contacts each known entity likely to be affected by flood inflow to the Basin, based on forecasted runoff and estimates of how high the surface water will rise; these notifications are updated on a continuous basis as hydrologic and Basin conditions change.

During storm and flood events, inflow to the Basin can create hazardous conditions related to flowing water, erosion of soil from stream banks, inundation of Basin lands, and potential for Dam failure. A risk-based safety evaluation of Los Angeles District dams in accordance with Corps Engineering Circular 1165-2-210 (Water Supply Storage and Risk Reduction Measures for Dam Safety) (Corps 2010a) has recently been prepared, based on individual dam safety risk with DSAC 1 being the highest risk level and DSAC 5 being the lowest. DSAC classifications consider event probability, probability of failure, and consequences, given the physical properties of the dam. Sepulveda Dam has been given a DSAC 3. The Corps has prepared a formal plan to address the actions to be taken during emergency situations at the Dam resulting from earthquake, large flood, or security alert. An Emergency Action and Notification Sub-plan is intended to provide protection to the areas downstream of the Dam only and prescribes

notifications necessary for: 1) prompt evacuation of downstream residents; 2) ensuring safety; 3) vacating project areas where emergency operations may be conducted; and 4) coordination with Federal agencies and non-Federal units of government.

4.14 Sustainability

Sustainability can be broadly defined as "meeting the needs of the present generation without compromising the ability of future generations to meet their own needs." This definition takes into account that there are three "spheres" comprising sustainability (environmental, economic, and social) that need to be considered when developing and evaluating projects and management systems. For the Corps, the inherent goals involve approaching the planning, design, construction, and operation phases of these projects with the intention of sustaining natural resources, protecting the environment, achieving economic viability, and promoting a high quality of life.

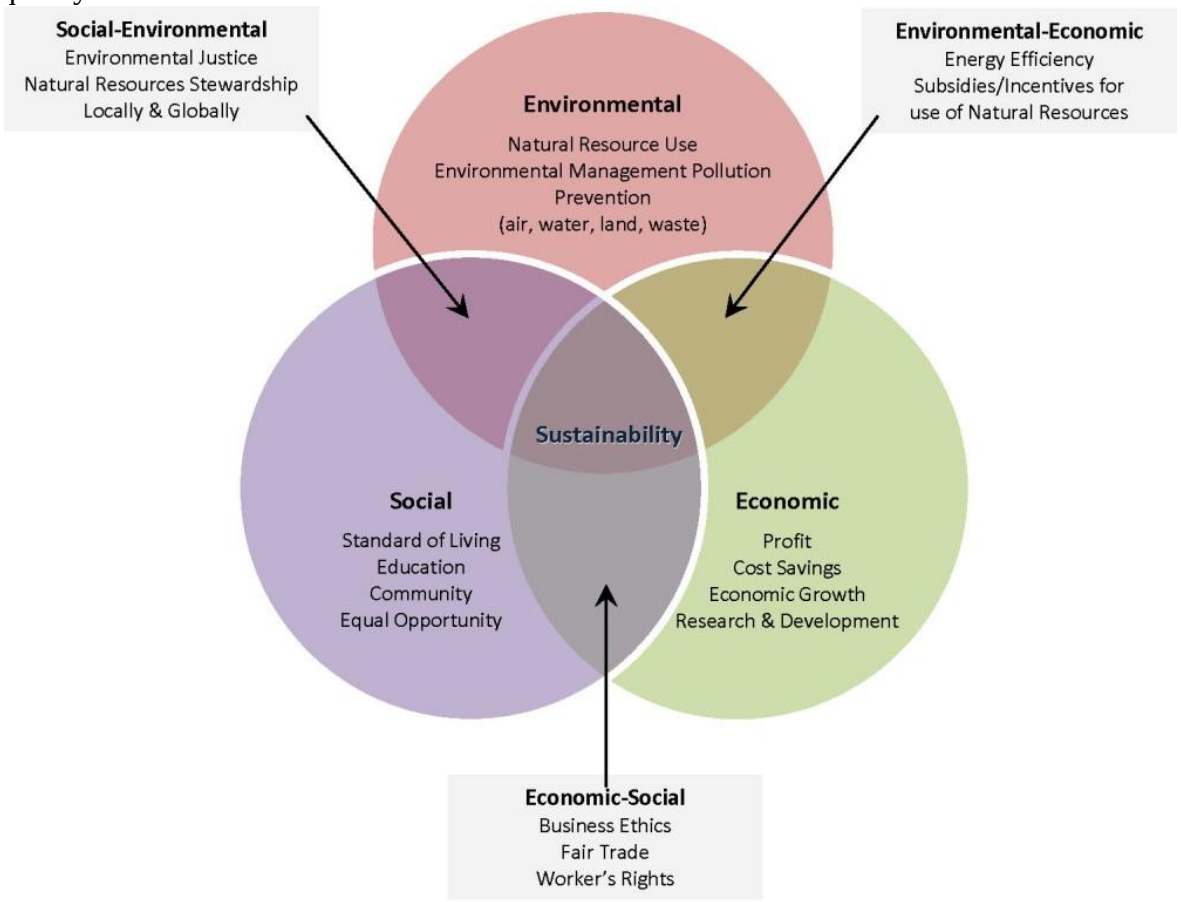


Figure - The Three Spheres of Sustainability

With the passing of the Water Resources Development Act (WRDA) in 2007, Congress directed Federal agencies to prioritize aspects of environmental protection and restoration during the planning of water resources projects. This emphasis complements the sustainability approach taken by the Corps in developing and implementing water resources and ecosystem restoration projects such as those being considered in this integrated document. Sustainability as a practice

for the Corps has become increasingly important as rising population continues to place greater pressure on land development and competition for natural resources and land use, especially in and near urban areas such as the Los Angeles River and other local watersheds.

4.14.1 Environmental Sustainability

Sustainability is achieved through implementation of practices that are known to conserve and protect Basin resources. Within the Basin, the implementation of measures to ensure sustainable use of resources may include developing a green waste and recycling plan. These waste management practices are encouraged to the extent possible throughout the Basin's Operations and out-granted areas.

4.14.2 Economic Sustainability

Similar to environmental sustainability, which is based on the ability of an ecosystem to maintain functionality over time, economic sustainability involves creating economic value (in terms of capital and monetary exchanges) from implementing projects in the study area that would also be sustainable over time. Therefore, in the planning, design, construction, and operation phases, the usage and potential waste of resources in the generation of economic activity would be accounted for, and the use of green technology and materials and renewable resources would be maximized.

4.14.3 Social Sustainability

Social sustainability is based on the concept that future generations should have the same or greater access to these quality of life benefits as the current generation. This concept encompasses human rights and environmental justice. Social sustainability applies not only to the provision of recreation and other social amenities but also to the protection of environmentally sensitive areas in the Basin. For example, restoration of natural habitats within the Basin benefits wildlife populations, while improving the overall quality of life for area residents. Future generations deserve the opportunity to have a high quality experience with the natural areas of the watershed while perpetuating our collective responsibility of environmental stewardship. A healthy ecosystem that treats all people fairly with access to high quality built or natural amenities is the best assurance to sustain a socio-economy.

4.14.4 Green Waste and Recycling

The Fire Station #88 participates in City-wide recycling at its facilities to include the recycling of aluminum, CRV plastic, cardboard, scrap metal, and e-waste.

The City Bureau of Sanitation's Donald C. Tillman Reclamation Plant discharges advanced tertiary-treated water and this water is used throughout the Basin. From the water in Lake Balboa to irrigation of the golf greens and finally discharge to the Los Angeles River, the discharge from the reclamation plant waters the entire landscape at Sepulveda Dam Basin.

The City Department of Recreation and Parks has a comprehensive program for waste management which includes green waste and recycling. Mulching lawnmowers are used

throughout the Basin and clippings are left in place. The Forestry Division takes all other green waste that is generated, chips it and transports it to Griffith Park where it is mixed with bio-solids generated from the Hyperion Treatment Plant and turned into compost. Trash is managed by the City Bureau of Sanitation. Both trash and recycling bins are distributed throughout the Basin.

When special events are held at the Basin, the permit requires additional recycling and trash containers and it is the responsibility of the event operator to haul away all trash and recyclable materials and leave the areas clean within 24 hours of the end of the event.

V. ALTERNATIVES IMPACT ASSESSMENT

To determine the potential for significant impacts, typical significance thresholds have been identified through application of Federal laws, Corps policy, published research, professional judgment, and in some cases through state and local regulations. In general, significance thresholds may be exceeded if project features will negatively affect:

- Public safety or health;
- Wetlands, floodplains, or ecologically sensitive areas;
- Important scientific, cultural, or historic resources; and/or
- Threatened or endangered species or their habitat.

Project impacts are assessed to determine if they are:

- Likely to be highly controversial or its impact analysis highly debated;
- Likely to involve highly uncertain impacts or unique or unknown risks;
- Likely to pave the way for future actions;
- Part of a larger proposal;
- Likely to violate any Federal law or requirement imposed to protect the environment; and/or

5.1.1 Physical Land Resources

Thresholds of Significance

A significant impact would occur to physical land resources if the proposed project;

- Results in substantial adverse effects to people or structures from geologic conditions including expansive soils, liquefaction, earthquakes, landslides, substantial erosion, depletion of groundwater supplies or interference with groundwater recharge;
- Results in the direct or indirect destruction of a unique geologic feature;
- Results in the loss of availability of a known mineral resource of local, regional, or state value;
- Significantly increases wind or water erosion of soils or loss of topsoil, either on or off site;
- Significantly alters the physical or chemical quality of sediments or soils;

- Substantially alters topography beyond that which would result from natural erosion and deposition; and /or
- Triggers or accelerates geologic processes such as erosion or sedimentation brought about by disturbance of landforms.

Potential Sources of Effect

Sedimentation occurs naturally during high rainfall events. Anthropogenic practices may also exacerbate sedimentation rates. Introduction of heavy machinery, increased foot, horse, bicycle, or vehicular traffic, or changes in water control management may all result in erosion or increases in sedimentation.

Proposed Action Alternative

Under the Proposed Action Alternative, existing topography and sedimentation rates would remain unchanged. Major landforms would remain and areas subject to erosion are expected to continue to erode at current rates. Current seismic activity, earthquake fault zones, and areas of liquefaction within the Basin would remain unchanged. The only change to existing ground surface would be minor grading. Erosion would be controlled through proper BMPs and the land itself is level. Activities under the Proposed Action Alternative would have only minor effects on soil compaction and erosion. The Proposal would take several weeks to complete and is anticipated to have no more than minor, temporary effects on physical land resources.

No Action Alternative

Water management practices would be continued as at present by the Corps and utilizing the Basin's Water Control Manual. Sediment removal would continue to occur as necessary. No additional land clearing or development would be approved that would not be in compliance with the existing Master Plan.

Determination of Impacts

Based on the significance criteria above, there would be no significant impacts to physical land resources as a result of the implementation of the proposed Rope Tower. However in the future, any Proposal for future development in the Basin would need to be analyzed for potential impacts on the physical land resources in the Basin.

5.1.2 Water Resources

Thresholds of Significance

A significant impact would occur to water resources if the proposed project:

- Caused substantial interference with groundwater supplies, recharge or direction and rate of groundwater flow;

- Caused a violation of any water quality standard or waste discharge requirement, or otherwise substantially degrades water quality;
- Changed streambed scour or long-term channel degradation that occurs as a result of operation and maintenance would result in buried utilities being exposed to air or flowing water;
- Substantially altered the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, in a manner that would result in substantial increase in erosion or siltation on or off site;
- Substantially altered the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, in a manner that would result in a substantial reduction in the quantity of surface water;
- Substantially altered the existing drainage pattern of the site or area, including the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off site or provide substantial additional sources of polluted runoff;
- Exposed people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a Dam;
- Increased erosion or sedimentation in relation to existing conditions; and/or
- Released chemicals such as oil and grease into the waters of the United States.

Potential Sources of Effect

Water quality impairments are typically caused by the introduction of pollutants into a water body, either by direct dumping of pollutants into the water, urban runoff during storm events, or urban runoff not associated with a storm event.

Groundwater recession occurs on a seasonal basis, as a result of drought, or through artificial pumping. Diminished groundwater levels could affect groundwater dependent riparian vegetation and in turn diminish habitat quality.

Proposed Action Alternative

Under the Proposed Action Alternative, existing water quality protection programs administered at the state and local levels would continue to address issues as they arise, including those at the Basin. No physical changes to water regime are proposed for implementation at the Basin as a result of the action alternative. No land clearing activities are proposed. Human use and maintenance activities within the Basin are not expected to significantly change as a result of this Proposal. Groundwater usage and recharge would not change as a result of the proposed action.

No Action Alternative

Under the No Action Alternative, existing water quality protection programs administered at the state and local levels would continue to address issues as they arise, including those at the Basin.

Determination of Impacts

The Proposed Action Alternative would not create significant impacts on water resources and may create beneficial impacts over the long-term. Future proposals for development in the Basin would need to be analyzed for potential impacts on the water resources in the Basin.

5.1.3 Air Quality

Thresholds of Significance

There could be significant impacts to air quality if the following were to occur:

- The project was inconsistent with the current approved Air Quality Management Plan;
- The project would result in non-compliance with the Federal General Conformity Rule (40 CFR Parts 6, 51, and 93) Requirements;
- The project would generate emissions of air pollutants that would exceed any SCAQMD regional air quality thresholds;
- The project would exceed 7,000 tons of CO2 ;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors);
- Expose the public (especially schools, day care centers, hospitals, retirement homes;
- convalescence amenities, and residences) to substantial pollutant concentrations;
- Create objectionable odors affecting a substantial number of people;
- Emissions on an individual day exceed 550 pounds per day for CO, 75 pounds per day for VOC, 100 pounds per day for N0x, 150 pounds per day for S0x, or 150 pounds per day for PM10, the project impacts would be considered significant; and/or
- Emissions on any pollutant exceed 100 tons per year of CO, 100 tons per year of VOC, 100 tons per year of N0x, 100 tons per year of S0x, or 70 tons per year of PM10.

Potential Sources of Effect

Most air pollution results from motor vehicle emissions, particularly in densely populated areas. Other sources include industrial amenities, agricultural areas, and construction zones.

Proposed Action Alternative

Noticeable or significant effects could occur if a large number of construction vehicles and many construction workers worked at this site, but this is a very small and temporary project. Since automobiles are the primary source of air pollution in the SCAQMD, an increase in vehicles to the Basin could increase air pollution in the immediate vicinity. However, in comparison to the continuous vehicular use of the surrounding urbanized area, the amount of new passenger or of construction vehicle use would not result in significant increase in vehicle emissions. Parking capacity is also not proposed to significantly change and thus precludes a dramatic, significant increase in the use of the Basin by visiting vehicles.

No Action Alternative

Under the No Action Alternative, air quality would be similar to that under the Proposed Action in most respects. Over time, population growth will likely continue resulting in an increase in the area's vehicle use and emissions.

Basin parking capacity is not proposed to change, and even incremental increases in Basin use are not anticipated to result in significant adverse effects on air quality, especially in comparison to ongoing vehicle use in the adjacent urbanized areas outside the relatively undeveloped Basin.

Determination of Impacts

Based on the significance criteria above, the Proposed Action would not create significant impacts on air quality over the long-term although short-term effects of construction vehicles would be noticeable, while being managed on-site for this small construction project.

5.1.4 Noise

Thresholds of Significance

For this analysis, the proposed project may result in significant impacts on noise quality if:

- Noise levels projected for a Proposed Action did not comply with the relevant Federal, state, and/or local standards or regulations; and/or
- There were an increase in noise levels above the existing ambient condition as a result of the introduction of a new source of noise.

Potential Sources of Effect

Common sources of noise include automobile traffic, construction, large crowds, and events such as concerts, industrial practices, and recreation uses of the Basin.

Proposed Action Alternative
The site location is an isolated area with no sensitive receptors. Under the Proposed Action, noise issues would continue to be managed by local ordinances and state laws, as applicable. The Proposal would not result in the significant development of additional recreation amenities, roadways, or events that might significantly increase noise levels within the Basin although during the construction phase, of several weeks, there would be intermittent increases in noise.

There are no anticipated significant adverse impacts to the noise condition within the Basin, as a result of the Proposed Action Alternative.

No Action Alternative
There are no anticipated significant adverse impacts to the noise condition within the Basin as a result of the No Action Alternative.

Determination of Impacts

Based on the significance criteria, the Proposed Action Alternative would not create significant impacts on noise quality. Proposals for future development in the Basin would need to be analyzed for potential impacts on noise quality in compliance with the Federal Noise Control Act and state and local laws and regulations.

5.1.5 Biological Resources

Thresholds of Significance

Impacts to biological resources are considered significant if one or more of the following conditions would result from implementation of the selected project alternative:

- Substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS (Endangered and threatened species referenced in this threshold are those listed by the USFWS and/or CDFG as threatened or endangered);
- Substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the CDFG or USFWS;
- Substantial adverse effect on Federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, and coastal wetlands) through direct removal, filling, hydrological interruption, or other means;
- Substantial interference with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impeded the use of native wildlife nursery sites;
- Created a conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance;
- Created a conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan;
- Substantial increase in the ambient noise levels for adjoining areas that interfere with breeding behavior of listed species. For the purposes of this impact analysis, "substantial adverse effect" is defined as the loss or harm of a magnitude which, based on current scientific data and knowledge, would 1) substantially diminish population numbers of a species or distribution of a habitat type within the region; or 2) eliminate the functions and values of a biological resource in the region;
- Substantial loss of species diversity in natural vegetation and wildlife habitat;
- Substantial loss of habitat that is regionally unique designated sensitive;
- Loss of breeding areas of listed threatened or endangered species; and/or
- Significant disruption of wildlife corridors.

Potential Sources of Effect

Possible sources of effect may include 1) changes to the lighting regime which may affect foraging or breeding of nocturnal creatures, 2) water diversions that may affect the groundwater

table or diminish aquatic habitat value, and 3) creating conditions that would increase noise in areas containing sensitive (i.e., nesting, breeding, or fledging) wildlife.

Proposed Action Alternative

Approval of the current Proposal would not affect vegetation diversity or natural resources management at Sepulveda Basin. The site is entirely developed and is outside of vegetation management zones at the Basin.

No Action Alternative

Vegetation communities would remain the same. Basin maintenance, including invasive plant removal, is the responsibility of the lessee which includes removal of debris and weeds.

Determination of Impacts

Based on the significance criteria above, no significant adverse impacts are anticipated to biological resources as a result of approval of the proposed modular, 2-classroom addition.

5.1.6 Cultural Resources

Thresholds of Significance

Criteria for the evaluation of effects to National Register properties are found in 36 CFR 800.9, *Criteria of Effect and Adverse Effect*. These include:

- An undertaking has an effect on a historic property when the undertaking may alter characteristics of the property that may qualify the property for inclusion in the National Register. For the purpose of determining effect, alteration to features of a property's location, setting, or use may be relevant depending on a property's significant characteristics and should be considered.
- An undertaking is considered to have an adverse effect when the effect on a historic property may diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Adverse effects on historic properties include, but are not limited to:
    - Physical destruction, damage, or alteration of all or part of the property;
    - Isolation of the property from or alteration of the character of the property's setting when that character contributes to the property's qualification for the National Register;
    - Introduction of visual, audible, or atmospheric elements that are out of character with the property or alter its setting;
    - Neglect of a property resulting in its deterioration or destruction; and
    - Transfer, lease, or sale of the property.
- Effect of an undertaking that would otherwise be found to be adverse may be considered as being not adverse for the purpose of these regulations;

- When the historic property is of value only for its potential contribution to archeological, historical, or architectural research, and when such value can be substantially preserved through the conduct of appropriate research, and such research is conducted in accordance with applicable professional standards and guidelines;
    - When the undertaking is limited to the rehabilitation of buildings and structures and is conducted in a manner that preserves the historical and architectural value of affected historic property through conformance with the "Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings," or;
    - When the undertaking is limited to the transfer, lease, or sale of a historic property, and adequate restrictions or conditions are included to ensure preservation of the property's significant historic features.

Potential Sources of Effect

Natural events and human activities both have the potential to impact cultural resources. Human activities that may affect cultural resources include land clearing, sediment removal, vegetation removal, construction, development, and any other activity that physical alters soils where cultural resources may be present, historic buildings, or structure or traditional cultural properties.

Proposed Action Alternative

There are no known sites of cultural significance near this location at Sepulveda Dam Basin. The potential for discovery or the need to reevaluate methods of previous inventories shall be addressed by the current Proponent's use of qualified personnel who will monitor the trenching activities for possible discovery of cultural artifacts.

No Action Alternative

A potential exists for undiscovered or unevaluated resources to be present. Federal protections for cultural resources would continue. Consideration of the effects of actions on protected cultural resources would be required, and adverse effects would be resolved. A potential for discovery or the need to reevaluate methods of any previous inventories would be addressed by the proponent for future actions on a case-by-case basis.

Determination of Impacts

The Proposed Action Alternative would not create significant adverse impacts on cultural resources.

5.1.7 Hazardous and Toxic Waste Materials

Thresholds of Significance

Impacts associated with the existence of hazardous and toxic materials in the Basin and surrounding region would be considered significant if the proposed action resulted in:

- Soil contamination, including flammable or toxic gases, at levels exceeding federal, State and local hazardous waste limits established by 40 CFR Part 261 and Title 22 CCR 66261.21, 66261.22, 66261.23 and 66261.24;
- Mobilization of contaminants, creating potential pathways of exposure to workers, the public or other sensitive receptors to contaminated or hazardous materials and such exposure exceeds permissible exposure levels set by the California OSHA in CCR Title B, and Federal OSHA in Title 29 CFR Part 1910;
- Exposure of the general public to hazardous situations through the transport, use, storage or disposal of hazardous materials; and/or
- Creation of a significant hazard to the public or environment through release of hazardous materials into the environment.

Potential Sources of Effect

Hazardous or toxic materials such as oils, grease, fertilizers, or pesticides may be introduced into the Basin as a result of the use of these compounds for construction, development, agricultural or vegetation management. An increase of exposure to hazardous or toxic compounds already existing within the Basin may result from spillage or leakage of containment units if they are inadvertently damaged through Basin activities.

Proposed Action Alternative

No sites have been identified through standard assessment sources for additional investigation as HTRW sites. No activities are proposed under the Preferred alternative that would increase a level of misuse of hazardous or toxic substances in the Basin.

No Action Alternative

If the proposed action is not implemented, the baseline conditions regarding the use of hazardous and toxic materials and the generation, storage, and disposal of hazardous and toxic wastes in the Basin would continue as at present into the foreseeable future. Since no sites have been identified through standard sources for additional investigation as HTRW sources, there will be no effects from implementation of the no action alternative. No significant immitigable impacts are anticipated as a result of the No Action Plan.

Determination of Impacts
The Proposed Action Alternative would not create significant impacts on hazardous and toxic materials through contamination or human exposure.

5.1.8 Socioeconomics and Environmental Justice

Thresholds of Significance

Impact on socioeconomics and Environmental Justice would be considered significant if the following were to occur:

- Impacts to a sector of the economy, productivity, competition, prices, or jobs; impacts on the welfare of minority or low income populations;
- The impact of project induced population changes on the availability of public services;
- Impacts on the fiscal and physical ability of the local governmental agencies to meet the needs of the public following the project related changes in the local population;
- A substantial long-term decrease in local employment due to direct loss of jobs or an adverse effect on the local economy that results in an indirect long-term loss of jobs;
- A shortage of temporary housing during project construction caused by construction workers seeking local accommodations that prevents normal users from being able to obtain temporary housing in the area (temporary housing would include motels, hotels, campgrounds, RV parks, dormitories, and similar lodging);
- Disproportionately high and adverse impacts on minorities, low income residents, or children.
- A substantial population growth in an area was induced by the project; and/or
- Substantial numbers of existing housing or people were displaced.

Potential Sources of Effect

An example of a disproportionate effect on a significant population might be the use of an economically repressed neighborhood for the development of a facility that contributes significant health hazards to the surrounding community. This would unfairly place the pressure of health hazards on a portion of the population that is less readily able to handle the additional pressures.

Proposed Action Alternative

There is no significant minority or low-income population identified within the market area of Sepulveda Dam Basin. There would therefore be no socioeconomic/environmental justice impacts resulting from the approval of the Master Plan.

No Action Alternative

There are no current socioeconomic or environmental justice concerns within the surrounding communities. Increasing population and changing demographics will require reevaluation to maintain compliance with environmental justice legislation.

Determination of Impacts

The Corps has determined that the Proposed Action Alternative would not create any significant impacts to local area socioeconomics and environmental justice issues. However, continued reevaluation of population statistics would be required to ensure ongoing environmental justice for minority populations.

5.1.9 Traffic and Transportation

Thresholds of Significance

An impact would be considered significant on transportation and traffic if:

- A major roadway (arterial or collector classification) would be closed to through traffic as a result of the Proposed Action's activities and there would be no suitable alternative route available;
- The Proposed Action's activities would restrict access to or from adjacent land uses and there would be no suitable alternative access;
- An increase in vehicle trips associated with additional commuter and truck trips would result in an unacceptable reduction in level of service of local jurisdictions on roadways in the vicinity of the Proposed Action or would result in safety problems for vehicular traffic, transit operations, or trains;
- An increase in roadway wear in the vicinity of the work zone would occur as a result of heavy truck or equipment movements, resulting in noticeable deterioration of roadway surfaces;
- The Proposed Action and its location would conflict with planned transportation improvements in the area;
- Project activities or operation of the project would result in safety problems for vehicular traffic, transit operations, or trains; and/or
- An increase in vehicle trips associated with additional commuter and truck trips would result in an unacceptable reduction in the level of service standards of local jurisdictions in the project vicinity.

Potential Sources of Effect

Expanded sports amenities, new roads, or new public venues could contribute to increased traffic, decreased accessibility to the Basin or its neighboring communities, reduction in the availability of transportation modes, or a reduction in the connectivity of the multi-modal transportation network within the Basin.

Proposed Action Alternative

The proposal would take place on an outgranted area which is controlled by Los Angeles City Fire Department. There are no proposed modifications to, or development of the pedestrian, bicycle, mass transit, and vehicular traffic network currently in place. No development is proposed that might create obstacles or cause diversions to the existing transportation system and the current Proposal's effects are considered an insignificant new effect to local traffic.

No Action Alternative

If implementation of the unit were not to occur, transportation access to the Sepulveda Dam Basin would remain as currently exists and subject to such external influences as economic conditions in surrounding communities. Within the Basin, the existing roads, trails, and access points currently available for pedestrians, and cyclists as well as parking areas and trail/signage systems are unlikely to change in the future under without-project conditions.

Determination of Impacts

Based on the significance thresholds, the Proposed Action would not create significant impacts to Basin and local area traffic, transportation routes, access, or parking. Any Proposal for development in the future would require a separate impact analysis to determine significance.

5.1.10 Utilities

Thresholds of Significance

The proposed project would have a significant impact on utilities if it would:

- Require a substantial modification to existing utility amenities that would have an adverse environmental impact on sensitive resources or land uses; and/or
- Create a hazardous situation that could not be mitigated.

Potential Sources of Effect

Development, construction, modification, or alteration of any features within the Basin may result in the inadvertent severing or damage of utility infrastructure. These actions may also overload utility capacity, causing damage or outages. Increasing demand or overburdening of utilities as a result of increased human use of an area may also cause significant impacts.

Proposed Action Alternative

The Rope Tower would not lead to substantially increased use of utilities.

No Action Alternative

Utility condition and use, and energy consumption are not anticipated to change under the No Action Alternative.

Determination of Impacts

The Proposed Action Alternation would not create significant impacts to utilities as a result of the Proposal.

5.1.11 Aesthetics

Thresholds of Significance

The factors considered in determining impacts on esthetic resources typically include:

- Direct, permanent changes to important existing scenic characteristics of a landscape that are enjoyed by a large number of viewers.
- The impairment of or obstruction of views from public gathering places of scenic resources.
- Viewing distance and degree to which the Proposed Action would dominate the view of the observer.

- Resulting contrast of amenities related to the Proposed Action with existing visual resources.
- The level of public interest in the existing landscape characteristics and concern over potential changes.

Potential Sources of Effect

Long-range views may be negatively impacted by introduction of obstructions, such as tree plantings or construction developments. Local or short-range views may be negatively impacted through natural occurrences such as wildfire, flood, storm or establishment of non-native invasive plant species, as well as human uses such as vegetation clearing, construction, large events, or overuse that results in worn amenities or trash dumping. Replacement of open or green space with developed areas would reduce the availability of esthetic resources, while increases in lighting would diminish esthetic value with increased light pollution.

Proposed Action Alternative

Viewsheds within Sepulveda Basin are generally "local" and do not extend beyond the immediate area. Local views – eg, the views upon or from Fire Station #88 holdings - are not anticipated to be impacted by the action alternative, which proposes a replacement of an existing structure in an area with other Fire Department features, and would not significantly affect Basin viewshed areas.

No Action Alternative

Esthetic quality may degrade over time within the Basin without coordinated review among development Proposals, but that is beyond the scope of this Proposal. The proposed site is already in an area that was developed for fire-fighting purposes and which is already not incompatible with aesthetics in this area.

Determination of Impacts

The Proposed Action Alternation would not create significant impacts to Basin esthetic quality.

5.1.12 Recreation

Thresholds of Significance

- The creation of significant disruption to access of recreation amenities or areas;
- Construction or operational activities substantially conflict with recreation uses;
- The construction of support amenities associated with the recreation areas; and/or
- Impacts to recreation support amenities as a result of the action.

Potential Sources of Effect

Measures that may reduce the availability of recreation amenities to a broad socioeconomic spectrum may include the restriction of universal accessibility at existing amenities, or the introduction of costs or fees associated with use of the facility that may restrict those without sufficient financial resources. Recreation opportunities may also be reduced through the inactivation of recreation amenities for the purpose of rejuvenation or as a result of budget constraints. The quality of amenities may be diminished if greater numbers of people begin to visit the Basin, or if a greater number of teams are permitted to utilize existing amenities.

Proposed Action Alternative

No additional amenities or parking acreage are proposed for development or which might increase the use of the area beyond its current capacity. Overall, there are no significant impacts on recreation or recreation amenities within Sepulveda Basin expected to occur as a result of the approval of the proposed construction.

Potential Impacts of the No Action Alternative

The proposal is located where no recreation is approved and would have no effect on recreation at Sepulveda Basin.

Determination of Impacts

The Proposed Action Alternative would not create significant impacts to Basin recreation resources.

5.1.13 Public Health and Safety

Thresholds of Significance

An alternative would have a significant adverse impact on public health and safety if it would:

- Increase exposure of people or structures to flooding hazards;
- Create conditions that would present potential dangers to the public or attract the public to a potentially hazardous area (e.g., attractive nuisances);
- Create wildlife habitat in a manner and amount that resulted in a substantial increase in the potential for aircraft collisions;
- Exceed currently limited herbicide use restrictions;
- Create mosquito breeding conditions in an amount that would require increased levels of mosquito abatement programs to maintain mosquito populations at pre project levels;
- Impact public services or emergency services;
- Result in substantial adverse physical impacts associated with the provision of new or physically altered public services, need for new or physically altered public services, the construction of which could cause significant environmental impacts;
- Require additional fire protection or law enforcement staff and/or equipment to maintain an acceptable level of service;
- Substantially increase emergency service response times by fire and law enforcement;

- Require substantial changes to the daily schedule or calendar of a school, a major reorganization of students or classrooms, or other temporary or permanent disturbance to the school's activities; and/or
- Create unsafe or overcrowded conditions at schools.

Potential Sources of Effect

Hazards may be introduced into the Basin in the form of hazardous or toxic waste, the creation of isolated or unlighted areas that would facilitate increased criminal activity, or a reduction in security patrols or security stations. Allowing human use in areas where natural or man-made hazards occur may compromise public safety. These areas may include those with known poisonous plants or dangerous animals, where steep or unstable slopes occur, or adjacent to water hazards or Dam infrastructure. Public services may be compromised if fire, medical, or police vehicles or personnel are obstructed from entering the Basin as a result of closures or inaccessibility to the entire Basin area. Services may be compromised if planned events result in a larger number of service calls than the fire, medical, or police personnel are able to attend to.

Proposed Action Alternative

Approval of the proposed Rope Tower would not result in an increase in public health or Basin safety hazards and in fact would support health and safety considerations as a consequence of its provision for fire-fighting training purposes. No roadways, trails, or other access points would be altered. Public services such as fire, medical, and police would continue to have unobstructed access into and through the Basin. No significant adverse effects are expected and beneficial effects are anticipated.

Potential Impacts of the No Action Alternative

Continued use of the existing training facility would not result in increase in public health or safety hazards within the Basin or in changes to accessibility of the Basin. Public services such as fire, medical, and police would continue to have access into and through the Basin. However, the proposed training center would be a public health benefit and, to not allow it at this location, would diminish the outgrantee's capabilities to provide training for the basic service for which it exists.

Determination of Impacts

The Proposed Action Alternation would not create significant impacts to Basin user's safety and public services.

5.1.14 Sustainability

Thresholds of Significance

An alternative would have a significant adverse impact on sustainability if it resulted in:

- Economic, ecological, or social changes in the use, visitation, or management of the Basin;
- Inability of ecosystems to maintain functionality and retain current levels of abundance and biodiversity over time;
- Inability to ensure future generations have the same or greater access to social resources as the current generation; and/or
- Inability of an area to retain its value, both in terms of capital and monetary exchanges over time.

Potential Sources of Effect

Ecological diversity and abundance may be impacted through reduction in size of protected natural areas within the Basin or the reduction in quality of natural areas. Quality of natural areas may be affected by the degradation of air quality, water quality, noise levels, soil condition, and vegetation condition. Social sustainability was previously addressed in the Recreation and the Socioeconomics and Environmental Justice sections, above.

Proposed Action Alternative

There are no negative impacts anticipated to Basin sustainability as a result of the action alternative; instead, the Proposal could reinforce compatibility of outgranted land uses, which would improve the overall sustainability of the Basin.

No Action Alternative

Sustainability goals would not be affected by the No Action alternative.

Determination of Impacts

The Corps has determined that the Proposed Action Alternation would not create any significant impacts to basin energy, environmental, or economic sustainability.

5.2 Cumulative Impacts

A cumulative impact is an "impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions" (40 CFR § 1508.7). Cumulative impacts can result from individually minor, but collectively significant actions taking place over time (40 CFR § 1508.7). CEQ's guidance for considering cumulative effects states that NEPA documents "should compare the cumulative effects of multiple actions with appropriate national, regional, state, or community goals to determine whether the total effect is significant" (CEQ 1997).

5.2.1 Past Actions

Sepulveda Dam Basin was constructed in an area of continually increasing urbanization that has significantly altered the natural environment. The communities surrounding the Basin have become densely urbanized over the past century, marked by extensive automobile traffic, highly

developed industrial and residential areas, numerous noise sources, and dense population. The construction of the Dam and development within the Basin has also contributed to cumulative environmental impacts to the area. Following construction, ongoing operation and maintenance of the Basin and its recreation amenities has continued to impact environmental conditions.

Cumulative impacts of development within and around the Basin have adversely affected water quality and quantity, air quality, and noise levels. Dense urbanization has adversely affected the presence of culturally valuable resources, as well as the native fish, wildlife and vegetative habitats that were historically present in the Basin. Development both within and around the Basin has increased the possibility for introduction of pollutants, toxic materials, wastes, and non-native plant and animal species to the Basin. The overall quality of the natural environment at the Basin has diminished significantly since industrialization and urbanization of Los Angeles County.

The construction of Sepulveda Dam in 1941 necessitated clearing the land that is now the Basin. In contrast to the land surrounding the Basin which has undergone an intense urbanization process, during the same time, the land within the Basin has been both restored to some extent, and in some areas, reestablished with native plant and wildlife communities. As a result, the Basin is now an increasingly rare piece of open space within a highly urbanized region. In comparison with the surrounding area, sources of noise and air pollution within the Basin have remained fewer and of lower intensity, vegetative communities and wildlife habitats have returned to some areas, and traffic is much less than the surrounding area. The Basin's esthetic value is higher due the natural character and environmental quality that has evolved over time while urbanization outside the Basin has destroyed much of the natural environment.

5.2.2 Present Conditions

Fire Department #88 is located on the downstream side of Sepulveda Dam and is a portion of a lease to the City Fire Department. There is little general activity other than fire department administration of the facility, which is fenced from adjacent areas. Upstream areas, north of the Dam, are largely developed and maintained for outdoor recreational and resources management activities.

5.2.3 Future Actions

The current updated Master Plan does not consider adding additional activities upon the current lessee's outgrant, aside from mention of Basin's primary use for flood risk management and the potential for recreation amenities. With respect to flood risk management (FRM), the proposed site is located outside of the basin and does not diminish the Corps ability to perform FRM at Sepulveda.

The subject areas at Fire Station 88 are located on lands described in the current Master Plan as *suitable for Inactive [use] and/or for Future Recreation*. The proposed use of land by City Fire Department, on land already outgranted for Fire Department-related purposes, is not incompatible with this designation.

Future recreational development upon the existing outgrant would not be appropriate since the overall site provides features which relate to fire fighting activities or related training. This Proposal would not remove additional recreation from of the basin but would instead allow additional capabilities in use of Federal land use under the current outgrant.

VI. Public Review and Coordination

6.11 Project Delivery Team

The Corps' Project Delivery Team for review of this Proposal is composed of a variety of specialists from different backgrounds and sections of the Corps. They include Real Estate Specialist, Outdoor Recreation Planner, Ecologist, Engineer, Operations staff, and Counsel. In addition, Corps staff coordinate as needed with a variety of other agencies including representatives Federal, State, or local agencies.

6.2 Agency Coordination

U.S. Fish and Wildlife Service (USFWS) The Fish and Wildlife Coordination Act of 1958 (16 USC 661-667e) requires that any agency impounding, diverting, channel deepening, controlling or otherwise modifying a stream or body of water any purpose whatever, including navigation and drainage, consult with the USFWS. Since there are no recommendations to changes or modifications in Dam or Basin operations that would modify a stream or body of water, USFWS was not consulted in preparation of this Master Plan. This DEA will be Noticed to the USFWS; however, No Effect to Listed Species is anticipated as a result of this Proposal.

Los Angeles Regional Water Quality Control Board (LARWQCB) In preparing the water quality section of this EA, the LARWQCB was consulted on impairments to water bodies within the Basin. The findings are listed in Section 3.3.4 of the EA. A 401 Certification would not be required since a 404 permit would not be required as no dredge or fill material would be discharged into waters of the United States unless warranted under further development of future proposed development and impact analysis. No such documentation is required in this case as no waters of the U.S. will be impacted in its development.

6.3 Institutional Involvement

During preparation of this draft Environmental Assessment, Project Delivery Team members spoke with staff, from the City of Los Angeles Fire Department, to fully develop the context and scope of the Proposal. These discussions focused on existing and proposed footprint at the site, construction and maintenance issues, public safety concerns, use policies, carrying capacity of the facility, connectivity and accessibility, waste management, and sustainability measures.

6.4 Public Involvement

Public involvement is a process by which interested parties and affected individuals, organizations, and government agencies (Federal, state, and local), are consulted and included in the decision-making process of a planning effort. The NEPA among other Federal laws and

regulations mandates public involvement. The notice of this Environmental Assessment is provided to the public for a 30-day period.

VII. ENVIRONMENTAL LAWS AND COMPLIANCE

The DEA fulfills the requirements of NEPA and other pertinent laws and regulations discussed below.

National Environmental Policy Act (NEPA) (42 USC 4321 et seq.)

NEPA is the nation's primary charter for protection of the environment. It establishes national environmental policy which provides a framework for Federal agencies to minimize environmental damage and requires Federal agencies to evaluate the potential environmental impacts of their proposed actions. Under NEPA, a Federal agency prepares an EA describing the environmental effects of any proposed action and alternatives to that action to determine if there are significant impacts requiring development of an Environmental Impact Statement (EIS) or if a Finding of No Significant Impact (FONSI) is appropriate. The EA must identify measures necessary to avoid or minimize adverse impacts, and all impacts must be reduced to a level below significance in order to rely upon a FONSI.

U.S. Fish and Wildlife Coordination Act (16 USC 661)

This Act requires Federal agencies consult with the U.S. Fish and Wildlife Service (USFWS) and the fish and wildlife agencies of States where the "waters of any stream or other body of water are proposed or authorized, permitted or licensed to be impounded, diverted . . . or otherwise controlled or modified" by any agency under a Federal permit or license. Consultation is to be undertaken for the purpose of "preventing loss of and damage to wildlife resources." The intent is to give fish and wildlife conservation equal consideration with other purposes of water resources development projects. As the proposed project does not involve impoundment, diversion, or other modification to bodies of water within the Basin with the proposed reclassification of land use, no Fish and Wildlife Coordination Act Report is required.

Endangered Species Act (ESA), as amended (16 USC 1531 et seq.)

The ESA protects threatened and endangered species, and their designated critical habitat, from unauthorized take. Section 9 of the Act prohibits such take, and defines take as to harm, harass, pursue, hunt, shoot, wound, kill, trap, capture, or collect or to attempt to engage in any such conduct. Section 7 of the ESA requires Federal agencies to insure that any action authorized, funded or carried out by them is not likely to jeopardize the continued existence of listed species or modify their critical habitat. Consultation with the USFWS or National Marine Fisheries Service is required if the Federal action may affect a Federally-listed species or designated critical habitat.

Since the proposed project is limited to a small construction project in a heavily urbanized area, the Proposal complies with the ESA and consultation is not required. Any recreation and/or restoration project that may be proposed in the future for development would need to comply with the ESA during the planning and implementation process.

Migratory Bird Treaty Act (MBTA) (16 USC 715- 715s)

The MBTA prohibits the taking or harming of any migratory bird, its eggs, nests, or young without an appropriate Federal permit. Almost all native birds are covered by this Act and any bird listed in wildlife treaties between the United States and several countries, including Great Britain, Mexican States, Japan, and countries once part of the former Soviet Socialist Republics. A "migratory bird" includes the living bird, any parts of the bird, its nest, or eggs. The take of all migratory birds is governed by the MBTA's regulation of taking migratory birds for educational, scientific, and recreation purposes and requiring harvest to be limited to levels that prevent over-utilization. Since the proposed project is limited to construction of two small modular units in already highly-developed areas and with no anticipated effect to migratory birds, the project complies with the Act.

Clean Water Act (CWA) (33 USC 1251 et seq.)

Section 401 of the CWA requires that every applicant for a Federal license or permit for any activity that may result in a discharge into navigable waters must obtain a State Water Quality Certification (Certification) or waiver that the proposed activity will comply with state water quality standards (*i.e.*, beneficial uses, water quality objectives, and anti-degradation policy). The LARWQCB issues section 401 Water Quality Certifications for activities within Los Angeles County.

Since the proposed project is limited to minor construction away from water bodies, the proposed project does not result in discharge into navigable waters; therefore Certification is not required.

Section 402 prohibits the discharge of pollutants to "waters of the United States" from any point source unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) Permit. Section 402 requires a NPDES Permit for the discharge of stormwater from municipal separate storm sewer systems (MS4) serving urban areas with a population greater than 100,000; construction sites that disturb one acre or more; and industrial amenities. The RWQCB administers these permits with oversight provided by the SWRCB and EPA Region IX.

Since the proposed project is limited to a small construction project whose size is below the indicated thresh-hold of areal impacts, and the proposed project does not involve discharge of pollutants into waters of the US, a Section 402 permit is, therefore, not required.

Section 404 authorizes the Secretary of the Army acting through the Corps to issue permits for the discharge of dredged or fill materials into the waters of the United States, including wetlands, at specified disposal sites. The selection and use of disposal sites must be in accordance with guidelines developed by the Administrator of EPA in conjunction with the Secretary of the Army and published in 40 CFR Part 230 (known as the 404(b)(1) guidelines). Under the Section 404(b)(1) guidelines, the Corps shall examine practicable alternatives to the proposed discharge and permit only the Least Environmentally Damaging Practicable Alternative (LEDPA).

Since the proposed project does not affect waters and does not involve discharge of dredged or fill material in waters of the United States, a 404(b)(1) analysis is, therefore, not required.

Clean Air Act of 1970 (42 USC 7401 et seq.)

Section 118 of the Act states that any Federal action that may result in discharge of air pollutants must comply with Federal, State, interstate and local requirements respecting control and abatement of air pollution. Section 176(c) of the Act requires that Federal actions conform to an implementation plan after it has been approved or promulgated under Section 110 of the Act.

The potential air quality impacts of the proposed project have been examined and compared to the significant levels identified by the Southern California Air Quality Management District (SCAQMD), which is the agency with jurisdiction to enforce the Clean Air Act regulations and other relevant local air quality regulations. Based on the air quality analysis described in Sections 3.4.1 through 3.4.3 and 4.2.1.3, a conformity determination for a specific pollutant is not required because for each criteria pollutant or precursor the total of direct and indirect emissions of the criteria pollutant or precursor in the nonattainment area caused by the Federal action would not equal or exceed any of the rates in 40 CFR 93.153(b)(1) or (2). As a result, the proposed project conforms to the Federal Clean Air Act, as amended.

Noise Control Act of 1972, as amended (42 USC 4901 et seq.)

Noise generated by any activity, which may affect human health or welfare on Federal, state, county, local, or private lands, must comply with noise limits specified in the Noise Control Act.

The Proposal is to be temporary, minor construction in a zone where construction noise is regulated by Los Angeles City and will not create exceptional noise impacts. Noise will continue to be regulated through Federal, state, and local ordinances. The Proposal complies with this Act.

National Historic Preservation Act (NHPA) (16 USC 460b, 470l-470n)

Section 106 of the NHPA requires any Federal agency to take responsibility for the impact of the decisions on historic resources. Under Section106, Federal agencies are prohibited from approving any Federal "undertaking" (including the issuance of any license, permit, or approval), without (1) taking into account the effects of the undertaking on the historic properties, and (2) affording the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment on the undertaking. The NHPA forces an agency to stop and consider consequences of its undertakings on a historic property, and assures that the agency does so by requiring it to receive comment from the ACHP or from agencies acting in its stead and from the public, before proceeding with such an undertaking. To comply with the NHPA, a Federal agency considering an undertaking must go through the process outlined in the ACHP's regulations at 36 C.F.R. Part 800.

With respect to cost-sharing agreements and other construction, as well as for preparation of the Sepulveda Master Planning, the Corps has conducted a comprehensive literature review and records search of the Sepulveda Dam Basin and vicinity, beginning in 1977. This was followed

by a field survey of land surfaces that had not been altered to the degree that all cultural materials would have been destroyed. Results of these investigations were negative; no significant prehistoric or historic archaeological or other cultural resources were recorded. Preparation of a cultural resource management plan was also referenced, but it is not clear whether this document was completed. Recorded cultural resources include historic–era remains of homes and structures and artifact scatters (Corps 1996a). There are no known sites of cultural significance within Sepulveda Dam Basin.

The current Proposal is limited to minor construction work with limited ground disturbance (trenching for utilities connection) which will be monitored by a qualified Archaeologist during construction. As such, the proposed project is in compliance with Section 106 of the Act and its implementing regulations (36 CFR part 800). If any cultural resources are discovered during implementation, they would be evaluated for eligibility for inclusion in the NRHP, pursuant to 36 CFR 800.13(b).

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (42 U. S. C. 9601 et seq.)

CERCLA regulates the release or substantial threat of release into the environment of any pollutant or contaminant which may present an imminent and substantial danger to the public health or welfare.

As there are no known sites within the Basin, this Act is not applicable to this project.

Executive Order 11514, Protection and Enhancement of Environmental Quality, amended by Executive Order 11991, Re Protection and Enhancement of Environmental Quality

This EO mandates that the Federal government provide leadership in protecting and enhancing the quality of the nation's environment to sustain and enrich human life. Federal agencies must initiate measures needed to direct their policies, plans and programs so as to meet national environmental goals. These regulations include procedures for early EIS preparation and require impact statements to be concise, clear, and supported by evidence that agencies have made the necessary analyses.

A Draft EA was prepared for this proposed construction and, therefore, the Proposal is in compliance with the mandates of this EO.

Executive Order 11988, Floodplain Management

In accordance with this EO, the Corps shall take action to "…avoid to the extent possible the long and short term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct or indirect support of floodplain development wherever there is a practicable alternative." This EO requires that Federal Agencies take action to manage the risk and/or impacts of floods on human safety, health, and welfare; and restore and preserve natural and beneficial values served by the floodplains. Each agency also has the responsibility to evaluate potential effects of Federal actions that may be made within floodplains. Compliance with this EO requires proper implementation of ER 1165-2-26, which states that the policy of the

Corps with respect to floodplain management is to formulate projects which, to the extent possible, avoid or minimize adverse impacts associated with use of the base (100-year) floodplain and avoid inducing development in the base floodplain unless there is no practicable alternative.

According to the Corps 2011 Master Plan, the proposed project area is located outside the northernmost Basin's 100-year floodplain and, thus, the Proposal will not result in further inducing development in the base floodplain.

Executive Order 11990, Protection of Wetlands

Federal agencies shall take action to minimize the destruction, loss, or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands in carrying out the agencies responsibilities. Each agency, to the extent permitted by law, shall avoid undertaking or providing assistance for new construction located in wetlands unless the head of the agency finds 1) that there is no practicable alternative to such construction and 2) that the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use. In making this finding, the head of the agency may take into account economic, environmental, and other pertinent factors. Each agency shall also provide opportunity for early public review of any plans or Proposals for new construction in wetlands.

The Proposal would not impact any wetlands within the Basin and is thus in compliance with this EO.

Executive Order 12088, Federal Compliance with Pollution Control Standards

Federal Agencies are responsible for ensuring that all necessary actions are taken for the prevention, control, and abatement of environmental pollution with respect to Federal amenities and activities under control of the agency. The proposed action does not introduce environmental pollution upon the natural and beneficial values of the Basin and proposed project is in compliance with the EO.

Executive Order 12898, Environmental Justice Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations

EO 12898 is intended to direct each Federal agency "to make achieving environmental justice part of its mission by identifying and addressing... disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low income populations in the [U.S.]..."

No minority or low income communities would be disproportionately affected by implementation of the Proposed Action. The Proposed Action is in compliance with the EO.

Any recreation and/or restoration projects that may be proposed in the future for development would need to comply with the EO during the planning and implementation process.

Executive Order 13112, Invasive Species

Federal agencies are to expand and coordinate efforts to prevent the introduction and spread of invasive plant species and to minimize the economic, ecological, and human health impacts that invasive species may cause.

Although the invasive species *Arundo donax* is mostly in waterways within the Basin, maintenance of the waterways is the responsibility of the local sponsor under the terms of the lease. Eradication/maintenance of invasive species and the future replacement of non-native ornamental trees and other plant material as recommended in the Master Plan.

Executive Order 13148, Greening the Government through Leadership in Environmental Management

Environmental management considerations must be a fundamental and integral component of Federal Government policies, operations, planning, and management. The primary goal of this EO in the natural resources arena is for each agency to strive to promote the sustainable management of Federal facility lands through the implementation of cost-effective, environmentally sound landscaping practices, and programs to reduce adverse impacts to the natural environment.

The existing Sepulveda Master Plan discusses ways to improve environmental stewardship and management of the Basin. The proposed project is in compliance with the EO.

Executive Order 13195, Trails for America in the 21st Century

This EO states that Federal agencies will, to the extent permitted by law and where practicable and in cooperation with Tribes, States, local governments, and interested citizen groups, protect, connect, promote, and assist trails of all types throughout the United States. Trails of any kind are not related to the current Proposal and so this Proposal is in compliance with this order.

X. RECOMMENDATION: If no outstanding significant adverse impacts have been identified with respect to the Proposed Action, the Corps will recommend the preparation of a Finding of No Significant Impact (FONSI) for this proposal.

Conclusion:

[ ] EIS **[ ] FONSI**
(to Be Determined following Public Review)

EA Prepared By: Carvel Bass _____ Ecologist, Civil Works Branch
Name Date Title
Reviewed By: Karen M. Kennedy _____ Chief, Civil Works Branch
Name Date Title