APPENDICES

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OUTGRANT POLICIES

APPENDIX A1-A7:
OUTGRANT POLICIES

An outgrant is a written legal document that establishes the timeframe, consideration, conditions, and restrictions on the use of Corps property. An outgrant is typically a lease or license and authorizes the right to use Corps-controlled real property.

At Sepulveda Dam Basin the primary lessee is the City of Los Angeles, California for recreation purposes. The lease agreement is for 50 years and expires on 5 January 2017. The City of Los Angeles Department of Recreation and Parks (City) is responsible for the costs of operation, maintenance, and replacement of all facilities and improvements on the premises. This lease specifically governs the use and development of the Corps leased property, and is included in Appendix B.

In addition to applicable statutes, regulations, and guidelines, the most recent Corps policies for outgrants are described in memoranda and Engineering Regulations (ER) publications. ER 1130-2-550 dated 9 March 2009 provides the "Recreation Development Policy for Outgranted Corps Land." On 30 March 2009 the memorandum, "Non-Recreational Outgrant Policy," was issued. The South Pacific Division issued SPD Regulation 1110-2-1, "Land Development Proposals at Corps Reservoir Projects" on 18 December 2001. It established SPD policy and procedures including checklists and diagrams the districts must use in evaluating land development proposals at Corps Basins within the SPD.

The purpose of these publications was to establish consistent nationwide criteria to evaluate proposals on Corps Civil Works water resources projects. These policies were developed jointly by the Real Estate and Operations Communities of Practice. Because these memoranda establish policies for proposed development, they are included as part of Appendix A.

APPENDIX A1: Recreation Development Policy for Outgranted Corps Land

APPENDIX A2: Non-Recreational Outgrant Policy

APPENDIX A3: Land Development Proposal at Corps Reservoir Projects

APPENDIX A4: Corps Policy on Filming and Photography in Operations Area

APPENDIX A5: Corps Policy on Special Events at Sepulveda Dam Basin

APPENDIX A6: Corps Policy on Training in Operations Area

APPENDIX A7: Corps Policy on Biological Surveys in Operations Area

APPENDIX A1:
RECREATION DEVELOPMENT POLICY FOR OUTGRANTED CORPS LAND

DEPARTMENT OF THE ARMY
U.S. Army Corps of Engineers
Washington, D.C. 20314-1000

ER 1130-2-550
Change 5

CECW-CO

Regulation
No. 1130-2-550

30 March 2009

Project Operations
RECREATION OPERATIONS AND MAINTENANCE
GUIDANCE AND PROCEDURES

1. This change 5 to ER 1130-2-550, 15 November 1996 establishes a recreation development policy for outgranted Corps lands.

2. Substitute the attached pages as shown below:

Chapter	Remove Pages	Insert Pages
Table of Contents	iii	iii
Chapter 16	_	16-1 through 16-3
Appendix C	_	C-1
Appendix D	_	D-1

3. File this change sheet in front of the publication for reference purposes.

FOR THE COMMANDER:

STEPHEN L. HILL
Colonel, Corps of Engineers
Chief of Staff

ER 1130-2-550
30 Mar 09
Change 5

CHAPTER 16 – RECREATION DEVELOPMENT POLICY FOR OUTGRANTED CORPS LANDS

16-1. Purpose. This guidance establishes a consistent, nationwide policy that will be applied to evaluate requests for recreation development at Corps water resources development projects and was developed jointly by the Real Estate and Operations Communities of Practice. The Corps intent is to provide public outdoor recreation opportunities that support project purposes and meet the recreation demands created by the project itself while sustaining our natural resources. Depending on specific project legislation, project purposes may also include navigation, hydropower, flood control, and or water supply. Additional statutes can assign missions responsibilities such as fish and wildlife management, and endangered species.

16-2. Applicability. This policy applies to all existing recreation outgrants issued after 6 December 2005 and all new requests for recreation development by Federally recognized Indian Tribes, public (Federal, state and local), private sector and quasi-public entities and individuals at Civil Works water resources development projects. Previously approved development plans for land currently outgranted for recreation development are grandfathered under this policy. When proposed development is not specifically addressed in a previously approved development plan for an existing outgrant instrument, the proposed development will be treated as a new request; however, land availability will not have to be reevaluated. New or existing sublessees that propose recreational development outside the terms and conditions of the current outgrant instrument are considered as a new request. All new requests require a conceptual development plan in sufficient detail to evaluate the proposed recreation development.

16-3. Policy.

a. The primary rationale for any future recreation development must be dependent on the project's natural or other resources. This dependency is typically reflected in facilities that accommodate or support water-based activities, overnight use, and day use such as marinas, campgrounds, picnic areas, trails, swimming beaches, boat launching ramps, and comprehensive resort facilities. Examples that do not rely on the project's natural or other resources include theme parks or ride-type attractions, sports or concert stadiums, and stand alone facilities such as restaurants, bars, motels, hotels, non-transient trailers, and golf courses. Normally, the recreation facilities that are dependent on the project's natural or other resources and accommodate or support water-based activities, overnight use, and day are approved first as primary facilities followed by those facilities that support them. Any support facilities (e.g., playgrounds, multi-purpose sports fields, overnight facilities, restaurants, camp stores, bait shops, comfort stations, boat repair facilities) must also enhance the recreation experience, be dependent on the resource-based facilities, be secondary to the original intent of the recreation development and the land base occupied by the outgrant. The Corps will not support private exclusive use of any type of facility.

b. Corps policy is to provide outdoor recreation opportunities to the public where there is an unfulfilled demand and a corresponding deficit of those facilities. This shortfall is fulfilled by either the Corps constructing the facilities itself or allowing Federally recognized Indian Tribes, other public (Federal, state and local), private sector, quasi-private entities or individuals to do so on project lands through an outgrant. Accordingly, outgrants that the Corps enters into should not unfairly compete with other established private or public recreational facilities. Existing outgrants with proposed facilities in development plans should be given priority to develop similar facilities within a reasonable timeframe before issuing a new outgrant for like facilities.

16-4. Definitions.

a. Comprehensive Resort – Typically, multi-faceted developments with facilities such as marinas, lodging, conference centers, golf courses, tennis courts, restaurants, and other similar facilities.

b. Conceptual Development Plan – Requestor's or existing lessee's plan for an area of Corps land that shows existing and or proposed facilities, services, and acreage necessary to meet the current and potential public demand and the management and development activities to be undertaken.

c. Master Plan - A conceptual document guiding Corps responsibilities pursuant to Federal laws and regulations to manage the project lands, waters, associated resources, and preserve, conserve, develop, restore and maintain those resources. The primary goals of a Master Plan are to prescribe an overall land and water management plan, resource objectives, land use classifications, and associated design and management concepts. The plan addresses all resources including but not limited to fish and wildlife, vegetation, cultural, aesthetic, interpretive, recreational, mineral, commercial, and outgranted lands, easements and water.

d. Outgrant – Authorizes the right to use Army-controlled real property. It is a written legal document that establishes the timeframe, consideration, conditions and restrictions on the use of Army property. For the purposes of this policy, an outgrant is typically a lease or license authorized by 16 USC 460d, 10 USC 2667 and the general administrative authority of the Secretary of the Army (reference ER 405-1-12, Chapter 8 (Real Property Management) and the forthcoming EC 405-1-80 (Management and Outgrant Programs).

e. Project Level Representative – Person responsible for operations at a project or area level such as lake manager, operations project manager, resource manager, etc.

16-5. Evaluation Criteria.

a. All new requests for recreation development must be in writing and will be reviewed by a district team. At a minimum, the team will consist of a project level representative, Real Estate, Operations, and other district legal/technical elements as appropriate (Engineering, Planning, Regulatory, etc.). Final authority to approve recreation development rests with the District Commander. In the rare circumstance that exceptions to this policy may be warranted,

proposals for recreational developments may be forwarded to the Director of Civil Works through the Division Commander for review on a case by case basis.

b. Although these evaluation criteria are integral to any land availability determination, the preparation of the Report of Availability (ROA) will follow the processes established in ER 405-1-12, Chapter 8 (Real Property Management) and the forthcoming EC 405-1-80 (Management and Outgrant Programs), ER 200-2-2 (Procedures for Implementing NEPA) and ER 200-2-3 (Environmental Quality-Environmental Compliance Policies). In addition, the evaluation will be consistent with ER 1130-2-540 (Environmental Stewardship Operations and Maintenance Policies), ER 1130-2-550 (Recreation Operations and Maintenance Policies), and ER 1130-2-406 (Shoreline Management at Civil Works Projects.)

c. The team will evaluate requests for recreation development using the following criteria:

(1) Consistent with project purposes

(2) Reasonable connection to the project's natural and other resources

(3) Consistent with land use classifications and resource management objectives in the Project Master Plan (or supplement thereto)

(4) In the public interest

(5) Justified by public demand (market study- See Appendix C)

(6) Economically viable (feasibility study- See Appendix D)

(7) Meets the recreation demands created by the project itself while balancing natural resources requirements

d. Routine, minor expansions/requests of previously approved facilities within the lease footprint such as additional campsites at an existing campground, additional marina boat slips, enlargement of a restaurant, additional picnic sites or parking spaces may warrant a streamlined evaluation in accordance with established District procedures.

16-6. Implementation. This policy is effective immediately and supersedes any existing project, district, or MSC policy on evaluating proposed recreation development.

ER 1130-2-550
30 Mar 09
Change 5

APPENDIX C

Market Studies

C-1. Market Study.

a. A market study is contingent upon developing an inventory of the supply of existing types of recreational resources within a given area. The study must also include a recreational demand analysis that provides an indication of what people do, feel and want concerning recreational facilities (e.g., public demand). By comparing the inventory and the demand analysis it is possible to determine the types and amount of additional recreational facilities that are needed now or in the future. At a minimum, proposed recreation development by Federally recognized Indian Tribes, public (Federal, state and local), private sector and quasi-public entities and individuals will demonstrate a demand for the type of facilities proposed and a current or near future need for the type of facility being proposed.

b. Proposed demand studies shall contain data on the regional population and future projections, demographic characteristics and an inventory of similar types of recreational facilities (e.g., campgrounds, picnic areas, marinas, etc.) and their resources (e.g., 125 camping spurs, 150 picnic tables, etc) within a 30-mile radius of the proposed site requested for development. The study should demonstrate that the demand analysis was done through one or a combination of methods. General categories of methods include but are not limited to, public input gathered through surveys and or workshops, using recreational standards (e.g., 1000 camping spurs per 50,000 people), participation levels/rates (e.g., 2.4 million people participate in picnicking, which is 56 percent of the regional population), and trend analysis (e.g., extrapolating historical use statistics for those similar types of facilities over a ten to 20 year period).

c. The availability of information described above for use in the study will vary from region to region. Federally recognized Indian Tribes, public (Federal, state and local), private sector and quasi-public entities and individuals should consult with State Census Bureaus, State Departments of Commerce, State and Federal Recreational Agencies, and travel bureaus for this information and to minimize study cost. Each state has a State Comprehensive Outdoor Recreation Plan that contains analysis criteria referenced above. In addition there are numerous Federal recreational studies such as the National Survey of Recreation and Environment that contain this type of information. Regional universities with outdoor recreational departments may also be a source for information and assistance.

d. All costs associated with a market study, NEPA documents, land surveys, preparation and review of the ultimate lease by the Corps as well as any other administrative costs associated with Corps review and approval of any proposed development are the responsibility of the entity proposing the recreation development.

APPENDIX D

Feasibility Studies

D-1. Feasibility Study.

a. The intent in requiring a private sector or individual to provide a feasibility study is to demonstrate that the entity can make a reasonable return of profit on a yearly basis for the proposed recreational development and that such development is economically viable. Factors such as the input of capital to develop the facility(s), maintenance cost, insurance, labor, etc. should be addressed. The type and size level of the facility(s) (e.g., 250 camping spurs vs. 100 spurs, 200 marina boat slips vs. 100) should also be addressed to demonstrate a reasonable rate of profit would occur. The numbers of visitors needed and the associated fee for these services should also be addressed. Detailed charts, graphs, and projections are not required; however, enough data must be provided to demonstrate such factors have been considered and that a profit can be generated.

b. Feasibility studies for Federally recognized Indian Tribes, public (Federal, state and local), or quasi-public entities will also be required. However the content of the analysis is limited to the types and size of the facility and evidence that yearly profits of the facility will offset or nearly offset the yearly operational cost of the proposed facility(s). Private sector or individuals working through a public entity for a development request (third party) will be required to furnish a feasibility study that complies with the requirements for a private requestor or individual as referenced above.

c. All costs associated with a market study, NEPA documents, land surveys, preparation and review of the ultimate lease by the Corps as well as any other administrative costs associated with Corps review and approval of any proposed development are the responsibility of the entity proposing the recreation development.

APPENDIX A2:
NON-RECREATIONAL OUTGRANT POLICY

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS
WASHINGTON, D.C. 20314-1000

CECW-CO/CEMP-CR

MAR 30 2009

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Non-Recreational Outgrant Policy

1. **Background**. In executing the U.S. Army Corps of Engineers mission, districts receive numerous and diverse proposals for use of lands and waters at Civil Works water resources projects. Nationwide guidance specifically for recreation development on outgranted land was issued on 6 December 2005. No similar nationwide criteria exist to evaluate proposals for non-recreation purposes. Districts have taken different approaches in evaluating these proposals. This has created inconsistencies in the type and scope of use authorized and other conditions related to authorizations, such as mitigation and long term affects on public resources. Past proposals have included a wide variety of activities involving the utilization of public lands and waters, such as roadways, public utilities (power lines, waterlines, intakes and outfalls, natural gas and fuel pipelines, etc.), commercial navigation activities (harbors, barge terminals, mooring cells, etc.), flood risk management or hydropower generation structures, public facilities such as schools, fire houses, police stations, and private residential subdivisions. At times, there may be an interrelationship between recreation and other real estate outgrant proposals (e.g. leases, licenses, easements). In those cases, the intent and philosophy of both policies will be evaluated, along with other applicable statutes, regulations, and guidelines, such as the Corps Environmental Operating Principles. This policy was developed jointly by the Real Estate and Operations Communities of Practice.

2. **Purpose**. The purpose of this guidance is to establish a consistent, nationwide policy that will be applied to evaluate non-recreational real estate outgrant requests for use of Civil Works lands and waters. The Corps intent is to meet legitimate needs for the use of project lands and waters while sustaining our natural resources and protecting authorized project purposes. Depending on specific project legislation, project purposes may include navigation, hydropower, flood risk management, recreation, water supply, and low flow augmentation. Additional statutes can assign mission responsibilities, such as fish and wildlife and endangered species management.

3. **Applicability**. This policy applies to all new non-recreational outgrant requests for use of Corps fee owned lands and waters by the public (Federal, State and local), Indian Tribes, private sector, quasi-public entities, or individuals at Civil Works water resources projects. All requests submitted prior to the effective date of this policy will be processed in accordance with current District policies. Existing outgrants are grandfathered under this policy. Proposals to modify or renew existing outgrants will also be evaluated for policy compliance under this guidance.

CECW-CO/CEMP-CR
SUBJECT: Non-Recreational Outgrant Development Policy

All new proposals must comply with Section 9 - Evaluation Criteria, Enclosure 1 - General Outgrant Application Information, and as applicable, Enclosure 2 - National Environmental Policy Act Guidance, Enclosure 3 - Mitigation Guidance, and Enclosure 4 - Additional Guidance For Specific Outgrant Applications. It is recommended that designated corridors be established in Project Master Plans where feasible and new proposals should utilize these corridors where they exist. This policy is not applicable to oil, gas, or mineral exploration or extraction. This policy is also not applicable to the licensing of hydropower facilities by non-federal interests on Corps administered Civil Works Projects. That program is regulated by the Federal Energy Regulatory Commission. However, full compliance with the associated non-federal hydropower requirements defined in ER 1110-1-1454 (Corps Responsibilities for Non-federal Hydroelectric Power Development under the Federal Power Act) is required. Specific guidance for evaluating antenna sitting requests is contained in 41 CFR 102-79.70-79.100. A license, lease, or easement will be issued in association with the request depending on proposed use of the Federal property (i.e. whether a tower or other facilities will be constructed on Federal property; or solely placement of an antenna).

4. **Policy.** The primary rationale for authorizing any future non-recreational outgrant request for use on Corps lands or waters will be one of two reasons: there is no viable alternative to the activity or structure being located on Civil Works land or waters; or, there is a direct benefit to the government. Examples of instances of no viable alternative include but are not limited to: cross-country utilities, pipelines, or roadways that must cross projects, public water intakes, or commercial mooring cells in a navigable waterway. If a proposal meets one of these two criteria, it must be evaluated in light of compatibility with authorized project purposes, compliance with statutory and regulatory requirements, including environmental and cultural resource laws, cumulative impacts, and overall long-term public interest factors. The impacts associated with an individual action or the accumulated impact of a series of actions must not adversely impact the capability of the project to generate the benefits for which the project was congressionally authorized, constructed, and is operated. The Corps shall coordinate and/or consult with American Indian/Alaska Native Governments when reservation lands are involved. Public or private structures or activities that are not dependent on use of, or location on, Civil Works lands and waters, such as schools, fire houses, and hospitals are prohibited unless no viable alternative is proven available. Permanent commercial ventures and private residences are prohibited. Any private exclusive use of Civil Works lands and waters not specifically authorized by ER 1130-2-406 is prohibited.

5. **Consideration.** In most instances, an applicant will be required to pay the fair market value or consideration for use of Civil Works lands and or waters. This consideration may be monetary or non-monetary. However, in-kind consideration is not authorized for leases or licenses granted under 16 USC 460d.

6. **Mitigation.** Mitigation guidelines can be found in Enclosure 3. Wherever possible, applicants requesting use of Corps fee-owned lands or waters generally will be required to mitigate for adverse impacts to ensure that public resources suffer no net loss of value, post-construction. This may include statutory and/or non statutory mitigation actions. However, only

non-statutory mitigation may be waived as defined in Enclosure 3, paragraph 4. Where required, a Mitigation Plan must be prepared and approved by the District Engineer prior to issuance of the outgrant instrument. Approved mitigation plans shall become a condition of and added as an addendum to the applicable real estate instrument.

7. **Administrative Expense.** In addition to consideration and mitigation, the applicant will be required to pay administrative expenses for the outgrant. Administrative cost for the evaluation of any application documents (preliminary, detailed, supporting) will be paid up front and prior to the start of the review process by project and district personnel in accordance with Civil Works Policy Memorandum, "Collection of Civil Works Appropriations," dated 2 October 2008.

8 **Storage Capacity.** By law, every Corps water resource project has designated missions (e.g., flood risk management reduction, hydropower, navigation, water supply, etc). To ensure compliance with law, the Corps is required to maintain the ability to store water to support these missions. The amount of water storage availability for each mission is identified in a congressionally approved Water Allocation Report. Changes to these amounts may not be done without a re-allocation study and an approved amended Water Allocation Report. Proposals that impact water storage availability for any mission will be required to offset the impact. This includes impacts up to the maximum storage of the reservoir (see Definitions Section 8d.).

9. **Definitions.**

a. **Consideration** - The fair market value received for the outgrant (monetary and non monetary, such as in-kind improvements or services). Administrative expenses and mitigation requirements cannot be applied towards consideration. Administrative expenses and mitigation cost are considered as an additional expense to the fair market value of the outgrant.

b. **Designated Corridors** - A parcel of land with fixed boundaries that has been identified in the Project Master Plan or operational management plan as being the preferred location for future outgrants (e.g., public utilities, roadways, pipelines, etc) or proposed modifications to existing outgrants suitable to accommodate compatible types of outgrants.

c. **Freeway** - A road that has controlled access and is designed to link urban areas. Freeways are designed for high volumes of traffic, use grade separations at all intersections, have design speeds of 50-65 miles per hour, and no median access. Freeways include expressways, interstates, and toll-roads.

d. **Maximum Storage** - The total storage space in a reservoir (in acre feet) below the maximum attainable water surface elevation (crest of the dam or top of the flood pool), including any surcharge storage (capacity above the maximum operating level of reservoir).

e. **Operational Management Plan -** A separate document from the Project Master Plan that outlines in detail the specific operation and administration requirements for natural resources and park management consistent with the approved Project Master Plan. Management strategies consistent with authorized project purposes, approved resource use objectives, and land designations will be established in the document. The document will be used as a working tool for the overall management of the project on a day to day basis.

f. **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 facilities.

g. **Outgrant** – A document which authorizes the right to use Civil Works lands and waters. It is a written legal document which conveys the right to use Army controlled real property. For the purposes of this policy, an outgrant is typically a lease, license, or easement generally authorized by 16 USC 460d, 10 USC 2667 or 10 USC 2668, and the general administrative authority of the Secretary of the Army (reference ER 405-1-12, Chapter 8 (Real Property Management), AR 405-80 (Management of Title and Granting Use of Real Property), and the forthcoming EC 405-1-80 (Management and Outgrant Programs).

h. **Project Level Representative –** Person responsible for operations at a project or area level, such as lake manager, operations project manager, park manager, resource manager, etc.

i. **Project Master Plan -** A conceptual document guiding Corps responsibilities pursuant to Federal laws and regulations to preserve, conserve, develop, restore, maintain, and manage project lands, waters, and associated resources. The primary goals of a Master Plan are to prescribe an overall land and water management plan, resource use objectives, land use classifications, and associated design and management concepts. The plan addresses all resources including, but not limited to, fish and wildlife, vegetation, cultural, aesthetic, interpretive, recreational, mineral, water, and commercial.

j. **Regional Arterial Road** – A road that links multiple communities within two or more counties, and provides continuous and mostly uninterrupted traffic flow. Regional arterial roads are designed for high volumes of traffic, design speeds of 45-50 miles per hour, and use partially controlled access, grade separation at isolated intersections and limited curb and median access controls to facilitate traffic flow.

k. **Statutory Mitigation** - Statutory mitigation is driven by regulations that require mitigation to correct negative impacts to the environment based on a proposed action. For example, § 33 CFR 320.4(r) and 33 CFR 332 detail the required mitigative actions when wetlands or navigable waterways (e.g., discharge of dredged or fill material into the water) are impacted.

CECW-CO/CEMP-CR
SUBJECT: Non-Recreational Outgrant Development Policy

l. **Viable Alternative –** Other lands or waters not under Corps management that meet the intended objective of the proposal. Factors such as cost or the appearance of unused Corps lands or waters will not affect the determination of viability.

10. Evaluation Criteria. All new requests for use or revisions to existing outgrants must be in writing and reviewed by a district team. Generally, the team will at a minimum consist of a Project Level Representative, Real Estate, Operations, and other legal/technical elements as appropriate (Counsel, Engineering, Planning, Regulatory, etc.). Final approval rests with the District Engineer unless such authority is specifically delegated to an appropriate subordinate level to accommodate a minor request. In the rare circumstance that exceptions to this policy may be warranted, proposals for non-recreational use will first be forwarded to the Division Commander. If the review for these exceptions is not resolved at the Division level, as a last resort, the request will be forwarded to Headquarters (CECW-CO-N, CEMP-CR, applicable headquarters Regional Integration Team, and the Director of Civil Works (if needed)) for resolution.

a. Although these evaluation criteria are integral to any land availability determination, the preparation of the Report of Availability (ROA) will follow the processes established in ER 405-1-12, Chapter 8 (Real Property Management), AR 405-80 (Management of Title and Granting Use of Real Property), the forthcoming EC 405-1-80 (Management and Outgrant Programs), ER 200-2-2 (Procedures for Implementing NEPA) and ER 200-2-3 (Environmental Quality-Environmental Compliance Policies). In addition, the evaluation will be consistent with ER 1130-2-540 (Environmental Stewardship Operations and Maintenance Policies), ER 1130-2-550 (Recreation Operations and Maintenance Policies), and ER 1130-2-406 (Shoreline Management at Civil Works Projects).

b. The team will evaluate requests using all of the following criteria:

- Consistent with project purposes
- Viable alternatives to utilization of public lands and waters
- Consistent with complete land use classifications and resource management objectives identified in the approved Project Master Plan (or supplement thereto)
- Consistent with applicable evaluation contained in the enclosures
- In the public interest
- Demonstrated need
- Technical capabilities
- Financial capabilities (consideration, mitigation and administrative expenses)

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CECW-CO/CEMP-CR
SUBJECT: Non-Recreational Outgrant Development Policy

11. **Implementation.** This policy is effective immediately and supersedes any existing project, district, or MSC policy on evaluating proposed outgrants. This policy will remain in effect until incorporated into appropriate Engineer Regulations. District policies may be developed that supplement this policy in order to further define evaluation roles and responsibilities within the district. However, district policies will not be in conflict with this policy.

FOR THE COMMANDER:

Encls

MERDITH W. B. TEMPLE
Major General, USA
Deputy Commanding General
for Civil and Emergency Operations

6

GENERAL OUTGRANT APPLICATION INFORMATION
ENCLOSURE 1

1. Preliminary Information – The applicant must provide the preliminary information requested below (a-h) to the Project Level Representative. The initial submission will be evaluated by the Project Level Representative and district team to determine if a proposal is appropriate for location on Government property. Administrative cost for the evaluation of any application documents (preliminary, detailed, supporting) will be paid by the applicant prior to the start (up front) of the review process by project and District personnel, in accordance with Civil Works Policy Memorandum, "Collection of Civil Works Appropriations" dated 2 October, 2008.

a. Identify Applicant:

(1) Name, address, and phone number of applicant. The application must be submitted by the entity to whom the outgrant will be assigned.

(2) Point of contact for processing (e.g. City Manager, Mayor, Commissioner, etc)

b. Describe the structure or facility.

c. Identify the purpose, need and objective (benefits, enhancements, statutory requirements) for the structure or facility.

d. Justify placement of structure or facility on government property. The justification should include a description of all alternative locations and routes that were investigated, including routes and locations off of project lands. The description will also include rationale for why the other alternatives were not selected. Cost factors alone will not affect the determination of viability.

e. State the duration for which the proposed outgrant is requested. Include the duration of the temporary license if one is needed (usually 1 year).

f. Generally describe the location and dimensions of the requested outgrant area to include a preliminary site plan. NOTE: Outgrants should be placed in the footprint of existing project outgrants or within designated corridors where possible.

g. Provide basic construction methods and timeline.

h. Anticipated impacts (environmental, cultural resource, social, etc.).

2. Detailed Information - If upon review of an initial request, the Corps determines that the requested activity may be feasible and will be considered further, the information below must be provided as required. This information will be provided to the Project Level Representative and be evaluated by the district team. Additional information may be requested based on the nature of the proposed activity. A Corps determination will be made as to what environmental documentation is required for the proposed action. Preliminary information concerning administrative fees, consideration and mitigation will be provided to the applicant.

a. **Coordination**

(1) Provide concurrence from third parties who may be affected by the structure or facility (e.g. other existing outgrants)

(2) Provide other agency concurrence regarding legal or regulatory requirements where necessary (e.g. responsible State natural resources and utility entities).

NOTE - A temporary real estate instrument will be required prior to conducting any on-the-ground activities (for surveys, ground disturbance, soil and groundwater testing). An Archeological Resources Protection Act (ARPA) permit may also be required.

b. **Description of Proposal**

(1) Provide preliminary plans and specifications for the proposed outgrant. Include construction areas, if applicable.

(2) Provide a map(s) which includes the following:

(a) A legal description (location, identification of parcel) of the proposal. (reference to a known Corps of Engineers property monument is encouraged). This description can also be provided separately;

(b) The upper guide contours and elevation intervals appropriate to the terrain as applicable, if available;

(c) Identification of the project property line (Federal government property line) in relation to the proposal;

(d) Any structures that will be affected (e.g.: fences, roads, monuments, gates, intake structures, natural and environmental resources, etc.); and

(e) The estimated acreage of the proposed outgrant.

(3) Stake/flag the boundary or centerline of the outgrant if requested

c. **NEPA** - If NEPA documentation is required from the applicant, see Enclosure 2.

d. **Mitigation** – Non-statutory mitigation is generally required for impacted public resources. Mitigation often requires, but is not limited to, wildlife habitat improvement and vegetative plantings on the area of actual disturbance and on additional areas or other forms of restitution. Statutory mitigation may also be required if the proposed work involves applicable statutes, regulations, and guidance concerning impacts of a proposed action. For example, a discharge of dredged or fill material into waters of the U.S typically requires a Section 404 permit (Clean Water Act) and associated mitigation. See Enclosure 3 for additional mitigation guidance.

e. **Storm Water Requirements** – In accordance with State, County and/or local laws, various Districts within the Corps do not allow outgrants for storm water facilities. For those Districts that allow outgrants for storm water facilities, the applicant must also contact the applicable State, County and/or local agency responsible for storm water permits. The applicant must provide documentation of the contact, a Notice of Intent and evidence that a permit is being pursued (if required). In addition, the applicant shall provide a Storm Water Pollution Prevention Plan when required if earth-disturbing activities are to be performed. This plan shall include the means by which erosion and sedimentation will be controlled and monitored to protect the drainage courses.

f. **Storage Capacity** – In general, Corps policy is no net loss of maximum storage capacity. This generally includes calculating amounts of cut and fill which could impact storage capacity.

g. Landscaping and Revegetation - As part of site stabilization and restoration, the applicant in most cases will be required to reestablish vegetation after construction. The applicant must demonstrate that the seed and vegetative plantings proposed for revegetation are native species to the area and not listed as an invasive species on a Federal or applicable State list.

NOTE: Applicants, please review Enclosure 4 for guidance addressing additional requirements for specific types of outgrants.

NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) GUIDANCE
ENCLOSURE 2

For outgrant proposals requiring an Environmental Assessment (EA) the following information is generally required by NEPA. Additional information may be requested depending on the nature of the proposal. An EA facilitates the decision process regarding the proposed action and alternatives. Additional information concerning NEPA can be found at http://ceq.hss.doe.gov/.

NEPA documents may be completed by the Corps or the applicant. If completed by the Corps, the applicant must pay for the expenses incurred prior to the work being initiated. If completed by the applicant, the applicant must pay for the expenses to be incurred by the Corps prior to the Corps review in accordance with Civil Works Policy Memorandum, "Collection of Civil Works Appropriations" dated 2 October 2008.

a. SECTION 1	AUTHORITY, PURPOSE, AND SCOPE provides the authority for the proposed action, summarizes the project purpose, provides relevant background information, and describes the scope of the EA.
b. SECTION 2	ALTERNATIVES examines alternatives for implementing the proposed action.
c. SECTION 3	PROPOSED ACTION describes the recommended action.
d. SECTION 4	AFFECTED ENVIRONMENT describes the existing environmental and socioeconomic setting.
e. SECTION 5	ENVIRONMENTAL IMPACTS OF THE PROPOSED ACTION identifies the potential environmental and socioeconomic effects of implementing the proposed action and alternatives.
f. SECTION 6	MITIGATION PLAN summarizes mitigation actions required to enable a Finding of No Significant Impact for the proposed alternative.
g. SECTION 7	FEDERAL, TRIBAL, STATE, AND LOCAL AGENCY COORDINATION provides a listing of individuals and agencies consulted during preparation of the EA.
h. SECTION 8	REFERENCES provides bibliographical information for cited sources.
i. SECTION 9	APPLICABLE ENVIRONMENTAL LAWS AND REGULATIONS provides a listing of environmental protection statutes and other environmental requirements.

j. SECTION 10	LIST OF PREPARERS identifies persons who prepared the document and their areas of expertise.	
k. APPENDICES	A	Correspondence
	B	Section 404 Permit (if required)
	C	Fish and Wildlife Coordination/Correspondence
	D	Cultural Resources Coordination/Correspondence
	E	Public Comments (if applicable)
	F	Newspaper Public Notice (if applicable)
	G	Other

MITIGATION GUIDANCE
ENCLOSURE 3

1. **Statutory Mitigation.** Statutory mitigation must be done in accordance with applicable statutes, regulations and guidance. Statutory mitigation is generally defined as actions that reduce the severity or intensity of adverse impacts of other actions, to include:

a. Avoiding the impact by not taking a certain action or parts of an action or by moving the project location. Applicants are encouraged to consider avoidance as the preferred mitigation measure.

b. Minimizing impacts by limiting the degree or magnitude of the action and its implementation, for example, by adjusting site layout.

c. Rectifying the impact by repairing, rehabilitating, relocating, or restoring the affected public resources.

d. Reducing or eliminating the impact over time by monitoring, maintaining, and/or replacing equipment or structures to prevent future degradation from equipment or structural failure over the life of the action.

e. Compensating for the impact by replacing or providing substitute resources or environments. With the exception of unique habitats under imminent threat of destruction, a mere change in ownership of existing habitat is generally not considered mitigation. Habitat improvement must be implemented in addition to long-term protection of the habitat.

Statutory Mitigation requirements vary somewhat under the environmental laws, regulations, and executive orders. For Corps of Engineers Regulatory Program mitigation guidance see 40 CFR Part 230 "Compensatory Mitigation for Losses of Aquatic Resources", 33 CFR 320.4 paragraph R, and 33 CFR 332. It is recommended that for actions on Civil Works lands and waters that require mitigation under these regulations, the mitigation occur on site where feasible.

2. **Non-Statutory Mitigation**: The definition of mitigation is broadened to include "all measures necessary to make the Corps project whole". Not all of the adverse impacts to a site will be required to be mitigated by a federal statute or regulation, but for outgrants, all adverse impacts must be mitigated unless a waiver is issued (see paragraph 4). The applicant for the outgrant will be advised of the impact and required mitigation. An example of impacts that may not be covered by existing authorities is a proposal that is categorically excluded from NEPA documentation but may still result in the destruction of a small wooded area containing twenty trees. There are no threatened or endangered species or any wetlands involved. Another instance may entail the destruction of 20 campsites resulting from a road expansion. In each case, the impacted resources must be restored or otherwise mitigated.

3. **Real Estate Outgrant Documentation.**

a. Where mitigation is required as a result of an outgrant, it will be addressed as a condition of the real estate instrument. A copy of the mitigation plan, use restrictions, and/or Memorandum of Agreement (MOA) will be included as an attachment to the outgrant document. If a mitigation plan, restrictions or an MOA is required, the outgrant instrument must be modified to incorporate compliance with the terms of the plan, restrictions or MOA as a condition of the outgrant. The outgrant instrument must be modified to incorporate a specific termination clause to address failure to comply with mitigation requirements.

b. In addition, action may also be required under the specific statute(s) that required the mitigation. A clear timetable must also be provided if mitigation requirements extend beyond the execution date of the outgrant agreement. Coordination with the office(s) which are responsible for these requirements must be completed to ensure the requirements are in place before the outgrant document is executed.

4. **Waiver of Non-Statutory Mitigation Requirements**. When only "Non-Statutory Mitigation" is required, the Corps may choose to waive this mitigation requirement in cases where the requested activity will further an authorized project purpose and/or meet a public demand that the Corps is unable to meet. However, the Corps does not have the authority to waive mitigation requirements when such mitigation is required by a law, regulation, or statute.

5. **Responsibility for Expenses.** In most cases, all costs associated with processing the mitigation aspect of the outgrant and initiating and maintaining mitigation requirements over the life of the mitigation action are the responsibility of the outgrant applicant and will be agreed upon and documented in the real estate outgrant instrument. These administrative costs are in addition to the fair market value consideration, if applicable, of the property to be outgranted and any other purely administrative expenses incurred as a result of this outgrant request in accordance with Civil Works Policy Memorandum, "Collection of Civil Works Appropriations" dated 2 October 2008.

6. **Future Ownership and Management of Mitigation Properties**. On-site mitigation should be achieved wherever possible. If on-site mitigation is not possible, off-site mitigation should be undertaken, as follows:

a. Acquisition of Real Property. To the maximum extent possible, any additional lands or other real property interest required to be purchased by the applicant for mitigation purposes will be contiguous with existing project lands or waters. The NEPA decision document will clearly address any requirement for the acquisition of non-statutory mitigation lands. In no instance will the Corps take title to real property prior to receiving approval of the Director of Civil Works. Management of mitigation properties will be accomplished in accordance with 33 CFR 332.7. Typically, a Real Estate Plan (REP) will be prepared to support this type of action. However, there may be circumstances that require the preparation and approval of a Real Estate Design Memorandum (REDM) where acquisition of the land is tantamount to implementation of the project and approval of a decision document is required prior to commencement of the acquisition effort (e.g., some fish and wildlife mitigation projects). In addition, an REDM may

be appropriate when there is a new acquisition requirement for an existing project for which a REDM was previously utilized.

b. Other Mitigation Services.

1) Mitigation services generally consists of restoration, creation, relocation, or improvements of the same type (i.e., three acres of existing wildlife habitat destroyed and replaced with three or more acres of new wildlife habitat lands) to offset the damaged resource base. In other circumstances, it may be more appropriate to accept other types of services (i.e., three acres of existing wildlife habitat destroyed and mitigated by rip rapping 1,000 linear feet of shoreline to protect nearby wildlife habitat). Entering into agreements for the replacement of impacted wildlife habitat with recreation facilities is generally not appropriate.

2) In the absence of specific authority, the Corps may not accept cash in lieu of mitigation services. In some limited instances, however, it is possible for the Corps to directly perform the mitigation work by entering into agreements with states or others and then to be reimbursed by the state or others for such work. Approval from the Assistant Secretary of the Army (Civil Works) (ASA-CW) may be necessary prior to entering into such an agreement. In some cases, a real estate instrument or a management plan may be required in accordance with 33 CFR 332.7 if a land acquisition is part of the mitigation service.

ADDITIONAL GUIDANCE FOR SPECIFIC OUTGRANT APPLICATIONS
ENCLOSURE 4

1. Requirements for Specific Structures and Applicable Legal Compliance - In addition to the requirements listed in Enclosures 1 through 3, the following information may be required as appropriate for specific types of outgrants. This list is not intended to be all inclusive but an illustrative example of additional requirements that exist for specific types of outgrants. The construction, operation and safety of these outgrants will require compliance with all applicable Federal, state, and local laws, codes, and standards. While it is not the responsibility of the Corps to inspect these facilities for safety compliance, the Corps reserves the right to halt the construction and or operation of the structure if a safety issue creates a danger to the life of project visitors or the ability of the Corps to carry out project missions. All of these specific outgrant applications must include a safety point of contact. Also note that the application must be submitted by the entity to whom the outgrant will be assigned.

a. **Electric Power and Communication Lines, and Structures and Facilities for Radio, Television, and other Communication Services**

(1) Specify line heights, voltage, cutoff locations and elevations

(2) Submitted plans must be certified by a state certified professional engineer as being in compliance with the National Electric Safety Code requirements, ER-1110-2-4401, 30 May 97 (Clearances For Electric Power Supply Lines and Communication Lines Over Reservoirs), American National Standard ANSIC2, National Electric Safety Code (NESC), American National Standard ANSI/NFPA 70, and the National Electric Code NEC.

b. **Sewer and Water Lines**

(1) A state certified professional engineer must certify plans as being in compliance with all applicable Federal, State, and local government regulations.

(2) Additional requirements may apply pertaining to flood-proofing and impacts to public resources.

(3) Submit documentation demonstrating coordination with the applicable Corps of Engineers District Real Estate Office concerning the format for water pipeline easements contained in Real Estate Policy Guidance Letter No. 26, Easements to Support Water Supply Storage Agreements and Surplus Water Agreements, 10 June 2008.

c. **Water Intake Structure**

(1) Submit plans and specifications showing any effects on Corps facilities, as well as current and future water volume needs that may impact water storage/surplus water contracts, etc.

(2) Submit documentation demonstrating coordination with the applicable Corps of Engineers District Real Estate Office concerning requirements contained in Real Estate Policy Guidance Letter No. 26, Easements to Support Water Supply Storage Agreements and Surplus Water Agreements, 10 June 2008.

(3) Provide written documentation showing permission has been procured from the water contract holder if required.

(4) Provide approval/permit from appropriate regulatory agency (state/local) if applicable. Also provide water supply contract, authorizing document, or decision document based on statute, for authorizing a water supply intake.

(5) Provide documentation of review and approval from Corps of Engineers Dam Safety Committee

d. **Outfalls (e.g. stormwater, sewage, etc.)**

(1) A copy of the National Pollutant Discharge Elimination System (NPDES) permit must be provided for approval of any outfall that is placed on Corps administered lands and waters. Also furnish any other state/local approvals as applicable.

(2) A plan to prevent erosion, and to prevent litter, trash, and pollutants from being deposited on Corps administered lands and waters must be provided.

(3) Submitted plans must be certified by a state certified professional engineer.

(4) Submitted plans must be in compliance with Project Shoreline Management Plan if applicable.

e. **Major Oil, Natural Gas and Fuel Carrying Pipelines (Under USC 30 Section 185 for pipelines 24"and greater in diameter)**

(1) Disclosure of Ownership - If a partnership, corporation, association, or other business entity applies for an easement, the application shall disclose, where applicable:

(a) Name and address of each partner

(b) Name and address of each shareholder owning 3 percent or more of the shares; the number and percentage of any class of voting shares of the entity; and

(c) Name and address of each affiliate of the entity. If the entity controls the affiliate, include the number of shares and percentage of any class of voting stock of that affiliate; if, however, the affiliate controls the entity, include the number of shares and percentage of any class of voting stock of the entity.

(2) If this information is already on file, and current, in the District Engineer's office, or local Bureau of Land Management or Federal Energy Regulatory Commission offices, references may be made to it; the applicant need not file repetitious disclosure documents with successive applications.

(3) Submit documentation demonstrating coordination with the applicable Corps of Engineers District Real Estate Office concerning requirements contained in Real Estate Policy Guidance Letter No. 27, Issuance of Fuel Carrying Pipelines that are 24 inches or more in diameter, 29 October 2008.

NOTE: For oil, natural gas and fuel pipelines smaller than 24" in diameter, please refer to requirements contained in General Outgrant Application Information (Enclosure 1).

f. **Roads**

(1) Generally, Civil Works lands will only be made available for roads that are considered regional arteries or freeways (See Definitions in the Guidance). All other types of roads, including driveways and alleys, are generally not permitted on these lands. The expansion of existing roads on Civil Works lands will be considered on a case by case basis.

(2) Indicate whether or not Federal Highway Administration funds are being used for this road.

(3) A state certified professional engineer must certify plans as being in compliance with all applicable Federal, State, and local government Regulations.

g. **Telecommunications.** Authorities applicable to issuing outgrants for telecommunication purposes depending on the type of instruments desired are referenced in the Telecommunications Act of 1996, which is codified at 47 USC 332 and implementing regulations are provided in 41 CFR 102-79.70 to 79.100. In addition the applications must be in compliance with forthcoming Engineering Circular 405-1-80 (Management and Outgrant Programs), Section XIX, Procedures for Sitting of Communications Facilities on Army Controlled Lands. Proposals must include documentation to ensure the outgrant would not create the following problems:

(1) Impair, interfere, or degrade the Federal missions of the project or its operations.

(2) Interfere with existing radio frequency (RF) activities.

(3) Documentation of coordination with Federal Aviation Administration (FAA) and/or Department of Defense (DoD) and sitting approval for any proposed telecommunication facility that will be located within proximity to an existing FAA facility or DoD system.

h. **Hydropower facilities.** Any request to construct/develop hydropower facilities will be an unusual request that will be handled on a case by case basis per ER 1110-2-1454 as amended.

APPENDIX A3:
LAND DEVELOPMENT PROPOSALS AT CORPS RESERVOIR PROJECTS

DEPARTMENT OF THE ARMY
SOUTH PACIFIC DIVISION, CORPS OF ENGINEERS
333 Market Street, Room 923
San Francisco, California 94105-2195

REPLY TO
ATTENTION OF:

CESPD-MT-E (1110-2-1)

18 DEC 2001

MEMORANDUM FOR

Commander, Albuquerque District
Commander, Los Angeles District
Commander, Sacramento District
Commander, San Francisco District

SUBJECT: SPD Regulation 1110-2-1, Land Development Proposals at Corps Reservoir Projects

1. References:

a. Memorandum, CESPD-PD-R, 7 May 1992, subject: Policy of Corps Reservoir Lands.

b. Policy Guidance Letter No. 32, 28 April 1993, subject: Use of Corps Reservoir Flowage Easement Lands.

c. Memorandum, CESPD-ET-EW, 20 May 1999, subject: Hydrologic and Hydraulic Evaluation of Balancing Cut and Fill Volumes for Land Development Proposals at Corps Reservoir Projects.

2. Enclosed is the completed CESPD Regulation 1110-2-1, Land Development Proposals at Corps Reservoir Projects. This regulation accounts for previously issued USACE regulations, interim policy guidance, SPD memorandums, internal correspondence and the latest analysis of impacts by land developments proposals under consideration. It is a valuable tool. It establishes SPD policy and procedures, including checklists and diagrams your districts must use in evaluating land development proposals at Corps reservoirs within SPD.

3. Land development within Corps reservoir projects continue to present new challenges. They require a thorough analysis of negative impacts on flood storage space especially those that effect critical features of the Spillway Design Flood and the Probable Maximum Flood. There are an increasing number of developments being proposed within Corps project lands. There is a balance between the requirements to adhere to established policy guidance, while at the same time working with the developers.

CESPD-MT-E
SUBJECT: SPD Regulation 1110-2-1, Land Development Proposals at Corps Reservoir Projects

4. This regulation will also be made available on the SPD Internet Homepage at http://www.spd.usace.army.mil. Questions regarding the above or enclosed may be directed to Ms. Theresa Mendoza or Mr. Boni Bigornia of my staff at (415) 977-8106/8102.

Encl

FOR ROBERT L. DAVIS
COL (P), EN
Commanding

2

CESPD R 1110-2-1

DEPARTMENT OF THE ARMY
SOUTH PACIFIC DIVISION, CORPS OF ENGINEERS
333 Market Street, Room 923
CESPD-MT San Francisco, California 94105-2195

CESPD REGULATION
NO. 1110-2-1 November 2001

Engineering and Design
LAND DEVELOPMENT PROPOSALS AT CORPS RESERVOIR PROJECTS

1. Purpose. This regulation establishes South Pacific Division (SPD) policy for evaluating land development proposals within reservoirs and flood basins of the Corps, and for documenting the results of the evaluation. Land development proposals are those by companies, organizations, private parties, governments, agencies, or any other entities to construct buildings, roads, or other facilities or in any other way to modify the landforms, vegetation, surface characteristics, or use of lands within a reservoir or basin operated by the Corps for flood control. The Corps has responsibility to assure that the project purposes are not compromised, that the public is not endangered, and that natural and cultural resources associated with project lands are not harmed. The points and procedures for evaluation of development proposals in this regulation are to assist in meeting these responsibilities and complying with applicable laws and directives.

2. Applicability. This regulation is applicable to all SPD Districts and other field operating activities within this command.

3. References.

a. EO 11988, Floodplain Management, 42 F.R. 26951, 24 May 1977.

b. ER 1165-2-26, Implementation of Executive Order 11988 on Floodplain Management, 30 March 1984.

c. ER 405-1-12, Real Estate Handbook, 20 November 1985.

d. ER 200-2-2, Procedures for Implementing NEPA, 4 March 1988.

e. ER 1110-2-240, Water Control Management, 24 May 1990.

f. EP 1165-2-314, Flood Proofing Regulations, 31 March 1992.

This regulation supercedes: CESPD-DE Memorandum, Subject: Interim Guidance for Evaluating Development within Corps Reservoir Projects; Dated 7 May 92 and CESPD-ET-EW Memorandum, Subject: Hydrologic and Hydraulic Evaluation of Balancing Cut and Fill Volumes for Land Development Proposals at Corps Reservoir Projects; Dated 20 May 99.

g. Policy Guidance Letter No. 32, Use of Corps Reservoir Flowage Easement Lands, 28 April 1993.

h. ER 1130-2-530, Flood Control Operations and Maintenance Policies, 30 October 1996.

i. ER 1130-2-540, Environmental Stewardship Operations and Maintenance Policies, 15 November 1996.

j. ER 1130-2-550, Recreation Operations and Maintenance Policies, 15 November 1996.

4. Delegation of Responsibilities. The water control authorities and responsibilities of all commands are executed through the Districts' Water Control Operations Centers or Reservoir Control/Regulation Sections.

a. Commander, South Pacific Division will:

(1) Establish Division-wide policies and procedures concerning evaluation of land development proposals;

(2) Establish and maintain close contact with the District staff relative to the land development project and provide advisory assistance as required; and

(3) Conduct review of land development proposals prior to approval by the District Commander to insure national and regional consistency in policy application.

b. District Commanders will:

(1) Establish and execute the reservoir operations program in accordance with policies;

(2) Establish and maintain liaison with SPD personnel in Water Control, Operations Division and Real Estate and Environmental relative to the land development project;

(3) Conduct an internal review by all pertinent offices within the District, including the District's Water Control, Engineering, Operations, Real Estate, Planning Divisions, Environmental and Counsel;

(4) Prior to approval, submit land development proposals to SPD for review to insure national and regional consistency in policy application; and,

(5) Approve or disapprove development proposals and retain the evaluation package on which the decision was based.

5. Factors To Be Considered for Developments in SPD Reservoirs. A formula cannot be developed to calculate the acceptability of a development project but numerous factors should be considered in the evaluation of land development proposals.

a. Real Estate Requirements. Proposed developments need to be evaluated to ensure they do not conflict with the terms of real estate interests held for the project or constrain future operational flexibility of the project. Provisions to be put into new real estate outgrant instruments should include recognition of the fact that the water control plan is expected to change in the future and that flood releases are based on the most current water control plan. A decision to limit developments on project lands must be consistent with the underlying provisions of the applicable real estate interest held by the Government or the project sponsors. Before making a final determination on the proposed development, the Offices of Real Estate and Counsel should be consulted.

b. Reservoir Storage.

(1) Developments that occur within an SPD reservoir (i.e., on either lands held in fee or on lands in which USACE or local sponsors may have real estate interests) will not be allowed to reduce the reservoir's project storage space. This requirement includes the space for the Spillway Design Flood (SDF). The Probable Maximum Flood (PMF) design space is a critical feature in the operation of a Corp reservoir project. The primary consideration in approving excavations or landfill placements is the preservation of " project storage capacity" of the project. "Project storage capacity" is herein defined to include all hydrologic and hydraulic needs of the project, which encompasses the volume for the entire project, i.e., sedimentation, hydropower, recreation, agriculture, water supply, and spillway design flood.

(2) Most developments require cut and fill operations that change the original topography of the flood control basin. Even if there is a balance of cut and fill, there may be an adverse effect on flooding frequency within the basin due to the change in the area-capacity curve. The cut and fill operations must not cause any property to be flooded more frequently than before the development was in place. This can be done by ensuring that for every elevation on the modified area-capacity curve, an equal or larger reservoir volume would be created by the development, i.e., for any "fill" volume, an equal or greater volume of "cut" must be removed at an elevation below the fill. Impoundment areas such as lakes or spreading basins should be evaluated as "fill" if they are not designed to release their water from the reservoir (i.e., gravity flow, pumping or recharge) prior to a flood.

(3) Cumulative degradation of project storage through land development that does not mitigate for this lost volume has an insidious effect on the hydrologic design and operation of the project. Therefore, proposals for excavation and grading of the flowage easement that result in loss of project storage will not be approved unless substitute flood storage is provided.

(4) Normally, to account for losses in volumetric space caused by vertical development, the best engineer practices would require developers to balance cut and fill up to the elevation at Maximum Reservoir Level (MRL). Unfortunately, from the point of volumetric calculations and legal control, real estate rights are not generally acquired for land between the elevation of the guide acquisition line (or take line) and the elevation of the top of the dam. Clearly, for land developments beyond our acquisition line we have no legal authority to regulate incursions in the vertical space that would otherwise be available for floodwaters in a design flood event. This acquisition policy represents an attempt in balancing hydrologic design requirements and political realities of real estate acquisition.

(5) When reviewing proposed developments that at least partially occur on project-owned lands, best engineering practices should be taken into account in considering any adverse impacts to dam safety during a design flood. In such instances, when the proposed development would interfere with the purpose for which the project easement or fee interest was acquired, the Government has the authority to require volumetric mitigation for that portion of the development proposal over which the Corps has real estate rights to the top of the MRL. (See Appendix A, figure 1)

(6) The Government has no jurisdiction for vertical space above land over which no real estate interests exist. However, as stewards of the project, the Corps can encourage the developer to mitigate for that volumetric area (storage space) that is removed from the project storage space above the project acquisition line by the proposed development. (See Appendix A, figure 2 and 3).

(7) In cases where there is a new development on lands that would be inundated by the PMF, but over which the Corps has no real estate interests, or when a new PMF has been developed, there exists a need to ascertain the integrity of the Corps project and any dam safety issues resulting from the routing of the PMF. In such cases, the following analysis should be performed, in coordination with the Dam Safety Assurance Program. The PMF inflow flood should be (mathematically) routed through the reservoir making the assumption that over such lands, the storage space is not available. This assumption should reflect actual and reasonably projected development throughout the life of the project. Such an analysis would relieve the District from a need to seek volume mitigation over lands over which we have no control, and also ensure that 100 percent of the PMF can be safely passed over the spillway. This new routing may result in a higher water surface elevation, and may indicate a deficient spillway. In such cases, the Dam Safety Assurance Program should be engaged resulting in a study to determine appropriate corrective action. Corrective action might take the form of either enlarging the spillway, raising the dam, use of a parapet wall on top of the dam to meet freeboard deficiencies, re-operation of spillway gates, acquiring rights over private land between the elevation of the dam's spillway and the elevation of the top of dam, or a combination of these alternatives. In some cases, it may prove more acceptable to purchase easement rights, as opposed to raising the dam (or some other combination of solutions).

c. Flood Damage to Property. In general, where land developments occur, it should be susceptible to period flooding. Buildings that contain utilities, records and/or equipment should either be flood proofed or should have contingency plans developed for evacuation of moveable items before the flood. A modified version of the Los Angeles District's Minimum Criteria for Reservoir Land Use Projects has been adopted for regional use and is presented as Appendix B. Use of this table will provide consistent criteria for developers upon which to base their conceptual plans.

d. Flood Damage to the Reservoir.

(1) Floatables. If the development has storage tanks, vehicles, or any other article that could float during a flood, each item must be adequately anchored to prevent it from becoming dislodged due to buoyancy and/or swift currents. A floating object could get drawn into the intake structure (act as a plug) and potentially cause loss of control of the project. They also could get swept over the spillway, creating the potential for serious damage to structures or property downstream.

(2) Release of Pollutants. The water quality of water stored or released from Corps reservoir projects is the responsibility of the Corps. If a development stores or handles pollutants, leakage or accidental discharge into the flood waters could lead to environmental problems, both within and downstream of the project. Operational constraints during this event could include a need to hold polluted floodwaters until they can be treated or recovered. This could create a dangerous situation in which scheduled releases cannot be made. This additional operation constraint would narrow the range of options for water control decisions. Need to evaluate risk of releases and where necessary take corrective actions.

(3) Debris Build-up and Cleanup within the Flood Control Basin. Some development proposals are large enough to affect the natural flow of sediment into the reservoir. This could cause larger quantities of sediment and/or debris to deposit in the reservoir where it had not been anticipated. If debris impinges on inflow into the reservoir, the problem could cause additional flooding. Also, the designs of the outlet works, spillway and embankment are based on the net area-capacity curve, which is developed based on the sediment distribution. Extreme changes in sediment distribution may affect the operation of the project as designed. Additionally, the build-up of debris or sediment in an area that used to be free flowing could lead to redirection of flows that produce detrimental erosive forces. If the redirected flows were to impinge upon the dam embankment, the safety of the dam could be compromised. Cleanup of the development could be very costly. Therefore, flow paths must be examined to avoid these problems.

e. Existing and Planned Project Use. Many projects have Master Plans that guide the use of resources and the orderly development of project lands. All development proposals should be reviewed for consistency with the Master Plan to assure that the proposed development will not conflict with existing or planned uses. If the review indicates that the proposed development is

either inconsistent with the Master Plan or may conflict with existing or planned uses, the Master Plan will be updated or supplemented prior to approval of the proposed development.

f. Induced Constraints to System Flexibility. Reservoir projects need operational flexibility in order to deal with forecast errors, operational inefficiencies, and delays in meeting operational objectives, emergencies, and unique situations. Flexibility is needed to allow the water control manager to adapt the water control plan to special circumstances that may arise in the river system. If a rising pool level in the reservoir were to approach a development where damages could result, the water control manager should not be placed under pressure to release flood waters that otherwise may have been held back to prevent further flooding of the downstream system. In most cases, one of the primary purposes of the project is to provide flood protection for these downstream areas. Real-time flexibility gives the water control manager the ability to make modifications to the water control plan, and, if necessary, to make best use of the reservoir and the overall reservoir system. Therefore, the proposed development must not adversely affect the system operations.

g. Constraints to Future System Flexibility. Water control managers must also deal with future changes in the watershed (physiography and development), new hydrologic data and technology, operational experience, changed downstream conditions (increased/decreased channel capacity), changing emphases (e.g. environmental concerns, water quality, water conservation, recreation, etc.). Many Corps reservoir projects are no longer able to provide the degree of protection for which they were originally designed, due to one or more of the above reasons. Re-regulation studies are undertaken to try to optimize the operational objective function, i.e., to determine how the project can best be operated to maximize the public benefit. Developments that may appear to be acceptable under present conditions may not be acceptable when considering future needs for operational flexibility. The future flexibility of the project and the entire river system to meet authorized purposes should not be compromised by inappropriate reservoir development.

h. Public Safety Problem. Some development proposals result in an increase in the number of people or animals within the reservoir. The size of a proposed development should be evaluated. Facilities that can hold a large number of people might be denied for safety reasons. Examples of large facilities that might not be allowed in flood control basins are: hospitals, schools, libraries, museums, theaters, shopping centers, and amusement parks. A development may also attract a larger number of people than it was designed for. For example, an underground parking lot may attract children as a play area or may attract transients as a sleeping area. Because these developments were not originally intended to have people playing in, or occupying them, contingencies would likely not have been set up to evacuate the people in the event of a flood. Therefore, public safety would be at risk. Part of the liability could be attributed to the Corps, adding risk and potential delays to water management decisions. Flooding of electrical circuits and wiring may create special hazards to evacuation procedures. Some developments create hidden dangers and must be carefully evaluated for potential public safety problems.

i. Environmental Stewardship. Environmental ramifications of any proposed development must be fully explored and all requirements for assessing, coordinating, and reporting possible impacts must be followed. Some of the basic responsibilities for environmental stewardship at Corps-operated reservoirs are described in reference 3i, though there are numerous other pertinent directives dealing with requirements relating to NEPA, the Endangered Species Act, the Fish and Wildlife Coordination Act, the Clean Water Act, the Clean Air Act, the National Historic Preservation Act, etc. Any land development proposal should be coordinated as soon as possible with the Operations and Environmental elements so that the necessary steps to gather information and to deal with environmental requirements and procedures can be planned out, as some of these might be expensive and time consuming.

6. Contingency Plan. A Contingency Plan should be developed for any development within the flood control basin that is subject to hazardous conditions and damages from a flood event. A thorough technical analysis by the developers will force them to consider what emergencies could arise within a flood control basin and determine what contingency measures are required to deal with them. The agreement, which allows development, should state that it is the sole responsibility of the developer to evacuate the area. At projects where monitoring exists, the District would attempt to make notifications to affected interests. The agreement should further state that: "Prior to commencement of construction, the developer will produce and finalize an evacuation contingency plan." This will ensure that a procedure has been worked out beforehand. The plan shall not be reviewed or require approval from the Corps; however, its contents should include standard operating procedures for: regular patrols of the area (if warranted); warning systems, their triggering mechanisms, their thresholds and minimum warning times based on the hydrology of the watershed; mobilization of equipment and manpower for evacuation of humans, animals and/or records, utilities and equipment; emergency notifications (phone number and personnel lists); access roads and escape routes; and clean-up and repair.

7. Reporting. The evaluation of any land development within a flood control basin must be well documented. The report must explain what factors were evaluated and what the results of the evaluations were. The level of detail appropriate in the documentation will vary depending on the specifics of the proposal, but must be sufficient to explain and support the recommendation and decision. The completed evaluation package, including the proposal and environmental documentation, is to be submitted to SPD for review to insure national and regional consistency in policy application, prior to approval action by the District Commander. A checklist of minimum requirements for a report is outlined in Appendix C, Evaluation Criteria Checklist for Land Development Proposals.

ROBERT L. DAVIS
COL (P), EN
Commanding

7

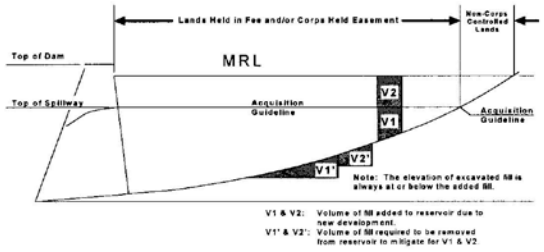
CESPD R 1110-2-1
November 2001

4 Appendices
App A – Typical Cut and Fill Volumes for Land Development Proposals (Figures 1 thru 3)
App B – Minimum Criteria for Reservoir Land Use Projects
App C – Evaluation Criteria Checklist for Land Development Proposals
App D – Glossary

Appendix A – Typical Cut and Fill Volumes for Land Development Proposals

Figure 1

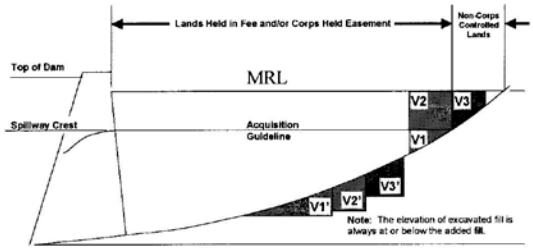
Projects entirely on Corps controlled lands



MRL: Maximum Reservoir Level

Figure 2

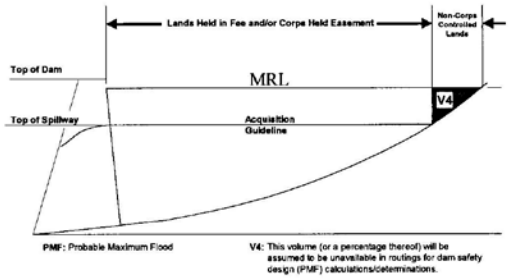
Projects that straddle Corps and non-Corps controlled lands



MRL: Maximum Reservoir Level

Figure 3

Volumes to be excluded from consideration in PMF computations



MRL: Maximum Reservoir Level

A-1

Appendix B -Minimum Criteria for Reservoir Land Use Projects

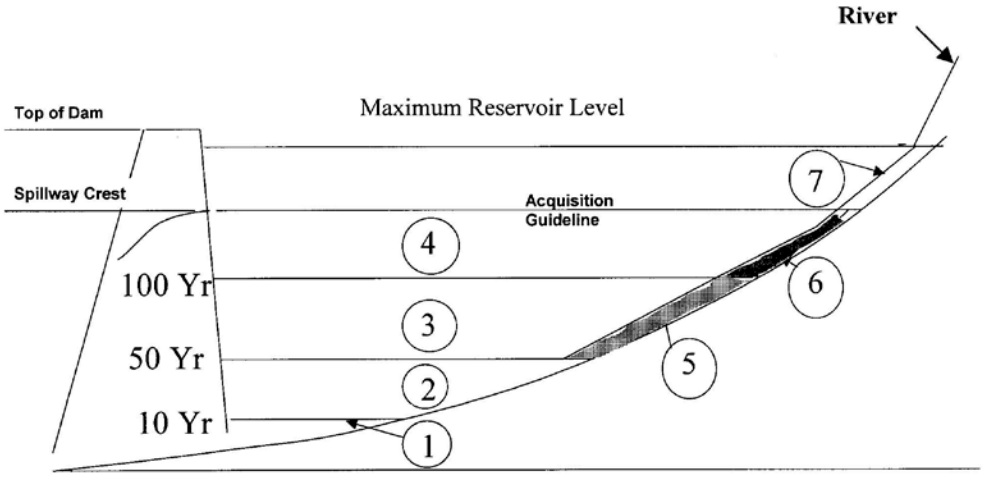
Location	Figure Level	(*)Elevation Frequency Range	Development Constraints	Acceptable Land Uses
Reservoir	1	Up to 10-yr flood	Subject to prolonged inundation, sedimentation, and wave erosion	Structures are not recommended. Nature trails and open play fields are acceptable.
	2	10-yr flood to the 50-yr flood	Subject to frequent flooding, sedimentation, and wave erosion	Open or floodable structures and field facilities that can sustain inundation with acceptable maintenance costs. Concession stands with portable contents, bridle trails, shade and picnic armadas, backstops, goalposts, etc. are considered appropriate.
	3	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 costs. Floodable restrooms and picnic area are considered appropriate.
	4	100-yr flood to the Reservoir Design Flood	Subject to infrequent flooding, sedimentation, and wave erosion	Flood-proofed, closed structures are permitted. Structures conducive to human habitation are prohibited.
River floodplains	5	Below the reservoir 100 yr flood elevation and up to the 100-yr river flood	Subject to frequent flooding, sedimentation, and wave erosion	Open-type or floodable structures and field facilities that can withstand flood-flow velocities for 100-yr conditions and will not impede the passage of flood flows.
	6	Above the reservoir 100 yr flood elevation and up to the 100-yr river flood	Subject to frequent flooding, sedimentation, and wave erosion	Structures are not recommended. This area must be reserved in an open manner to provide for conveyance of the 100-yr flood.
	7	Above the reservoir 100 yr elevation and above the 100-yr river flood	Subject to variable flooding, sedimentation, and wave erosion	Flood-proofed, closed structures are permitted along the floodway fringe. All development must meet Federal regulatory floodway regulations and be approved by the District Engineer.

* Frequency criteria shall be for a reservoir and watershed conditions of at least 50 yrs in the future. Most current frequency curve may be used as guidance in estimating future conditions. Note: Land uses at lower elevations may be developed at higher elevations

Before making a final determination on the proposed development, the Offices of Real Estate and Counsel should be consulted.

B-1

Appendix B - Minimum Criteria for Reservoir Land Use Projects



Note: Refer to Table B of Minimum Criteria for Reservoir Land Use Projects for description

Appendix C –Evaluation Criteria Checklist for Land Development Proposals

Each Question that is answered contrary to the guidance should have an explanation.

1. Corps Reservoir or Basin: _____

2a. Name of Development Proposal: _____ 2b. Project No.:_____

2c. Project Manager: _____ Telephone No. _____

2d. District Reviewers:

Environmental: _____ Counsel: _____

Real Estate: _____ Operations: _____

Engineering: _____ Reservoir Regulation: _____

3. General Project Description:

4. Summary comment/recommendation for the proposed development:

5. Materials Reviewed: ☐Report(s) ☐Plan(s) ☐Other(s)

6. Titles and Date of Reviewed Materials:

7. Will the proposed development be located within the reservoir (defined as all land below the Maximum Reservoir Level?) ☐Yes ☐No ☐Cannot be Determined

8. Do any of the potentially affected easements conflict with the approved water control plan? ☐Yes (explain) ☐No ☐Cannot be Determined

9a. Will there be any "cut and fill" operations in preparation for the proposed development? ☐Yes ☐No ☐Cannot be Determined

9b. If "Yes", would they allow drainage by gravity? ☐Yes ☐No ☐Cannot be Determined

10. Is there any loss of storage at any elevation below the Maximum Reservoir Level? ☐Yes (Explain) ☐No ☐Cannot be Determined

C-1

Appendix C –Evaluation Criteria Checklist for Land Development Proposals

11. Do any buildings, ponds, etc. remove or have the potential to remove (e.g., by sandbagging to save expensive property) flood control volume from the Corps project?

☐Yes ☐No ☐Cannot be Determined

12. If located within the reservoir, what is the elevation frequency range (currently) associated with the location?

☐ below 10 Yr ☐ 10-50 Yr ☐ 50-100 Yr ☐ greater than 100 Yr

13. Do the facilities/structures of the proposed development comply with the attached Appendix B "Minimum Criteria for Reservoir Land Use Projects?"

☐Yes ☐No (If No, explain)

14.a. Do you have a copy of the title, leasehold, or easement?

☐Yes ☐No

14b. Will the proposed development conflict with the Corps flowage easements or other Real Estate interests? ☐Yes(explain) ☐No ☐Cannot be Determined
(explain why)

15. Is there a proposal for sale or exchange of land, or change in easement between the Government and the Developer? ☐Yes ☐No

16. Is a Categorical Exclusion (CATX) Required per ER 200-2-2?

☐Yes ☐No

17. Has the review been coordinated with Fish and Wildlife Service or the State Fish and Game Department? ☐Yes ☐No

18. Are there any existing or potential endangered species identified? (If Yes, provide list)

☐Yes ☐No

19. If Yes, what steps have or are being taken to mitigate for issues related to endangered species (present or future)?

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Appendix C –Evaluation Criteria Checklist for Land Development Proposals

20. What other environmental compliance requirements, if any, are to be met and what actions have been taken to satisfy the requirements? (For example, cultural resources, water quality, air quality, permit requirements, FAA coordination, non-source pollutant discharges, etc.)

21. Can any potential hidden constraints or dangers be identified (e.g., submergence of electrical wiring, underground parking, etc.)? ☐Yes ☐No ☐Cannot be Determined

22. Will there be impacts to reservoir operations or potential impacts regarding operation constraints as a result of the proposed development (e.g., loss of reservoir storage capacity, increase of inflow volume into the reservoir, etc.)?

☐Yes ☐No

23a. Are there any possibilities of damage to the Corps project as a result of the proposed development due to floatable objects/structures?

☐Yes ☐No

23b. If "Yes", is there a plan in place to mediate the problems with floatables?

☐Yes ☐No

24a. Will there be any pollutants stored within the proposed development?

☐Yes ☐No

24b. If "Yes", what steps are being taken to minimize or eliminate contamination by pollutants?

25a. Will there be an increase in the quantity of debris/sediment inflow to the flood control reservoir as a result of the proposed development?

☐Yes ☐No ☐Cannot be Determined

25b. If Yes, how much (what rate?)

26. Will the proposed development include facilities/structures that can hold large number of people (e.g., hospitals, schools, libraries, museums, theaters, shopping centers, amusement parks)? ☐Yes ☐No ☐Cannot be Determined

27. What are the proposed development's impacts to the future operational flexibility of the dam?

28. Does the proposed development have any potential impact on ongoing studies (in-basin, downstream, or re-operation studies)? ☐Yes ☐No ☐Cannot be Determined

29. Will any part of the proposed development conflict with Corps' project Master Plans for the area of proposed development? ☐Yes ☐No ☐Cannot be Determined

C-3

Appendix C –Evaluation Criteria Checklist for Land Development Proposals

30. Recommendations:

31. Other Comments?

Submitted By: _____ Date: _____.

Appendix D - Glossary

Acquisition Guideline - Often referred to as the Take Line or Guide Acquisition Contour, is the contour line established with a reasonable freeboard allowance above the top pool elevation for storing water for flood control, navigation, power, and irrigation.

Corps Controlled – Used to refer to lands held in fee and/or Corps held easements

Fill – Any earth, water, or man-made structure that, when placed on the reservoir land, reduces the storage capacity of the reservoir.

Floodplain - The lowland and relatively flat areas adjoining inland and coastal waters, and including, at a minimum, that area subject to flooding in any given year.

Maximum Reservoir Level (MRL) – The Maximum Reservoir Level is the elevation resulting from the routing of the Spillway Design Flood.[1]

Probable Maximum Flood (PMF) - Is the flood that may be expected from the most severe combination of critical meteorological and hydrologic conditions that are reasonably possible in the region. The PMF is calculated from the Probable Maximum Precipitation (PMP). The PMP values encompass the maximized intensity-duration values obtained from storms of a single type. Storm type and variations of precipitation are considered with respect to location, area coverage of a watershed, and storm duration. The probable maximum storm amounts are determined in much the same way as are standard project flood amounts, except the precipitation amounts are first increased to correspond to maximum meteorological factors such as wind speed and maximum moisture content of the atmosphere. [1]

Project Storage Capacity - As defined in this reference, project storage refers to the hydrologic and hydraulic needs of the project, which encompasses the volume of the entire project, i.e. sedimentation, hydropower, recreation, agricultural, water supply, reservoir design, and spillway design.

Reservoir Design Flood (RDF) – The Reservoir Design Flood is that flood, along with associated antecedent conditions, that was originally used to determine the design benefits and level of flood protection provided by the project. In most cases this is the event that determined the original spillway crest, or the boundary between the flood control pool and storage provided primarily for dam safety issues.

Spillway Design Flood (SDF) – Spillway Design Flood is the flood hydrograph used in the design of a dam and its appurtenant works particularly for sizing the spillway and outlet works, and for determining maximum temporary storage and height of dam requirements.[1]

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[1] Reference EM 1110-2-1420, Hydrologic Engineering Requirements For Reservoirs, dated 31 October 1997.

APPENDIX A4:
CORPS POLICY ON FILMING AND PHOTOGRAPHY IN OPERATIONS AREA

1. Filming within recreation areas leased to the City of Los Angeles (City) and open to the public should be coordinated with the City. Filming within Corps operations areas, including the Dam and spillway, require a right-of-entry permit from the Corps, which constitutes a "Federal action" requiring compliance with environmental laws including NEPA.
2. Certain types of filming activities within operations areas have been assessed under the Draft Environmental Assessment (DEA) associated with this Master Plan. Filming activities meeting the following conditions will generally not require a request-specific EA:
    a. Filming is limited to two (2) consecutive days.
    b. Activities to be filmed are limited to walking, talking, and slow vehicle driving (not to exceed 25 mph).
    c. No major equipment (heavy cranes, etc.) may be used. Limited equipment such as a camera dolly is allowed.
    d. No stunts, pyrotechnics, weapons, firearms, fire, special effects, aircraft, animals, set construction, and/or water contact is/are permitted. No ground disturbance or physical alteration of the property (cutting of vegetation, moving rocks, etc.) is permitted.
    e. Activities including setup and takedown are limited to 2 hours before sunrise to 2 hours after sunset.
    f. A safety review must be completed by the Corps.
    g. The Corps must confirm there will be no effect on endangered species.
    h. Trailers for actors, crew, craft services, etc. shall generally be located outside operations areas. Use of the Sepulveda spillway or other operations areas may be granted during dry season only. Trailers and equipment placed within operations areas overnight may be monitored by a security guard, during dry season only.
    i. No vehicles may be driven on turfed or vegetated areas. Actors may be driven to the filming location.
    j. Upon completion of filming, the permittee must remove/properly dispose of all trash and restore the area to pre-filming condition.
    k. An evacuation plan is required.
3. Requests for film permits that propose to meet the above restrictions shall provide the required documentation to demonstrate compliance along with the film permit application, no less than 30 days before the proposed filming date. The Corps shall review and confirm that the request complies with the restrictions above.
4. Requests for filming that do not meet the conditions above are subject to a more detailed request-specific review including an EA for NEPA compliance. All requests not meeting the above restrictions must be received no less than 90 days before the proposed filming date.
5. All filming requests are subject to Corps requirements regarding liability, insurance, and consideration. All filming requests are subject to a clear weather forecast of [ ] days. Use of certain areas may be limited by the season and current weather conditions.
6. Processing of all requests and required management/monitoring has associated fees and changes to be borne by the applicant.
7. Please contact the Corps for the fee schedule and further information on the film application process.

APPENDIX A5:
CORPS POLICY ON SPECIAL EVENTS AT SEPULVEDA DAM BASIN

1. Under Corps regulations, special events are subject to the review and approval of the Corps. At Sepulveda Dam Basin (Basin), events less than 1,000 people, subject to the restrictions included in the Master Plan, are within the authority of the City of Los Angeles as stated in paragraph 38(d) of the Lease. Events over 1,000 people are subject to specific review and approval by the District Commander.
2. The approval of special events over 1,000 people is a "Federal action" requiring compliance with environmental laws including NEPA. Through the Environmental Assessment associated with this Master Plan, the Corps has assessed impacts associated with special events subject to the conditions and limitations below and determined the impacts are less than significant. Generally, no event-specific Environmental Assessment will be required for events that meet these conditions and limitations, after verification by the Corps.
    a. Events must be held at one of the following locations:
        i. Woodley Park I with parking available at the Woodley Park I parking lot or the overflow parking lot, north of the Woodley golf course
        ii. North of Lake Balboa with parking available at the overflow parking lot, north of the Woodley golf course.
    b. Events must be assessed on an event-specific basis.
    c. Events may not obstruct use or access to any other area of the Basin. Recreational users of the adjacent areas may not be impeded.
    d. Events may not exceed 5,000 people.
    e. Events may not exceed two days of the event plus two days (48 hours) setup and two days (48 hours) cleanup/takedown. Event areas must remain open to the public during setup and cleanup except where safety and/or logistics is/are a concern.
    f. No stunts, pyrotechnics, weapons, firearms, fires, aircraft, animals other than dogs, and/or water contact is/are permitted. No ground disturbance (digging, leveling, etc.) or physical alteration (cutting of vegetation, moving rocks, etc.) is permitted.
    g. No vehicles may be parked on grassy areas outside designated parking. Vehicles may be used at the site for setup and takedown only.
    h. Events may not include sound above 100 db.
3. Requests for events meeting the above limitations must be submitted to the Corps no less than 30 days prior to the proposed event date for review and confirmation that the event complies with applicable requirements.
4. Events not meeting the above limitations are subject to a more detailed event-specific evaluation by the Corps, including an Environmental Assessment for NEPA compliance. Requests for such events must be submitted to the Corps no less than 90 days prior to the proposed event date.
    a. The trail around Lake Balboa may not be closed off from public use.
    b. Walk/runs, marathons, races etc. must be assessed on an event-specific basis.
    c. Car shows must be assessed on an event-specific basis.
5. All Special Events, including those assessed in the Master Plan EA, must meet the following requirements:
    a. The right to charge is subject to the event proponent providing parking assistance, adequate policing for crowd supervision, and other services required for the health and welfare of event participants.

b. The event proponent must meet bonding, insurance, and other requirements under local laws.
c. No costs shall accrue to the Government.
d. Use of project/Basin lands will not preempt public use of project recreational resources. All other Basin areas must remain accessible to non-event Basin users.
e. The event proponent shall provide a plot plan showing the proposed layout of the event. A Parking Plan (including plan for disabled parking), Traffic Plan, and Evacuation Plan shall be required. No vehicles may be parked on grassy areas outside designated parking. Event proponents shall encourage the use of public transit, carpooling, and bicycling to the event. Parking limitations shall be posted one week prior to the event.
f. Event proponents must coordinate security requirements with the City. Generally, events over 1000 people should have 1 security guard/person for each 500 people.
g. The site shall be fully restored to prevent conditions by the event proponent within 48 hours of event closure. The City may require a bond from the event proponent.
h. Events longer than four days or over holidays are generally disfavored, requiring a special exception by the District Commander.
i. Either the City or the event proponent must submit a Post-Event Report within 30 days following the event containing the number of attendees, funds received (see collection cost analysis below), any problems encountered, any damage to the property, and any other issues of concern.
j. Collection of any funds in connection with the event, including for admission and parking, must be approved by the District Commander prior to the issuance of the City's permit. Collection of entry fees in excess of actual total costs will be paid to the Corps for legal disposal unless surplus proceeds are used for benefit to the project (Sepulveda Basin). A collection cost analysis will be provided by the event proponent within 30 days following the event. The Corps reserves the right to audit the City's records.
k. Adequate public restrooms (portable) and first-aid facility (e.g., tent), as applicable, must be provided although publicly available facilities may not be closed to the public during the event.
l. Alcohol sales (e.g., beer and wine garden) must be licensed and comply with applicable local laws.
m. The event proponent is required to hold the government harmless, accept liability and provision of indemnity and insurance are required.
n. The Corps must have access to the special event site at all times.
o. At no time may the Universal Access Play Area (south of Lake Balboa) be enclosed as part of any Special Event Area.

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APPENDIX A6:
CORPS POLICY ON TRAINING IN OPERATIONS AREA

Training in Operations Areas
(e.g., fitness, safety training by police and fire departments, ROTC, and Army groups).

1. Training activities within recreation areas leased to the City of Los Angeles (City) and open to the public should be coordinated with the City. Training within Corps operations areas, including the Dam and spillway, requires a right-of-entry permit from the Corps, which constitutes a "Federal action" requiring compliance with environmental laws including NEPA.
2. Certain types of training activities within operations areas have been assessed under the Draft Environmental Assessment (DEA) associated with this Master Plan. Training activities meeting the following conditions will generally not require a request-specific Environmental Assessment (EA):
    a. Training may not exceed 2 consecutive days.
    b. Training groups shall not exceed 100 individuals.
    c. No major equipment shall be used.
    d. No physical stunts, pyrotechnics, weapons, firearms, fire, aircraft, animals, building of structures, and/or water contact is/are permitted. No ground disturbance or physical alteration (cutting of vegetation, moving rocks, etc.) is permitted.
    e. Activities including setup and takedown are limited to 2 hours before sunrise to 2 hours after sunset.
    f. A safety review must be completed by the Corps.
    g. The Corps must confirm there will be no effect on endangered species.
    h. No equipment may be left in the operations area overnight.
    i. Upon completion of training, the permittee must remove/properly dispose of all trash and restore the area to pre-filming condition.
    j. An evacuation plan is required.
3. Requests for training activities that propose to meet the above restrictions shall provide the required documentation to demonstrate compliance along with the request no less than 30 days prior to the proposed training activity. The Corps shall review and confirm that the request complies with the restrictions above.
4. Requests for training that do not meet the conditions above are subject to a more detailed request-specific review including an EA for NEPA compliance. All requests not meeting the above restrictions must be received no less than 90 days before the proposed training date.
5. All training requests are subject to Corps requirements including acceptance of liability.
6. All training requests are subject to a clear weather forecast.

APPENDIX A7:
CORPS POLICY ON BIOLOGICAL SURVEYS IN OPERATIONS ARES

1. Non-invasive biological surveys within recreation areas open to the public can be undertaken without additional review and approval from the Corps; survey requestors should coordinate with the lessee as appropriate.
2. Biological surveys within operations areas require a right-of-entry permit from the Corps, which is a "Federal action" requiring review under NEPA. The potential impacts associated with certain types of biological surveys within operations areas have been evaluated under the Draft Environmental Assessment (DEA) associated with this Master Plan and determined to be no more than minimal when the conditions below are met. All other requests for rights-of-entry to operations areas to conduct biological surveys will require a request-specific Environmental Assessment (EA).
3. Vegetation surveys (e.g., botany classes learning sampling methods, etc.):
    a. Surveys must occur outside the breeding season (15 March - 15 August).
    b. Surveyors may leave established trails and roads.
    c. Surveyors may take small samples of vegetation, excluding any species subject to protection under Federal or state law.
    d. Requestors shall provide a brief description of the proposed survey, including number of attendees, length of activity, methods, etc., for review and confirmation by the Corps that it meets the conditions above.
4. Animal species surveys:
    a. Surveys must be non-invasive and must remain on existing trails, roads, or in open areas (no breaking new trails or creating pathways through tall vegetation).
    b. For example, surveys may not involve banding, netting, clipping, trapping, transects that involve leaving existing roads, trails or open areas, or stratified random sampling that involves leaving existing roads, trails or open areas.
    c. Surveys must have no effect on endangered species under the Endangered Species Act.
    d. Surveys that require a Section 10(a)(1)(a) permit or California Department of Fish and Game (CDFG) permit are excluded.
    e. Surveys may occur at any time of the year.
    f. Requestors shall provide a proposal for review and confirmation by the Corps that it meets the conditions above and accepted standards for surveys.
5. Requests for training activities that propose to meet the restrictions in one of the categories above shall provide documentation to demonstrate compliance with the restrictions along with the request no less than 30 days prior to the proposed survey activity. The Corps shall review and confirm that the request complies with the restrictions above.
6. Surveys that do not fall within one of the categories above will require a request-specific EA. The applicant should contact the Corps for detailed information on the review process including NEPA requirements. For all surveys that do not meet the conditions above (including, but not limited to, listed species surveys, surveys requiring a permit from the U.S. Fish and Wildlife Service or CDFG, or animal surveys that require leaving existing trails, roads and open areas or vegetation surveys within the breeding season), applicants shall submit a proposal for review by the Corps no less than 90 days prior to the proposed survey date.
7. Water sampling and similar requests generally are not dependent on access to operations areas and should be conducted in publicly accessible areas.
8. Access to operations areas for such activities will only be granted in exceptional circumstances.

APPENDIX B:

LEASES

Sepulveda Dam Basin
Master Plan and Environmental Assessment
APPENDICES

DEPARTMENT OF THE ARMY

LEASE NO. DACW09-1-67-11

FOR PUBLIC PARK AND RECREATIONAL PURPOSES

SEPULVEDA FLOOD CONTROL BASIN, LOS ANGELES COUNTY, CALIFORNIA PROJECT AREA

THE SECRETARY OF THE ARMY under authority of Section 4 of the Act of Congress approved 22 December 1944, as amended (76 Stat. 1195; 16 U.S.C. 460d), hereby grants to the CITY OF LOS ANGELES, a municipal corporation of the State of California, hereinafter called the lessee, *a lease for a period of* fifty (50) *years commencing on the date of* execution hereof ~~and ending on~~ , *to use and occupy approximately* 1,641.48 *acres of land and water areas under the primary jurisdiction of the Department of the Army in the* Sepulveda Flood Control Basin *Project Area, as shown in red on Exhibit A, Drawing numbered* 63-K-38.2 *, dated* 26 April 1966 , ~~*attached hereto and made a part hereof, for public park and recreational purposes,*~~ and as described in Exhibit B, legal description dated 25 April 1966, File 63-K-38.2, both exhibits being attached hereto and made a part hereof. and revised 17 Nov 66,

THIS LEASE is granted subject to the following conditions:

1. The lessee shall conform to such rules and regulations as may be prescribed by the Secretary of the Army to govern the public use of the said project area, and shall comply with the provisions of the above cited Act of Congress. The lessee shall protect the property from fire, vandalism, and soil erosion, and may make and enforce such rules and regulations as are necessary, and within its legal authority, in exercising the privileges granted in this lease, provided that such rules and regulations are not inconsistent with those prescribed by the Secretary of the Army or with provisions of the above cited Act of Congress.

2. The lessee shall administer and maintain the leased property for the purposes of this lease, in accordance with the U.S. Army Engineers' Master Plan and the implementing General Development Plan for said property and with an Annual Management Program to be mutually agreed upon between the lessee and the U.S. Army District Engineer, in charge of the administration of the property, which may be amended from time to time as may be necessary. Such Annual Management Program shall include, but is not limited to, the following: Recreational

a. *Plans for management activities to be undertaken by the lessee or jointly by the U.S. Army Engineers and the lessee, including buildings, improvements and other facilities to be constructed thereon.*

b. *Budget of the lessee for carrying out the management activities.*

c. *Personnel to be used in the management of the area.*

3. The lessee shall provide the facilities and services necessary to meet the public demand for the use of the area for public park and recreational purposes either directly or through concession agreements with third parties. All concession agreements shall expressly state that they are granted subject to all of the terms and conditions of this lease and that the concession agreement will not be effective until the terms and conditions thereof are approved by the District Engineer.

4. Admission, entrance or user fees may be charged by the lessee for the entrance to or use of all or any part of the leased premises or any facilities constructed thereon, PROVIDED, prior written approval of the District Engineer is obtained.

5. The amount of any fees to be charged by the lessee and all rates and prices charged by the lessee or its concessionaires for accommodations, food (except packaged goods), and services furnished or sold to the public shall be subject to regulations and the prior approval of the District Engineer. The lessee shall, not less than 15 days prior to 30 April and 31 October of each year that

ENG Form 1 Mar 65 1736 (*ER 405-1-830*) PREVIOUS EDITIONS ARE OBSOLETE

15. All notices to be given pursuant to this lease shall be addressed, if to the lessee, to the City of Los Angeles, Department of Recreation and Parks, Room 505, City Hall, Los Angeles, California 90012;
if to the Government, to the District Engineer, U. S. Army Engineer District, Los Angeles, Corps of Engineers, P. O. Box 2711, Los Angeles, California 90053;

or as may from time to time be directed by the parties. Notice shall be deemed to have been duly given if and when inclosed in a properly sealed envelope or wrapper, addressed as aforesaid and deposited postage prepaid (or, if mailed by the Government, deposited under its franking privilege) in a post office or branch post office regularly maintained by the United States Government.

16. The lessee takes this lease and the leased premises subject to all existing easements, and easements subsequently granted during the period of said lease for electric transmission, telephone, telegraph, water, gas, gasoline, oil and sewer lines, and other utilities located or to be located within the area covered by this lease, provided that the proposed grant of any easement will be coordinated with the lessee and easements will not be granted which will interfere with developments, present or proposed, by the lessee.

37. Before the execution of this lease, conditions were revised, deleted, and added in the following manner:

Revised: Granting clause and Conditions Nos. 2, 10, 11, and 12.
Deleted: Conditions Nos. 6, 7, and 13.
Added: Conditions Nos. 17 through 37. Conditions Nos. 17 through 36 are shown on attached sheets, marked Exhibit C, attached hereto and made a part hereof.

Assurance of Compliance With The Department of Defense Directive Under Title VI of The Civil Rights Act of 1964, attached hereto and made a part hereof (Exhibit D).

IN WITNESS WHEREOF I have hereunto set my hand this 5 *of* November *, 196*7 *,* by direction of the Assistant Secretary of the Army.

Sherry B. Myers
Chief, Real Property
Division, OASA (I&L)

approved as to form
Date 11-22-66
Deputy City Attorney
By

The above instrument, together with the provisions and conditions thereof, is hereby accepted this 23rd *day of* November *,* 1966 .

CITY OF LOS ANGELES, a municipal corporation of the State of California, acting by and through its Board of Recreation and Park Commissioners

By: [signature]

ATTEST: Title: President

Secretary

U.S. GOVERNMENT PRINTING OFFICE: 1965—O-765-385

RESOLUTION NO. 5587

BE IT RESOLVED that pursuant to action taken by the Board of Recreation and Park Commissioners on November 23, 1966, Mr. Ludlow Flower, Jr., President of the Board of Recreation and Park Commissioners, be and he hereby is authorized to execute a lease with the Department of the Army, Los Angeles District, Corps of Engineers, for park and recreational development of land in the Sepulveda Flood Control Basin.

I HEREBY CERTIFY that the foregoing is a full, true, and correct copy of a Resolution adopted by the Board of Recreation and Park Commissioners of the City of Los Angeles at a meeting held on November 23, 1966.

Patricia A. Wilson, Secretary

Resolution No. 5587

COMMONWEALTH OF VIRGINIA)
) SS
COUNTY OF ARLINGTON)

On this 5th day of January, A. D., 1967, before me, Lloyd T. Ford, a Notary Public in and for the said County and State, residing therein, duly commissioned and sworn, personally appeared SHERRY B. MYERS, known to me to be the person whose name is subscribed to the within instrument, and acknowledged to me that he signed the same by direction of the Assistant Secretary of the Army as the free and voluntary act and deed of the United States of America for the uses and purposes therein mentioned.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

Lloyd T. Ford
Notary Public
Arlington County, Virginia

My Commission Expires:
Lloyd T. Ford, Notary Public
County of Arlington
State of Virginia
My Commission Expires 21 Sept. 1967

4

DATE: 25 April 1966
UNIT: "A-10"
ACREAGE: 1,641.48
PROJECT: Sepulveda Flood Control Basin
LOCATION: City of Los Angeles, California
FILE: 63-K-38.2

OUTGRANT TO CITY OF LOS ANGELES FOR RECREATIONAL PURPOSES

That certain land, known as Sepulveda Flood Control Basin, situate in the City of Los Angeles, County of Los Angeles, State of California, being those portions of Rancho El Encino, Lot B, as shown on map recorded in Book 4232, pages 124 and 125 of Deeds in the office of the Recorder of said County; Tract 1000 as shown on map recorded in Book 19, pages 1 to 34, inclusive, of Maps in the office of said Recorder; Tract 1201 as shown on map recorded in Book 17, page 181 of Maps in the office of said Recorder; Tract 2955 as shown on map recorded in Book 31, pages 62 to 70, inclusive, of Maps, in the office of said Recorder; Tract 5231 as shown on map recorded in Book 101, page 71 of Maps, in the office of said Recorder; Tract 8511 as shown on map recorded in Book 121, pages 26 and 27 of Maps, in the office of said Recorder; and Tract 11331 as shown on map recorded in Book 204, pages 11 and 12 of Maps, in the office of said Recorder, within the following described boundary, bearings being based on Los Angeles County Surveyor's specifications for cadastral mapping dated December 13, 1933, Grid B:

Beginning at a point in the Northerly line of said Rancho El Encino, Lot B, distant on said line North 89° 41' 00" West 676.96 feet from the Northeasterly corner of said Lot B; thence South 0° 02' 25" West 1260.13 feet to a point in a non-tangent curve concave to the Southwest having a radius of 1485.45 feet, a radial line to said curve at said point bearing North 31° 46' 53" East; thence Southeasterly along said curve through a central angle of 28° 08' 48" an arc distance of 729.73 feet; thence, tangent to said curve, South 30° 04' 19" East 731.47 feet to the beginning of a tangent curve, convave to the Northeast having a radius of 1385.45 feet; thence Southeasterly along said curve, through a central angle of 60° 00' 19", an arc distance of 1450.97 feet; thence, tangent to said curve, North 89° 55' 22" East 319.93 feet to a point in the center line of Sepulveda Boulevard, formerly San Fernando Avenue, 50 feet wide, as shown on said map of Tract 1000; thence South 0° 02' 05" West 100.00 feet; thence South 89° 55' 22" West 880 feet, more or less, to the Northeasterly corner of that certain land described in deed to Anna Ghiglia recorded in Book 1965, page 377, of Official Records in the office of said Recorder; thence South 0° 01' 56" West along the Easterly line of said land and its Southerly prolongation, 381.35 feet to a point in the center line of Oxnard Street, 50 feet wide, formerly Sixth Street, as shown on said map of Tract 1000; thence South 89° 58' 24" East along said center line 40.35 feet to a point thereon distant North 89° 58' 24" West 839.64 feet from said center line of Sepulveda Boulevard; thence

1 EXHIBIT B

South 20° 25' 00" East 570.57 feet; thence South 15° 09' 11" East 1070.60 feet to the Northerly prolongation of the Easterly line of Lot 10 in said Tract 11331; thence South 0° 01' 57" West along said Northerly prolongation, to and along said Easterly line of Lot 10 and its Southerly prolongation and the Easterly line of Lot 35 of said Tract 11331, and its Southerly prolongation, a distance of 2223.13 feet; thence South 53° 39' 18" West 516.28 feet to a point in the Westerly line of Lot 4 of said Tract No. 1201 distant South 0° 25' 06" West 128.56 feet from the Northwesterly corner of said lot; thence South 0° 25' 06" West along said Westerly line and its Southerly prolongation, to and along the Westerly line of Lot 7 of said Tract 1201 and its Southerly prolongation 1191.60 feet to a point in the center line of Magnolia Boulevard, 80 feet wide, as now established; thence South 89° 57' 58" East along said center line, 783.69 feet to the center line of San Fernando Avenue, 50 feet wide (now Sepulveda Boulevard) as shown on said map of Tract 1000; thence South 0° 01' 52" West along said center line 1391.27 feet; thence North 75° 53' 28" West 1429.08 feet; thence North 54° 41' 52" West 1540.09 feet to a point in the center line of Haskell Avenue, 60 feet wide, as shown on said map of Tract 2955; thence North 0° 01' 38" East along said center line 159.13 feet to a point in the center line of Magnolia Boulevard, 60 feet wide, formerly Rita Street, as shown on said map of Tract 2955; thence North 89°39'25" West along said center line of Magnolia Boulevard 2641.53 feet to the center line of Woodley Avenue, 60 feet wide, as shown on said map; thence continuing along said center line of Magnolia Boulevard, North 89° 38' 02" West 1320.50 feet to an intereection with the Northerly prolongation of the center line of Libbit Avenue, 60 feet wide, as shown on said map; thence South 0° 01' 44" West along said prolongation and said center line of Libbit Avenue, 1620 feet, more or less, to a point distant North 0° 01' 44" East on said center line 1268.73 feet from the Southerly line of the Northerly 30 feet of Ventura Boulevard, formerly Ventura County Road, 60 feet wide, as shown on said map; thence North 89° 38' 02" West 400.00 feet; thence North 0° 01' 44" East 960.00 feet to the Southerly line of Lot 15, Block 23 of said Tract 2955; thence North 89° 38' 02" West along said Southerly line of Lot 15, the Southerly line of Lot 14 of said Block 23, and the Westerly prolongation thereof 920.24 feet to a point in the center line of Hayvenhurst Avenue, 60 feet wide, as shown on said map, distant on said center line North 0° 01' 37" East 2017.61 feet from the intersection thereof with the Southerly line of the Northerly 30 feet of said Ventura Boulevard; thence North 0° 01' 37" East along said center line 330 feet, more or less, to an intersection with the Easterly prolongation of the line forming the Southerly boundary of Lots 11 and 12 of Block 22 of said Tract 2955; thence North 89° 38' 13" West along last said line and its prolongations 659.79 feet to a point in the center line of Rubio Avenue, 60 feet wide, as shown on said map; thence North 0° 01' 06" East 330 feet, more or less, to said center line of Magnolia Boulevard; thence North 89° 34' 39" West, along said center line, 445.58 feet; thence North 0° 01' 28" East 530.00 feet; thence

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North 89° 34' 39" West 805.00 feet; thence North 0° 01' 28" East 1721.09 feet; thence North 89° 38' 57" West 255.00 feet; thence North 0° 01' 28" East 390.00 feet to a point in the Northerly line of the Southerly 30 feet of Burbank Boulevard, as now established, distant on said line South 89° 38' 57" East 475.00 feet from the center line of Balboa Boulevard, shown as Balboa Avenue, 60 feet wide, on said map of Tract 2955; thence North 89° 38' 57" West, along said Northerly line of the Southerly 30 feet of Burbank Boulevard, 475.00 feet to said center line of Balboa Boulevard; thence continuing along said Northerly line of the Southerly 30 feet, North 89° 38' 27" West 1320.24 feet to an intersection with the Southerly prolongation of the Westerly line of Amestoy Avenue, 30 feet wide, as shown on map of Tract 5231 recorded in Book 101, page 71 of Maps in the office of the Recorder of said County; thence North 0° 01' 18" East, along said prolongation and said Westerly line, 1475.22 feet to a point in the Northerly line of Hatteras Street, 30 feet wide, as shown on said map, said point being the Southwesterly corner of that certain land acquired by the United States of America and designated as Parcel No. 3, E.D. 383 in Final Judgment and Decree in Condemnation recorded January 22, 1941 in Book 18129, page 208 of Official Records in the office of the Recorder of said County; thence North 0° 01' 18" East along the Westerly line of said land 1474.55 feet, to a point in the Southerly line of that certain right-of-way described in a decree to the Southern Pacific Railroad Company recorded in Book 911, page 194 of Deeds, in the office of the Recorder of said County; thence South 89° 55' 43" West, along said Southerly line, 3129 feet, more or less, to a point in a line that is parallel with and distant 814.00 feet Easterly, measured along said Southerly line, from the Westerly line of said Rancho El Encino, Lot B; thence North 0° 16' 25" East along said parallel line 975.00 feet; thence South 89° 55' 43" West 814.00 feet to a point in said Westerly line of Rancho El Encino, Lot B; thence North 0° 16' 25" East along said Westerly line 1290 feet, more or less, to a point in said line distant South 0° 16' 25" West 1034.17 feet from the Northwesterly corner of said Lot B; thence South 89° 57' 21" East 5254 feet, more or less, to a point in the center line of Balboa Boulevard, 60 feet wide; formerly Balboa Avenue, as described in an easement deed to the City of Los Angeles, recorded in Book 6466, page 312 of Deeds, in the office of the Recorder of said County, distant on said line South 0° 02' 55" West 30.00 feet from the center line of Victory Boulevard, described as Leesdale Street, 60 feet wide, in an easement deed to said City of Los Angeles recorded in Book 1830, page 268 of Official Records in the office of said Recorder; thence North 0° 02' 55" East, along said center line of Balboa Boulevard 30.00 feet to a point in said center line of Victory Boulevard; thence South 89° 57' 16" East along said center line 2640.52 feet to a point in the center line of Hayvenhurst Avenue, 60 feet wide, as described in Parcel No. 4 of a deed to the City of Los Angeles recorded in Book 9304, page 297 of Official Records, in the office of said Recorder; thence continuing along said center line of Victory Boulevard, South 89° 57' 48" East 5281.69 feet to a point in the Southerly prolongation of the center line of Haskell Avenue, 60 feet wide, as now established; thence North 0° 02' 25" East along said prolongation and said center line, 939.20 feet

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to a point in the Northerly line of said Rancho El Encino, Lot B; thence South 89° 41' 00" East 250 feet, more or less, to the point of beginning.

EXCEPTING the portion thereof within that certain right-of-way granted to the Southern Pacific Railroad Company by deed dated September 26, 1944 and recorded in Book 23964, page 365, of Official Records, in the office of said Recorder;

ALSO EXCEPTING the portion thereof lying Southerly of said railroad right-of-way and downstream from the upstream toe of slope of Sepulveda Dam, and its Southerly prolongation, as said dam is shown on Drawing No. 136/87 on file in the office of the District Engineer, Corps of Engineers, Department of the Army, in Los Angeles, California.

ALSO EXCEPTING the portion thereof lying Easterly of said railroad right-of-way and included in Los Angeles River channel as said channel is shown on Drawing No. 136/75 on file in the office of said District Engineer;

ALSO EXCEPTING the portion thereof included in Los Angeles River channel lying Westerly of said railroad right-of-way;

ALSO EXCEPTING the portion thereof lying Southerly and Easterly of said railroad right-of-way, Southerly of the Southerly line of said Los Angeles River channel, and Westerly of the Northerly prolongation of the West line of Amestoy Avenue, as said avenue is shown on map of Tract 5231 recorded in Book 101, page 71 of Maps, in the office of said Recorder;

ALSO EXCEPTING the portion thereof lying Northerly of Victory Boulevard as now established;

ALSO EXCEPTING the portion thereof lying within Victory Boulevard, Balboa Boulevard, Magnolia Boulevard, Burbank Boulevard, and White Oak Avenue, as said streets are now established.

ALSO EXCEPTING, for road purposes, strips of land described as follows:

A strip of land, 30 feet in width, lying Westerly and Northerly of, and adjacent to the upstream toe of slope of said Sepulveda Dam, extending from Victory Boulevard on the North to Magnolia Boulevard on the South;

A strip of land, 20 feet in width, lying Westerly of and adjacent to the upstream toe of slope of said Sepulveda Dam, extending from Magnolia Boulevard to the Southerly end of said dam;

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A strip of land, 30 feet in width, lying Northerly of and adjacent to the Northerly line of said Los Angeles River channel, extending from the upstream toe of slope of said Sepulveda Dam to the Westerly boundary of said Sepulveda Flood Control Basin;

A strip of land, 30 feet in width, lying Southerly of and adjacent to the Southerly line of said Los Angeles River channel, extending from the upstream toe of slope of said Sepulveda Dam to the Westerly boundary of said Sepulveda Flood Control Basin;

A strip of land, 20 feet in width, lying Northerly and Westerly of, and adjacent to, the Northerly and Westerly line of said railroad right-of-way, extending from Encino station ground on the East to the Northerly line of said Los Angeles River channel on the Southwest.

ALSO EXCEPTING that portion granted to the State of California for the Ventura Freeway by easement deed dated 3 October 1956.

ALSO EXCEPTING that portion leased to the State of California by lease recorded 24 January 1964 in Book M1438, page 580 of Official Records in the office of said Recorder.

ALSO EXCEPTING that portion bounded on the north by the southerly line of said railroad right-of-way and on the east, south and west by the following described line:

Beginning at the intersection of the southerly line of said railroad right-of-way with the westerly line of said Haskell Avenue; thence South 0° 02' 25" West 276.04 feet; thence
North 89° 57' 48" West 366.89 feet; thence
South 0° 02' 12" West 200.00 feet; thence
North 89° 57' 48" West 490.00 feet; thence
North 0° 02' 12" East 180.00 feet; thence
North 89° 57' 48" West 480.00 feet; thence
North 0° 02' 12" East 30.00 feet; thence
North 89° 57' 48" West 124.00 feet; thence
South 0° 02' 12" West 420.00 feet; thence
North 89° 57' 48" West 400.00 feet; thence
South 0° 02' 12" West 40.00 feet; thence
North 89° 57' 48" West 120.00 feet; thence
North 0° 02' 12" East 270.00 feet; thence
North 89° 57' 48" West 500.00 feet; thence
North 0° 02' 42" East 191.67 feet; thence
North 89° 57' 48" West 676.00 feet; thence
North 0° 02' 42" East 308.33 feet, more or less, to the point of ending in said southerly line of said railroad right-of-way.

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ALSO EXCEPTING those portions of Rubio Avenue and Hayvenhurst Avenue lying southerly of Magnolia Boulevard.

NOTE: Whereas, the first "Also Excepting" clause deleted from this licenase the area lying westerly of the west line of said Libbit Avenue and easterly of the downstream toe of the dam and northerly of the service road at the southerly end of the dam, the area is intended to be, and hereby is included within the area covered by this license.

NOTE: Whereas, the first ALSO EXCEPTING excluded from the license all the area lying downstream from the upstream toe of the dam, the following described areas thereof are intended to be, and hereby are, included within the area covered by this license:

The area lying Easterly of the right-of-way of the San Diego Freeway, Southerly of the Flood Control Channel and its access road, and Westerly of the west line of Sepulveda Boulevard; ALSO the area lying Easterly of the right-of-way of the San Diego Freeway, and Northerly of the Flood Control Channel and its access road and Westerly of the west line of Sepulveda Boulevard, EXCEPT the area presently reserved for the U.S. Army Reserve Center; ALSO, the portion lying Southerly of the 100-foot right-of-way of the Southern Pacific Railroad, as same now exists, and Easterly of the right-of-way of the San Diego Freeway.

Containing 1,641.48 acres, more or less.

(Revised: 17 Nov 66)

Written by: W.G.F.

Checked by: [signature]

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17. That the areas initially made available to the lessee for public park, recreational, and incidental purposes by this lease, and the additional areas similarly to be made available to it from time to time hereafter as provided in Condition No. 21 hereof, shall be known as the "Sepulveda Dam Recreational Area," and said areas shall hereinafter be referred to as the "recreational areas."

18. All monies received by the lessee from operations conducted on the leased premises, including, but not limited to, entrance and admission fees and user fees and rental or other consideration received from its concessionaires, may be utilized by the lessee for the administration, maintenance, operation, and development of the leased premises, the Hansen Flood Control Basin, and/or any other flood control lands leased by the Secretary of the Army to the lessee for public park and recreational purposes. Any such monies not so utilized, or programmed for utilization in a reasonable time, by the lessee shall be paid to the District Engineer at the expiration of each 5-year period of this lease. The lessee shall establish and maintain adequate records and accounts and render annual statements of receipts and expenditures to the District Engineer.

19. All structures shall be located, constructed, and landscaping accomplished in accordance with plans approved in advance in writing by the District Engineer. No permanent type of recreational building or accessory facilities shall be erected on the land below elevation 695 M.S.L., except that open-type structures may be erected between elevation 695 M.S.L. and elevation 685 M.S.L. upon written approval of plans of such structures by the said District Engineer. The lessee shall have the right to construct and maintain upon the premises the accessory facilities normally incidental to public park and recreational improvements. It is expressly understood and agreed that in case of flood or damage to initial improvements and continuing improvements installed by the lessee, construction of the original installations shall be considered to be a full and complete compliance with the provisions of Condition No. 20, and reconstruction thereof shall be optional with the lessee.

20. That within six (6) months after additional lands are made available to lessees for public park and recreational purposes, and purposes, incidental thereto, in accordance with Condition No. 21 hereof, the lessee shall likewise commence, and continue with reasonable diligence, construction and development of said additional lands in accordance with the U. S. Army Engineers' Master Recreational Plan and the implementing approved General Development Plan. If the lands so made available are not substantially developed for recreational purposes within one (1) year after date of availability, they may be withdrawn from the lessee's jurisdiction and utilized for whatever purpose the District Engineer may determine. The lessee shall continue the development of the recreational areas initially and hereafter made available to it pursuant to Condition No. 21 hereof, with the object of accomplishing by 1976 a progressive completion of the improvements, as shown on the U. S. Army Engineers' Master Recreational Plan and the implementing General Development Plan.

21. That the right is hereby reserved to the United States to renew existing agricultural leases, or to enter into new leases covering agricultural use of lands, pending the lessee's written request to the District Engineer prior to 1 May of any given year, for additional land areas to be generally contiguous to existing recreational areas. The District Engineer shall terminate or modify said agricultural leases, effective 31 October of the year application is made, and the lands applied for shall be made available to the lessee on 1 November of said year, for public park and recreational purposes and purposes incidental

Sepulveda Flood Control Basin
City of Los Angeles
Lease No. DACW09-1-67-11

EXHIBIT C

thereto. The lessee shall not grant any concession privileges, permits, or leases of any portion of the recreational areas covered by this lease for private farming or private agricultural use.

22. That in order to protect the United States and the Los Angeles County Flood Control District and the City of Los Angeles against claims for damages which might arise out of the use and occupation of said recreational areas by persons to whom the lessee may grant concessions, or licenses, the lessee herein agrees to insert a condition in such concession, or license, which it grants pursuant to Condition No. 3 hereof, which shall be in substantially the following form:

> The concessionaire or licensee, in consideration of the granting of this concession or license, agrees to hold the United States, the Los Angeles County Flood Control District, and the City of Los Angeles, harmless for any and all claims or rights of action for damages which may or might arise or accrue to said concessionaire or licensee, his officers, agents, servants, employees, or others who may be on the licensed premises at his invitation or the invitation of any one of them, by reason of injury to the property, or the persons of any of them resulting from the entry upon or the use of the licensed premises, by the United States, the Los Angeles County Flood Control District, the City of Los Angeles, or any of them, at any time, for any purpose necessary or convenient in connection with river and flood control work, or for the removal of timber required or necessary for such work, or by reason of the flooding of the licensed premises, or any part thereof, when in the judgment of any of them, such flooding is necessary in connection with flood control work.

Signed copies of each concession, or license granted by the lessee herein shall be furnished to and filed with the District Engineer.

23. That the lessee shall remove all debris, including logs, brush, and driftwood within the perimeter of this lease, at its own expense, and shall maintain the property at all times in a clean condition, free from weeds, brush, gullies, and floatable material so determined by the District Engineer.

24. That the Government reserves the right to make water studies and surveys, or cause or permit said studies or surveys to be made. These surveys and studies shall include, among other things, the right to make well measurements, install well points, gauge surface streams, and do all necessary work in making an intensive study of water conditions; also to construct and maintain channels for low water flow.

25. That the lessee shall cut no timber, except in furtherance of the plans for the public park and recreational area approved in writing by said District Engineer, and shall conduct no mining or drilling operations, remove no sand, gravel, or kindred substances from the ground, except such sand, gravel, or kindred substances as may be used in connection with buildings, filling, landscaping, and improvement operations on the leased premises by the lessee in

accordance with the plans approved in writing by said District Engineer, and shall commit no waste of any kind or in any manner substantially change the contour or condition of the leased premises except in accordance with the plans approved in writing by said District Engineer, but the lessee may salvage such fallen or dead timber as may be required for use as firewood.

26. That the lessee shall not permit on the recreational areas any gambling or games of chance, or install and operate, or permit to be installed or operated, any devices or concessions which, in the opinion of said District Engineer, are contrary to good morals or are otherwise objectionable.

27. That the lessee shall comply with all applicable laws, ordinances, and regulations of the State, County, and municipality wherein the said leased premises are located.

28. That any and all taxes which may be lawfully imposed by the State or any of its subdivisions upon the recreational areas, the concessions or other improvements placed upon the recreational areas by the lessee or by third parties under agreements with the lessee, shall be promptly paid by the lessee or such third parties as their interests may appear.

29. For the purpose of maintaining attendance records, the lessee shall obtain public use visitation data to said leased premises. The collection of such visitation data shall be accomplished by on-site surveys and by use of mechanical traffic counters, supplemented by information obtained from other reliable sources. The lessees shall submit this data to this District by the 10th day of each month following the month being reported on, in accordance with procedures outlined in instruction manual, "Procedures for Obtaining Public Use Visitation Data at Civil Works Projects," dated 3 December 1962, or subsequent revisions thereof.

30. That the said lessee's records and accounts shall be subject to inspection and audit at any time by the said District Engineer or his duly authorized representative.

31. That in the event of revocation, termination, or expiration of this lease, the lessee shall terminate all concession and license agreements with third parties, and the lessee and said third parties shall vacate the recreational areas and remove within ninety (90) days, or within such additional time as the Secretary of the Army may authorize, such part of the buildings, structures, equipment and/or personal property of the lessee therefrom as the lessee may elect, and restore the premises where removal of property is made, to a condition satisfactory to the District Engineer, damages beyond the control of the lessee and due to flooding and to fair wear and tear excepted. In the event the lessee shall fail or neglect to remove any buildings, structures, equipment and/or personal property and to restore the premises within ninety (90) days, or such additional time as the Secretary of the Army may authorize, then, at the option of the Secretary of the Army, said buildings, structures, equipment and/or personal property shall either become the property of the

United States without compensation therefor, or the Secretary of the Army may cause same to be removed and the premises to be restored at the expense of the lessee and no claim for damages against the United States or its officers or agents shall be created by or made on account of such removal and restoration work. It is expressly understood, however, that the lessee shall not be required to restore to its original condition the land in recreational areas with respect to landscaping, planting, grading, or paving of roadways, or be responsible for the restoration thereof. Lessee may, but shall not be required to, remove or be responsible for the removal of swimming pools and accessories, underground or exposed irrigation or utility pipes where such improvements or installations have been made in accordance with the U. S. Army Engineers' Master Recreational Plan and the implementing General Development Plan.

32. That it is understood that this instrument is effective only insofar as the rights of the United States in the property covered by this lease are concerned, and the lessee shall obtain such permission as may be necessary on account of any other existing rights.

33. That no member of or delegate to Congress or resident commissioner shall be admitted to any share or part of this lease or to any monetary benefits to arise therefrom. Nothing, however, herein contained shall be construed to extend to any incorporated company, if the lease be for the general benefit of such corporation or company.

34. This lease supersedes unnumbered license dated 13 March 1951 and Amendment No. 1 dated 28 August 1958 thereto, to the City of Los Angeles. The facilities constructed on the premises by the licensee under said license shall be and remain the property of the City of Los Angeles which shall continue the administration, operation, and maintenance of said facilities under the terms and conditions of this lease.

35. That the lessee shall not discharge waste or effluent from the leased property in such a manner that such discharge will contaminate streams or other bodies of water or otherwise become a public nuisance.

36. That the grantee furnishes as part of this contract an assurance (Exhibit D) that it will comply with Title VI of the Civil Rights Act of 1964 (78 Stat. 24) and Department of Defense Directive 5500.11 issued pursuant thereto and published in part 300 of Title 32, Code of Federal Regulations.

ASSURANCE OF COMPLIANCE WITH THE DEPARTMENT OF DEFENSE DIRECTIVE
UNDER TITLE VI OF THE CIVIL RIGHTS ACT OF 1964

City of Los Angeles (hereinafter called "Applicant-Recipient")
(Name of Applicant-Recipient)

HEREBY AGREES THAT it will comply with title VI of the Civil Rights Act of 1964 (P.L. 88-352) and all requirements imposed by or pursuant to the Directive of the Department of Defense (32 CFR Part 300, issued as Department of Defense Directive 5500.11, December 28, 1964) issued pursuant to that title, to the end that, in accordance with title VI of that Act and the Directive, no person in the United States shall, on the ground of race, color, or national origin be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity for which the Applicant-Recipient receives Federal financial assistance from Department of the Army and HEREBY GIVES ASSURANCE THAT it will
(Component of the Department)
immediately take any measures necessary to effectuate this agreement.

If any real property or structure thereon is provided or improved with the aid of Federal financial assistance extended to the Applicant-Recipient by this Department of the Army, assurance shall obligate the Applicant-Recipient, or in the case of any transfer of such property, any transferee, for the period during which the real property or structure is used for a purpose for which the Federal financial assistance is extended or for another purpose involving the provision of similar services or benefits. If any personal property is so provided, this assurance shall obligate the Applicant-Recipient for the period during which it retains ownership or possession of the property. In all other cases, this assurance shall obligate the Applicant-Recipient for the period during which the Federal financial assistance is extended to it by, Department of the Army.
(Component of the Department)

THIS ASSURANCE is given in consideration of and for the purpose of obtaining any and all Federal grants, loans, contracts, property, discounts or other Federal financial assistance extended after the date hereof to the Applicant-Recipient by the Department, including installment payments after such date on account of arrangements for Federal financial assistance which were approved before such date. The Applicant-Recipient recognizes and agrees that such Federal financial assistance will be extended in reliance on the representations and agreements made in this assurance, and that the United States shall

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EXHIBIT D

have the right to seek judicial enforcement of this assurance. This assurance is binding on the Applicant-Recipient, its successors, transferees, and assignees and the person or persons whose signatures appear below are authorized to sign this assurance on behalf of the Applicant-Recipient.

Date Nov 23, 1966

City of Los Angeles,
Board of Recreation + Park Comm.
(Applicant-Recipient)

By _____
(President, Chairman of Board, or comparable authorized official)

Dept of Recreation + Parks
505, City Hall, Los Angeles 90012
(Applicant-Recipient's Mailing Address)

Approved as to form
10-27-66

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Lease No. DACW09-1-67-11
Department of the Army
City of Los Angeles
Sepulveda Flood Control Basin, California

SUPPLEMENTAL AGREEMENT NO. 1

THIS SUPPLEMENTAL AGREEMENT NO. 1, entered into by and between the SECRETARY OF THE ARMY, representing the United States of America, hereinafter called the Government, and the CITY OF LOS ANGELES, a municipal corporation of the State of California, hereinafter called the lessee, WITNESSETH:

WHEREAS, on 5 January 1967, Lease No. DACW09-1-67-11 was entered into between the Government and the lessee to use and occupy, for public park and recreational purposes, 1,641.48 acres, more or less, of land and water areas designated as Unit A-10, located in the Sepulveda Flood Control Basin, Los Angeles County, California, for a term of fifty (50) years; and

WHEREAS, the lessee requested that 88.07 acres, more or less, be deleted from Lease No. DACW09-1-67-11, for the construction of a water reclamation plant by the City of Los Angeles, Department of Public Works, Sewer Design Division, for the purpose of reclaiming sewage water which will, in part, promote the public's use and enjoyment of the recreational areas of the Basin by providing irrigation for the benefit of landscape development, and the Government is agreeable thereto.

NOW THEREFORE, in consideration of the premises, the parties hereby do mutually agree that Lease No. DACW09-1-67-11 is modified, effective 1 November 1969, in the following particulars:

1. That 88.07 acres, more or less, are hereby deleted from Lease No. DACW09-1-67-11, thereby decreasing the total leased acreage from 1,641.48 acres, more or less, to 1,553.41 acres, more or less.

2. That Drawing No. 63-K-38.2, dated 26 April 1966, marked Exhibit A, and Legal Description, File No. 63-K-38.2, dated 25 April 1966, marked Exhibit B, are hereby withdrawn from the basic lease and inserted, in lieu thereof, are the following: Drawing No. 63-K-38.3, Revised 18 Nov 66, marked Exhibit A-1, said drawing showing the remaining 1,553.41 acres, more or less, delineated in red and the deleted 88.07 acres, more or less, delineated in green, and Legal Description, File No. 63-K-38.3, Revised 24 Nov 69, marked Exhibit B-1, both exhibits being attached hereto and made a part hereof.

Lease No. DACW09-1-67-11
City of Los Angeles
Sepulveda Flood Control Basin
Supplemental Agreement No. 1

3. That in all other respects the terms and conditions of the basic lease remain unchanged.

IN WITNESS WHEREOF, I have hereunto set my hand by direction of the /Assistant SECRETARY OF THE ARMY this 1st day of July, 1971.

Sherry B. Myers

SHERRY B. MYERS
Assistant for Real Property
OASA (I&L)

THIS SUPPLEMENTAL AGREEMENT NO. 1, together with the provisions and conditions thereof, is hereby accepted this 15th day of April 1971.

CITY OF LOS ANGELES

By: Brad Pyle, Jr.

Title: President
BOARD OF RECREATION AND
PARK COMMISSIONERS

ATTEST:

Secretary
BOARD OF RECREATION AND
PARK COMMISSIONERS

Approved as to Form
Date 2-23-71
ROGER ARNEBERGH
City Attorney
By
Assistant

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DATE: 25 April 1966
UNIT: "A-10"
ACREAGE: 1551.41
PROJECT: Sepulveda Flood Control Basin
LOCATION: City of Los Angeles, California
FILE: 63-K-38.3

OUTGRANT TO CITY OF LOS ANGELES FOR RECREATIONAL PURPOSES

That certain land, known as Sepulveda Flood Control Basin, situate in the City of Los Angeles, County of Los Angeles, State of California, being those portions of Rancho El Encino, Lot B, as shown on map recorded in Book 4232, pages 124 and 125 of Deeds in the office of the Recorder of said County; Tract 1000 as shown on map recorded in Book 19, pages 1 to 34, inclusive, of Maps in the office of said Recorder; Tract 1201 as shown on map recorded in Book 17, page 181 of Maps in the office of said Recorder; Tract 2955 as shown on map recorded in Book 31, pages 62 to 70, inclusive, of Maps in the office of said Recorder; Tract 5231 as shown on map recorded in Book 101, page 71 of Maps in the office of said Recorder; Tract 8511 as shown on map recorded in Book 121, pages 26 and 27 of Maps in the office of said Recorder; and Tract 11331 as shown on map recorded in Book 204, pages 11 and 12 of Maps in the office of said Recorder, within the following described boundary, bearings being based on Los Angeles County Surveyor's specifications for cadastral mapping dated December 13, 1933, Grid B:

Beginning at a point in the Northerly line of said Rancho El Encino, Lot B, distant on said line North 89° 41' 00" West, 676.96 feet from the Northeasterly corner of said Lot B; thence South 0° 02' 25" West, 1260.13 feet to a point in a non-tangent curve concave to the Southwest having a radius of 1485.45 feet, a radial line to said curve at said point bearing North 31° 46' 53" East; thence Southeasterly along said curve through a central angle of 28° 08' 48", an arc distance of 729.73 feet; thence tangent to said curve South 30° 04' 19" East, 731.47 feet to the beginning of a tangent curve, concave to the Northeast having a radius of 1385.45 feet; thence Southeasterly along said curve through a central angle of 60° 00' 19", an arc distance of 1450.97 feet; thence tangent to said curve, North 89° 55' 22" East, 319.93 feet to a point in the center line of Sepulveda Boulevard, formerly San Fernando Avenue, 50 feet wide, as shown on said map of Tract 1000; thence South 0° 02' 05" West, 100.00 feet; thence South 89° 55' 22" West 880 feet, more or less, to the Northeasterly corner of that certain land described in deed to Anna Ghiglia recorder in Book 1965, page 377, of Official Records in the office of said Recorder; thence South 0° 01' 56" West along the Easterly line of said land and its Southerly prolongation, 381.35 feet to a point in the center line of Oxnard Street, 50 feet wide, formerly Sixth Street, as shown on said map of Tract 1000; thence South 89° 58' 24" East along said center line 40.35 feet to a point thereon distant North 89° 58' 24" West, 839.64 feet from said center line of Sepulveda Boulevard; thence

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South 20° 25' 00" East, 570.57 feet; thence South 15° 09' 11" East, 1070.60 feet to the Northerly prolongation of the Easterly line of Lot 10 in said Tract 11331; thence South 0° 01' 57" West along said Northerly prolongation, to and along said Easterly line of Lot 10 and its Southerly prolongation and the Easterly line of Lot 35 of said Tract 11331, and its Southerly prolongation, a distance of 2223.13 feet; thence South 53° 39' 18" West, 516.28 feet to a point in the Westerly line of Lot 4 of said Tract No. 1201 distant South 0° 25' 06" West, 128.56 feet from the Northwesterly corner of said lot; thence South 0° 25' 06" West along said Westerly line and its Southerly prolongation, to and along the Westerly line of Lot 7 of said Tract 1201 and its Southerly prolongation 1191.60 feet to a point in the center line of Magnolia Boulevard, 80 feet wide, as now established; thence South 89° 57' 58" East along said center line, 783.69 feet to the center line of San Fernando Avenue, 50 feet wide (now Sepulveda Boulevard) as shown on said map of Tract 1000; thence South 0° 01' 52" West along said center line 1391.27 feet; thence North 75° 53' 28" West 1429.08 feet; thence North 54° 41' 52" West 1540.09 feet to a point in the center line of Haskell Avenue, 60 feet wide, as shown on said map of Tract 2955; thence North 0° 01' 38" East along said center line 159.13 feet to a point in the center line of Magnolia Boulevard, 60 feet wide, formerly Rita Street, as shown on said map of Tract 2955; thence North 89° 39' 25" West along said center line of Magnolia Boulevard 2641.53 feet to the center line of Woodley Avenue, 60 feet wide, as shown on said map; thence continuing along said center line of Magnolia Boulevard, North 89° 38' 02" West 1320.50 feet to an intersection with the Northerly prolongation of the center line of Libbit Avenue, 60 feet wide, as shown on said map; thence South 0° 01' 44" West along said prolongation and said center line of Libbit Avenue, 1620 feet, more or less, to a point distant North 0° 01' 44" East on said center line 1268.73 feet from the Southerly line of the Northerly 30 feet of Ventura Boulevard, formerly Ventura County Road, 60 feet wide, as shown on said map; thence North 89° 38' 02" West 400.00 feet; thence North 0° 01' 44" East 960.00 feet to the Southerly line of Lot 15, Block 23 of said Tract 2955; thence North 89° 38' 02" West along said Southerly line of Lot 15, the Southerly line of Lot 14 of said Block 23, and the Westerly prolongation thereof 920.24 feet to a point in the center line of Hayvenhurst Avenue, 60 feet wide, as shown on said map, distant on said center line North 0° 01' 37" East 2017.61 feet from the intersection thereof with the Southerly line of the Northerly 30 feet of said Ventura Boulevard; thence North 0° 01' 37" East along said center line 330 feet, more or less, to an intersection with the Easterly prolongation of the line forming the Southerly boundary of Lots 11 and 12 of Block 22 of said Tract 2955; thence North 89° 38' 13" West along last said line and its prolongations 659.79 feet to a point in the center line of Rubio Avenue, 60 feet wide, as shown on said map; thence North 0° 01' 06" East 330 feet, more or less, to said center line of Magnolia Boulevard; thence North 89° 34' 39" West, along said center line, 445.58 feet; thence North 0° 01' 28" East 530.00 feet; thence

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North 89° 34' 39" West 805.00 feet; thence North 0° 01' 38" East 1721.09 feet; thence North 89° 38' 57" West 255.00 feet; thence North 0° 01' 28" East, 390.00 feet to a point in the Northerly line of the Southerly 30 feet of Burbank Boulevard, as now established, distant on said line South 89° 38' 57" East, 475.00 feet from the center line of Balboa Boulevard, shown as Balboa Avenue, 60 feet wide, on said map of Tract 2955; thence North 89° 38' 57" West, along said Northerly line of the Southerly 30 feet of Burbank Boulevard, 475.00 feet to said center line of Balboa Boulevard; thence continuing along said Northerly line of the Southerly 30 feet, North 89° 38' 27" West, 1320.24 feet to an intersection with the Southerly prolongation of the Westerly line of Amestoy Avenue, 30 feet wide, as shown on map of Tract 5231 recorded in Book 101, page 71 of Maps in the office of the Recorder of said County; thence North 0° 01' 18" East, along said prolongation and said Westerly line, 1475.22 feet to a point in the Northerly line of Hatteras Street, 30 feet wide, as shown on said map, said point being the Southwesterly corner of that certain land acquired by the United States of America and designated as Parcel No. 3, E.O. 383 in Final Judgment and Decree in Condemnation recorded January 22, 1941 in Book 18129, page 208 of Official Records in the office of the Recorder of said County; thence North 0° 01' 18" East along the Westerly line of said land 1474.55 feet, to a point in the Southerly line of that certain right-of-way described in a decree to the Southern Pacific Railroad Company recorded in Book 911, page 194 of Deeds, in the office of the Recorder of said County; thence South 89° 55' 43" West, along said Southerly line, 3129 feet, more or less, to a point in a line that is parallel with and distant 814.00 feet Easterly, measured along said Southerly line, from the Westerly line of said Rancho El Encino, Lot B; thence North 0° 16' 25" East along said parallel line 975.00 feet; thence South 89° 55' 43" West, 814.00 feet to a point in said Westerly line of Rancho El Encino, Lot B; thence North 0° 16' 25" East along said Westerly line 1290 feet, more or less, to a point in said line distant South 0° 16' 25" West, 1034.17 feet from the Northwesterly corner of said Lot B; thence South 89° 57' 21" East, 5254.00 feet, more or less, to a point in the center line of Balboa Boulevard, 60 feet wide; formerly Balboa Avenue, as described in an easement deed to the City of Los Angeles, recorded in Book 6466, page 312 of Deeds, in the office of the Recorder of said County, distant on said line South 0° 02' 55" West, 30.00 feet from the center line of Victory Boulevard, described as Leesdale Street, 60 feet wide, in an easement deed to said City of Los Angeles recorded in Book 1830, page 268 of Official Records in the office of said Recorder; thence North 0° 02' 55" East, along said center line of Balboa Boulevard 30.00 feet to a point in said center line of Victory Boulevard; thence South 89° 57' 16" East, along said center line 2640.52 feet to a point in the center line of Hayvenhurst Avenue, 60 feet wide, as described in Parcel No. 4 of a deed to the City of Los Angeles recorded in Book 9304, page 297 of Official Records, in the office of said Recorder; thence continuing along said center line of Victory Boulevard, South 89° 57' 48" East, 5281.69 feet to a point in the Southerly prolongation of the center line of Haskell Avenue, 60 feet wide, as now established; thence North 0° 02' 25" East, along said prolongation and said center line, 939.20 feet

EXHIBIT B.1 [3] FILE NO. 63-K-38.3

to a point in the Northerly line of said Rancho El Encino, Lot 8; thence South 89° 41' 00" East 250 feet, more or less, to the point of beginning.

EXCEPTING the portion thereof within that certain right-of-way granted to the Southern Pacific Railroad Company by deed dated September 26, 1944 and recorded in Book 23964, page 365, of Official Records, in the office of said Recorder;

ALSO EXCEPTING the portion thereof lying Southerly of said railroad right-of-way and downstream from the upstream toe of slope of Sepulveda Dam, and its Southerly prolongation, as said dam is shown on Drawing No. 136/87 on file in the office of the District Engineer, Corps of Engineers, Department of the Army, in Los Angeles, California.

ALSO EXCEPTING the portion thereof lying Easterly of said railroad right-of-way and included in Los Angeles River channel as said channel is shown on Drawing No. 136/75 on file in the office of said District Engineer;

ALSO EXCEPTING the portion thereof included in Los Angeles River channel lying Westerly of said railroad right-of-way;

ALSO EXCEPTING the portion thereof lying Southerly and Easterly of said railroad right-of-way, Southerly of the Southerly line of said Los Angeles River channel, and Westerly of the Northerly prolongation of the West line of Amestoy Avenue, as said avenue is shown on map of Tract 5231 recorded in Book 101, page 71 of Maps, in the office of said Recorder;

ALSO EXCEPTING the portion thereof lying Northerly of Victory Boulevard as now established;

ALSO EXCEPTING the portion thereof lying within Victory Boulevard, Balboa Boulevard, Magnolia Boulevard, Burbank Boulevard, and White Oak Avenue, as said streets are now established.

ALSO EXCEPTING, for road purposes, strips of land described as follows:

A strip of land, 30 feet in width, lying Westerly and Northerly of, and adjacent to the upstream toe of slope of said Sepulveda Dam, extending from Victory Boulevard on the North to Magnolia Boulevard on the South;

A strip of land, 20 feet in width, lying Westerly of and adjacent to the upstream toe of slope of said Sepulveda Dam, extending from Magnolia Boulevard to the Southerly end of said dam;

EXHIBIT B-1

A strip of land, 30 feet in width, lying Northerly of and adjacent to the Northerly line of said Los Angeles River Channel, extending from the upstream toe of slope of said Sepulveda Dam to the Westerly boundary of said Sepulveda Flood Control Basin;

A strip of land, 30 feet in width, lying Southerly of and adjacent to the Southerly line of said Los Angeles River Channel, extending from the upstream toe of slope of said Sepulveda Dam to the Westerly boundary of said Sepulveda Flood Control Basin;

A strip of land, 20 feet in width, lying Northerly and Westerly of and adjacent to the Northerly and Westerly line of said railroad right-of-way, extending from Encino station ground on the East to the Northerly line of said Los Angeles River Channel on the Southwest.

ALSO EXCEPTING that portion granted to the State of California for the Ventura Freeway by easement deed dated 3 October 1956.

ALSO EXCEPTING that portion leased to the State of California by lease recorded 24 January 1964 in Book M1438, page 580, of Official Records in the office of said Recorder.

ALSO EXCEPTING that portion bounded on the north by the southerly line of said railroad right-of-way and on the east, south and west by the following described line:

Beginning at the intersection of the Southerly line of said railroad right-of-way with the Westerly line of said Haskell Avenue; thence South 0° 02' 12" West 276.05 feet; thence South 33° 49' 54" East, 321.08 feet to the beginning of a tangent curve, concave Southwesterly having a radius of 650.00 feet, a radial line to said curve at said point bears North 56° 10' 06" East; thence Southerly along said curve, through a central angle of 33° 52' 06", an arc distance of 384.22 feet; thence South 0° 02' 12" West 1211.75 feet; thence North 89° 57' 48" West 2268.00 feet; thence North 0° 02' 12" East 1711.18 feet; thence North 89° 57' 48" West 500.00 feet; thence North 0° 02' 42" East 191.67 feet; thence North 89° 57' 48" West 676.00 feet; thence North 0° 02' 42" East 308.33 feet, more or less, to the point of ending in said Southerly line of said railroad right-of-way.

ALSO EXCEPTING those portions of Rubio Avenue and Hayvenhurst Avenue lying Southerly of Magnolia Boulevard.

NOTE: Whereas, the first ALSO EXCEPTING clause deleted from this license the area lying Westerly of the West line of said Libbit Avenue and Easterly of the downstream toe of the dam and Northerly of the service road at the Southerly end of the dam, the area is intended to be, and hereby is, included within the area covered by this license.

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EXHIBIT B-1

NOTE: Whereas, the first ALSO EXCEPTING excluded from the license all the area lying downstream from the upstream toe of the dam, the following described areas thereof are intended to be, and hereby are, included within the area covered by this license:

The area lying Easterly of the right-of-way of the San Diego Freeway, Southerly of the flood control channel and its access road, and Westerly of the west line of Sepulveda Boulevard; ALSO the area lying Easterly of the right-of-way of the San Diego Freeway, and Northerly of the flood control channel and its access road and Westerly of the west line of Sepulveda Boulevard, EXCEPT the area presently reserved for the U. S. Army Reserve Center; ALSO, the portion lying Southerly of the 100-foot right-of-way of the Southern Pacific Railroad, as same now exists, and Easterly of the right-of-way of the San Diego Freeway.

Containing 1553.41 acres, more or less.

Revised: 24 Nov 69

Revised: 17 Nov 66

Written by: W.H.P.

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FILE NO. 63-K-38.3

EXHIBIT B-1

Lease No. DACW09-1-67-11
Department of the Army
City of Los Angeles
Sepulveda Flood Control Basin, California

SUPPLEMENTAL AGREEMENT NO. 2

THIS SUPPLEMENTAL AGREEMENT NO. 2, entered into by and between the SECRETARY OF THE ARMY, representing the United States of America, hereinafter called the Government, and the CITY OF LOS ANGELES, a municipal corporation of the State of California, hereinafter called the lessee, WITNESSETH:

WHEREAS, on 5 January 1967, Lease No. DACW09-1-67-11 was entered into between the Government and the lessee to use and occupy, for public park and recreational purposes, 1,641.48 acres, more or less, of land and water areas designated as Unit A-10, located in the Sepulveda Flood Control Basin, Los Angeles County, California, for a term of fifty (50) years; and

WHEREAS, by Supplemental Agreement No. 1, 88.07 acres, more or less, were deleted from Lease No. DACW09-1-67-11 for the construction of a water reclamation plant by the City of Los Angeles, Department of Public Works, Sewer Design Division, decreasing the total leased acreage from 1,641.48 acres, more or less, to 1,553.41 acres, more or less; and

WHEREAS, the lessee requested that 11.29 acres, more or less, be deleted from Lease No. DACW09-1-67-11, for the construction of a Los Angeles City Fire Station, thereby decreasing the total leased acreage for public park and recreational purposes, from 1,553.41 acres, more or less, to 1,542.12 acres, more or less, and the Government is agreeable thereto.

NOW, THEREFORE, in consideration of the premises, the parties hereby do mutually agree that Lease No. DACW09-1-67-11 is modified, effective as of 1 January 1971, in the following particulars:

1. That 11.29 acres, more or less, are hereby deleted from Lease No. DACW09-1-67-11, thereby decreasing the total leased acreage from 1,553.41 acres, more or less, to 1,542.12 acres, more or less.

2. That Drawing No. 63-K-38.3, marked Exhibit A-1, and Legal Description, File No. 63-K-38.3, revised 24 November 1969, marked Exhibit B-1, attached to the basic lease by Supplemental Agreement No. 1, are hereby withdrawn and inserted, in lieu thereof, are the

Lease No. DACW09-1-67-11
Supplemental Agreement No. 2

following: Drawing No. 63-K-38.4, marked Exhibit A-2, said drawing showing the remaining 1,542.12 acres, more or less, delineated in red and the deleted 11.29 acres, more or less, delineated in green, and Legal Description, File No. 63-K-38.4, Revised 9 December 1970, marked Exhibit B-2, both exhibits being attached hereto and made a part hereof.

3. That in all other respects the terms and conditions of the basic lease remain unchanged.

IN WITNESS WHEREOF, I have hereunto set my hand by direction of the Assistant Secretary of the Army, this 17 day of November 1971.

SHERRY B. MYERS
Assistant for Real Property
OASA (I&L)

THIS SUPPLEMENTAL AGREEMENT NO. 2, together with the provisions and conditions thereof, is hereby accepted this 16th day of September 1971.

CITY OF LOS ANGELES

By: James Madison
PRESIDENT
Board of Recreation & Park Commissioners
Title:

ATTEST:

SECRETARY
Board of Recreation
& Park Commissioners

Approved as to Form
Date
ROGER ARNEBERGH
City Attorney
By

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DATE: 25 April 1966
UNIT: "A-10"
ACREAGE: 1542.12
PROJECT: Sepulveda Flood Control Basin
LOCATION: City of Los Angeles, California
FILE: 63-K-38.4

OUTGRANT TO CITY OF LOS ANGELES FOR RECREATIONAL PURPOSES

That certain land, known as Sepulveda Flood Control Basin, situate in the City of Los Angeles, County of Los Angeles, State of California, being those portions of Rancho El Encino, Lot B, as shown on map recorded in Book 4232, pages 124 and 125 of Deeds in the office of the Recorder of said County; Tract 1000 as shown on map recorded in Book 19, pages 1 to 34, inclusive, of Maps in the office of said Recorder; Tract 1201 as shown on map recorded in Book 17, page 181 of Maps in the office of said Recorder; Tract 2955 as shown on map recorded in Book 31, pages 62 to 70, inclusive, of Maps in the office of said Recorder; Tract 5231 as shown on map recorded in Book 101, page 71 of Maps in the office of said Recorder; Tract 8511 as shown on map recorded in Book 121, pages 26 and 27 of Maps, in the office of said Recorder; and Tract 11331 as shown on map recorded in Book 204, pages 11 and 12 of Maps in the office of said Recorder, within the following described boundary, bearings being based on Los Angeles County Surveyor's specifications for cadastral mapping dated December 13, 1933, Grid B:

Beginning at a point in the Northerly line of said Rancho El Encino Lot B, distant on said line North 89° 41' 00" West, 676.96 feet from the Northeasterly corner of said Lot B; thence South 0° 02' 25" West 1260.13 feet to a point in a non-tangent curve concave to the Southwest having a radius of 1485.45 feet, a radial line to said curve at said point bearing North 31° 46' 53" East; thence Southeasterly along said curve through a central angle of 28° 08' 48", an arc distance of 729.73 feet; thence tangent to said curve South 30° 04' 19" East, 731.47 feet to the beginning of a tangent curve, concave to the Northeast having a radius of 1385.45 feet; thence Southeasterly along said curve through a central angle of 60° 00' 19", an arc distance of 1450.97 feet; thence tangent to said curve North 89° 55' 22" East, 319.93 feet to a point in the center line of Sepulveda Boulevard, formerly San Fernando Avenue, 50 feet wide, as shown on said map of Tract 1000; thence South 0° 02' 05" West 100.00 feet; thence South 89° 55' 22" West 880 feet, more or less, to the Northeasterly corner of that certain land described in deed to Anna Ghiglia recorded in Book 1965, page 377, of Official Records in the office of said Recorder; thence South 0° 01' 56" West, along the Easterly line of said land and its Southerly prolongation, 381.35 feet to a point in the center line of Oxnard Street, 50 feet wide, formerly Sixth Street, as shown on said map of Tract 1000; thence South 89° 58' 24" East, along said center line 40.35 feet to

EXHIBIT B - 2

a point thereon distant North 89° 58' 24" West, 839.64 feet from said center line of Sepulveda Boulevard; thence South 20° 25' 00" East 570.57 feet; thence South 15° 09' 11" East, 1070.60 feet to the Northerly prolongation of the Easterly line of Lot 10 in said Tract 11331; thence South 0° 01' 57" West, along said Northerly prolongation to and along said Easterly line of Lot 10 and its Southerly prolongation, and the Easterly line of Lot 35 of said Tract 11331 and its Southerly prolongation, a distance of 2223.13 feet; thence South 53° 39' 18" West,516.28 feet to a point in the Westerly line of Lot 4 of said Tract No. 1201, distant South 0° 25' 06" West, 128.56 feet from the Northwesterly corner of said lot; thence South 0° 25' 06" West, along said Westerly line and its Southerly prolongation, to and along the Westerly line of Lot 7 of said Tract 1201 and its Southerly prolongation, 1191.60 feet to a point in the center line of Magnolia Boulevard, 80 feet wide, as now established; thence South 89° 57' 38" East, along said center line 783.69 feet to the center line of San Fernando Avenue, 50 feet wide (now Sepulveda Boulevard), as shown on said map of Tract 1000; thence South 0° 01' 52" West, along said center line 1391.27 feet; thence North 75° 53' 28" West 1429.08 feet; thence North 54° 41' 52" West, 1540.09 feet to a point in the center line of Haskell Avenue, 60 feet wide, as shown on said map of Tract 2955; thence North 0° 01' 38" East, along said center line 159.13 feet to a point in the center line of Magnolia Boulevard, 60 feet wide, formerly Rita Street, as shown on said map of Tract 2955; thence North 89° 39' 25" West, along said center line of Magnolia Boulevard 2641.53 feet to the center line of Woodley Avenue, 60 feet wide, as shown on said map; thence continuing along said center line of Magnolia Boulevard North 89° 38' 02" West, 1320.50 feet to an intersection with the Northerly prolongation of the center line of Libbit Avenue, 60 feet wide, as shown on said map; thence South 0° 01' 44" West,along said prolongation and said center line of Libbit Avenue 1620 feet, more or less, to a point distant North 0° 01' 44" East on said center line 1268.73 feet from the Southerly line of the Northerly 30 feet of Ventura Boulevard, formerly Ventura County Road, 60 feet wide, as shown on said map; thence North 89° 38' 02" West 400.00 feet; thence North 0° 01' 44" East, 960.00 feet to the Southerly line of Lot 15, Block 23 of said Tract 2955; thence North 89° 38' 02" West, along said Southerly line of Lot 15, the Southerly line of Lot 14 of said Block 23, and the Westerly prolongation thereof 920.24 feet to a point in the center line of Hayvenhurst Avenue, 60 feet wide, as shown on said map, distant on said center line North 0° 01' 37" East, 2017.61 feet from the intersection thereof with the Southerly line of the Northerly 30 feet of said Ventura Boulevard; thence North 0° 01' 37" East, along said center line 330 feet, more or less, to an intersection with the Easterly prolongation of the line forming the Southerly boundary of Lots 11 and 12 of Block 22 of said Tract 2955; thence North 89° 38' 13" West, along last said line and its prolongations 659.79 feet to a point in the center line of Rubio Avenue, 60 feet wide, as shown on said map; thence North 0° 01' 06" East 330 feet, more or less, to said center line of

Magnolia Boulevard; thence North 89° 34' 39" West, along said center line 445.58 feet; thence North 0° 01' 28" East 530.00 feet; thence North 89° 34' 39" West 805.00 feet; thence North 0° 01' 28" East 1721.09 feet; thence North 89° 38' 57" West 255.00 feet; thence North 0° 01' 28" East, 390.00 feet to a point in the Northerly line of the Southerly 30 feet of Burbank Boulavard, as now established, distant on said line South 89° 38' 57" East, 475.00 feet from the center line of Balboa Boulevard, shown as Balboa Avenue, 60 feet wide, on said map of Tract 2955; thence North 89° 38' 57" West, along said Northerly line of the Southerly 30 feet of Burbank Boulevard, 475.00 feet to said center line of Balboa Boulevard; thence continuing along said Northerly line of the Southerly 30 feet North 89° 38' 27" West, 1320.24 feet to an intersection with the Southerly prolongation of the Westerly line of Amestoy Avenue, 30 feet wide, as shown on map of Tract 5231, recorded in Book 101, page 71 of Maps in the office of the Recorder of said County; thence North 0° 01' 18" East, along said prolongation and said Westerly line 1475.22 feet to a point in the Northerly line of Hatteras Street, 30 feet wide, as shown on said map, said point being the Southwesterly corner of that certain land acquired by the United States of America and designated as Parcel No. 3, E.O. 383 in Final Judgment and Decree in Condemnation recorded January 22, 1941 in Book 18129, page 208 of Official Records in the office of the Recorder of said County; thence North 0° 01' 18" East, along the Westerly line of said land 1474.55 feet, to a point in the Southerly line of that certain right-of-way described in a decree to the Southern Pacific Railroad Company recorded in Book 911, page 194 of Deeds, in the office of the Recorder of said County; thence South 89° 55' 43" West, along said Southerly line 3129 feet, more or less, to a point in a line that is parallel with and distant 814.00 feet Easterly, measured along said Southerly line from the Westerly line of said Rancho El Encino, Lot B; thence North 0° 16' 25" East, along said parallel line 975.00 feet; thence South 89° 55' 43" West, 814.00 feet to a point in said Westerly line of Rancho El Encino, Lot B; thence North 0° 16' 25" East, along said Westerly line 1290 feet, more or less, to a point in said line distant South 0° 16' 25" West, 1034.17 feet from the Northwesterly corner of said Lot B; thence South 89° 57' 21" East, 5254.00 feet, more or less, to a point in the center line of Balboa Boulevard, 60 feet wide; formerly Balboa Avenue, as described in an easement deed to the City of Los Angeles, recorded in Book 6466, page 312 of Deeds, in the office of the Recorder of said County, distant on said line South 0° 02' 55" West, 30.00 feet from the center line of Victory Boulevard, described as Leesdale Street, 60 feet wide, in an easement deed to said City of Los Angeles recorded in Book 1830, page 268 of Official Records in the office of said Recorder; thence North 0° 02' 55" East, along said center line of Balboa Boulevard 30.00 feet to a point in said center line of Victory Boulevard; thence South 89° 57' 16" East, along said center line 2640.52 feet to a point in the center line of Hayvenhurst Avenue, 60 feet wide, as described in Parcel No. 4 of a deed to the City of Los Angeles recorded in Book 9304, page 297 of Official Records, in the office of said Recorder; thence continuing along said center line of Victory Boulevard South 89° 57' 48" East,

FILE NO: 63-K-38.4

5281.69 feet to a point in the Southerly prolongation of the center line of Haskell Avenue, 60 feet wide, as now established; thence North 0° 02' 25" East, along said prolongation and said center line, 939.20 feet to a point in the Northerly line of said Rancho El Encino, Lot B; thence South 89° 41' 00" East 250 feet, more or less, to the point of beginning.

EXCEPTING the portion thereof within that certain right-of-way granted to the Southern Pacific Railroad Company by deed dated September 26, 1944 and recorded in Book 23964, page 365, of Official Records in the office of said Recorder;

ALSO EXCEPTING the portion thereof lying Southerly of said railroad right-of-way and downstream from the upstream toe of slope of Sepulveda Dam, and its Southerly prolongation, as said dam is shown on Drawing No. 136/87 on file in the office of the District Engineer, Corps of Engineers, Department of the Army, in Los Angeles, California.

ALSO EXCEPTING the portion thereof lying Easterly of said railroad right-of-way and included in Los Angeles River channel as said channel is shown on Drawing No. 136/75 on file in the office of said District Engineer;

ALSO EXCEPTING the portion thereof included in Los Angeles River channel lying Westerly of said railroad right-of-way;

ALSO EXCEPTING the portion thereof lying Southerly and Easterly of said railroad right-of-way, Southerly of the Southerly line of said Los Angeles River channel, and Westerly of the Northerly prolongation of the West line of Amestoy Avenue, as said avenue is shown on map of Tract 5231 recorded in Book 101, page 71 of Maps, in the office of the said Recorder;

ALSO EXCEPTING the portion thereof lying Northerly of Victory Boulevard as now established;

ALSO EXCEPTING the portion thereof lying within Victory Boulevard, Balboa Boulevard, Magnolia Boulevard, Burbank Boulevard, and White Oak Avenue, as said streets are now established.

ALSO EXCEPTING, for road purposes, strips of land described as follows:

A strip of land, 30 feet in width, lying Westerly and Northerly of and adjacent to the upstream toe of slope of said Sepulveda Dam, extending from Victory Boulevard on the North to Magnolia Boulevard on the South;

A strip of land, 20 feet in width, lying Westerly of and adjacent to the upstream toe of slope of said Sepulveda Dam, extending from Magnolia Boulevard to the Southerly end of said dam;

A strip of land, 30 feet in width, lying Northerly of and adjacent to the Northerly line of said Los Angeles River channel, extending from the upstream toe of slope of said Sepulveda Dam to the Westerly boundary of said Sepulveda Flood Control Basin;

A strip of land, 30 feet in width, lying Southerly of and adjacent to the Southerly line of said Los Angeles River channel, extending from the upstream toe of slope of said Sepulveda Dam to the Westerly boundary of said Sepulveda Flood Control Basin;

A strip of land, 20 feet in width, lying Northerly and Westerly of and adjacent to the Northerly and Westerly line of said railroad right-of-way, extending from Encino station ground on the East to the Northerly line of said Los Angeles River channel on the Southwest;

ALSO EXCEPTING that portion granted to the State of California for the Ventura Freeway by easement deed dated 3 October 1956.

ALSO EXCEPTING that portion leased to the State of California by lease recorded 24 January 1964 in Book M1438, page 580 of Official Records in the office of said Recorder.

ALSO EXCEPTING that portion bounded on the North by the Southerly line of said railroad right-of-way and on the East, South and West by the following described line;

Beginning at the intersection of the Southerly line of said railroad right-of-way with the Westerly line of said Haskell Avenue; thence South 0° 02' 12" West 276.05 feet; thence South 33° 49' 54" East, 321.08 feet to the beginning of a tangent curve, concave Southwesterly having a radius of 650.00 feet, a radial line to said curve at said point bears North 56° 10' 06" East; thence Southerly along said curve, through a central angle of 33° 52' 06", an arc distance of 384.22 feet; thence South 0° 02' 12" West 1211.75 feet; thence North 89° 57' 48" West 2268.00 feet; thence North 0° 02' 12" East 1711.18 feet; thence North 89° 57' 48" West 500.00 feet; thence North 0° 02' 42" East 191.67 feet; thence North 89° 57' 48" West 676.00 feet; thence North 0° 02' 42" East 308.33 feet, more or less, to the point of ending in said Southerly line of said railroad right-of-way.

ALSO EXCEPTING those portions of Rubio Avenue and Hayvenhurst Avenue lying Southerly of Magnolia Boulevard.

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ALSO EXCEPTING that portion described as follows:

Commencing at the intersection of the centerline of Magnolia Boulevard, 80 feet wide, with the centerline of Sepulveda Boulevard, formerly San Fernando Avenue, 50 feet wide, as shown on said map of Tract 1000; thence North 89° 57' 58" West, along the centerline of Magnolia Boulevard to a point in a line parallel with and distant Westerly 50 feet, measured at right angles, from the centerline of said Sepulveda Boulevard; thence South 0° 01' 52" West, along said parallel line 390.00 feet to the TRUE POINT OF BEGINNING; thence continuing South 0° 01' 52" West, along said parallel line 709.90 feet; thence North 69° 55' 12" West, 481.66 feet to the beginning of a tangent curve concave Northeasterly having a radius of 2460.00 feet; thence Northwesterly along said curve through a central angle of 12° 09' 48", an arc distance of 522.23 feet to the Easterly line of the San Diego Freeway Right-of-Way as granted to the State of California on 3 October 1956; thence North 01° 53' 07" West, along said Easterly line 129.03 feet; thence North 02° 58' 34" West 186.63 feet; thence leaving said Easterly line South 89° 57' 58" East, 934.59 feet to the TRUE POINT OF BEGINNING.

NOTE: Whereas, the first "Also Excepting" clause deleted from this license the area lying Westerly of the West line of said Libbit Avenue and Easterly of the downstream toe of the dam and Northerly of the service road at the Southerly end of the dam, the area is intended to be, and hereby is included within the area covered by this license.

NOTE: Whereas, the first "Also Excepting" excluded from the license all the area lying downstream from the upstream toe of the dam, the following described areas thereof are intended to be, and hereby are, included within the area covered by this license:

The area lying Easterly of the right-of-way of the San Diego Freeway, Southerly of the flood control channel and its access road, and Westerly of the West line of Sepulveda Boulevard; ALSO the area lying Easterly of the right-of-way of the San Diego Freeway, and Northerly of the flood control channel and its access road and Westerly of the West line of Sepulveda Boulevard, EXCEPT the area presently reserved for the U. S. Army Reserve Center; ALSO, the portion lying Southerly of the 100-foot right-of-way of the Southern Pacific Railroad, as same now exists, and Easterly of the right-of-way of the San Diego Freeway.

Containing 1542.12 acres, more or less.

Revised: 9 Dec 70

Revised: 24 Nov 69

Revised: 17 Nov 66

Written by: W.J.P. 6 FILE NO. 63-K-38.4

RECORDING REQUESTED BY AND MAIL TO
NAME State of California - Resources Agency
Dept. ~~nent~~ of Fish and Game
STREET WILDLIFE CONSERVATION BOARD
CITY Resources Building
1416 - 9th Street
Sacramento, California 95814

This is to certify that this document is presented for re by the State of California under Government Co Section 6103 and is necessary to complete the chan of title of the State to property acquired by the State of California.

By W. L. Schmitt

86 727862

SUBLEASE AND OPERATING AGREEMENT
FOR
SEPULVEDA BASIN WILDLIFE AREA

FREE G
46

This Lease and Operating Agreement is made and entered into as of the 17th day of September, 1985, between the CITY OF LOS ANGELES, hereinafter called the "Operator" and the STATE OF CALIFORNIA, acting through the Department of Fish and Game, hereinafter called "State". Operator and State hereby agree as follows:

RECORDED IN OFFICIAL RECORDS
RECORDER'S OFFICE
LOS ANGELES COUNTY
CALIFORNIA
31 MIN. PAST. 9 A.M. JUN 11 1986

I. RECITALS

1. Operator has under its control certain lands within the Sepulveda Flood Control Basin in Los Angeles County, designated in the Sepulveda Basin Master Plan (March 1981) as a wildlife management area.

2. Operator and State desire to use said lands for the development of a wetlands system to enhance habitat for wildlife and increase interpretive and recreational opportunities on a cooperative basis, said activity herein referred to as the "Project".

3. The sublease of Operator's land to State for purposes of the Project and the construction, operation and maintenance of the Project for the term hereof is in accordance with the authorization of State's Wildlife Conservation Board on September 17, 1985, and Operator's Resolution No. 85-0144.

II. GENERAL TERMS AND CONDITIONS

1. PROJECT NAME: The name of this Project is the Sepulveda Basin Wildlife Area. This name shall be used in all documents, signs, publications, brochures, general literature or news releases, and Operator shall not rename the Project or change any subject signs without the approval of the State and the Corps and then only for reasons of changed conditions or overriding public or historic importance.

2. AGREEMENT: This agreement incorporates by reference Exhibit A, Standard Terms and Conditions; Exhibit B, Sepulveda Basin Wildlife Area Development Proposal (Project); Exhibit C, Sepulveda Basin Wildlife Area Legal Description; and Exhibit D, Department of the Army Lease Number DACW09-1-67-11, for public park and recration purposes.

3. PROJECT FINANCING: State will pay Operator for the development of the Project in accordance with that Standard Agreement WC-1171.

4. SUBLEASE OF PROJECT LAND: Operator will, for the term of this agreement, grant and convey to the State for the purposes of the Project, certain rights and interests in the land described in Exhibit C, and as more particularly provided in Exhibit A of this agreement.

86- 727862

5. MASTER LEASE: This sublease and operating agreement is granted subject to all of the terms and conditions of Exhibit D, the master recreation lease between the Department of the Army and Operator.

6. NOTICES: Notices required between the Operator and State will be deemed to have been given when mailed to the respective addresses below, first class postage fully prepaid thereon:

To Operator: City of Los Angeles
City Hall
Los Angeles, CA 90012

To State: Department of Fish and Game
1416 Ninth Street
Sacramento, CA 95814

CITY OF LOS ANGELES

By Tom Bradley

Date Signed FEB 5 1986

STATE OF CALIFORNIA
Dept. of Fish and Game

By W John Schmidt

Date Signed 3/12/86

W John Schmidt
5/27/86

State of California)
County of Sacramento) ss.

86- 727862

On this 26th day of May, in the year 1986, before me, Tracey Moreno, Notary Public, personally appeared W. John Schmidt, personally know to me to be the person who executed the within instrument on behalf of the Department therein named and acknowledged to me that the department executed it.

Witness my hand and official seal.

Tracey Moreno

OFFICIAL SEAL
TRACEY M. MORENO
NOTARY PUBLIC - CALIFORNIA
SACRAMENTO COUNTY
My Comm. Expires Dec. 4, 1987

JAMES K. HAHN, City Attorney

By

86- 727862

MAR 25 1986

BY

Chief Counsel

PUBLIC RECREATIONAL USE PLAN
SEPULVEDA BASIN WILDLIFE AREA 10-87

PURPOSE

The subject public use plan for the Sepulveda Basin Wildlife area has been developed in compliance with the Agreement between the State of California Department of Fish and Game (DFG), Wildlife Conservation Board and the City of Los Angeles entered into September 17, 1985 (WCB 86-727862). The construction, operation, and maintenance of the Wildlife Area is in accordance with the above authorization of the State Wildlife Conservation Board (WCB). Funding for the development of the Wildlife Area is being provided by the WCB. The City of Los Angeles Department of Recreation and Parks (City) will be responsible for all operation and maintenance of the Wildlife Area.

INTRODUCTION

The Sepulveda Basin is located within the city limits of Los Angeles, California, in the San Fernando Valley approximately 2 miles southwest of the community of Van Nuys. Public land (2,150 acres) within the basin is administered by the U.S. Army Corp of Engineers (Corps), but a majority is leased to the City of Los Angeles Department of Recreation and Parks for recreational development. Approximately 1,027 acres are planned for recreational development. Of this total, 60-acres has been designated for the Wildlife Management Area. This is in addition to the 48-acre existing wildlife area south of Burbank Boulevard.

The objectives of the wildlife enhancement project are to develop a wetlands system, enhance habitat for wildlife, and increase wildlife interpretive opportunities within the eastern portion of the Sepulveda Flood Control Basin. The project site is located north of Burbank Boulevard, south of the Tillman Water Reclamation Facility, east of Woodley Avenue, and west of the San Diego Freeway. The entire project lies within the 50-year floodplain (elevation 702) and is subject to occasional flooding.

An 11-acre lake will be constructed within the Wildlife Management Area. The lake will feature a 1-acre island to provide a secure waterfowl refuge. The lake will be supplied with advanced secondary treated water from the reclamation plant to the north. The water for the lake will be on a gravity flow system through underground pipes from the plant to the lake. To ensure high-quality lake water at all times, a continuous supply of reclaimed water will totally replace the lake water at least once per week with a capability of higher turnover rates during hot weather (by adjustment of the supply valve). In addition an adjustable outlet weir will allow the lake level to be raised 18 inches above normal to control botulism episodes among the lake waterfowl. The quality of incoming water from the reclamation plant will be suitable for body contact although none is intended nor will be allowed. The 11-acre lake is for wildlife purposes only. Two observational blinds will be built to allow for wildlife viewing.

The project will also continuously supply Haskell Channel with 4500 gallons per minute of reclaimed water to provide year-round water enhancement to both wildlife areas, north and south of Burbank Boulevard: the channel reach adjacent to the wildlife lake will be flowing half-full year-round; the channel will convey this water to the 48 acre wildlife area south of Burbank Boulevard operated by the Corps of Engineers. Recirculation and fill water will thus be furnished year-round to the 8 foot deep, 3 acre wildlife pond and 7 acre marshland in the Corps wildlife area. In addition Haskell Channel will provide physical isolation of the wildlife areas from the recreation areas on the west side of the channel.

The Wildlife Management Area lake will also be enhanced by the planting of 16 acres of locally occurring riparian vegetation. Current wildlife habitat enhancement plans for the Wildlife Area include the following habitat types - a sage scrub habitat, a riparian habitat zone, and a freshwater lake. A subsequent phase of development, to be cost-shared by the Corps of Engineers and City Recreation and Parks Department, may provide for the replanting of the present ruderal grassland to a sage scrub habitat, an oak woodland, and/or a Canada goose forage crop area.

FUTURE FORAGING SITES

The 40 acre area east of Hjelte Park, south of Burbank Boulevard

and the Los Angeles River and north of the dam will be redesignated as a wildlife management area to remain in agriculture (grain crops) to provide foraging for wintering Canadian Geese. To provide a permanent source of irrigation water for the foregoing forage area, the City will bring a pressurized reclaimed water supply main to the westerly boundary of the area, as part of the Sepulveda Basin reclaimed Water Distribution System Project scheduled for construction during 1989-1990.

In conjunction with the above land use change, the City Recreation and Parks Department and the U.S. Army Corps of Engineers, in cooperation with the California Department of Fish and Game will seek to establish at least 60 acres of additional permanent foraging site(s) (excluding the WCB-funded Wildlife Area) within the Sepulveda Basin for the purpose of maintaining Canadian Geese historic wintering populations. These population levels will be determined through existing baseline data.

To provide a permanent source of irrigation water for non-riparian sections of the subject Wildlife Area, the City Recreation and Parks Department will bring a pressurized main to the northerly boundary of the Wildlife Area, as part of the previously indicated Sepulveda Basin Reclaimed Water Distribution

System Project. In addition, an adequate landscape strip should be provided to buffer the Wildlife Area and additional foraging site(s) from adjacent development.

WILDLIFE LAKE

The primary purpose of the freshwater lake will be for the benefit of wildlife. Consideration is given to public enjoyment and use of the area for birdwatching, nature study, wildlife observation, photography and other such compatible uses inflicting minimal amounts of disturbance to wildlife. Lake management concerns relative to aquatic vegetation control, avian botulism potential, and requirements for mosquito abatement resulted in the recommendation that the lake be filled and drained seasonally. The lake shall remain filled long enough to accommodate migrating waterfowl and birds. Filling should begin at a time to accommodate early arriving species of waterfowl. The timing and extent of filling and draining will be monitored by the City and DFG over several years to determine the optimum maintenance schedule. However water will be available year-round in Haskell Channel which will continuously flow half-full in the channel reach adjacent to the lake.

Two wildlife blinds will be constructed for public viewing of wildlife. The blinds will be designed to blend in with the surrounding vegetation.

PUBLIC ACCESS AND USE

Management of visitor use in this type of urban wildlife area is particularly important due to the potential for resource impacts resulting from the demand for intensive public use of the area. The goal of the Wildlife Area is to provide optimum success for the wildlife while providing for appropriate public use. There is a likelihood that visitor demand will exceed wildlife resource capability. It is expected that major public visitation will occur during the wildlife migration months in the Spring and Fall. Management of visitor use will not only prevent disturbance to wildlife and resource impacts but will ultimately increase the quality of the visitor experience.

Therefore the following rules and/or regulations will be enforced within the Wildlife Area by City park rangers and City police. These rules will be incorporated in appropriate public use information signs and posted at the entrance and appropriate locations within the wildlife area.

1. Public use shall be allowed on the Wildlife Area during daylight hours only.
2. Camping, open fires, and the use of gas cooking stoves on the Wildlife Area is prohibited.

3. All visitors shall remain on the designated trail. There will be no public access to the east side of the wildlife lake to prevent disturbance to wildlife.
4. Bicycles, skateboards, or rollerskating will not be allowed in the Wildlife Area.
5. No person shall drive, operate, leave or stop any motor vehicle, off-road vehicle, or tractor in the Wildlife Management Area except for maintenance vehicles.
6. No person shall swim, wade, or dive within the Wildlife Area.
7. No person shall launch or operate a boat or other floating device within the Wildlife Area.
8. No person shall disturb or take any bird, nest, or eggs thereof, or any plant, mammal, fish, mollusk, crustacean, amphibian, reptile or any other form of plant or animal within the Wildlife Area.
9. No person shall possess, fire or discharge any firearm, bow and arrow, air or gas gun, spear gun, or any other weapon of any kind within or into the Wildlife Area.
10. Individual user permits will not be required; however, a visitor sign-in booth will be located at the entrances and will be maintained by the City.
11. All commercial activities are prohibited on the Wildlife Area. Large organizational groups of over 50 people will require prior Parks and Recreation (City) approval before use of the Wildlife Area.

12. The release of any fish or wildlife species, domestic or domesticated species, or the introduction of any plant species, is prohibited.
13. The feeding of wildlife is prohibited.
14. Pets, including dogs, cats and horses are prohibited from entering the Wildlife Area.

PUBLIC USE DESIGN FEATURES (SEE ATTACHED EXHIBIT A)

1. Benches shall be provided in appropriate locations along the Wildlife Area access trail. The access trail and wildlife viewing blinds will be designed to accommodate use by the handicapped visitor. Only one public access trail will be constructed through the Wildlife Area allowing access to the wildlife viewing blinds.

2. Interpretive and educational signs pertaining to wildlife and vegetation will be employed along the Wildlife Area access trail. These signs will be produced and maintained by the City.

3. Barriers will be constructed to prohibit unauthorized vehicular access to the area. Appropriate fencing will be installed to prevent unauthorized access and trash dumping within the Wildlife Area.

4. The existing parking facilities on Woodley Avenue will

continue to function as parking areas for the Wildlife Area.

5. The existing maintenance road on the east side of the proposed lake will be eliminated by discing and reseeding.

6. Trash receptacles and appropriate public sanitary facilities will be provided by the City. Standard 55 gallon galvanized metal trash containers, painted green, gray, brown or natural color, will be placed in convenient locations throughout the area. The collection of trash and service of sanitary facilities will occur as necessary and will be augmented when heavy public use of the Wildlife Area mandates it. The locations of the receptacles and service schedule will be determined by the City.

7. Wildlife Area signs will include a project sign, public directional signs, safety, and interpretive signs to be constructed and maintained by the City. The site location and makeup of the project sign, including dimensions, materials and lettering shall be as mutually agreed upon by the City, DFG and the Corps.

ANNUAL REVIEW

This Public Recreational Use Plan will be reviewed annually by

the Department (DFG), Corps of Engineers, and the Department of Recreation and Parks (City) in order to assess plan implementation progress and status of operation and maintenance requirements. Other interested parties will be notified of and invited to participate in the annual plan review process.

The Public Recreational Use Plan for the Sepulveda Basin Wildlife Area together with the provisions and objectives thereof, is hereby accepted for implementation.

CITY OF LOS ANGELES, a municipal corporation, acting by its BOARD OF RECREATION AND PARK COMMISSIONERS

By _____ 10/9/87
President Date

By _____ 10/9/87
Secretary Date

U.S. ARMY CORPS OF ENGINEERS

By Glen F. Weien 11/10/87
Glen F. Weien Date
Lieutenant Colonel
Corps of Engineers
Deputy District Engineer
For Civil Works

STATE OF CALIFORNIA, DEPARTMENT OF FISH AND GAME

By COPY ORIGINAL SIGNED BY FRED WOOTNEY

Title _____

Date _____

11 of 11

APPENDIX C:

PUBLIC PARTICIPATION

Sepulveda Dam Basin
Master Plan and Environmental Assessment
APPENDICES

APPENDIX C:
PUBLIC PARTICIPATION

The goal of public involvement and coordination is to open and maintain channels of communication with the public in order to give full consideration to public views and information in the planning process. The objectives of public involvement are to:

- Provide information about proposed Corps activities to the public;
- Make the public's desires, needs, and concerns known to decision-makers;
- Provide for consultation with the public before decisions are reached; and
- Consider the public's views in reaching decisions (EP 1130-2-550).

The public has expressed a strong desire for public spaces to meet the diverse and evolving needs of the surrounding communities. Reaching consensus among user groups takes a balanced approach that recognizes all parties and allows for all voices to be heard. The process must recognize the limitations of capital improvement and maintenance budgets within the context of the regulations of the Corps and the purpose to manage flood risk within the Sepulveda Dam Basin. The approach to the community workshops was to acknowledge the public's goals, expectations and desires while making clear the framework in which the Corps and other land managers of the property must operate.

Three community workshops were held at the Sepulveda Garden Center to foster collaboration 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, and the third workshop was held on Saturday, 24 April 2010. Approximately 50 people attended each of the first two workshops; with many of the same attendees participating in both workshops. Approximately 130 people attended the third workshop. The increase can be attributed to Basin user concern about rumors of possible closure of some facilities due to the proposed changes in the updated Master Plan.

A number of "comment sheets" were filled out during the meetings and turned in; additional comments were also received via mail and email and these have also been incorporated as part of the public participation process. Figure 3.1 in the Master Plan shows the top 5 comments from all the workshops. Comments are representative only of the participants at each workshop and not of the entire population that may visit Sepulveda Dam Basin.

Community Workshop 1: Saturday, 5 December 2009

Summary This workshop was held from 10:00am to 2:00pm at the Sepulveda Garden Center, which is located outside the main part of the Basin. Sepulveda Basin has long-established advocacy groups, with some individuals working on issues for over 20 years. Each person introduced themselves at the start of the meeting.

Prior to the start of the workshop, many participants voiced concern and frustration about the lack of a wider distribution of the meeting notice and the short time-frame of the notice. This issue was addressed at the start of the meeting in response to participant's concerns and attendees were invited to express their views generally about the Basin. A Power Point presentation was given introducing the Corps Master Plan process, after which, participants broke up into groups and wrote down their concerns on large aerial maps of the Basin that had been distributed around the room.

Stakeholders included representatives from the Wildlife Committee, Friends of Lake Balboa, San Fernando Audubon Society, Encino Homeowners Association, and the Canada Goose Project, among others.

After working on the maps, a spokesperson for each table presented the groups' comments to the larger group. Verbal comments throughout the meetings were recorded on flip charts, and later transcribed. At the end of the meeting, the comments and concerns were echoed back to the group and the next steps in the Master Plan process explained.

Major comments and concerns included:

- Longer and wider 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, e.g. 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 (i.e. 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 policy on special events.
  - Preclude events such as 5K and 10K runs from 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 LA 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 here.
- Extend park hours.
- Increase park patrols.
- No new development.
- Better vector control needed.

<u>Transcription of Workshop 1 Notes</u>

Outreach:

- Contact all SFV neighborhood councils.
- Notify newspaper (Daily News) with news release.
- Full public notice and participation.
- Notify Sierra Club, Audubon, and environmental groups.
- Assembly, senate, CD, congressional notice.

Responsibility:

- Who maintains?
- Office of public safety.

Extreme Priority: Who is responsible - define land use classifications.

- Passive recreation? Not ball fields.
- Different for different people but redefine low vs. high intensity.

Recreation vs. Entertainment:

- Entertainment can be defined as a category with extremely large groups of people.
- Minimal development, building.
- Keep areas open and don't close them for special events.
    - Decibel levels.
    - Compacted soil, gas, oil from cars.
- Corps did do supplemental update in 1996.

Mapping Issue:

- Does the city have the portion south of Burbank, east of the river from the Corps?
- Northern boundary of wildlife area is hazy.
- Split rap fence - parking to archery ranges.
- Dual use of Woodley Park.
- Entire wildlife reserve is well represented.
- Ownership is very important, a couple of parcels unclaimed, who leases, who is responsible?
- Accomplish by next meeting.
- Use of public facilities/ PW.
- CEQA - January: Science-based recycling.
- Baseline 50 and 100-year flood lines true? Gives limitations on development and use.
- 1995 wildlife update www.sepulvedabasinwildlife.org.

Floodplain Management Plan by the City:

- Colfax Meadows in 30's were flooded.
- Flood hazard by city should be reviewed.
- Environmental Quality Committee - City of LA proposed that CEQA is very fast Janice Hahn, chair and Tom LaBonge.
- Redefine Military use - out of City lease Nike Facility.
- Federal release, minimal use of land.

<u>Comments on Aerial Photo Maps from Workshop 1</u>

Map A Group:

- Channels/ Creeks concerns.
    - Remove concrete and restore.
    - Degraded creek with non-native plants/trees could be improved for nice amenity.
    - Encino Creek can be completely cleared out if non native and restored.
- Balboa and Trestle (LA River - north side).
    - Remove concrete and make accessible to public.
- Wildlife Reserve - Oak Woodland to be expanded.
- Triangle space between LA River and Woodley Creek - stop using as a refuse site.
- Trail system addition - Bull Creek. LA River to wildlife area.

- Water from Tillman Plant: If used elsewhere, how does this impact current lake?
  - 30 million gallons needed to maintain habitat.

Map B Group:

- Enforcement.
  - Should be specified.
  - Clarify current codes.
- Large Entertainment Events.
  - Prohibits passive recreation including restroom and children's play space.
  - Not appropriate for Basin.
- Boundaries – Expand / Update.
  - Clarify wildlife areas, currently 60 acres
  - Incorporated 'defacto' space.
- Military Space.
  - Once changed, revert to open space.
- No expansion of Tillman site.
- Educational possibilities/ values - add.
  - Signage/ design.
  - Educational and functional public art.
  - Botanical Garden.
- Public Input/ Oversight.
  - Use of Sepulveda Basin.
- Other/ Additional.
  - No additional uses/ venues.

Map C Group:

- Update Boundaries (Continues to White Oak, include Garden Center).
- Wildlife Preserve.
  - Existing north site on both sides of Haskell Creek (see Map for site recreation).
  - Documentation needs to be made clear.
- Incorporate native habitat without ADA access.
- Weedy field now could be developed to repair habitat (multi-use).
- Corn maize area looks like wildlife preserve space. Would like to incorporate it and make possible picnic area.
- Un-channelize Creeks (e.g. Haskell Creek is great).
  - Woodley Creek - remove asphalt.
  - Haskell Creek - remove asphalt.
- Go to LA river.
  - Encino Creek should be restored.
- LA River Enhancement.
  - Restore to planting – remove concrete.
- CA native plants should replace dying trees, etc.
  - Use between spaces, transitions.
- Mapping Issues.
  - Disallow model jets in Woodley area.
  - Detain, make access on edge between Woodley area.
- Support code enforcement.
- No recycling/ industrial activities in Tillman space or in Basin.
- Enhancement of hill/ path to hill near Bull Creek

  - Seeding of native wild flowers.
  - Connect DG path back rather than have it dead-end.
  - Way to find to and within park space.
- Zero large-scale entertainment.

Map D Group:

- Way finding needed to park and within park - safety issue.
- Post within park throughout park that allows locations to be identified.
- Signage to discourage feeding coyotes and other wildlife.

Map E Group:

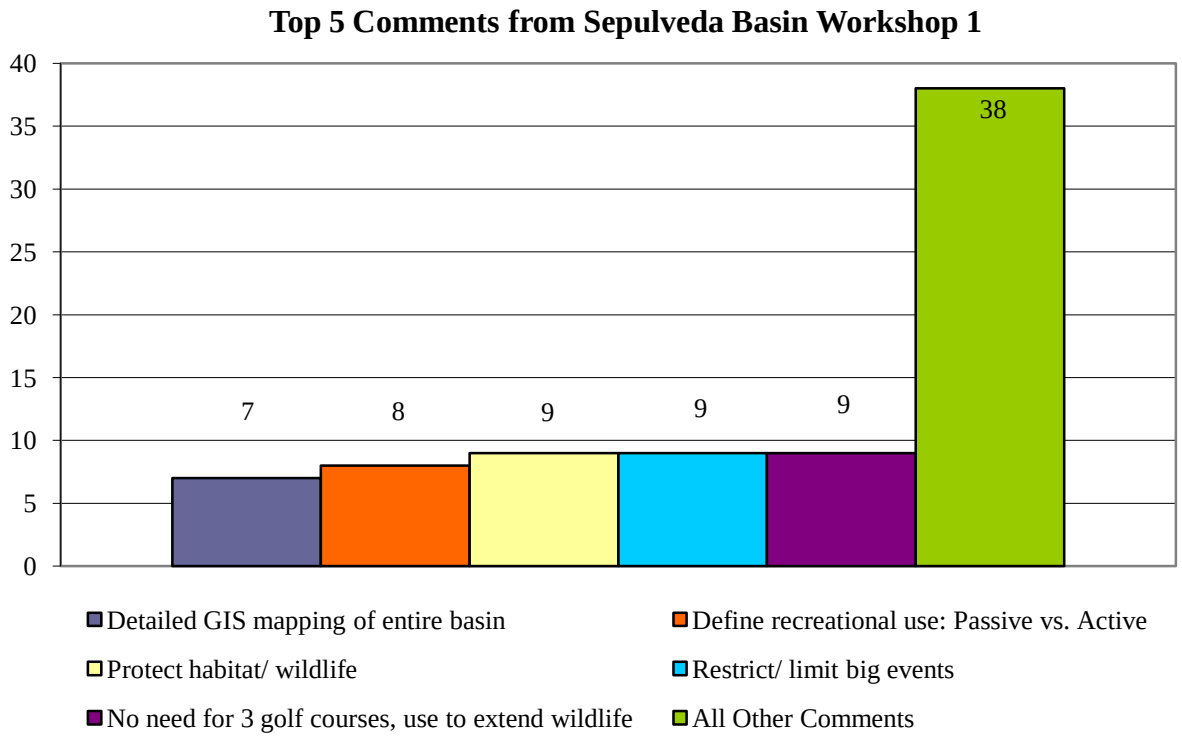
- Issues outside of Basin but impacting the Basin.
  - Run-off water, minimize additional water coming into Basin.
  - West of Busway Bridge: restore channel.
  - Do we want agricultural areas kept? Not really accessible.
  - Bike Path needs additional plantings (White Oak).
  - Sod farm area - do not have entire space developed.
  - Policy statement: define sports fields, etc. restricted in Basin (west of river).
  - Use of reclaimed water.
  - Reestablish Committee (Users of Sepulveda Basin) with stakeholders, input – establish as part of implementing Master Plan.
  - Provision for use of Orange Line.
  - Lake Balboa study of fishing impact (passive recreation only).
  - Bull Creek Area policy statement for purpose.
  - Dirt area, pervious paving for parking?
  - Connection of bike paths along the LA River.
- North Haskell Creek should expand to wildlife reserve.
- Study the habitat.
- Site between LA River and Burbank could be wildlife reserve (need decision).
- Original bike path is currently multi-use with no one happy due to conflicts.
  - Install decomposed granite parallel path for walkers, etc. so bike path can go back to as it was.
- Film making activities should be passive and restricted in safety, sound, etc. Need to comply with environmental safety laws.
- Require City to submit to safety clearing house (permits).
  - Currently law.
  - Public notice should be given for permit request.

Map F Group:

- Eastern side of lake is habitat of wild Canadian geese.
  - CRITICAL to this species!
  - Usually planted with wild grasses needed for geese.
  - Canada Goose Project, Endangered Species and Wildlife Committee of Sierra Club.

Map G Group:

- Leases - should have public consideration when leases are up.
- Vector control - important to incorporate groups input/ consultation if changes to waterways.
- Need formal advisory group that connects from one Master Plan to another.
  - Connects the dots between various advocacies.
- Improve safety lighting.



Community Workshop 2: Saturday, 20 February 2010

Summary The second community workshop was held from 10:00 am to 1:00 pm at the Sepulveda Garden Center and most of the participants had attended the first workshop. At this workshop, it was especially important to let the public know that we had heard their concerns and had incorporated them into the Resource and Ecosystem Objectives.

After introductions, a Power Point presentation was given that reviewed the Corps master plan process, provided a summary of the first workshop, and introduced the newly developed Resource and Ecosystem Objectives.

A discussion took place following the presentation. Most of the discussion centered on the Resource and Ecosystem Objectives. Suggestions were made to add a section on human-wildlife interface issues and clarification on special events, defined to be over 1,000 people. The definitions and purpose of the land classifications were also discussed. Maps were distributed for participants to see, which showed Corps operations areas and other significant features. Participants were invited to write their recommendations and concerns directly on these maps.

Corps' team members circulated to each table and discussed comments with all participants. All verbal comments throughout the meeting were recorded on flip charts and, along with concerns noted on Basin maps, have been provided below.

General Comments and Concerns:

- 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.

Transcription of Workshop 2 Notes

Problems Occurring:
- Nightlights are insufficient.
- Odor from operation of Tillman and other sources (visual and olfactory).
- A lot of people; parking overflow

Preserving Habitat:
- Problem with coyotes moving back into their natural habitat.
- People leaving dog food out for coyotes.
- Humans are also creating problems.
- Human and wildlife interface.
- Sierra Club could organize human and wildlife interface education.

Outreach and Subleases:
- Community should be asked before any design is finalized.
- Lessees are supposed to do marketing, surveys, etc.
- Enforce city to follow guidelines.
- No consequences when not following lease.
- Lease violation - 1,000 people event, City to notify Corps.
- There has to be real penalty; real consequences.
- Corps should publish leases on Website.
- Sub-lessees bringing more traffic into area
- Leases should be in the appendices in master plan and on the website

Public Transportation:
- DASH should be installed to service park
- DASH buses preserve environmental quality of character.
- LADOT did not agree to DASH because there is zero-density, meaning that no one resides in the park.

Leases and Compliance:
- Community is the eyes and ears of the Basin.
- Periodic reviews and reports should be on the website.
- City has not complied, as well as other lessees.
- Contact elected officials - it makes a difference.

- How many leases are we talking about?
  - Leases - Corps and City Recreation and Parks.
  - Subleases - City to different entities.
- Master Plan raises profile of these questions about reports, etc.
  - Finances/audits by Controller. Lean on council members to get these audits.
  - Lease should be on City's Recreation and Parks and Corps website.
  - Lease requirements should be on the webpage.
  - In the lease with the City, do subleases get approved by the Corps? It should be approved by the Corps.

Large Festivals:

- City only gets permit money, festival organizers get profit and the public is stuck paying for the police and fire.
- Should there be no shifting of cost?
- A large event is over 1,000 people.
- People are complaining about events but non-profit organizations are given permits without being charged for it.
  - Can't discriminate between groups.
  - Policy can be created that is equitable and can capture cost.
- It is against Corps regulations to close off areas.
- Violations: best to go to city council.

Sustainability:

- Does Corps or City keep records for water use and availability?
- Native plants should be used in new landscaping or replace non-natives as they die.
- Reclaimed water from Tillman Plant should be maximized.
- Flooding is a part of the natural ecosystem regime.
- Want to see spelled out what "we don't want" - large events for example.
- List of prohibited activities.
- Maps show Corps boundaries. Project Team still reconciling track data in GIS maps. Some records are old and there are only legal descriptions.
- Economic sustainability - all costs must be contained, no shifting.

Homeless and Safety:

- Zone south of lake is a homeless encampment.
- On clean-up day there were 100 people cleaning and found lots of people living there, evidence of 3-4 homeless per shrub.
- City tries to move them out. Where do homeless go?
- You can only move them to shelters.
- Overnight camping not allowed.
- Educators with children are fearful of homeless. Want something more effective.
- The only effective deterrent to homeless encampments is to have more people down there.
- There are 10' tall weeds with maze like paths - this encourages homeless.
- Low areas - warned never to go alone into those areas.

In Studio City:

- Trying to save 16 acres of only open space along the LA River.
- Our proposal is on site retention of water, also beyond it.

- Basin should have on site water retention.
- Large filmmaking done in spillway. Does it go to through City or Corps?
    - Should go back to the Basin.
    - Money goes to the Corps if in the spillway.

Master Plan Must Address Illegal Activities:

- Fishing along wildlife – no licenses, leave fishing hooks
- Off leash dogs going through wildlife reserve, hunting.
- Teaching dogs to hunt wildlife.
- Who is in charge?

Planting:

- By executive order, plantings should be native.
- A year ago a row of non-native planted - pear trees etc.
- Recreation and Parks are not aware of executive orders. Should be in the Master Plans.
- Natives cut down on water use.
- When non-natives die, replace with natives.

Human and Wildlife Interface:

- Add to Resource Objectives under Wildlife.
- Bull Creek erosion: City Recreation and Parks are responsible for maintenance. Corps looking at erosion.

Vendors in Basin:

- Do they pay taxes?
- Need permit form City of LA.
- Are vendors illegal in Park?
- Concessions, peddle bikes, flood - need Corps approval.

Bull Creek:

- If it is a design flaw then it needs to be taken care of.
- Major risk is the orange fencing.
- No biking or marathons through wildlife areas.
- Bull Creek is restoration.
- Agriculture is labeled as interim use according to Corps policy, ultimately it can go away.

Project Operations:

- Corps uses this land to operate this dam.
- How is Tillman part of project operations?
    - President Nixon authorized it.
    - This is how it was designated in old Master Plan.
    - Haskell Creek shows up part of Tillman.
    - Behind Tillman, designated to be underground storage tank.

Environmental:

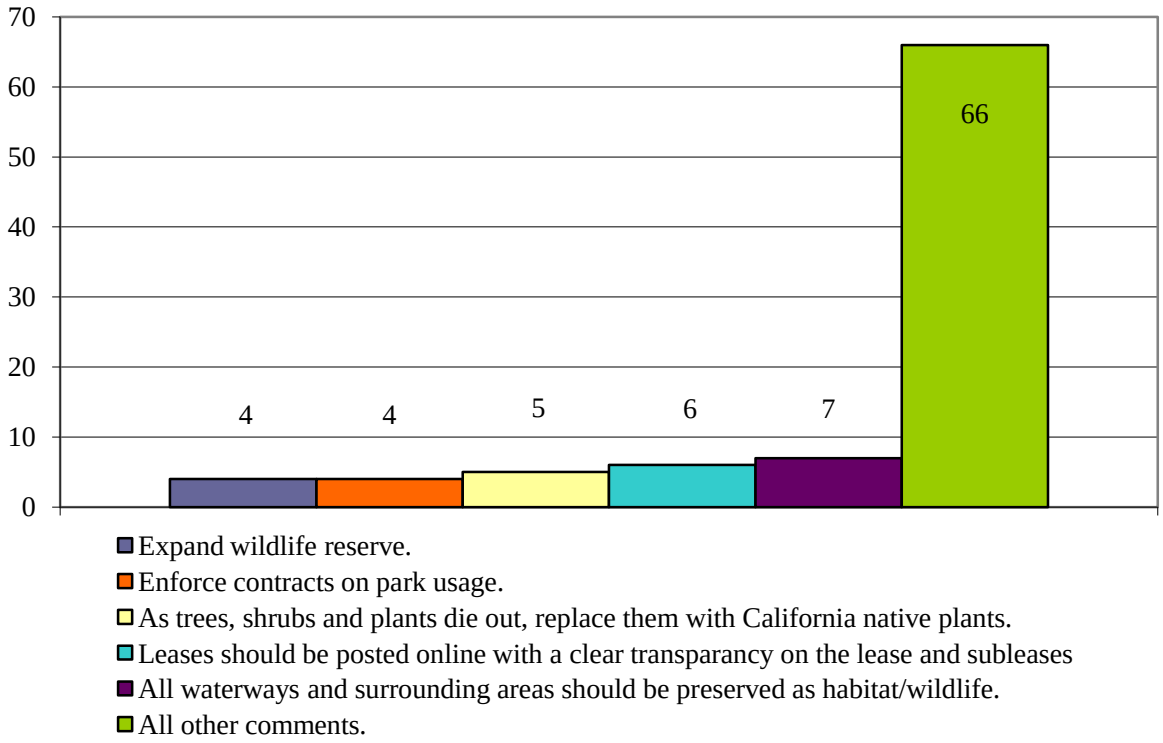
- Right now California is in its 4th year of drought.
- Sustain natural resources.
- Interest in restoring Haskell Creek.
- Is there a way to think about rain catching/cisterns?

- During rains Burbank flooded. That water should have been contained.
- It should be used during dry months.
- Can create instant Basin on park land, using strong geo-textile materials that filters out the silt.

Errors in Maps:

- Balboa Blvd. marked wrong.
- Southern Hayvenhurst Creek, Encino Creek and Woodley Creek wrong or unmarked.

Top 5 Comments from Sepulveda Basin Workshop 2



Community Workshop 3: Saturday, April 24, 2010

Summary This was the third and largest of the community workshops with most of the participants from the previous workshops in attendance, along with many first-time participants. It was held from 10:00am to 2:00pm at the Sepulveda Garden Center. The golfing interests were well represented for the first time as were the model airplane fliers and the Friends of Lake Balboa and Sepulveda Wildlife Committee. Approximately 130 people attended.

Originally the final workshop was slated to be held on a weekday evening, but based upon feedback from the participants at the second workshop, the last workshop was rescheduled to a Saturday morning again at the Sepulveda Garden Center.

A Power Point presentation reviewed the Corps' Master Plan process, a summary of the resource and ecosystem objectives, a briefing on the Corps' land use classification process, and a proposed land classification Map of the Basin. Color maps were distributed along with comments sheets. All verbal

comments throughout the meeting were recorded and participants were invited to fill out the comment sheets.

In addition to many of the issues raised previously, most of the discussion centered on the land classifications and the map. There was considerable discussion about the meaning of the classifications and the differences between them, especially Recreation vs. Multiple Resource Management – Low Density Recreation or Inactive and/or Future Recreation, and Environmentally Sensitive vs. Multiple Resource Management Wildlife – Vegetative Management. There was also discussion about why the category of project operations included the Donald C. Tillman Water Reclamation Plant (and whether the actual footprint created by the lease included the cricket fields), the military installations and Orange Line and whether there was a more appropriate category for these.

Rather than directly address the golf and model airplane fliers land uses and locations, the procedure was to lead them through the process and let them draw their own conclusions about the proposed land classifications and implications. When attendees realized that current recreational uses were not proposed to change, about two-thirds of the audience left and a recess in the meeting was called. Many people representing wildlife interests remained throughout the entire meeting.

Those representing the wildlife interests expressed the opinion that the area around Bull Creek should be classified as Environmentally Sensitive; that there should be wide vegetative buffers along both sides of the LA River and tributaries and that all the area directly behind the Dam be classified Environmentally Sensitive. The meeting was adjourned just before 1:00 pm.

General Comments and Concerns:

- Maintain golf courses and model airplane fields in their current location and configuration.
- Allow cricket games only in designated field areas, not in other areas of the park.
- Identify potential future uses of sod farm if it is not maintained as such.
- Clarify the terms of the lease and footprint of the Donald C. Tillman Treatment Plant.
- Designation of buffers around the LA River and tributaries for vegetative management.
- Uphold lease requirements and provide clear direction regarding management of large special events.
- Better coordination of activities of recreational lessees.
    - Keep special events such as 5K and 10K runs out of environmentally sensitive areas.
- 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).

<u>Transcription of Workshop 3 Notes</u>

Operations:

- When is it decided to open the dam and release the water – and is it automated or manual?
    - Dam is operated manually by a dam tender who is on a 24 hour shift during rainy seasons and who is directed by downtown, which monitors the downstream filling ratio, when to open or close the gates.
- The 1981 Master Plan did not have a 10-year flood line, but the 50-year and 100-year flood line are similar. Is there any significance to the 10-year line? Implications? Answer: The flood lines dictate what development can be put into the basins
- Why the Tillman Plant part of operations and what is the DWP lease? Answer: It has been designated this way in the last plan and we kept it this way.

Land Use Classifications:

- What is the difference between recreation and low density recreation? Answer: Recreation is more intensive such as athletic fields, skate parks and dog parks; low density is golf courses and picnic areas.
- Classify weekend use and fairs/festivals. Answer: We are currently drafting guidelines based on Corps regulations and guidance.
- What is Apollo (model airplane) field classified as? Answer: Low density recreation.
- There should be a difference between recreation and entertainment.
- Recreation (high density) - any plans for camping over night? Answer: No.
- Not all recreation is leased to the City (Franklin fields and DWP). Thus, there are problems with coordination and impact.
- Military uses should not be classified as operations. If decided to withdraw that use then will it be open space? Answer: It would be inactive or future recreation by default and any proposals would need to come before the public.
- Inactive or future recreation is a troubling uncertainty. We would like to see future recreation designated as the low density recreation definition. Response: The inactive/future recreation is not in play right now - but public can indicate what they would prefer.

Mapping Issue:

- What exactly is changing? Answer: Areas shown on projected map.
- Woodley Creek buffer not designated on map.
- Would like to see detailed Map of sub leases.
- Areas in red and green stripe: mixed two different uses: wildlife and operations.
- Are cricket fields inside red (Tillman footprint)? Answer: Yes, but the City is very sensitive to the importance of the cricket fields.
- Who is updating the maps Tetra Tech or the Corps? Answer: Tetra Tech is actually generating all the maps, but in close partnership with the Corps.
- The 4 military parcels should be distinguished from dam operations. Also distinguish the Tillman Plant. Answer: We cannot come up with a new classification, but we can number them and explain them.
- South of Burbank should be dark green (Environmentally Sensitive).
- Spur of land, currently red (Project Operations); right now it is a park. Inconsistent. Should be re-designated as low density recreation
- Both sides of Haskell Creek - Environmentally sensitive area. Buffer whole east side of creek.
- If you answer two questions, probably two-thirds of the room can leave. Is it correct that you have no plans to change the golf courses or model airplane field? Answer: That is correct.

Concerns:

- Representative to attend DWP meeting on June 10? Answer: Do not know of meeting and whether they will attend.
- Is the Los Angeles River Revitalization Master Plan considered as part of this? Answer: Yes, we are aware of the plan and have been directed to consider it.
- Minutes from 2 former workshops? Answer: These will be in the Master Plans and a link will be available to all the comments.
- Didn’t know about the last two meetings.
- Flyers/ public awareness - it seems to be a secret.

- Created Sepulveda Basin Communication website but it is no longer allowed to continue; (City) should resume.
- Should put together (revive) a multi-jurisdictional group.
- Cricketers: we try to preserve the fields. We did not know the rules but roping off areas has stopped. Soccer players and picnickers tore up the area and trashed the place, but we (cricketers) cleaned it up.
- There are only two places for model airplane fliers, Whittier and Sepulveda, and we want to see these preserved.
- There should not be runs (e.g. 5K and 10K) through restored areas like Bull Creek. Answer: The run through Bull Creek was rerouted.
- Helicopter was used in conjunction with an event - that is an adverse impact.
- Tomorrow Woodley Park has parachutists.
- Hawks in area where there were flying planes - noisy.

Permits:

- How long does the City lease run? Answer: The lease was executed in 1966 and runs for 50 years.
- Can the Corps require the City to scale back the high use? Answer: Guidelines are being drafted for special events and will have to comply with NEPA.
- Filming in project operations and environmentally sensitive areas. Considerations? How is that issue dealt with? Answer: Filming permit guidelines are also being drafted.
- Is there a 10-year plan for cricket fields? Willing to put in money to expand fields. These fields are some of the best in country.
- Special events in the Basin require permits. Please define organized/ not organized. Answer: This is part of the guidelines being drafted and will include a threshold number of people (e.g. 500 or 1,000)
- There was a giant car swap meet. Was it permitted? Engine parts were on the grass on this car swap meet. Answer: We will investigate. Commercial interests are not permitted on Corps land.

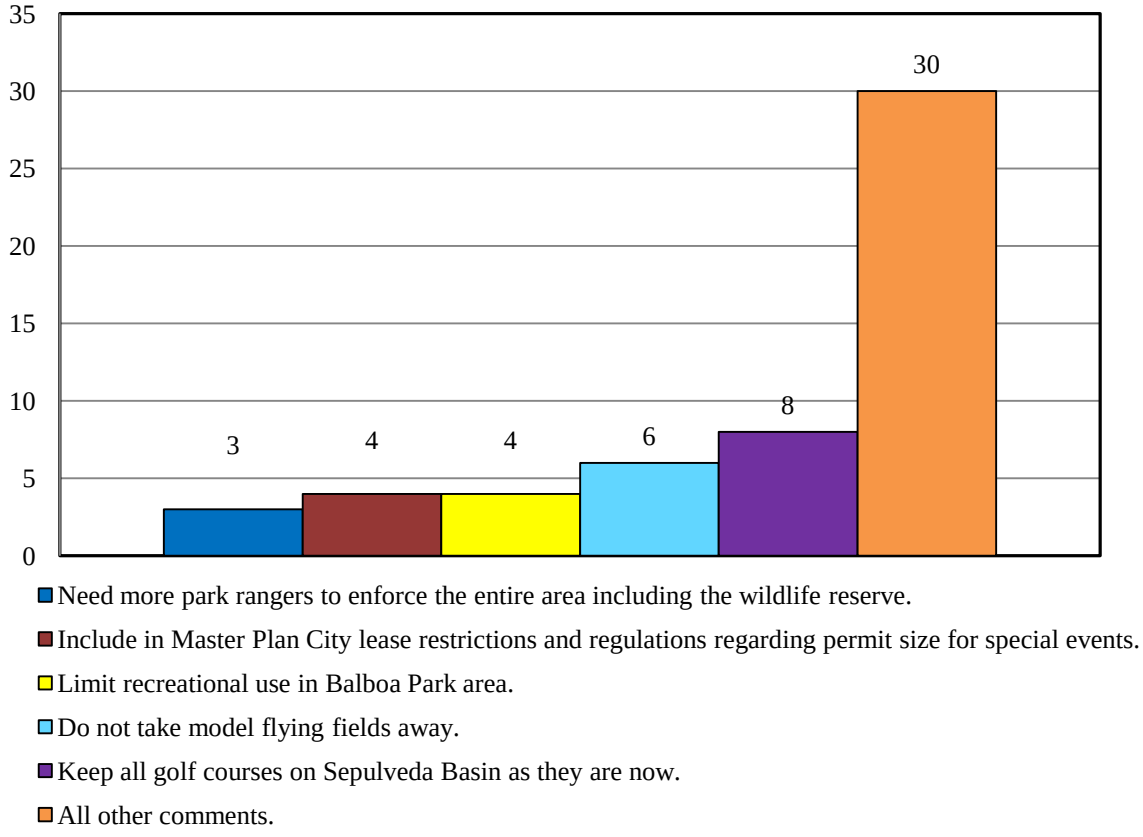
Safety:

- Two issues: sod farm and dry farm - how is the land going to be used in the future? Answer: Currently it is designated Inactive/Future Recreation.
- Fire breaks are needed throughout the basin since the homeless leave matches. Land is cleared for fire.
- Wildlife reserve is dangerous, people attacked, illegal activities.
    - Audubon takes 2000 students a year there. People are being threatened. Nothing posted on who to call or your location (no address).
    - Police have no idea where to send help.
    - Retriever dogs are being trained to hunt rabbits and water jowl. Wildlife reserve has to be protected.
    - GPS coordinates will clear confusion.
- In areas Corps owns what kind of violations are there? Answer: Violations are Federal law violations.
- If state legalizes marijuana could it be cultivated on agriculture lands here? Answer: Federal law prevails and since it is outlawed by the Federal government there would be no cultivation of marijuana on Federal lands.

Timeline:

- Timeline of draft and final? Answer: A Preliminary Draft Final Plan is submitted in August, and then it receives technical review. That is responded to, and it is put out for public comments. A final plan is then drafted and it would likely be approved next summer.
- What is the level of importance between what we (people) want and what the Corps wants? Answer: Public input is a requirement in the planning process and have already influenced the proposed land classifications.
- How will the public be notified? Answer: Through the email list that has been generated through the sign-in sheet. In addition, you can indicate on the comment sheet that you would like to receive a hard copy or CD of the plan when it is out for comment and the Corps will send you a copy.
- What is the status of the April 12 Bull Creek progress report form Corps? Answer: We are still working on the investigation and report.

Top 5 Comments from Sepulveda Basin Workshop 3



Results from Comment Sheets

Sheet #	Comment
1	Wants model airplane field to remain as is, and claims it doesn't harm wildlife and only 30 people/day are there.
2	Wants golf courses to remain as they are.
3	Wants golf courses to remain as they are instead of making them bird sanctuaries; claims that golf generates revenue.
4	Wants Woodley Lakes golf course to remain as is; claims that birds use the area.
5	Wants Woodley Lakes golf course to remain as is; claims it doesn't harm environement.
6	May want golf courses to remain as they are.
7	May want model airplane field to remain as is.
8	May want Woodley Lakes golf course to remain as is.
9	Wants model airplane field to remain as is; claims it is better use than archery/cricket.
10	Wants model airplane field to remain as is and expand.
11	Wants model airplane field to remain as is.
12	Wants model airplane field to remain as is, approves of MRM buffer between it and environmentally sensitive area.
13	Wants golf course to remain as is, wants no more recreation.
14	Wants model airplane field to remain as is.
15	Wants model airplane field to remain as is
16	Wants Woodley Lakes golf course to remain as is; claims that wildlife uses the area.
17	Wants Encino, Balboa, Woodley Lakes golf courses to remain as they are.
	wants City RaP to develop area between Woodley Lakes entry & range into golf course
18	Wants cricket fields (woodley, village green) to remain as is.
19	Wants expansion of water treatment plant in project operations area
	[because it will improve the water supply and lessen ocean pollution].
20	Wants RC track, wants Burbank/Balboa streets to remain open during light flooding.
21	Wants revenue from events/filming to be used in the park, e.g. for graffiti paint-over.
	Wants USACE to audit/charge more for some permits.
	Wants park rangers to patrol
	Wants no baseball fields or organized sports in low density recreation area
	Wants GPS coordinates posted to facilitate contacting law enforcement.
22	Wants to get a copy of the sign-in sheet.
23	Claims that the area between LA River/Woodley Crk/Woodley Ave is overfly area for RC field
24	Wants no huge events or soccer leagues or usage of Balboa Park.
25	Wants no more baseball fields in low density recreation areas.
26	Wants Bull Creek Restoration/south of Burbank Wildlife Reserve/east of Tillman & Haskell Creek classified as environmentally
	sensitive instead of project operations.
	Wants area between LA River/Woodley Crk/Woodley Blvd. classified as project operations instead of recreation.
	Wants Woodley/Haskell Creeks classified as Wildlife Mgmt.
	Wants the details of leases provided.
	Wants to be notified on Bull Creek issues.
27	Wants cricket fields to remain as is; claims that fields are a rare resource.
28	Wants to limit recreation in Balboa Park.
	Opposes Franklin Fields development.
	Claims Harvard Westlake school blocks riparian access and is against USACE policy.
29	Wants model airplane users to uphold the rules [because the planes disturb birds and animals].
	Wants law enforcement patrols in Wildlife Reserve [because there is a high amount of crime].
	Wants users to leash their dogs.
	Wants map to be more detailed to include Wildlife Way, cricket fields, Japanses Gardens, Tillman Plant, Project Operations.
	Wants more riparian restoration along Woodley/Haskell/Encino/Bull Creek.
	Wants land around Bull Creek classified environmentally sensitive.
	Wants lease with city to include no big permitted events.
	Wants lease with city to include wildlife protection.
	Wants cricket playing limited to designated fields.
30	Opposed to expansion of Tillman Water Reclamation Plant
31	Wants cricket fields to remain as is.

APPENDIX D:

ENVIRONMENTAL ASSESSMENT

DRAFT
FINDING OF NO SIGNIFICANT IMPACT
Master Plan for Sepulveda Dam Basin
Los Angeles County, California

I have reviewed the Environmental Assessment (EA) that has been prepared for the updated Sepulveda Dam Basin Master Plan located in Los Angeles County, California. The EA has been prepared in compliance with applicable Federal laws, regulations, and Executive Orders.

Coordination with the City of Los Angeles Department of Parks and Recreation and the local community has resulted in the identification of proposed changes to land use classifications for Sepulveda Dam Basin lands in conformance with Corps policies and guidelines. The updated Master Plan provides guidance for stewardship and management of recreation, cultural, and natural resources in Sepulveda Dam Basin. The EA includes a description of the proposed changes, a description of the existing environmental conditions and the Corps determination of the impacts of the updated Master Plan on those resources.

The EA analyzes the impacts of two alternatives for the Master Plan update – the No Action Alternative and the Proposed Action Alternative, or updated Master Plan. Resource categories that were evaluated included sedimentation and erosion, water quality, fish and wildlife, sensitive taxa, cultural resources, recreation, and socioeconomic characteristics of the market area.

Under the No Action Alternative, the Master Plan would not be updated. The Basin would continue to be managed without an updated framework guidance document. The No Action Alternative would not comply with Corps regulations, policies, and guidelines.

The Proposed Action Alternative recommends implementing a revised 1981 land use classification plan. The updated Master Plan provides guidance for future decision making by the Corps, Basin lessees, and stakeholders which optimizes Basin uses and fosters the Corps missions of flood risk management, recreation, and environmental stewardship now and for the protection and welfare of future generations. The EA analysis has determined that the updated Master Plan would not result in significant impacts to any resources.

This project is in compliance with Section 106 of the National Historic Preservation Act (36 CFR 800) as approval of the Recommended Plan (Proposed Action) would not implement any development. Should development be proposed in the future in compliance with the updated Master Plan, additional compliance measures would be initiated as needed.

This project also complies with Section 7 of the Endangered Species Act. Although several of the migratory least Bell's vireo have been observed in the Sepulveda Dam Basin, the Recommended Plan is not anticipated to cause adverse impacts to the vireo since the plan would not result in development or physical changes to Sepulveda Dam Basin. Should development be proposed in the future in compliance with the updated Master Plan, additional compliance measures would be initiated, as needed.

No significant short or long-term adverse impacts to local or regional air quality are anticipated from the approval of the updated Master Plan Should development be proposed in the future in compliance with the updated Master Plan, additional compliance measures would be initiated, as needed.

I have considered the available information contained in the EA, and it is my determination that there are no significant adverse impacts on the quality of human environment resulting from the approval of the

Recommended Plan. There are no unresolved environmental issues. Preparation of an Environmental Impact Statement (EIS), therefore, is not required.

_____
Date

_____
R. Mark Toy
Colonel, Corps of Engineers
District Commander

COVER SHEET
Sepulveda Dam Basin Master Plan and Draft Environmental Assessment

Los Angeles County, California

The responsible lead Federal agency for this study is the U.S. Army Corps of Engineers (Corps). This report is the Sepulveda Dam Master Plan and Draft Environmental Assessment (DEA) complying with requirements of the Corps and the Council on Environmental Quality, and is intended to reduce duplication and paperwork.

This DEA is an Appendix to the Sepulveda Dam Basin Master Plan. Its purpose is to provide sufficient information on the potential environmental effects of the Proposed Action Alternative, which is the approval of the updated Sepulveda Dam Basin Master Plan, and the No Action Alternative, which is retention of the current 1981 Sepulveda Dam Basin Master Plan.

Sepulveda Dam, located along the upper Los Angeles River in the San Fernando Valley, was authorized by the Flood Control Act of 1936 (P.L. 74-738) for flood risk management, and subsequently authorized for recreation development by P.L. 78-534, when said development does not interfere with the purposes of flood risk management. The Master Plan guides Corps responsibilities pursuant to Federal laws and regulations to preserve, conserve, develop, restore, maintain, and manage the project lands, waters, and associated resources within the Sepulveda Dam Basin. Master Plans are intended to be updated every 5 years, or as funding permits.

The updated Master Plan for Sepulveda Dam Basin has three primary objectives; 1) to provide a current and accurate description of existing conditions, 2) to prescribe revised land use classifications, and 3) to provide guidance for decision makers for potential future actions within the Basin. The proposed updated Master Plan is not anticipated to result in adverse impacts to the natural and human resources within Sepulveda Dam Basin. However, long-term beneficial impacts are anticipated to natural resource including erosion and sedimentation, water quality, air quality, vegetation, fish and wildlife populations and habitat, status of Federally protected species, recreation resources, and public health and safety.

Under the No Action Alternative, failure to implement the updated Master Plan would not result in immediate adverse impacts. Over time, the lack of a comprehensive guiding document for management of the Basin may inhibit development of the Basin in a way that meets the needs of the community and fosters sustainability.

Please forward comments on the Draft Environmental Assessment by [ ] 2011 to:

Deborah Lamb,
Environmental Coordinator
U.S. Army Corps of Engineers, Los Angeles District
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Sepulveda Dam Basin
Master Plan and Environmental Assessment
APPENDICES

Sepulveda Dam Basin Master Plan

Draft Environmental Assessment

Los Angeles County, California

MARCH 2011

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Funding provided by
The American Recovery and Reinvestment Act of 2009
(Public Law 111-5)

Sepulveda Dam Basin
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1 INTRODUCTION

In accordance with the requirements of the National Environmental Policy Act (NEPA) 42 USC 4321 et seq), Council on Environmental Quality (CEQ) regulations published in 42 Code of Federal Regulations (CFR) part 1500, and the U.S. Army Corps of Engineers (Corps) regulations published at 33 CFR part 230, the purpose of this Draft Environmental Assessment (DEA) is to provide sufficient information on potential environmental effects of the proposed update to the Sepulveda Dam Basin (Basin) Master Plan and alternatives for the purpose of determining whether to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI).

The Master Plan is the document guiding Corps responsibilities pursuant to Federal laws and regulations to preserve, conserve, develop, restore, maintain, and manage the project lands, waters, and associated resources. The primary goals of a Master Plan are to prescribe an overall land and water management plan, resource objectives, land use classifications. The updated Master Plan addresses resources including but not limited to fish and wildlife, vegetation, cultural, esthetic, interpretive, recreation, mineral, commercial and outgranted lands, and water. Specific development plans, requests for approval of actions by lessees, and changes in management actions will require supplemental environmental documentation.

1.1 Project Location

The Sepulveda Dam Basin, comprised of a Dam and lands that support the construction, operation and/or maintenance of the Dam (Basin), is on the upper Los Angeles River in the San Fernando Valley about 17 miles northwest of downtown Los Angeles and 2 miles southwest of the community of Van Nuys, approximately 43 miles above the mouth of the Los Angeles River and 6 miles above the confluence of Tujunga Wash and the Los Angeles River (See Appendix E, Map 1)[1]. (The Basin is accessible by two major freeways, the Ventura Freeway (U.S. Highway 101), and the San Diego Freeway (Interstate 405), and lies at the northwest corner of the junction of these freeways. The area under purview of the Sepulveda Dam Basin Master Plan and DEA totals 2,131.9 acres, and includes the Dam and associated operations structures, and all Federally owned lands in and around the Basin (Map 3).

1.2 Authorized Purpose

Flood Risk Management A Corps Master Plan for an authorized civil works project is a conceptual document guiding Corps responsibilities pursuant to Federal laws and regulations to manage the project lands, water, and associated resources and to preserve, conserve, develop, restore, and maintain those resources. 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) provided in part for the construction of Basins and related flood-control works for the protection of metropolitan Los Angeles County. The FCA of 1938 (P.L. 75-761), amended the 1936 Act by providing for acquisition by the United States of land, easements, and right-of-way for Dam and Basin projects, channel improvements, and channel rectification for flood risk management.

[1] Each map referenced within this DEA is provided in Appendix E. Maps in Appendix E are numbered as they appear within the Master Plan, and as a result, will not be in numerical order in this DEA. Not all maps in Appendix E will be referenced within this DEA.

The analysis of design, dated 19 August 1939 and subsequently revised 1 October 1941, established the location and design of the Dam and appurtenant amenities. Construction of the Dam, spillway and outlet works was completed in December 1941. 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).

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.

Consequently, several recreation amenities have been developed within the Basin by the recreation lease holder, which is currently the City of Los Angeles (City).

1.3 Need for Updated Master Plan

A need exists to ensure that Federal lands are managed in a way that conforms to current Corps regulations, policy and guidance. A Master Plan is intended to capture the Corps' assessment of land management needs, expressed public desires, and provides guidance for evaluation of specific developments, uses and activities. A Master Plan defining land use classifications provides guidance and foresight that allows the Basin to be managed in a way that balances the needs and desires of the public with legal, policy and resource constraints.

The original Master Plan for Sepulveda Dam was prepared in 1953. The most recent Master Plan was prepared in 1981, with Supplement 1 in 1995 (Corps 1953, 1981, 1995). The land and resource uses within the Basin and in the surrounding community have changed significantly since the 1981 Master Plan was completed. In particular, land leases and easements, Basin boundaries, public use, environmental and resource conditions, and surrounding land uses have been altered or have changed significantly.

Over the past several years, Corps policy and guidance has come to recognize a greater need for environmental stewardship. The updated Master Plan must reflect this policy in order to guide future development within the Basin. Federal laws, regulations, and Executive Orders (EO) have changed in response to increasing needs for environmental protection and conservation. These changes in Corps environmental regulations and policy must be considered in the management of the Basins' land and water resources.

This Master Plan provides a review of existing land and resource uses within the Basin, describes the needs and desires of the surrounding community and other stakeholders, prescribes land use classifications for Basin land based on Corps guidance, offers resource and land use objectives for guidance in land management, and identifies recommendation for future development as well as preserving and conserving the Basin's natural resources.

1.4 Purpose of Updated Master Plan

The purpose of the Master Plan update is to designate land use classifications for all lands throughout the Basin, and provide a framework for management of the Basin which examines and responds to existing uses and constraints, regional needs, resource capabilities and compatibility, and public desires consistent with the authorized project purposes and Federal laws, regulations, and policies.

2 PROPOSED ACTION AND ALTERNATIVES

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

ACTION ALTERNATIVE
Proposed Action

Approval of the updated Sepulveda Dam Basin Master Plan with revised land use classifications.

Includes revised land use classification plan, updated review of Basin conditions, recreation needs analysis, and guidance for future development.

NO ACTION ALTERNATIVE

Retention of existing 1981 Sepulveda Dam Basin Master Plan

Outdated information regarding Basin Conditions, recreation needs

2.1 Proposed Action Alternative

The Proposed Action Alternative is the approval of the updated Sepulveda Dam Basin Master Plan, to which this DEA is an Appendix. The updated Master Plan provides a resource inventory update for the Basin, including a review of current social, economic, recreation, and natural resources within the Basin. Using these updated descriptions, the existing land use classifications for the Basin was analyzed for compatibility and sustainability and found to be in need of revision. This updated Master Plan provides a set of recommended land use classifications for immediate implementation at the Basin. These land use classifications are designed to create a Basin land use plan that guides optimum recreation use and natural resource protection while fostering sustainability and meeting the needs of the community. The updated Master Plan also offers a set of recommendations that are intended to continue to meet Basin resource and land use objectives. Further description of each of these components is provided below.

2.1.1 Revised Master Plan Components

2.1.1.1 Updates

Federal Laws, Regulations, and Executive Orders, and Corps Guidance and Policies Since the existing Master Plan was developed, Corps guidance and policy has changed as a result of new Federal legislation, advancing scientific findings, evolving principles in environmental stewardship, and improved understanding of environmental conditions. The updated Master Plan includes a review of historic conditions and regulations for Sepulveda Dam Basin and summarizes current regulatory and guidance policies.

Existing Conditions The updated Master Plan reviews the existing conditions within and around the Basin using current and best available data. Updates are provided for operational management, environmental and resource conditions, demographic analysis of the market area, compatibility analysis of Basin uses, and a review of stakeholder interests. In addition, this DEA provides additional detailed review of existing natural, cultural, and social resources and conditions.

Resource Objectives As the vision and mission of the Corps evolves, it must be reflected in water and land management objectives. Over the past several decades, the Corps has adopted an environmentally focused approach to managing project lands, such as the Sepulveda Dam Basin. The updated Master Plan presents an extended and detailed list of resource objectives for environmentally sound and sustainable management practices. It indicates a move toward environmental stewardship and a responsibility for ensuring the sustainability of the natural resources within the Basin.

2.1.1.2 Recommended Land Use Classifications

Following the analyses, it was determined that the existing Master Plan does not implement current Corps land use classifications guidance to the fullest benefit of the Basin. Land use classification titles and uses from the existing Master Plan do not conform to current Corps guidance. As a result, the land use classifications at Sepulveda Dam Basin were revised to improve compatible uses and to ensure social, economic, and environmental sustainability of Basin lands. Map 23 shows the types and extents of the proposed land use classification plan. There are a total of 2,131.9 acres within Sepulveda Dam Basin.

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

Recreation The Recreation land use classification allows the most intensive recreation uses and may be used for athletic fields, parking lots, restrooms and other amenities. Large special events may be held under this classification only after event-specific review in conformance with Corps policy (Appendix A5). Structures within recreation areas must be compatible with periodic flood inundation as provided in Corps guidance regarding structures within given flood surface water elevations (SPDR 1110-2-1). A total of 234.6 acres are recommended for classification into the Recreation category, reflecting a slight increase in the total acreage of Recreation land within the Basin since the 1981 Master Plan. Though the number of acres of land that is classified as Recreation has increased, the updated Master Plan does not recommend changes to existing recreation amenities. Additional areas newly proposed for classification as Recreation include Castle Park and Encino Baseball Fields.

Environmentally Sensitive Environmentally Sensitive lands may have limited or no development and uses are restricted to non-consumptive activities that have no significant adverse impacts. No agricultural or grazing uses are permitted on this land. This land use classification offers the greatest level of protection of natural resources. A total of 119.3 acres are recommended for classification as Environmentally Sensitive under the Action Alternative. This reflects the introduction of a land use classification that was not used in the 1981 Master Plan but not a change in use of the area. The Environmentally Sensitive area encompasses the current wildlife management area on the east side of the Basin, north of Burbank Boulevard and east of Woodley Avenue. This area has ecological features that have been identified for additional protection, such as the presence of aquatic and wildlife habitat, and known occurrences of the Federally endangered least Bell's vireo.

Multiple Resource Management (MRM) – Recreation – Low Density In the 1981 Master Plan, the majority of the Basin was classified as Recreation – Low Intensity Use. Under the action alternative, the Basin will continue to be dominated by low density recreation areas, though the official land use

classification name has been changed to MRM –Recreation – Low Density. There are a total of 801.4 acres of this land use classification within the Basin.

MRM land use classifications are those that are managed primarily for a specific use, but have other compatible and acceptable uses. MRM – Recreation – Low Density lands are primarily managed for low-impact recreation activities, such as hiking, primitive camping, picnic areas, open play areas, and wildlife observation. However, it is also necessary to manage the area to ensure sustainability of the qualities that make it a suitable hiking, camping, picnicking, or observing area, such as the preservation of native vegetation or wildlife.

Small but significant changes have been made to the areas designated as MRM – Recreation – Low Density. In comparison to the current Master Plan, the updated Master Plan designates two new areas under this land use classification, including the area west of the Bull Creek restoration and a small parcel east of Haskell Creek and north of the Environmentally Sensitive area. Areas that are no longer under this land use classification include most of the land south of Burbank Boulevard and west of the Los Angeles River and the parcel of land surrounding the model airplane field, both of which have been reclassified into MRM – Vegetative Management.

MRM – Vegetative Management This land use classification was not used in the 1981 Master Plan. These are lands that are specifically identified for the protection and development of forest and vegetative cover, and benefit directly from the management and removal of invasive species. In the updated Master Plan, 338.7 acres of land have been classified as MRM – Vegetative Management and includes areas along river and creek drainages in the Basin, which allows for the establishment or protection of a riparian habitat buffer. This land use classification is also designated for lands surrounding the Environmentally Sensitive areas, creating a buffer between areas of recreation use and ecologically sensitive land.

MRM – Inactive and/or Future Recreation This land use classification refers to lands that are not currently used for recreation, but may be designated as Recreation or MRM – Recreation – Low Density in the future. Typically, these lands are existing or fallow agricultural areas, but may also include unused land, athletic fields closed for rejuvenation, or Federally owned lands not used for flood risk management Project Operations. In the 1981 Master Plan, this land was classified as “undetermined.” The updated Master Plan includes a total of 325.0 acres of MRM – Inactive and/or Future Recreation land and includes agricultural lands along the existing busway, an expanse of unused dirt north of Woodley Creek Golf Course, and several parcels of agricultural or unused land south of Burbank Boulevard. This classification also includes the Federally owned National Guard Armory, Navy reserve training center, Air National Guard, Donald C. Tillman Water Reclamation Plant, and to the City of Los Angeles Fire Department.

2.1.1.3 Recommended Future Actions

The final component of the updated Master Plan is the development of guidance for future actions in the Basin. The updated Master Plan includes development of future management practices and/or actions that could be taken that would best reflect the vision and mission of the Corps, as well as the expressed desires of the public, and would result in the improved sustainability of the Basin. Working together with the City, neighboring communities, Basin visitors, and other stakeholders, the Corps identified a number of measures that are desired for ongoing improvement and management of the Basin. These measures have been listed in Table 2.1 and divided into 1) actions for which there may be an immediate need, 2) measures that could be taken throughout each land use classification to improve safety and sustainability within the Basin, and 3) potential uses of lands that are currently designated as MRM – Inactive and/or Future Recreation.

Table 2.1 Recommended Future Measures Guidance	
Action	Associated Measures
(1) Immediate Recommended Measures	
Trail Improvements	• Improvement of hiking trails and other low-density recreation features in conjunction with restoration management measures would 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. • Structure trails to discourage homeless encampments.
Native Plant Landscaping	• Invasive plant eradication for giant reed, tree tobacco, castor bean, and salt cedar must be developed in conjunction with Adaptive Habitat Management Plan (AHMP). • Develop a plant palette for replacing non-natives with native species.
Install Wayfinding	• 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	• 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. • Remove trash and debris.
Implement Sustainable Resources Management	• 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. • Proper management of special events to ensure no inappropriate use of Environmentally Sensitive and MRM- Vegetative Management Areas. • Management of fugitive dust at denuded lots
Implement Safety Measures	• 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.
(2) Potential Immediate or Future Actions by Land Use Classification	
Project Operations	• 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	• Include education about flood risk management and the operations of the Dam in interpretive signage throughout Basin. • Restoration of native habitat, including upland, riparian, and wetland. • Conduct periodic biological surveys to determine presence of Federally protected species. • Manage trails and vegetation for elimination of homeless camps. • Install signage with educational information regarding the hazards of feeding wildlife.

Table 2.1 Recommended Future Measures Guidance	
Action	Associated Measures
MRM - Recreation - Low Density	• Implementation of stormwater Best Management Practices (BMP) 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. • Periodically review ONEgeneration and other amenities to determine visitation, condition, and adequacy of meeting community's needs.
MRM - Vegetative Management	• Implement program to 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	• Investigate potential opportunities in areas of inactive or agricultural land.
(3) Recommended Future Uses for MRM – Inactive and/or Future Recreation Areas	
West Bowtie	• Create passive nature park, accessed via foot or bicycle. • Restore native river adjacent upland habitat. • Create wetlands/riparian habitat.
Behind ONEgeneration Center	• Establish community garden. • Create picnic area and garden. • Designate for use as outdoor classroom.
Vacant Lot north of Woodley Lakes Municipal Golf Course	• Install universal access playgrounds, parks, and picnic areas. • Add formalized overflow parking amenities.
West of Hjelte Sports Center	• Expansion of Hjelte Sports Center.
Parcel west and north of Community Gardens	• Expand community gardens.

The associated measures described for each action are preliminary in nature and intended only to suggest possible courses of action. The determination of responsibility for each of the potential future measures suggested would be made during initial feasibility studies. In the event that any of the recommended future uses described herein are formally proposed for implementation, site specific review and studies in compliance with Corps regulations and guidelines would be required, including but not limited to, feasibility studies, market studies, and NEPA documentation. Although Corps' guidance recommends Master Plans be updated as regularly as every 5 years, this is often not possible. The updated Master Plan for Sepulveda Dam Basin provides guidance for the long-term future.

In order to continue to provide best possible management and guidance for the Basin, the updated Master Plan recommends that essential resources and conditions be reviewed periodically. In particular, it is recommended that Basin stakeholders be continuously encouraged to participate in workshops and advisory groups to ensure that the needs of the community are being met regarding: 1) recreation use, future needs and desires; 2) environmental protection and sustainability; 3) the mandates of environmental justice, as well as the economic and social sustainability, and 4) Basin managers and operators economic viability.. It is also recommended that ongoing efforts be maintained to collect visitation data, the condition of recreation land, and the overall environmental condition of the Basin. Results from these data collections would be utilized to make decisions regarding recreation modifications, on-going operations and maintenance, and environmental management and restoration.

2.2 No Action Alternative

Under the No Action Alternative, the updated Master Plan would not be approved. The 1981 Master Plan and the 1995 Supplement 1 would continue to provide the only framework management documents for the Basin. The 1981 Master Plan is based on outdated information regarding existing recreation demand and availability within the region, current qualities and characteristics of the Basin, and national objectives and other state and regional goals and programs.

Land use classifications do not reflect current uses and, in some cases are no longer sustainable or no longer recognized as a land use classification by the Corps. In particular, Operations – Natural Area, Operations – Service; Non-Recreation Uses; Freeways, and Recreation – Low Intensity Use land use classifications have been changed in name and have had significant changes to their management policies. The land use and resource suitability and analysis in the updated Master Plan proposes the reclassification of several acres of land in order to reflect actual uses of these lands and to improve environmental, social, and economic sustainability in the Basin. If the updated Master Plan is not approved, outdated land use classifications that do not reflect current use would remain in effect and unsustainable land use would continue. Lands classified as Environmentally Sensitive or MRM – Vegetative Management would not benefit from the added protection and management of these lands.

Without the approval of the updated Master Plan, the Corps Master Plan goal of “providing the best possible combination of responses to regional needs, resource capabilities and suitability, and expressed public interest and desires consistent with authorized project purposes” cannot be achieved. The No Action Alternative would not meet the purpose and need of the Master Plan process, but is carried forward in this DEA for comparison purposes.

2.3 Alternatives Eliminated From Consideration

Of the three primary components of a Master Plan (Updates, Recommended Land Use Classifications, and Recommended Future Actions), only the recommended land use classifications could be divided into multiple alternatives for analysis. The array of proposed recommended future actions is intended as conceptual guidance for the future. Although they have been evaluated for conceptual impacts, none of the recommended proposed future actions are slated for implementation. Therefore they have not been evaluated under in this DEA.

The component that could potentially result in multiple alternatives includes the designated land use classifications. The potential alternatives for land use classifications are constrained by several factors, including; 1) existing development and use, 2) meeting Corps guidance requirements, and 3) meeting the expressed desires of Basin stakeholders and facility operators

Existing Development and Uses It is necessary to identify current land uses within the Basin as defined by Corps guidance, and assign land use classifications based on use and guidance. If an area is currently developed for athletic fields, that land must be identified as Recreation, per Corps Master Plan guidance.

Meeting Recreation Demand and Community Needs Areas designated for recreation use have been identified through recreation demand analyses. Based on these analyses, Recreation and MRM – Recreation - Low Density land use classifications were required to remain in place and additional areas of Recreation land were identified to meet Basin lessee and community recreation uses.

Under the Proposed Action, lands not currently under a specific use are designated as MRM – Inactive and/or Future Recreation and include agricultural areas which are considered an interim use. These lands could also be fallow, an overused recreation facility closed for refurbishing, or slated for development. Except in areas where development is slated by the current lessees, lands classified as MRM – Inactive and/or Future Recreation under the updated Master Plan would remain open for development (or reclassification) in the future. These areas are defined by current use or future needs and are not subject to division into multiple alternatives.

Corps Guidance Following Corps guidance for development of a Master Plan required a land use sustainability analysis. This analysis indicated where lands were Basin lands overused, where adjacent uses were incompatible, and identified areas that were in need of protection in order to foster sustainability. At Sepulveda Dam Basin the areas around the Los Angeles River, Bull Creek, Hayvenhurst Channel, Woodley Creek, Encino Creek, and Haskell Creek have been identified as corridors of important riparian habitat in need of restoration and protection. As a result all creeks and their riparian corridors have been classified as MRM – Vegetative Management.

3 BASELINE CONDITIONS

3.1 History and Development of Basin Resources

The need for flood risk management in the coastal drainages of Los Angeles County was recognized before 1900, but increased after the floods of January and February 1914. On 12 June 1915, the 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 control construction projects were given serious consideration. The major flood of 1 January 1934 emphasized the need for flood risk management projects in southern California and the Federal depression-relief jobs 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 project to design a comprehensive flood risk management plan in Los Angeles County for the Santa Ana, San Gabriel, and Los Angeles Rivers and their tributaries (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. It also provided rainfall and runoff data for use in new design criteria and as verification for existing design criteria.

Sepulveda Dam forms part of the Los Angeles County Drainage Area (LACDA) system of flood risk management structures located on the San Gabriel and the Los Angeles Rivers and their tributaries. The analysis of Dam design, completed in 1939 and revised in 1941, established the location and design of the Dam and appurtenant flood control amenities. Construction of the Dam, spillway, and outlet works was completed in December of 1941 at a Federal first cost of $6,650,561.

Until the housing boom following World War II, the San Fernando Valley was a major agricultural center of California. Following the war, development of housing units increased dramatically with the growing population. In 1950, at the time of development of the first Master Plan, 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 (U.S. Census Bureau 2000). According to the original 1953 Master Plan, the population of the 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 meant an increased need for recreation amenities. Effective 11 June 1951, the Corps and City of Los Angeles (City) entered into a lease agreement for 50 years “to use and occupy for public park and recreation purposes and purposes incidental thereto, approximately 2,000 acres of land” (Corps 1953). With the approval of the *Master Recreation Plan Flood Control Reservoir* in March 1953 recreation development of the Basin began in earnest with actual construction commencing in 1959. The updated Master Plan describes the leases and subleases currently in effect at the Basin (Real Estate).

3.2 Physical Land Resources

The Sepulveda Dam Basin is located in the San Fernando Valley, surrounded by the Santa Susana and San Gabriel Mountains to the north, the Santa Monica Mountains to the south, the Verdugo Hills to the east, and the Simi Hills to the west. The San Fernando Valley is approximately 20 miles long and ranges in width from 2 to 12 miles (Corps 1989). Topography of the drainage area includes approximately 55% (85 square miles) of relatively steep mountainous terrain and 45% (67 square miles) of comparatively flat valley floor. The highest point in the drainage area is San Fernando Peak in the Santa Susana Mountains

at an elevation of 3,741 feet[2]; the average elevation in the Santa Susana Mountains is about 2,000 feet. The average elevation in the Santa Monica Mountains and Simi Hills is about 1,700 and 1,800 feet, respectively. Elevations in the highly urbanized valley vary from 1,200 feet at the base of the foothills to 668 feet at the base of the Sepulveda Dam (Corps 1989). Map 17 shows the topography of the Basin and immediate vicinity.

3.2.1 Geology

The San Gabriel, Verdugo, Santa Susana, and Santa Monica Mountains are part of the Transverse Ranges. The San Gabriel Mountains are generally composed of Mesozoic and older igneous and metamorphic rock. The Verdugo Mountains are in an uplifted sliver of crystalline rock, along the south side of the San Gabriel Mountains. The Santa Monica Mountains are composed mainly of Cretaceous to Miocene sedimentary and volcanic rock. The Santa Susana Mountains are composed mainly of Miocene to Pleistocene marine and non-marine sedimentary rock. The adjacent Santa Susana Knolls are composed of upper Cretaceous marine sedimentary rock (Corps 1989).

The greater part of the San Fernando Valley is overlain by recent alluvium, consisting of unconsolidated and un-weathered, poorly graded clay, silt, gravel, and boulders (Map 18). The eastern half of the plain is largely dominated by Tujunga Wash and contains coarser alluvium that is granitic in origin. Along the Los Angeles River above the confluence with Tujunga Wash, the alluvium is notably lacking in boulders and in appreciable quantities of coarse gravel. The Dam site is almost entirely covered by recent alluvium composed of relatively fine material (Corps 1989).

Between one and two miles west (upstream) of the Dam spillway site is a low, topographic ridge lying about midway between the river and Ventura Boulevard. The ridge is nearly a mile long, east and west, and is covered at both ends with older alluvium. About two miles east (downstream) from the spillway site and on the north side of the river, there is a somewhat longer east-west ridge along which older alluvium is exposed. Elsewhere throughout the Valley, particularly in the northern part, there are numerous small terraces of older alluvium at elevations somewhat above that of recent deposits. These terraces have been raised above the general level of present deposition and are now covered by a reddish-brown soil typical of older alluvium. Quaternary Age continental deposits of recent and older alluvium comprise unconsolidated formations within the valley.

Underlying the unconsolidated alluvium formations are the Tertiary (Miocene) shales and sandstones which form the bedrock of this area. The top of bedrock ranges in depth from surface exposures south of Ventura Boulevard to more than 400 feet below ground level. In general, the strike of this bedrock surface is parallel to the Los Angeles River and the dip is northeasterly. The only outcrop of bedrock near this site and north of Ventura Boulevard is at the central part of the low ridge previously mentioned as lying upstream from the spillway site. This outcrop of consolidated formation is classified as Tertiary (Miocene) shale, and lies between the two exposures of older alluvium which occupy either end of the same ridge. Its isolated position is due to an upthrust movement of formations north of the covered fault line parallel to the ridge (Corps 1989).

3.2.2 Sediment and Soils

Sediment production within the 152 square mile drainage area above Sepulveda Dam varies considerably according to terrain. In the steep and largely non-urbanized mountain and foothill areas, sediment

[2] Elevations are reported based on National Geodetic Vertical Datum (NGVD) unless otherwise specified.

production is high. The production of sediment is greatest during periods of heavy rains and after severe brush or forest fires. Upstream debris basins intercept part of this sediment load.

In the urbanized valley areas, sediment production is at a minimum, and has been decreasing over the years as the rate of urbanization has increased. A Corps document indicates that between November 1944 and June 1961, a total of 141 acre-feet of sediment was deposited into the Sepulveda Dam Basin (Corps 1971). This represented 0.8 % of the total available storage to elevation 710 feet (spillway crest with crest gates raised). According to surveys discussed in the 1971 report, the rate of sediment accumulation in the Basin behind Sepulveda Dam appears to be relatively minor. Therefore, sedimentation is not considered to have a significant effect on flood risk management function (Corps 1989). A topographic survey of November 2004 determined that the storage capacity at elevation 710 feet was 18,129 acre-feet, which exceeds the computed storage capacities for the surveys of 1944 and 1961. This anomaly is likely the result of the different survey procedures used over the decades as well as major excavations over the years as various Basin features (e.g., Lake Balboa, Wildlife Reserve Lake, and Tillman levee) have been constructed. Ultimately, the topographic survey confirmed that storage capacity of the Basin is sufficient as designed for the base flood.

Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database, which is the most detailed level of soil mapping done by the Natural Resources Conservation Service (NRCS). Each of the NCRS SSURGO soil hydrologic groups (A through D) are represented at Sepulveda Basin (Map 19). Soils in hydrologic group A have low runoff potential, and a high rate of infiltration when thoroughly wet. Soils that have a moderate rate of infiltration when thoroughly wet are in hydrologic group B. Hydrologic group C soils have a slow rate of infiltration rate when thoroughly wet. Soils in hydrologic group D have a high runoff potential and a very slow infiltration rate when thoroughly wet.

3.2.3 Earthquake Faults

The Alquist-Priolo Earthquake Fault Zoning Act (Section 7.5, Division 2 of the California Public Resources Code) was passed in 1972 in order to identify hazard areas along active faults (fault zones) that should be avoided when planning areas of human occupancy. This California state law was chiefly influenced by the devastating impacts of the 1971 San Fernando Earthquake. Although the Sepulveda Dam Basin does not lie within a fault zone (CADC 2010), several active Quaternary faults (faults less than 1.6 million years old) are found in the immediate area (USGS 2010):

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

All four faults are classified as reverse faults, or faults whose displacement is vertical. The most recent surface rupture activity for these faults is estimated to be in the late Quaternary period, most likely less than 130,000 years ago (Treiman *et al.* 1998). Although intervals between major ruptures are unknown, the probable magnitude of previous ruptures is estimated between 6.0 to 6.8 magnitude (ML) for the Chatsworth and Verdugo Faults (SCEDC 2010). One fault that may intersect the Basin is a spur of the Malibu Coast Fault which is shown on Map 18.

The Sepulveda Dam Basin lies within the state of California's designated Seismic Zone; these are areas that, based on historic occurrences of liquefaction, or local geological, geotechnical, and groundwater conditions, have the potential for permanent ground displacements (CADC 2010).

3.2.4 Dam Safety

During storm and flood events, inflow to the Basin can create hazardous conditions related to flowing water, erosion of soil from streambanks, inundation of Basin lands, and potential for Dam failure. In 1978, the Corps reviewed the hydrologic and hydraulic design aspects of Sepulveda Dam using the latest hydrologic criteria available at that time. The hydrologic and hydraulic evaluation of the safety and functional adequacy of the Dam found no deficiency in the capacity of the spillway (Corps 1978). The Corps recently performed a risk-based safety evaluation of Los Angeles District dams in accordance with Corps Engineering Circular 1165-2-210 (Water Supply Storage and Risk Reduction Measures for Dam Safety) (Corps 2010a). Corps dams have been classified into Dam Safety Action Classes (DSAC), based on individual dam safety risk (DSAC 1 being the highest risk level and DSAC 5 being the lowest). DSAC classifications consider event probability, probability of failure, and consequences, given the physical properties of the dam. Sepulveda Dam has been given a DSAC 3 (Chitwood 2010).

The Corps has prepared a formal plan to address the actions to be taken during emergency situations at the Dam resulting from earthquake, large flood, or security alert. The Emergency Action and Notification Subplan for Sepulveda Dam prescribes notifications necessary for: 1) prompt evacuation of downstream residents; 2) ensuring safety; 3) vacating project areas where emergency operations may be conducted; and 4) coordination with Federal agencies and non-Federal units of government (Corps 2008). The Emergency Action and Notification Sub-plan is intended to provide protection to the areas downstream of the Dam only. Safety within the Basin is discussed below in the Public Health and Safety section.

3.3 Water Resources

3.3.1 Los Angeles River Watershed

The drainage area of the Los Angeles River and its tributaries upstream of Sepulveda Dam comprises 152 square miles (Map 5). This drainage occupies the northwestern most portion of the Los Angeles River watershed, and covers virtually the entire San Fernando Valley and surrounding mountain slopes west of Interstate 405. The drainage area is bounded on the south by the Santa Monica Mountains; on the west by the Simi Hills; on the north by the Santa Susana Mountains; and on the east by a line extending north and south along the San Diego Freeway. The headwaters of the Los Angeles River are in the Simi Hills on the west, formed by Chatsworth Creek, Dayton Canyon Wash, Bell Creek, and Arroyo Calabasas. The longest watercourse upstream of the Dam (Devil Canyon-Brown's Canyon-Los Angeles River reach) is about 19 miles long with an average slope of 143 feet per mile. The Los Angeles River immediately downstream of the Dam is a rectangular reinforced concrete channel with a hydraulic capacity of 16,900 cubic feet per second (cfs). The River continues in an easterly and southerly direction in a lined channel of varying cross sectional shape that increases in size as it accumulates urban tributary runoff on its way to the Pacific Ocean (Corps 1989).

Sediment production within the drainage area is largely intercepted by upstream debris basins. According to periodic surveys the rate of sediment accumulation in the Basin upstream of Sepulveda Dam appears to be relatively minor, and is thus considered insignificant with respect to Basin flood water storage capacity (Corps 1989).

3.3.2 Hydrology

Normal annual precipitation ranges from less than 15 inches over much of the valley floor to more than 22 inches atop both the Santa Susana Mountains and the Santa Monica Mountains. There can be great year-to-year variability in monthly as well as annual precipitation. The minimum observed monthly precipitation values for rain gage stations in the watershed are 0.01 or 0.02 inches (Corps 1989).

Most precipitation in southern California coastal drainages occurs during the cool season, primarily from November though early April, as mid-latitude cyclones from the north Pacific Ocean occasionally move down the west coast bringing precipitation to southern California. Most of these storms are of the general winter type, with light to moderate steady precipitation, but with occasional heavy showers or thunderstorms (Corps 1989). Runoff from the watershed is characterized by high flood peaks of short duration that result from high-intensity rainfall on the urban watershed. All of the major inflow and impoundment events in the history of Sepulveda Dam Basin have been the result of these general winter storms. Flood events are typically of less than 12 hours duration and nearly always less than 48 hours in duration. Inflow rates drop rapidly between storms. Inflow during the dry summer season can average 100 cfs due to outflow from the Donald C. Tillman Water Reclamation Plant, located within the Basin. Based on Corps operation records, the long-term average inflow to Sepulveda Dam Basin for the water years 1943 through 2007 is 60,692 acre-feet per year (or 84 cfs) (Corps 2009a).

There has been a dramatic increase in peak water inflow, or the maximum amount of water flowing into the Basin, in response to increasing watershed urbanization. Most of the valley area is urbanized, with a high percentage of the ground surface covered by paving or structures, which collects rain and forces it to runoff through surface drainage. In 1989 the watershed was estimated to have about 35% impervious cover, preventing rain from soaking into the ground and percolating into groundwater (Corps 1989). As a result of impervious surfaces, average peak inflow rose from approximately 2,000 cfs in 1930 to about 12,000 cfs in 1980. The mean annual discharge varied from the lowest runoff of 7.2 cfs in 1950 to the highest runoff of 393 cfs in water year 1998. The graph of mean annual Basin inflow in Figure 3.1 illustrates the increasing the volume of runoff from the watershed, resulting from increased urbanization (Corps 1989).

3.3.3 Dam Operation

Sepulveda Dam Basin, which was completed in December 1941, is operated to provide flood risk management to communities along the Los Angeles River, downstream of the Dam. Dam and Basin pertinent data are provided in Table 3.1. The Basin storage space (18,129 acre-feet at elevation 710 feet as of 2004) is used to capture flood inflows which are then released at rates up to the maximum scheduled release of 16,900 cfs to mitigate potential downstream flood damage. Four regulating gates control Dam releases, and there are four large un-gated outlets that preclude the retention or storage of flood waters above 710 feet in elevation. Flood waters are drained rapidly during flood events. Releases are reduced as necessary so as not to exceed the capacity of the downstream channel. There is no temporary or permanent storage of water for recreation purposes. All recreation activities within the Basin are dry-land activities with the exception of fishing and boating at Lake Balboa. A comprehensive description of the Sepulveda Dam water control plan is provided in the Sepulveda Dam Water Control Manual (Corps 1989).

Table 3.1 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
Area[2]	
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, Gross[1]	
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
Design surcharge	6.7 ft
Design discharge	99,540cfs
Outlets	
Uncontrolled	
Number and Size	4- 6'W x 6.5'H

Table 3.1 Sepulveda Dam and Basin Pertinent Data	
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 (16 February 1980)	58,970 cfs
Maximum outflow (16 February 1980)	15,320 cfs
Maximum storage (16 February 1980)	11,470 ac-ft
Maximum water surface elevation (16 February 1980)	705.1 ft, NGVD
[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.	

3.3.4 Basin Filling Frequency

The frequency and areal extent of flood inundation influences management and appropriate use of Basin lands. The operation of the Dam occasionally results in short-term storage of flood waters within the Basin area. The Dam has a water surface elevation gage which produces a continuous record of the water surface elevation stage. Figure 3.2 presents the historical record of Sepulveda Dam water surface elevation from December 1940 to September 2008 (68 years) as provided by the Corps (Corps 2009a).

This historical operation record of surface water elevations in the Basin is the principal information used to develop a statistical relationship between flood water elevation and frequency. This allows for a determination to be made of the percent chance that a particular flood level will be reached in any given year; this is called the filling frequency relationship and is shown in Table 3.2 (Corps 2010a).

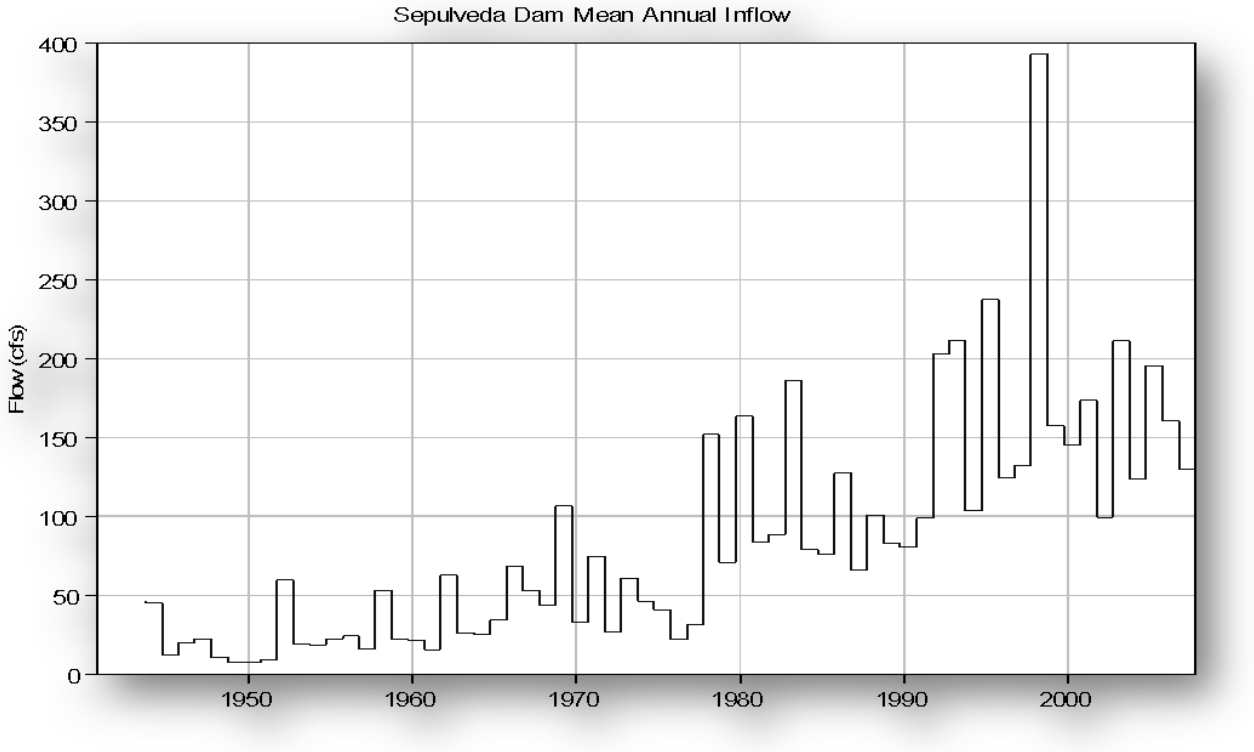

Figure 3.1 Sepulveda Dam Basin Mean Annual Inflow.

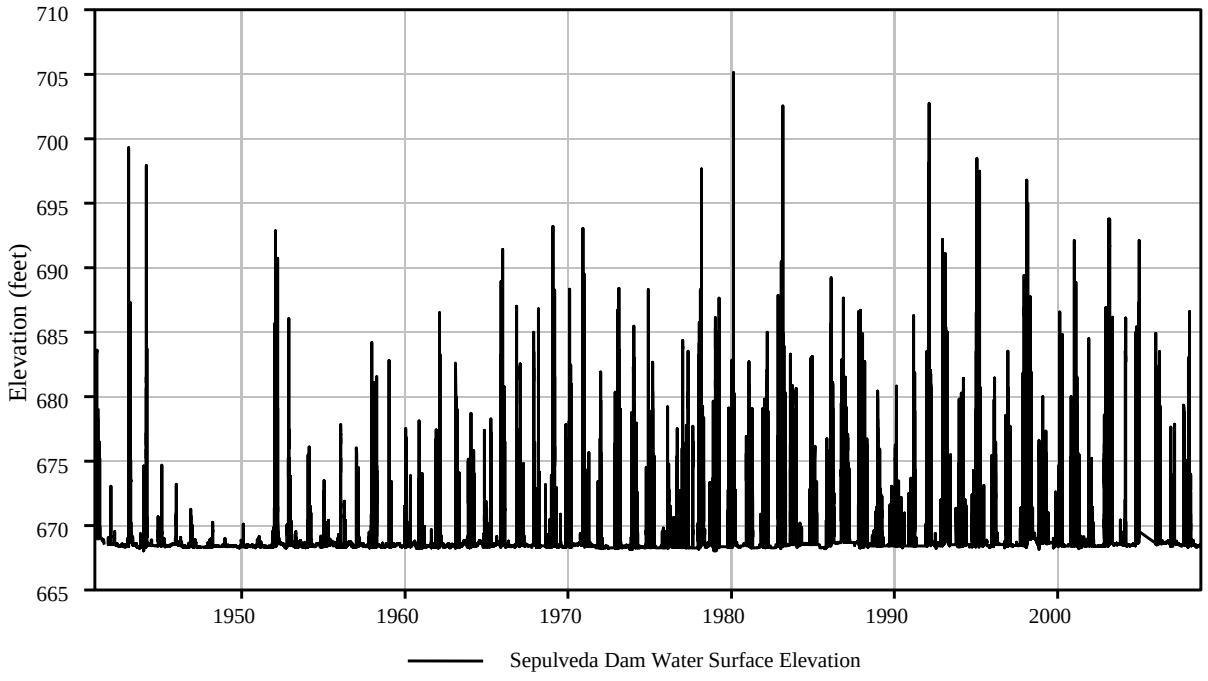

Figure 3.2 Water Surface Elevations.

The filling frequency relationship was derived by performing a partial duration graphical frequency analysis of the historical monthly maximum water surface elevations. 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.

Percent chance exceedence refers to the statistical possibility of a flood occurring in any given year. For example, a 1% chance exceedence means that every year there is a 1% (1 out of 100) chance for the indicated water surface elevation (712 feet) to be equaled or exceeded due to floods. The return period is another way of saying the same thing, namely that over a period of 100 years, on average, the water surface elevation of 712 feet will be equaled or exceeded in only one year.

The elevation-frequency contours in Map 7 show the Basin area inundated for the 10-, 50-, and 100-year return period flood events as well as the total area inundated when the water surface elevation reaches the top of flood storage pool (712 feet). With regard to duration of flood flow inundation, operation for flood risk management within the Basin calls for flood waters to be released quickly (a matter of hours or days) in order to regain storage space to capture future flood inflows.

The elevation of the Dam is designed to contain flood flows that result in water surface elevations of 712 feet. In other words, the Sepulveda Dam Basin retains flood waters that remain below the 100-year return period.

Table 3.2 Sepulveda Dam Filling Frequency Relationship

Percent Chance Exceedence	Return Period	Water Surface Elevation (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

3.3.5 Floodplain Management

The primary authorized purpose of Sepulveda Dam is flood risk management. The Corps has managed Basin land use since the Dam was completed in 1941 to prevent activities and development that would compromise the operation of the Dam for flood risk management to downstream communities. The essence of the flood risk management operation is the ability to store flood inflows and inundate Basin lands with minimal flood damage and adverse impacts to downstream communities.

Executive Order (EO) 11988, Flood Plain Management, requires Federal agencies to recognize the significant values of floodplains and to consider the public benefits that would be realized from restoring

and preserving floodplains. The main objective it to ensure the avoidance, to the extent possible, of long- and short-term adverse impacts associated with the occupancy and modification of the base (100-year) floodplain and the avoidance of direct and indirect support of development in the base floodplain wherever there is a practicable alternative.

Application of the evaluation procedure in Appendix A3 (Minimum Criteria for Reservoir Land Use Projects) in SPD-R 1110-2-1 requires knowledge of the elevation-frequency relationship (or filling frequency) for the Basin. The Basin elevations corresponding to the 1% (100-year), 2% (50-year), and 10% (10-year) annual exceedance probability events must be known. The filling frequency values (712.0 feet for 100-year; 705.0 feet for 50-year; and 697.7 feet for the 10-year) for the Basin are described in section 3.3.3.1 of this DEA (Corps 2010b). Map 16 shows that baseline development within the Basin is consistent with EO 11988 and Corps guidance for floodplain management; there is no human habitation permitted within the Basin, and existing structures and improvements are either floodable, flood-proofed, or protected by flood walls up to at least the base flood (100-year) elevation.

3.3.6 Surface Water Quality

Since Sepulveda Basin is operated as a flood risk management project that rarely impounds water for more than 24 hours, it has no significant effect on the quality of floodwaters. The urban storm runoff entering the Basin is generally of poor quality. Routine base flow (usually less than 10 cfs) is typically high in salinity, whereas storm runoff is generally low in salinity (Corps 1989). Also passing through the outlet works is tertiary treated effluent from the Donald C. Tillman Water Reclamation Plant (TWRP) operated by the City of Los Angeles Department of Public Works Bureau of Sanitation (BOS), which is located within the Basin (BOS 2010).

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

A floodwall surrounding the TWRP protects the plant from inundation up to the 1% chance exceedance (100-year) event which was estimated as elevation 712.2 feet (Corps 1989). At higher surface water elevations, inundation of the treatment plant will 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.

The areas surrounding Lake Balboa and the Wildlife Management Area Lake provide recreation opportunities such as hiking, bird-watching, outdoor education, and various other outdoor activities. Fishing is permissible at Lake Balboa. Water level in the lakes is managed by reclaimed wastewater discharged by the TWRP, and maintained by the Bureau of Sanitation. Per Federal law, these lakes are required to have a National Pollution Discharge Elimination System (NPDES) permit because of the discharge they receive from the reclamation plant.

The NPDES permit mandates that lake managers conduct comprehensive water quality monitoring. Water quality monitoring in the lakes is cooperatively managed by the Bureau of Sanitation and the City. Table

3.3 shows the frequency of NPDES water quality monitoring activities within Sepulveda Basin (LASP 2010).

Table 3.3 Lake Balboa and Wildlife Area Lake NPDES Water Quality Monitoring

Parameters	Daily	Weekly	Semi-annually
DO	X		
pH	X		
Temperature	X		
Nutrients		X	
Bacteria		X	
Pesticides			X
Herbicides			X

Source: LASP 2010.

3.3.6.1 Beneficial Uses

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

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

- Wetlands (WET) – Water used for the support of wetland ecosystems and habitat for the preservation of species of flora and fauna. WET beneficial uses also include flood and erosion control, natural treatment of impaired water quality, and stream bank restoration.

Table 3.4 Sepulveda Basin Beneficial Uses

Surface Streams	MUN	IND	GWR	REC1	REC2	WARM	LWRM	WILD	RARE	WET
Los Angeles River Reach 4	P		E	E	E		E	E	E	E
Los Angeles River Reach 5	P		E	E	E		E	E	E	
Los Angeles River Reach 6	P	P	E	E	E	E		E		E
Bull Creek	P		I	I[1]	I	I		E		

I:Intermittent Use, P:Potential Use, E:Existing Use, [1]Access Prohibited by the City in concrete lined channel

Table 3.5 Sepulveda Basin TMDLs and Year Established

Reach	Ammonia	Copper	Lead	Nutrients	Selenium	Trash
Los Angeles River Reach 4	2004	2005	2005	2004	NA	2008
Los Angeles River Reach 5 (including Bull Creek)	2004	2005	2005	2004	NA	NA
Los Angeles River Reach 6	NA	NA	NA	NA	2005	NA

3.3.7 Groundwater

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

Groundwater quality monitoring efforts in the SFVGB are conducted by the Upper Los Angeles River Area Watermaster (ULARAW) and include testing for water levels and water quality (Table 3.4). The number of measurements taken over all measured wells is noted in Table 3.4 along with the frequency that these measurements are collected. Groundwater quality is under the jurisdiction of LARWQCB Region 4, which has designated Beneficial Uses for the SFVGB including:

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

Table 3.6 Active Groundwater Monitoring Data		
Agency	Parameter	Number of Wells/measurement frequency
Upper Los Angeles River Area Watermaster (ULARAW)	Water Levels and Water Quality	19/Daily, monthly, and quarterly
EPA	Water Levels	1,379/ Daily, monthly, yearly and quarterly
EPA	Water Quality	2,366/ Daily, monthly, yearly and quarterly
Department of Health Services	Title 22	126 wells
Source: CDWR 2003.		

3.3.7.1 Groundwater Quality

The eastern portion of the SFVGB can be characterized as calcium sulfate-bicarbonate dominated groundwater supply, while the western part is characterized as calcium bicarbonate dominated (ULARAW 1999). Calcium sulfate-bicarbonate and calcium biocarbonate are naturally occurring solutions created by carbon dioxide from the atmosphere entering a water body and mixing with different types of minerals found in a groundwater basin. A more common name for this is “water hardness.” Hardness levels in the SFVGB do not have an appreciable effect on the Sepulveda Dam Basin, and are measured to characterize a water body and rate the quality for water supply.

Well monitoring data taken from 125 public supply wells shows an average Total Dissolved Solids (TDS) content of 499 mg/L and a range from 176 to 1,160 mg/L. TDS are the amount of all organic and inorganic substances contained within a volume of water. High levels of TDS indicate that sources of pollutants like agricultural and residential runoff, leaching of soil contamination, and point source water pollution discharge from industrial or sewage treatment plants may exist in the water body. TDS in the Basin range from 326 to 615 mg/L (ULARAW 1999). TDS levels of 326 to 615 mg/L in the SFVGB meet Water Quality Objectives of 700 mg/L (LARWQCB 1995).

Electrical conductivity is used to measure dissolved solids in a water body and is usually used as an indicator of the presence of salinity due to agricultural and sewage contaminants. The LARWQCB does not have a Water Quality Objective set for electrical conductivity, but the EPA states that the average conductivity levels for water bodies in the United States is between 50 and 1500 µmhos/cm, while levels of 10,000 µmhos/cm or more may indicate industrial sources of pollution. Levels in the SFVGB range from 540 to 996 µmhos/cm, which is indicative that dissolved solids in Sepulveda Dam Basin are not at abnormal levels.

3.3.7.2 Impairments

Water quality in public supply wells has been used to characterize groundwater quality in the SFGVB. Table 3.5 displays constituent groups, number of wells sampled, and number of wells sampled in exceedance with water quality standards (CDWR 2003). The number of wells sampled represents the distinct number of wells sampled as required under the California Regulatory Compliance Title 22 program from 1994 through 2000. The program requires the monitoring of drinking supply wells to ensure compliance with drinking water standards for public health.

As seen in Table 3.5, all constituent groups listed were in exceedance of the Maximum Concentration Levels (MCL) at least once. It should be noted that each well confirmed with a concentration above an

MCL was confirmed with a second detection above an MCL. This does not indicate the type of water quality that is delivered to the consumer, but the characteristics of contamination in the groundwater basin. A definition and potential impact that each constituent may have on the environment and the Sepulveda Dam Basin can be found in California's Groundwater Bulletin 118 (CDWR 2003).

Additional groundwater impairments reported by Setmire (1985) include elevated concentrations of sulfate in the western part of the SFVGB, while the eastern portion is impaired by TCE, PCE, and nitrates (see below) (ULARAW 1999). Sepulveda Dam Basin is located in the eastern part of the SFVGB.

Table 3.7 Water Quality in Public Supply Wells

Parameters Measured	Number of Wells Sampled	Number of Wells with an concentration above MCL
Inorganics, Primary	129	6
Radiological	122	13
Nitrates	129	44
Pesticides	134	3
VOCs and SVOCs	134	90
Inorganics-Secondary	129	17

Source: CDWR 2003.

Inorganics (Primary) Primary inorganics include antimony, asbestos, barium, beryllium, mercury, chromium, cyanide, and thallium. Primary inorganics have a wide variety of health effects in humans and aquatic wildlife including kidney problems, cancer, nervous system disorders, and circulatory problems. MCL exceedences for primary inorganics in Table 3.5 should have little effect on Sepulveda Dam Basin aquatic resources.

Radiological Radiological constituents naturally occur at extremely low levels in groundwater. High levels of radiological constituents could indicate that sources of industrial or mining pollutants are present within a water body. Naturally occurring radiological constituents primarily include radon, gross alpha, and uranium. Although radiological constituents are not considered a significant contaminant statewide, it can be important locally (like in communities in the Sierra Nevada) (CDWR 2003). It is unknown based on the data in Table 3.5 if radiological constituents in the SFVGB would have a negative impact on aquatic resources within the Sepulveda Dam Basin.

Nitrates Though nitrates are classified as inorganic, they are measured separately because they are one of California's leading contaminants. In high levels, nitrates can cause serious drinking water health risks to humans and can impair aquatic ecosystems. Natural levels of inorganic nitrogen are found in surface water, however the majority of nitrogen impairment originate from mismanaged agricultural land use (crowded livestock, over allocation of fertilizer). When nitrogen percolates its way down from the surface water to groundwater it becomes nitrate. Based on data in Table 3.5 the SFVGB drinking water is impaired by the nitrates constituent group, likely due to agricultural land use upstream. Currently, the nitrates constituent group is not a 303(d) impairment for surface drainages into the Sepulveda Dam Basin, or within the Basin itself (CEPA 2010a).

Pesticides Pesticides are used for a variety of reasons and once released into the environment they can have damaging effects on plants and aquatic life that were not originally targeted for their use

(LARWQCB 1995). Table 3.5 shows very few exceedences of pesticide MCL within the SFVGB. This level of pesticide concentrations within the SFVGB would have very little impact on Sepulveda Dam Basin resources.

Volatile Organic Compounds and Semi-Volatile Organic Compounds (VOCs and SVOC) VOCs are chemical compounds that vaporize at normal temperature and pressure, typical of the lighter fuels and gasoline (benzene). SVOCs are heavier hydrocarbon compounds/oil products, which are less mobile in the environment and tend to cling to soils. SVOCs and VOCs are introduced into the environment by industrial activities, are carcinogenic and hazardous in drinking water, and detrimental to the health of aquatic organisms. Based on Table 3.5 VOCs and SVOCs are persistent in the SFVGB and are likely impacting surface water resources. Based on the data, it is unclear to what extent this constituent group is impacting resources within the Sepulveda Dam Basin.

Tetrachloroethylene (PCE) PCE is categorized as "Toxic Organics" by the EPA and is primarily used as a metals degreaser and in dry cleaning. PCE readily evaporates in soil, but if introduced to groundwater it persists and may break down very slowly. PCE is a central nervous system depressant in animals and may cause cancer (EPA 2010c).

Trichloroethylene (TCE) TCE is categorized as "Toxic Organics" by the EPA. TCE makes its way into the environment via wastewater from metal finishing, paint and ink formulation, electrical/ electronic components, and rubber processing industries. TCE readily evaporates in soil, but if introduced to groundwater it persists and may break down very slowly. Animals exposed to TCE over several years may develop liver problems and/or cancer (EPA 2010d).

Though these impairments are present in the eastern SFVGB, it is unclear in how they will affect the Basin; there is no current listing for 303(d) impairments of nitrates, TCEs or PCEs within the Basin (EPA 2006). Currently, the VOCs and SVOCs constituent group is not 303(d) listed for surface drainages into the Sepulveda Dam Basin or within the Basin itself, and it is unclear what these impacts to the Basin would be (EPA 2006). It is unknown based on the data in Table 3.5 if radiological constituents in the SFVGB would have a negative impact on aquatic resources within the Sepulveda Dam Basin. Few exceedences of pesticide MCL within the SFVGB occur and this level of pesticide concentrations within the SFVGB would have very little impact on Sepulveda Dam Basin resources.

3.3.8 Wetlands

Wetlands in Los Angeles Basin have been dramatically reduced in the past century (Dahl 1990). Remaining wetlands have been significantly degraded through alteration of hydrologic regime, vegetation, and soils. The U.S. Fish and Wildlife Service (USFWS) reported that California suffered a 91% loss of wetlands between the 1780s and 1980s (Dahl 1990). This reflects the greatest percent loss of wetlands anywhere in the United States.

The National Wetlands Inventory (NWI) identifies seven distinct wetland areas within Sepulveda Basin based on the 1976 aerial photography (Table 3.8). The classification system encompasses wetlands and deepwater habitats, ranging from open water lakes, rivers, marshes and vernal pools (Cowardin *et al.* 1979).

These wetland data do not include newly developed water features within the Basin, including Lake Balboa, two freshwater ponds within Woodley Lake Golf Course, and the lake and pond within the wildlife management area. Each of these man-made features would be classified as wetlands under the Cowardin *et al.* (1979) classification system. Furthermore, due to significant alteration of vegetation, even

areas without hydrophytic vegetation such as grassed areas, may still exhibit proper hydrology and hydric soils necessary to qualify the area as a wetland. Since NWI maps are not intended to provide sufficient detail to make a jurisdictional determination, the acreages provided in the table above are to be used only to provide a summary of where wetlands may occur.

Overall, alterations to the hydrologic regime, topography, and vegetation have eliminated or significantly degraded wetlands within the Basin. Protection of any existing wetlands is important for ecological function within the Basin. Thorough and comprehensive wetland delineation would be required prior to alteration or development of lands within the Basin that may contain wetlands of OWUS, in order to meet permitting requirements for regulatory compliance.

Table 3.8 Wetland Types and Acreages

NWI Designation	Description	Acres
PEMKC	Palustrine, Emergent, Artificially Flooded, Seasonally Flooded	1.02
PSS/EMKC	Palustrine, Scrub-Shrub/Emergent, Artificially Flooded, Seasonally Flooded	28.02
PSSKC	Palustrine, Scrub-Shrub, Artificially Flooded, Seasonally Flooded	24.71
PUBKh	Palustrine, Unconsolidated Bottom, Artificially Flooded, Diked/Impounded	7.25
	Total	61.0
Source: Cowardin *et al.* 1979 classifications, NWI 2010.		

3.4 Air Quality

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

3.4.1 Regional Climate Factors

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

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

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

The SCAB experiences a persistent temperature inversion as a result of the Pacific high, a large subtropical high pressure system, which holds air contaminants relatively near the ground. Under normal atmospheric conditions, temperature decreases with altitude. During an inversion condition temperature increases with altitude. As the air pollutants rise in the atmosphere they reach an altitude where the ambient temperature exceeds the temperature of the pollutants. This causes the pollutants to sink back to the earth's surface. This phenomenon acts to trap and concentrate air pollutants near the surface.

In summer, the longer daylight hours and bright sunshine combine to cause a reaction between hydrocarbons and oxides of nitrogen to form ozone. In winter, the greatest pollution problems are carbon monoxide and nitrogen oxides, which are trapped and concentrated by the inversion layer.

Periodically, the SCAB experiences an intermittent weather condition known as El Niño-Southern Oscillation (ENSO) and its counterpart La Niña. During El Niño years, the SCAB experiences warmer air and ocean temperatures, and higher than normal precipitation. ENSO occurs in the tropical Pacific Ocean on an average of every 5 years, but varies from 3 to 7 years. The driving factor in ENSO conditions is warmer-than-normal ocean surface temperatures in the tropical Pacific, which causes the reversal, or in milder years the slowing or stopping of circulation patterns between Asia and the Americas. This change in circulation patterns shifts the "normal" pattern of rising warm wet air and rainfall from Southeast Asia to South and North America. La Niña is the counterpart to El Niño and usually has an opposite effect on weather patterns; wetter than normal conditions across the Pacific Northwest and dryer and warmer than normal conditions across much of the southern tier. La Niña brings dry weather to the SCAB and the southwest and southeastern states, usually prevailing strongest from November to January (CDFG 2010a).

3.4.2 Local Climate

The climate of the San Fernando Valley has characteristics similar to that of the Mediterranean region; warm dry summers and moderately cool winters. Temperature records range from the low 20º F to well in excess of 100º F. Precipitation is distributed through the winter and spring months reaching its maximum rainfall in the months of December through February. Annual rainfall averages about 19 inches. Because of the influences of the Santa Monica Mountains blocking the Pacific Ocean sea breezes, temperature variation in the San Fernando Valley is normally 7 to 12 degrees higher in summer or lower in winter than temperatures of the coastal plain.

3.4.3 Regional Air Quality

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

Table 3.9 Ambient Air Quality Standards for Criteria Pollutants

Pollutant	Averaging Time	State Standard	National Standard	Health Effects, Pollutant Characteristics and Major Sources
Ozone (O_3)	1 Hour	0.090 ppm	NA	Short term exposures to high concentrations can irritate eyes and lungs. Long-term exposure may cause permanent damage to lung tissue. Ozone is a secondary pollutant that is formed in the atmosphere through reactions between reactive organic gases (ROGs) and nitrogen oxides (NOx) in the presence of sunlight. Major sources of ROGs and NO_x include combustion processes (including motor vehicle engines) and evaporative solvents, paints and fuels.
	8 Hour	0.070 ppm	0.075 ppm	
Carbon Monoxide (CO)	1 Hour	20 ppm	35 ppm	Classified as a chemical asphyxiate, CO interferes with the transfer of fresh oxygen to the blood and deprives sensitive tissues of oxygen. Exposure to high CO concentrations can cause headaches, dizziness, fatigue, unconsciousness, and even death. CO is an odorless, colorless gas that is formed by incomplete combustion of fuels. The primarily source of CO is the internal combustion engine, primarily gasoline-powered motor vehicles.
	8 Hour	9.0 ppm	9 ppm	
Nitrogen Dioxide (NO_2)	1 Hour	0.18 ppm	NA	Irritating to eyes and respiratory tract. NO_2 is a reddish brown gas that is a by-product of combustion. Motor vehicles and industrial operations are the main sources of NO_2.
	Annual	0.030 ppm	0.053 ppm	
Sulfur Dioxide (SO_2)	1 Hour	0.25 ppm	NA	Irritates upper respiratory tract; injurious to lung tissue. Can yellow the leaves of plants, destructive to marble, iron, and steel. Limits visibility and reduces sunlight. SO_2 is a colorless acid gas with a strong odor. Fuel combustion, chemical plants, sulfur recovery plants, and metal processing are the main sources of this pollutant.
	3 Hour	NA	0.5 ppm	
	24 Hour	0.04 ppm	0.14 ppm	
	Annual	NA	0.03 ppm	
Respirable Particulate Matter (PM10)	24 Hour	50 $\mu g/m^3$	150 $\mu g/m^3$	May irritate eyes and respiratory tract, decreases in lung capacity, cancer and increased mortality. Produces haze and limits visibility. Solid or liquid particles in the atmosphere. Sources include dust and fume-producing industrial and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	Annual	20 $\mu g/m^3$	50 $\mu g/m^3$	
Fine Particulate Matter (PM2.5)	24 Hour	NA	35 $\mu g/m^3$	Increases respiratory disease, lung damage, cancer, and premature death. Reduces visibility and results in surface soiling. Solid or liquid particles in the atmosphere. Major sources include fuel combustion in motor vehicles, equipment, and industrial sources; residential and agricultural burning. PM2.5 may also be formed from photochemical reactions of other pollutants, including NO_x, SO_2, and organics.
	Annual	12 $\mu g/m^3$	15.0 $\mu g/m^3$	
Lead (Pb)	Monthly	1.5 µg/m3	– 1.5	Disturbs the nervous system, kidney function, immune system, reproductive and developmental systems, and the cardio vascular system. Present source: lead smelters, battery manufacturing and recycling facilities. Past source: combustion of leaded gasoline.
	Quarterly	NA	µg/m3	

Source: CARB 2010, EPA 2010a.

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

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

3.4.4 Local Air Quality

The California Air Resources Board (CARB) coordinates and oversees state and Federal air pollution control programs in California, oversees activities of local air quality management agencies, and maintains air quality monitoring stations throughout the state in conjunction with the EPA and local air districts. The air quality monitoring station closest to the Sepulveda Dam Basin is in the Western San Fernando Valley, station number (State ID) #70074. This station monitors most of the criteria pollutants except for suspended particulates (PM10). The ambient air quality data from this station for 2006, 2007, and 2008 is shown in Table 3.10.

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

Table 3.10 Ambient Air Quality in the Sepulveda Dam Basin Vicinity

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

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

Table 3.11 Attainment Status of Criteria Pollutants		
Pollutant	**State[1]**	**Federal[2]**
Ozone	Nonattainment	Severe 17 Nonattainment
$PM_{2.5}$	Nonattainment	Nonattainment
PM_{10}	Nonattainment	Serious Nonattainment[2]
Carbon Monoxide	Attainment	Unclassified/Attainment[2]
Nitrogen Dioxide	Attainment	Unclassified/Attainment
Sulfur Dioxide	Attainment	Attainment
Sulfates	Attainment	Not Available
Lead	Attainment	Attainment
[1]2006 State Area Designations, [2]2008 National Area Designations, Source: CARB 2006, EPA 2010b.		

3.4.5 Greenhouse Gas Emissions

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

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

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

The IPCC has concluded that these changes in atmospheric composition are almost entirely the result of human activity, not the result of changes in natural processes that produce or remove these gases (IPCC 2007).

CO_2, CH_4, and N_2O have atmospheric residence times ranging from about a decade to more than a century. Several other important GHG compounds with long atmospheric residence times are produced almost entirely by various industrial processes; these include sulfur hexafluoride (SF_6) and a wide range of fluorinated hydrocarbons (HFCs). Fluorinated compounds typically have atmospheric residence times ranging from a few decades to thousands of years.

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

3.4.6 Federal Policies and Measures

The following outlines near-term policies and measures undertaken by the U.S. government to mitigate GHG emissions.

Through the American Recovery and Reinvestment Act (ARRA), signed into law in February 2009, the United States allocated over $90 billion for investments in clean energy technologies to create green jobs, speed the transformation to clean, diverse, and energy-independent economy, and help combat climate change. In June 2009, the U.S. House of Representatives passed the landmark American Clean Energy and Security Act, which includes economy-wide GHG reduction goals of 3% below 2005 levels in 2012, 17% below 2005 levels in 2020, and 83% below 2005 levels in 2050. In September 2009, the EPA announced its plan to collect GHG emission estimates from amenities responsible for 82.5% of the GHG emissions across diverse sectors of the economy, including power generation and manufacturing. In October 2009, the President issued an EO requiring Federal agencies to set and meet strict GHG reduction targets by 2020. In December 2009, following an extensive comment and review period, the EPA Administrator issued a finding under the Clean Air Act that the current and projected GHG concentrations in the atmosphere threaten the health and welfare of current and future generations (Department of State 2010).

In addition to the major new 2009 initiatives highlighted above, the U.S. government is making important progress toward reducing GHG emission through some 80 energy policies and measures that promote increased investment in end-use efficiency, clean energy development, and reductions in agricultural GHG emissions (Department of State 2010). The U.S. government is also committed to reducing emission from the most potent GHGs; more than a dozen initiatives across five executive agencies target these potent gases (Department of State 2010).

3.4.7 Global Climate Change

Global climate change (GCC) is a shift in the average weather patterns observed on earth, which can be measured by such variables as temperature, wind patterns, storms, and precipitation. Scientific research to date indicates that observed climate change is most likely a result of increased emission of GHGs associated with human activity (IPCC 2007). In California, the transportation sector is the largest emitter of GHGs (accounting for 40.7 % of the total GHG emissions in the state in 2004), followed by electricity generation (California Energy Commission 2006). If California were a country, it would rank between the 12th and 16th largest emitters of CO_2 in the world. California produced 492 million gross metric tons of CO_2 equivalents in 2004 (California Energy Commission 2006).

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

GCC is also expected to result in more extreme weather events and heavier precipitation events that can lead to flooding as well as more extended drought periods.

3.4.7.1 Water Resources

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

Most precipitation events in California occur between October and April. An analysis by the U.S. National Weather Service (USNWS) using data from 1931 through 2005 indicates a long-term trend of increasing annual precipitation (i.e., increase of up to 1.5 inches per decade) in California, especially in northern California. A second investigation completed by the California Department of Water Resources (CDWR) indicated a statistically significant increasing trend in total precipitation in northern and central California since the late 1960s (CDWR 2006). An investigation by Bardini *et al* (2001) showed a trend of potentially decreasing annual precipitation in California; however, this result is probably related to the specific subset of data that the Bardini study relied upon, wherein extremes at the beginning or end of time series data can substantially impact the identified trend (CDWR 2006). Rainfall data from November through March of 1930 through 1997 indicated significant increases in California rainfall (Mote 2005).

There is also evidence that the amount of precipitation that occurs on an annual basis is becoming more variable (i.e., periods of both high and low rainfall are becoming more common). Specifically, a study performed by CDWR (2006) indicates that present day variability in annual precipitation is about 75 % greater than that of the early 20th century. As stated above, precipitation across California appears to have increased over the past century, and individual water years have become more variable in terms of the amount of precipitation that occurs. It follows, therefore, that similar trends would be observed for runoff. Annual runoff (i.e., runoff measured from October 1 through September 30) and peak runoff (i.e., typically measured for individual storm events) include flows derived from precipitation events, snowmelt, and river base flow. However, most of the water mass present during a peak runoff event is typically derived from concurrent precipitation and/or snowmelt.

A study by CDWR (2006) compares pre and post-1955 annual average water year unimpaired runoff[3] for 24 watersheds across northern, central, and southern California. The study indicates an annual increase in runoff of up to 27% for 21 of the 24 watersheds, with an overall average increase of 9%. However for summer months the runoff from April to July is decreasing.

3.4.7.2 Flooding

As discussed above, it is anticipated that GCC will have a substantial effect on the timing and magnitude of snowfall, rainfall, and snowmelt events in California. Large annual variations in winter rainfall and runoff, which are normal in California, create uncertainty surrounding potential increase in flooding as a result of climate change.

3.4.7.3 California Wildlife

Rising temperatures, increases in storm events, prolonged droughts, and sea level rise will likely change the makeup of entire ecosystems, increasing adaptation pressures that would shift wildlife distributions

[3] Unimpaired runoff refers to the runoff that occurs within a river above major regulation impoundments such as major dams.

and in some cases, increase the frequency of local extinctions (Moser *et al.* 2009, Midgly *et al.* 2010). While some species adapted to arid environments may increase their ranges or densities or both, species closely tied to the dwindling natural water resources in southern California may be particularly at risk. Stream systems supporting aquatic species such as salmonids would be degraded by loss of cold-water habitat and reduced stream flows for spawning, incubation, and rearing. Furthermore, increased scouring of stream channels by surges of storm runoff would damage eggs and egg laying habitat (Battin *et al.* 2007). Amphibians may also be directly impacted by these changes, although secondary effects related to climate change such as increases in infectious diseases and increased input of pollutants and sediments through storm runoff may have the greatest impacts (Davidson *et al.* 2001, Carey *et al.* 2003). Other wildlife such as bird species that rely on remnant patches of riparian habitat in southern California may also be at risk from climate change. Shifts in timing and rate of migration (summarized by Marra *et al.* 2005), habitat loss, increased frequency of punctuated storm events (Preston *et al.* 2008), loss of prey base, and shifts in plant species regimes (Kerns *et al.* 2009) are all predicted to occur and would negatively impact local populations. In many cases, the severely degraded riparian habitat currently present in southern California has already led to some riparian bird populations to be depressed or even threatened, making them increasingly susceptible to future environmental changes brought upon by climate change.

GCC, at a regional level, could contribute to more frequent and intense El Niño events, triggering a number of large-scale environmental changes. Warmer waters drive toxic algae blooms in bays and estuaries and depress offshore ocean productivity, affecting wildlife throughout the food web. The frequency of environmental catastrophes such as those caused by the 1997-98 and 2009-2010 El Niño events would be expected to increase. During those events, primary production precipitously declined along the Pacific Coast, causing large die-offs of primary and secondary consumers. In inland areas, the frequency and intensity of droughts and wildfires increased, substantially altering upland vegetation. Subsequent heavy rains triggered extensive erosion in the burned areas, which removed topsoil from the upper reaches of local watersheds. Powerful storm runoff events moved high sediment loads downstream where they scoured and buried riparian vegetation and physically altered floodplains, fundamentally impacting local ecosystems.

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

3.5 Noise

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

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

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

In addition, wildlife may be sensitive receptors to noise and vibrations. Animals rely on meaningful sounds for communication, navigation, avoiding danger and finding food. Noise may be defined for wildlife as “any human sound that alters the behavior of animals or interferes with their functioning” (Bowles 1995). The level of disturbance may be qualified as damage, which may harm health, reproduction, survivorship, habitat use, distribution, abundance or genetic distribution, or disturbance which causes a detectable change in behavior. Behavioral and physiological responses of wildlife to noise have the potential to cause injury, energy loss, decrease in food intake, habitat avoidance and abandonment, and reproductive losses (National Park Service 1994).

Table 3.12 Source and Effects of Common Noise Levels

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

Source: Los Angeles County 2008.

3.5.1 Existing Noise Environment

The predominant noise sources within the City of Los Angeles are transportation-related, including railroad, airport, and motor vehicle sources. Traffic volume, average speed, vehicular fleet mix (i.e. combination of automobiles, motorcycles, buses, and trucks), roadway steepness, distance, and characteristics of the pathway between generator and receptor, and weather all influence the level of noise near roadways. For example, as traffic volume, vehicle speed, number of trucks, and roadway grade increase, so does traffic noise levels (City 2006). However, as vehicles traffic volumes increase, so does congestion, often causing reduced speeds, which may to some extent offset the noise levels (City 2006).

Roadway vehicle traffic is the primary source of noise in and around the Sepulveda Dam Basin. The Basin is bordered by Interstate 405 on the east and by U.S. Highway 101 on the south; the Basin lies in the northwest corner of the junction of these freeways. The Basin is also bordered by several other main traffic arteries including Sepulveda Boulevard, Ventura Boulevard, White Oak Boulevard, Van Nuys, and Victory Boulevards. Woodley Avenue, Burbank Boulevard and Balboa Boulevard pass through the Basin. Operation of the Van Nuys Airport, located at approximately 2.6 miles north of the Basin, also contributes to the existing noise levels in the area.

3.5.2 Relevant Federal Noise Regulations

Federal, state, and local agencies regulate different aspects of environmental noise. Federal and state agencies generally set testing guidelines and regional noise standards for mobile sources such as aircraft and motor vehicles. Local agencies typically regulate stationary sources, mainly through municipal policies and local noise ordinances.

Under the authority of the Noise Control Act of 1972, the EPA established noise emission criteria and testing methods that apply to interstate rail carriers and some construction and transportation equipment such as portable air compressors and medium- and heavy-duty trucks (40 CFR Part 204). The EPA has also issued guidance levels for the protection of public health and welfare in residential land use areas.

Under the Occupational Safety and Health (OHSA) Act of 1970 (29 USC §1919 et seq.), regulations have been adopted which are designed to protect workers against the effects of occupational noise exposure. The Noise Control Act of 1972 was amended by the Quiet Communities Act of 1978, which provides guidance for the development of noise control programs through the Quiet Communities Program.

3.6 Biological Resources

3.6.1 Plant Resources

A reconnaissance-level vegetation survey was performed on 4 January 2010. The vegetation survey was intended to capture sufficient detail to fully describe each vegetation alliance and any other dominant vegetation features present within the Basin. However, surveys were not exhaustive and not all species within the Basin were inventoried. Vegetation features were determined in the field using tools such as current aerial photography, regionally appropriate plant identification keys, Sawyer *et al.* (2009), and data from other available sources. All areas of the Basin within the Basin boundaries were surveyed, including all Federally owned lands. Common plant species were identified and listed in Appendix D1 and vegetation alliances were determined and mapped using Sawyer *et al.* (2009). Non-native habitat types, which are defined here as human-altered areas dominated by non-native vegetation features, were also identified and mapped.

Native vegetation alliances identified in the Basin include *Populus fremontii* Forest Alliance, *Salix exigua* Shrubland Alliance, *Baccharis salicifolia* Shrubland Alliance, *Quercus agrifolia* Woodland Alliance, *Eriogonum fasciculatum* Shrubland Alliance, and *Baccharis pilularis* Shrubland Alliance (Sawyer *et al.* 2009). Several non-native habitat types are also present in the Basin and include ornamental tree/maintained lawn, disturbed riparian, agriculture, and ruderal land. Map 20 shows the distribution of each vegetation alliance and non-native habitat type found in the Basin.

Vegetation in the Basin was originally altered from its natural state by the establishment of agriculture and urbanization followed by the construction of the Dam and associated works. More recently, vegetation has been further altered by several factors including drought (CDWR 2009), natural and human-caused erosion, establishment of non-native invasive plant species, and ongoing planting and maintenance of ornamental landscaping. Native vegetation alliances within the Basin are fragmented, degraded, and small in size.

3.6.2 Vegetation Communities

Populus fremontii Forest Alliance *Populus fremontii* Forest Alliance consists of a tall, open, broadleafed winter-deciduous riparian forest dominated by Fremont cottonwood (*Populus fremontii*), black cottonwood (*P. trichocarpa*), and several tree willows such as red willow (*Salix laevigata*), arroyo willow (*S. lasiolepis*), and sandbar willow (*S. exigua*) (Sawyer *et al.* 2009). Other tree species including coast live oak (*Quercus agrifolia*) and white alder (*Alnus rhombifolia*) are present in lower densities. Giant reed (*Arundo donax*), an invasive non-native species, is common throughout this alliance. *Populus fremontii* Forest Alliance is found within the various stream channels in the Basin; which have all been channelized and manipulated for flood reduction. Two areas dominated by *Populus fremontii* Forest Alliance include along the Los Angeles River and the reach of Haskell Creek, downstream of Burbank Boulevard. This vegetation alliance comprises approximately 84.3 acres or 3.9% of the Basin (Map 20).

***Populus fremontii* Forest Alliance**

***Salix exigua* Shrubland Alliance**

Salix exigua Shrubland Alliance *Salix exigua* Shrubland Alliance is composed of dense, broadleafed, winter-deciduous riparian thickets dominated by several willow species including sandbar willow, red willow, and arroyo willow, with scattered emergent Fremont cottonwood and western sycamore (*Platanus racemosa*) (Sawyer *et al.* 2009). Most stands of *Salix exigua* Shrubland Alliance are too dense to allow much understory development; however, some areas appear to be maintained and are marginal in quality. Soils in this vegetation alliance are loose, sandy or fine gravelly alluvium deposited near stream channels during flood flows (Sawyer *et al.* 2009). This early seral type requires repeated flooding to prevent succession to *Populus fremontii* Forest Alliance. Other plant species common to this alliance

within the Basin include mule fat (*Baccharis salicifolia*) and Southern California black walnut (*Juglans californica*), and non-native invasive species such as giant reed, tobacco tree (*Nicotiana glauca*), and castor bean (*Ricinus communis*). In the Basin, this alliance is restricted to a reduced border around Haskell Creek, upstream of Burbank Boulevard. This vegetation alliance comprises approximately 12.7 acres or 0.6% of the Basin (Map 20).

Baccharis salicifolia Shrubland Alliance *Baccharis salicifolia* Shrubland Alliance often forms a monoculture, dominated only by mulefat. It is found in areas of intermittent stream channels with a fairly coarse substrate and moderately deep surface water (Sawyer *et al.* 2009). This early seral alliance is maintained by disturbance from frequent flooding, whereas without this feature, most patches would succeed to either cottonwood or sycamore dominated riparian forest (Sawyer *et al.* 2009). Like mulefat, other species present in this vegetation alliance are disturbance-adapted, requiring a frequent regime of disturbance events to remain dominant, such as flooding and scouring. Some other native species common to *Baccharis salicifolia* Shrubland Alliance include telegraph weed (*Heterotheca grandiflora*) and sandbar willow. Common non-native invasive species include giant reed, tobacco tree, castor bean, poison hemlock (*Conium maculatum*), stinging nettle (*Urtica dioica*), and cocklebur (*Xanthium strumarium*). *Baccharis salicifolia* Shrubland Alliance is found adjacent to the wildlife lake and in the stream channel of the Los Angeles River, south of Burbank Boulevard. This vegetation alliance comprises approximately 12.5 acres or 0.6% of the Basin (Map 20).

***Baccharis salicifolia* Shrubland Alliance**

Quercus agrifolia Woodland Alliance *Quercus agrifolia* Woodland Alliance forms a woodland dominated by a mix of oak species, shrubs, and herbaceous plants. For a stand to be classified as a member of the *Quercus agrifolia* Woodland Alliance, only coast live oak (*Quercus agrifolia*) should dominate (Sawyer *et al.* 2009). Other species found within *Quercus agrifolia* Woodland Alliance in the Basin include valley oak (*Quercus lobata*), poison-oak (*Toxicodendron diversilobum*), toyon (*Heteromeles arbutifolia*), and coyote brush (*Baccharis pilularis*). This alliance is usually found growing in valleys or on gentle to steep slopes with moderately deep soils (Sawyer *et al.* 2009). *Quercus agrifolia* Woodland Alliance is found on either side of Haskell Creek, south of Burbank Boulevard. This vegetation alliance comprises approximately 11.2 acres or 0.5% of the Basin (Map 20).

Eriogonum fasciculatum Shrubland Alliance *Eriogonum fasciculatum* Shrubland Alliance is only found in the upland areas surrounding Haskell Creek, south of Burbank Boulevard. Field observations indicated that some of this vegetation alliance may have been reestablished through restoration efforts; however, this could not be confirmed. *Eriogonum fasciculatum* Shrubland Alliance, most likely a common vegetation alliance in the area in the past, is found on rarely flooded low-gradient deposits along streams

with shallow and rocky soils (Sawyer *et al.* 2009). This vegetation alliance is dominated by a temperate broad-leaved evergreen shrubland that occurs across a range of altitudes beginning at sea level (Sawyer *et al.* 2009). *Eriogonum fasciculatum* Shrubland Alliance maintains a continuous or intermittent canopy that rarely exceeds three feet in height (Sawyer *et al.* 2009). In addition to California buckwheat (*Eriogonum fasciculatum*), other species found in this alliance include white sage (*Artemisia ludoviciana*), coast live oak, and coast prickly-pear (*Opuntia littoralis*). This vegetation alliance comprises approximately 31.9 acres or 1.5% of the Basin (Map 20).

***Quercus agrifolia* Woodland Alliance**

***Eriogonum fasciculatum* Shrubland Alliance**

<u>*Baccharis pilularis* Shrubland Alliance</u> *Baccharis pilularis* Shrubland Alliance found in the Basin is dominated by a mix of native and introduced annual grasses interspersed with scattered coyote brush (*Baccharis pilularis*) (see Sawyer *et al.* 2009). Other plant species intermixed within *Baccharis pilularis* Shrubland Alliance includes black mustard (*Brassica nigra*), shortpod mustard (*Brassica geniculata*), telegraph weed, and white sage (Sawyer *et al.* 2009). Before urban development, this shrubland alliance was common throughout coastal California where currently, it usually only occurs on bluffs, slopes, and terraces (Sawyer *et al.* 2009). *Baccharis pilularis* Shrubland Alliance is only found between the wildlife lake in Woodley Park and the Interstate 405 Freeway. This vegetation alliance comprises approximately 167.4 acres or 7.8% of the Basin (Map 20).

***Baccharis pilularis* Shrubland Alliance**

Ornamental Tree/ Maintained Lawn

<u>Ornamental Tree/Maintained Lawn</u> Ornamental tree/maintained lawn is found throughout the Basin in areas that include the Sepulveda Dam Recreation Area, Lake Balboa/Anthony C. Beilenson Park, Balboa Sports Complex, Woodley Park, Hjelte Sports Center, Balboa Municipal Golf Course, and all other landscaped urban areas. Most of these areas are dominated by planted and maintained lawns interspersed with a mostly even distribution of ornamental trees. Common tree species include Canary Island pine

(*Pinus canariensis*), Peruvian pepper tree (*Schinus molle*), eucalyptus (*Eucalyptus* sp.), various palms (*Washingtonia* sp.), common olive (*Olea europaea*), toyon (*Heteromeles arbutifolia*), London plane (*Platanus acerifolia*), sweetgum (*Liquidambar styraciflua*), and Chinese elm (*Ulmus parvifolia*). Invasive non-native species such as common ice plant (*Mesembryanthemum crystallinum*), castor bean, English ivy (*Hedera helix*), English holly (*Ilex aquifolium*), and black locust (*Robinia pseudoacacia*) are also found throughout this non-native habitat type. Tree canopy is partly open and large gaps exist around open water and golf course features. Some park areas with sports fields are dominated entirely by maintained lawns. All areas of ornamental tree/maintained lawn appear to be regularly maintained, resulting in few native plant species and little native habitat to currently exist. This non-native habitat type comprises approximately 801.2 acres or 37.5% of the Basin (Map 20).

Disturbed Riparian Disturbed riparian is restricted to a small unnamed stream channel that flows to the south of Burbank Boulevard. Along this reach, a mix of ornamental, invasive species, and native plant species is bound on all sides by man-made hard surfaces. Plant species found in disturbed riparian include red willow, giant reed, various palms, umbrella sedge (*Fuirena* sp.), and eucalyptus which grows on the relatively dry edges. This non-native habitat type comprises approximately 58.5 acres or 2.7% of the Basin (Map 20).

Ruderal Land Ruderal lands are areas that have been substantially altered by maintenance or construction causing them to be generally devoid of vegetation. Ruderal land is found throughout the Basin in areas surrounding the Dam, near residential and commercial developments, and wherever undeveloped areas receive heavy or frequent use. Specific features of ruderal land are various graded access roads and trails, dirt parking areas, and annual flood basins. High frequency of disturbance and poor quality soils found in these areas prevents most plants from becoming established; however, hardy herbaceous non-native invasive species such as prickly Russian thistle (*Salsola tragus*) and cocklebur are both present. This non-native habitat type comprises approximately 316.9 acres or 14.8% of the Basin (Map 20).

Disturbed Riparian

Ruderal Land

Agriculture Two agricultural areas are found in the Basin; between Victory Boulevard and Oxnard Street in the northwest, and between Burbank Boulevard and the Interstate 101 Freeway in the southeast. Although access to these areas was not permitted, the fields were viewed from a distance. Agricultural areas were dominated by fields growing unidentified crops. This non-native habitat type comprises approximately 193.0 acres or 9.0% of the Basin (Map 20).

3.6.3 Exotic Plant Infestations

Significant non-native plant infestations are considered in this document to be areas with approximately 40% or more of the total vegetation cover dominated by a non-native species. This threshold was determined based on patterns noted in canopy cover estimates quantified in the field. Infestations within Sepulveda Basin include those caused by black mustard, shortpod mustard, and giant reed. Shortpod and black mustard, which co-occur, form eight discrete infestations, including four sites in the wildlife management area, two sites located immediately downstream of the Dam, one site within the model aircraft field, and one site within the mostly ruderal land on the eastern edge of Balboa Golf Course (Map 20). In these areas, shortpod and black mustard almost completely dominate the herbaceous and shrub layers. These areas were disturbed in the recent past by agricultural activities, flooding, or earthmoving and then left fallow, which created ideal conditions for the establishment of these disturbance-adapted species. Giant reed infestations are present in five discrete areas including along Bull Creek, along a small reach in the northwest of the Basin, two sites on Encino Creek, and a small site immediately upstream of the Dam.

Other non-native plant species are found within Sepulveda Dam Basin but occur at densities below infestation level. Tobacco tree and castor bean are distributed throughout the Basin but have the highest densities on disturbed slopes near wet areas such as ponds, lakes, and streambeds. Poison hemlock, stinging nettle, cocklebur, and giant wild rye are all common to riparian habitats where they grow within *Populus fremontii* Forest Alliance, *Salix exigua* Shrubland Alliance, and *Baccharis salicifolia* Shrubland Alliance. Prickly Russian thistle and white nightshade (*Solanum douglasii*) are found throughout the Basin in areas of frequent disturbance.

3.6.4 Animal Resources

The Basin is comprised of a variety of habitat types, including a variety of native vegetation alliances (Sawyer *et al.* 2009), disturbed vegetation communities, agricultural land, constructed open water, disturbed wetlands (NWI 2010), and developed parks or urbanized areas (Map 20). Animal species observed during vegetation surveys conducted on 4 January 2010 were recorded and a list of species is presented in Appendix D2. Species presented do not represent a comprehensive list of species that may be present in the Basin and no formal wildlife surveys were conducted in preparation of this DEA.

Species common to the Basin include native and non-native fishes, amphibians, reptiles, mammals, and birds (Corps 1981). Over 120 species of birds have been documented within the Basin (Corps 1981). The open water areas found in the Basin attract waterfowl and shorebirds while upland habitats host a diversity of passerine species. Bat species are also common to the area and use the Basin for roosting, breeding, or are year-round residents. Dry upland areas host common lizard and snake species. Only two amphibians are common, including the California toad and Pacific tree frog. Non-native species such as feral cats and dogs are also found in the Basin.

Stream flow through the Basin is heavily altered by human activities and mostly seasonal, occurring primarily during the rainy season. The altered seasonal flows and existing barriers to fish passage severely limit fish presence in the Basin. According to Moyle (2002), the native non-game freshwater fishes that have been historically found in waters of the Basin include arroyo chub, Santa Ana speckled dace, Santa Ana sucker, threespine stickleback, and rainbow trout. However, the Santa Ana sucker, a Federally protected species, has no known occurrences in the Basin (CDFG 2010b) and is not expected to occur upstream of the Dam. Common non-native species that may occur in the Basin include largemouth bass, bluegill, western mosquito fish, channel catfish, fathead minnow, common carp, and goldfish (Moyle 2002). No fish data were collected during field surveys within the Basin.

3.6.5 Special Status Listed Species

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

The USFWS maintains a database of Federally protected special status taxa, which reports over 20 species as occurring in Los Angeles County (USFWS 2010). The California Department of Fish and Game (CDFG) maintains the California Natural Diversity Database (CNDDB), which compiles reported observations of special status species (CDFG 2010b). The CNDDB maintains records of each recorded occurrence of a species provided by any agency or private entity, and as such, is not intended to provide conclusive confirmation of the presence of any species. Furthermore, field surveys were not conducted to determine the presence of special status taxa, which would be necessary to conclusively determine the absence of a species. In lieu of field surveys, data from the CNDDB and field studies, if available, provide the starting point for determining the potential presence of a species. Assessment of existing habitat conditions within the Basin further informs the potential for a species to be present; if suitable habitat exists within or nearby the Basin, the potential for a species to occur there increases.

According to the CNDDB, there is a single special status species that has been recently observed within Sepulveda Dam Basin. The least Bell's vireo has been observed within the Basin as recently as 2004 according to the CNDDB (CDFG 2010b), and as recently as 2009 according to ongoing data collection compiled by the Corps (Corps 2010c). It is likely that this species is currently present within the Basin.

The least Bell's vireo (*Vireo bellii pusillus*) was listed as endangered in May 1986 (USFWS 1986). Critical habitat for the species was designated in 1994, though it does not extend into the Basin (Map 21) (USFWS 1994). The least Bell's vireo is a spring and summer breeding resident, migrating south for fall and winter. It primarily inhabits riparian woodlands, scrublands, and thickets for breeding. This vireo was found to select nest locations primarily within willows, where vegetation is minimally disturbed, along riparian areas or at the edges of riparian and upland habitats, where vegetation is complex and has shrubby willows in the understory, and where overstory is comprised of Freemont cottonwoods and willows (Olson *et al.* 1989, USFWS 1986, USFWS 1989). Population declines of this species are primarily due to urban and agricultural development, habitat alteration, and brood parasitism by the brown-headed cowbird (USFWS 1986).

Preferred habitat features of the least Bell's vireo do exist in or adjacent to Sepulveda Dam Basin, and field surveys have positively identified several vireo mating pairs and individuals within the Basin. In 2007, surveyors observed 5 pairs, 1 single male, and 2 transitory males. In 2009, 6 pairs and 1 male were observed (Corps 2010c).

The CNDDB also reports a single male spotted in 2004 in a "15 year old restoration area" (Corps 2010b). Map 21 shows the estimated location of this sighting, which encompasses vegetation that is both highly developed (ornamental tree/maintained lawn) and more natural (*Baccharis pilularis* Shrubland Alliance). It is most likely that the vireo was utilizing the shrubland alliance vegetation and not the highly disturbed non-native vegetation within the park. It may also be possible that the location of the sighting is misplaced. In general, vireos are observed within the natural areas of Sepulveda Dam Basin in the southeast parcels, especially south and east of Woodley Avenue and Burbank Boulevard.

The coastal California gnatcatcher (threatened) and San Fernando Valley spineflower (candidate for Federal protection) have recorded occurrences within the Basin or vicinity as well, but records are not recent and these species are now considered to be extirpated from the region and not a potentially

occurring species (CDFG 2010b). Although Moyle (2002) reports that the Santa Ana sucker historically occurred within the region, there are no recorded occurrences for this species in the CNDDB (CDFG 2010b) and the presence of the Dam precludes its occurrence within the Basin.

3.6.6 Wildlife Corridors

The nearest area of non-urbanized and relatively natural habitat is less than a mile from Sepulveda Dam Basin within the Santa Monica Mountains. The California State Parks Departments identifies portions of the Santa Monica Mountains as significant wild land (CSPD 2009). However, there are no corridors of connectivity available to terrestrial or aquatic species between the Santa Monica Mountains and the Basin. It is possible that birds and bats may pass between the two areas, though no data is available on this potential link.

Movement of wildlife between two areas of suitable habitat may be restricted by the presence of barriers. 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 ground-dwelling species will not pass over a busy roadway, particularly if it has several lanes of traffic, retaining walls, a large area with no vegetation, fences, or other physical barriers. In general, smaller ground-dwelling species, such as amphibians, reptiles, and small mammals, are more reluctant to pass over barriers or through filters, and are therefore less mobile than other species. Large mammals and birds are less sensitive to barriers. Fish barriers include low or no streamflow, culverts, dams, concrete channels, felled trees and other natural and man-made obstacles.

Both barriers and filters are present throughout the Basin. Several major roadways pass through the Basin, including Balboa Boulevard, Burbank Boulevard, and Woodley Avenue. In addition, there are significant areas of development within the Basin. Overall, Sepulveda is land locked and has very little connectivity to natural areas. Except for birds and bats, most mammals, reptiles and amphibians in the area are precluded from migration in or out of the Basin. Coyotes or other animals that have become adapted to urbanized settings may be present on occasion.

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

The Los Angeles River also offers a relatively large expanse of habitat, though highly disturbed, that extends from the Dam embankment, beneath Balboa Boulevard, to the Busway at the west end of the Basin. The soft bottom throughout this stretch is unique to the river. The river is also connected to Bull Creek without impediment, though its connection to Hayvenhurst and Woodley Creek drainages is less clear. However, the presence of the Dam precludes movement into the Basin from downstream reaches.

3.7 Cultural Resources

Cultural resources are locations of human activity, occupation, or use. They include expressions of human culture and history in the physical environment, such as archaeological sites, historic buildings and structures, or other culturally significant places. Cultural resources can also be natural features, plants, and animals or places that are considered to be important or sacred to a culture, subculture, or community.

Resources may be important individually or as part of a grouping of complementary resources, such as a historic neighborhood. Cultural resources that may be present include three general categories: archaeological resources, historic buildings and structures, and traditional cultural properties.

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

Historic buildings and structures are architecturally, historically, or artistically important individual and groups of residential, commercial, industrial, transportation or water control properties. Historic building and structures are typically identified through archival and library research, followed by field reconnaissance and recordation.

Traditional cultural properties are places associated with the cultural practices or beliefs of a living community. The significance of these places is derived from the role the property plays in a community's cultural identity, as defined by its beliefs, practices, history, and social institutions. Examples include natural landscape features, plant gathering places, sacred sites, and Native American burial locations. They can also include urban neighborhoods whose structures, objects, and spaces reflect the historically rooted values of a traditional social group. Identifying any traditional cultural property or sacred site requires direct consultations with potentially affected communities.

Consideration of "important historic, cultural, and natural aspects of our natural heritage" is required through NEPA and principally regulated by the National Historic Preservation Act (NHPA) of 1966, as amended (16 USC Section 470).

Under Section 110 of the NHPA, Federal agencies are required to fully integrate the management of cultural resources in ongoing programs and to proactively identify, evaluate, nominate and protect historic properties. Historic properties are cultural resources that meet specific criteria for listing on the National Register of Historic Places (NRHP). Agencies are not required to preserve all historic properties, but agencies must follow a process to ensure that their decisions concerning the treatment of these places result from meaningful consideration of cultural and historic values and the options available to protect the properties.

Section 106 of the NHPA describes the procedures for identifying and evaluating historic properties, for assessing the effects of Federal actions on historic properties, and for project proponents consulting with appropriate agencies, including the State Historic Preservation Officer (SHPO), to avoid, reduce, or minimize adverse effects.

3.7.1 Cultural Resources Within the Basin

At the time of Spanish contact, the Tongva or Gabrieleno Indians occupied most of the greater Los Angeles Basin; the Los Angeles, San Gabriel and Santa Ana River watersheds; coastal regions from Topanga Canyon in the north to Aliso Creek in the south; and San Clemente, San Nicholas and Santa Catalina Islands. The Tongva utilized an extensive inventory of tools and implements to gather collect and process food resources (McCawley 1996).

As in all arid and semiarid lands, water sources and river systems are centers for settlement and food procurement. Prior to channelization, there were wetlands and marshes associated with the changing course of the free-flowing river. Soils in the floodplain were constantly enriched by sediment deposition. There was an abundant variety of plant and game resources that were available to native populations centered on rivers and marshes. Tongva oral traditions speak of the importance and use of the rivers in the inland valleys, and named settlements have been documented at locations along nearly every river and ephemeral stream.

In 1769 the Portolá Expedition crossed the San Fernando Valley and encountered a village of 205 persons at a village called *Siutcanga*. According to informants and corroborated by documentary evidence, this village was located in present day Encino, just south of the Sepulveda Dam Basin (McCawley 1996). Later, a large land grant that includes the Sepulveda Dam Basin was conveyed to the *alcalde* or mayor of Los Angeles in exchange for a grant he had held in the north valley that became the site of Mission San Fernando. Structures related to the Rancho El Encino land grant and subsequent occupants are now a state park. The location was on the main travel route, the *El Camino Real*, and was a popular stopping point for travelers. According to an updated report by the Los Encinos Docents Association (LEDA), it later became a stop on the Butterfield Overland Mail stagecoach and the Old Santa Susana Stage Road (LEDA Undated).

In 1984 and 1985 archaeological excavations near the intersection of Ventura and Balboa Boulevards revealed evidence of a village site on the bank of a stream bed that may have been a portion of *Siutcanga*. The site included both human and animal interments and spanned back several thousand years through the historic Tongva occupation (McCawley 1996).

In the latter half of the nineteenth century, the land grants in the San Fernando Valley were broken up, and large-scale agriculture for the domestic and international markets largely replaced ranching. Rail lines were constructed and beginning in the 1880s, residential and industrial development grew rapidly. Growth required a more reliable water supply than the river could provide and greater control of the river to protect life and property. As a result of several devastating floods in the San Fernando Valley, concrete channels, dams, and debris basins were constructed throughout the 20th century. Construction of the Sepulveda Dam, spillway and outlet works was completed in December 1941 (Corps 1981).

A literature review and records search of the Sepulveda Dam Basin and vicinity was conducted in 1977. This was followed by an intensive field survey of land surfaces that had not been altered to the degree that all cultural materials would have been destroyed. Results of these investigations were negative; no significant prehistoric or historic archaeological or other cultural resources were recorded (Martz 1977). Survey methods employed are not known. Two prehistoric archaeological sites in the vicinity of the Encino Golf Course were recorded but were subsequently destroyed. Prior studies and field information indicate a low potential for intact cultural resources in the Basin (Corps 1981). No information was available in the previous Master Plan regarding historic structure evaluations, SHPO concurrence with Corps findings or Native American consultation.

3.8 Hazardous Materials and Wastes

A preliminary Hazardous and Toxic Waste and Materials (HTWM) investigation was conducted to determine the presence of current or historical contamination within Sepulveda Dam Basin. The preliminary investigation was based on a database review of relevant environmental information maintained by Environmental Data Resources, Inc. (EDR 2010). The EDR database search included lists compiled by the EPA and the state of California for sites within or near to the Sepulveda Dam Basin that have had recent or historical unauthorized releases of hazardous materials or hazardous waste, may store and use hazardous materials, or be generators and/or transporters of hazardous wastes. The following government databases were included in the EDR search in accordance with ASTM Standard E 1527-05 search distances:

- Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) – This is a nationwide database of sites identified by EPA as abandoned, inactive, or uncontrolled hazardous waste sites that may require cleanup.
- National Priorities List (NPL) – This is a database maintained by EPA under the Comprehensive Environmental Response Compensation and Liability Act of 1980 (CERCLA). Those CERCLIS sites that contain the greatest potential risk to human health and the environment become part of the NPL.
- Resource Conservation and Recovery Information System (RCRIS) – In this database, EPA maintains information on those sites across the Country that may generate, transport, store, treat, and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA).
- Emergency Response Notification System (ERNS) – This database is maintained by EPA that covers reported unauthorized releases of oil and hazardous substances.
- ENVIROSTOR – The California Department of Toxic Substance Control (DTSC) manages information on this list of known hazardous waste sites that are present throughout California. This list is California's equivalent of EPA's CERCLIS. On this list, priority sites planned for cleanup; to be paid either by the state or by potentially responsible parties.
- CERCLIS-NFRAP – This database tracks those sites where EPA has determined that no further action is needed. However, hazardous material may still be present but in a manageable form.
- CAL FID UST – This system, maintained by the California Water Resources Control Board (CWRCB), keeps track of active and inactive underground storage tanks.
- Leaking Underground Storage Tanks (LUST) – Information is maintained at the (CWRCB) on reported leaking underground storage tank incidents. The information is typically collected quarterly by regional offices of the WRCB.
- Solid Waste Information System (SWIS) – The California Integrated Waste Management Board (IWMB) maintains a list of, and information on solid waste amenities and landfills in the state. Data maintained include location, type and age of landfill, if it is a permitted facility, and the status of its permit.
- CAL Voluntary Cleanup Program (VCP) – These are sites listed by DTSC that have confirmed or unconfirmed releases where a project proponent has requested the state to oversee investigation and/or cleanup activities at the proponent's expense.
- National Pollutant Discharge Elimination System (NPDES) – The CWRCB maintains a listing of all NPDES permits within the state, including stormwater.

3.8.1 Sites of Interest

Two preliminary sites of interest were identified, which were reported in the ENVIROSTOR database as sites of known contamination or sites that may need to be investigated further. Closer review of the

information provided in the EDR database indicated that additional investigation was unnecessary for either of these two initial sites of interest.

3.9 Socioeconomics and Environmental Justice

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

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

Table 3.13 Market Area Demographics

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

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

Providing environmental justice means ensuring that existing local and market area minority and low income populations must be actively protected from adverse human health or environmental effects of any management strategy undertaken or authorized in the Master Plan.

The adjacent communities of the Sepulveda project area are overwhelmingly white and Latino with large populations of Asian, Black, and other races throughout Los Angeles County. The number of individuals living below the poverty level is less than 23%. The market area does not have a significant minority or low income population. Detailed demographics and socioeconomic data and their descriptions are provided in Section 2 of the Master Plan. Applicable data are provided in Table 3.14.

3.10 Traffic and Transportation

Travel to the Basin occurs through a multi-modal transportation network in and around Los Angeles County, including car, bicycle, train and pedestrian (Map 22). The Basin is located in the northwest quadrant of the intersection of Interstate 405 and U.S. Highway 101. Both freeways are operated by California's Department of Transportation (Caltrans). Access into the Basin can be attained via main entrances along Woodley Avenue from the north, Burbank Boulevard (which runs along the southern portion of the Basin) from the east or west, Balboa Boulevard from the west, or from Victory Boulevard from the north. A secondary Burbank Boulevard entrance accesses the Hjelte Sports Complex and

agricultural areas in the southern portion of the Basin. The Burbank Boulevard entrances can also be accessed from Hayvenhurst Avenue to the south. On a larger scale, the Southern California area is serviced by numerous airports in Los Angeles (LAX), Van Nuys, Burbank (Bob Hope), and Long Beach.

Roadway Linkages The Basin is surrounded by high-capacity boulevards, as well as U.S. Highway 101 and Interstate 405. Victory Boulevard is a major east-west arterial connecting West Hills and Canoga Park to the west with Burbank to the east, approximately 20 miles in length. Burbank Boulevard is also a major east-west arterial connecting Tarzana to the west and Burbank to the east, approximately 15 miles in length. Table 3.15 lists the major access roadways associated with the Basin and their average traffic volumes.

Table 3.14 Roadways and Traffic Volumes

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

Transit Linkages Visitors may access the Basin using public transit can travel via the Metrolink Orange bus line or by train to the nearby Van Nuys Metrolink Station. The Orange line runs along the Orange Line Busway, a bus-only roadway that runs just south of and parallel to Victory Boulevard. Van Nuys Metrolink is the nearest transit hub to the site, served by Amtrak, Metrolink and Metro bus lines. At the Van Nuys Metrolink Station, bus and train passengers can make a bus connection south to the recreation area in the Basin on bus routes 154, 164, 236 or 237. Bus Service from Van Nuys to the Basin via the Metrolink Orange bus line is $1.25 (Metro 2010a).

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

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

The Basin is nearly surrounded by Class I bike paths, including along Victory, Balboa and Burbank Boulevards. A short stretch of Class II pathway is available to the east of the Basin. Class I, II, and III bike paths connect to various other neighborhoods along Balboa Boulevard, Woodley Avenue, and Oxnard Street (Metro 2010b). For visitors who prefer to walk to the Basin, there are continuous sidewalks on most connecting streets. Other than an approximately 2-mile portion of a bike loop path that extends out of the Basin, there are currently no exterior hiking trail linkages to the park area (Thomas 2010).

In-Park Roadways and Trails Approximately 10 miles of roadways and several parking lots throughout the Basin provide access to recreation amenities. A 3-mile bicycle loop is available within the Basin,

which is connected to an additional 2 miles of the bike trail located outside of the Basin perimeter. Additionally, several miles of walking trails are available throughout the Basin. In-Basin roadways and trails are maintained jointly by the City and the Corps (Thomas 2010).

Emergency Access Approximately five emergency access points exist throughout the Basin (Thomas 2010). Emergency vehicles can access the Basin through the main public access nodes along Woodley Avenue, Burbank Boulevard, Balboa Boulevard, or Victory Boulevard. The two Burbank Boulevard entrances can also be accessed from Hayvenhurst Avenue to the south. No additional non-public access points are available for emergency vehicles.

3.11 Utilities

A variety of utilities such as water, electrical power, heating fuel, and sanitary sewerage services are provided within the Basin to the various recreation amenities such as the Balboa Sports Complex and Hjelte Sports Center, Woodley Park, Sepulveda Basin Wildlife Area, Anthony C. Beilenson Park, Sepulveda Garden Center, Sepulveda Basin Off-Leash Dog Park, Sherman Oaks Castle Park, and the Encino, Balboa, and Woodley Lakes Municipal Golf Courses (LADPW 2010). Utility locations and owners are shown on Map 26.

The utility network is also utilized by several other entities for non-recreation purposes. For example, the Basin serves as the headquarters for the City's Valley Region, which includes a warehouse and several offices. Additionally, utilities serve several Federal armed forces amenities in the Basin, which include an armory and a maintenance yard, as well as agricultural plots (Thomas 2010).

In addition to the utilities that serve the Basin, there are numerous utility corridors traversing the Basin to serve adjacent and surrounding areas. Overhead utilities include electrical and telephone poles and lines. Buried and underground utility corridors include potable and irrigation water, gas, telephone lines, stormwater, and sewer lines. These include the Haskell Ventura storm drain at the Highway 101 underpass adjacent to the Dam, and a sanitary sewer crossing the Los Angeles River along the Orange Line Bridge. Also, a network of channels and ditches, including Encino and Haskell Channels, traverses the Basin (Corps 1966).

Utility owners The following utility owners are represented in the Basin (Thomas 2010):

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

Utility Easements There are four utility easements in the Basin. These easements are for an existing AT&T cell tower in the northeast corner of the Basin, an existing storm drain system associated with the Haskell Ventura Highway 101 underpass, an existing City of Los Angeles Sewer line, and an existing Los Angeles Water Reclamation water line associated with the reclamation plant.

Energy Use Energy is used by the numerous recreation amenities and other facilities for lighting, heating, and air conditioning, as well as lighting for the Basin's network of roadways, paths, and parking lots, and recreation fields and courts (Thomas May 2010, City 2010).

3.12 Esthetics

The visual resources within and around the Basin have been dramatically changed by development. Whereas, the once dominant feature was the Los Angeles River and its natural floodplain and associated vegetation communities, the river is now channelized and the floodplain has been converted to residential, commercial, and industrial uses. The Basin and its recreation and park lands extend over several miles through this urban development. The topography of the area is relatively flat. The major visual features here include the Los Angeles River, Sepulveda Dam, Lake Balboa, adjacent parks and golf courses, and an area of unmanaged "natural" area.

Park Areas

Lake Balboa

Lake Balboa is a manmade lake surrounded by an expanse of maintained lawns dotted with ornamental trees and picnic tables. It attracts numerous waterfowl as well as shore birds, birdwatchers, and provides a sense of connection to wildlife. Surrounding the lake are several acres of well maintained lawns with ornamental trees and picnic tables. A large portion of the existing manicured grounds is dedicated to golf courses. Views throughout the parks and golf courses are serene and peaceful, offering a sense of escape from the city surrounding the Basin.

The Los Angeles River is a highly disturbed, channelized, and polluted waterway that passes through the center of the Basin. Because the river has begun to fill in with palm trees and other non-native vegetation, the invasive species and channelization have compromised its ecosystem function and its visual appeal has suffered.

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

Long Range Views Across Wildlife Management Area

Wildlife Management Area Lake

View of Dam from Upstream

In the southeast portion of the Basin there are several “natural” areas. These include an expanse of scrub shrub vegetation west of Woodley Avenue, south of Burbank Boulevard, and a manmade lake and additional acreage of scrub shrub to the east of Woodley Avenue. These areas are criss-crossed with hiking, equestrian, and biking trails. Views in these areas are short-range due to trees, except to the west

of Woodley Avenue, where mid-range views sweep over the scrub shrub habitat below the model airplane airspace.

There are few long-range views within the Basin that are suitable for identification as overlooks, primarily due to the presence of tall trees and the absence of elevated topographic areas. However, Burbank Boulevard does pass over the Dam into the Basin near the southeastern corner, briefly providing a long range view of the wildlife area, lake, Dam, and Los Angeles River as people walk, rollerblade, or bicycle past. Overall, the short-range views within the Basin comprise of picnic and recreation areas or disturbed natural areas.

3.13 Recreation Resources

A large variety of recreation amenities are available in the Sepulveda Dam Basin (Map 10). These include golf courses, park land, a sports center, baseball fields, garden center, model airplane field, cricket fields, tennis courts, trails for hiking/jogging, bicycle trails, a lake, and soccer fields. The majority of the amenities are operated by the City on the approximately 1,542 acres of land leased to them by the Corps. A separate lease has been given to the Encino Franklin Fields, Inc., a non-profit organization, to develop little league baseball amenities.

3.13.1 Golf Courses

Sepulveda Golf Courses The Sepulveda Golf Courses consist of two 18-hole public golf courses, Encino Municipal and Balboa Municipal. The two courses are on approximately 313 acres of land bounded on the north/northeast by the Los Angeles River, on the south by Burbank Boulevard, and on the west by Balboa Boulevard. The golf course complex includes a pro shop which provides various services such as golf lessons, a lighted driving range, practice putting greens, practice chipping greens, cart rentals, club rentals and a restaurant with banquet rooms and lounge. The courses are irrigated with water from the Tillman Water Reclamation Plant. Reclaimed water irrigation was considered in-kind credit as part of the City and Corps cost sharing under the 710 program. The golf courses and associated amenities were developed by the City.

Woodley Lakes Municipal Golf Course The Woodley Lakes Municipal Golf Course, which was built in 1976, is a public course with 18 holes with a total length of 6,803 yards. 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 which provides golf lessons, a lighted driving range, practice putting greens, practice chipping greens, cart rental, club rental, and a restaurant with a banquet amenities and lounge, and restroom amenities and a concession stand. The course is irrigated using water from the Donald C. Tillman Water Reclamation Plant. The golf course and associated amenities were developed by the City.

3.13.2 Beilenson Park and Bull Creek Restoration Area

Anthony C. Beilenson Park This facility occupies approximately 80 acres and is bounded by the Los Angeles River to the south, Balboa Boulevard to the west, Victory Boulevard on the north, and the Woodley Lakes Golf Course on the east (Corps 2009b). The centerpiece of the park is Lake Balboa, a 27 acre recreation lake which is filled with water from the Donald C. Tillman Water Reclamation Plant. 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 benches and covered benches provided along the path. Amenities to support lake activities 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

prohibited from using the lake. The park was developed jointly by the City and the Corps as a Code 710 project on a cost-sharing basis.

Universally Accessible Playground The Universally Accessible Playground (UAP) is located at the southern portion of the Anthony C. Beilenson Park. The UAP, which was completed in June 2008, 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, and 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 west of the Anthony Beilenson Park and is approximately 28 acres. The area includes 3,000 feet of a reshaped creek and features an oxbow channel that forms a small island. 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 and pedestrian bridges and walkways have been established in the area to provide access. Interpretative signage has been established at key locations in the area to offer educational opportunities to visitors. The area was restored jointly by the City and the Corps under the authority of Section 1135 (b) of the Water Resources Development Act (WRDA) of 1986, (P.L. 99-662, as amended) and was completed in 2009.

3.13.3 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 jointly by the City and the Corps as a Code 710 project on a cost-sharing basis.

3.13.4 Woodley Park and Adjacent Amenities

Woodley Park Woodley Park is an 80 acre facility that borders the western and southern side of the 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, 26 picnic tables, six barbeques, is shaded by trees, and located next to an ADA accessible restroom facility. Section 2 has 80 parking places, 32 picnic tables and is only partially shaded by trees. Restroom amenities are located nearby. Woodley Park was developed jointly by the City and the Corps under the Code 710 cost-sharing program.

The Japanese Garden The garden is located on the grounds of the TWRP. The garden covers an area of 6.5 acres and is actually three gardens in one. The dry garden features a Tortoise Island, a "three Buddha" stone arrangement and a wisteria viewing arbor. The stroll garden has waterfalls, lakes, and streams, abundant greenery and stone lanterns carved by artisans in Japan. The tea garden consists of a teahouse and adjacent garden. Reclaimed water from the TWRP 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 Bureau of Sanitation.

Woodley Park Archery Range The archery range is located in the extreme northeastern portion of the Basin on approximately 8 acres of land. Amenities include a partially enclosed an 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. The range also has restrooms. The range was developed by the City.

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

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

Sepulveda Basin Wildlife Area The wildlife area covers an area of 200 acres and is located in the northeastern portion of the Basin and is bounded by Burbank Boulevard on the south, Woodley Avenue on the west, Woodley Park on the north, and the Sepulveda Dam Embankment to the east. The wildlife area features a 12 acre wildlife lake with a 0.75 acre bird-refuge island. Water is supplied to the wildlife lake from the TWRP. Native annuals, shrubs, and trees have been planted throughout the reserve. The wildlife area also has an educational staging area and amphitheatre, various pathways with signage and viewing areas, Haskell Creek which has been reconfigured and re-vegetated, and pedestrian bridges over Haskell 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 being in 1998. This area has been developed jointly by the Corps and the City under the Code 710 cost sharing program.

3.13.5 Hjelte Sports Center and Adjacent Amenities

Hjelte Sports Center The sports center is an approximately 12 acre facility located in the southern portion of the Sepulveda Basin between Burbank Boulevard to the north and the Sepulveda Dam embankment to the south. The center has four lighted baseball fields, bleachers at each field, restroom amenities, a concession stand, and a storage facility. The Hjelte Sports Center was developed jointly by the City and the Corps under the Code 710 cost-sharing program.

Sepulveda Garden Center The garden center is an approximately 12 acre facility 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 available at the garden center are 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.

Libbit Park Libbit Park is located south of U.S. Route 101, on a narrow strip of land east of the Sepulveda Dam Saddle Dike on the west side of Libbit Avenue. The park occupies approximately 3.6 acres. The park is landscaped but has no picnic or play ground equipment. The park was developed by the City.

Encino Baseball Complex The baseball complex is located south of U.S. Route 101 and east of Hayvenhurst Avenue. The complex, which is 12 acres in size, 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 The miniature golf course occupies approximately 5.3 acres and is located in an area bounded by U.S. Route 101 on the north, Interstate 405 on the west, the Los Angeles River on the

north, and Sepulveda Boulevard on the east. The facility 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 is located at 4989 Sepulveda Boulevard and was developed by and is operated by the City. A concessionaire with a sublease from the City operates the batting cages, video arcade, and food concession.

3.13.6 Athletic Amenities at Northwest Side of the Basin

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

White Oak Avenue Fields The White Oak Avenue Fields is an approximately 13 acre facility located in the northwest portion of the Basin. The facility is located south of the Los Angeles River and east of White Oak Avenue. The facility includes four baseball fields, a snack bar, equipment storage, an unpaved parking lot, and restrooms. The 1981 Master Plan stated that this facility was to be phased out in 1980 and the area made available for other recreation. However, this action was never taken and the facility remains operated by the Valley Christian Athletic Association with a sublease from the City.

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

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, which was formerly known as the Valley Youth Center, provides various services to seniors and infants and children age 6 months to 6 years. Included in the services provided is an intergenerational (adult daycare and children daycare in a shared setting) services and programs that intertwine human needs for both giving and receiving meaningful daily contact. In the summer months, the Center serves as a cooling site for those who do not have air conditioning in their homes. The parking lot of the Center is home to a farmers market which is held every Sunday. The Center is operated by the non-profit organization One Generation 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, southwest of the intersection of Victory Boulevard and White Oak Avenue. The dog park includes a 0.5 acre off-leash area for small-dogs and a 5 acre off-leash area for large dogs. Both areas are enclosed with a 4 foot high cyclone fence. The facility also has a picnic area, a parking lot for 100 cars, and public telephones are available. Sepulveda Off-Leash Dog Park was developed by the City.

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

Bike Trails Approximately nine miles of bike trails are located in the Basin. The bike trails run along the perimeter of the Basin and through the Basin parallel to Balboa Boulevard and Woodley Avenue. The

bike trail system shares a parking lot and staging area with the Woodley Lakes Golf Course. The parking lot is paved and has parking for 300 cars. The parking lot was developed jointly by the City and the Corps under the Code 710 cost sharing program.

3.14 Public Health and Safety

Public health and safety focuses on the potential risks to the public and personnel from hazards that may occur within the Basin itself, or which may impact public services adjacent to the Basin. Health and safety hazards to the public can arise from recreation uses, plants and wildlife, flooding, hazardous materials, and criminal activity. Nearby public services, such as law enforcement, fire protection, hospitals and schools, may be designated as respondents to health and safety issues within the Basin, may be impacted by activities in the Basin, or may depend on access through the Basin. Public health and safety measures are intended to protect the public, to maintain public services, to ensure compliance with applicable Federal and state laws, to prevent waste contamination, and to minimize hazards resulting from actions on Corps-managed lands and amenities. Safety issues specific to Dam operation were previously discussed above in the Physical Land Resources section.

The City is the main recreation lease holder for Sepulveda Dam Basin and public safety is a primary concern. The Basin is usually dry, but heavy rainfall has, and may, result in flooding throughout the Basin. In the event of flood, hazards could occur both within the Basin itself, and downstream of the Basin. Balboa and Burbank Boulevards and Woodley Avenue pass through the Sepulveda Dam Recreation Area and are closed when there is a danger of flooding. These are major roads used daily by the public. On occasion vehicles have been stranded due to flooding before roads have been closed. Alternative access is available for all public services except the recreation amenities.

There is no formal evacuation plan for Sepulveda Dam Basin because the primary hazard is flood inflows which can be forecast with sufficient lead time to clear the Basin of recreation users. However, the Corps has a formal notification process in which the Reservoir Regulation Section contacts any known entity likely to be affected by flood inflow to the Basin, based on forecasted runoff and estimates of how high the surface water will rise; these notifications are updated on a continuous basis as hydrologic and Basin conditions change. Overall, the potential rate of rise of the surface water elevation would be slow enough that anyone could readily walk to safety by moving to higher ground. Furthermore, the City would ensure that public use of the Basin during a potential flood condition would be curtailed through erecting roadway barriers and signage, and by having authorities in place to redirect traffic. The City maintains close coordination with law enforcement and the Corps as well as fire, medical, and emergency response agencies in the area.

The Basin includes both natural and largely undeveloped areas and formal recreation amenities. Because of its proximity to a large urban population, the Basin and Recreation Area are used by thousands of people daily with greater use on the weekends and during special events. Public health and safety issues associated with recreation include vehicle accidents, use conflicts, intoxication, and a variety of sports and activity-related accidents and injuries. A number of public service agencies provide security or emergency response to the Basin, shown in Table 3.15.

Onsite law enforcement at the recreation amenities within the Basin is provided by the City of Los Angeles, Department of General Services Office of Public Safety. General Services Park Rangers are dedicated exclusively to patrolling the city’s parks, beaches, libraries and other city amenities. They are backed up by the Los Angeles Police Department in Van Nuys. Criminal activity has included trespass, transient camps, property crime, vandalism, gang activity, alcohol use, and unauthorized dumping and firearm use (Perez 2010). The Basin includes naturally vegetated areas that are susceptible to wild fire.

Fire Protection and EMT services are provided by the Los Angeles Fire Department, Fire Station 39. The City maintains mutual aid agreements with other local cities and agencies for police, fire, and EMT services. Emergency Room and Hospital Services are found at Valley Presbyterian Hospital in Van Nuys approximately 1 mile east (Perez 2010).

Table 3.15 Public Services in the Vicinity of the Sepulveda Dam Basin

Service	Name and Address	Phone Number	Primary Server
Law Enforcement (Sepulveda Dam Recreation Area)	City of Los Angeles Department of General Services Office of Public Safety (Park Rangers) Griffith Park Sub-Station 3740 Crystal Springs Drive Los Angeles, 90027	(213) 978-4670	Y
Law Enforcement	Van Nuys Community Police Station Los Angeles Police Department 6240 Sylmar Avenue Van Nuys, CA 91401	(818) 374-9500	Y
Law Enforcement	Los Angeles County Sheriff 6230 Sylmar Avenue 91401	-	N
Fire/EMT	Los Angeles Fire Department Fire Station 39 14415 Sylvan Street Van Nuys, CA 91401	(213) 485-5971	Y
Hospital	Valley Presbyterian Hospital 15107 Vanowen Street Van Nuys, CA 91405	(818) 782-6600	Y
Hospital	E 16237 Ventura Boulevard 91436	-	N
Hospital	Hollywood Community Hospital 14433 Emelita Street 91401	-	N
School	17120 Vanowen Street Van Nuys, CA 91406	-	N/A
School	6649 Balboa Boulevard 91406	(818) 881-6502	N/A
School	Birmingham High School 6435 Balboa Boulevard Van Nuys, CA 91406	-	N/A
School	Valley Alternative Magnet School 6701 Balboa Boulevard 91406	(818) 342-6133	N/A

3.14.1 Evacuation Plan

There is no formal evacuation plan prepared for the Basin. The City determines the response to hazards which occur within the boundaries of the Basin, as described in the previous section. However, the Reservoir Regulation Section of the Corps has a comprehensive notification protocol that is followed during storm and flood periods, to notify entities that may be affected downstream of the Dam, provided in the Emergency Action and Notification Subplan for the Basin (Corps 2008).

3.15 Sustainability

Sustainability can be broadly defined as "meeting the needs of the present generation without compromising the ability of future generations to meet their own needs." This definition takes into account that there are three "spheres" comprising sustainability (environmental, economic, and social) that need to be considered when developing and evaluating projects and management systems. The three spheres of sustainability are described in Figure 3.3. For the Corps, applying the goals inherent in this definition to the development and implementation of Corps and Corps co-sponsored projects involves approaching the planning, design, construction, and operation phases of these projects with the intention of sustaining natural resources, protecting the environment, achieving economic viability, and promoting a high quality of life.

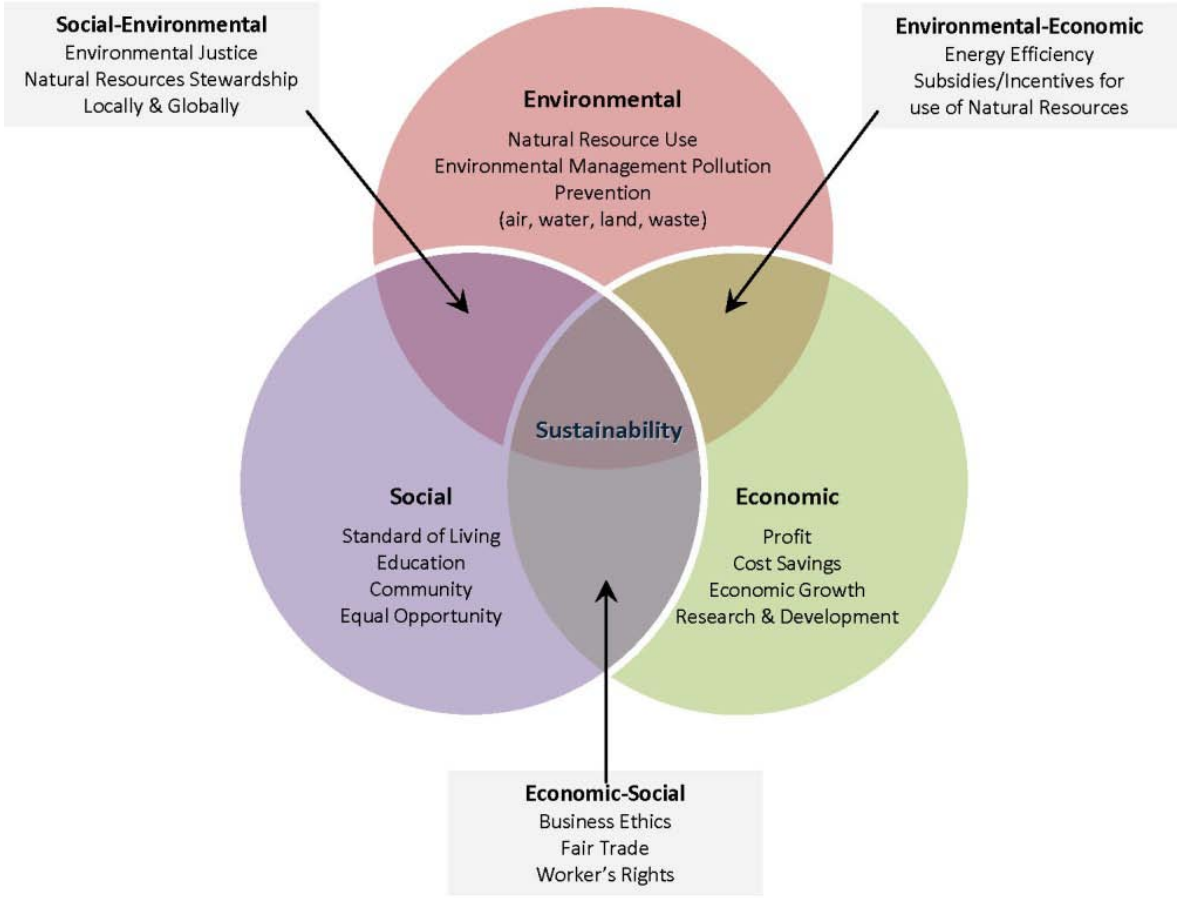

Figure 3.3 The Three Spheres of Sustainability

With the passing of the Water Resources Development Act (WRDA) in 2007, Congress directed the Corps (and other Federal agencies) to put environmental protection and restoration first when planning

water resources projects. This emphasis complements the sustainability approach taken by the Corps in developing and implementing water resources and ecosystem restoration projects such as those being considered in this integrated document. Moreover, sustainability as a practice for the Corps has become increasingly important as rising population continues to place greater pressure on land development and competition for natural resources and land use, especially in and near urban areas such as the Los Angeles River watersheds.

In the following paragraphs the three spheres of sustainability (environmental, economic, and social) are discussed with respect to the baseline opportunities afforded by the alternative sites being considered in achieving the inherent goals of sustainability (sustaining natural resources, protecting environment, achieving economic viability, and promoting high quality of life).

3.15.1 Environmental Sustainability

Under ideal environmental sustainability conditions an ecosystem would maintain functionality and biodiversity over time. Characteristics of this ideal ecosystem would include a steady (equilibrium) state, the ability to recover from disturbance (resilience), and evolving plant communities (succession). Because the landscape within and around the Basin has been altered, ideal ecosystem function does not exist and achieving it may be no longer possible. However, the premise going forward is that with intervention, some of the critical ecosystem functions at many of the alternative restoration sites can be maintained, enhanced, or even to some extent restored. In all cases, it is assumed that an adaptive management program can be developed and implemented that will help support environmental sustainability.

Sustainability is best achieved through implementation of practices that are known to conserve and protect the resources within the Basin. Within the Basin, the implementation of measures to ensure sustainable use of resources may include developing a green waste and recycling plan. This plan should extend throughout the Basin and include specific measures for accommodating additional waste during special events.

3.15.2 Economic Sustainability

Similar to environmental sustainability, which is based on the ability of an ecosystem to maintain functionality over time, economic sustainability involves creating economic value (in terms of capital and monetary exchanges) from implementing restoration projects in the study area that would also be sustainable over time. For the alternative sites being considered, striving for economic sustainability may involve developing programs and activities that generate revenue for the maintenance and upgrade of amenities. Also, more indirectly, it may involve the development of amenities such as restaurants and lodging in or near the watershed as a result of the interest generated in activities afforded at the project sites. However, developing these types of income amenities would need to be accomplished without exploiting and/or sacrificing environmental protections. Therefore, in the planning, design, construction, and operation phases, the usage and potential waste of resources in the generation of economic activity would be accounted for, and the use of green technology and materials and renewable resources maximized.

3.15.3 Social Sustainability

Social sustainability is based on the concept that future generations should have the same or greater access to these quality of life benefits as the current generation. This concept encompasses human rights and environmental justice. Social sustainability applies not only to the provision of recreation and other social amenities but also to the protection of environmentally sensitive areas in the Basin. For example,

restoration of natural habitats within the Basin benefits wildlife populations, while improving the overall quality of life for area residents. Future generations deserve the opportunity to have a high quality experience with the natural areas of the watershed while perpetuating our collective responsibility of environmental stewardship. Finally, a healthy ecosystem that treats all people fairly with access to high quality amenities (both built and natural) is the best assurance of sustaining a vibrant socioeconomic system.

3.15.4 Green Waste and Recycling

The Donald C. Tillman Reclamation Plant discharges advanced tertiary-treated water and this water is used throughout the Basin. From the water in Lake Balboa to irrigation of the golf greens and finally discharge to the Los Angeles River, the discharge from the reclamation plant waters the entire landscape at Sepulveda Dam Basin. Recognizing the value of the recycled water, as irrigation is upgraded, “smart irrigation” is being installed that irrigates only the amount that is needed on the landscape.

The City has a comprehensive program for waste management which includes green waste and recycling, and operation of the Basin by primarily by the City is no exception. Mulching lawnmowers are used throughout the Basin and clippings are left in place. The Forestry Division takes all other green waste that is generated, chips it and transports it to Griffith Park. At that point it is mixed with biosolids generated from the Hyperion Treatment Plant and turned into compost. Trash is managed by the City Bureau of Sanitation. Both trash and recycling bins are distributed throughout the Basin. Managers of the Basin report that there is a significant amount of “opportunistic” recycling that takes place by members of the public so that the amount of recyclable material to manage by the City is reduced.

When special events are held at the Basin, the permit requires additional recycling and trash containers and it is the responsibility of the event operator to haul away all trash and recyclable materials and leave the areas clean within 24 hours of the end of the event. For every additional 200 people estimated to attend and event, portable toilets are brought in for the event.

In keeping with the desire to continually monitor and improve its sustainable practices and policies, every month the City sends a report to the Bureau of Sanitation that includes their activities described above.

4 ALTERNATIVES IMPACTS ASSESSMENT

This DEA has been prepared in part to determine the potential for significant impacts arising from the proposed action. In the event that potential significant adverse impacts are identified that cannot be mitigated, the Corps would either revise the project description to minimize the potential for significant impacts or prepare an EIS.

This DEA has been prepared to document compliance with the NEPA and other Federal environmental laws that may be applicable for this project. The NEPA process includes preparing an analysis of the impacts of the proposed action, in this case the approval of an updated Master Plan for Sepulveda Dam Basin and comparing those impacts to the No Action Alternative and other viable alternatives. It has been determined through the planning process as described in the Master Plan that there are no other viable alternatives other than the Recommended Plan that meet the goals and objectives of the Corps Master Plan requirements for land use classification. The approval of the Master Plan with the proposed land use classifications or the No Action Alternative, which would mean no approval of the updated Master Plan, are the only two alternatives that have been carried forward for analysis of impacts on natural and human resources in and around the Sepulveda Dam Basin.

Since approval of the Master Plan would not result in any physical implementation of a project, the impact analysis of the Proposed Action Alternative and the No Action Alternative are in most cases very similar and each resource category analysis identifies the need for compliance with NEPA and other Federal environmental laws that must be complied with if in the future the County (or other lessees) propose new development within the Basin.

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

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

Project impacts are assessed to determine if they are:

- Likely to be highly controversial or its impact analysis highly debated;
- Likely to involve highly uncertain impacts or unique or unknown risks;
- Likely to pave the way for future actions;
- Part of a larger proposal;
- Likely to violate any Federal law or requirement imposed to protect the environment; and/or
- Likely to cause effects to resources which fall outside of the project area but which are covered by state or local regulations; these may include air quality, water resources, noise, public health and safety, and biological resources.

The Proposed Action Alternative (Recommended Plan) under evaluation for this DEA is the approval of the updated Carbon Canyon Dam Basin Master Plan, which would result in the reclassification of land use within the Basin. This would provide the Basin managers, lessees, and users with an updated

comprehensive document for the current and future operation, maintenance, and management of the Basin and its associated lands. Map 19 shows the proposed recommended land use classification plan.

4.1 Alternatives

4.1.1 Proposed Action Alternative

The Proposed Action Alternative (Recommended Plan) under evaluation for this DEA is the approval of the updated Sepulveda Dam Basin Master Plan, which would result in the reclassification of land use within the Basin. This would provide the Basin managers, lessees, and users with an updated comprehensive document for the current and future operation, maintenance, and management of the Basin and its associated lands. Map 23 shows the proposed recommended land use classification plan.

Under the Proposed Action Alternative to update the existing Master Plan, land use classifications have been identified that are in compliance with Corps regulations and policies, provide for future sustainability of the Basin lands, and are compatible with existing recreation use in the Basin. The updated Master Plan presents a land use and resource objectives plan that identifies increased protection of Environmentally Sensitive and MRM – Vegetative Management land, provides recommended actions for the continued sustainability of recreation and natural features, and meets the community's expressed needs and desires.

The updated Master Plan land use classification plan recommends the following; 1) retaining the existing acreage and extent of Project Operations and Recreation lands, 2) expanding areas of Environmentally Sensitive lands, and 3) reclassifying lands that were previously MRM – Inactive and/or Future Recreation as MRM – Vegetative Management. A description and analysis of land use classifications in the Basin is provided in Section 6 of the updated Master Plan. The updated Master Plan would include policies to guide special events in recreation areas, as well as filming and photography, biological surveys, and training activities in operations areas.

4.1.2 No Action Alternative

Under the No Action Alternative, the 1981 Master Plan for the Basin and 1995 Supplement would continue to be the guiding documents for current management and future development. The current land use classifications would remain the same, and the Master Plan would not be updated to reflect current Corps regulations and policies. No policies to guide special events, filming, training activities, or biological surveys would be provided with a Master Plan, although they could be provided separately.

4.2 Action and No Action Impacts by Resource Area

4.2.1 Physical Land Resources

Thresholds of Significance

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

- Results in substantial adverse effects to people or structures from geologic conditions including expansive soils, liquefaction, earthquakes, landslides, substantial erosion, depletion of groundwater supplies or interference with groundwater recharge;
- Results in the direct or indirect destruction of a unique geologic feature;
- Results in the loss of availability of a known mineral resource of local, regional, or state value;

- Significantly increases wind or water erosion of soils or loss of topsoil, either on or off site;
- Significantly alters the physical or chemical quality of sediments or soils; and /or
- Substantially alters topography beyond that which would result from natural erosion and deposition; and /or
- Triggers or accelerates geologic processes such as erosion or sedimentation brought about by disturbance of landforms.

Potential Sources of Effect

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

Proposed Action Alternative

Under the Proposed Action Alternative, existing topography and sedimentation rates would remain unchanged. Major landforms would remain and areas subject to erosion are expected to continue to erode at current rates. Current seismic activity, earthquake fault zones, and areas of liquefaction within the Basin would remain unchanged.

If the updated Master Plan is adopted, water management practices would be retained as is and managed through the guidance of the Water Control Manual (Corps 1989). Sediment removal would occur as necessary. No substantial additional foot, bicycle, or vehicular traffic is anticipated as a result of the approval of the Master Plan, although use of bicycles and pedestrian access to the basin are encouraged for special events. No additional land clearing or development would be implemented as a result of the Master Plan.

Introduction of MRM – Vegetative Management lands would improve the quality and cover of native vegetation communities, which may provide a slight decrease in erosion within the Basin. MRM – Vegetative Management is anticipated to include the removal of non-native invasive plants. Proper removal techniques would ensure that no riparian areas would be fully denuded of vegetation, thereby reducing the potential for erosion.

Under the Proposed Action Alternative, the Master Plan would acknowledge the need to engage in invasive plant eradication; however, the maintenance of the Basin within leased area is the responsibility of the lessee (City). Because maintenance includes removal of debris and weeds, the lessee is responsible for maintaining an invasive plant removal management program regardless of whether the updated Master Plan is approved. However, it is possible that under the Proposed Action, invasive plant removal would be more consistently considered in the evaluation of future development proposals. Invasive plant removal would result in clearing of areas and individual plants of invasive species within the Environmentally Sensitive and MRM – Vegetative Management land use classifications. Erosion would be controlled through proper BMPs and active native vegetation plantings would curtail erosion issues.

Under the Proposed Action Alternative, special events would be expected to be held primarily in the Woodley Park I area and the north side of Lake Balboa as described in Appendix A5. These areas are designed for large groups. Appendix A5 would provide for use of these areas for special events under certain general requirements. Use of these areas for special events with attendance under 5,000, fewer than two days long, without vehicles parked on grassy areas outside designated parking, would have only minor effects on soil compaction and erosion, and restoration of the site to pre-event conditions would be

required. Special events for groups over 5,000 attendees would receive event-specific analysis in a separate DEA.

Regardless of whether the Proposed Action Alternative is approved, approximately two special events are generally held each month, including cultural festivals, car shows and expositions. Each of these events would continue to require event-specific review if they exceed 5,000 attendees or any of the other requirements outlined in Appendix A5.

Training activities within operations areas not exceeding two consecutive days, with no more than one hundred individuals, no major equipment, no stunts, pyrotechnics, firearms, fire, aircraft, animals, building of structures, water contact, ground disturbance such as digging or leveling, or physical alteration, such as cutting of vegetation or moving rocks, with required restoration of the area to its pre-training condition upon completion of the training, is anticipated to have no more than minor, temporary effects on physical land resources.

Filming and photography within operations areas, with no major equipment, no stunts, pyrotechnics, firearms, fire, aircraft, animals, building of structures, water contact, ground disturbance such as digging or leveling, or physical alteration, such as cutting of vegetation or moving rocks, with required restoration of the area to its pre-filming condition upon completion of the filming or photography, is anticipated to have no more than minor, temporary effects on physical land resources.

Vegetation surveys (e.g., botany classes learning sampling methods, etc.) that involve only taking small samples of vegetation and animal surveys that do not involve creation of new trails are not anticipated to negatively affect physical land resources.

No Action Alternative

If the updated Master Plan is not approved, water management practices would be retained as is and managed through the guidance of the Water Control Manual (Corps 1989). Sediment removal would continue to occur as necessary. No additional foot or vehicular traffic is anticipated as a result. No additional land clearing or development would be approved that would not be in compliance with the existing Master Plan.

Since the maintenance of the Basin is the responsibility of the lessee which includes removal of debris and weeds, the lessee is responsible for maintaining an invasive plant removal management program. Whether or not the updated Master Plan is approved, removal should be implemented and vegetation management within the Environmentally Sensitive and MRM – Vegetative Management land use classifications would result in clearing of areas and individual plants of invasive species. Erosion would be controlled through proper BMPs and active native vegetation plantings would curtail erosion issues.

Under the No Action alternative, special events would continue to be held in any area of the Basin after event-specific review occurs. Special events would be likely to continue to be held primarily in Woodley Park I and around the southern side of Lake Balboa. Regardless of whether the Proposed Action Alternative is adopted, approximately two large special events are generally held each month, including cultural festivals, car shows and expositions. Each of these events would continue to require event-specific review. Requests for use of operations areas for filming and photography, training, and biological surveys would require event specific review and would not be subject to a consistent set of requirements.

Determination of Impacts

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

4.2.2 Water Resources

Thresholds of Significance

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

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

Potential Sources of Effect

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

Pollutants may be introduced directly through construction activities adjacent to the water body, which could contribute oils and grease from machinery and releases sediments into the water body as a result of clearing vegetation or the use of heavy machinery. Direct pollution also occurs as a result of public dumping of household chemicals or trash into the water body. During storm events, as water makes its way toward a stream or lake, it may pass through heavily urbanized areas, where it collects oils, grease, and petrol from roadways, and pesticides, fertilizers, and other chemicals in residential and commercial areas. Non-storm event runoff occurs when residential or commercial activities result in excess water being discharged, such as from watering lawns or washing cars. Runoff may enter Bull Creek, Haskell Creek, Woodley channel, or Hayvenhurst channel, Lake Balboa, the wildlife management lake, or the Los Angeles River.

Water quality impairments may also occur in the form of thermal pollution, resulting from minimal flow or lack of shading from overstory vegetation. Algae blooms or waterfowl kills have not been reported for Lake Balboa or the wildlife management lake, but could potentially occur as a result of high water temperatures that promote pathogen growth. A 303(d) listing could become necessary if the proposed land use classifications resulted in increased water temperatures or other types of pollution.

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

Proposed Action Alternative

Under the Proposed Action Alternative, existing water quality protection programs administered at the state and local levels will continue to address issues as they arise, including those at the Basin.

Special events with fewer than 5,000 attendees as identified in the policy in Appendix A5 would not be anticipated to impact water resources. Under the special events policy, special events would be focused at the Woodley I area and north of Lake Balboa, which have capacity for large special events. Events outside these areas or events that would impact water resources through pollutant discharge, alter drainage patterns, or create any other impacts as identified as significant above, would require event-specific review. Training, filming and photography, and biological survey activities within operations areas as described in the Appendices would not be anticipated to have impacts to water quality. No discharges of pollutants would be allowed within the operations area.

No physical changes are proposed for implementation at the Basin as a result of the action alternative. No land clearing activities are proposed. Human use and maintenance activities within the Basin are not expected to change as a result of this plan. Groundwater usage and recharge would not change as a result of the proposed action. There are no significant adverse effects anticipated to result from implementation of the updated Master Plan. In the MRM – Vegetative Management areas, it is anticipated that non-native invasive plant removal will take place as part of the regular maintenance, which will introduce more people and machinery into the riparian habitats along Los Angeles River and its associated drainages within the Basin. However, proper measures will be taken during the removal process to ensure the protection of water resources, including sediment load and wetlands. This condition would be less like to occur as a result of the implementation of the updated Master Plan update due to water quality objectives aimed at enhancing conditions in the Basin's streams and ponds.

Groundwater is not currently pumped for Basin operations, and this condition would not change as a result of the proposed action. Conversely, expansion of wetlands could help to stabilize groundwater levels by storing water and allowing it to recharge aquifers over time.

Several areas throughout the Basin have been designated for placement into land use classifications that facilitate greater environmental stewardship under the updated Master Plan. Lands classified as Environmentally Sensitive or MRM – Vegetative Management allow for a greater protection of habitat from high intensity recreation use, and would result in improvement in native vegetation community abundance and function. This, in turn, may result in slight improvements to overall water quality and groundwater recharge in the area.

No Action Alternative

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

No physical changes are proposed at the Basin as a result of the No Action Alternative. Human use and maintenance activities within the Basin are not expected to change as a result of the No Action Alternative. Groundwater usage and recharge would not change as a result. Existing land use classifications currently allow recreation activities in areas of environmentally sensitive riparian habitats along drainages. This activity in close proximity to water resources contributes to increased sedimentation and decreased water quality within the creek. Under the no action alternative, water quality is expected to continue to diminish with increasing population growth and resulting visitation pressure on the Basin.

Under the No Action Alternative, activities within operations areas and special events would continue to occur on an activity- or event-specific evaluation basis. Special events would not be directed to any specific area of the Basin, though they would be anticipated to continue to occur mostly in the Woodley Park I and north side of Lake Balboa.

Determination of Impacts

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

4.2.3 Air Quality

Thresholds of Significance

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

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

Potential Sources of Effect

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

Proposed Action Alternative

There are no measures under the updated Master Plan for increasing vehicular access to the Basin. Effects could possibly occur if enhanced management of the Basin improves conditions and makes the area more desirable, thus attracting more users. Since automobiles are the primary source of air pollution in the SCAQMD, an increase in vehicles to the Basin could increase air pollution in the immediate vicinity. However, in comparison to continuous vehicular use of the surrounding urbanized area, there would be no significant increase in vehicle emissions. Furthermore, Basin parking capacity is not proposed to change, which will preclude any dramatic increase in the use of the Basin by visiting vehicles.

Over time, population growth would likely result in an increase in vehicle use and emissions in the area. Local cities are implementing traffic reduction measures and programs to encourage alternate transportation and researching clean fuel alternatives. Local and regional planning agencies are also focusing on land use planning to reduce travel needs. These efforts would reduce future air emissions and are anticipated to be implemented regardless of the approval of the updated Master Plan.

Under the Proposed Action, special events would be focused in Woodley I and north of the Lake Balboa trail although other sites would be considered on an event-specific basis. Events in the designated areas with no more than 5,000 attendees, a parking plan, a traffic plan, and encouragement of use of public transit and bicycling would not have more than a temporary, insignificant impact on the basin. Special events with over 5,000 attendees would include an increased number of vehicles traveling to and from the Basin, and special events in other basin locations may not have sufficient parking or road capacity without additional measures. Such events would require event-specific impact analysis in order to comply with the Federal Clean Air Act and state and local requirements as deemed necessary by the lessee in complying with its permit process. No change related to air impacts is anticipated from the training, filming, or biological survey policies.

No Action Alternative

Under the No Action Alternative, air quality would be similar to that under the Proposed Action in most respects. Over time, population growth would likely result in an increase in vehicle use and emissions in the area. Local cities are implementing traffic reduction measures and programs to encourage alternate transportation and researching clean fuel alternatives. Local and regional planning agencies are also focusing on land use planning to reduce travel needs. These efforts would reduce future air emissions and are anticipated to be implemented regardless of the approval of the updated Master Plan.

Special events would continue to occur in the basin after event-specific analysis. The Fourth of July and air show events would be likely to continue to occur, but would continue to require event-specific analysis.

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

Determination of Impacts

Based on the significance criteria above, the Proposed Action would not create significant impacts on air quality, and may create beneficial impacts over the long-term. Any proposal for future development in the Basin would need to be analyzed for potential impacts on air quality in compliance with the Federal Clean Air Act and state and local laws and regulations.

4.2.4 Noise

Thresholds of Significance

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

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

Although extremely loud noises can cause temporary or permanent damage, the primary environmental impact of noise is annoyance. The objectionable characteristic of noise often refers to its *loudness*. Loudness represents the intensity of the sound wave or the amplitude of the sound wave height (measured in decibels). The degree of impact is hard to assess because of the highly subjective character of individuals' reactions to changes in noise. Empirical studies have shown people begin to notice changes in environmental noise level around five dBA (USEPA, 1974). Thus, average increases in noise levels less than five dBA cannot be definitively considered as producing an adverse impact. For increases in level above five dBA, it is difficult to quantify the impact beyond the obvious: the greater the noise level change, the greater the impact.

Noise impacts on the surrounding community are enforced through City Codes, supported by nuisance complaints and subsequent investigation. The City Code lists maximum allowable noise levels to be used as the baseline for determination of public nuisance on various land uses/zones. The California Occupational Safety and Health Administration (Cal-OSHA) enforces mitigation of noise impacts on worker safety and health, but effectiveness depends on the vigilance of supervisors in seeing that workers use protective gear in high noise environments.

Noise impacts to wildlife are discussed below in section 4.1.3.5 Biological Resources.

Potential Sources of Effect

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

Proposed Action Alternative

Reclassification of some areas from high intensity Recreation to MRM – Recreation – Low Density would likely result in activities that generate less noise, resulting in a beneficial impact to noise receptors.

Under the Proposed Action, noise issues would continue to be managed by local ordinances and state laws, as applicable. The updated Master Plan would not result in the development of additional recreation amenities, roadways, or events that might increase noise levels within the Basin. If the recommendation

for the eradication of invasive species is implemented, there may be intermittent increases in noise, but would not exceed local ordinances or state laws for noise restrictions. There are no anticipated significant adverse impacts to the noise condition within the Basin as a result of the Proposed Action Alternative.

Under the Proposed Action, special events would be encouraged to occur in Woodley Park I and the north side of Lake Balboa rather than other areas of the basin. Events held in these areas with fewer than 5,000 people, a parking plan, a traffic plan, encouragement of public transit and bicycling, and a noise limitation of 100 dB, held for no more than two days at a time, would not be anticipated to have more than insignificant, temporary impacts to noise. Events anticipated to have noise over 100 dB would continue to require event-specific review. Special events over 5,000 attendees or outside the designated special events area may have unassessed traffic or parking issues that could result in increased noise to surrounding areas. Such events would require an impact analysis in order to comply with the Federal Noise Control Act and state and local requirements as deemed necessary by the lessee in complying with its permit process. The event itself, depending on its location may create a noise level which would exceed Federal, state, and local standards and may be subject to analysis if any significant criteria would be exceeded.

Training activities within operations areas not exceeding two consecutive days, with no more than one hundred individuals, no major equipment, no stunts, pyrotechnics, firearms, fire, aircraft, animals, building of structures, water contact, ground disturbance such as digging or leveling, or physical alteration, such as cutting of vegetation or moving rocks, with required restoration of the area to its pre-training condition upon completion of the training, is anticipated to have no more than minor, temporary effects on noise.

Filming and photography within operations areas, with no major equipment, no stunts, pyrotechnics, firearms, fire, aircraft, animals, building of structures, water contact, ground disturbance such as digging or leveling, or physical alteration, such as cutting of vegetation or moving rocks, with required restoration of the area, are anticipated to have no more than minor, temporary effects on noise.

Vegetation surveys (e.g., botany classes learning sampling methods, etc.) that involve only taking small samples of vegetation and animal surveys that do not involve creation of new trails are not anticipated to have more than minimal impacts on noise levels on a temporary, infrequent basis.

No Action Alternative

Since the maintenance of the Basin is the responsibility of the lessee which includes removal of debris and weeds, the lessee is responsible for maintaining an invasive plant removal management program. Whether the updated Master Plan is approved or not, removal should be implemented and vegetation management within the Environmentally Sensitive and MRM – Vegetative Management land use classifications would result in clearing of areas and individual plants of invasive species. There would be intermittent increases in noise, but would not exceed local ordinances or state laws for noise restrictions. There are no anticipated significant adverse impacts to the noise condition within the Basin as a result of the No Action Alternative.

Determination of Impacts

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

4.2.5 Biological Resources

Thresholds of Significance

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

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

An evaluation of whether an impact on biological resources would be substantial must consider the resource and how that resource fits into a regional or ecological context. Impacts are sometimes locally important but not regionally significant; although they may result in an adverse alteration of existing conditions at the project site, they may not substantially diminish, or result in the permanent loss of, that resource on a population-wide or region-wide basis.

Potential Sources of Effect

Possible sources of effect may include 1) changes to the lighting regime, which may affect foraging or breeding of nocturnal creatures, 2) water diversions that may affect the groundwater table or diminish aquatic habitat value, and 3) creating conditions that would increase noise in areas containing sensitive (i.e., nesting, breeding, or fledging) wildlife.

Proposed Action Alternative

Approval of the updated Master Plan would guide management of MRM – Vegetative Management classification which would provide for improvement of native plants and their associated wildlife assemblages. Increased vegetative management would allow for reduction of invasive plant species that compete for space with native species and could increase the overall area of functional native vegetation habitat within the Basin. The classification of MRM –Recreation – Low Density in areas that were once high intensity recreation areas, or where they may act as a buffer between high intensity recreation and natural areas, would reduce the impacts to biological resources overall. These measures would result in improved habitat for wildlife species.

Establishment of Environmentally Sensitive land provides the highest level of protection to Basin lands. In these areas, important habitat types will be managed and protected. This would provide protection to the least Bell's vireo, which has been observed within the Basin and is a Federally endangered species. Potential restoration measures along the creeks would substantially improve wildlife habitat for native species assemblages, including those that are Federally protected. Potential actions for installation of new educational and nature interpretation signage would promote environmental stewardship within the Basin.

Since the maintenance of the Basin is the responsibility of the lessee which includes removal of debris and weeds, the lessee is responsible for maintaining an invasive plant removal management program. Whether the updated Master Plan is approved or not, an invasive plant eradication program should be implemented and vegetation management within the Environmentally Sensitive and MRM – Vegetative Management land use classifications would result in clearing of areas and individual plants of invasive species. However, invasive plant management may be more consistently considered under the updated Master Plan due to inclusion of the recommendations. Though eradication could potentially result in increased noise, reduced air quality, or increased erosion, these effects would be temporary and ultimately remedied through passive or active restoration of native vegetation. The result would be an overall improvement to vegetation community conditions in the Basin, which may also provide improvements to their associated wildlife assemblages.

Under the Proposed Action, special events would be encouraged to occur in Woodley Park I and the north side of Lake Balboa area. Events within these areas, with fewer than 5,000 attendees, a parking plan, a traffic plan, not impeding access to other areas of the basin, with noise limitations of 100 db, would not be anticipated to have more than minor impacts to biological resources. Events not complying with the conditions in the Appendix A5 would require event-specific impact analysis in order to comply with the Federal Endangered Species Act, the Federal Migratory Bird Act, other Federal, state and local requirements as deemed necessary by the Corps and lessee in complying with each permit process. No special events would be allowed to occur in Environmentally Sensitive and MRM – Vegetative Management land use classifications, protecting biological resources from disturbance.

Training activities within operations areas not exceeding two consecutive days, with no more than one hundred individuals, no major equipment, no stunts, pyrotechnics, firearms, fire, aircraft, animals, building of structures, water contact, ground disturbance such as digging or leveling, or physical alteration, such as cutting of vegetation or moving rocks, with required restoration of the area to its pre-training condition upon completion of the training, are anticipated to have no more than minor, temporary effects on biological resources.

Filming and photography within operations areas, with no major equipment, no stunts, pyrotechnics, firearms, fire, aircraft, animals, building of structures, water contact, ground disturbance such as digging

or leveling, or physical alteration, such as cutting of vegetation or moving rocks, with required restoration of the area, are anticipated to have no more than minor, temporary effects on biological resources.

Vegetation surveys (e.g., botany classes learning sampling methods, etc.) that involve only taking small samples of vegetation and animal surveys that are non-invasive and do not involve creation of new trails, are anticipated to have no more than minor, temporary effects on biological resources. Vegetation sampling would be minor. No breaking of new trails during animal surveys would be permitted.

No Action Alternative

Without the updated Master Plan's designation of MRM – Vegetative Management lands within the Basin and the increased land designated as Environmentally Sensitive, native vegetation communities and associated wildlife assemblages may continue to decline.

Vegetation communities would likely remain the same despite the maturing of some trees. Because little improvement to the environment would be likely under the future without project scenario, wildlife diversity and densities would be expected to remain the same or decrease over time. Any future degradation of habitat due to increases in weedy species or urbanization would give species best adapted to urban environments an advantage over those that require intact native vegetation communities. The result would be for some populations of native species to decline and potentially be eliminated from the Basin, further reducing species diversity.

Since the maintenance of the Basin is the responsibility of the lessee which includes removal of debris and weeds, the lessee is responsible for maintaining an invasive plant removal management program. Whether the updated Master Plan is approved or not, an invasive plant eradication program should be implemented and vegetation management within the Environmentally Sensitive and MRM – Vegetative Management land use classifications would result in clearing of areas and individual plants of invasive species. Though eradication could potentially result in increased noise, reduced air quality, or increased erosion, these effects would be temporary and ultimately remedied through passive or active restoration of native vegetation. The result would be an overall improvement to vegetation community conditions in the Basin, which may also provide improvements to their associated wildlife assemblages.

Determination of Impacts

Based on the significance criteria above, no significant adverse impacts are anticipated to biological resources as a result of the approval of the updated Master Plan. Instead, slight improvements to vegetation and associated wildlife assemblages may result.

4.2.6 Cultural Resources

Thresholds of Significance

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

- An undertaking has an effect on a historic property when the undertaking may alter characteristics of the property that may qualify the property for inclusion in the National Register. For the purpose of determining effect, alteration to features of a property's location, setting, or use may be relevant depending on a property's significant characteristics and should be considered.

- An undertaking is considered to have an adverse effect when the effect on a historic property may diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Adverse effects on historic properties include, but are not limited to:
    - Physical destruction, damage, or alteration of all or part of the property;
    - Isolation of the property from or alteration of the character of the property's setting when that character contributes to the property's qualification for the National Register;
    - Introduction of visual, audible, or atmospheric elements that are out of character with the property or alter its setting;
    - Neglect of a property resulting in its deterioration or destruction; and
    - Transfer, lease, or sale of the property.
- Effect of an undertaking that would otherwise be found to be adverse may be considered as being not adverse for the purpose of these regulations;
- When the historic property is of value only for its potential contribution to archeological, historical, or architectural research, and when such value can be substantially preserved through the conduct of appropriate research, and such research is conducted in accordance with applicable professional standards and guidelines;
    - When the undertaking is limited to the rehabilitation of buildings and structures and is conducted in a manner that preserves the historical and architectural value of affected historic property through conformance with the "Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings," or;
    - When the undertaking is limited to the transfer, lease, or sale of a historic property, and adequate restrictions or conditions are included to ensure preservation of the property's significant historic features.

Potential Sources of Effect

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

Proposed Action Alternative

There are no known sites of cultural significance within Sepulveda Dam Basin. The potential for discovery or the need to reevaluate methods of any previous inventories would be addressed by the Corps for future actions on a case-by-case basis.

Special Events in the Woodley Park I and the north side of Lake Balboa under the special events policy would have no effect on cultural resources; nor would filming and photography, training, and biological surveys within operations areas that comply with the restrictions in the policies set out in Appendix A7, including a prohibition on ground disturbance and physical alteration. Special events outside of these areas beyond the scope of the Special Event policy restrictions, as well as filming, photography, training and biological surveys within operations areas outside of the restrictions set out by those policies, would require event-specific impact analysis in order to comply with NEPA, NHPA, Corps policy and state and local requirements as deemed necessary by the lessee in complying with its permit process.

No Action Alternative

Federal protections for cultural resources would continue. It is not clear what level of work to identify cultural resources has been done subsequent to the previous Master Plan. For actions that could affect

cultural resources on Federal land or actions that are funded, licensed, or permitted by the Federal government, compliance is required with the NHPA and other laws, statutes, and regulations. Consideration of the effects of actions on protected cultural resources would be required, and adverse effects would be resolved. There is potential for undiscovered or unevaluated resources to be present. The potential for discovery or the need to reevaluate methods of any previous inventories would be addressed by the Corps for future actions on a case-by-case basis.

Determination of Impacts

The Proposed Action Alternative would not create significant impacts on cultural resources. Any proposal for future development in the Basin would need to be analyzed for potential impacts cultural resources in compliance with NEPA, NHPA, Corps policy and state and local laws and regulations.

4.2.7 Hazardous and Toxic Waste Materials

Thresholds of Significance

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

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

Potential Sources of Effect

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

Proposed Action Alternative

No sites have been identified through standard assessment sources for additional investigation as HTRW sites. No activities are proposed under the Master Plan that would increase the levels of hazardous or toxic substances in the Basin. Corps policy guides the management of and response to spills of oils, grease, and other compounds that may be introduced into the Basin as a result of typical maintenance procedures

Special events and other activities complying with the policies in Appendix A would not be anticipated to have any impact on hazardous or toxic materials. Events not covered by the policies would require an

impact analysis of the event to determine if there would be significant impacts to hazardous and toxic materials through the above criteria. The event itself, depending on its location may create impacts to be determined through impact analysis.

No Action Alternative

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

Corps policy guides the management of and response to spills of oils, grease, and other compounds that may be introduced into the Basin as a result of typical maintenance procedures. No significant immitigable impacts are anticipated as a result of the No Action Plan. Sites requiring additional investigation may continue to pose threats to the human environment if they are not investigated.

Determination of Impacts

The Proposed Action Alternative would not create significant impacts on hazardous and toxic materials through contamination or human exposure. Any proposal for future development in the Basin would need to be analyzed for potential impacts to hazardous and toxic materials in compliance with Federal laws, Corps policy and state and local laws and regulations.

4.2.8 Socioeconomics and Environmental Justice

Thresholds of Significance

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

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

Potential Sources of Effect

An example of a disproportionate effect on a significant population might be the use of an economically repressed neighborhood for the development of a facility that contributes significant health hazards to the

surrounding community. This would unfairly place the pressure of health hazards on a portion of the population that is less readily able to handle the additional pressures.

Proposed Action Alternative

There is no minority or low income population identified within the market area of Sepulveda Dam Basin. Therefore, there will be no socioeconomic or environmental justice impacts resulting from the approval of the Master Plan.

Under the Proposed Action, the special events and other policies would not be anticipated to cause significant impacts to socioeconomics. Special events would be encouraged to occur in Woodley Park I and the north side of Lake Balboa under the policy; events over 5,000 attendees or proposing to use other areas that may affect local general recreation users would require event specific analysis. Fees charged for admission to an event may cause a hardship to some, but to date, fees have been similar to fees charged to similar events within the region. Per Corps policy, fees must be approved by the District Commander and are to be in line with similar events in the area. Special events may provide limited temporary employment depending on the event. Events not addressed under the special events policy would require an impact analysis of the event to determine if there would be significant impacts to socioeconomic and environmental justice. Such events, depending on fee structure, cost, projected income and other factors, may create impacts to be determined through impact analysis.

No Action Alternative

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

Determination of Impacts

The Corps has determined that the Proposed Action Alternative would not create any significant impacts to local area socioeconomics and environmental justice issues, but continued reevaluation of population statistics would be required to ensure ongoing environmental justice for minority populations. Any proposal for future development in the Basin would need to be analyzed for potential impacts in compliance with Federal laws, Corps policy and state and local laws and regulations.

4.2.9 Traffic and Transportation

Thresholds of Significance

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

- A major roadway (arterial or collector classification) would be closed to through traffic as a result of the Proposed Action's activities and there would be no suitable alternative route available;
- The Proposed Action's activities would restrict access to or from adjacent land uses and there would be no suitable alternative access;
- An increase in vehicle trips associated with additional commuter and truck trips would result in an unacceptable reduction in level of service of local jurisdictions on roadways in the vicinity of the Proposed Action or would result in safety problems for vehicular traffic, transit operations, or trains;

- An increase in roadway wear in the vicinity of the work zone would occur as a result of heavy truck or equipment movements, resulting in noticeable deterioration of roadway surfaces;
- The Proposed Action and its location would conflict with planned transportation improvements in the area;
- Project activities or operation of the project would result in safety problems for vehicular traffic, transit operations, or trains; and/or
- An increase in vehicle trips associated with additional commuter and truck trips would result in an unacceptable reduction in the level of service standards of local jurisdictions in the project vicinity.

Potential Sources of Effect

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

Proposed Action Alternative

Under the Proposed Action Alternative, the current multi-modal transportation system within the Basin would not be anticipated to change. Under the Proposed Action alternative, new maps showing trails and regional transportation links would be available to the public.

There are no proposed modifications to or development of the pedestrian, equestrian, bicycle, mass transit, and vehicular traffic network currently in place, although the Proposed Action would encourage use of public transit and bicycling to special events and would recommend improvements in wayfinding, which could result in minor increases in pedestrian, bicycle, and/or equestrian uses if implemented. No development is proposed that might create obstacles or cause diversions to the existing transportation system. Population increase may mean that more bicyclists and equestrians access the area over time. This could lead to increased crowding over time but is not considered an effect associated with the proposed action.

Special events would be recommended to occur in Woodley Park and the north side of Lake Balboa with adjacent and/or nearby parking with capacity for large groups, limiting idling time and traffic backups. Under the special events policy, a traffic management plan, a parking plan, and encouragement of public transit and bicycling would be required. Special events would also be required to ensure public access to adjacent areas, including the Lake Balboa trail, is unimpeded. Special events beyond the limitations contained in the policy would be subject to event-specific analysis to comply with NEPA including analysis on the effects of increased traffic.

Training activities within Project operations or MRM – Vegetative Management areas not exceeding two consecutive days, with no more than one hundred individuals, no major equipment, no stunts, pyrotechnics, firearms, fire, aircraft, animals, building of structures, water contact, ground disturbance such as digging or leveling, or physical alteration, such as cutting of vegetation or moving rocks, with required restoration of the area to its pre-training condition upon completion of the training, is anticipated to have no more than minor, temporary effects on traffic or transportation. Groups of one hundred individuals or less would not greatly affect traffic circulation on or near the Basin.

Vegetation surveys (e.g., botany classes learning sampling methods, etc.) that involve only taking small samples of vegetation and animal surveys that do not involve creation of new trails are not anticipated to affect traffic or transportation

No Action Alternative

If implementation of the Master Plan were not to occur, the transportation access to the Sepulveda Dam Basin would likely remain as currently exists, subject to influences such as economic conditions in surrounding municipalities. Within the Basin and park area, the existing roads, trails, and access points currently available for pedestrians, cyclists, and equestrians, as well as parking areas and trail systems are unlikely to change in the future under without-project conditions. The existing signage and educational opportunities such as nature interpretive trails that are already in place in the Basin would likely be maintained in their current condition. Similarly, the existing equestrian, bicycle, and pedestrian linkages between the Basin and surrounding trails would likely be maintained in their current state under future without-project conditions.

Under the No Action alternative, special events would continue to be considered on an event-specific basis without a standard set of requirements to address traffic, parking, and alternative transportation, although similar requirements for traffic to those under the proposed action would be likely to be required on an event-specific basis.

Determination of Impacts

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

4.2.10 Utilities

Thresholds of Significance

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

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

Potential Sources of Effect

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

Proposed Action Alternative

Reclassification of land use categories under the updated Master Plan would not lead to substantially increased use of utilities. Minor impacts may occur if increased management increases the desirability of the area as a destination area, thereby increasing demand on local sewage and water amenities. Special events with fewer than 5,000 attendees, and filming and photography, biological surveys, and training

activities within operations areas as described in Appendix A are not anticipated to have significant impacts on utilities.

Training activities within operations areas not exceeding two consecutive days, with no more than one hundred individuals, no major equipment, no stunts, pyrotechnics, firearms, fire, aircraft, animals, building of structures, water contact, ground disturbance such as digging or leveling, or physical alteration, such as cutting of vegetation or moving rocks, with required restoration of the area to its pre-training condition upon completion of the training, is anticipated to have no effect on utilities because no ground would be disturbed and group size would be limited.

Filming activities would follow similar procedures. Vegetation surveys (e.g., botany classes learning sampling methods, etc.) that involve only taking small samples of vegetation and animal surveys that do not involve creation of new trails are not anticipated to affect utilities.

No Action Alternative

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

Determination of Impacts

The Proposed Action Alternation would not create significant impacts to utilities as a result of the updated Master Plan. Any proposal for development in the future would require a separate impact analysis to determine significance.

4.2.11 Esthetics

Thresholds of Significance

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

- Direct, permanent changes to important existing scenic characteristics of a landscape that are enjoyed by a large number of viewers.
- The impairment of or obstruction of views from public gathering places of scenic resources.
- Viewing distance and degree to which the Proposed Action would dominate the view of the observer.
- Resulting contrast of amenities related to the Proposed Action with existing visual resources.
- The level of public interest in the existing landscape characteristics and concern over potential changes.

Potential Sources of Effect

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

Proposed Action Alternative

Viewsheds within Sepulveda Basin are generally "local" and do not extend beyond the immediate area. There is no access to the Dam and therefore long-range views of the Basin or surrounding landscape are not available. Local views are not anticipated to be impacted by the action alternative, which does not propose any development or construction within the Basin.

Esthetic value within the Basin is anticipated to improve with the implementation of the updated Master Plan, the resulting vegetation management, and additional protections to Environmentally Sensitive lands. As exotics are eradicated and natives are planted, the area would become incrementally more attractive to both humans and wildlife. Special events as identified in the policy in Appendix A5 would not cause more than minor impacts to esthetic quality. Special events that have under 5,000 attendees, occur at the Woodley I area or north of Lake Balboa, have parking and traffic plans, follow noise limitations, and do not impede access to other areas of the Basin, in addition to other criteria as outlined in the policy, would not be anticipated to have more than minor, temporary impacts to esthetics.

Special events and other activities not covered could need to provide an impact analysis if the event or activity would cause a significant impact as identified above. Examples could include festivals and other events which would block views of the natural areas of the Basin, require amenities that are out of proportion to the surrounding area, create offensive odors within a reasonable area, or require lighting at night that would disturb residents in the surrounding area.

Filming under Appendix A4 (less than two days duration, no major equipment, no special effects or physical alteration of the property and limitation of activities of two hours before sunrise to two hours after sundown) would generally be protective of esthetics, limiting esthetic impacts to temporary impacts below significance. Activities in operations areas that follow the policies outlines in Appendix A would have no more than minimal impacts on esthetics.

No Action Alternative

Esthetic quality may degrade over time within the Basin without the approval of the updated Master Plan. Current operations and maintenance would continue to limit the esthetic potential of the Basin. Weedy invasive plant species would likely eventually be removed by Basin management, however, the opportunity to preserve esthetic appeal through vegetative management and protection of natural habitats would continue to be limited under existing land use classifications and the value of open space and natural areas would diminish. Special events and activities within operations areas would continue to be evaluated on an event-specific basis without use of a consistent set of requirements.

Determination of Impacts

The Proposed Action Alternation would not create significant impacts to Basin esthetic quality. Any proposal for development in the future would require a separate impact analysis to determine significance.

4.2.12 Recreation

Thresholds of Significance

Impacts to recreation may be significant if the Action Alternative reduces the availability or quality of a variety of existing recreation opportunities to a broad socioeconomic spectrum of the existing market

area. Impacts may include those that have an effect on high intensity or low intensity recreation, and may impact support amenities associated with the recreation areas, such as restrooms, shelters, drinking fountains, barbeques or picnic tables. Impacts on recreation and the use of recreation amenities could be considered significant if the following were to occur:

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

Potential Sources of Effect

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

Proposed Action Alternative

There would be no immediate change to existing recreation amenities as a result of the updated Master Plan. No new recreation amenities are in proposal and no existing recreation amenities are proposed for alteration or modification.

No new recreation amenities are currently undergoing the approval process by the Corps and no existing recreation amenities are proposed for alteration or modification (though conceptual recommendations for future development have been made). No new fees or expenses are proposed for implementation within the Basin. No additional amenities or parking areas are proposed for development, which might increase the use of the area beyond its current capacity. Though an area previously classified as Recreation for high intensity use (west of the Busway) has been reclassified into MRM – Inactive and/or Future Recreation, the actual use of this area is not changing. It was and will remain dedicated to agricultural uses under the updated Master Plan. Portions of the previous extent of Recreation for low density uses have been reclassified as MRM – Vegetative Management around the current model airplane field and west of Bull Creek. The approved uses of these areas would not be effectively revised as a result of this reclassification; both have been natural areas since development of the Basin and would remain so. Continued low density recreation use of these areas is permissible. No new fees are proposed for implementation within the Basin. No additional amenities or parking areas are proposed for development, which might increase the use of the area beyond its current capacity. Overall, there are no significant impacts on recreation or recreation amenities within Sepulveda Basin expected to occur as a result of the approval of the Master Plan.

Special events would be encouraged to occur in Woodley Park I and the north side of Lake Balboa. Events occurring in these areas, with fewer than 5,000 attendees, a parking plan, a traffic plan, encouragement of public transit and bicycling, noise limitations of 100 dB, and that avoid restricting access to adjacent areas including trails would not be anticipated to negatively impact recreation users. The policy would be anticipated to have minor positive impacts for recreation users because adjacent areas would remain accessible for general users and traffic and parking impacts would be minimized. The Proposed Action, with inclusion of the special events evaluation policy, would be anticipated to have a

minor beneficial impact to recreation users by encouraging special events proponents to comply with the restrictions rather than undergo lengthy event-specific review. Special events and other activities not covered under the policies would require event-specific analysis. Examples could include festivals and other events which would limit access to existing amenities, prohibit use of amenities by others, or cause excessive impacts to recreation support amenities.

Training activities within operations areas not exceeding two consecutive days, with no more than one hundred individuals, no major equipment, no stunts, pyrotechnics, firearms, fire, aircraft, animals, building of structures, water contact, ground disturbance such as digging or leveling, or physical alteration, such as cutting of vegetation or moving rocks, with required restoration of the area to its pre-training condition upon completion of the training, is anticipated to have no effect on recreation.

Vegetation surveys (e.g., botany classes learning sampling methods, etc.) that involve only taking small samples of vegetation and animal surveys that do not involve creation of new trails are not anticipated to interfere with recreation.

Potential Impacts of the No Action Alternative

Under the existing Master Plan, land use classifications that are no longer applicable to the Basin lands would remain in place. The effectiveness of the current Master Plan as a management document would continue to be compromised by outdated information and guidelines. However, similar to the Proposed Action Alternative, there is currently no proposed new development under consideration by the Corps. If the updated Master Plan is not approved, new development would need to comply with existing Corps policies and comply with the existing Master Plan, which could be in conflict with each other.

Determination of Impacts

The Proposed Action Alternation would not create significant impacts to Basin recreation resources. Any proposal for development in the future would require a separate impact analysis to determine significance.

4.2.13 Public Health and Safety

Thresholds of Significance

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

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

- Require additional fire protection or law enforcement staff and/or equipment to maintain an acceptable level of service;
- Substantially increase emergency service response times by fire and law enforcement;
- Require substantial changes to the daily schedule or calendar of a school, a major reorganization of students or classrooms, or other temporary or permanent disturbance to the school's activities; and/or
- Create unsafe or overcrowded conditions at schools.

Potential Sources of Effect

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

Proposed Action Alternative

The approval of the updated Master Plan would not result in any increase in public health or safety hazards within the Basin. Land use reclassification does not result in any changes to accessibility of the Basin; no roadways, trails, or other access points will be altered. Therefore, public services such as fire, medical, and police will continue to have unobstructed access into and through the Basin. No new amenities are proposed that would create isolated or unlighted areas.

Areas newly classified as MRM – Vegetative Management are proposed to surround the newly classified area of Environmentally Sensitive land at the east end of the Basin. This allows the creation of a buffer between areas of human use and undeveloped areas that may present greater natural hazards.

Therefore, public services such as fire, medical, and police would continue to have limited access into and through the Basin. No new amenities are proposed that would create isolated or unlit areas.

Under the Proposed Action, special events that have under 5,000 attendees, occur in Woodley Park or the area north of Lake Balboa, include a traffic, evacuation, and parking plan, encourage use of public transit and bicycling, as well as adequate restroom and first aid tent, as included in the special events policy, would not be anticipated to have negative impacts on public health and safety. Special events and other activities not covered by the policy would require event-specific impact analysis. Examples of potential impacts include festivals and other events which would limit access to existing amenities, prohibit use of amenities by others, cause excessive impacts to support and safety, cause a hazardous situation which cause an excessive demand for emergency services or limit access to emergency vehicles.

Training activities within operations areas not exceeding two consecutive days, with no more than one hundred individuals, no major equipment, no stunts, pyrotechnics, firearms, fire, aircraft, animals, building of structures, water contact, ground disturbance such as digging or leveling, or physical alteration, such as cutting of vegetation or moving rocks, with required restoration of the area to its pre-training condition upon completion of the training, and subject to a clear weather forecast, are anticipated to have no negative effects on public health and safety.

Filming activities following similar procedures are anticipated not to have negative effects on public health and safety. Vegetation surveys (e.g., botany classes learning sampling methods, etc.) that involve only taking small samples of vegetation and animal surveys that do not involve creation of new trails are not anticipated to negatively affect public health and safety.

Potential Impacts of the No Action Alternative

The Corps would continue to protect the public health and safety of users and identify public services that may be impacted by activities in the Basin or may impact the Basin under the no action alternative. Continued use of the existing Master Plan would not result in any increase in public health or safety hazards within the Basin. Existing land use classification would not result in any changes to accessibility of the Basin. Therefore, public services such as fire, medical, and police would continue to have limited access into and through the Basin. No new amenities are proposed that would create isolated or unlit areas.

Determination of Impacts

The Proposed Action Alternation would not create significant impacts to Basin user's safety and public services. Any proposal for development in the future would require a separate impact analysis to determine significance.

4.2.14 Sustainability

Thresholds of Significance

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

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

Potential Sources of Effect

Ecological diversity and abundance may be impacted through reduction in size of protected natural areas within the Basin or the reduction in quality of natural areas. Quality of natural areas may be affected by the degradation of air quality, water quality, noise levels, soil condition, and vegetation condition. Social sustainability was previously addressed in the Recreation section and the Socioeconomics and Environmental Justice section above. Economic sustainability may be negatively impacted if financial viability were compromised as a result of the proposed action plan.

Proposed Action Alternative

Designation of sizeable areas of Environmentally Sensitive and MRM – Vegetative Management land use classification allows for a substantial increase to the environmental sustainability of the land. Functional and dynamic ecosystems may be attained through additional protections afforded to these land use classifications; human use of the areas is more restricted than in other classifications. Furthermore, both land use classifications allow for the removal of non-native species and may result in the improvement of

native vegetation and their associated wildlife assemblages. There are no proposed changes to the financial management of the Basin as a result of the updated Master Plan. Overall, the proposed updated Master Plan has been prepared in large part to address sustainability of the Basin and is expected to ensure the continued sustainability of ecological, economic, and social conditions. There are no negative impacts anticipated to Basin sustainability as a result of the action alternative; instead, the proposed updated Master Plan is expected to improve compatibility of land uses, expand environmental protections, and provide an updated review of visitation data and community needs, which would improve the overall sustainability of the Basin.

Designation of sizeable areas of Environmentally Sensitive and MRM – Vegetative Management land allows for an increase to the environmental sustainability of the land. Functional and dynamic natural habitats may be fostered in areas that are both protected from development and extremely limited to human activities. Environmentally Sensitive are lands are afforded the greatest protection from human use, since these areas are more restricted to human use than other classifications. These land use classifications allow for the continued maintenance of vegetation, through eradication of exotic species, and may result in the improvement of native vegetation and their associated wildlife assemblages.

Under the Proposed Action, special events are not anticipated to impact sustainability. Special events and other activities not covered by the policies in Appendix A5 may need to provide an impact analysis if the event or activity would cause a significant impact as identified above. Examples could include festivals and other events which would impact energy, economic, or environmental resource sustainability through excessive use of an area, limit access or charge unreasonable fees, or be a drain on existing energy sources that would be irreplaceable.

No Action Alternative

The updated Master Plan provides a recommended land use plan that is based on ecological, social, and economic sustainability. Without approval of the updated Master Plan, sustainability of environmental resources, community use, and economic viability may erode. In particular, without the updated Master Plan, there would be no update to the recreation needs assessment, no current review of socioeconomics and biological resources, and no updated land management plan based on best available data. As a result, there would be significant limitations to the ability to manage the Basin to the greatest benefit of both human interests and natural protections.

Determination of Impacts

The Corps has determined that the Proposed Action Alternation would not create any significant impacts to basin energy, environmental, or economic sustainability. Any proposal for development in the future would require a separate impact analysis to comply with EO 12898 and determine significance.

Table 4.1 Summary Assessment of Action Alternative Impacts				
Resource Area	Immitigable Negative Impacts	Mitigable Negative Impacts	Beneficial Impacts	No Significant Negative Impact
Physical Land Resources			X	X
Geology and Soils			X	X
Earthquake Faults				X
Dam Safety				X
Water Resources			X	X
Hydrology				X
Dam Operation				X
Water Quality			X	X
Groundwater Quality				X
Wetlands			X	X
Air Quality			X	X
Noise Quality				X
Biological Resources				X
Vegetation			X	X
Fish and Wildlife			X	X
Threatened and Endangered Species			X	X
Cultural Resources				X
Hazardous and Toxic Waste Materials				X
Socioeconomics and Environmental Justice				X
Traffic and Transportation				X
Utilities				X
Esthetics				X
Recreation Resources			X	X
Public Health and Safety			X	X
Sustainability				X

Table 4.2 Summary Assessment of No Action Alternative Impacts				
Resource Area	Immitigable Negative Impacts	Mitigable Negative Impacts	Beneficial Impacts	No Significant Negative Impact
Physical Land Resources				X
Geology and Soils				X
Earthquake Faults				X
Dam Safety				X
Water Resources				X
Hydrology				X
Dam Operation				X
Water Quality				X
Groundwater Quality				X
Wetlands				X
Air Quality				X
Noise Quality				X
Biological Resources			X	X
Vegetation			X	X
Fish and Wildlife			X	X
Threatened and Endangered Species			X	X
Cultural Resources				X
Hazardous and Toxic Waste Materials				X
Socioeconomics and Environmental Justice				X
Traffic and Transportation				X
Utilities				X
Esthetics				X
Recreation Resources				X
Public Health and Safety				X
Sustainability			X	X

4.3 Cumulative Impacts

Cumulative impacts of a proposed action must be assessed according to CEQ regulations for implementing NEPA (40 CFR Parts 1500-1508). A cumulative impact is an "impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions" (40 CFR § 1508.7). Cumulative impacts can result from individually minor, but collectively significant, actions taking place over time (40 CFR § 1508.7). CEQ's guidance for considering cumulative effects states that NEPA documents "should compare the cumulative effects of multiple actions with appropriate national, regional, state, or community goals to determine whether the total effect is significant" (CEQ 1997).

4.3.1 Past Actions

Sepulveda Dam Basin was constructed in an area of continually increasing urbanization that has significantly altered the natural environment. The communities surrounding the Basin have become densely urbanized over the past century, marked by extensive automobile traffic, highly developed industrial and residential areas, numerous noise sources, and dense population. The construction of the Dam and development within the Basin has also contributed to cumulative environmental impacts to the area. Following construction, ongoing operation and maintenance of the Basin and its recreation amenities has continued to impact environmental conditions.

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

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

4.3.2 Present Conditions

By tailoring management of the Sepulveda Dam Basin to its current conditions and needs, the approval of the updated Master Plan would temper some of the effects of urbanization and would limit additional development to compatible and sustainable uses. In the 1981 Master Plan, a total of 1,520 acres was dedicated to recreation lands, including both high intensity (Recreation; 220 acres) and low density (MRM – Recreation - Low Density; 1,300 acres) uses, while only 110 acres was designated as a wildlife management area.

In the updated Master Plan, the total acreage recommended for recreation uses is reduced to 1,361.0 acres (no change to the existing Lease with the City would occur), including 234.6 acres of Recreation, 801.4 acres of MRM –Recreation – Low Density, and 325.0 acres of MRM – Future and/or Inactive Recreation. The total area of land designated for environmental protections is 458.0 acres, including 119.3 acres of Environmentally Sensitive land and 338.7 acres of MRM – Vegetative Management land. The conversion of recreation areas to environmentally sensitive or vegetation management areas would ensure protection and conservation of the Basin's natural habitats and associated wildlife assemblages, including Federally protected species are managed in a sustainable manner.

Cumulative adverse impacts could potentially be increased as a result of designating more land for high intensity recreation use. However, under the proposed land use classification plan, the areas designated for any recreation use, including Recreation, MRM – Recreation – Low Density, and MRM – Future and/or Inactive Recreation, have been reduced overall. The updated Master Plan would not result in the construction or development of any land within the Basin. Under the updated Master Plan, the natural and human environments of the Basin would continue to be safeguarded and no significant cumulative adverse impacts are expected.

4.3.3 Future Actions

As the updated Master Plan does not contain recommendations for specific projects to be constructed or implemented, there are no potential future impacts to assess in combination with impacts of other ongoing or future projects in the nearby vicinity.

Aside from the primary use of the Basin for flood risk management, the only other authorization for development within a Federal water resources development project is for recreation amenities. At Sepulveda Dam Basin, the area dedicated to current or future recreation has been decreased in the updated Master Plan. The potential for future development of recreation amenities would actually decrease in comparison to the existing plan. If undeveloped land designated for potential recreation development (MRM – Future and/or Inactive Recreation land) is developed in the future, there may be adverse effects to air quality, noise, traffic, and other resources if new recreation development leads to increased use of the Basin, which could contribute to the cumulative adverse impacts to the region. If it is determined by the local community that additional recreation amenities are desired, the proposed action would be subject to project-specific NEPA documentation, which would further ensure that any significant cumulative adverse impacts are assessed.

The development of golf courses on Federally owned water resources development projects is no longer considered an acceptable use of the land. Existing golf courses would remain, however the land they occupy has been reclassified into MRM – Recreation – Low Density. In the event that a golf course is decommissioned, the land would not be developed for high intensity recreation uses unless the Master Plan is updated, with a revised land use designation for that area

By limiting the potential for development in the Basin, it is anticipated that the approval of the updated Master Plan would contribute to reducing the overall cumulative adverse impacts of the continually developing areas surrounding Sepulveda Dam Basin into the future. Retaining the area as both a relatively naturalized open space area and recreation oasis would continue to mitigate the impacts of increasing traffic, noise, air and light pollution, loss of natural habitats and open space, to minority populations that may grow within the surrounding community, and that result from crowding associated with greater infill of surrounding urban areas over time.

The proposed land use classification plan would not impact the natural resources found within the Basin into the future and may provide some improvement to those resources, both through continued enforcement of existing laws and regulations, by defining a greater area of Environmentally Sensitive land, and reducing the acreage of land that may be developed for recreation activities.

5 PUBLIC INVOLVEMENT, COORDINATION, AND CONSULTATION

5.1 Project Delivery Team

The Corps' Project Delivery Team is made up of a variety of specialists from various backgrounds and sections of the Corps. They include project manager and recreation planners from Asset Management Division, plan formulators and environmental coordinator from Planning Division, engineers from the Hydrology and Hydraulics and the Reservoir Regulations Sections of the Engineering Division. Other specialists have been consulted with as needed during the preparation of this Master Plan.

Regulatory Division A general project description identifying the Master Plan process was discussed with the north region section of the Regulatory Division of the Corps. As there is no Federal action that implements a project, no bodies of water within the study area would be impacted, and there would be no discharge of material or fill into the waters of the United States, further coordination with Regulatory Branch and coordination regarding a Section 404(b)(1) analysis is not required at this time. Should any proposed recreation or restoration projects in the future involve diversion of the Los Angeles River or its tributaries within the boundaries of the purview of the Sepulveda Dam Basin Master Plan, then further coordination and compliance with the CWA would be pursued at that time.

Reservoir Regulation Section The Reservoir Regulation Section was consulted in preparing the filling frequency analysis, jurisdictional waters determinations, and use of historic photos for this Master Plan.

Hydrology and Hydraulics Section Staff of the Hydrology and Hydraulics Section was consulted in preparing Master Plan Section 2.8 Hydrology and Basin Operations. Data was obtained and analysis reviewed by the Branch as part of the Master Plan preparation process.

5.2 Agency Coordination

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

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

5.3 Institutional Involvement

Lessee Coordination During the preparation of the Master Plan and DEA, the Project Delivery Team met with staff from the City of Los Angeles Department of Recreation and Parks and Bureau of Engineering several times. These meetings focused on existing and proposed projects, maintenance issues, public safety issues and concerns, use policies, park visitation records and statistics, carrying capacity of the

various amenities, connectivity and accessibility, green waste management, and sustainability measures. This valuable information provided a day-to-day and long term management and operation perspective for the development of the Master Plan.

5.4 Public Involvement

Public involvement is a process by which interested parties and affected individuals, organizations, and government agencies (Federal, state, and local), are consulted and included in the decision-making process of a planning effort. In providing public service, the Federal role in water resources planning is to respond to what the public perceives as problems and opportunities and to formulate and select alternative plans that reflect public preferences. The NEPA among other Federal laws and regulations mandates public involvement. Federal planning policies, Corps practices and regulations have consistently required and encouraged this practice. All this must occur, however, with the awareness that the Corps cannot relinquish its legislated decision-making responsibility.

5.4.1 Community Workshops

The purpose of public involvement is to ensure that the Corps programs are responsive to the needs and concerns of the public. The objectives of public involvement are to provide information about proposed Corps activities to the public; make the public's desires, needs, and concerns known to the decision makers; to provide for consultation with the public before decisions are reached; and to take into account the public's views in reaching decisions. Public participation was an essential element in the development of this Master Plan. Community involvement offers an opportunity for the public to voice their concerns and desires for activities permitted in the Basin and also enriches the process with local knowledge of the Basin area. According to EP 1130-2-550, the goal of public involvement and coordination is to open and maintain channels of communication with the public in order to give full consideration to public views and information in the planning process.

In the development of this Master Plan, three community workshops were held at the Sepulveda Garden Center to foster collaboration and encourage dialogue among interested parties. The first community workshop was held on Saturday, 5 December 2009 and a second workshop was held on Saturday, 20 February 2010. There were approximately 50 people in attendance at each of these workshops. The third workshop was held on Saturday, 24 April 2010 and approximately 130 people attended. Input was recorded via written comments by participants and on maps during the workshop. All verbal comments were recorded and later transcribed. The comments have been consolidated into a list of actions and management directions. Further information may be found in Appendix C.

5.5 Mailing List

The list below includes all Federal, state, and local agencies that will receive a copy of the report, as well as the libraries and other locations where the Master Plan and DEA will be available for public review. Other interested parties that have requested a copy of the report have also been listed.

Federal Elected Officials and Agencies	
Honorable Barbara Boxer United States Senate 312 N. Spring St. Suite 1748 Los Angeles, CA 90012	Honorable Dianne Feinstein United States Senate 11111 Santa Monica Blvd. Los Angeles, CA 90025
Honorable Howard L. Berman House of Representatives 2221 Rayburn House Office Building Washington, DC 20515	Honorable Brad Sherman House of Representatives 2221 Rayburn House Office Building Washington, DC 20515
U.S. Fish and Wildlife Service 2730 Loker Ave. West Carlsbad, CA 92008	U.S. Environmental Protection Agency Region 9, NEPA Compliance Department 75 Conference St. San Francisco, CA 94105
State Agencies	
California Department of Fish and Game Southern California Region 4949 View Ridge Ave. San Diego, CA 92123	Los Angeles Regional Water Quality Control Board 320 W. 4th St. Suite 200 Los Angeles, CA 90013
State Office of Planning and Research State Clearinghouse 1400 10th St. Room 222 Sacramento, CA 95814	California Air Resources Board 9480 Telstar Ave. Suite 4 El Monte, CA 91731
County and City Elected Officials and Agencies	
Honorable Tony Cardenas City of Los Angeles Council Member District 7 City Hall Office 200 N. Spring Street, Room 455 Los Angeles, CA 90012	City of Los Angeles Department of Recreation and Parks Planning Department Figueroa Street Los Angeles, CA
City of Los Angeles Department of Public Works Bureau of Sanitation 1149 South Broadway, Suite 900 Mail Stop 520 Los Angeles, CA 90015-2213	City of Los Angeles Department of Public Works Bureau of Engineering 1149 South Broadway, Suite 700 Mail Stop 490 Los Angeles, CA90015-2213
Public Libraries	
Encino-Tarzana Branch Library 18231 Ventura Boulevard Tarzana, CA 91356	West Valley Regional Branch Library 19036 Vanowen Street Reseda, CA 91335
Sherman Oaks Branch Library 14245 Moorpark Street Sherman Oaks, CA 91423	Van Nuys Branch Library 6250 Sylmar Ave Van Nuys, CA 91401

Other Interested Parties	
Kerri Barton kbjwb@hotmail.com	Mardi Clattan 6613 Firmament Ave. Van Nuys CA 91406
Ted Davis 23026 Mobile St. West Hills CA 91307	Sharon Ford Sierra Club 13028 Aetna St. Valley Glen, CA 91401-3203
Eilish Hathaway eilish.hathaway@sbcglobal.net	Daw Horwite dawh818@gmail.com
Ronald Kulberg 17841 Lassen St. #115 Los Angeles, CA	Mary Marks 17155 Bullock St. Encino, CA 91316
Clifford Sonnentag 949 Country Club Drive Burbank, CA 91501	Alan Stewart 10900 Bluffside #218 Studio City, CA 9160
Hal Sullivan 17235 Otsego St. Encino, CA 91316	

6 ENVIRONMENTAL LAWS AND COMPLIANCE

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

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

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

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

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

This Act requires Federal agencies consult with the U.S. Fish and Wildlife Service (USFWS) and the fish and wildlife agencies of States where the "waters of any stream or other body of water are proposed or authorized, permitted or licensed to be impounded, diverted . . . or otherwise controlled or modified" by any agency under a Federal permit or license. Consultation is to be undertaken for the purpose of "preventing loss of and damage to wildlife resources." The intent is to give fish and wildlife conservation equal consideration with other purposes of water resources development projects.

As the proposed project does not involve impoundment, diversion, or other modification to bodies of water within the Basin with the proposed reclassification of land use, no Fish and Wildlife Coordination Act Report is required.

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

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

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

Since the proposed project is limited to the reclassification of land use within the Basin only, with no project to be physically implemented, consultation was not required, and the project complies with the ESA.

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

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

The MBTA prohibits the taking or harming of any migratory bird, its eggs, nests, or young without an appropriate Federal permit. Almost all native birds are covered by this Act and any bird listed in wildlife treaties between the United States and several countries, including Great Britain, Mexican States, Japan, and countries once part of the former Soviet Socialist Republics. A "migratory bird" includes the living bird, any parts of the bird, its nest, or eggs. The take of all migratory birds is governed by the MBTA's regulation of taking migratory birds for educational, scientific, and recreation purposes and requiring harvest to be limited to levels that prevent over-utilization. Section 704 of the MBTA states that the Secretary of the Interior is authorized and directed to determine if, and by what means, the take of migratory birds should be allowed and to adopt suitable regulations permitting and governing take. Disturbance of the nest of a migratory bird requires a permit issued by the USFWS pursuant to Title 50 of the Code of Federal Regulations (CFR).

Since the proposed project is limited to the reclassification of land use within the Basin only, with no project to be physically implemented, the project complies with the Act.

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

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

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

Since the proposed project is limited to the reclassification of land use within the Basin with no project to be physically implemented, the proposed project does not result in any discharge into navigable waters; therefore Certification is not required.

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

Since the proposed project is limited to the reclassification of land use within the Basin with no project to be physically implemented, the proposed project does not involve discharge of pollutants into waters of the US; therefore a Section 402 permit is not required. Any recreation and/or restoration projects that may be proposed in the future for development would need to comply with the Act during the planning and implementation process and may require a Storm Water Pollution Prevention Plan (SWPPP) under NPDES.

Section 404 authorizes the Secretary of the Army acting through the Corps to issue permits for the discharge of dredged or fill materials into the waters of the United States, including wetlands, at specified disposal sites. The selection and use of disposal sites must be in accordance with guidelines developed by

the Administrator of EPA in conjunction with the Secretary of the Army and published in 40 CFR Part 230 (known as the 404(b)(1) guidelines). Under the Section 404(b)(1) guidelines, the Corps shall examine practicable alternatives to the proposed discharge and permit only the Least Environmentally Damaging Practicable Alternative (LEDPA).

For Corps actions, the Corps does not issue permits, but demonstrates compliance, or "equivalency," with Section 404 through a Section 404(b)(1) analysis. In addition, the requirements and conditions of nationwide permits and regional permits may be applied for Corps actions and thus considered when addressing compliance with Section 404. All other entities must obtain a Section 404 permit from the Corps before undertaking any discharge of dredged or fill materials into waters of the United States, unless determined to be exempt from regulation.

Since the proposed project is limited to the reclassification of land use within the Basin with no project to be physically implemented, the proposed project does not involve discharge of dredged or fill material in waters of the United States; therefore a 404(b)(1) analysis is not required.

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

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

The potential air quality impacts of the proposed project have been examined and compared to the significant levels identified by the Southern California Air Quality Management District (SCAQMD), which is the agency with jurisdiction to enforce the Clean Air Act regulations and other relevant local air quality regulations. The Southern California Air Quality Board sets the threshold limits which, if exceeded, trigger New Source Review Rules, as defined in the Act.

Based on the air quality analysis described in Appendix D, Sections 3.4.1 through 3.4.3 and 4.2.1.3, a conformity determination for a specific pollutant is not required because for each criteria pollutant or precursor the total of direct and indirect emissions of the criteria pollutant or precursor in the nonattainment area caused by the Federal action would not equal or exceed any of the rates in 40 CFR 93.153(b)(1) or (2). As a result, the proposed project conforms to the Federal Clean Air Act, as amended.

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

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

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

Since the proposed project is limited to the reclassification of land use within the Basin with no project to be physically implemented, the proposed project will not create additional noise impacts. Noise will continue to be regulated through Federal, state, and local ordinances.

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

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

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

A literature review and records search of the Sepulveda Dam Basin and vicinity was conducted in 1977. This was followed by an intensive field survey of land surfaces that had not been altered to the degree that all cultural materials would have been destroyed. Results of these investigations were negative; no significant prehistoric or historic archaeological or other cultural resources were recorded (Martz 1977). The Whittier Narrows Dam Basin was surveyed for cultural resources by Lois Roberts and James Brock in 1987. The survey consisted literature review, records search and a brief field reconnaissance (Roberts and Brock 1987). In 1991 an additional study was conducted by Scientific Resource Surveys which resulted in a sensitivity analysis that was used by the preparers of the 1996 Master Plan. There were no pedestrian surveys conducted in support of the sensitivity analysis, but several areas were considered to be moderate to highly sensitivity for cultural resources (Scientific Resource Surveys, Inc. 1991). The preparation of a cultural resource management plan was also referenced, but it is not clear whether this document was completed. Recorded cultural resources include historic–era remains of homes and structures and artifact scatters (Corps 1996a). There are no known sites of cultural significance within Sepulveda Dam Basin.

Since the proposed project is limited to the reclassification of land use within the Basin with no project to be physically implemented, the proposed project will have no effect on historic properties. As such, the proposed project is in compliance with Section 106 of the Act and its implementing regulations (36 CFR part 800).

If any cultural resources are discovered in the future during study of proposed additional recreation amenities, they will need to be evaluated for their eligibility for inclusion in the NRHP pursuant to 36 CFR 800.13(b).

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

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

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

If during the planning process of future proposed recreation development in the Basin such sites were discovered, compliance with the Act would be required.

6.10 Executive Order 11514, Protection and Enhancement of Environmental Quality, amended by Executive Order11991, Relating to Protection and Enhancement of Environmental Quality

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

Any recreation and/or restoration projects that may be proposed in the future for development would need to comply with the EO during the planning and implementation process. A DEA has been prepared as part of this Master Plan. Therefore, the proposed project is in compliance with the mandates of this EO.

6.11 Executive Order 11988, Floodplain Management

In accordance with this EO, the Corps shall take action to "…avoid to the extent possible the long and short term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct or indirect support of floodplain development wherever there is a practicable alternative."

This EO requires that Federal Agencies take action to manage the risk and/or impacts of floods on human safety, health, and welfare; and restore and preserve natural and beneficial values served by the floodplains. Each agency also has the responsibility to evaluate potential effects of Federal actions that may be made within floodplains.

Compliance with this EO requires proper implementation of ER 1165-2-26, which states that the policy of the Corps with respect to floodplain management is to formulate projects which, to the extent possible, avoid or minimize adverse impacts associated with use of the base (100-year) floodplain and avoid inducing development in the base floodplain unless there is no practicable alternative.

Since the proposed project is limited to the reclassification of land use within the Basin with no project to be physically implemented, the proposed project will not result in further inducing development in the base floodplain.

There is no practicable alternative to undertaking the proposed Action Alternative within the floodplain, as the project area is already established within the floodplain. The Action Alternative recommends a land use classification plan for the Basin only, and does not include provisions for any physical development, alteration, or modification of the existing conditions. Therefore, the Proposed Action Alternative must occur within land that is already within the floodplain, and there are no practicable alternatives.

If actions are proposed in the future that would result in changes to the Basin, a separate review for compliance with this EO would be undertaken.

6.12 Executive Order 11990, Protection of Wetlands

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

of the agency may take into account economic, environmental, and other pertinent factors. Each agency shall also provide opportunity for early public review of any plans or proposals for new construction in wetlands.

The proposed project would not impact any wetlands within the Basin. The proposed project is in compliance with this EO.

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

6.13 Executive Order 12088, Federal Compliance with Pollution Control Standards

Federal Agencies are responsible for ensuring that all necessary actions are taken for the prevention, control, and abatement of environmental pollution with respect to Federal amenities and activities under control of the agency.

The action does not negatively affect the natural and beneficial values of the Basin as the reclassification of land use would conserve and protect existing natural areas from further development. The proposed project is in compliance with the EO.

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

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

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

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

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

6.15 Executive Order 13112, Invasive Species

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

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

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

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

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

The Master Plan in Section 5, Resource Objectives, discusses ways to improve environmental stewardship and management of the Basin. The proposed project is in compliance with the EO. Any recreation and/or restoration projects that may be proposed in the future for development would need to comply with the EO during the planning and implementation process.

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

This EO states that Federal agencies will, to the extent permitted by law and where practicable and in cooperation with Tribes, States, local governments, and interested citizen groups, protect, connect, promote, and assist trails of all types throughout the United States.

The approval of the updated Master Plan will not result in the development of trails or the reduction in quality or quantity of existing trails. An analysis of existing trails has been provided, which will serve to inform the promotion of trail building and connection in the future. This Master Plan and DEA is in compliance with this order.

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The following list provides the names and roles of Corps staff responsible for preparation and review of this Sepulveda Dam Basin Master Plan.

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APPENDIX D1:
VEGETATION

A list of plant species observed and identified during the vegetation survey site visit is provided below. This list is not exhaustive, although it captures all dominant plant species and associated habitat types. Also included is the canopy level and percent of canopy cover each plant species comprises within each habitat type.

Common Name	Scientific Name	Canopy Level	% of Canopy
Populus fremontii Forest Alliance			
Arroyo willow	*Salix lasiolepis*	Upper	40
Fremont cottonwood	*Populus fremontii*	Upper	10
Black cottonwood	*Populus trichocarpa*	Upper	5
Red willow	*Salix laevigata*	Upper	5
Giant cane	*Arundo donax*	Upper	5
Salix exigua Shrubland Alliance			
Red willow	*Salix laevigata*	Upper	25
Castor bean	*Ricinus communis*	Middle	20
Narrowleaf cattail	*Typha angustifolia*	Middle	20
Arroyo willow	*Salix lasiolepis*	Middle	15
Mulefat	*Baccharis salicifolia*	Middle	15
Tobacco tree	*Nicotiana glauca*	Middle	15
Sandbar willow	*Salix exigua*	Middle	15
Fremont cottonwood	*Populus fremontii*	Upper	15
Giant cane	*Arundo donax*	Middle	15
Telegraph weed	*Heterotheca grandiflora*	Lower	10
Hoary nettle	*Urtica dioica*	Middle	5
Cocklebur	*Xanthium strumarium*	Lower	5
Southern California black walnut	*Juglans californica*	Middle	5
Fennel	*Foeniculum vulgare*	Middle	2
Umbrella sedge	*Fuirena* sp.	Lower	2
Poison hemlock	*Conium maculatum*	Lower	2
Stinging nettle	*Urtica dioica*	Lower	2
White nightshade	*Solanum douglasii*	Lower	2
Giant wildrye	*Elymus condensatus*	Middle	2
Baccharis salicifolia Shrubland Alliance			
Mulefat	*Baccharis salicifolia*	Middle	30 to 60
Telegraph weed	*Heterotheca grandiflora*	Middle	20 to 70
Giant cane	*Arundo donax*	Upper	15
Tobacco tree	*Nicotiana glauca*	Upper	15
Castor bean	*Ricinus communis*	Upper	10

Common Name	Scientific Name	Canopy Level	% of Canopy
Sandbar willow	*Salix exigua*	Upper	5
Hoary nettle	*Urtica dioica*	Middle	5
Poison hemlock	*Conium maculatum*	Middle	5
Cocklebur	*Xanthium strumarium*	Middle	5
Stinging nettle	*Urtica dioica*	Middle	2
Spearscale	*Atriplex triangularis*	Middle	2
Perennial pepperwood	*Lepidium latifolium*	Middle	2
Scalebroom	*Lepidospartum squamatum*	Middle	2
Baccharis pilularis Shrubland Alliance			
Various annual grasses	Various species	Lower	50
Telegraph weed	*Heterotheca grandiflora*	Middle	20
black mustard	*Brassica nigra*	Middle	20
Coyote brush	*Baccharis pilularis*	Upper	15
White sage	*Artemisia ludoviciana*	Middle	2
Eriogonum fasciculatum Shrubland Alliance			
California buckwheat	*Eriogonum fasciculatum*	Middle	15
Coast prickly-pear	*Opuntia littoralis*	Middle	5
White sage	*Artemisia ludoviciana*	Middle	2
Coast live oak	*Quercus agrifolia*	Upper	2
Quercus agrifolia Woodland Alliance			
Coast live oak	*Quercus agrifolia*	Upper	5
Valley oak	*Quercus lobata*	Upper	5
White sage	*Artemisia ludoviciana*	Middle	2
poison-oak	*Toxicodendron diversilobum*	Middle	2
Toyon	*Heteromeles arbutifolia*	Middle	2
Coyote brush	*Baccharis pilularis*	Middle	2
Annual grasses	Various species	Lower	80
Ornamental Tree/ Maintained Lawn			
Peruvian pepper tree	*Schinus molle*	Upper	15
Eucalyptus	*Eucalyptus* sp.	Upper	15
Palms	*Washingtonia* sp.	Upper	15
Common olive	*Olea europaea*	Upper	15
Toyon	*Heteromeles arbutifolia*	Middle	15
Common ice plant	*Mesembryanthemum crystallinum*	Lower	15
Western sycamore	*Platanus racemosa*	Upper	15
Sweetgum	*Liquidambar styraciflua*	Upper	15
Chinese elm	*Ulmus parvifolia*	Upper	15
Yellow popular	*Liriodendron tulipifera*	Upper	10
Castor bean	*Ricinus communis*	Middle	10

Common Name	Scientific Name	Canopy Level	% of Canopy
Liquid amber	*Liquidambar styraciflua*	Upper	10
Arborvitae	*Thuja occidentalis*	Upper	10
Oleander	*Nerium oleander*	Middle	10
Canary Island pine	*Pinus canariensis*	Upper	10
Kapok	*Ceiba pentandra*	Upper	10
English ivy	*Hedera helix*	Lower	10
White alder	*Alnus rhombifolia*	Upper	10
Brazilian pepper tree	*Schinus terebinthifolius*	Upper	10
Magnolia	*Magnolia* sp.	Upper	10
Siberian elm	*Ulmus pumila*	Upper	10
Indian fig	*Opuntia ficus-indica*	Middle	10
English holly	*Ilex aquifolium*	Middle	5
Deodar cedar	*Cedrus deodara*	Upper	5
Red oak	*Quercus rubra*	Upper	5
Weeping willow	*Salix babylonica*	Upper	5
Black locus	*Robinia pseudoacacia*	Upper	5
Pampas grass	*Ulmus pumila*	Middle	5
Laurel sumac	*Malosma laurina*	Middle	5
Juniper	*Juniperus* sp.	Middle	2
Coast live oak	*Quercus agrifolia*	Upper	2
Canyon live oak	*Quercus chrysolepis*	Upper	2
Chinese tree of heaven	*Ailanthus altissima*	Upper	2
Paper bark birch	*Betula Papyrifera*	Upper	2
Papaya	*Carica papaya*	Middle	2
Mexican palo verde	*Parkinsonia aculeata*	Upper	2
Disturbed Riparian			
Palms	*Washingtonia* sp.	Upper	15
Giant cane	*Arundo donax*	Upper	15
Umbrella sedge	*Fuirena* sp.	Lower	5
Eucalyptus	*Eucalyptus* sp.	Upper	5
Tobacco tree	*Nicotiana glauca*	Upper	2
Narrowleaf cattail	*Typha angustifolia*	Upper	2
Saw palmetto	*Serenoa repens*	Lower	2
Agriculture			
Unidentified crops	Unknown	Lower	70
Ruderal			
Prickly Russian thistle	*Salsola tragus*	Lower	15
Sacred thorn-apple	*Datura wrightii*	Lower	2

APPENDIX D2:
WILDLIFE

A list of wildlife species observed during the field survey site visit is provided below. This list is not exhaustive; although it captures most common species in the project area. Also included is the habitat type in which each species was documented.

Common Name	Scientific Name	Habitat
Birds		
Pied-billed grebe	*Podilymbus podiceps*	Open water
American coot	*Fulica americana*	Open water
Double-crested cormorant	*Phalacrocorax auritus*	Open water
White pelican	*Pelecanus erythrorhynchos*	Open water
Black-necked stilt	*Himantopus mexicanus*	Riparian/wetland
American avocet	*Recurvirostra americana*	Riparian/wetland
Marbled godwit	*Limosa fedoa*	Riparian/wetland
Great egret	*Ardea alba*	Riparian/wetland
Cattle egret	*Bubulcus ibis*	Riparian/wetland
Turkey vulture	*Cathartes aura*	Upland
Canada goose	*Branta canadensis*	Open water
Mallard	*Anas platyrhynchos*	Open water
American wigeon	*Anas americana*	Open water
Ruddy duck	*Oxyura jamaicensis*	Open water
Red-tailed hawk	*Buteo jamaicensis*	Riparian
American kestrel	*Falco sparverius*	Upland
Sharp-shinned hawk	*Accipiter striatus*	Upland
Northern flicker	*Colaptes auratus*	Upland
Hairy woodpecker	*Picoides villosus*	Upland
Acorn woodpecker	*Melanerpes formicivorus*	Upland
Mourning dove	*Zenaida macroura*	Upland
Anna's hummingbird	*Calypte anna*	Upland
Rufous hummingbird	*Selasphorus rufus*	Upland
Vaux swift	*Chaetura vauxi*	Upland
Willow flycatcher	*Empidonax traillii*	Riparian/wetland
Say's phoebe	*Sayornis saya*	Riparian/wetland
Black phoebe	*Sayornis nigricans*	Riparian/wetland
Western kingbird	*Tyrannus verticalis*	Upland
European starling	*Sturnus vulgaris*	Upland
Brewer's blackbird	*Euphagus cyanocephalus*	Upland
Common raven	*Corvus corax*	Upland
Marsh wren	*Cistothorus palustris*	Wetland
Bushtit	*Psaltriparus minimus*	Upland
Chestnut-backed chickadee	*Poecile rufescens*	Upland
Yellow-rumped warbler	*Dendroica coronata*	Upland
Yellow warbler	*Dendroica petechia*	Upland
Golden-crowned kinglet	*Regulus satrapa*	Upland
Hermit thrush	*Catharus guttatus*	Upland

Common Name	Scientific Name	Habitat
American robin	*Turdus migratorius*	Upland
Dark-eyed junco	*Junco hyemalis*	Upland
Song sparrow	*Melospiza melodia*	Upland
Tree sparrow	*Spizella arborea*	Upland
White-crowned sparrow	*Zonotrichia leucophrys*	Upland
California towhee	*Pipilo crissalis*	Upland
Spotted towhee	*Pipilo maculatus*	Upland
House finch	*Carpodacus mexicanus*	Upland
Mammals		
Coyote	*Canis latrans*	Upland
Striped skunk	*Mephitis mephitis*	Riparian
Raccoon	*Procyon lotor*	Riparian
California ground squirrel	*Spermophilus beecheyi*	Upland

APPENDIX D3:
ADAPTIVE HABITAT MANAGEMENT PLAN

The following Adaptive Habitat Management Plan (AHMP) is designed for use with the Sepulveda Dam Basin Master Plan and DEA and is based on the U.S. Department of the Interior's Technical Guide for Adaptive Management (Williams *et al.* 2009).

This model should be applied to actions taken to preserve, protect, enhance, or restore biological resources. Its purpose is to ensure that, over time, management strategies continue to best meet resource objectives. Adaptive management requires a distinctly defined process of identifying resource objectives while remaining flexible in management strategies in order to best achieve those objectives. This AHMP should provide a means to more effective decisions and enhanced benefits.

The key to adaptive management is the awareness of uncertainty about management decisions and impacts due largely from the variability of ecological processes. Continued monitoring, and the adaptive application of information gained through such monitoring, is essential in fostering improvements to management policies.

An AHMP should be used only in certain cases. It is appropriate to use a management plan only when 1) projects have a goal, or set of goals, that can be specifically identified, 2) achievement of goals can be empirically measured, 3) there is the opportunity and intention to collect empirical data and learn from that data, and 4) stakeholders can modify their management strategies based on the empirical data. Each of these components must be attainable to utilize an AHMP effectively.

Resource objectives are described in general for management of the project area in Section 5 of the Master Plan. These objectives will guide future biological and resource use management decisions. As specific management actions are proposed for improving biological resources, it will be necessary to apply the AHMP model to those plans.

The AHMP model presented below is comprised of 9 steps (Williams *et al.* 2009) and addresses the known elements specific to the Sepulveda Dam Basin Master Plan and Draft Environmental Assessment (DEA). Each component is conceptually introduced and followed by how it factors into the overall AHMP process.

Step 1: Stakeholder Involvement
Who decides how to manage the project area?

Stakeholders for any proposed action are people who must act as decision makers. The first step in this process is to identify the stakeholders and encourage their active participation in the project. Stakeholders must be clearly apprised of the adaptive management process, must strive for agreement in all phases of the process, must commit to the timeframes agreed upon, and must commit resources for achieving AHMP goals. Stakeholders may include Federal or local governmental agencies or organizations tasked with managing the Basin, property owners, non-profit or local interest groups, community members, or any group with a vested or expressed interest in the project or project area. While not an exhaustive list, the following entities have been identified as key stakeholders in the AHMP; their precise roles and involvement, however, would ultimately be defined by a given action.

U.S. Army Corps of Engineers (Corps) Completed in 1941, Sepulveda Dam is operated to provide flood risk management along the Los Angeles River downstream of the Dam. The initial acquisition of real property for the Basin's amenities totaled 2,132 acres. The control and regulation of flood waters out of Sepulveda Basin is governed by the Water Control Manual (Corps 1989). In addition to the flood risk management operations detailed in the water control plan, the manual provides extensive background information on the history and authorization of the project, additional land-use options granted by the Corps, watershed characteristics, hydrologic data collection systems, hydrologic forecasting, hydraulic characteristics, agency responsibilities, and coordination for water control management. In addition, the Corps has responsibilities and authorities granted under the Federal Water Pollution Control Act, Section 404 (33 USC §1251 as amended; commonly referred to as the CWA). Thus, as the land owner and responsible agency for the primary flood control functions of the Basin, the Corps is the principal stakeholder in any present or future actions within the Basin and its appurtenant works.

U.S. Fish and Wildlife Service (USFWS) The USFWS is the Federal agency whose mission is to conserve, protect, and enhance fish and wildlife and their habitats for the continuing benefit of the nation and its citizens. Their major responsibilities and missions include: migratory birds, endangered species, freshwater and anadromous fish, the National Wildlife Refuge System, protection of wetlands, protection of natural habitats, conservation of coastal areas, and environmental contaminants that threaten fish and wildlife and/or their habitats. The Endangered Species Act (16 USC §1531-1544 as amended; ESA) emphasizes early coordination/consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate mitigation planning to offset project related losses of listed species and their habitats. The consultation process thus renders the USFWS as a principal and compulsory stakeholder in any action or AHMP decision where the natural resources of the Basin are either positively or negatively affected.

U.S. Environmental Protection Agency (EPA) In addition to the Corps CWA responsibilities, the EPA also retains and establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. In general, the objective of the CWA is to restore and maintain the chemical, physical, and biological integrity of the nation's waters by preventing point and nonpoint pollution sources, providing assistance to publicly owned treatment works for the improvement of wastewater treatment, and maintaining the integrity of wetlands. Since the Sepulveda Basin is a flood control facility designed to store flood waters, it has the potential to impact water quality and aquatic habitats. Thus, the EPA should be considered a significant stakeholder for certain actions.

California Department of Fish and Game (CDFG) The CDFG maintains and conserves native fish, wildlife, plant, and natural communities for their intrinsic and ecological value and their benefits to the citizens of California and the nation. This includes habitat protection and maintenance in a sufficient amount and quality to ensure the survival of all species and natural communities. The department is also responsible for the diversified use of fish and wildlife including recreation, commercial, scientific, and educational uses. The California Endangered Species Act (CESA) states that all native species of fishes, amphibians, reptiles, birds, mammals, invertebrates, and plants, and their habitats, threatened with extinction and those experiencing a significant decline which, if not halted, would lead to a threatened or endangered designation, will be protected or preserved. CDFG will work with all interested persons, agencies, and organizations to protect and preserve such sensitive resources and their habitats. Similar to the Federal ESA process, the State of California also encourages early consultations to minimize impacts to State of California listed species and the formulation of mitigation measures for legal project actions. CDFG is therefore an important stakeholder in any action or AHMP decision process affecting the natural resources of the Basin.

Los Angeles Regional Water Quality Control Board (LARWQCB) The LARWQCB regulates wastewater discharges to both surface water (rivers, ocean, etc.) and to groundwater. The LARWQCB also regulates storm water discharges from construction, industrial and municipal activities, discharges from irrigated agriculture, dredge and fill activities, the alteration of any Federal water body under the CWA Section 401 certification program, and several other activities with practices that could degrade water quality. Tantamount with the Corps' CWA, Section 404 responsibility, the LARWQCB is a significant stakeholder in actions within the Basin (or in waters downstream of the Basin) that has the potential to affect water quality and ecosystem functions.

City of Los Angeles (Los Angeles County, California) Sepulveda Dam Basin is located entirely within the city limits of Los Angeles, California, in Los Angeles County. The Corps granted the City of Los Angeles a license to develop part of the Basin for recreation purposes. Nine recreation amenities have been developed throughout the Basin.

The adjacency and extensive recreation amenities the Basin offers places the City of Los Angeles as a primary stakeholder in virtually any future action. Actions that may affect the efficiency or comportment of emergency flood event evacuations are of particular relevance and concern. The City of Burbank, due to its downstream location on the Los Angeles River, may also be an important stakeholder where water resources and/or quality are potentially affected.

Step 2: Objectives
What are the goals of the project?

It is essential to agree upon clear and measurable management objectives, which play a crucial role in evaluating performance, reducing uncertainty, and improving management decisions over time. Objectives should be specific and unambiguous, measurable through on-site data collection, achievable under the current environmental and socioeconomic conditions, and should specify desired results and the timeframe for these results. Examples of measurable objectives include improving nesting habitat for a targeted species, improving physical or chemical water quality, increasing native flora and fauna, or reducing non-native invasive species.

The goal of the project, strictly in terms of wildlife, habitat conservation, and the AHMP, is defined as follows in the Master Plan, *"Manage land in the Basin to optimize wildlife habitat and native vegetation."* This management objective can be further defined to:

- Protect, preserve, and restore wildlife habitat and native plant communities appropriate to the Basin.
- Manage resources within the Basin in a manner that would preserve or improve the quality of wildlife habitat and create coherent plant communities.
- Always use appropriate native plant palettes in new landscaping or when rehabilitating or replacing older established landscaped areas.
- Replace non-native vegetation with native species when existing non-native vegetation dies.
- Respect the public's attachment to landscapes of an exotic nature if they are long established or have cultural meaning. Also, recognize that these exotic landscapes *may* provide certain benefits to wildlife.

The following is a brief discussion of certain elements that may influence how the goal(s) are achieved.

Environmental Quality and Character Congress has indicated that the protection and enrichment of environmental quality is clearly in the public interest and, in concert with other environmental legislation,

is a compulsory part of the Federal decision making process. Environmental quality and character is an inclusive term that refers to the integrity and value of a number of resources which comprise an environment including ecological, esthetic and cultural resources. In other words, the environmental quality and character of the Basin is an applied tenant that factors in many aspects and relates to existing conditions as well as future actions; it attempts to satisfy, to the greatest extent possible, both human reverences and wildlife uses of the environment. Environmental quality and character include management objectives that:

- Prioritize those uses, activities and developments which conserve natural and cultural resources.
- Preserve areas containing unique, sensitive and/or significant resources so that they will not be disturbed and their inherent integrity and values will not be adversely impacted by other uses, management practices, or developments within the Basin.
- Require management practices for on-going uses, activities and developments that avoid significant adverse impacts to the Basin' natural and cultural resources and the overall environmental quality and character of the Basin.
- Design siting, and operation of amenities and activities to avoid or minimize adverse environmental effects.
- Locate those activities which would have significant adverse impacts on the Basin's unique or important natural and cultural resources in areas where such impacts would be avoided or minimized to a level of insignificance.
- Conserve and protect those resources which cumulatively contribute to the Basin's overall environmental quality and character.
- Mitigate adverse environmental effects to the fullest extent practicable.

Connectivity Connectivity, in the context of wildlife conservation and habitat, defines the ability for effective movement of wildlife within and between spatially or functionally discrete areas. Man-made features often disrupt this movement and can adversely impact foraging, breeding, gene-flow, and overall persistence of a given species within the landscape. Vegetation can also suffer adverse impacts from a lack of connectivity when they depend on animal seed dispersal. It is therefore important to consider both local and regional vegetation and wildlife habitat patterns in order to minimize impacts of human encroachment while maximizing habitat use for the greatest number of species possible. Wildlife corridors, both aquatic and terrestrial, are an important characteristic of landscape-level ecology and environmental sustainability.

Within the context of recreation, connectivity describes a certain efficiency in trails and developed structures such as parking lots, picnic and camping areas, restrooms, and other public gathering areas. Efficient use, operation, and maintenance often depend on the connectivity of these types of amenities. Public safety and handicapped access is also an important aspect of connectivity.

It is important to consider both definitions of connectivity in environmental stewardship, but this is often a difficult goal to fully achieve and often oppose each other. Nonetheless, an awareness and diligence of all types of connectivity should be maintained during the design of all recreation amenities and the designation of natural habitat areas in order to maximize connectivity for both recreation and habitat purposes. The following are some management objectives to consider in future actions:

- Identify and connect with regional trail systems and eliminate impediments to trail connections within the Basin.
- Create trails that loop back upon themselves rather than be one-directional.
- Ensure that Basin-contained trail systems interconnect with trail systems outside the Basin.

- Create adequate signage to minimize unnecessary trips within the Basin.
- Provide safe and efficient circulation and access to the Basin's recreation amenities in order to both control traffic and provide a linkage between the various activities within the Basin.
- Protect and restore waterways such as creeks and streams to allow for safe corridors for wildlife movement.
- Identify natural opportunities/pathways for terrestrial wildlife movements; these may be evident through animal tracks or signs of foraging.

Community Involvement The public is an important contributor in land stewardship. If the community has a strong sense of ownership and pride in the Basin, issues such as littering and vandalism may be significantly reduced or even eliminated. In order to foster the public's sense of ownership, their inclusion in the decision making processes is essential. The public is often the best emissary in conveying the Corps mission of environmental stewardship, identifying and protecting resources of the site, and educating the public about those resources. The following are some management objectives and benefits that community involvement can bring about:

- Promote a spirit of personal responsibility and stewardship of public lands.
- Develop public appreciation for appropriate and safe use of resources.
- Promote volunteer programs for purposes of education and interpretation, clean-up, and restoration activities.
- Maintain communication channels among Basin users and the Corps for the reporting of issues or suggestions for improvements to the Basin.

Global Climate Change Climate change is an increasing problem that threatens the integrity and quality of all natural resources and ecosystems. Predictions vary and uncertainty around these predictions are considerable, but there is little doubt that climate change will impact virtually all aspects of society and a certain degree of climate change in now inevitable. It is therefore important that management decisions be mindful of the trajectory and consequences of climate change and implement as many mitigating measures as possible.

One of the more immediate impacts of climate change is the effects on water resources. The western United States is expected to witness moderate to severe drought conditions within the next 30-50 years, but this overall pattern may be punctuated by episodes of acute precipitation events as the ocean-atmosphere energy flux seeks a new equilibrium state. This places a new emphasis on flood control and the effectiveness of flood control amenities. The myriad effects of climate change also include an increase in water demand, changes in water quality, the expansion and increase of fire season intensity, and energy demand. In terms of natural resources and ecosystem responses, the affects of climate change are overwhelmingly chaotic and poorly understood; however, actions taken in the present can influence the sustainability through the difficult times ahead.

Some management objectives to be considered here are:

- Prioritize land uses and activities that do not contribute to global climate change.
- Support Corps regulators on dealing with climate change in permitting decisions.
- Use adaptive management to respond to changing conditions on site that may result from global climate change.
- Use the on-going development of methods and policies to deal with hydrologic frequency analysis under changing conditions.

- Evaluate the impacts of climate change on the Basin's ecosystems and the potential effects on Corps infrastructure and ecosystem restoration projects.
- Change native landscaping as needed to adapt to changed on-site conditions resulting from global climate change.
- Where in harmony with the native landscape, maintain or expand the existing tree canopy.
- Build on the baseline carbon budget for Corps projects to guide subsequent policy and project operation and maintenance.
- Prioritize and promote the use of zero-emission transportation such as walking or bicycling within the Basin.
- Locate activities and developments that have an adverse impact on the environment in similar areas near vehicular access points to minimize overall impact.
- Create circulation and traffic plans that encourage the use of public transportation to and within the Basin.
- Promote the use or generation of renewable energy within the Basin.
- Require all new buildings achieve a LEED® Silver (U.S. Green Building Council) or higher rating.

Energy Energy conservation is a key component of sustainability and in reducing the carbon footprint of activities within the Basin. Energy saving measures should be encouraged and new development constructed in accordance with green building principles. Management objectives to consider here can often be applied in concert with objectives for Climate Change and include:

- Maximize energy conservation and apply/promote renewable energy alternatives.
- Minimize the use of non-renewable energy through energy efficient land use planning and construction techniques.
- Provide for the development of energy resources that promote national economic development.
- Require that all new development be consistent with green building principles.

Economic The primary function of the Dam is to minimize flood damage and the loss of life. The economic value of each Dam and Basin is the cost of property damage that has been avoided through the dam's operation. The Basin plays an even larger economic role. The recreation amenities at the Basin often generate user fees that help defray recreation operating costs. Recreation activities also contribute to the larger local economy through purchases of food, gas, lodging, and specialized recreation equipment by outside visitors. The Basin is not only an integrated feature in the landscape, but an important aspect to the local economy; however, economic benefits from the Basin must be weighed against many of the previous objectives to ensure that the ecological and esthetic merits remain uncompromised.

Some management objectives here include:

- Minimize economic impacts to life and property by responding quickly to flood conditions.
- Ensure the long-term integrity of the Basin through inspections and maintenance.
- Encourage activities on site including various forms of recreation that contribute to the local economy while not impacting the ecosystem or flood control functions.
- Allow activities on Corps lands that help defray recreation amenities operation and maintenance costs.

Low Density Recreation Activities such as walking, hiking, bicycling, horse-back riding, picnicking, primitive camping, wildlife observation, and fishing provide enjoyable activities that are of less impact to the natural resources of the Basin and may create a higher level of interaction with nature than other more

intrusive types of recreation. These activities lend themselves to small groups interacting together such as families with children or school groups. Activities such as these are generally dispersed throughout the Basin through the use of trails and can foster an intimate awareness and personal ownership of the basin and its intrinsic value to the community. Again, recreation of any kind, including low density recreation, must be considered collectively with other resource objectives (*e.g.* connectivity and the separation of high-value ecosystems) as well as cumulative effects of all recreation activities within the Basin.

Some low density recreation management objectives to consider are:

- Through the planning process, design low density recreation to minimize impacts to the natural environment and minimize conflicts between activities in the Basin.
- Promote a system of trails and networks that encourage use in and around the Basin while keeping such areas separate from ecologically sensitive areas.
- Provide low-density recreation opportunities that are available to a broad socio-economic cross-section of the region's population without discrimination based on age, race, religion, gender preference, or physical capabilities.
- Promote lo**w**-density recreation that brings people together seamlessly without regard to physical abilities.
- Design amenities such as picnic areas, campsites, and interpretive displays that take advantage of unique views or landmarks and lead to a greater appreciation of the Basin's natural resources.

Step 3: Management Actions
What is the initial management plan?

In this step, stakeholders identify a set of management actions that are intended to achieve project objectives. It allows for stakeholders to design and structure the kinds of management actions that will be taken, determine the timeframe or life of the project, the checks needed throughout the project life, and the decision-making process for changing management strategies to meet management objectives. Multiple management actions may be implemented to further increase learning about which strategies are or are not successful. Examples of management actions might be a plan to physically remove non-native invasive plant species or to plant native riparian plants to improve nesting and foraging habitat for a targeted species.

The Sepulveda Dam Basin Master Plan and DEA are documents designed to update the existing conditions of the Basin and suggest clear guidelines for the planning and implementation of future actions. In addition, the AHMP sets out a process to adaptively manage the dynamic resources and functions of the Basin. The basic tenant of adaptive management is to identify and consider all aspects of the target system, how they interact or indeed conflict, and to define a model mechanism through which current and future knowledge can be used to improve management decisions by the stakeholders. While the Master Plan and DEA provide essential Basin information, they cannot be viewed or intended as a surrogate for specific project evaluations or environmental compliance. Pursuant to the National Environmental Policy Act (NEPA) of 1969 (P.L. 91-190) additional compliance documents will be required when future actions are proposed.

Again, an initial management plan is an action, or set of actions, that promote the goals for natural resource management in the Basin. Factors that can influence the ability to achieve a specific goal(s), through formal analysis or professional inference, include:

<u>Human Population Trends</u> Southern California is a highly urbanized region that has undergone massive population growth for many decades. Like other population centers in the western United States, there is a

mix of residential, commercial, industrial, and agricultural land uses. Many communities are at or near buildout capacity. Protection of natural areas is thus more important than ever before and the stresses on their integrity clearly more pronounced. There are continual pressures to develop these areas for short term economic gain or unwise use that threaten the natural qualities and species they harbor. It is therefore important to protect and wisely manage Sepulveda Basin to effectively preserve both the flood control and the scarce natural environment it represents. In addition, a growing population will undoubtedly increase the recreation usage of the Basin and stress the system as a whole. An initial and forward-looking management plan must recognize the value of the Basin's natural resources and strive to preserve it in the face of a growing population and development pressures. Such a management plan will not only provide habitat for dwindling wildlife and vegetation, but ultimately provide a greater quality of life for the local citizens.

Global Climate Change Global climate change represents perhaps the greatest long-term threat in the fundamental reorganization of the natural world we see and enjoy today. While the outcome is uncertain, an initial management plan must factor in a plausible and defensible error rate of all proposed actions and some way to adaptively manage the incremental actions in achieving its objectives. Water availability and temperature increases may drastically alter the ecology and species composition of the Basin and an initial management plan, as well as management plans in the future, must be prepared to address such changes without bias to the observed magnitude.

Public Opinion and Land Use Changes It should be anticipated that public opinion on the current land uses may change in the future and this may or may not be commensurate with a given management plan. It is therefore important to consider the degree to which current and future lease agreements permit such changes, and how flexible stakeholders are willing to be in response to public opinion. If public opinion is in opposition to land use designations, it will become increasingly difficult garner public support for the Basin's use thereby making management far more difficult. Any land-use designations must, of course, work in conjunction with the original purpose of the Basin.

An effective and comprehensive management plan should seek to balance the goals and objectives indentified by the stakeholders. It is generally not practical to believe that all resources can be maximized within a relatively small parcel of land, but this does not mean that an adequate equilibrium cannot be achieved. Thoughtful and efficient planning, based on empirical or well developed modeling practices, are essential to effective management and individual management actions should be thought of as pieces of the larger whole in an effort to fulfill the shared vision of the Basin's objectives.

Step 4: Models
How do we measure the success of our management plan?

Stakeholders must now identify a model (or set of coupled models) that can be used to measure variables that indicate if the project is a success. This is the stage at which the "clear and measurable objectives" come into play. The model selected may be qualitative or quantitative; it can be as informal as a verbal description of system dynamics or it can be as formal as a mathematical equation(s). A Habitat Evaluation Procedure (HEP) is an example of a mathematical model. It combines Habitat Suitability Indices (HSI), which are models that describe the health of a habitat for a specific species or guild of species, to mathematically calculate habitat health for a suite of native species. Qualitative models must have benchmarks for measurement.

Once a model(s) is selected, and prior to implementing management actions, an initial onsite survey must be conducted to establish baseline conditions within the project area. The Master Plan and DEA should serve as the primer and foundation for Basin's baseline conditions.

Because the goals of Sepulveda Basin represent a set of resource management objectives, the need for multiple models is necessary and output from one given model may then be used as input for another (coupled models). For example, output (*e.g.* temperature and precipitation trends) from a General Circulation Model (GCM) can be used as input for hydraulic and hydrologic models and thus water supply predictions and flood control needs are identified. Water supply (and quality), precipitation, and temperature values can then be input as indices for an HEP and thus used to gain a better understanding for what climate change could represent for the future of the ecology and plausible biodiversity limitations of the Basin.

A GCM is a long-term predictor (years to decades) and should not be confused with a Numerical Weather Prediction (NWP) model. A GCM informs the user, in a statistical sense, about long-term climate trends in response to large-scale conditions (*e.g.* atmospheric carbon dioxide concentrations) whereas an NWP provides a short-term (1-10 days) weather prediction. A GCM need not be constructed and maintained by stakeholders as there are numerous and respected resources (Federal, academic, etc.) that could be engaged for assistance.

There are a wide variety of models, both qualitative and quantitative, that can be applied to adaptive management objectives. In each case, there is an opportunity for the results to be propagated for other aspects of resource management. For example, data from a GCM and/or an HEP can be used in economic and socioeconomic modeling efforts. Here also, the results can be used to guide management decisions in terms of the divergence from baseline conditions and the dynamic resources of the Basin.

This kind of information, if conducted reliably and consistently, can help guide management decisions by providing useful parameters and boundary conditions for contemporary management decisions. Moreover, these efforts can be applied regionally thereby representing a significant cost savings and reducing misallocation of valuable government resources.

Step 5: Monitoring Plans
What is the plan for monitoring success of our management plan over time?

Once the models are identified, the next step is to design an appropriate way to collect data to plug into the models. If the model asks us to collect canopy cover data, then our monitoring plan will determine when and how that data is collected, and how it is used in the model.

Monitoring plans should be designed to assess the existing system conditions, which describes the current state of the system, and allows us to compare it to past and future conditions. Monitoring plans should remain consistent in their methodologies through time and thus the results comparable. Monitoring consistency also has cost implications as well. If the initial monitoring regime is intensive and future monitoring falls short in some way(s), then the results may not be commensurate in their use for modeling or comparative analysis. This can often result in a lapse of monitoring efforts and result in the need for comprehensive baseline assessments. This can represent a significant cost allocation and result in an unwitting decline in environmental and ecological integrity.

Lastly, however, in an effort to conserve project funds, monitoring plans should be designed to be as efficient as possible, providing the necessary data for minimum cost. Geographic Information Systems (GIS) should be used to the greatest extent possible.

Monitoring may include the following (not including periodic inspections of flood risk management amenities and structures conducted by the Corps):

- Surveys for rare, threatened, and endangered species (plants and animals).
- Seasonal species richness and diversity indices including exotic species (location, extent, dominance, overstory/understory, etc.).
- Seasonal habitat use (avifauna, mammals, reptiles, amphibians, and insects).
- Basic water quality parameters on a seasonal basis (pH, temperature, conductivity, dissolved oxygen, etc.).
- Soil and water nutrient dynamics and flux (*i.e.* timing and degree of eutrophication of water bodies) possibly including forest litter production rates.
- Periodic contaminant testing (including fish tissue analysis, upstream sources, and downstream sinks).
- Seasonal recreation visitation rates including the types of activities. Perhaps conduct periodic public interactions (*i.e.* simple verbal questionnaires given to visitors).
- Infrastructure (*i.e.* parking lots, restrooms, trails) assessments for safety concerns, handicap accessibility, vandalism or other criminal activities.

Step 6: Decision Making
What will our response be to unsuccessful management plans?

In cases where the models do not indicate successful management actions or data clearly show a problem with the current management approach, a process should be identified for changing management plans. This is the crucial piece of the process that makes a management style *adaptive*. During Step 3, a number of alternative management actions should have been identified. In the event that the selected actions are not successful, as determined by the modeling or ascertained by monitoring, then the alternative actions may be implemented. In this step, the process of choosing a new management plan is defined.

All the tenants of previous steps should be observed: stakeholder and public involvement, a reassessment of goals and monitoring approaches, short- and long-term implications of management decisions, cumulative effects, etc. Only then can one be confident that the new management approach is well founded, has a reasonable chance for success, and is not ill-defined.

Step 7: Monitoring
What is happening in our project area?

This is the actual gathering of empirical data. Data are collected following the guidelines set in the monitoring plan. Regular data collection, recording, synthesis, and reporting should be scheduled and carried out through standardized, repeatable methods.

A clear stakeholder hierarchy in the definition, potential contracting, data validation, schedule, and review procedures of monitoring data should be established prior to the initiation of any monitoring activities. This adds a crucial measure of consistency to the methods and data synthesis over time. If changes occur in the hierarchy, as is often the case, a transition procedure (meetings, documentation, identification of contractors and review personnel, etc.) should take place. Again, is must be emphasized that consistency in monitoring approaches and methods is essential for the long-term integrity of the dataset(s) and their use in modeling and/or management decisions. Inconsistency in monitoring will inevitably result in a waste of time, funding, and agency resources.

There must also be a firm belief in the long-term benefits of monitoring by the stakeholders. In the short-term, monitoring often shows little change or statistically insignificant trends that can be interpreted as background noise. This can result in complacency and the waning of interest in continued monitoring

efforts. It is important to keep in mind that many of the parameters being monitored display gradual changes, but once altered are difficult to restore to a previous state or functional condition.

Step 8: Assessment
Are we achieving our project objectives?

In this step, data are calculated through the established model and results are reviewed to capture a description of the existing conditions of the project area. The monitoring event outcome is then compared to the baseline data to determine if project objectives are being achieved.

Data interpretation and synthesis is an important aspect of this step. Scale, statistical significance, geospatial patterns, and autocorrelation effects can influence how the data are interpreted and subsequently put to use in the larger objective assessments. Moreover, a general consensus, or at least partial agreement, among the stakeholders in the assessment process should be sought before the lasting codification of objectives, methods of attaining those objectives, and monitoring approaches used to measure success are continued. This is often far more difficult than it appears and the effort by the stakeholders in attaining agreement should not be underestimated.

Step 9: Iteration
What's next?

If conditions have improved according to the model(s) output, monitoring inferences, and data synthesis, then management actions appear to be successful and continued monitoring and assessment should be carried out for the life of the project to validate the project's continued success. If data are input into the models, and outcomes indicate that management actions are not successful, it will be necessary to return to Step 6 and begin the process of adapting the management plan according to available or newly formulated management actions. The cycle from step 6 to 9 is iterated until the end of the previously determined project life. If data are unavailable or inconclusive, it may be necessary to return to step 4 to revisit model selection and/or the monitoring plan (Step 5) to validate monitoring data integrity. Finally, it may be necessary to critically revisit the goals and objectives and assess their plausibility. In the absence of any clear direction that can be agreed upon by the stakeholders, it is often advisable to seek an outside review and opinion of any given step or the AHMP as a whole.

APPENDIX E:

MAPS

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