



**US Army Corps
of Engineers®**

Sepulveda Dam Basin

Los Angeles County, California

**Master Plan
and
Environmental
Assessment**

SEPTEMBER 2011

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

*Funding provided in part by
The American Recovery
And Reinvestment Act
(Public Law 111-5)*



**SEPULVEDA
WILDLIFE AREA**

'A SYMPHONY OF SOUNDS'



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EXECUTIVE SUMMARY

This *Master Plan and Draft Environmental Assessment for Sepulveda Dam Basin* is an update to the 1981 *Sepulveda Basin Master Plan and Final Environmental Impact Report/Statement* and 1995 *Supplement 1 to the 1981 Sepulveda Basin Master Plan Including Environmental Assessment*. The Federal project, Sepulveda Dam Flood Control Project, (Dam or Project) refers to the structures, amenities, and lands necessary for operation of the Dam. The Sepulveda Dam Basin (Basin) refers to the lands acquired for the construction, operation and maintenance of the Project. A U.S. Army Corps of Engineers (Corps) Master Plan for an authorized civil works project is a conceptual Project-specific document. It describes the existing resources in the Basin and provides a guide for Corps land management responsibilities and decisions in regard to project lands, water, and associated resources. The Master Plan provides direction and guidance for land development and utilization in the Basin pursuant to applicable Federal laws, regulations, and policies.

Since the 1981 Master Plan, the land and resource uses within the Basin and have changed significantly. Some of the recreation amenities proposed in the 1981 Master Plan were never built. The Sepulveda Basin Wildlife Area has been expanded, the Anthony C. Beilenson Park the Sepulveda Basin Off-leash Dog Park, Pedlow Field Skate Park, and a Universally Accessible Playground have been built, and Bull Creek has been restored. The updated Master Plan reflects changes in the Basin and the application of Federal laws, and Corps' regulations, policy, and guidance that have been amended or changed since the 1981 Master Plan.

This Master Plan and associated Environmental Assessment (EA) trace the history and development of the Basin and provides the baseline condition of existing resources and amenities. Four community workshops were held during the preparation of this Master Plan to: (1) provide information to the public about the Corps' master planning process; (2) identify the public's needs, desires, and concerns regarding current and future use of the Basin, and (3) gain feedback on existing and proposed changes to the existing land use classifications in the Basin.

Meetings were held with the City of Los Angeles (City), who leases a significant portion of the Basin from the Corps for recreational purposes. The City provided to the Corps information pertaining to current operations and maintenance, future plans, and current and future needs and goals. Visitation data was also provided by the City. Taken together and in light of an integrated ecological approach to land management, the Corps identified resource objectives for land uses as well as each land use classification in the Basin. Resource objectives shape Corps' decisions that pertain to future development and activities.

The Basin is classified according to land use classifications, which are dictated by Corps policies and guidance. The Master Plan recommends land at the Basin to be classified into six land use classifications: 1) Project Operations; 2) Recreation; 3) Environmentally Sensitive; 4) Multiple Resource Management - Recreation - Low Density; 5) Multiple Resource Management - Vegetative Management; and 6) Multiple Resource Management - Inactive and/or Future Recreation. The Master Plan provides guidance for balancing flood risk management requirements, recreation opportunities, and preservation of natural resources for current and future generations.

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INTRODUCTION

1.2 Purpose of a Master Plan

The Sepulveda Dam Basin Master Plan is a guide for the orderly and coordinated use, development, and management of resources within the Basin. Water, land, and other natural and human resources were assessed and existing conditions documented. Corps guidance for the preparation of Master Plans states that Master Plans shall:

- Be developed and kept current for all Civil Works projects and other fee-owned and easement lands for which the Corps has administrative responsibility for management;
- Provide guidance for project development and use and for the responsible stewardship of project resources for the benefit of present and future generations; and
- Promote the protection, conservation, and enhancement of natural, cultural and man-made resources.

The primary goals of a Corps' Master Plan are to prescribe overall land and water management plans, resource objectives, and management concepts, including:

- Providing the best possible combination of responses to regional needs, resource capabilities, land use suitability, and expressed public interest and desires consistent with authorized Project purposes;
- Contributing toward a high degree of recreation diversity within the region;
- Emphasizing the particular qualities, characteristics, and opportunities of the project; and
- Exhibiting consistency and compatibility with national objectives.

An Environmental Assessment (EA) was prepared in conjunction with this Master Plan update in accordance with the requirements of the National Environmental Policy Act (NEPA) (42 USC 4321 et seq.), Council on Environmental Quality (CEQ) regulations published at 42 CFR part 1500, and Corps regulations published at 33 CFR part 230. The purpose of the EA is to provide sufficient information on the existing environmental conditions within the Basin and the potential environmental effects of the No-Action Alternative (continuation of the 1981 Master Plan) and the Proposed Action (the updated Master Plan) so that decision makers can determine the need to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI). The EA is included as Appendix D.

1.2 Project Location

The Project is comprised of lands and appurtenances necessary for operation and maintenance of the Dam. It is located on the upper Los Angeles River in the San Fernando Valley about 17 miles northwest of the downtown Los Angeles and 2 miles southwest of the community of Van Nuys. The Project is entirely within the municipal limits of the City of Los Angeles, California. The purview of this Master Plan includes all Federal lands acquired and managed by the Corps

for the Project (Appendix E, Map 3). The Project is accessible by two 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 Project is also accessible from several local roads.



Sepulveda Dam

1.3 Authorized Project 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 all 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



Sepulveda Dam and Channel

channel rectification for flood risk management. The Project is an important part of a comprehensive plan for flood risk management in Los Angeles County known as the Los Angeles County Drainage Area (LACDA). 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. Since 1959, recreation amenities have been developed throughout the Basin by the City of Los Angeles Department of Recreation and Parks (City) in accordance with the lease between the Corps and City. Recreation amenities are described in detail in Section 4.

1.4 Need for Updated Master Plan

Federal lands are to be managed in conformance with current Corps' regulations, policy and guidance. This Master Plan memorializes the Corps' assessment of land management needs, expressed public desires, and provides guidance for evaluation of specific developments, uses and activities. Its purpose is to provide land development and utilization guidance that balances the needs and desires of the public with legal, policy, and resource constraints.

Current Federal laws, regulations, and policies are responsive to increasing needs for environmental protection and conservation. Corps' policies recognize a greater need for environmental stewardship that includes conservation and protection of the Nation's natural resources. Consequently, the updated Master Plan reflects a more integrated ecological approach to land management.

The purpose of this Master Plan is to review existing land uses and resources within the Basin, describes the needs and desires of community stakeholders, prescribe land use classifications for the Basin and identify resource and land use objectives. The Master Plan is the Corps' guide for management of the Basin's natural resources.

1.5 History of the Basin

While a need for flood risk management in the coastal drainages of Los Angeles County was recognized before 1900, the emphasis on the need for flood risk management increased after the floods of January and February 1914. On 12 June 1915, Los Angeles County Flood Control District (LACFCD) was created. This new County agency worked with the Corps on various minor flood risk management projects, but it was not until two decades later that major flood risk management projects were given serious consideration. The flood of 1 January 1934 emphasized the need for flood risk management projects in southern California. The New Deal Relief and Public Works Program provided the financial vehicle for comprehensive construction programs.

In 1935 and 1936, the Corps and LACFCD became partners in a large Works Progress Administration (WPA) contract to design a comprehensive flood risk management plan for the Los Angeles, Santa Ana, the San Gabriel Rivers and their tributaries in Los Angeles County (Corps 1938). The Definite Project Report for the control of the Los Angeles River was submitted in December 1936. The severe storms and floods of February-March 1938 provided additional impetus for a comprehensive flood risk management program in southern California.



Sepulveda Dam Construction 1940

Sepulveda Dam forms part of the LACDA system of flood risk management structures located on the San Gabriel and the Los Angeles Rivers and their tributaries.

The analysis of design, completed in 1939 and revised in 1941, established the location and design of the Dam and appurtenant flood risk management amenities. Construction of the Dam, spillway, and outlet works that exist today was completed in December 1941 at a Federal first cost of \$6,650,561.

Until the housing boom following World War II, the San Fernando Valley (Valley) was a major agricultural center of California. Following the war, development of housing units increased dramatically and with it a growing population. In 1950, at the time of development of the 1953 Master Plan, the “Master Recreation Plan Flood Control Reservoir”, the population of the City of Los Angeles stood at 1,970,358. This compares to a population of 3,694,820 in 2000 according to the U.S. Census Bureau. According to the 1953 Master Plan, the population of the San Fernando Valley in 1950 was 311,016 and the future population based on ultimate development under existing zoning and trends was expected to be 1,848,093.

Residential development of the Valley increased the need for recreation amenities. The Corps and the City entered into a lease on 11 June 1951 for a term of 50 years “to use and occupy for public park and recreational purposes and purposes incidental thereto, approximately 2,000 acres of land...” (Corps,1953). With the approval of the 1953 Master Plan recreational development



Sepulveda Ball Park Being Constructed, June 1955

of the Basin began in earnest with actual construction commencing in 1959. The City continues to develop, operate, and maintain recreation amenities at the Basin together with the Corps.

1.6 Applicable Laws, Executive Orders, Regulations, and Policy Guidance

The following Federal laws, Executive Orders, and Corps regulations and guidance are pertinent to the Master Plan update.

1.6.1 Public Laws

The Flood Control Act of 1944, Section 4, as amended (16 USC Section 460d) authorizes the Corps to construct, maintain and operate public park and recreation amenities at water resource development projects; to permit construction of such amenities by local interests; to permit the maintenance and operation and maintenance of such amenities by local and interests; and to grant leases for public park and recreational purposes on Federally-owned lands controlled by the Corps, including structure or amenities thereon. Preference for use is given to Federal, state,

or local governmental agencies. The authority to issue licenses is included under this authorization and may be granted without monetary consideration.

The National Environmental Policy Act of 1969, as amended (42 USC 4321 et seq.) provides a framework for Federal agencies to minimize environmental damage and requires Federal agencies to evaluate the potential of environmental impacts of their proposed actions. Under NEPA, a Federal agency prepares an Environmental Assessment (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.

The Migratory Bird Treaty Act, as amended (16 USC 703-712) prohibits the taking or harming of any migratory bird, the living bird, any part of the bird, its eggs, or eggs without an appropriate Federal permit. This Act covers birds specifically listed therein or named in wildlife treaties between the United States and countries, including Great Britain, Mexican States, Japan and countries once part of the former Soviet Socialist Republics. Disturbance of the nest of a migratory bird requires a permit issued by the United States Fish and Wildlife Service (USFWS) pursuant to Title 50 of the Code of Federal Regulations.

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 for any purpose whatever, including navigation and drainage, consult with the United States, Fish and Wildlife Service. The Act is intended to give fish and wildlife conservation equal consideration with the purposes of water resource development projects.

The Federal Water Project Recreation Act of 1965, as amended (16 USC 460l-12 to 460l-21), requires that recreation and fish and wildlife enhancement be given full consideration in Federal water development projects. The Act authorizes the use of Federal water resource project funds for land acquisition in order to establish refuges for migratory waterfowl.

The Clean Water Act, as amended (33 USC 1251-1387) authorizes water quality programs; requires certification from the state water control agencies that a proposed water resource project is in compliance with established effluent limitations and water quality standards (Section 401); establishes conditions and permitting for discharges of pollutants under the national pollutant discharge elimination system (NPDES) (Section 402); and requires that any non-Corps entity acquire a permit from the Corps for any discharges of dredged materials into the waters of the United States, including wetlands (Section 4040). The Act also defines the conditions which must be met by Federal projects before they may make discharges into the waters of the United States. Under the Section 404(b)(1) guidelines, as published in 40 CFR 122.6, only the Least Environmentally Damaging Practicable Alternative should be recommended. The United States Environmental Protection Agency (EPA) has primary responsibility for implementing the programs designed to clean up waters of the United States.

The Clean Air Act, as amended (42 USC 7401-7671q), establishes Federal standards for seven toxic air pollutants. It also establishes attainment and maintenance of National Ambient Air Quality Standards (Title I), motor vehicles and reformulation (Title II), hazardous air pollutant (Title III), acid deposition (Title IV), operation permits (Title V), stratospheric ozone protection (Title VI), and enforcement (Title VII). Under Section 176(c) of the Clean Air Act Amendments of 1990, the Lead Agency is required to make a determination of whether the Proposed Actions “conform” to the State Implementation Plan (SIP). Conformity is defined in Section 176(c); compliance with the SIPs is for the purpose of eliminating or reducing the severity and number of violations of the NAAQS and achieving expeditious attainment of such standards. If the total direct and indirect emissions from a Proposed Action are below the General Conformity Rule “*de minimus*” emission thresholds, then a Proposed Action would be exempt from performing a comprehensive Air Quality Conformity Analysis, and would be in conformity with the SIP. In addition, the analysis must consider whether the emissions would be “regionally significant” before determining no comprehensive Air Quality Conformity Analysis is required.

The Endangered Species Act of 1973, as amended (16 USC 1531 et seq.), protects threatened and endangered species, as listed by the USFWS, from unauthorized take, and directs Federal agencies to ensure that their actions do not jeopardize the continued existence of such species. Section 7 of the Act defines Federal agency responsibilities for consultation with USFWS.

The Archaeological and Historic Preservation Act, as amended (16 USC 469), requires that Federal agencies consider the effect of their undertakings, including Federally-licensed activity or program, on historic American sites, buildings, objects, and antiquities of national significance when taking actions that include, but are not limited to, flooding, the building of access roads, relocation of railroads or highways, and other alterations of the terrain caused by the construction of a dam.

The National Historic Preservation Act of 1966, as amended (16 USC 470 et seq.), requires that Federal agencies consider the effect of their undertakings, including federally licensed activities or programs, on properties eligible for the National Register of Historic Places (NRHP).

The American with Disabilities Act of 1990, as amended, (42 USC 126 et seq.), prohibits public entities, defined as any state or local government, or division thereof, from excluding any individual with a disability from participation in or be denied the benefits of the services, programs, or activities of a public entity, or be subjected to discrimination by any such entity. A "qualified individual with a disability" is an individual with a disability who, with or without reasonable modifications to rules, policies, or practices, the removal of architectural, communication, or transportation barriers, or the provision of auxiliary aids and services, meets the essential eligibility requirements for the receipt of services or the participation in programs or activities provided by a public entity.

Leases: Non-Excess Property of Military Departments and Defense Agencies, as amended, (10 USC 2667(a)), authorizes the Corps to lease Federal land under its control to non-Federal entities when such use will promote the national defense or to be in the public interest. Lands considered for lease under this authority must not be necessary for public use and is not considered excess. This leasing authority typically applies to uses that are considered “non-recreational.”

Easements for Rights of Way, as amended (10 USC 2688), authorizes the Corps to issue easements for rights-of-way over, in, and upon Federal land controlled by the Corps when such use will not be against the public interest.

1.6.2 Executive Orders

Executive Order (EO) 11514, Protection and Enhancement of Environmental Quality, amended by Executive Order 11991, Relating to Protection and Enhancement of Environmental Quality, 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. CEQ regulations include procedures for early environmental impact statement (EIS) preparation and require impact statements to be concise, clear, and supported by evidence that agencies have made the necessary analyses.

Executive Order 11988, Floodplain Management, outlines the responsibilities of Federal agencies in the role of floodplain management. Federal agencies are required to evaluate the potential effects of actions on floodplains, and should avoid undertaking actions which directly or indirectly induce growth in the floodplain or adversely affect natural floodplain values. Construction of structures and amenities in floodplains must consider alternative approaches that avoid adverse effects and incorporate flood proofing and other accepted flood risk management measures. Agencies shall attach appropriate use restrictions to property proposed for lease, easement, right-of-way, or disposal to non-Federal public or private parties. This EO requires Federal agencies to provide leadership and take action to: (1) avoid development in the base (100-year) floodplain unless it is the only practicable alternative; (2) reduce the hazards and risk associated with floods; (3) minimize the impact of floods on human safety, health and welfare; and (4) restore and preserve the natural and beneficial values of the base floodplain.

Executive Order 11990, Protection of Wetlands, states that the Federal agencies shall take action to minimize 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. Federal agencies shall also provide opportunity for early public review of any plans or proposals for new construction in wetlands.

Executive Order 12088, Federal Compliance with Pollution Control Standards, requires all Federal agencies to ensure 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.

Executive Order 12898, Environmental Justice in Minority Populations and Low-Income Populations, requires Federal agencies to identify and address disproportionately high and

adverse impacts of Federal Actions, including Federal licensed actions, programs, policies, or activities, on minority or low income populations in the United States.

Executive Order 13112, Invasive Species, requires Federal agencies to expand and coordinate efforts to prevent the introduction of invasive species and to minimize the economic, ecological, and human health impacts that invasive species may cause.

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

1.6.3 Corps' Guidance

The following paragraphs list Engineer Regulations (ER), Engineer Pamphlets (EP), and Engineer Manuals (EM) published by the Corps that are pertinent for planning, development, and management of the Basin. These Corps documents are cited with their initial publication date and updates using a system of changes to specific pages to incorporate modifications to the guidance resulting from new legislation or policy changes. The documents including changes are available in digital format at the publications page on the Corps' Headquarters website at <http://140.194.76.129/publications/>.

- Engineer regulations (ER) establish topic-specific procedural practices that must be followed at Corps District levels.
- Engineer pamphlets (EP) provide clarification guidance and/or detailed implementation guidance in support of Federal laws and regulations.
- Engineer manuals (EM) are documents which provide comprehensive planning and design guidance for a wide range of technical and functional activities.

Engineering Regulations

ER 200-1-5, Policy for Implementation and Integrated Application of the U.S. Army Corps of Engineers Environmental Operating Procedures (EOP) and Doctrine, 30 Oct 2003, provides specific policy and guidance for implementation and the integrated application of the Corps' EOP and associated doctrine across the full spectrum of Corps' program management initiatives and business processes.

ER 200-2-2, Environmental Quality: Policy and Procedures of Implementing NEPA, 04 Mar 1988, (33 CFR part 230), provides policy and procedural guidance to supplement the Council of Environmental Quality's final regulations implementing the procedural provisions of the NEPA for the Civil Works Program of the Corps.

ER 200-2-3, Environmental Compliance Policies, 29 Oct 2010, provides the policy for the management of environmental compliance-related operations and maintenance activities for the U.S. Army Corps of Engineers Civil Works Projects.

ER 405-1-12, Real Estate Handbook, 20 Nov 1985, provides guidance on real estate requirements and procedures, including guidance on appraisals, acquisitions, relocation assistance, homeowners' assistance, real estate claims, audits, and recording and reporting.

ER 1105-2-100, Planning Guidance Notebook, 22 Apr 2000 (original); 30 Jun 2004 (Appendix D - Amendment 1); 31 Jan 2007 (Appendix F - Amendment 2); 30 Jun 2004 (Appendix G – Amendment 1); 20 Nov 2007 (Appendix H – Amendment 1), provides overall direction by which the Corps Civil Works projects are formulated, evaluated and selected for implementation. It contains a description of the Corps planning process, Corps missions and programs, specific policies applicable to each mission and program, and analytical requirements.

ER 1110-2-240, Water Control Management, 08 Oct 1982; 30 Apr 1987 (change 1); 01 Mar 1994 (change 2), prescribes policies and procedures to be followed by the Corps in carrying out water control management activities, including the establishment of water control plans for Corps and non-Corps projects, as required by Federal laws and directives.

ER 1110-2-400, Design of Recreation Sites, Area and Amenities, 31 May 1988, establishes policy, and guidance for the design of recreation sites, areas, and amenities.

ER 1130-2-530, Flood Control Operations and Maintenance Policies, 30 Oct 1996, establishes the policy for the operation and maintenance (O&M) of Corps flood risk management and related structures at civil works water resource projects and of Corps-built flood risk management projects operated and maintained by non-Federal sponsors.

ER 1130-2-540, Environmental Stewardship Operations and Maintenance Guidance Procedures, 15 Nov 1996 (Original); 04 Nov 2002 (change 1); 31 Jul 2005 (change 2); 11 Aug 2008 (change 3), establishes land management policy for Corps- administered project lands and water, based on various authorizing legislation and the principles of good environmental stewardship. Environmental stewardship includes both passive and proactive management to sustain healthy ecosystems and biodiversity, and conserve natural resources, such that Corps lands and waters are left in a condition equal to or better than their condition when acquired, and such that those natural and cultural resources are available to serve the needs of present and future generations. Management plans will be prepared for all Corps administered lands and waters.

ER 1130-2-550, Recreation Operations and Maintenance Policies, 15 Nov 1996 (Original); 01 Oct 1999 (change 1); 01 Mar 2002 (change 2); 15 Aug 2002 (change 3); 30 Aug 2008 (change 4); 30 Mar 2009 (change 5), establishes the policy for management of recreation programs and activities, and for the operation and maintenance of U.S. Army Corps of Engineers recreation amenities and related structures, at civil works water resource projects. Chapter 3 of this regulation calls for preparation and implementation of project Master Plans and operational management plans.

ER 1165-2-26, Implementation of Executive Order 11988 on Floodplain Management, 30 Mar 1984, sets forth general policy and guidance for Corps implementation of Executive Order 11988, Floodplain Management, as it pertains to planning, design, and construction of Civil Works projects, to activities under the operation and maintenance program, and to the real estate program of the Corps. 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. The decision on whether a practicable alternative exists will be based on weighing the advantages and disadvantages of floodplain sites and non-floodplain sites. Factors to be taken into consideration include, but are not limited to, conservation, economics, esthetics, natural and beneficial values served by floodplains, impact of floods on human safety, location advantage, the functional need for locating the development in the floodplain, historic values, fish and wildlife habitat values, endangered and threatened species, Federal and State designations of wild and scenic rivers, refuges, etc. and, in general, the needs and welfare of the people. The test of practicability will apply to both the proposed Corps action and to any induced development likely to be caused by the action. Identification and evaluation of practicable alternatives shall include consideration of alternative sites (carrying out the proposed action outside the floodplain); alternative actions (other means which accomplish the same purpose as the proposed action); and no action. When a determination is made that no practicable alternative to undertaking an action in the floodplain exists, it will be appropriately documented and the features or qualities of the floodplain that make it advantageous over alternative non-floodplain sites shall be described and adequately supported.

ER 1165-2-119, Modifications to Completed Projects, 20 Sep 1982, provides guidance on the use of available authorities, as compared to the need of new project authorizations, for study and accomplishment of modification to completed projects.

ER 1165-2-400, Recreational Planning, Development, and Management Policies, CH1, 09 Aug 1985, defines the objectives, philosophies, and basic policies for the planning, development and management of outdoor recreation and enhancement of fish and wildlife resources at Corps water resource development projects.

ER 1165-2-501, Civil Works Ecosystem Restoration Policy, 30 Sep 1999, provides policy on Corps involvement in ecosystem restoration and protection through Civil Works programs and activities.

Engineering Pamphlets

EP 1165-2-316, Rules and Regulations Governing Public Use of Water Resources Development Projects Administered by the Chief of Engineers, May 2000; codified as 36 CFR part 327, establishes rules and regulations pertaining to the recreational land use and safety measures at Corps administered water resource and development projects.

EP 310-1-6, Corporate Information: Graphic Standards Manual, 01 Sep 1994 (original); 01 Jun 2006 (change 1), establishes a unified approach regarding the use of Corps logotype and

preparation of visual communications. The manual covers the use of the logo in business cards, signs, publications, forms, vehicles, and miscellaneous items.

EP 310-1-6a, 232 Sign Standards Manual, VOL 1, 01 Jun 2006, provides direction and guidance for signage, including planning, use, placement, materials, and maintenance, at Corps Civil Works water resource projects.

EP 310-1-6b, Sign Standards Manual, VOL 2, Appendices, 01 Jun 2006, provides guidance on procurement procedures, materials and specifications, sign maintenance procedures, typography reference, reference material, and reproduction materials for signage at Corps water resource projects.

EP 1130-2-429, Volunteer Coordinator's Handbook, 30 Apr 1993, provides assistance to volunteer program coordinators in preparing volunteer management plans, and guidance on procedures for administering effective volunteer programs at Corps projects and offices.

EP 1130-2-540, Environmental Stewardship and Maintenance Guidance and Procedures, 15 Nov 1996 (original); 04 Nov 2002 (change 1); 31 Jul 2005 (change 2); 11 Aug 2008 (change 3), establishes guidance for the management of environmental stewardship-related operations and maintenance activities at Corps civil works water resource projects and supplements ER 1130-2-540, Environmental Stewardship Operations and Maintenance Policies.

EP 1130-2-550, Project Operations-Recreation Operation and Maintenance Guidance and Procedures, 15 Nov 1996 (original); 01 Oct 1999 (change 1); 01 Mar 2002 (change 2); 15 Aug 2002 (change 3); 30 Aug 2008 (change 4), establishes guidance for the management of recreation programs and activities, and for the operation and maintenance of Corps recreation amenities and related structures, at civil works water resource projects and supplements ER 1130-2-510, Recreation Operation and Maintenance Policies. Master Plans and operational management plans are to be developed in accordance with the guidance on master planning and report content contained in Chapter 3 of both ER and EP 1130-2-550.

EP 1165-2-502, Ecosystem Restoration – Supporting Policy Information, 30 Sep 1999, provides policy information in support of ER 1165-2-501 to guide Corps of Engineers involvement in ecosystem restoration and protection through Civil Works programs and activities.

Engineering Manuals

EM 1110-1-400, Recreation Facility and Customer Services Standards, 01 Nov 2004, provides general guidance for the rehabilitation of existing, and the design and construction of new recreation areas and amenities, the provision of customer services, and recreation program evaluation activities at recreation areas managed by the Corps of Engineers. The overall purpose of this document is to establish a uniform level of quality nationwide by which Corps-managed parks will meet the needs of current and future park customers.

EM 1110-2-410, Design of Recreation Areas and Amenities – Access and Circulation, 31 Dec 1982, presents data compiled from experience and research that may be useful to Corps

personnel concerned with the design of access and circulation to recreation sites, areas and amenities. The material presented in the manual is intended as design guidance for obtaining an end product which results in safe, useable, economical recreation developments and accessible to all.

South Pacific Division Regulations

SPDR 1110-2-1, Land Development Proposals at Corps Reservoir Projects, Nov 2001, establishes South Pacific Division (SPD) policy for evaluating land development proposals within Basins of the Corps, and documenting the results of the evaluation. The policies of this division regulation detail the procedures to be followed in evaluating land development proposals by any entity (companies, organizations, private parties, governments, or agencies) to construct buildings, roads, or other amenities, or in any way would modify the land forms, vegetation, surface characteristics, or use lands within a Basin operated by the Corps for flood risk management. The objective is to assure that project purposes are not compromised, that the public is not endangered, and that natural and cultural resources associated with project lands are not harmed.

1.7 Pertinent Publications

U.S. Army Corps of Engineers Publications

U.S. Army Corps of Engineers, Los Angeles District, *Analysis of Design, 57'x10' Crest Gates for Sepulveda Dam*, 1937

U.S. Army Corps of Engineers, Los Angeles District, *Flood Control in the Los Angeles County Drainage Area*, 1938

U.S. Army Corps of Engineers, Los Angeles District, *Analysis of Design, Sepulveda Dam, Vol. I*. (Revised 1941)

U.S. Army Corps of Engineers, Los Angeles District, *Flood Control in the Los Angeles County Drainage Area*, 1939

U.S. Army Corps of Engineers, Los Angeles District, *Hydrology in the Los Angeles County Drainage Area*, 1939

U.S. Army Corps of Engineers, Los Angeles District, *Analysis of Design, Balboa Blvd, Bridge Vol. III*, 1940

U.S. Army Corps of Engineers, Los Angeles District, *Preliminary Report, Recreational Development, Sepulveda Flood Control Basin*, 1947

U.S. Army Corps of Engineers, Los Angeles District, *Report, Master Recreation Plan Sepulveda Flood Control Reservoir*, 1953

- U.S. Army Corps of Engineers, Los Angeles District, *Administration and Development of Project Land and Water Areas*, 1956
- U.S. Army Corps of Engineers, Los Angeles District, *Sepulveda Dam and Reservoir, Periodic Inspection and Continuing Evaluation Report*, 1970.
- U.S. Army Corps of Engineers, Los Angeles District, *Operation and Maintenance Manual for Sepulveda Dam, Los Angeles River Improvement, Los Angeles County Drainage Area, California*, 1970
- U.S. Army Corps of Engineers, Los Angeles District, *Revised Recreation Master Plan for Sepulveda Flood Control Reservoir, Los Angeles River Feature Design Memorandum No. 1*, 1973
- U.S. Army Corps of Engineers, Los Angeles District, *Final Environmental Impact Report for Sepulveda Water Reclamation Plant, Bureau of Engineering, City of Los Angeles*, 1975
- U.S. Army Corps of Engineers, Los Angeles District, *Operations and Maintenance Manual, Los Angeles County Drainage Area*, 1975
- U.S. Army Corps of Engineers, Los Angeles District, *Plan of Study, Review Report for Flood Control and Allied Purposes, Los Angeles County Drainage Area*, 1976
- U.S. Army Corps of Engineers, Los Angeles District, *Supplement No. 2 to Feature Design Memorandum/Proposal Fiscal Year 1978, Recreational Development*, 1978
- U.S. Army Corps of Engineers, Los Angeles District, *Interim Report on Hydrology and Hydraulic Review of Design Features of Existing Dams for LACDA Dam*, 1978.
- U.S. Army Corps of Engineers, Los Angeles District, *Sepulveda Basin Master Plan and Final Environmental Impact Report/Statement, Los Angeles, California*, 1981
- U.S. Army Corps of Engineers, Los Angeles District, *Final Report, Review of Water Resources within the Los Angeles County Drainage Area*, 1985
- U.S. Army Corps of Engineers, Los Angeles District, *Conceptual Design Material Sepulveda Basin Recreation Lake Water Supply and Discharge Amenities*, 1986
- U.S. Army Corps of Engineers, Los Angeles District, *An Evaluation Report, Sepulveda Recreation Lake*, 1986
- U.S. Army Corps of Engineers, Los Angeles District, *Final Environmental Assessment Sepulveda Recreation Lake and Wildlife Area Los Angeles County, California*, 1987
- U.S. Army Corps of Engineers, Los Angeles District, *Sepulveda Basin Recreation Lake Feature Design Memorandum*, 1987

U.S. Army Corps of Engineers, Los Angeles District, *Los Angeles County Drainage Area, Recreation Review*, 1988

U.S. Army Corps of Engineers, Los Angeles District, *Supplemental Environmental Assessment for the Design Refinements to the Sepulveda Recreation Lake, Los Angeles County, California*, 1988

US Army Corps of Engineers, Los Angeles District (Corps), *Water Control Manual, Sepulveda Dam & Reservoir, Los Angeles River, California*, 1989

U.S. Army Corps of Engineers, Los Angeles District, *Los Angeles County Drainage Area Review, Final Feasibility Report*, 1991

U.S. Army Corps of Engineers, Los Angeles District, *Final Report, Biological Assessment of Haskell Creek, Los Angeles, California*, 1992

U.S. Army Corps of Engineers, Los Angeles District, *Conceptual Management Plan for the Sepulveda Basin Wildlife Area*, 1994

U.S. Army Corps of Engineers, Los Angeles District, *Supplement 1 to the 1981 Sepulveda Basin Master Plan, Including Environmental Assessment*, 1995

U.S. Army Corps of Engineers, Los Angeles District, *Los Angeles River Feature Design Memorandum*, 1996

U.S. Army Corps of Engineers, Los Angeles District, *Detailed Project Report Bull Creek Channel Ecosystem Restoration, Los Angeles County, California*, 2003

U.S. Army Corps of Engineers, Los Angeles District, *Final Special Needs Ball Field at Anthony C. Beilenson Park, Environmental Assessment/Initial Study/Mitigated Negative Declaration*, 2009

City of Los Angeles Publications

City of Los Angeles, Department of Recreation and Parks, *Draft Environmental Impact Report for Sepulveda Basin Tennis Complex*, 1976

City of Los Angeles, Department of Public Works, *Environmental Assessment/ Mitigated Negative Declaration and Initial Study for the Sepulveda Basin Sports Complex*, 2006

City of Los Angeles, Department of Public Works, *Los Angeles River Revitalization Master Plan*, 2007

City of Los Angeles, Department of Recreation and Parks, *Citywide Community Needs Assessment*, 2009

2 PROJECT DESCRIPTION

2.1 Project Data

The Project consists of an earth-fill embankment with a reinforced concrete spillway and outlet works. Pertinent Project data has been summarized in Table 2.1. The Dam is an un-zoned, impervious, rolled-earth embankment with a crest length, including outlet works and spillway, of 15,444 feet (2.93 miles) at top-of-dam elevation 725 feet National Geodetic Vertical Datum (NGVD) and a crest width of 30 feet. The maximum height above the original Los Angeles River streambed is 57 feet. The upstream slope is 1 vertical (V): 3 horizontal (H) and the downstream slope is 1V:4H. The upstream slope is protected by grouted stone paving. One flank of the Dam's embankment extends southwest from the outlet works, then west alongside the Ventura Freeway (merging with the freeway embankment for approximately 0.6 miles). The other flank extends northeast, then north, along Interstate 405 (San Diego Freeway) (merging with the freeway embankment for approximately 1.1 miles).



The outlet works are located at the southwest end of the spillway and aligned to discharge into the Los Angeles River. Inflow to the outlet works is from the northwest via the approach channel of the Los Angeles River. The outlets of the Dam are installed in a concrete section, 83 feet in width. Outflow is discharged through four gated outlets, 6 feet wide by 9 feet high, and four un-gated outlets, 6 feet wide by 6.5 feet high. All outlet entrance inverts (sometimes referred to as the gated sill) are at elevation 668 feet. The four gated outlets are in the center of the outlet works, with two un-gated outlets on each side. The hydraulically operated, vertical lift type gates open and close about one foot per minute and may be locked in any position. The outlet works are equipped with trash racks on the upstream side to prevent debris from obstructing the outlets or washing downstream. Downstream of the conduit outlet portals, piers 13 feet in length provide a smooth transition to the flow from the eight conduits to the downstream channel. Below the piers, the outflow discharges into a rectangular concrete channel, which is 83 feet wide for a distance of 294 feet, then tapers over a 400-foot transition, to a width of 50 feet. The channel invert, from the portal piers through the transition taper, is designed on a slope of 0.00924, which is sufficient to prevent backwater in the conduits and to ensure smooth flow through the transition for discharges up to at least 15,300 cubic feet per second (cfs). The combined maximum capacity of the outlets is 16,500 cfs at a Basin water surface elevation of 710 feet, which is the elevation of the top of the spillway gates in closed position. The flow conveyance

capacity of the Los Angeles River channel increases progressively as water flows downstream of the Dam. A control house is located on top of the Dam. Commercial power is supplied for lighting with standby power available (Corps 1989).

Table 2.1 Sepulveda Dam and Basin Pertinent Data	
General Information	
Construction Completed	May 1941
Stream System	Los Angeles River
Drainage Area	152 square miles
Basin	
Elevation	
Top of spillway gates (raised position)	10 ft, NGVD
Flood control pool ¹	712 ft, NGVD
Spillway design surcharge level	716.7 ft, NGVD
Top of Dam	725 ft, NGVD
Spillway gates begin to automatically lower	712 ft, NGVD
Spillway gates complete automatic lowering	715 ft, NGVD
Area²	
Top of spillway gates (raised position)	1,348 acres
Flood control pool	1,444 acres
Fixed spillway crest	794 acres
Fixed spillway design surcharge level	1,715 acres
Top of Dam	2,591 acres
Capacity, Gross¹	
Top of spillway gates (raised position)	18,12 ac-ft
Flood control pool	20,920 ac-ft
Fixed spillway crest	7,280 ac-ft
Spillway design surcharge level	28,713 ac-ft
Top of Dam	46,764 ac-ft
Allowance for sediment	0 ac-ft
Dam: Type	
Earthfill	
Height above original streambed	57 ft
Top length	15,440 ft
Freeboard	30 ft
Spillway: Type	
Concrete ogee	
Crest length	399ft
Crest elevation	700 ft, NGVD

Table 2.1 Sepulveda Dam and Basin Pertinent Data	
Design surcharge	6.7 ft
Design discharge	99,540cfs
Outlets	
Uncontrolled	
Number and Size	4- 6'W x 6.5'H
Entrance invert elevation	668 ft, NGVD
Controlled	
Gates - type	Vertical Lift
Number and size	4 - 6'W x 9'H
Entrance invert elevation	668 ft, NGVD
Rectangular Conduits (Number and Size)	
Ungated	4 - 6'W x 6.5'H
Gated	4 - 6'W x 9'H
Length	40 ft
Maximum capacity at spillway crest	16,500cfs
Regulated capacity at spillway crest	16,500 cfs
Standard Project Flood	
Duration (inflow)	3 days
Total volume (including base flow)	68,200 ac-ft
Inflow peak	50,000 cfs
Probable Maximum Flood	
Duration (Inflow)	4 days
Total volume	163,200 ac-ft
Inflow peak	114,000 cfs
Historic Maximums	
Maximum mean hourly inflow (Date)	58,970 cfs (2-16-1980)
Maximum outflow (Date)	15,320 cfs (2-16-1980)
Maximum storage (Date)	11,470 ac-ft (2-16-1980)
Maximum water surface elevation	705.1 ft, NGVD (2-16-1980)
¹ Storage below elevation 710 ft is exclusively dedicated to flood control. Between elevation 710 ft and 712 ft the storage is used for flood control until the spillway gates begin to lower when the pool exceeds elevation 712 ft. ² Based on November 2004 Survey. Source: Corps 1989.	

The spillway is a reinforced concrete ogee section of the overflow gravity type, having a gross length of 469 feet and a crest elevation of 700 feet, NGVD1929. The spillway has seven submersible drum gates, each 57 feet long. A drum gate is designed to float on water in a chamber located in the spillway crest. The water, which is being spilled, flows over the top of the drum onto the ogee section of the spillway. The drum is raised by hydrostatic pressure and its

range of operation is from its lower limit where the top of the drum is at the spillway crest elevation (fully open) to its upper limit where the top of the drum corresponds to full pool level (fully closed). The drum gates are separated by six 10-foot-wide piers, with a 5-foot-wide pier abutting each end of the spillway. The total net spillway width over which water can pass is thus 399 feet. The approach to the spillway is a gently sloping unpaved earthen ramp, rising from the approach channel to an elevation of 680 feet (Corps 1989).

The Project was designed with operable crest gates instead of with a fixed spillway. This was done in order to minimize the water surface elevation of a spillway design flood, and hence minimize the height of the top of the Dam, saving on both construction costs and the amount of land acquired for the Basin. With a fixed spillway elevation, flow over the spillway crest would increase gradually as the water would rise above the Basin design flood elevation (and spillway crest elevation) of 710 feet. With moveable spillway crest gates, on the other hand, the lowering of these gates would allow for a much greater discharge from the Basin at heights not greatly in excess of the spillway crest. The seven crest gates (submersible drum gates) are made of structural steel, with each complete gate assembly weighing about 50 tons. These gates are designed to rise with the ogee section in unison to a maximum elevation of 710 feet, which is the elevation that an uncontrolled spill begins to occur. The gates are set for fully automatic operations, but can also be operated in semi-automatic or emergency manual modes. The crest gates are designed to operate automatically as the water surface elevation rises above 692.5 feet. This operation is essential to prevent overtopping and failure of the embankment of the Dam by a probable maximum flood (Corps 1989).

2.2 Hydrology and Basin Operations

The Project provides flood risk management to the areas and communities adjacent to the Los Angeles River. The control or regulation of flood runoff into the Basin is governed by the Water Control Manual (Corp 1989), which includes a description of the water control plan and provides extensive background information on the history of the project, watershed characteristics, hydrologic data collection systems, hydrologic forecasting, agency responsibilities, and coordination for water control management. The water control manual, as well as the current hydrologic status of the Dam is available on the Corps' Reservoir Regulation website (Corps 2010a).

The Project consists of an 57-foot high earthen embankment with a crest length of 15,440 feet at top of Dam elevation 725 feet, National Geodetic Vertical Datum (NGVD); an outlet works with 4 vertical lift gates plus 4 un-gated conduits to regulate the release of floodwaters to the downstream Los Angeles River channel; and a concrete ogee spillway with 7 automated submersible drum gates located near the center of the Dam embankment that serves as a safety valve to pass floodwaters that exceed the storage capacity of the Basin. The lowest point in the Basin is the entrance to the outlet works at elevation 668 feet NGVD, and the fixed spillway crest elevation is 700 feet NGVD. With the spillway gates in fully raised position the water surface can rise to elevation 710 feet before spillway flow begins. When water surface elevation exceeds 712 feet NGVD, the spillway gates begin to gradually lower to pass larger flood flows.

Water control operations described in the water control plan uses the Basin storage space (18,129 acre-feet at elevation 710 feet NGVD as of 2004) in conjunction with the maximum scheduled

release of 16,500 cfs to control flood inflow events to the authorized carrying capacity of the downstream Los Angeles River channel. The authorized carrying capacity of the downstream channel varies throughout flood events depending on rainfall and flood runoff downstream of the Dam that use up a portion of the channel conveyance capacity. Therefore releases are reduced as necessary so as not to exceed the hydraulic capacity of the downstream channel.

2.2.1 Basin Filling Frequency

The frequency and areal extent of flood inundation affects Basin development and utilization. Project operations control flood inflows and results in periodic storage of storm waters within the Basin. A statistical analysis of water surface elevations over the period of time the Project has been operational determines filling frequency. Filling frequency refers to the relationship between Basin's maximum water capacity and how frequently these elevations are reached. Project filling frequency values are presented in Table 2.2 (Corps 2010b).

The Project's water surface elevation gage produces a continuous record of the Basin stage. The Project's filling frequency is used to develop a statistical relationship between water surface elevation and frequency. This statistically derived relationship was augmented by using the results of prior Corps hydrology studies that used inflow volume frequency and hydrograph routing procedures to estimate the frequency of occurrence of the less frequent (rarer) floods such as the 100-year, 200-year, and 500-year events. In Table 2.2, percent chance exceedance means, for example, that every year there is a 1-percent (1 out of 100) chance for the indicated Basin water surface (712 feet NGVD) elevation to be equaled or exceeded due to storm inflows. The elevation-frequency contours in Map 7 shows the Basin inundated for the 10-, 50-, and 100-year return period flood events as well as area inundated when the Basin pool elevation is at top of flood pool (712 feet). With regard to duration of Basin inundation, Project operations produce short periods of Basin inundation. Waters are released quickly (a matter of hours or days) in order to regain Basin storage space to capture future storm inflows.

Table 2.2 Sepulveda Dam Filling Frequency Relationship		
Percent Chance Exceedance	Return Period	Basin Stage (feet)
0.2	500	714.6
0.5	200	713.5
1.0	100	712.0
2.0	50	705.0
5.0	20	699.5
10.0	10	697.7
20.0	5	692.5
50.0	2	687.4
80.0	1.25	685.0
90.0	1.11	684.2
95.0	1.05	683.6
99.0	1.01	683.5

2.2.2 Operational Issues

Due to the urbanized nature of the watershed, the runoff response to rainfall is rapid with typically high peak discharges of relatively short duration. With the intensive use of the Basin for recreation and for transportation corridors (e.g., Burbank Boulevard and Woodley Avenue), Project inflows require that affected agencies and the public be given sufficient advance warning to minimize potential flood impacts and to ensure public safety. The trash rack in front of the outlet works occasionally becomes clogged from vegetative debris and trash accumulation that must be manually cleared. The lower portion of the trash-rack has been permanently removed to prevent trash buildup that would affect the capability of the Dam to make scheduled releases of flood waters.

The City of Los Angeles Bureau of Sanitation's, Donald C. Water Reclamation Plant (TWRP) is located within the Basin. A floodwall surrounding the TWRP protects the plant from inundation up to the one-percent chance exceedance event which is estimated as elevation 712 feet NGVD (Corps 1989). At higher water surface elevations, inundation of the treatment plant would result in contamination of surface waters from untreated or partially treated wastewater sewage. Continued increase of the water surface elevation will result in plant shut down and diversion of untreated sewage to the Los Angeles Hyperion Treatment Plant in Playa del Rey.

2.3 Real Estate

The Corps acquired a total of 2,131.9 acres in fee for construction, operations, and maintenance of the Project. Of the total acreage, the Corps reserves 313.0 acres, including 157.8 acres of roads, exclusively for operation of the Dam.

The City of Los Angeles (City) was granted a 50-year lease, effective 11 June 1951 through 10 June 2001, to develop 2,000 acres in the Basin for park and recreational purposes. Over time, the lease has been supplemented several times resulting in a total reduction of the acreage to 1,526.80 acres more or less. The term was extended to expire on 4 January 2042. Presently, two amendments are pending execution, which authorize construction of the Sepulveda Sports Complex and transfer of the Encino Park and Ride to the City of Los Angeles, Department of Transportation. The total acreage after execution of the outstanding amendments is 1586.86 acres more or less.

In 1954, a lease was granted to the West Valley Youth, Inc., a California nonprofit corporation to develop 5.5 acres as a baseball park for children. In 1979, the lease was modified and granted to Franklin Field, Inc., a California nonprofit corporation which increased the amount of leased land from 5.5 acres to approximately 28 acres and extended the term by 25 years to 2004. On 19 March 2003, a new lease was granted to Franklin Field, Inc., now Encino Franklin Field, Inc., for 22 years to run from 1 January 2003 to 31 December 2025. See Map 4.

Additionally, several leases have been granted in the Sepulveda Basin for non-recreational purposes, which include: a lease for 96.59 acres to the City of Los Angeles Bureau of Sanitation for the Donald C. Tillman Water Reclamation Plant; 10.53 acres to the City of Los Angeles Department of Public Works for a fire station; and a lease for 6 acres to the state of California for

a National Guard Armory. Two permits have been granted to the U.S. 6th Army for 5.1 acres for maintenance shops and for 25.91 acres for California Air National Guard amenities. A permit for 9.1 acres was granted to the Department of the Navy for a Reserve Training Center. Several parcels are leased for agriculture purposes. Easements have also been granted for waterlines, power-lines, sewer-lines, storm drains, gas-lines, and traffic arteries, such as freeways and city streets.

2.4 Watershed

The drainage area of the Los Angeles River and its tributaries above the Basin is 152 square miles, comprising the northwestern most portion of the Los Angeles River watershed, covering the western half of the San Fernando Valley and surrounding mountain slopes west of Interstate 405. The drainage area boundary on the south is formed 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 approximately north and south across the valley and generally along the San Diego Freeway. The headwaters of the Los Angeles River are in the Simi Hills formed by Chatsworth Creek, Dayton Canyon Wash, Bell Creek, and Arroyo Calabasas. The longest watercourse above the Basin is formed by the series of reaches of Devil Canyon, Brown's Canyon, and the Los Angeles River, about 19 miles long with an average slope of 143 feet per mile.



Los Angeles River Upstream of Sepulveda Dam

The Los Angeles River immediately downstream of the Dam is a rectangular reinforced concrete channel with a hydraulic capacity of 16,900 cfs. The Los Angeles River continues in an easterly then southerly direction in a lined channel of varying cross section shapes that increases in size

as it picks up largely urban tributary runoff on its way to the Pacific Ocean (Corps 1989). Appendix E, Map 1 and Map 5 show the watershed and Basin boundaries.

Sediment production within the drainage area above the Basin varies considerably according to terrain. In the urbanized valley areas, sediment production is at a minimum, and has been decreasing over the years as the extent and intensity of urbanization has increased. Upstream debris basins intercept part of this sediment load. The rate of sediment accumulation in the Basin, according to periodic surveys appears to be relatively minor, and is considered insignificant with respect to maintaining the Basin storage capacity (Corps, 1989).

2.5 Surrounding Land Uses

The communities of Encino, Lake Balboa, Reseda, Sherman Oaks, Tarzana, and Van Nuys border the Basin on all sides. The development surrounding the Basin is primarily residential with some commercial businesses and industrial development located to the east of the Dam along Sepulveda Boulevard and a mixture of residential and commercial development along Victory Boulevard. A high school and golf course are located on Victory Boulevard north of the Basin. Two major freeways, the Ventura Freeway (U.S. Highway 101) and the San Diego Freeway border the Basin on the southern and eastern sides. The Orange Line Bus-way runs along the northern edge of the Basin.

2.6 Market Area

Market area refers to the surrounding residential areas and communities that are within a reasonable proximity to the Basin. They are areas where individuals and/or families would be expected to travel from their home to take part in the Basin's recreation opportunities. Populations that utilize the recreational and natural areas of the Basin are considered the market demographic. The primary market demographic includes the residents of adjacent communities including Encino, Lake Balboa, Reseda, Sherman Oaks, Tarzana, and Van Nuys, as well as the City and County of Los Angeles. The market demographic is considered when identifying recreation and resource needs for the Basin.

Demographics considered in the master planning process include the 2000 population, estimated 2008 population, age distribution, ethnic heritage, household size, density of people per square mile, median household income, the percent of individuals living below the poverty level, and other statistics (Table 2.2). Overall population, household size, and density describe the sheer numbers of people that may utilize the Basin area for recreation purposes. The statistics obtained for the median household income and number of people living below the poverty level in the market area help to determine the need for free, or low cost, recreation activities. Ethnic and educational background assist in determining the need for signage, interpretative programs, educational enhancement, recreation types, and other activities to meet a broad spectrum of socioeconomic needs.

Population density describes the distribution of people in the market area and is an important demographic to consider in meeting the needs of the community. Los Angeles County is the third most densely populated county in California with 2,344 living in each square mile. The high density of people per square mile indicates that pressure on the natural environment and demand

for open space, recreational opportunities, and environmental protections is greater than other less densely populated areas in the state of California.

Table 2.3 Demographics of Greater Market Area for Sepulveda Dam Basin			
Community	Los Angeles County¹	City of Los Angeles¹	Local Communities²
2000 Population	9,519,338	3,694,820	328,845
2008 Population Estimation	9,832,137	3,833,995	351,311
Age Distribution	≤ 9 yrs. 16.1% 10-19 14.8% 20-54 52.0% ≥ 55 17.0%	15.8% 13.7% 53.7% 16.7%	16.0% ≤ 10 yrs. 9.1% 11-18 49.0% 19-49 26.9% ≥ 50
Ethnicity ³	Asian 11.9% Black 9.8% Latino 44.6% Native American 0.8% Pacific Islander 0.3% White 48.7% Other 23.5%	10.0% 11.2% 46.5% 0.8% 0.2% 46.9% 25.7%	6.9% 4.0% 28.9% n/a n/a 55.6% 4.5%
Household Size	3.0	2.8	2.6
Density (People per Square Mile)	2,344	7,877	7,505
Median Household Income	\$42,189	\$36,687	\$63,769
Individuals Living Below Poverty Level	17.4%	22.1%	n/a
High School Graduates	69.9%	66.6%	n/a
Bachelor's Degree or Higher	24.9%	25.5%	n/a
Living With a Disability	20.4%	21.7%	n/a
¹ Data taken from 2000 Census Data, American FactFinder. ² Data averaged from Table 2.1 above.			
³ Mixed-race ethnicities reported resulting in a total greater than 100%. n/a; data not reported in 2000 Census.			

Table 2.4 Demographics from Communities Surrounding the Basin.						
Community	Encino	Lake Balboa	Reseda	Sherman Oaks	Tarzana	Van Nuys
2000 Census Population	41,905	24,238	62,174	61,166	35,502	103,770
2008 Estimated Population	44,581	26,195	66,574	65,436	37,778	110,747
Age Distribution	≤ 10 yrs 10% 11-18 8% 19-49 43% ≥ 50 38%	16.1% 9.7% 49.8% 24.3%	17.8% 11.0% 48.9% 22.2%	10.4% 6.0% 55.0% 28.5%	13.5% 9.2% 44.9% 32.4%	21.1% 10.5% 52.6% 15.8%
Ethnicity	Asian 4.9% Black 2.4% Latino 8.5% Native American n/a Pacific Islander n/a White 80% Other 4.1%	8.8% 3.5% 34.1% n/a n/a 49.0% 4.6%	11.1% 4.2% 43.5% n/a n/a 37.2% 4.0%	5.6% 4.4% 11.8% n/a n/a 73.8% 4.5%	5.0% 3.6% 15.1% n/a n/a 70.7% 5.7%	6.2% 6.0% 60.5% n/a n/a 23.1% 4.2%
Household Size	2.3	2.7	3.0	2.0	2.5	3.0
Density in People per Square Mile	4,411	7,753	10,599	6,687	4,038	11,541

Sepulveda Dam Basin
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Median Household Income	\$78,529	\$65,336	\$54,771	\$69,651	\$73,195	\$41,134
¹ Data taken from L.A. Times L.A. Mapper online (2010).						

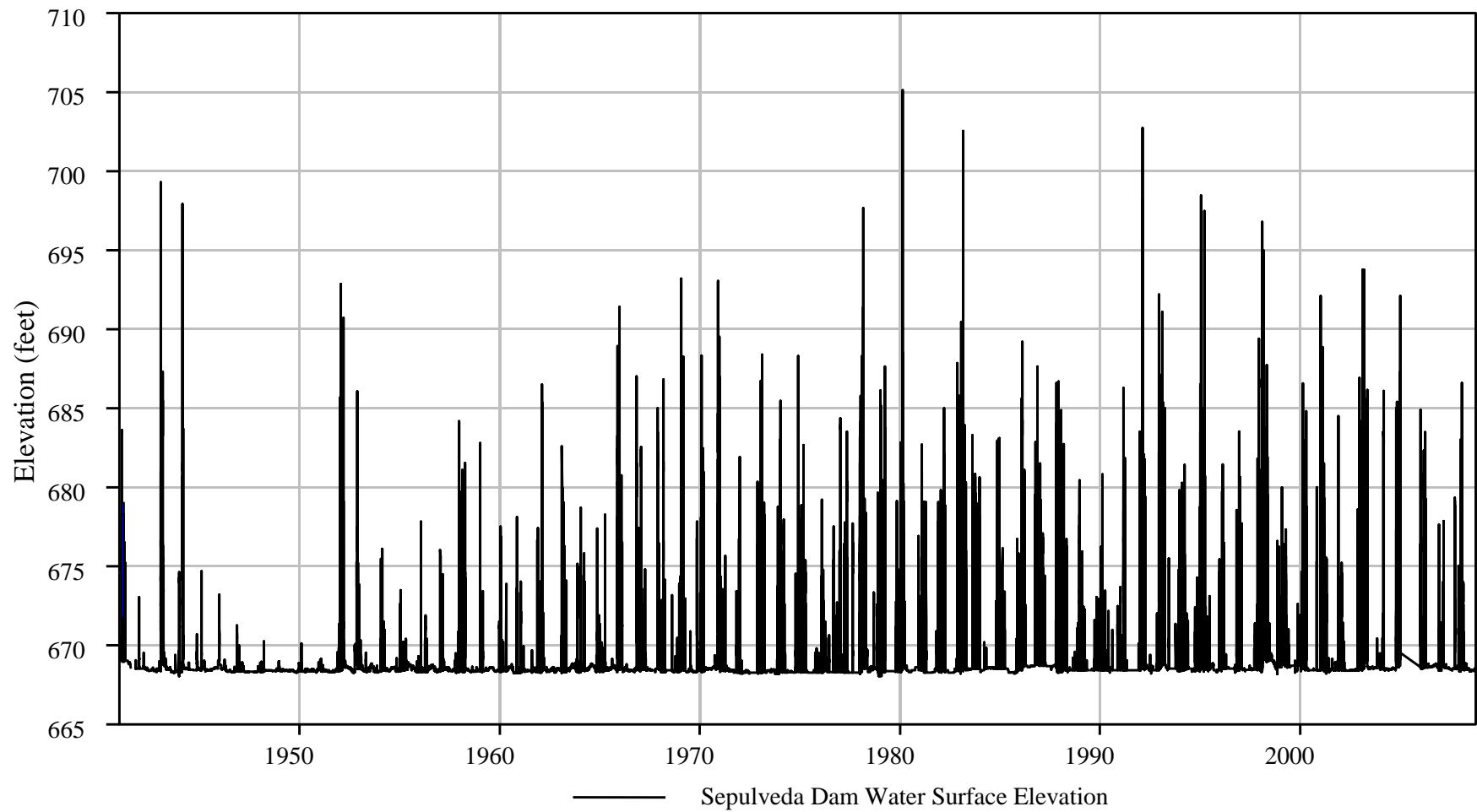


Figure 2.1 Historic Water Surface Elevation

3 PLANNING PROCESS

3.1 Vision and Mission

According to Corps guidance, the ongoing vision of water resources management emphasizes sustainability and environmental stewardship in natural resources management. The Corps' mission states that:

“The Army Corps of Engineers is the steward of the lands and waters at Corps water resources projects. Its Natural Resources Management Mission is to manage and conserve those natural resources, consistent with eco-system management principles, while providing quality public outdoor recreation experiences to serve the needs of present and future generations. In all aspects of natural and cultural resources management, the Corps promotes awareness of environmental values and adheres to sound environmental stewardship, protection, compliance, and restoration practices. The Corps manages for long-term public access to, and use of, the natural resources [of the Basin] in cooperation with other Federal, State, and local agencies as well as the private sector. The Corps integrates the management of diverse natural resource components such as fish, wildlife, forests, wetlands, grasslands, soil, air, and water with the provision of public recreation opportunities. The Corps conserves natural resources and provides public recreation opportunities that contribute to the quality of American life” (ER 1130-2-550, Chapter 2, Paragraph 2-2.a(1) (15 November 1996).

3.2 Use of the Master Plan

The Master Plan is essential for efficient and cost-effective use of natural resources, recreation development, and management programs. The Master Plan provides guidance for land use and future development. It is a tool for the responsible stewardship of Basin resources for the protection, conservation, and enhancement of natural, cultural, and human made resources for the benefit of current future generations.

The goals of the Master Plan are to identify a water and land resource objectives and management concepts including:

- Responding to regional needs, resource capabilities, and expressed public interests and desires consistent with authorized project purposes.
- Contributing towards recreation diversity within the region.
- Emphasizing the unique qualities and characteristics of the Basin.
- Exhibiting consistency and compatibility with national objectives and other state and regional goals and programs.

The Master Plan describes and identifies: (1) an inventory of Basin lands, resources, and uses; (2) a summary of the public participation input; (3) a summary of resource and ecosystem use objectives; and (4) the recommended land use plan.

3.3 Public Participation

Public participation is an essential element in the development of this Master Plan. Community involvement offers an opportunity for the public to voice their concerns and desires, and enriches the process with local knowledge of the Basin. The objectives of the public involvement are to:

- Provide information about the Corps Master Plan process Make the public's desires, needs, and concerns known to decision-makers; and
- Consider the public's views in reaching decisions (EP 1130-2-550).

The public has generally expressed a strong desire for public spaces to meet the diverse and evolving needs of the surrounding communities. The process must recognize the limitations of capital improvement and maintenance budgets within the context of the regulations of the Corps and the Project purpose. While public input is solicited and encouraged under the master planning process, the Corps cannot relinquish decision making authority, nor deviate from legal or policy constraints.

Four community workshops were held to at the Sepulveda Basin Garden Center among the interested parties of the Sepulveda Dam Basin Master Planning process. The first community workshop was held on Saturday, 5 December 2009, the second workshop was held on Saturday, 20 February 2010, the third on Saturday, 24 April 2010, and the forth on Saturday, 20 March 2011.. Approximately 50 people attended each of the first two workshops, with most of the same people attending both. Approximately one-hundred and thirty (130) people attended the third workshop and approximately 75 attended the forth workshop.

At the first workshop, the group provided a summary of their ideas, concerns and recommendations. At the second and third workshops, groups voiced their issues, concerns, and suggestions. At the forth workshop, attendees voiced comments on the Master Plan and Draft Environmental Assessment (EA). Additional information on may be found in Appendix C.

A number of "comment sheets" were filled out during the workshops and additional comments were received via mail and email. These have been incorporated as part of the public participation process. The top 5 comments from the first three workshops are shown in Figure 3.1.

Issues and comments raised by attendees at the first workshop included:

- Longer and broader notice must be given for all subsequent meetings.
- Maps need to be generated that show the correct boundaries with leaseholders identified.
 - Clear boundaries for use areas need to delineated, for example the wildlife area.
- All creeks/channels should be restored.
- Policies, definitions of uses, and guidelines need to be clearly spelled out:
 - Passive vs. active recreation.
 - Recreation vs. entertainment (this is very large scale events).
- Public notice should be given when major changes or events are proposed.

- Do not close off the entire Basin when special events are taking place.
- Provide special events policy.
- Preclude events such as 5K and 10K runs from environmentally sensitive areas such as Bull Creek.
- Ensure that events are properly permitted and funds collected for restoration of any damages after the event. Some attendees voiced concerns that costs of restoration are not being fully recovered from event operators.
- Signage and way finding are woefully inadequate with great difficulty in telling emergency personnel where one can be found.
- Trails should be created along the Los Angeles River.
- Provide a walking path connection from Bull Creek to Los Angeles River.
- Review utilization of golf courses on a routine basis to assess whether demands are shifting. Require the use of native vegetation only.
- Consider water conservation measures.
- Limit recreational use in Balboa Park area – some concerns that “carrying capacity” is being exceeded: Consider limiting park access when parking areas are full.
- Do not build additional sports fields there.
- Extend park hours.
- Increase park patrols.
- No new development.
- Better vector control needed.

Issues and comments raised by attendees at the second workshop included:

- Offensive odors are generated by the Tillman treatment plant.
- Human-wildlife interface education is needed:
 - People are feeding the wildlife.
 - People are bringing pets into wildlife areas, and fishing in the wildlife lake.
 - Patrols are needed to prevent off-leash dogs being trained to hunt rabbits and waterfowl.
- Clarify Corps and City guidelines and policies.
 - Agreements (leases and concessions) and operations should be transparent.
 - Uphold lease requirements.
- There are air quality impacts from increased traffic in and around the Basin.
- Large festivals are impacting the Basin.
- The Bull Creek restoration is a failure.
- Sustainable practices should be implemented throughout the Basin.
- Mitigate conflicts on multi-use paths through redesign, such as installing parallel decomposed granite path for runners and walkers and restore designated bike path.
- Extend Environmentally Sensitive classification to Bull Creek and area behind the Dam.

Issues and comments raised by attendees at the third workshop included :

- Maintain golf courses and model airplane field at their current location and configuration.
- Allow cricket games only in designated field areas, not in other areas of the park.
- Identify potential future uses for agricultural areas if it is not maintained as such.

- Clarify the terms of the lease and footprint of the Donald C. Tillman Water Reclamation Plant.
- Designate buffers around the Los Angeles River and tributaries as vegetative management.
- Uphold lease requirements and provide clear direction regarding management of large special events.
- Better coordination of activities of recreational lessees is needed.
 - Separate uses such as Bull Creek from special events such as 5K and 10K runs.
- Need for increased patrols and cleanups of the wildlife area to remove homeless encampments.
- Provide space not programmed solely for athletics, but available for multi-use by a variety of age groups (examples: chess tables, handball wall).

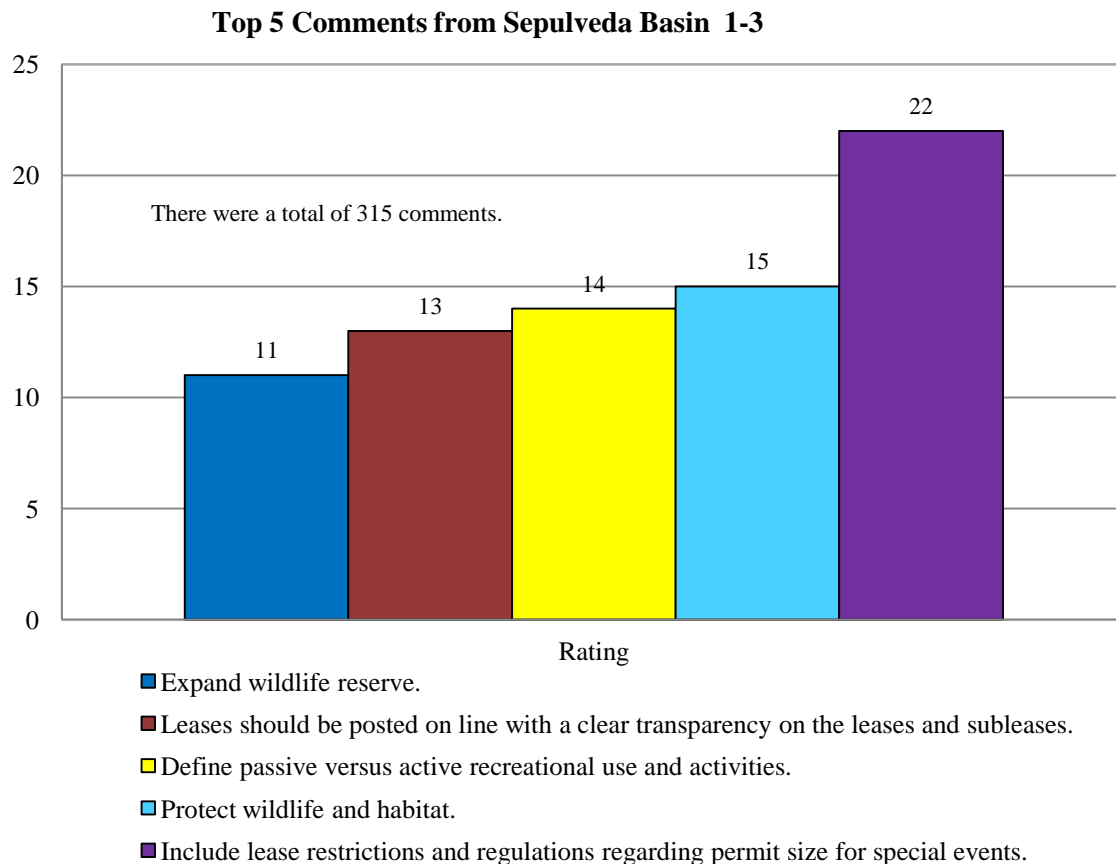


Figure 3.1 Top 5 Comments

The feedback from the community was carefully considered as well as input from the major lessee. This information was utilized in the development of resource objectives, land use classifications, specific policies on special events, filming, and other activities and are included in Appendix A, Outgrant Policies. Concerns and issues raised by the public have been communicated to the lessee as many concern ongoing maintenance which is the responsibility of the lessee.

4 LAND ALLOCATION, LAND USE CLASSIFICATIONS, AND RESOURCE INVENTORY

The Corps land use classification system is defined in EP 1130-2-550. The Corps acquires land for a specific purpose. This purpose is its “allocation.” Allocated lands may be utilized under the opportunities and constraints of “land use classifications.” This section describes land allocations and land use classifications, and provides a complete description of all lands within the Basin and their existing classifications, uses, conditions, and needs.

4.1 Land Allocation

Land allocation refers to the identification and documentation of lands at Civil Works projects in accordance with the authorized purposes for which they were or are to be acquired. There are four land allocation categories applicable to Corps projects; (1) operations (e.g., flood risk management, water supply, hydropower, etc.), (2) recreation, (3) fish and wildlife, and (4) mitigation (Corps EP 1130-2-550). In the case of Sepulveda Dam, the total Basin area of 2,131.90 acres was acquired for the purpose of flood risk management, which falls under the allocation of operations. This allocation establishes the primary and uncompromising purpose of the Basin as operations for the purpose of flood risk management. All land use classifications are secondary to this purpose and must be compatible with flood risk management.

Land Allocation
Operations

Land Use Classifications
Project Operations
Recreation
Environmentally Sensitive
Multiple Resource Management*

Recreation – Low Density
Vegetative Management
Inactive and/or Future Recreation

4.2 Land Use Classifications

Allocated project lands are further classified for development and resource management consistent with authorized project purposes and Federal laws including the National Environmental Protection Act (NEPA). The classification process refines the land allocations to fully utilize project lands and must consider public desires, legislative authority, as well as regional and project specific resource requirements and suitability. The Project Operations allocation takes precedent over any other classification categories. For example, agricultural or grazing use of project land is not a land use classification but may be an interim or corollary use to meet management objectives. Land is classified into one of the following categories:

Project Operations This classification category includes lands required for the structure, operations center, office, maintenance compound, and other areas that are used solely for Project Operations.

Recreation Land developed for intensive outdoor recreational activities by the visiting public, including developed recreation areas, and areas for concession, resort, and quasi-public development. Recreation areas planned for initial development are included in this classification.

Undeveloped areas are classified as Multiple Resource Management until initiation of the development.

Mitigation This only includes land acquired or designated specifically for mitigation. Land classified in this category should be evaluated for consideration for lease or license to the Department of the Interior or the state.

Environmentally Sensitive Lands with scientific, ecological, cultural or aesthetic features have been identified. The identification of these areas must be supported by narrative explaining the rationale for the classification. These areas, normally within one of the other classification categories, must be considered by management to ensure the sensitive areas are not adversely impacted. This classification anticipates that there would be limited or no development for public use on land in this classification. There is a strict prohibition against agricultural or grazing uses.

Multiple Resource Management Lands managed for one or more of, but not limited to, these activities to the extent that they are compatible with the primary allocation(s). The activities should be fully explained in the narrative portion of the Master Plan.

Recreation - Low Density Low density recreation activities such as hiking, primitive camping, wildlife observation, hunting, or similar low density recreational activities.

Wildlife Management Lands in this sub-category shall be evaluated for consideration for lease or license to the Department of the Interior or the state, or shall be designated for direct management by the Corps.

Vegetative Management Lands in this in this sub-category shall be managed for the protection and development of forest and vegetative cover.

Inactive and/or Future Recreation Areas Recreation areas planned for the future or that have been temporarily closed. These lands will be classified as Multiple Resource Management in the interim.

Easement lands All lands for which the Corps holds an easement interest but not fee title. Planned use and management of easement lands will be in strict accordance with the terms and conditions of the easement estate acquired for the Project.

4.3 Guiding Principles

Community input with Corps' guidance was utilized to identify guiding principles for the management of the Basin. These include:

- Ensure that all uses within the Basin are consistent with the flood risk management operations;
- Protect and restore ecosystem function;
- Ensure that a variety of recreational opportunities are provided for public use; Stakeholders recognize their environmental responsibility and preservation of cultural and

historical resources; and Management of the Basin lands and activities should integrate sustainable practices.

4.4 Land Use Classification Restrictions

Certain uses and activities at the Basin are not compatible in all classifications or are limited within classifications. Uses and activities designated as incompatible within a classification are not permitted. Additional guidelines and restrictions applicable to all land use classifications can be found in Appendix A, Outgrant Policies and Leases.

4.4.1 Project Operations

- No recreation activities are permitted within Operations areas except on specifically designated trails or by permission of the District Commander.
- Potentially compatible activities that require review and approval by the District Commander include: filming, training activities for public organizations (e.g., police and fire departments), biological surveys, and volunteer activities. Filming, training and biological surveys must comply with the procedures and requirements outlined in the applicable appendices to this Master Plan. Volunteer activities require case-by-case analyses.
- Use by government personnel during emergencies (fire department staging, etc.) is potentially compatible but shall require case-by-case analysis under the applicable procedures and requirements, including Federal environmental laws.

4.4.2 Recreation

- Sports fields, amenities, and structures/development to support recreational uses require specific analysis per the recreation outgrant policy (Appendix A).
- Dogs are allowed only on-leash, 6' in length or less, except where dog parks for off-leash use are specifically designated.
- Bicycles are allowed on designated trails, paths, and roads. Trails may be closed in the event of excessive erosion.
- Horses are allowed on trails, paths, and roads, but no grazing is allowed. All fecal matter shall immediately be removed by the rider.
- Organized volunteer activities that are non-invasive or minimally invasive, such as trash pickup, held outside of breeding season (15 March – 15 September) or over 100 feet from environmentally sensitive areas are considered compatible.
- Special events are preferred at the areas designated in the Special Events Policy. Special events may be permitted outside these designated areas in certain circumstances subject to event-specific review. See Appendix A5, Special Events Policy for additional guidance.
- Filming and training activities may be compatible and should be coordinated with the lessee.

4.4.3 Environmentally Sensitive

- Structures/development are not generally considered compatible, only to support trail users (e.g., restrooms, drinking/water fountains, garbage & recycling cans, informational

signage/kiosks, and benches). Picnic tables shall be limited and generally located in close proximity to trailheads or other developed areas.

- Dogs are not compatible. No dogs are allowed whether on- or off-leash.
- Bicycles, skateboards, and roller-skates are not allowed. Use of bicycles, skateboards, and roller-skates on dirt trails can contribute to erosion, creating a safety hazard.
- Horses are not allowed in Environmentally Sensitive Areas.
- Fishing is not allowed in Environmentally Sensitive areas.
- Organized volunteer activities that are non-invasive or minimally invasive, such as trash pickup, held outside of breeding season (15 March – 15 September), may be considered compatible but may require specific environmental analysis.
- Special events are not compatible with this classification. No special events may be held within or traverse Environmentally Sensitive areas. This restriction includes, but is not limited to, organized walk/run events and bicycle races.
- Boating and swimming are not compatible with this classification.
- Restoration proposals are compatible. All requests require specific analysis.
- Biological surveys may be compatible subject to certain restrictions and should be coordinated with the City, or the Corps, if the area has not been leased to the City.
- Still photography is compatible with this classification. Professional still photography may be compatible subject to certain restrictions and should be coordinated with the City or the Corps, if the area has not been leased to the City.

4.4.4 MRM - Recreation - Low Density

- Amenities and structures/development to support recreational uses require specific analysis per the recreation outgrant policy (Appendix A).
- Allowable structures include restrooms, drinking/water fountains, garbage & recycling cans, informational signage/kiosks, benches, picnic tables, group picnic areas, etc. Designated, organized sports fields are NOT compatible with this classification.
- Dogs are compatible only on leashes six feet or less in length, except where dog parks for off-leash use are specifically designated.
- Bicycles are allowed on designated trails, paths, and roads. Dirt trails may be closed in the event of excessive erosion.
- Horses are allowed on trails, paths, and roads, but no grazing is allowed. All fecal matter shall immediately be removed by the rider.
- Organized volunteer activities that are non-invasive or minimally invasive, such as trash pickup, held outside of breeding season (15 March through 15 September) or over 100 feet from environmentally sensitive areas, are considered compatible.
- Limited special events may be compatible. Special events are preferred in the land use classification and may be permitted subject to event-specific review. See the Appendix A, Outgrant Policies for additional guidance.
- Still photography is compatible with this classification. Professional still photography may be compatible subject to certain restrictions and should be coordinated with the City, other lessee, or the Corps, if the area has not been otherwise outgranted.

4.4.5 MRM - Vegetative Management

- Structures/development is generally considered compatible only to support trail users (e.g., restrooms, drinking/water fountains, garbage & recycling cans, informational signage/kiosks, and benches). Picnic tables shall be limited and generally located in close proximity to trailheads or other developed areas.
- Dogs are compatible only on leashes six feet or less in length, on designated trails. No dogs are allowed off designated trails, whether on- or off-leash.
- Bicycles are allowed only on designated trails. Use of bicycles on dirt trails can contribute to erosion. Trails may be closed to bicycles in the event of safety or environmental concerns.
- Horses are compatible on existing trails, but no grazing is allowed. All fecal matter shall immediately be removed by the rider.
- Organized volunteer activities that are non-invasive or minimally invasive, such as trash pickup, held outside of breeding season (15 March to 15 September), may be considered compatible but may require specific environmental analysis.
- Special events are not compatible with this classification. No special events may be held within or traverse MRM-Vegetation Management areas.. This restriction includes, but is not limited to, organized walk/run events and bicycle races.
- Still photography is compatible with this classification. Professional still photography may be compatible subject to certain restrictions and should be coordinated with the lessee, or the Corps, if the area has not been otherwise outgranted.
- Restoration proposals may be compatible with the MRM –Vegetative Management classification. All requests require specific analysis. These areas are generally favored for restoration projects such as Corps' Civil Works ecosystem restoration projects.
- Biological surveys may be compatible subject to certain restrictions and should be coordinated with the lessee, or the Corps, if the area has not been leased to others.

4.4.6 MRM – Inactive or Future Recreation

- Areas may include recreation leased area and leases for non-recreational purposes.
- Dogs are compatible only on recreation-leased area, on leashes six feet or less.
- Limited special events may be compatible. Special events are preferred at the areas designated in the Special Events Policy. Special events may be permitted outside these designated areas in certain circumstances subject to event-specific review. See Appendix A, Special Events Policy for additional guidance.
- Filming, training, and volunteer activities may be compatible and should be coordinated with the lessee or the Corps if the area is not leased.

4.5 Existing Facilities

Golf Courses

Sepulveda Golf Courses The Sepulveda Golf Courses consist of two 18-hole public golf courses, Encino Municipal and Balboa Municipal 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 golf course complex includes a pro shop, a lighted driving range, practice putting greens, practice chipping greens, cart rentals, club rentals, restrooms, and a restaurant with banquet rooms and a lounge. The courses are irrigated with water from the Donald C. Tillman Water Reclamation Plant. The golf courses and associated amenities were developed by the City.

Woodley Lakes Municipal Golf Course Woodley Lakes Municipal Golf Course, built in 1976, is a public course with 18 holes with a total length of 6,803 yards. The course is located south of Victory Boulevard and west of Woodley Boulevard, and occupies approximately 184 acres of land. The course includes a pro shop, a lighted driving range, practice putting greens, practice chipping greens, cart rental, club rental, and a restaurant with a banquet facilities and lounge, and restroom amenities and a concession stand. The course is irrigated using recycled water from the Donald C. Tillman Water Reclamation Plant. The golf course and associated amenities were developed by the City.

Anthony C. Beilenson Park This park occupies approximately 80 acres of land and is bounded by the Los Angeles River to the south, Balboa Blvd to the west, Victory Boulevard on the north, and the Woodley Lakes Municipal Golf Course on the east. The centerpiece of the park is Lake Balboa, a 27 acre recreation lake filled with water from the Donald C. Tillman Water Reclamation Plant. Surrounding the lake are picnic areas which include barbecue pits and picnic tables, drinking fountains, rest rooms, shelters, a 1.3 mile jogging/walking path with covered benches provided along the path. Amenities include a first aid/lifeguard station, a fly casting area, fishing, boat, and remote-control boating. No swimming is allowed in the lake and power boats are not permitted. The park was developed jointly by the City and the Corps.

Anthony C. Beilenson Park and Lake Balboa



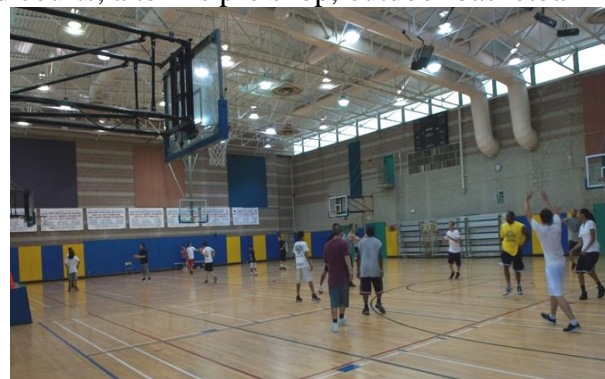
Universally Accessible Playground The Universally Accessible Playground (UAP) is located south of Lake Balboa in Anthony C. Beilenson Park. The UAP was completed in June 2008 and has two separate play areas, one section for two to five-year-olds, and one for five to twelve-year-olds. The areas feature swings, ladders, a variety of balancing elements, climbers and slides. The ground in the play area is covered with rubber matting to provide fall protection. The UAP was developed by the City.

Bull Creek Restoration Area The Bull Creek Restoration Area is located east of Balboa Boulevard and to the west of the Lake Balboa in Anthony C. Beilenson Park. The area is located on approximately 28 acres. The area includes 3,000 feet of restored Bull Creek. An oxbow channel has been excavated to the west of the Creek. Reclaimed water from Lake Balboa is released into the channel to supplement the existing flow. Aquatic, riparian, and native upland habitat has been established on the site. Severe erosion along the east bank of the creek as a result of 2009-2010 storms, as well as siltation of the oxbow will require further restoration of the area. Pedestrian bridges and walkways provide access. Interpretative nodes offer educational opportunities to visitors. The Bull Creek Restoration Area was completed in 2009. The area was restored jointly by the City and the Corps.



Balboa Sports Complex

Balboa Sports Complex The complex is an 85-acre facility located northwest of the intersection of Balboa and Burbank Boulevards. It includes 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, and lighted volleyball courts. Three structures with restrooms are located on the Sports Center grounds. The Sports Complex also includes the Balboa Park Community Center which has an indoor gymnasium. The Balboa Sports Complex was developed by the City.

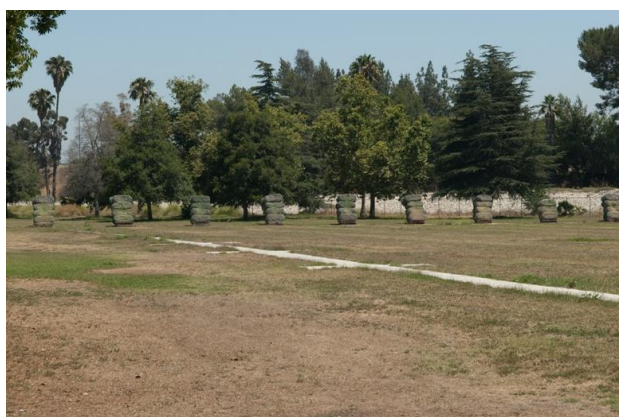


Woodley Park and Adjacent Amenities

Woodley Park is 80-acres bordering the western and southern sides of the Donald C. Tillman Water Reclamation Plant. The park includes barbeque pits, an unlighted baseball diamond, children's play area, picnic tables, and restrooms. The park is divided into two sections with similar amenities in each. Section 1 has 154 parking places. The section has 26 picnic tables, six

barbeques and is shaded by trees. Section 2 has 80 parking places. This section has 32 picnic tables. Restroom amenities are located nearby. The park was developed jointly by the City and the Corps.

The Japanese Garden is located on the grounds of the Donald C. Tillman Water Reclamation Plant. The garden covers an area of 6.5 acres. Reclaimed water from the Donald C. Tillman Water Reclamation Plant is used to supply the water features in the garden. An admission fee is charged to enter the garden. The garden was developed by the City of Los Angeles Bureau of Sanitation.



Woodley Park Archery Range is located in the far northeastern portion of the Basin on approximately 8 acres adjacent to Woodley Park. Amenities include a partially enclosed 18 meter short range and a 90 meter long range which has 12 lanes and is equipped with compressed bales. The long range is ADA-accessible. Restrooms are located in the area. The range was developed by the City.



Sepulveda Basin Cricket Fields are located in the northeastern portion of the Basin. The facility has two cricket fields. They are located on land leased to the City of Los Angeles Department of Public Works, Bureau of Sanitation. The Cricket Fields include bleachers, a picnic area with picnic tables, restrooms, and a parking lot.



Model Airplane Field is located northwest 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.

Sepulveda Basin Wildlife Area The wildlife area covers an area of 130 acres and is located in the northeastern portion of the Basin, 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 .75- acre bird-refuge island. Water is supplied to the wildlife lake by the Donald C. Tillman Water Reclamation Plant. Native annuals, shrubs, and trees have been planted throughout the area. The area also has an educational staging area and amphitheatre, pathways with signage and viewing areas, Haskell Creek has been reconfigured and re-vegetated, with pedestrian bridges crossing the creek. Work on the wildlife area began in 1979 with the establishment of a 48 acre riparian area. Over the years, the refuge has been improved and expanded, with the last major expansion in 1998 by the Corps and the City.

Hjelte Sports Center is an approximately 12-acre facility located in the southern portion of the Basin between Burbank Boulevard and Encino Creek to the north and the Dam embankment to the south. The complex has four lighted baseball fields, bleachers at each field, restroom amenities, a concession stand, and a storage facility. It was developed jointly by the City and the Corps.

Sepulveda Garden Center The garden center is approximately 12-acres located south of U.S Route 101, west of Hayvenhurst Avenue, and north of Magnolia Boulevard. The garden center provides 800 garden plots for local citizens to grow fruits, vegetables, flowers, and herbs. Each plot is 10 feet wide by 20 feet wide. A fee is charged for use of the garden plots. Additional amenities include public telephones, first aid supplies, and restrooms. A greenhouse is available for gardeners for germinating of seeds for transplanting. The Sepulveda Garden Center was developed by the City.



Hjelte Sports Center



Garden Center

Libbit Park is located south of U.S. Route 101 on a narrow strip of land east of the Sepulveda Dam Saddle Dike and west of Libbit Avenue. The park occupies approximately 3.6 acres. The park is landscaped but does not include any formal amenities. The park was developed by the City.

Encino Baseball Complex is located south of US Route 101 and east of Hayvenhurst Avenue. The 12-acre complex consists of five lighted baseball fields, rest room amenities, snack stand, batting cages, and lighted scoreboards. The complex was developed by the Little League on property leased to the City.

Sherman Oaks Castle Park is a miniature golf course occupying approximately 5.3 acres 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 has three landscaped miniature golf courses, each with 18 holes. The facility also has an arcade with video games, batting cages, a concession stand, and areas for parties. The facility was developed by and is operated by the City. A concessionaire with a sublease from the City operates the batting cages, a video arcade, and food concession.

Athletic Amenities on the Northwest Side of the Basin

Franklin Fields are on approximately 28 acres leased 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, bleachers, restrooms, and parking. The fields were developed by Encino Franklin Fields, Inc., a non-profit organization.

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

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 private interests in 1961.

ONEgeneration S. Mark Taper Intergenerational Center The 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. The ONEgeneration S. Mark Taper Intergenerational Center, formerly known as the Valley Youth Center, provides various services to seniors and infants and children age 6 months to 6 years. A soccer field is located to the west. Services provided include 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 the summer months, the Center serves as a cooling site for the elderly to come to escape the Valley's often excessive heat. The Center is operated by the non-profit organization ONEgeneration with a sublease from the City.

Sepulveda Basin Off-Leash Dog Park The dog park is a 13.7-acre facility located in the extreme northwestern portion of the Basin, southeast of the intersection of Victory Boulevard and White Oak Avenue. The dog park includes a fenced area for small-dogs, a fenced area for medium/timid dogs, and an area for large dogs. Both areas are enclosed with a 4-foot high cyclone fence. The facility has a picnic area, a parking lot for 100 cars. The Off-Leash Dog Park was developed by the City.

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

Bike Trails Approximately ten 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.

4.6 Qualitative Facility Assessment

A qualitative assessment of the condition of existing recreation amenities was completed to identify potential safety issues, operation and maintenance needs, and amenity conditions. The facility assessment does not involve detailed evaluation of structures, nor non-recreation amenities not open or available to the public.

Table 4.1 Amenities Description and Qualitative Condition Assessment		
Area	Description and Applicable Qualitative Observations	Condition
Lake Balboa/Anthony C. Beilenson Park		

Table 4.1 Amenities Description and Qualitative Condition Assessment		
Area	Description and Applicable Qualitative Observations	Condition
First Aid/Lifeguard Station	Two wooden piers, one is T-shaped and one is a single length. There is a small wood shed that houses the lifeguard. A concrete boat ramp deposits boats next to single length pier. The piers are unsteady. Fishing line has been strung across the piers to discourage bird use and resulting fecal buildup.	Fair
Fly Casting Area	Fly fishing area along Balboa Lake. Grass is brown or absent. Large population of ducks nests in the area. A concrete lining is around the shore at this location. Short term repairs (reseeding/resurfacing) may be warranted.	Poor
Lake Balboa Trail	Benches and covered benches are located along the paved trail that surrounds the lake. Picnic areas have concrete tables, BBQs, hot coal bins, and drinking fountains.	Good
Restrooms	There are a total of 2 restroom amenities within the area. Standard construction of stone walls, with wood and metal roof. Some have individual unisex stalls, some are divided into men's and women's. Washbasins are sometimes outside. Storage or maintenance rooms are also sometimes associated with restrooms. In some instances, graffiti and property destruction have occurred.	Good to Fair
Shelters	Open walled wood and rock structures with picnic tables. There are a total of 3 shelters in the area with a variety of types and numbers of picnic tables and barbeques.	Good
Universal Access Playground and Tot Lot	Sand and rubber ground, metal and plastic jungle gym with overhead sunscreens.	Good
Wheel Fun Rentals	There is a small rental hut, rental storage building, and stone grout building that appears to be a maintenance shed.	Good
Bull Creek	Tributary to Los Angeles River. Site of recent creek restoration; vegetation still becoming established. Bank failures from storm under investigation. Siltation of oxbow. Erosion of paths. Further restoration and repair needed.	Fair
Valley Region Headquarters		
Administrative Building	Includes administration buildings for golf operations, recreation, storage and maintenance.	Good
Open Inactive Field	Open dirt field between U.S. Army and Valley Region Headquarters. May serve as overflow parking north. Area is devoid of vegetation and may contribute to poor air quality conditions through fugitive dust.	Poor
Woodley Lakes Municipal Golf Course		
Driving Range	Short term repairs (reseeding) may be warranted.	Good
Pro Shop and Clubhouse	Overall in good condition.	Good
Restrooms	This is a restroom and concession stand within the Woodley Lakes Golf Course between holes 7 and 13.	Good

Table 4.1 Amenities Description and Qualitative Condition Assessment		
Area	Description and Applicable Qualitative Observations	Condition
Model Airplane Field		
Infrastructure	There is a small workshop shelter, paved airplane runways, bleachers, and picnic tables. Plane noise can be heard at Balboa Lake.	Good
Restrooms	Cinder block and wood restrooms present with separate men's and women's.	Good
Sepulveda Basin Cricket Fields		
Cricket Fields	A total of 4 fields are present including Severn, Wright, and Leo Magnus fields. Grass fields, limited picnic tables and benches.	Good
Restrooms	Two sets of restrooms, one on south side and one on north side. Each restroom has 2 women's stalls/ 1 men's stall/1 urinal. The north side restrooms also have lockers. Short term repairs (painting, stall door replacement) may be warranted. This area is remote from the main part of the park and may suffer more vandalism as a result.	Fair
Sepulveda Basin Wildlife Area		
Restrooms	Restrooms with 6 individual unisex stalls. A maintenance shed is also present.	Good
Archery Range		
Archery Range	Close range archery is housed in a wooden "stall" and long range hay bale targets across an expanse of grass are both present. Grass bare or brown in spots. Short term repairs (replacement of close range stalls, benches, fencing) may be warranted.	Poor
Restrooms	Archery Range restrooms. Men's and women's are separate. Short term repairs (replacement sinks, faucets, hand dryers) may be warranted.	Poor
Japanese Garden at Donald C. Tillman Water Reclamation Plant		
Park Infrastructure	Administration building with gift shop and 2 sets of restrooms.	Good
Woodley Park Section I		
Picnic Area	Picnic and grass area with shade trees. BBQs, hot coal bins, and trash cans. The area also has a course with exercise stations - including bars, rings, sit ups, beams, etc. Short term repairs (painting, amenity replacement) may be needed within the next few years.	Fair

Table 4.1 Amenities Description and Qualitative Condition Assessment		
Area	Description and Applicable Qualitative Observations	Condition
Restrooms	2 sets of separate men's and women's restrooms. Restrooms in remote areas suffer from vandalism.	Good to Fair
Sepulveda Garden Center		
Garden Infrastructure	Gardens and community center, public restrooms. Excellent condition. There are approximately 800 garden plots measuring 10'x 20' in size.	Good
Hjelte Sports Center		
Sports Fields	4 fields, metal bleachers, and community center. The community center has 7 individual restrooms, concessions area, and garage door. Short term repairs (reseeding, replacement of bleachers and fencing) may be warranted.	Fair
Encino and Balboa Municipal Golf Courses		
Pro-Shop and Clubhouse	Good condition overall.	Good
Maintenance Facility	This is a concrete brick structure with fencing and holds maintenance and operations vehicles. There are also men's and women's restrooms.	Fair
Balboa Sports Complex		
Tennis Center Pro-Shop and Club	Includes pro shop. Part of "Balboa Sports Center" Courts are in good condition.	Good
Baseball fields	4 baseball diamonds, cyclone fencing and wooden bleachers. Short term repairs (reseeding) may be warranted. This area is well used and possibly over used.	Fair
Community Center	Has gymnasium and restrooms	Good
Tot Lot	2 separate structures of metal and plastic with sand and rubber ground, sunscreens.	Good
Encino Franklin Fields		
Baseball Complex	Baseball complex with 15 diamonds, concessions, restrooms, bleachers, bull pens, lighted score boards. Many portable toilets were noted. May indicate a need for more permanent restrooms	Good
Encino Velodrome	Lighted track, bleachers, concession. Short term repairs (reseeding, replacement of bleachers and fencing) may be warranted.	Poor

Table 4.1 Amenities Description and Qualitative Condition Assessment		
Area	Description and Applicable Qualitative Observations	Condition
West Coast Baseball School	Baseball Fields. No access.	Good
Baseball Fields	Fenced off. No access.	Good
ONEgeneration S. Mark Taper Intergenerational Center		
Building and Amenities	No access.	Good
Sepulveda Basin Off-Leash Dog Park		
Park	4' cyclone fencing around grassy area with minimal shade trees. Only portable toilets in area.	Good
Pedlow Field Skate Park		
Park	Concrete skate park, picnic tables, bleachers. No shade present.	Good

The most commonly identified repair needs include re-vegetation/reseeding of the Bull Creek site and of heavily used areas, replacement of restroom fixtures, and replacement of fencing and bleachers. While graffiti and vandalism were observed in some areas, the City maintains a policy of graffiti removal within 72 hours of notification. Offensive graffiti is removed as soon as it is observed.

4.7 Projected Population Growth and Demographic Shifts

The population of Los Angeles County as enumerated in the 2000 Census was approximately 9.6 million people, with approximately 20% living within the San Fernando Valley, within a 30-mile service radius of Sepulveda Dam Basin (source: U.S. Census, 2000). A 2007 forecast prepared by the California State Department of Finance suggested that by 2010 the County's population would approach 10.5 million people, and by 2020, approximately 11.2 million people (State of California, Department of Finance, *Population Projections for California and Its Counties 2000-2050, by Age, Gender and Race/Ethnicity*, Sacramento, California, July 2007). The current economic climate may temper this growth rate, which represents 17% from 2000-2020, and 7 percent between 2010 and 2020, but over the long term it is anticipated that the County's population will increase; placing demands on existing recreation amenities.

The California State Department of Finance data suggest that the age cohorts with the largest projected growth rates from 2010 to 2020 are those aged 70-74 which is a 51% increase, ages 65-69 which is a 50% increase, and 60-64 which is a 32% increase. By contrast, the share of the population that is aged 10-19 is anticipated to decline by over 15% during the period. These figures reflect the aging of the "Baby Boom" generation, whose members have sought to maintain an active lifestyle, including pursuing a range of low-impact recreational activities such as fitness walking and biking, as well as higher intensity sports like tennis and skiing. This demographic shift may suggest a need to provide and maintain venues for these activities, while

also providing for athletic fields that can support team and league activities oriented toward younger participants.

Los Angeles County is also ethnically diverse. Hispanic residents are projected to comprise the largest share of the population in 2020, at approximately 52%. This mirrors the statewide trend: by 2020 California's population of European descent will have grown only 4%, while the Hispanic population will have grown 58%, and the Asian/Pacific Islander population will have grown 55%. The African American population will have grown 20%, and American Indian population will have grown 29%. Recreation preferences are shown to be linked to cultural and ethnic values. Amenities must be responsive to the values of the market demographic.

4.8 Visitation Trends

Figure 4.1 below illustrates trends in visitation in the Basin recreation area from Fiscal Year 2004 through 2009. Data represents the best estimates made by recreation managers at the Basin. It is supplemented by actual counts of enrollments in recreational teams and leagues, attendance at permitted special events, and golf course rounds. In addition to estimated number of visits, managers also estimated visitor hours as a multiplier. Because these two graphs are identical in terms of the trends portrayed, only the estimated number of visits has been shown.

The data suggest a 19% increase in number of visits and visitor hours during this timeframe, with most of the increase occurring between 2008 and 2009. In the five years prior, visitation was generally stable at between 2.3 and 2.5 million visits per year. Recreation managers attribute the 2009 increase to two factors:

- The economic downturn, which results in more people staying at home rather than traveling for vacation, and enjoying lower-cost or free recreation amenities. This may be especially true of city-operated golf courses, which are substantially less expensive than private amenities; managers have observed that the number of golf rounds played has increased over prior years.
- New amenities at the Basin, including the Universally-Accessible Children's' playground, which has proven to be very popular.

Looking into the future, it is reasonable to assume that visitation would remain roughly stable at 2009 levels, at the most conservative projection, or grow at the projected rate of population increase of approximately 7% by 2020. Should the economic outlook remain poor, a more significant increase might be observed.

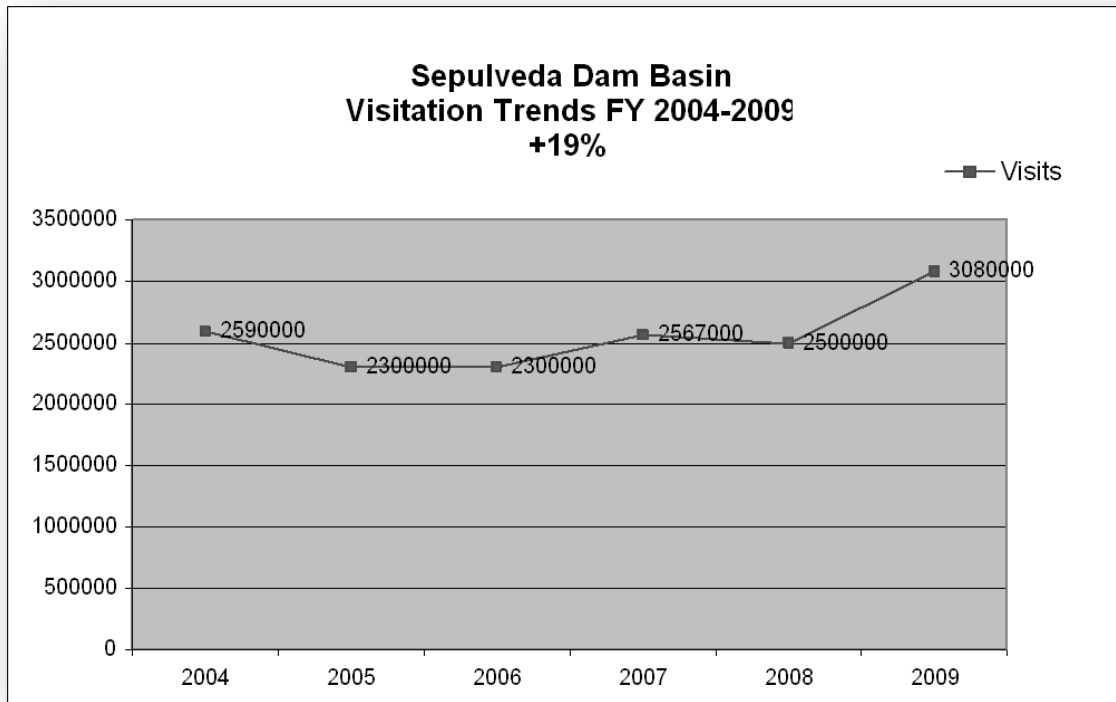


Figure 4.1 Sepulveda Dam Basin Visitation Trends

There are a number of regional-scale recreation amenities within a 30-mile service radius of the Basin that are also attractive destinations for area residents. The 30-mile service radius reflects the Corps' guidance, see Appendix A, as well as related Los Angeles County level of service standards for regional parks that indicate a 25-mile service radius. Appendix E, Map 15 illustrates regional amenities near the Basin.

Appendix E, Map 15 also indicates the northern portion of the 30-mile service area also encompasses the Angeles National Forest, as well as the San Gabriel Wilderness Area.

There are very significant public lands resources available to potential visitors within Los Angeles County. Table 4.2 illustrates the total park acreage within Los Angeles County, by agency; these data were gathered in support of the 2009 *Citywide Community Needs Assessment*, described further below.

The range of recreation options within and adjacent to the County is very diverse and responds to a broad spectrum of recreation and leisure preferences.

In 2009 the City of Los Angeles Department of Recreation and Parks completed a major, two-year *Citywide Community Needs Assessment*, which sought to preliminarily prioritize and address the needs for additional recreation and park land, to identify existing amenities needing improvements to meet current and future community needs, to identify recreation program needs, to perform demographic analysis, to prevent future maintenance problems, and to offer positive alternatives to an increasingly dense and urbanized population. The objective of this needs

assessment was to develop strategies to help prioritize and address the challenges the Department faces, such as:

- Acquiring additional recreation and park land and finding opportunities for the reuse of land already in the public domain.
- Updating existing recreation amenities requiring improvements.
- Preventing future maintenance problems through effective asset management of public amenities.
- Offering positive recreational alternatives to an increasingly dense and urbanized population.

The needs assessment included a comprehensive community outreach and input process that engaged community leaders, stakeholders, and the public across the City through a series of one-on-one interviews, focus groups, and community forums followed by a statistically valid, mail-phone citywide household survey of almost 3,000 residents. Key findings from this survey (as summarized below) help inform the Corps' understanding of recreation needs and trends that may have an impact on amenities at the Basin (Figure 4.2).

- From a list of thirteen options, respondents were asked to indicate all of the organizations their household has used for indoor and outdoor recreation and sports activities during the past year. The organizations with the highest percentage of respondent households have used for recreation and sports activities are: City of Los Angeles Recreation and Parks (36%), State of California Parks (20%), private clubs (19%) and Los Angeles County Parks (19%).
- Unmet citizen needs exist for a wide range of parks, trails, outdoor and indoor amenities and programs. From a list of 30 various parks and recreation amenities, respondents were asked to indicate for which ones they and members of their household have a need. The parks and recreation amenities with the highest percentage of need from respondent households are: walking and biking trails (63%), small neighborhood parks (60%), large community and regional parks (53%), shelters and picnic areas (50%), and nature trails (46%). Interestingly, these are amenities that benefit a broad constituency, not just one or two user groups. The figure below summarizes the percentage of survey respondents indicating a need for each type of facility queried (*All figures taken directly from the Citywide Community Needs Assessment report*).
- From a list of 23 recreation programs, respondents were asked to select the four that they currently participate in the most often at the City of Los Angeles Department of Recreation and Parks amenities. The programs that respondent households currently participate in most often at City amenities are: special events/festivals (8%) and youth sports programs (7%). It should also be noted that special events/festivals had the highest percentage of respondents select it as their first choice as the program they currently participate in most often at City amenities.

Acres of Recreational Lands in Los Angeles County

Acres (Using 2008 Thomas Brothers Map)	Park	Open Space	Beach	Ecological Preserve / Estuary	Fairground	Historical Park	Historical Point of Interest	Recreation Area	Wilderness Area	Wildlife Refuge	Zoo	Forest	Golf Course	TOTAL ACRES
City of Los Angeles	11,906		166	518			46	1,123		177	103		1,523	15,562
Other Cities in Los Angeles County	15,991	2,822		214		18	1	2,274	1,177	137			5,123	27,757
Los Angeles County	6,233	58	2,000	134		1,361		1,106		2,019			1,093	14,441
State of California	33,833		707	37	470			24,150						58,727
Private	57		0					3,271					5,486	8,984
Santa Monica Mountains Conservancy	17,519	4,993		870	170									23,382
Federal Government	1,516		0					4,366	35,410			645,496		686,788
Unknown	225												116	341
TOTAL ACRES	87,280	7,873	2,873	1,773	640	1,346	47	36,290	36,587	2,333	103	645,496	13,341	
ACRES PER 1000 PEOPLE IN THE CITY (Using 2006 Census Est. 9,948,081)	Park	Open Space	Beach	Ecological Preserve / Estuary	Fairground	Historical Park	Historical Point of Interest	Recreation Area	Wilderness Area	Wildlife Refuge	Zoo	Forest	Golf Course	TOTAL ACRES
City of Los Angeles	1.197	0.000	0.017	0.052	0.000	0.000	0.005	0.113	0.000	0.018	0.010	0.000	0.153	1.564
Other Cities in Los Angeles County	1.607	0.284	0.000	0.022	0.000	0.002	0.000	0.229	0.118	0.014	0.000	0.000	0.515	2.790
Los Angeles County	0.627	0.006	0.201	0.013	0.047	0.133	0.000	0.111	0.000	0.203	0.000	0.000	0.110	1.452
State of California	3.401	0.000	0.071	0.004	0.000	0.000	0.000	2.428	0.000	0.000	0.000	0.000	0.000	5.903
Private	0.006	0.000	0.000	0.000	0.017	0.000	0.000	0.329	0.000	0.000	0.000	0.000	0.551	0.903
Santa Monica Mountains Conservancy	1.761	0.502	0.000	0.087	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.350
Federal Government	0.152	0.000	0.000	0.000	0.000	0.000	0.000	0.439	3.559	0.000	0.000	64.886	0.000	69.037
Unknown	0.023	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.012	0.034
TOTAL ACRES	8.774	0.791	0.289	0.178	0.064	0.135	0.005	3.648	3.678	0.235	0.010	64.886	1.341	84.034

Notes:

Population

2006 US Census estimate: 9,948,081(2000 census: 9,519,338)

Data Source

Thomas Brothers 2008 GIS map Layer TBM_LACO_OWNA

Processing

Data layer contained many types of areas. Areas NOT used: Airport, Museum Park, Cemetery, Civic Center, College/University, Hospital, Military, Miscellaneous, Movie Studio, Oil Refinery, Prison, Racetrack, Shopping Mall, Stadium/Arena. Data layer lacked jurisdiction. Data was compared to TBM's City Boundaries layer, LAEAP's own Parks layer, property names were inspected; web sites were consulted. Best effort was made to classify ownership of properties as shown in tables above.

Processed by Daniel Elroi, NorthSouth GIS, 9/10/08.

LARAP's Data

LARAP's own parks layers was NOT used, to help keep this analysis consistent, i.e. To use a single data source. However, the total acres derive from Thomas Brothers match LARAP's own total acres.

Acres per LARAP Parks layer: 15,565

Table 4.2 Acres of Recreational Lands in Los Angeles County

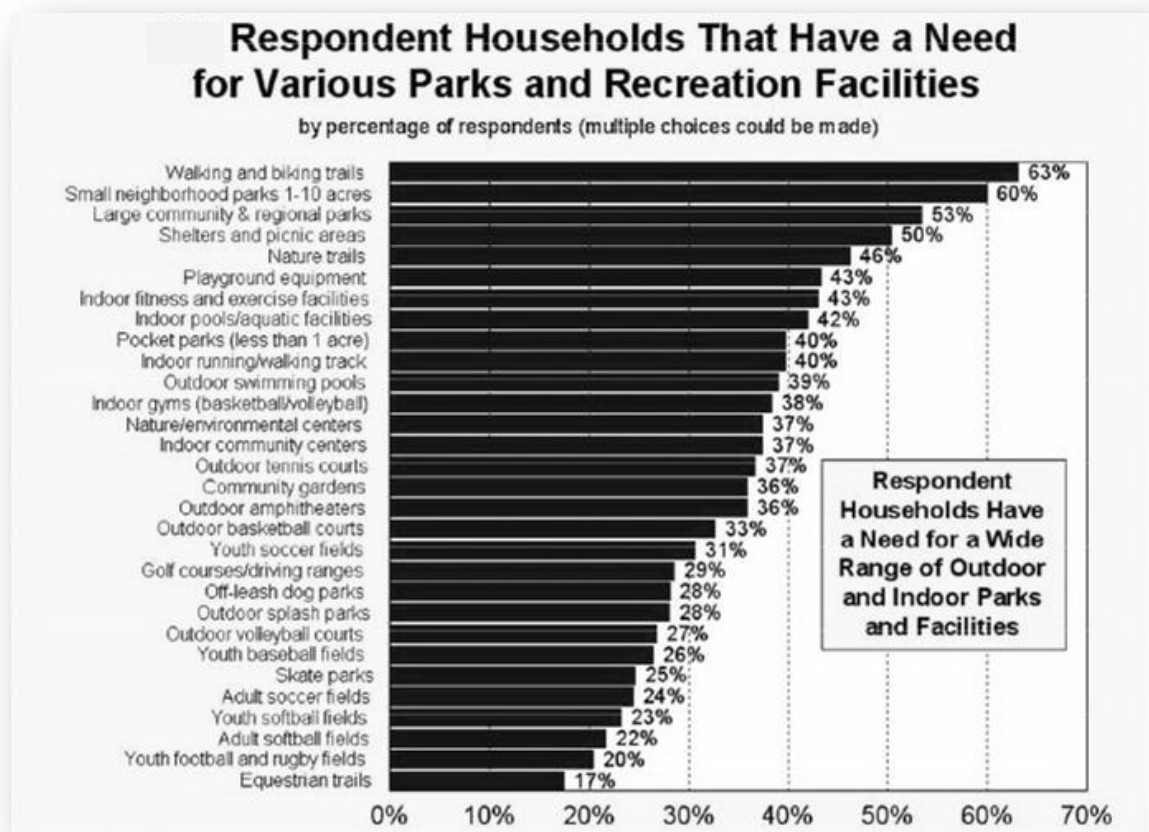


Figure 4.2 Respondent Households that Have a Need for Various Parks and Recreation Amenities

4.9 Assessment of State Future Trends

The trends described above, which emphasize low impact, low density recreation, are echoed in the California State Parks' 2008 California Outdoor Recreation Plan (CORP, California State Parks 2009). Californians tend to participate in activities that are less expensive, require less equipment, and need fewer technical skills. Californians' top 15 activities (by participation) were:

1. Walking for fitness or pleasure
2. Driving for pleasure, sightseeing, driving through natural scenery
3. Beach activities
4. Swimming in a pool
5. Day hiking on trails
6. Wildlife viewing, bird watching, viewing natural scenery
7. Jogging and running for exercise
8. Bicycling on paved surfaces
9. Outdoor photography

10. Using open turf areas
11. Using play equipment, play structures, tot-lots
12. Organized team sports such as soccer, football, baseball, softball, basketball
13. Fishing – freshwater
14. Bicycling on unpaved surfaces and trails
15. Surfing or boogie boarding, windsurfing

The most commonly used facility types included community/facility buildings, open spaces to play, picnic tables/pavilions, unpaved multipurpose trails and paved trails. Less than 20% of respondents reported using amusement (e.g., park train ride) areas, tennis or basketball courts, dog park areas, botanical gardens, or skate parks.

The most common activities adult respondents participated in were walking (49%), playing (30%) such as Frisbee, playing catch with a ball, kite flying, or playing with children, sedentary activities (24%) and eating/picnicking (24%). Respondents participated the least in fishing (5%), active water sports (4%), tennis (2%), martial arts/tai chi/yoga (<1%), and in-line skating (<1%).

When asked which recreation activities they would like to participate in more often, the majority of adult respondents chose: 1) walking for fitness or pleasure (46%), 2) camping in developed sites with amenities such as toilets and tables (45%), 3) bicycling on paved surfaces (45%) and 4) day hiking on trails (44%).

California Outdoor Recreation Plan 2008 Research suggests that this demand is from a variety of age groups including the Baby Boom generation, which continues to hike, mountain bike, kayak, and engage in other physically active, resource-based recreation. By contrast, golf and tennis are decreasing in popularity.

One of the outdoor recreation activities with a high-tech focus is geocaching. This activity is best described as a modern treasure hunt where participants try to find a hidden cache (treasure) using a map and a geographic positioning system (GPS) receiver. Since the first geocache was hidden in 2001 the number of geocaches has reached over 700,000 globally by the end of 2008. To address the high-tech recreation trend, California State Parks has also added Wi-Fi access to several state park units. Many other technical advances are improving the equipment used for alpine and Nordic skiing, snow shoeing, kayaking, skate boarding, and mountain biking.

These statewide surveys results suggest a continuing future need for outdoor recreational walking/ jogging/cycling paths, flexible open turf areas that are not necessarily dedicated to a particular type of programming, and opportunities for the occasional but perhaps transient high risk adventure sport.

4.10 City Projections of Future Needs and Demands

The City of Los Angeles Recreation and Parks Recreation Managers provided their views on future needs and Basin utilization as well as issues and concerns related to facility crowding, carrying capacity, and long-term sustainability. They also summarized future planned projects, which are summarized in Section 6 of this Plan. Though no Basin-specific visitor surveys have

been carried out, recreation managers' observations are a good predictor of potential future needs and demands. Recreation managers indicated that the most popular areas at the Basin include:

- Lake Balboa/Anthony C. Beilenson Park and the associated trails and picnic areas
- The Balboa Sports Complex
- Woodley Park, including the archery range and cricket fields
- The Sepulveda Basin Off-Leash Dog Park
- Hjelte Sports Center fields
- The golf courses

Recreation managers indicate that none of these areas are so heavily utilized as to suggest that future management actions may be required to address potential resource impacts associated with a large number of visitors. Demands for these amenities are highest on the weekends; during the week, demand is reasonable but readily managed.

Demand is high for soccer, baseball, and for open turf fields that can support flexible programming, which are not dedicated to one particular use. City recreation managers report that demands are high for these amenities throughout the City and not just within the immediate service area covered by the Basin. New amenities planned at the Sports Complex (see Section 6) should help to alleviate demands for active athletics.

City managers were queried about visitor use patterns, movement between amenities, and needs for improved connectivity within the Basin, and from the Basin to adjacent neighborhoods. Use patterns tend to vary depending on the type of activity that a visitor engages in: if it is highly specialized, for example, playing in a sports league, visiting the skate park, walking the dog at the dog park, using the model airplane field, visitors tend to go to the activity venue, do the activity, and then leave. Those visiting for more generalized activities, and full day users, may move around to different destinations. Generally, recreation managers felt that connectivity between activity areas within the Basin was very good, and that connections to adjacent neighborhoods were also working well.

Managers also indicated potential needs for additional parking, restrooms, and related support amenities. No chronic parking issues were reported such as visitors parking on grass, or illegally on roadways that were viewed as requiring management actions. Occasionally the lifeguard at Lake Balboa will close the parking lot when it is full; people then park at the Armory or golf course and walk. The overflow parking area near the golf course, approximately 7.5 acres, is also used. Parking is allowed on Balboa Boulevard for visitors to the Sports Complex. At the dog park, which is very popular, a grassy overflow area can be used for parking. Managers felt the available supply of parking spaces could be managed adequately to meet visitor demands. The supply of restrooms is also generally viewed as adequate to meet demands.

4.11 Conclusions

The Sepulveda Dam Basin provides a diverse array of recreational experiences, from “traditional” bat-and-ball active athletics, to sports with specialized audiences such as cricket and archery, to activities that have responded to relatively recent leisure trends such as the skate-park

and off-leash dog park, to opportunities to simply “commune with nature.” The diversity of experiences makes the Basin a very significant resource for residents of its market area and the region.

Projected visitation at Sepulveda Dam Basin through 2020 is estimated to remain stable at 2009 levels in the most conservative projection, or grow at a rate equal to or exceeding the projected population increase of approximately 7%. This growth in visitation suggests additional demands for active athletic playing fields and lower impact amenities such as trails and picnic areas, in response to desires for more “green breathing space” opportunities. Recreation managers have plans to address demands for additional playing fields, through the expansion of the Balboa Sports Complex, and desired expansion at Hjelte Sports Center. Demand for such amenities is constant City-wide and no single facility will be able to fully meet it.

Basin “carrying capacity,” which includes both an environmental dimension, “how much use can the resource support without being compromised?”, and a social dimension “how much use can occur before the quality of visitor experience is diminished?”, presently appears to be in balance. Since it is estimated that visitation will continue to increase, future land use development plans and studies will be required to account for population growth, balance recreational diversity, and accommodate new demands within a developed footprint in a manner that is environmentally and economically sustainable.

4.12 Land and Resource Constraints

This section concludes with an assessment of the physical and adjacent use conditions and factors that will influence any potential future development of recreation amenities.

Project Operations

The primary constraint on land uses within the Basin is the periodic inundation of portions of the Basin for downstream flood risk management. Areas within the Basin have been identified according to topographic analysis reflecting the level of flood inundation and activities and structures that may occur within each area of the Basin. Table 4.3 provides the acceptable uses of each inundation category, including appropriate structure constraints and appropriate recreational or other uses.

Table 4.3 Minimum Criteria for Basin Land Use		
Evaluation Frequency	Development Constraints	Acceptable Land Uses
Up to 10-yr flood	Subject to prolonged inundation, sedimentation, and wave erosion	Structures are not recommended. Natural trails and open play fields are acceptable.

10-yr flood to the 50-yr flood	Subject to frequent flooding, sedimentation, and wave erosion	Open or floodable structures and field amenities that can sustain inundation with acceptable maintenance cost. Concession stands with portable contents, bridle trails, shade and picnic armadas, backstops, goalposts, etc. are considered appropriate.
50-yr flood to the 100-yr flood	Subject to periodic flooding, sedimentation, and wave erosion	Floodable structures and multipurpose paved surfaces that can sustain inundation with acceptable maintenance cost. Floodable restrooms and picnic areas are considered appropriate.
100-yr flood to the Basin Design Flood	Subject to infrequent flooding, sedimentation, and wave erosion	Flood-proofed, closed structures are permitted. Structures conducive to human habitation are prohibited.

The frequency, extent, and duration of flood inundation must be considered in the management and appropriate use of the Basin. As part of this updated Master Plan, the filling frequency curves have been recalculated and maps have been developed that illustrate flood stage elevations for the 10-, 50-, and 100-year floods. Appendix E, Map 16 illustrates locations of existing recreation amenities with flood line elevations.

The topography within the Basin is relatively flat (Map 17). The highest areas are in the northwest segment, where ball-fields, the skate-park, velodrome, and dog-park are located. The sports complex expansion is located in this area to take advantage of the higher ground and minimize risks of inundation from flooding.

Connectivity and Accessibility

The Basin is easily accessible from local streets, public transportation, and freeways. There are no major constraints to use of the Basin from the perspective of accessibility. Locally, the Basin can be accessed from the north via Victory Boulevard, from the east via Burbank Boulevard, from the south via Hayvenhurst Avenue, and from the west via White Oak Avenue. Balboa Boulevard and Woodley Avenue transect the Basin from north to south. Pedestrian and bicycle access points include each of these roadways, as well as numerous paved and unpaved trails. Map 22 illustrates the various multi-modal access points throughout the Basin.

Since preparation of the last Master Plan and Supplement, the major change to accessibility of the Basin is the construction of the Orange Line Bus-way. The bus-way is a dedicated lane restricted to other motor vehicle use that runs through the northern edge of the Basin. There are stops at both Balboa Avenue and Woodley Avenue, which provide direct access to the Basin. A bike path is also part of the bus-way and allows for entrance into the Basin and onto the Basin bike paths.

Though a system of trails is in place throughout the Basin for pedestrians, joggers, and cyclists, freedom of movement across the Basin is limited by several factors. Because the Basin extends across several major roadways, which bisect the Basin, visitors may often be required to cross

several lanes of traffic to move from one area to another in the Basin. Cyclists may readily employ existing roadways, but pedestrians must find suitable crossing points. Woodley Avenue bisects the wildlife area, as well as a park area (west and south of Tillman) and the golf course, requiring pedestrians to walk a significant distance to reach a safe crosswalk. Balboa and Burbank Boulevards are also busy, multi-lane roads with few or no designated safe pedestrian crossings. At the east end of the Basin, a pedestrian underpass has been constructed beneath Burbank Boulevard. This allows safe pedestrian passage from one part of the Wildlife Area to another. Additional underpasses or bridges could be constructed to improve pedestrian movement within the Basin.

Wildlife Corridors and Connectivity

Corridors are important to consider in the overall ecological health of a habitat. In particular, the Sepulveda Dam Basin Wildlife Area and the Los Angeles River reach within the Basin is the last relatively natural habitat available in the area. Steps to improve connectivity of these habitats could improve overall wildlife diversity and abundance in the area.

The nearest area of non-urbanized, relatively natural habitat to Sepulveda Dam Basin is in Topanga State Park, southwest of the Basin, a part of the Santa Monica Mountains. The California State Parks Departments (CSPD 2009) identifies the area as a significant wildland. However, there are no corridors of connectivity available to terrestrial or aquatic species between Topanga State Park and the Basin. It is possible that birds and bats may pass between the two areas, though no specific data are available regarding migration between the two areas.

Movement of wildlife between two areas varies by species and each species may require differing corridor characteristics. Spencer (2005) defines two types of barriers; a barrier that is impassable under any circumstances for a particular species, and a filter barrier, which may be utilized by a species under some circumstances. For example, most small ground-dwelling species such as amphibians, reptiles, and small mammals will not pass or are reluctant to pass over a busy roadway, retaining walls, a large area with no vegetation, fences, or other physical barriers or through filters, and are therefore less mobile than other species (Spencer 2005). Fish barriers include low or no stream-flow, culverts, dams, concrete channels, felled trees and other natural and man-made obstacles. Large mammals and birds are less sensitive to barriers.

Both barriers and filters are present throughout the Basin. Several major roadways pass through the Basin, including Balboa Boulevard, Burbank Boulevard, and Woodley Avenue and discourage unimpeded movement throughout the Basin for most species, except birds and bats. Areas of development and recreation are also significant barriers to many species.

Though it is disturbed, the wildlife area is the only area within the urbanized section of the San Fernando Valley that is specifically designated and managed for wildlife habitat. Even throughout this area there are significant barriers to wildlife passage. Woodley Avenue and Burbank Boulevard both bisect the natural areas of the Basin effectively restricting movement of small, ground-dwelling species and endangering the movement of larger mammals in 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, though no data is

available. In some cases, individual animals develop less sensitivity to development and pass through urbanized areas relatively freely. Raccoons, opossums, and coyotes are several of the species that are often seen crossing roadways and utilizing areas frequented by humans.

The Los Angeles River also offers a relatively large expanse of habitat, though highly disturbed that extends from the Dam embankment, under Balboa Boulevard to the bus-way at the west end of the Basin. The soft bottom throughout this stretch is unique to the river. Five tributaries of the Los Angeles River, Haskell, Hayvenhurst, Woodley, Bull and Encino Creeks flow through the Basin into the Los Angeles River.

Maintenance

A major constraint to new or modified amenities within the Basin can be the resources needed for adequate maintenance. During economic downturns when municipal revenues are reduced, City recreation department budgets may be reduced; when budgets are adequate, finding and employing trained staff may be the challenge. Compounding this problem for recreation managers is that often bonds are passed and grant funding is made available for capital improvements, but ongoing maintenance funding is not included and additional recreation amenities may stretch existing park maintenance resources.

Due to decreased City budgets some maintenance has been reduced, such as frequency of cleaning and restocking of restrooms. At Lake Balboa, paddleboats, once available for rent are no longer available due to the unsafe condition of the dock to handle large groups of people.

When new amenities are proposed additional maintenance resources should be identified at the outset. If resources cannot be expanded to meet the additional needs, fees or volunteer services may be a way to fill these resource gaps.

5

RESOURCE OBJECTIVES

5.1 Resource Management

Resource management is moving towards an integrated ecological approach, as demonstrated by the changing guidance of the Federal government. In urbanized areas such as southern California, ecosystems and their various habitat communities have become severely restricted. With the surrounding environment so drastically altered, biodiversity (species richness) is reduced and landscape linkages are broken. Conservation and restoration require a redefined planning process. A Corps Master Plan must reflect the most current advances in restoration ecology and wildlife management in the context of the Corps mission, regulations, and guidance.

Science recognizes the need for habitat connectivity so that wildlife not only has the necessary space to roam, but also has genetic diversity to ensure that an “island effect” on species is not inadvertently created on remnant habitat lands. With species increasingly endangered or of special concern, objectives must consider habitat that is needed for species most at risk given current conditions at the Basin. Objectives must also anticipate changes that may alter this scenario in the future. Effective adaptive management techniques need to respond to current conditions as well as an unknown future. The following Resource Objectives are common to all land use classifications and incorporate the principles of Flood Risk Management, Safety and Security, Environmental Quality and Character, Connectivity, and Community Involvement,

5.2 Resource Objectives

Resource objectives are based on the input from stakeholders as well as Corps’ guidance. Resource objectives apply to all lands managed by the Corps.

5.2.1 Flood Risk Management

The primary Project purpose is flood risk management as authorized by the 1936 Flood Control Act. Flood risk management is the process of identifying, evaluating, selecting, implementing and monitoring actions to mitigate levels of risk. Flood risk management cannot be compromised and the resource objectives for flood risk management apply to all land use classifications. Project Operations land are managed by the Corps for operations and maintenance of the Project including the Dam embankment, outlet works, spillway, access roads, and other needs associated with Project operations. The public may not be cognizant of the importance of the role the Basin plays in flood risk management.

Resource Objectives

- Educate the public and stakeholders on flood risk awareness and safety issues.
- Promote installation of signage and interpretation to educate the public about the role of the Basin in flood risk management.

- Ensure that future land use proposals and activities are compatible with estimated levels and frequency of inundation, to ensure that the Dam can be operated without constraints that compromise downstream flood risk reduction.

Resources: EO 11988, ER 1165-2-26, ER 1110-2-240, ER 1130-2-530, EP 310-1-6a, CESP R 1110-2-1.

5.2.2 Safety and Security

Safety includes not just safety from flood risk, but also physical safety while visiting the Basin. The ability to survey one's surroundings and comprehend potential threats, the ability to leave an area in immediate danger, and report such events to authorities is critical to optimizing the visitor's experience. All land uses within the Basin should provide means of communication and implement education of safety and security measures.

Resource Objectives

- Educate the public and stakeholders on flood risk awareness and safety issues.
- Ensure that infrastructure is properly maintained to avoid creating a public hazard.
- Provide means for visitors and emergency personnel to communicate quickly their specific location in the Basin.
- Safety features such as fencing, lighting, warning signs, and call boxes installed where needed and maintained.
- Maintain adequate patrols for safety.
- Manage vegetation for user safety and security.
- Design of amenities so that vandalism and other "illegal activities" are discouraged.
- Maintain a Basin safety plan that ensures that restricted areas, danger zones, and hazardous areas are clearly marked and if necessary, barricaded and closed.

Resources: EP 1130-2-550, EM 385-1-1.

5.2.3 Environmentally Quality

Environmental quality refers to the integrity and value of natural resources including land, water, air, noise, aesthetic, biological, and cultural resources. The conservation, preservation, and restoration of environmental resources are recognized as important to human welfare and quality of life. Through environmental legislation, Congress has indicated that protection and enrichment of environmental quality is in the public interest.

With increased urbanization throughout southern California, natural resources have become increasingly limited. The Basin provides a large open space within a densely populated urban area. Within the Basin, important natural habitats provide refuge for endangered species and species of special concern. Where practicable, these habitats should be managed or restored for protection and conservation of the species. Environmentally Sensitive land use classified areas

have the highest protection of resources due to either the nature of the habitat or the cultural resources on the site

The impacts of climate change expected during this century will impact storm and flooding frequency and duration, availability and quality of water, wild fires, ecosystem functions, and energy production and demand. To minimize future impacts, stakeholders must be ready to develop, implement, and assess adjustments or changes in operations and maintenance to enhance resilience or reduce vulnerability to systems and programs.

The use of energy is a key component of sustainability in reducing the impacts of climate change. Energy saving measures should be implemented and new development constructed in accordance with green building principles.

With its rich diversity of natural resources and functioning ecosystems, the Basin provides unique opportunities for children and adults to learn about natural systems. With education comes appreciation and understanding of the importance of these lands and the need to preserve and protect them for generations to come.

Resource Objectives

- Encourage uses, activities, management practices, and future development that conserve natural and cultural resources.
- Preserve areas containing unique, sensitive and/or significant resources to minimize disturbance so the integrity and values will not be adversely impacted by other uses, management practices, or developments within the Basin.
- Discourage uses in natural lands or open spaces that deteriorate environmental quality and provide environmental compensation for land uses that adversely affect the natural resources of an area that cannot be prevented.
- Design site, operation of facilities, and activities to avoid or minimize adverse environmental impacts per Corps' guidelines and design criteria.
- Promote use of appropriate native plant palettes in new landscaping or when rehabilitating established landscaped areas to maximize biodiversity and reduce soil erosion.
- Preserve areas of vegetation that have a cultural and/or social significance.
- Minimize conflicts between land uses, activities, and developments through buffering, screening, and other measures
- Promote land uses and activities that minimize impacts to global climate change.
- Use adaptive management to respond to changing conditions due to climate change.
- Encourage use of reclaimed water for irrigation of recreation amenities.
- Promote traffic plans that would minimize generating pollution within the Basin
- Encourage new development to be consistent with green building principles.
- Encourage sustainable design.
- Encourage new buildings achieve a Leadership in Energy & Environmental Design (LEED®) Silver or higher rating.\
- Determine suitability of natural areas for either wildlife habitat or recreation before changing land use classifications.

Resources North American Wetlands Protection Act, Aesthetic and Scenic Quality § 232 of WRDA 1996, Endangered Species Act, National Historic Preservation Act as amended, Clean Air Act, Noise Control Act, Clean Water Act, Environmental and Economic Benefits of Landscape Practices on Federal Landscaped Grounds, EO 13186 Federal Responsibilities to Protect Migratory Bird Act, EO on Federal Leadership in Environmental, Energy and Economic Performance, ER 1130-2-540.

5.2.4 Recreation

ER 1130-2-550 states that the primary rationale for any future recreation development must be dependent on a project's natural or other resources. Previously approved development plans for land currently outgranted for recreation are grandfathered under this policy.

There is a critical shortage of open space within urbanized southern California. The goal is to provide quality recreation experiences including an accessible, safe and healthful environment, a diversity of recreation opportunities for a diverse cultural community, and maintain a harmonious balance between the natural resources of the Basin and the community's needs and desires.

Resource Objectives

- Encourage community participation in expressing needs and desires to identify future development proposals.
- Optimize design of recreation amenities and access to minimize conflicts between activities and natural resources.
- Respect landscapes of significant and/or cultural value.

Resources 16USC 460d, ER 1165-2-550, EP 1165-2-550

5.2.5 Connectivity

Connect the Basin to the surrounding landscape to facilitate the movement of people that minimizes environmental degradation. The movement of people in, out, and around the Basin must be considered in light of various modes of transportation, individual mobility, the need for safety and to quickly evacuate during a flood event.

Resource Objectives

- Encourage identification and connection with regional trail systems and eliminate impediments to trail connections within the Basin.
- Promote safe and efficient circulation and access to the Basin's recreation facilities to control traffic and provide a link between activities within the Basin.
- Minimize impacts on natural resources by locating similar amenities near vehicular access points.

Resources: National Trail Systems Act (NTSA), Trails for America in the 21st Century Act (16 USC 1245).

5.2.6 Ecosystem Restoration

Natural creeks are an integral wildlife corridor within the region. Within the Basin several tributaries of the Los Angeles River carry local run-off through the Basin to the river. With urbanization these creeks have become degraded, reducing wildlife connectivity, losing habitat value, and reducing water quality.

Resource Objectives

- Encourage the restoration of creeks and streams for safe corridors for wildlife movement.
- Restore wildlife habitat diversity and value.

Resources: North American Wetlands Protection Act, Endangered Species Act, EO 13186 Federal Responsibilities to Protect Migratory Bird Act,

5.2.7 Cultural Resources

Cultural resources need to be protected yet balanced against the educational goals of interpretation of sites. Nature centers and interpretative panels can safely display artifacts and interpret the history of a site.

Resource Objectives

- Promote preservation and protection of historic and cultural sites within the Basin.
- Encourage education and interpretation aspects of cultural sites

Resources National Historic Preservation Act, Archeological Resources Preservation Act as amended.

5.2.8 Community Involvement

Encourage the local community to become partners with the lessees and the Corps as Basin stewards. Creating a sense of ownership empowers the local community to play an active role in future development by indentifying problems, participating in volunteer programs, identifying and protecting resources, and educating the general public about these resources.

Resource Objectives

- Volunteer programs for education and interpretation, clean-up and restoration activities, and safe accessibility of the Basin.

- Maintain communication channels among Basin users, lessees, and the Corps on the public's needs and desires, future development, and problems and opportunities within the Basin.

Resources: NEPA (42 USC 4321 et seq.), EP 1130-2-550.

6 LAND USE CLASSIFICATION AND RESOURCE PLAN RECOMMENDATION

6.1 Recommended Land Use Classifications

The recommended land use classifications proposed in this Master Plan include: Project Operations, Recreation, Environmentally Sensitive, and Multiple Resource Management - Recreation - Low Density, Multiple Resource Management - Vegetative Management, and Multiple Resource Management - Inactive and/or Future Recreation.

Nationwide regulations and policies are outlined in Chapter 16, ER 1130-2-550 and the “Non-Recreation Outgrant Policy.” The South Pacific Division of the Corps issued SPD Regulation 1110-2-1, “Land Development Proposals at Corps Reservoir Projects,” to clarify acceptable guidelines for development proposals. The Corps has prepared additional guidance regarding appropriate uses within each land use classification. This guidance is intended to clarify to the stakeholders and the public what activities/events are compatible with resource goals and objectives described in Section 5 and in accordance with Corps guidance and regulations on outgranted lands.

Maps 24 and 25 illustrate recreational and restoration opportunities and are discussed below in the Environmentally Sensitive and Inactive and/or Future Recreation classifications.

6.2 Recommended Actions Applicable to All Land Use Classifications

A number of recommended actions are applicable to all land use classifications. These include:

- Improve condition of existing trails and create new trails where appropriate. Improvement of hiking and other designated use trails in conjunction with restoration measures would increase public access and awareness of biological and other natural resources in the Basin. These improvements should incorporate ecosystem restoration efforts and appropriate design and management to enhance visitors’ experiences while not compromising the greater ecosystem.
- Implement policy of landscaping with native plants. Identify a plant palette of indigenous native plants to use in landscaping new recreation areas, and replace non-native plant material with native plants over time, except where provided in association with a specific cultural, historical or recreational experience.
- Eradicate invasive exotic species, including but not limited to giant reed (*Arundo donax*), consistent with nationwide policy (EO 13112). Educate the public on the significance of the need for eradication and how action would substantially enhance the natural environment throughout the Basin.
- Through an Adaptive Habitat Management Plan (AHMP) an invasive species eradication program should be implemented to restore native plant communities. Through the AHMP

process with interested stakeholders, create a short term and long –range plan for plant replacement that seamlessly integrates native plants over time in the existing landscape.

- Institute a system of way-finding using Corps signage guidelines (EP 310-1-6a, 01Jun 06) to ensure the public and emergency personnel are able to easily navigate the Basin. Combine a system of GPS with trail markers to positively identify locations in the Basin.
- Create signs to be placed throughout the Basin that identifies current locations of visitors as well as other amenities in the Basin.
 - Indicate on signs where park personnel can be reached in case of emergencies.
 - Install signs that indicate length and physical difficulty of trails and estimated walking/hiking times.
 - Institute sustainable resource management practices consistent with those already instated by the City.
- Continue green waste management policies for recycling of lawn clippings, shrub and tree trimmings and green debris, either on site or for composting off site.
- Implement additional “smart irrigation” systems throughout the Basin with satellite-operated controllers that monitor weather conditions and adjust irrigation schedules accordingly. Create an education program to demonstrate how this can be adapted for residential landscapes.
- Regularly evaluate the salinity of soils irrigated with recycled water and balance soil amendment practices to sustain habitat or landscape value.
- Develop a program to manage and recycle construction waste and provide incentives and recognition for lessees and contractors who adopt it per EO 13514.
- Retrofit pavement projects with the use of porous pavement alternatives where appropriate to allow for the infiltration of storm-water.
- Develop an Integrated Pest Management program that uses alternatives to chemical fertilizers and pesticides.
- Use low voltage solar lighting where feasible.

6.2.1 Recommended Areas Applicable to Project Operations

Land classified as Project Operations covers 313.0 acres, including 157.8 acres of roadways within the Basin. Project Operations land is the most restrictive land use classification. It is managed by the Corps for operations and maintenance of the Project. While vegetation or trails may be permitted within Project Operations areas, vegetation may need to be cleared out periodically to maintain flood storage capacity, trails may need to be closed off quickly in the event of eminent flooding, and trails may be closed following a storm event due to damage caused by inundation.

6.2.2 Recommended Areas Applicable to Recreation

Recreation includes a total of 234.6 acres. The land use classification of Recreation is the most flexible or developable classification. This classification allows for amenities such as sports fields and associated support amenities. Recreation areas are generally located in the higher elevations of the Basin as Corps policy restricts certain kinds of structures within given flood-line elevations or they must be mitigated for by being floodable. Requests for development for non-recreational purposes must be evaluated on a site specific basis for compatibility.

Existing recreation areas included in this classification include:

- Balboa Sports Complex
- Hjelte Sports Center
- The Encino Franklin Fields and Velodrome
- Pedlow Field Skate Park
- White Oak Fields

Currently under construction is the Phase I of the Sepulveda Basin Sports Complex, including ball-fields, parking, and restrooms. Approved by the Corps is the Phase II of the complex, located on the “east bowtie” area bounded by the Orange Line Bus-way to the north and Los Angeles River to the south.

In addition, the City is currently planning:

- Approved, but not completely funded, a Universally Accessible Baseball Field located in the southeastern corner of Anthony C. Beilenson Park at the intersection of the Los Angeles River and Hayvenhurst Channel.

6.2.3 Recommended Areas Applicable to Environmentally Sensitive

Approximately 300 acres is recommended for classification into the Environmentally Sensitive classification. This is the most restrictive land use classification in terms of development and use opportunities. This classification places a strong emphasis on the protection and/or preservation of vegetation, wildlife, and cultural resources. This classification includes Sepulveda Basin Wildlife Area, the area south of Burbank Blvd., north of the Los Angeles River, and the Bull Creek Restoration Area.

The Wildlife Area is home to a number of species including ducks, coots, great blue herons, egrets and cormorants. The endangered least Bells’ vireo has been documented at the edge of this area and along the Los Angeles River (see Map 21). This classification severely restricts activities and use of these areas. It would provide a high level of protection of the areas to preserve the habitat value for resident species, is compatible with Corps environmental stewardship policies, and reflects community desires for protection of wildlife habitat. Activities such as hiking, bird watching, volunteer clean-up activities, and still photography are permitted under Corps’ guidance.

Recommendations include:

- Restoration of upland and riparian communities would increase the overall quality of these areas for wildlife habitat.
- Conduct periodic biological site surveys to monitor the presence of any rare or endangered species such as the least Bell’s vireo.
- Dogs and other domesticated animals are not allowed, on or off trail.

- Fishing, boating and swimming in the Wildlife Area Lake and in Bull Creek are not allowed.
- Prepare a management plan for long –term invasive plant eradication.
- Restore unofficial trails that have become compacted and devoid of vegetation.
- Promote safety in isolated areas by
 - a. Docent led tours and patrols to keep a constant presence in the area.
 - b. Signs posted describing the inherent dangers of potential flooding in these areas.
 - c. Planting “unfriendly” but appropriate native riverine plants such as native roses (*Rosa californica*) at entry points into the areas with appropriate warning signs and plant identification.
 - d. Periodic but irregular “sweeps” by enforcement personnel to remove encampments and direct people out of the area. Such sweeps cannot be reliably predicted, but if occur frequently enough, the likelihood of people immediately returning is diminished.
 - e. Vegetation management as required includes trimming and clearing/mowing for user safety and security.
- The extent and area of lands included within each proposed land use classification are described, including total acreage and lands proposed for new classifications are mapped in Appendix E Map 23; and
- A description of Corps policy and guidance appropriate for each land use classification has been provided to guide appropriate designation and future development and management of the lands.

6.2.4 Recommended Areas Applicable to Multiple Resource Management (MRM) - Recreation - Low Density

Approximately 801 acres is recommended for the MRM - Recreation - Low Density land use classification. MRM - Recreation - Low Density recognizes areas that have less intensive recreational uses such as picnic areas, open play areas, and golf courses. Areas designated as MRM – Recreation- Low Density are better suited to hosting special events because development is limited and open space in these areas can suit multiple use and function. Special events at Sepulveda Basin are preferred to occur in Woodley Park and the north side of Lake Balboa. Other areas classified as MRM - Recreation -Low Density may be considered on a case-by-case basis and must be compatible with the surrounding area to limit impacts to adjacent areas. Special events must comply with guidelines established by the Corps included in Appendix A5.

The following areas are recommended for this classification because of their current low intensity recreational use:

- Woodley Lakes Municipal Golf Course
- Balboa Municipal Golf Course
- Encino Municipal Golf Course
- Anthony C. Beilenson Park with the exception of the Bull Creek Restoration Area and the approved universal access baseball field
- Woodley Park

- Cricket Fields
- Sepulveda Garden Center and community garden plots
- Off-leash Dog Park
- Archery Range
- Model Airplane Field
- ONEgeneration S. Mark Taper Intergenerational Center

Because this classification covers such a large area, recommendations are specific to each of the different parcels and will be addressed individually.

Woodley Lakes, Encino, and Balboa Municipal Golf Courses Corps policy now expressly prohibits golf courses when developing new recreation amenities on Federal lands controlled by the Corps. Existing golf amenities are permitted to remain. Existing golf courses are subject to environmental stewardship policies. The City has taken several steps to institute sustainable practices into the management of its courses. These practices include:

- Use of reclaimed water
- Smart irrigation
- Mulching lawnmowers that keep grass clippings in place
- Composting
- Decreased use of fertilizer
- Keeping herbicides and pesticides to a minimum and using the least toxic material (such as *Bacillus thuriengensis* or Bt).

In addition, it is recommended that storm-water BMPs should be instituted throughout the golf courses to address runoff which may contain chemical fertilizers, pesticide and herbicides.

Anthony C. Beilenson Park This park includes Lake Balboa, restroom amenities, shade structures, and a very popular universal access playground. A universal access baseball field is under development. Special events are frequently held in this area. Special events sometimes encroach upon and close down access to restrooms and the universal playground.

- The Bull Creek restoration area needs to be “off limits” to heavy use such as 5K and 10K runs.
- The path around Bull Creek should continue its loop.

Special events are permitted within Anthony Beilenson Park in accordance with the conditions and restrictions provided in Appendix A5. The following recommendations for this area include

- Instituting an educational program that informs the public about the disadvantages to wildlife when fed by people. Increase interpretive signage around the lake, provide brochures at the restroom amenities, and enhancing educational opportunities through community outreach, park entrances, and lectures.
- Placing signs in multiple languages informing the public that fishing line disposal containers are on site for public use.

- Monitoring parking capacity and if necessary, posting signs when parking lots are full.

Woodley Park It is recommended that this area be targeted for replacement of non- native trees and shrubs with native trees and shrubs over time.

Cricket Fields These are long-established uses at the Basin and attract a very diverse user group. It is recommended that these continue to operate and maintained.

The Japanese Garden at the Donald C. Tillman Water Reclamation Plant This garden has a high esthetic value. A strong docent and support group coupled with a nominal user fee allows the garden maintained at its current level. It is recommended that the cultural landscapes be maintained.

Sepulveda Garden Center The City has indicated a desire to add an additional restroom facility in the area south of Magnolia Boulevard. It is recommended that the area northwest of the current community garden center be considered for expansion of the garden center.

Sepulveda Basin Off-leash Dog Park As one of the more popular sites at the Basin, it is recommended that improvements include: providing for chairs and/or picnic tables for users of the park. With its location adjacent to the Los Angeles River (River) which does not currently meet bacteria water quality standards, it is recommended that Best Management Practices (BMPs) such as vegetated swales be installed to ensure that no animal waste is entering the River and degrading the water quality.

Archery Range This area is recommended for additional maintenance, specifically to restroom facilities.

Model Airplane Field There is a very strong, active and vocal user group that self-polices its activities and helps maintain the site. There are no recommendations at this time.

ONEgeneration S. Mark Taper Intergenerational Center This facility has evolved from its original use as a teen center into one that accommodates many generations and is a “cooling center” for those in the San Fernando Valley without air conditioning. While an unusual use at a Corps facility, it serves a diverse population. It is recommended that the use and maintenance of the facility be reviewed periodically to ensure that it is still meeting the needs of the community.

6.2.6 Recommended Areas Applicable to Multiple Resource Management - Vegetative Management

Approximately 218 acres is recommended for classification as Vegetative Management. The Vegetative Management classification is less restrictive than the Environmentally Sensitive land use classification, but recognized as having environmental value for the vegetation provided. These areas may include non-native plants and/or be subject to disturbance from time to time. Because of the proximity to the model airplane field, the area between Woodley Creek and Woodley Avenue is subject to trampling when fliers retrieve downed planes and may burn if a plane crashes and catches on fire. The areas recommended for this land use classification and shown on Map 23 are:

- The area adjacent to the model airplane field roughly bounded by Woodley Creek to the north and west, Woodley Avenue to the east, and the Los Angeles River and Burbank Boulevard to the south.
- A buffer zone around the Los Angeles River and its tributaries in the Basin: Bull Creek, Hayvenhurst Channel, Woodley Creek, Haskell Creek, and Encino Creek.
- Area located south of Burbank Blvd., west of the Dam, and north of the Los Angeles River.

Lands adjacent to the Los Angeles River and its tributaries are recognized as areas for potential restoration activities by stakeholders and the Corps. Riparian buffers, defined here as the entirety of aquatic, wetland, and riparian forest woodland habitat within the river can reduce runoff rates by increasing flow complexity and travel.

Recommendation for this classification as all land use classifications, to implement a native planting program where feasible.

Recommendations include:

- Restoration of upland and riparian communities would increase the overall quality of these areas for wildlife habitat.
- Conduct periodic biological site surveys to monitor the presence of any rare or endangered species such as the least Bell's vireo.
- Dogs and other domesticated animals are not allowed, on or off trail.
- Prepare a management plan for long-term invasive plant eradication.
- Promote safety in isolated areas by
 - a. Signs posted describing the inherent dangers of potential flooding in these areas.
 - b. Planting "unfriendly" but appropriate native riverine plants such as native roses (*Rosa californica*) at entry points into the areas with appropriate warning signs and plant identification.
 - c. Periodic but irregular "sweeps" by enforcement personnel to reduce "illegal activities", remove encampments, and direct people out of the area. Such sweeps cannot be reliably predicted, but if occur frequently enough, the likelihood of people immediately returning is diminished.
 - d. Vegetation management as required includes trimming and clearing/mowing for user safety and security.
- The extent and area of lands included within each proposed land use classification are described, including total acreage and lands proposed for new classifications are mapped in Appendix E Map 23; and
- A description of Corps policy and guidance appropriate for each land use classification has been provided to guide appropriate designation and future development and management of the lands.

6.2.7 Recommended Areas Applicable to Multiple Resource Management - Inactive and/or Future Recreation

A total of 325.0 acres are recommended for the classification Inactive and/or Future Recreation Use. Inactive and/or Future Recreation areas include those areas that are used for non-recreational purposes; are not presently developed (including dirt lots for overflow parking) or that are being utilized on an interim basis for a limited purpose such as for agriculture. The areas recommended for this classification and shown on Map 24 include:

- An area colloquially referred to as the “west bowtie,” which consists of a roughly triangular parcel created west of the intersection of the Orange Line Bus-way and Los Angeles River currently used for agriculture.
- A small area behind the intergenerational center.
- A vacant lot north of Woodley Lakes Municipal Golf Course that extends to the area between the Recreation and Parks Administration Building and the 6th Army site.
- The areas east and west of Hjelte Sports Center currently used for agriculture.
- A small parcel west and north of the community gardens.

A number of non-Corps amenities operate in the Basin including the Donald C. Tillman Water Reclamation Plant, Army National Guard Armory, Armed Forces Center, 6th Army, Air National Guard, and the City of Los Angeles Fire Station. If in the future, the Corps expands the categories of land use classifications, these areas may fall under a more appropriate classification.

Careful consideration should be given to how lands classified as MRM - Inactive and/or Future Recreation are developed. Once a capital investment has been made and a user group for that recreational activity has been established, a change to the use of the land to another land use classification or type of recreation can be difficult.

“West Bowtie” Area. While adjacent to ball fields, it is bounded by residential properties whose backyards directly abut the property. It is recommended that if agriculture is no longer desired as an interim use, that this area could be developed:

- As a passive nature park with access by bicycling or walking, planted with native trees with open spaces for informal activities and picnicking.
- As upland habitat similar to the wildlife area with hiking trails.

Area behind the ONEgeneration S. Mark Taper Intergenerational Center (Center) With the program of utilizing this area for interaction between generations, this theme could be extended and landscaped in such a way that would complement the activities of the Center. Highly active recreation with its accompanying noise and traffic would not be suitable for this area since it might disturb the people utilizing the Center. This could be developed as:

- A community garden for the people utilizing the Center and providing the Center with fresh fruits and vegetables.
- A picnic area and garden for quiet leisurely activities such as reading or chess.

- An outdoor classroom.

Areas east and west of Hjelte Sports Center currently used for agriculture. The City has indicated a desire to expand the Hjelte Sports Center to the west and utilize this area currently in agriculture for development of softball fields. It is recommended that future development plans undergo site specific evaluation and review per Corps guidance.

The area east of the existing Hjelte Sports Center is recommended to remain as agriculture for an indefinite period of time.

The parcel west and north of the community gardens appears to be abandoned or used for chipping vegetation. If this function can be performed elsewhere, the community gardens could be expanded into this area and served by the amenities at the Sepulveda Garden Center on Magnolia Boulevard.

6.3 Timeline of Resource Plan Recommendations

The tables below summarize the recommendations discussed above in Section 6.3 according to their timeline for implementation. Table 6.1 identifies the plans that are currently approved for implementation at Sepulveda Basin.

Table 6.1 Development or Expansions Approved for Implementation		
Project	Location	Description
Universally Accessible Baseball Field	In Anthony C. Beilenson Park at intersection of the Los Angeles River and Hayvenhurst Channel	Source of funding has delayed implementation.

Table 6.2 Recommended Actions for Improvement and Management Throughout Basin	
Recommended Immediate Measures	
Trail Improvements	<ul style="list-style-type: none"> • Improve hiking trails and other low-density recreational features in conjunction with restoration management measures to increase accessibility to the public and facilitate more awareness of the biological resources found in the Basin. • Connect trails to create loops and facilitate movement throughout Basin. • Decommission disturbed trails and unofficial trails created by Basin visitors. • Structure trails to discourage homeless encampments.
Native Plant Landscaping	<ul style="list-style-type: none"> • Institute invasive plant eradication program for species such as giant reed, tree tobacco, castor bean, salt cedar in conjunction with the AHMP. • Develop a plant palette for replacing non-natives with native species.

Table 6.2 Recommended Actions for Improvement and Management Throughout Basin	
Install Way-finding	<ul style="list-style-type: none"> • Create a system of signage throughout the Basin that enables visitors to identify their location as well as other amenities in the Basin. Indicate on signs location of park personnel in case of emergencies, as well as emergency phone numbers. • Where practicable, install signs that indicate length and physical difficulty of trails and estimated walking/hiking times. • Combine a system of GPS with trail markers to identify locations.
Restore Creek Drainages	<ul style="list-style-type: none"> • Eradicate non-native species from riparian habitats and implement restoration program. • Re-design eroded slope banks to allow establishment of native species and curtail erosion. • Introduce meanders, boulders, or other stream features as appropriate to increase habitat value. • Remove trash and debris.
Implement Sustainable Resources Management	<ul style="list-style-type: none"> • Continue green waste management. • Implement “smart irrigation” systems throughout the Basin. Implement landscape-based storm-water management systems. • Naturalize creek edges. • Develop an Integrated Pest Management program. • Use low voltage solar lighting and other energy saving utilities and measures. • Manage special events to ensure no inappropriate use of Environmentally Sensitive and MRM - Vegetative Management Areas.
Implement Safety Measures	<ul style="list-style-type: none"> • Ensure pets are leashed at all times within Basin and install signage to remind pet owners. • Install lighting and emergency call boxes in dark or isolated areas. • Implement parking lot closure procedure for busy summer or holiday periods. • Investigate options for increasing safety within the model airplane field.
Recommended Future Actions for Each Land Classification	
Project Operations	<ul style="list-style-type: none"> • Include education about flood risk management and the operations of the Dam in interpretive signage throughout Basin. • Manage trails and vegetation for elimination of homeless camps.
Environmentally Sensitive	<ul style="list-style-type: none"> • Include education about flood risk management and the operations of the Dam in interpretive signage throughout Basin. • Restore native habitat, including upland, riparian, and wetland. • Conduct periodic biological surveys, particularly to determine of ESA protected species. • Manage trails and vegetation to limit homeless camps. • Install signage with educational information regarding the hazards of feeding wildlife.

Table 6.2 Recommended Actions for Improvement and Management Throughout Basin	
MRM - Recreation - Low Density	<ul style="list-style-type: none"> • Implement stormwater BMPs throughout golf courses and within the off-leash dog park. • Install signage with educational information regarding the hazards of feeding wildlife and encouraging proper disposal of fishing line around Balboa Lake. • Address heavily compacted soils within Woodley Park. • Investigate condition of archery range and potential improvements needed or alternative uses. • Periodically review ONEgeneration, and other amenities, to determine visitation, condition, and adequacy of meeting the community's needs.
MRM - Vegetative Management	<ul style="list-style-type: none"> • Eradicate non-native and invasive species. • Develop native plant palette for restoration plan implementation • Create appropriate riparian vegetation communities along Los Angeles River and associated drainages within Basin.
MRM – Inactive and/or Future Recreation	<ul style="list-style-type: none"> • Investigate potential use opportunities in areas of inactive or agricultural land.
Potential Opportunities for Inactive or Future Recreation Areas	
West Bowtie	<ul style="list-style-type: none"> • Create passive nature park, accessed via foot or bicycle. • Restore native river adjacent upland habitat. • Create wetlands/riparian habitat.
Behind ONEgeneration Center	<ul style="list-style-type: none"> • Establish community garden. • Create picnic area and garden. • Designate for use as outdoor classroom.
Vacant Lot north of Woodley Lakes Municipal Golf Course	<ul style="list-style-type: none"> • Install universal access playgrounds, parks, and picnic areas. • Add formalized overflow parking amenities.
West of Hjelte Sports Center	<ul style="list-style-type: none"> • A conceptual plan for several soccer fields has been approved for expansion of Hjelte Sports Center to the west.
Parcel northwest of Community Gardens	<ul style="list-style-type: none"> • Expand community gardens into this open parcel.

6.4 Economic Feasibility

Economic feasibility involves demonstrating the economic value of implementing recreation development plans that are sustainable over time in terms of public needs and desires, use and perception, and operation and maintenance. It is recognized that well maintained recreation amenities are well used and those that are not have little interest from the public and are often considered unclean and/or unsafe and decline further. When this happens, it often costs more to

refurbish and rehabilitate amenities or implement new ones than providing a carefully constructed operations and maintenance program.

While no specific plans are considered under this updated Master Plan, future plans proposed for recreation development are guided by Corps policies and guidelines for demonstrating the need and economic feasibility of such proposals. This includes documenting financial capability on the part of the proponent, sufficient funding to complete the proposal, as well as long term operation, maintenance, and repair. The proponent must also show the economic need for the project by providing market survey information to indicate community desire and the need for the project to indicate its future community use and intrinsic value.

If a proponent is not able to provide funding through normal budgetary means to maintain quality and use to a safe and clean standard, funds for operation and maintenance may need to be found elsewhere. This may involve the charging of use fees for certain activities such as ball fields, group reservations and special events (fees are subject to District Commander approval). Other sources include state and local funding sources, trusts, and private organizations to help defray costs. Public volunteer programs to staff amenities such as nature areas and visitor center could be pursued.

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CONCLUSION

The Federal government owns and the Corps manages eleven Basins in southern California with the primary purpose of flood risk management. Since the Basins are “dry” most of the year, holding water only after storm events occur (usually December through March), the Basin may also be used for other purposes, primarily recreation that may not impede Project operations. Over sixty (60) years of Federal laws and regulations have empowered the Corps to work with local interests to develop, construct, operate, and maintain recreation amenities within the Basins serving community needs.

The Corps leased to the City of Los Angeles through its Department of Recreation and Parks a significant portion of land in the Basin to the City for recreation purposes. Over the last fifty (50) years the Corps and the City have developed a variety of recreation amenities with Federal and City funds through cost sharing agreements. Amenities include ball fields, picnic areas, trails, and lakes. The City has also independently developed recreation amenities.

The Master Plan is a tool for the Corps, stakeholders, and public interests to guide future development in the Basin. Corps regulations and policies guide the development of amenities through the Master Plan. This Master Plan is an update of the last Master Plan for Sepulveda Dam Basin completed in 1981. Although Corps regulations recommend the update of a Master Plan every five (5) years, Federal funding is not always available to initiate and complete this process. As a result, this Master Plan incorporates a longer time frame into it, identifying short and long term recommendations for recreation development, amenity maintenance, restoration of native habitats, and other actions. This has been accomplished through a process which has:

- Identified existing recreation amenities and other facilities within the Basin,
- Incorporated the local community’s needs and desires for recreation development,
- Developed resource goals and objectives, and
- Developed additional policies to facilitate these goals and objectives.

As a result, this Master Plan identifies land use classifications for the Basin based on this process within the definitions of Corps regulations. This will guide interested parties for future development through years to come to preserve and protect the Nation’s lands and resources.

Sepulveda Dam Basin
Master Plan and Environmental Assessment

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APPROVAL

I have reviewed this Master Plan and Environmental Assessment for the Sepulveda Dam Basin prepared by my staff for the guidance of future development for recreation and environmental stewardship efforts within the Sepulveda Dam Basin located in the City of Los Angeles, Los Angeles County, California in keeping with the Corps' mission, values and vision.

This Master Plan is technically sound, environmentally acceptable, and meets the appropriate requirements of Corps regulations guiding the development of Master Plans for Corps' water and land resource projects.

Therefore, I approve this Master Plan for Sepulveda Dam Basin as presented, subject to updates as needed for the benefit of flood risk management, public use, and environmental stewardship.

28 SEP 2011
Date



R. Mark Toy, P. E.
Colonel, US Army
Commander and District Engineer

9 ACRONYMS AND GLOSSARY

ac	Acre
ac-ft	Acre-feet
AHMP	Adaptive Habitat Management Plan
ARRA	American Recovery and Reinvestment Act
BMP	Best management practices
CEQ	Council on Environmental Quality
CESPD	Corps of Engineers South Pacific Division
CFR	Code of Federal Regulations
cfs	cubic feet per second
Corps	U.S. Army Corps of Engineers
EA	Environmental Assessment
EC	Engineering Circular
EIS	Environmental Impact Statement
EM	Engineer Manuals
EO	Executive Order
EP	Engineer Pamphlets
EPA	Environmental Protection Agency
ER	Engineer Regulations
FCA	Flood Control Acts
FONSI	Finding of No Significant Impact
GHG	Greenhouse gas
LACDA	Los Angeles County Drainage Area
MRM	Multiple Resource Management
NEPA	National Environmental Policy Act
NGVD	National Geodetic Vertical Datum
O&M	Operation and maintenance
P.L.	Public Law
SPD	South Pacific Division
USC	United States Code
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
WRDA	Water Resources Development Act

Abutment A geological feature that each end of a Dam is tied into for support.

Archaeological resources Surface or buried material remains, buried structures, or other items used or modified by people.

Basin Land area comprised of all Federal lands managed by the Corps that were acquired for the construction, operation and maintenance of the Whittier Narrows Dam Basin.

Channel Portion of the project carrying flow may be described as: natural, constructed, riprapped, concrete, trapezoidal, leveed, overbank, low flow, bypass etc.

Dam Barrier built to hold back flowing water.

Discharge Volume of water that passes through a given cross-section per unit time; commonly measured in cubic feet per second (cfs) or cubic meters per second (m³/s); also referred to as flow. In its simplest concept discharge means outflow; therefore, the use of this term is not restricted as to course or location, and it can be applied to describe the flow of water from a pipe or from a drainage basin.

Drainage area Area of a stream at a specified location is that area, measured in a horizontal plane, which is enclosed by a drainage divide.

Easement Lands Land over which the Federal government acquired an interest in real estate to support construction, operation and/or maintenance of the project. Not equivalent to fee title.

Ecosystem Management An ecosystem is a dynamic community of biological organisms, including humans, and the physical environment in which they interact. Ecosystem management by the Corps is a proactive, goal-driven approach to sustaining ecosystems and their values. The Corps will manage communities to promote regional environmental values occurring on project lands toward sustaining ecosystems in which the project lands and waters occur. Such ecosystems and communities will be identified in resources objectives and/or land use classifications contained in the Master Plan and the OMP. Preferential treatment will be given to the management of ecosystems, communities, and habitats identified as having special status species. (ER 1130-2-540 15 Nov 96 2-2 f. (1)(a))

Embankment Bank of earth, concrete, or other material constructed to hold back water.

Endangered Species Any species which is in danger of extinction throughout all or a significant portion of its range, and has been so listed by the FWS/NMFS at 50 CFR 17.11 and 17.12.

Enhancement Enhancement measures/activities are those measures/activities taken above a stewardship level (i.e., level of required to sustain fish and wildlife resources for the life of the project), and those measures/activities which produce an increase or concentration of animal numbers for the purpose of recreation benefits. Historically the term “enhancement” has been used as an indication of a net habitat improvement over the without project condition. However, this term now implies making the habitat better for some species than it would have been naturally in the absence of human intervention. Since this goes beyond the goal of ecosystem restoration, the use of the term, enhancement is rarely appropriate in Corps documents.

Flood Risk Management Flood risk management is the process of identifying, evaluating, selecting, implementing, and monitoring actions taken to mitigate levels of risk. Scientifically sound, cost-effective, integrated actions are taken to reduce risks. Social, cultural, ethical, environmental, political, and legal considerations are accounted for in the process.

Floodplain The lowland that borders a river, usually dry but subject to flooding.

Groundwater Water in the ground that is in the zone of saturation, from which wells, springs, and groundwater runoff are supplied.

Historic archaeological resources Archaeological sites whose deposits that post-date European contact.

Interpretive Services Communication and education processes provided to internal and external audiences which support accomplishment of Corps missions, tell the Corps story, and reveal the meanings of, and relationships between natural, cultural, and created environments and their features.

Invasive Species A species whose introduction does or is likely to cause economic or environmental harm or harm to human health. A species that is non-native to the ecosystem under consideration and whose introduction causes or is likely to cause economic or environmental harm or harm to human health.

Invert As used in hydraulic engineering, the bottom or lowest point or elevation of a structure such as a pipe, conduit or channel.

Land Allocation The identification and documentation of lands at Civil Works projects in accordance with the authorized purposes for which they were or are to be acquired. There are four primary land allocation categories applicable to Corps projects: (1) operations (i.e., flood control, hydropower, etc.), (2) recreation, (3) fish and wildlife, and (4) mitigation.

Land use classifications All lands are acquired for authorized project purposes and allocated for these uses. The classification process is a further distribution of project lands by management categories, which based upon resources available and public needs, will provide for full utilization while protecting project resources. (EP 1130-2-550 15 Nov 96 1-4.d.)

Market Area The geographic range that people are expected to reasonably travel from to visit the Basin area.

Master Plan A conceptual document guiding the Corps responsibilities pursuant to Federal laws and regulations to preserve, conserve, restore, maintain, and manage the project lands, waters, and associated resources. The plan addresses all resources including but not limited to fish and wildlife, vegetation, cultural, esthetic, interpretive, recreation, mineral, commercial, and outgranted lands, easements and water. The Master Plan is the document that organizes authorized activities, i.e., established by project specific authorities as well as general authorities for stewardship responsibilities which guide the project's role within the region, watershed, and ecosystem.

Mitigation Mitigation measures authorized by Congress or approved by Headquarters compensate for ecological resources unavoidably and adversely affected by a Corps project. Mitigation includes stand-alone projects; work undertaken concurrently with project construction; and operation, maintenance and management measures. (ER 1130-2-540 15 Nov 96 2-2 (6)(b))

Multiple Resource Management Lands managed for one or more of, but not limited to, these activities to the extent that they are compatible with the primary allocation(s). The activities should be fully explained in the narrative portion of the Master Plan.

Native Species With respect to a particular ecosystem, a species that other than as a result of an introduction, historically occurred or currently occurs in that ecosystem.

Non-statutory Mitigation The definition of mitigation is broadened to include "all measures necessary to make the Corps project whole." No specific statute may address these actions, yet damages are incurred and appropriate mitigation should be provided. Non-statutory mitigation actions may take the form of actions to restore project value, such as replacing trees, soil stabilization, and providing new, relocated, or replacement amenities.

Outgrant Authorizes a non-Federal entity the right to use Army-controlled real property. It is a written legal document that established the timeframe, consideration, conditions, and restrictions on the use of Army property.

Outlet works The hydraulic structure that controls the flow of water through a dam, usually consisting gates upstream of a lined conduit or pipe.

Outreach Activities Communication efforts involving programs that reach diverse populations such as students, teachers, organized groups such as Boy Scouts, Girl Scouts, 4-H, and the general public, beyond the physical boundaries of Corps projects and amenities.

Planning Area The planning area is a geographic space with an identified boundary that includes the area identified in the study authorizing document and the location of alternative plans which are often called project areas. The locations of resources that would be directly, indirectly or cumulatively affected by alternative plans are also called the affected area.

Recreation – Low Density Recreation activities such as hiking, primitive camping, wildlife observation, hunting, or similar low density recreation activities.

Recreation Land developed for intensive recreation activities by the visiting public, including developed recreation areas and areas for concession, resort, and quasi-public development. At new project, recreation areas planned for initial development will be included in this classification. Future areas will be classified as multiple resource management until initiation of the development.

Resource Objectives Clearly written statements that are specific to a project or group of projects. They specify the attainable options for resource development and/or management. They must be consistent with authorized project purposes, Federal laws and directives, regional needs, resource capabilities, and expressed public desires.

Special Event Special events at Corps' Basins such as water carnivals, fishing tournaments, boat regattas, music festivals, dramatic presentations, and other special recreation program of interest to the general public.

Spillway Hydraulic structure whose purpose is to bypass flow that exceeds the storage and/or release capacity of a dam.

Stewardship Natural resources management through a stewardship concept ensures the conservation, preservation, or protection of those resources for present and future generations. Stewardship focuses on sustaining ecosystems. Stewardship shall be applied in a biological community context, thereby providing protection for the existing species populations, communities, habitat types and ecosystems.

Traditional cultural properties Places associated with the cultural practices or beliefs of a living community. The significance of these places sites is derived from the role the property plays in a community's cultural identity as defined by its beliefs, practices, history and social institutions.

Watershed An area characterized by all direct runoff being conveyed to the same outlet. Similar terms include basin, drainage basin, catchment, and catch basin. A part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or a body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

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