

FINAL

ENVIRONMENTAL ASSESSMENT

SEPULVEDA RECREATION LAKE

AND

WILDLIFE AREA

LOS ANGELES COUNTY, CALIFORNIA

FEBRUARY 1987

U.S. ARMY CORPS OF ENGINEERS

LOS ANGELES DISTRICT

ENVIRONMENTAL RESOURCES BRANCH

Los Angeles District Corps of Engineers
Finding of No Significant Impact
Sepulveda Recreation Lake and Wildlife Area
Los Angeles County, California

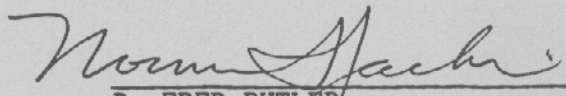
February 1987

I have reviewed the attached environmental assessment that has been prepared for the Sepulveda Recreation Lake and Wildlife Area. The proposed project consists of a 26-acre recreation lake and associated 134-acre informal park, a 60-acre wildlife management area, and the correction of the land-use designation on a 40-acre parcel of land within the basin. A seasonal pond would be included in the wildlife area. The project also includes the construction of a water distribution system which will supply water from the Donald C. Tillman Water Reclamation Plant for the recreation lake, the seasonal pond, and the irrigation of park lands in Sepulveda Basin. The resources potentially affected by this project are agricultural and biological resources, water quality, water supply, esthetics, and air quality. The project could also result in increased noise in the basin and could affect the health and safety of park users and users of the nearby Van Nuys Airport.

The U.S. Army Corps of Engineers has, through coordination with concerned agencies, developed mitigation measures for project impacts. These measures are outlined in the EA. The Corps has determined, after consideration of all significant factors included in the EA and all pertinent environmental legislation and provided that mitigation measures are included in project plans, that the action does not significantly affect the quality of the human environment, and that there would be no significant environmental effects associated with this action. An Environmental Impact Statement will not be prepared for this action.

Date

3/3/87


D. FRED BUTLER
Colonel, Corps of Engineers
District Engineer

fo

Final
 Environmental Assessment
 Sepulveda Recreation Lake
 and
 Wildlife Area
 Los Angeles County, California

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- A. Native Plant List
- B. U.S. Fish and Wildlife Service Coordination Letter
- C. Letter from U.S. Fish and Wildlife Service,
Endangered Species Office
- D. Farmland Conversion Impact Rating Form
- E. Letter and Memorandum from the Federal Aviation
Administration
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- G. Letter from U.S. Fish and Wildlife Service on
Potential for Bird Hazard Problem at Van Nuys,
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- H. Section 404(b)(1) Evaluation
- I. Letters of Comment and Corps Response
- J. Wildlife Area Geotechnical Investigation - Coring, Soils, and
Chemical Laboratory Testing
- K. Recreation Lake Sediment Analysis - Lead and Pesticide
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1. PROPOSED ACTION

1.01 The proposed project would occur in the Sepulveda Basin, which is located northwest of the junction of the Ventura Freeway (I-101) and the San Diego Freeway (I-405; figure 1). The project consists of a recreation lake and associated informal park, a wildlife area and the correction of the land-use designation on a parcel within the basin. The locations of these features are indicated in figure 2. The recreation lake and park would be located in the 160-acre parcel of land just south of Victory Boulevard and just east of Balboa Boulevard. The wildlife area would occur north of Burbank Boulevard and west of the dam. An area on the downstream side of the dam, near the spillway, is the site proposed for disposal of excess soil from construction of the pond in the wildlife area. Details on soils and geological characteristics of the site can be found in the EIS for the Master Plan (U.S. Army Corps of Engineers, 1981) and in Appendix C (Geology and Soils Analysis) of the Feature Design Memorandum.

1.02 RECREATION LAKE. The recreation lake itself would occur in the southeast portion of the indicated parcel (figure 3). The lake would occupy about 26 acres and would be filled with effluent from the Donald C. Tillman Water Reclamation Plant. This lake would supply non-motorized boating and fishing opportunities for visitors, including a fly-fishing cove where fly-fisherman could practice casting. A line of buoys would be used to prevent boaters from interfering with the fly-fishermen.

1.03 Design. In order to minimize problems due to the growth of algae in the effluent, careful consideration was given to the design of the lake. Small lake fingers, where water might become stagnant, were avoided. A maximum depth of 12 feet was designed to improve circulation and to prevent the lake from heating too rapidly. The edge of the lake would have a concrete, vertical drop of about 2 feet to a concrete shelf with a width of about 5 feet. (This shelf is a safety feature designed to minimize the risk of drowning to someone who has fallen into the lake). The vertical drop would avoid the problem of very warm, shallow, and stagnant water and, together with the concrete treatment of the shelf, would prevent emergent vegetation which could impede circulation and cause mosquito problems. The bottom would have a slope of 5:1 from the shelf to the maximum depth. Aerators would be provided to improve oxygenation and circulation in the lake. This system would consist of eight 200-foot sections of perforated pipe with holes not less than 1/4-inch in diameter. A potable water supply (4 MGD capacity) would be provided for situations in which the Tillman Plant is shut down, for helping avert an impending algal bloom, or possibly, for initial filling. A separate inlet would be provided for this water.

1.04 Multiple inlet and outlet points were designed to maximize circulation. Inlets would be provided at two locations in the northeast part of the lake. Two outlets would occur in the southern part of the lake. These outlets would consist of a surface intake and an alternative subsurface intake, at a depth of 8 feet. In addition, two drains would be located in the bottom of the lake. All of the above outlets would flow into a common pipe from which water could be drawn either for discharge into the Los Angeles River for routine draining and cleaning or the sewer system (through a connection with a capacity of 4 MGD) during emergencies, for recirculation through the inlet structures at a rate of 4 MGD, or for irrigation purposes. Two overflow drains would occur at the south end of the lake in the same location as the outlet structures and would flow along stone and grout "streams" into Bull Creek and Hayvenhurst Channel. The discharge area would be covered with large stones to prevent erosion.

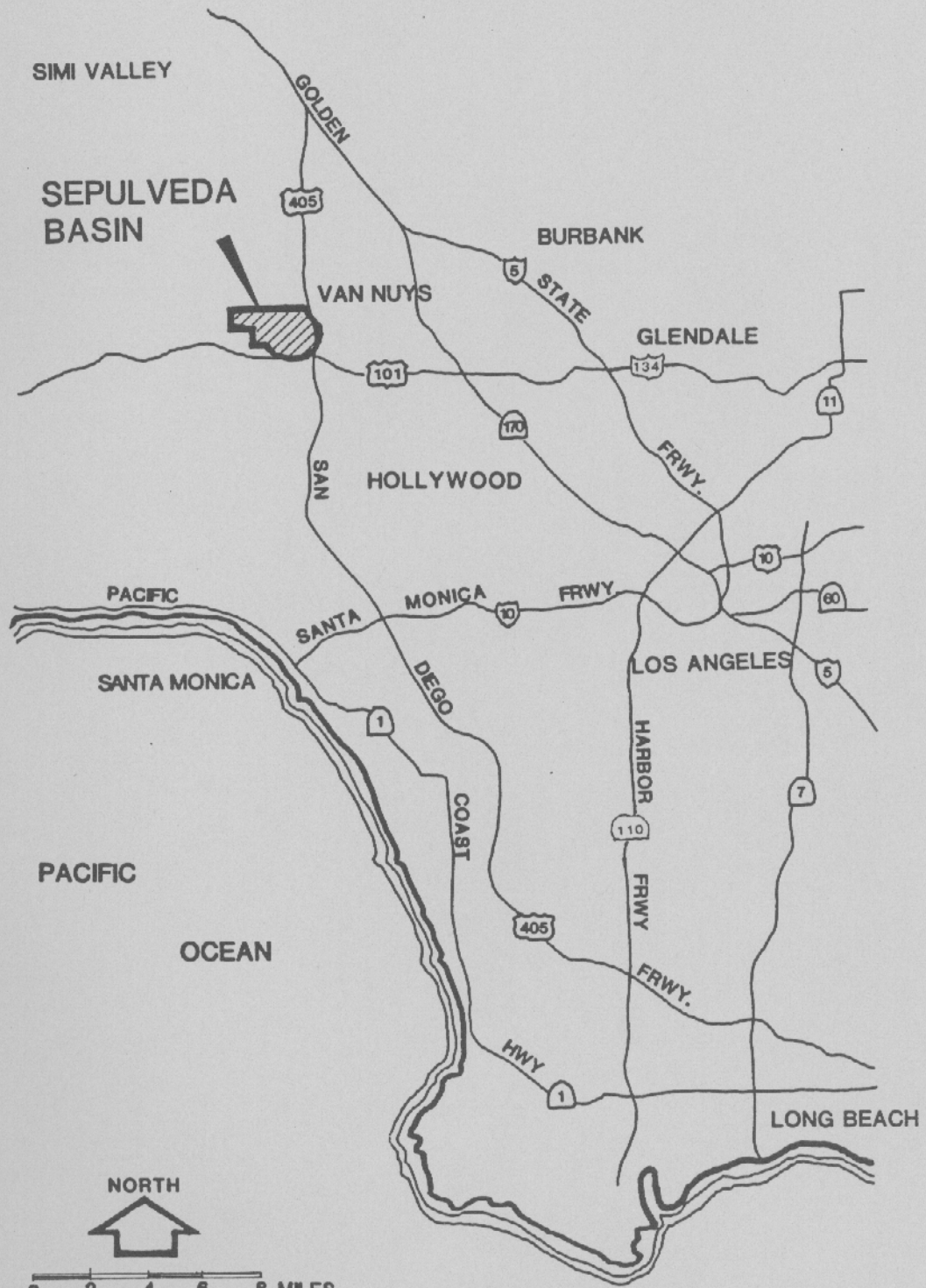


FIGURE 1
VICINITY MAP

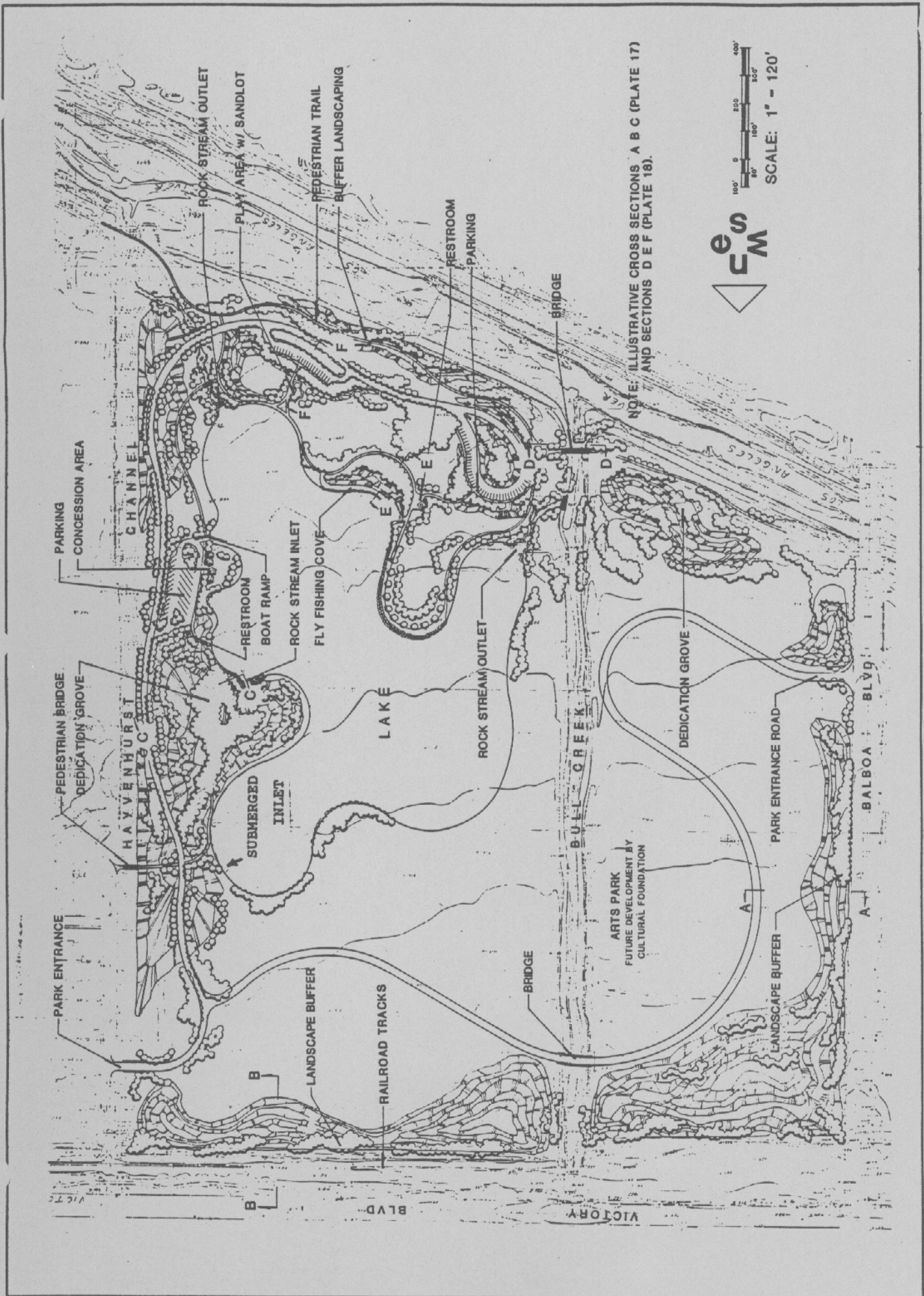


FIGURE 3. PROJECT FEATURES FOR RECREATION LAKE/ INFORMAL PARK.

1.05 The lake could be drained to the river in about 13 days, to the sewer in about 50 to 60 days, or to surrounding parklands through the irrigation system in a minimum of 18 days at maximum irrigation rates. The sewer connection would be reserved for emergency situations and could only be used with the approval of the City of Los Angeles, Department of Public Works. A sediment trap would be provided at the outlet to the Los Angeles River. The recirculation system would aid in moving water through the lake to prevent stagnant areas and could be operated either simultaneously with Tillman Plant flow or independently.

1.06 Disposal Area. Excavation of the recreation lake would involve removal of 635,000 cubic yards (CY) of soil. This would include a small amount of excavation outside of the lake drainage perimeter, north of the lake, to provide drainage away from the lake. This soil material would be placed in mounds along Balboa Boulevard, along the railroad tracks, at the south end of the lake and in a few small mounds elsewhere in the park. These mounds would visually enhance the setting by providing topographic relief. They would also visually and acoustically buffer the park from adjacent highway and rail traffic and from adjoining residences. The majority of the mounding would be above the probable-maximum-flood (PMF) elevation of 718 feet. Approximately 215,000 CY of material would be deposited in the area west of Bull Creek. The remainder would stay east of Bull Creek.

1.07 INFORMAL PARK. The informal park surrounding the recreation lake would provide opportunities for passive recreational experiences such as picnicking, jogging, and bicycling with informal play areas for playing catch or throwing a frisbee. Associated features of the park would be restrooms, ramadas, playgrounds, a boat launching concession area, two dedication groves and parking. The park would occupy the full 160-acre site, minus the lake but including 60 acres in the northwest corner under consideration for the Arts Park (see paragraph 1.11). If the Arts Park is not built for any reason, an informal park would be established in its place.

1.08 BULL CREEK. Bull Creek is a flood control channel which runs from north to south through the 160-acre recreation lake/informal park site. One of the overflow outlets from the recreation lake would enter Bull Creek about 400-feet upstream from its confluence with the Los Angeles River. The slope of Bull Creek where the overflow entered would receive a rock treatment over an area of about 25-feet by 45-feet to prevent erosion of the slope.

1.09 Esthetic treatment of Bull Creek has been proposed. Tentative plans would affect only the lower 640 feet of the creek. Details of the plan have not been entirely worked out, but enough are available to evaluate impacts. If significant changes are made in the plan as presented here, a supplemental NEPA document could be required.

1.10 The proposed plan would leave one side of the creek with a relatively steep slope and a dense native riparian planting. The other slope would have terraces and a more open planting of native species. This slope would also have trails. The two treatments would alter from side to side in about 200-foot sections. The channel bottom would be left natural with some large stone added, but, except for the margins, it would be kept clear of vegetation

to facilitate mosquito control. Stone-capped weirs will bridge the trails across the creek at two locations. Trees on the terraced bank would be pruned of low branches, and trees on both banks may have to be removed when they reach a size to be determined in a future hydrological report.

1.11 ARTS PARK. An Arts Park has been proposed for about a 60-acre area in the northwest corner of the 160-acre parcel in which the recreation lake and informal park would be developed. This development would be constructed with private funds and is not a part of the current FDM or EA.

1.12 WILDLIFE AREA. The 60-acre wildlife area was proposed as a project feature during the master planning process. A pond with a "waterfowl theme" was proposed for the wildlife area. In addition, some of the plantings specified later in this report for this area were included in the EIS as mitigation for losses in other parts of the basin. A section on cost estimates in the master plan listed fencing and landscaping as items to be included in plans for the wildlife area. A commitment was made in the EIS to develop wildlife areas prior to or during construction of the recreation lake. The City of Los Angeles will be developing this area with initial funding from the California State Wildlife Conservation Board.

1.13 Design. The proposed wildlife area includes an 11-acre seasonal pond that would be supplied with water from the Tillman Reclamation Plant. The pond would drain into Haskell Channel and would have an adjustable weir that would allow the water level to be adjusted, for management purposes, resulting in a maximum depth of 3-5 feet. The banks of the pond would be graded to a slope no steeper than 10:1 and a one-acre island would be constructed. The eastern bank of the pond would be left ungraded. The pond would probably be filled in late August or early September and drained in mid-to-late March to discourage the initiation of nesting by waterfowl. The actual dates would be adjusted as experience dictated. Wildlife blinds would be constructed if funding is available. A pipe-rail fence would be constructed to prevent vehicular access. Native species of the following vegetation types would be planted in the area:

- (1) Riparian
- (2) Oak Woodland
- (3) Grassland
- (4) Coastal Sage Scrub

1.14 Disposal Area. Current plans call for 33,000 CY of earthwork. Material excavated from the pond would be used to construct an island in the pond and berms around it. Possible changes in the plan would require less material for berms. Excess material excavated from the wildlife area would be disposed of in a 10.5 acre triangular plot of ground on the downstream side of the dam, adjacent to the dam and just east of the spillway.

1.15 PLANTING PLAN. The informal park, the mounds, and any disturbed soils around the recreation lake would be planted for esthetics, resource enhancement, and soil erosion control. If plantings described in the FDM are not part of Phase 1 construction, all disturbed soils would still need to be seeded for erosion control. The species which would be used and the seeding

rates are included in table 1. A separate native seed mix will be developed in coordination with resource agencies for disturbed soils in the wildlife area.

Table 1. Seed Mix for Erosion Control.

Plant Seed	Lb. Pure Live Seed (PLS) Per Acre
<u>Centaurea cyanus</u> (Dwarf) Dwarf Cornflower	1
<u>Coreopsis tinctoria</u> (Dwarf) Dwarf Plains Coreopsis	1
<u>Dimorphotheca aurantiaca</u> African Daisy	2
<u>Eschscholzia californica</u> California Poppy	1
<u>Grysophila elegans</u> Baby's Breath	1
<u>Linum perene 'Lewisii'</u> Blue Flax	1
<u>Lobularia maritima</u> Sweet Alyssum	1
<u>Lupinus texensis</u> Texas Bluebonnet	2
<u>Mimulus longiflorus</u> Southern Monkey Flower	1
<u>Nemophila menziesii</u> Baby Blue Eyes	1
<u>Phacelia campanularia</u> California Bluebell	1
<u>Silene armeria</u> Catchfly	1
<u>Festuca megalura</u> Zorro Fescue	14
Total PLS Per Acre	<u>28</u>

1.16 Informal Park. Designated areas around the recreation lake would be planted exclusively, with plants native to southern California. These areas would be along the Los Angeles River and along about 400 feet of the southern portion of Bull Creek. Plantings would be on the top of the slopes. Only very minimal plantings would extend onto the uppermost part of the slopes in Bull Creek. Native ground covers were chosen that would not exceed 3 feet in height. Additional native plants would be used throughout the park. For a list of native plants from which selections will be made, see Attachment A.

1.17 Bull Creek. Tentative plans for esthetic treatment for Bull Creek have been proposed. These plans call for plantings with native species only. The native plant list for other areas of the park (Attachment A) would be supplemented for Bull Creek with native willow species (Salix gooddingii, S. lasiolepis, and S. hindsiana), elderberry (Sambucus mexicana), golden currant (Ribes aureum), California blackberry (Rubus ursinus), and California rose (Rosa californica). The steep slope would be planted only with riparian species.

1.18 Wildlife Area. Plans for the wildlife area show riparian vegetation in an area of about 15 acres around the pond (figure 4). Willows and mulefat should rapidly reestablish themselves in the area after construction, particularly around the edge of the pond. Plantings would be made of riparian species in areas around the pond (see USFWS Coordination Letter, attachment B, for a species list). An oak woodland would be planted on about 8 acres in the southeast portion of the parcel. If funding for this wildlife management activity (i.e., oak-woodland planting) is not available before October 1987, then the Corps will seek, through coordination with the City of Los Angeles and the State Wildlife Conservation Board, to remove this area from the city's lease and carry out the planting on its own. The planting of the native grassland and coastal sage scrub would occupy about 26 acres. Planting the grassland would involve clearing and sterilizing the soil to minimize competition from annual grasses and replanting. The coastal sage scrub should be confined mostly to areas around the margin. Interspersing grassland and coastal sage scrub too much could interfere with the establishment of the grassland as the coastal sage scrub would provide cover for rodents and rabbits which would graze on the grasses. Fencing may be necessary for grassland establishment. Three or four poles for raptor perches could be installed within the grassland.

1.19 ACCESS. Recreation Lake/Informal Park. Vehicular access into the park and recreation lake area would be via the existing entrance to the Woodley Golf Course. This road, designed for two-way traffic, would be extended across Hayvenhurst Channel with a box culvert crossing and would run along the east and south sides of the lake. An alternative entrance for emergency and service vehicles would be off of Victory Boulevard, near Bull Creek. This road would run along the west side of the lake and connect with the main road at the southwest corner of the lake. The proposed road which would run through the Arts Park area, cross Bull Creek and connect Balboa Boulevard with the access from Woodley Avenue is a part of the current FDM. However, this road would not be built until the Arts Park or some alternative development is constructed. The final design of this development may affect the alignment of this road and its point of entrance off of Balboa Blvd. Because of this uncertainty about design at this time, additional NEPA documentation would be completed at a later date when decisions have been made, but before this road is constructed.

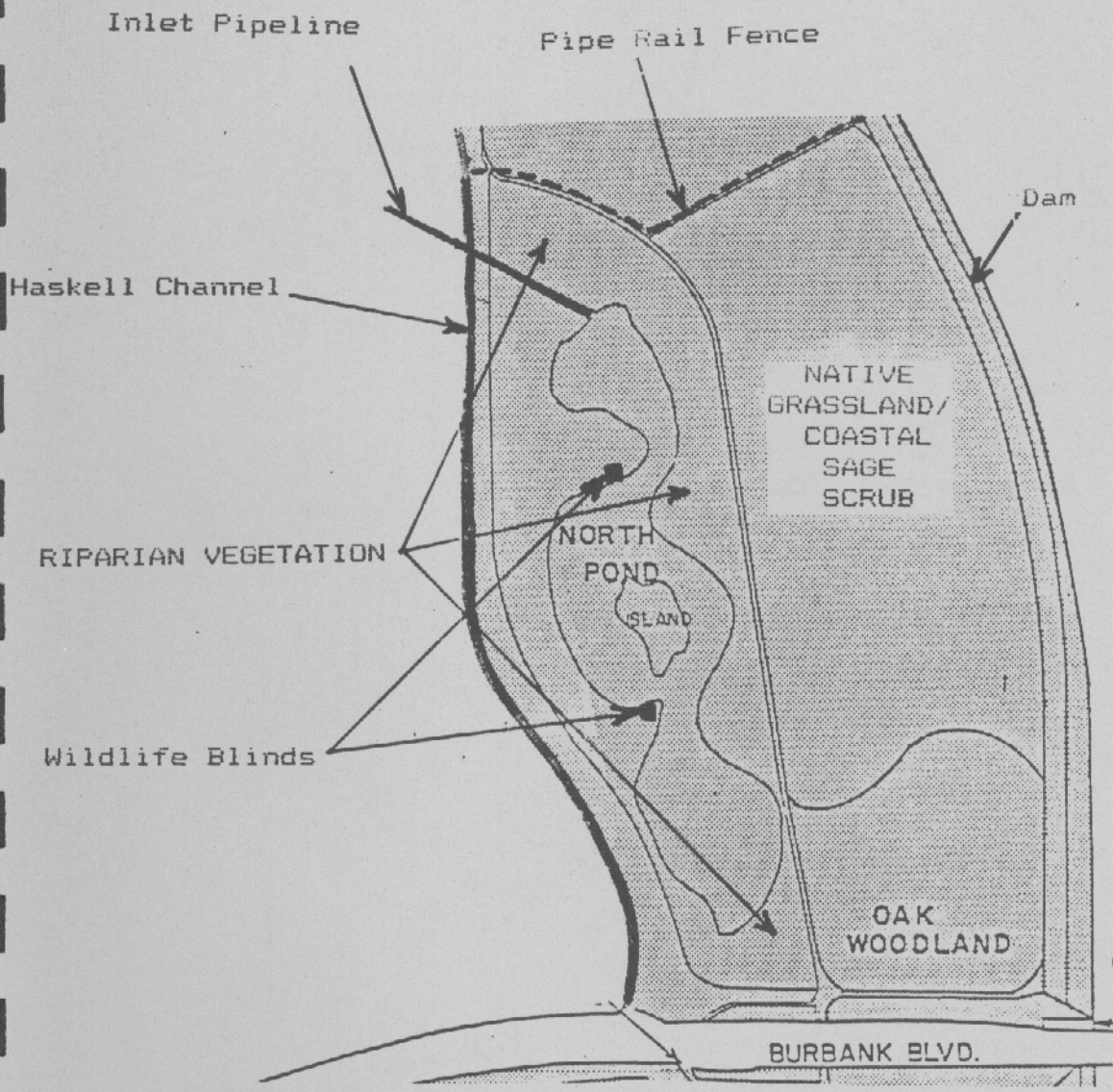


FIGURE 4. PLANS FOR WILDLIFE AREA.

1.20 Pedestrian/bicycle access would also be provided into the park. A bridge would be built across Hayvenhurst channel in the vicinity of the Woodley Golf Course parking lot. Another bridge would be built across Bull Creek in the southern part of the project area. This latter bridge would be in addition to two stone weirs that would serve as crossings for a trail along Bull Creek.

1.21 Wildlife Area. Access into the wildlife area for those who wished to view wildlife would be by an existing route and parking area in Woodley Park, north of the site.

1.22 WATER DISTRIBUTION SYSTEM. A system for delivering water from the Tillman Plant to the recreation lake and to the wildlife area pond and Haskell Channel would be a necessary feature of the proposed project. A pumping station would be constructed in the vicinity of the south end of the Tillman Plant, probably on lands currently leased to the City of Los Angeles, Bureau of Sanitation. From this station, effluent would be pumped through pipelines to the two areas. Excess soil material from this operation would be deposited either on mounds above the Probable Maximum Flood in the vicinity of the recreation lake or in the disposal site below the dam.

1.23 Recreation Lake/Informal Park. The pipeline from the Tillman Plant to the recreation lake would follow one of two possible routes (figure 2):

1. A straight line to the west through the middle of the Woodley Golf Course for a distance of about 4,000 feet.
2. From the southwest corner of the plant, diagonally through Woodley Park to the access road into Woodley Golf Course, west along the road to the west side of Hayvenhurst Channel and then south to the lake for a distance of about 6300 feet.

1.24 A system for delivering water from the Tillman plant for irrigation of the informal park is also a part of this project. A holding tank and a pumping station large enough to supply golf courses and other parks in the basin (peak pumping rate would be 22 MGD) would be provided, but supply lines outside of the proposed informal park would not be part of the current project. The tank and the pumping station would probably be located on parklands in the vicinity of the plant. An irrigation line would have to cross under Bull Creek, requiring an open cut across the creek for installation.

1.25 Wildlife Area. The pipeline from the Tillman Plant would be routed on a straight line through Woodley Park to the north end of the pond for a distance of 2200 feet.

1.26 PHASING. Recreation Lake/Informal Park. Funding is not yet available to complete the recreation lake and informal park as described in the FDM. Therefore, construction would be phased. The first phase of development would include construction of the lake and all site grading. This would include all the necessary features for a completely functional lake, including those

features for minimizing algae growth problems such as all inlets, outlets, connections, aerators, and the recirculation system. The shelf around the edge of the lake would be covered with concrete in the first phase. Soils disturbed by construction activities would have to be planted to provide temporary cover in order to prevent erosion. Access for construction and for visitors would be available via an existing culvert which crosses Hayvenhurst channel just south of the railroad tracks. Landscaping would occur as funding permitted.

1.27 Wildlife Area. Adequate funding is also not available to complete the wildlife area at this time. Although it is not yet clear how much of the wildlife area development can be completed with available funds, the entire development would be completed before, or at the same time as the informal park is completed. Work would be completed according to the following prioritized list (highest priority first) of proposed features:

a. Trenching and pipe construction from the Tillman Plant to the existing borrow pit east of Haskell Channel and south of Woodley Park.

b. Minor excavation and regrading at the existing borrow pit (proposed wildlife lake), to enlarge it, to deepen it in the center and to construct an island.

c. Construction of an unpaved maintenance road from the existing parking area to and along the west side of the pond east of Haskell Channel and to the base of the proposed wildlife pond.

d. Construction of pipe-rail fence along the north border of the wildlife area.

e. Planting of native vegetation in the following order:

- (1) Riparian vegetation
- (2) Oak woodland
- (3) Native grassland
- (4) Coastal Sage Scrub

f. Development of minimal wildlife blinds.

1.28 If funds for the oak-woodland planting are not available before October 1987, then the Corps will seek agreement with the city and the state to remove this area from the city's lease and carry out the planting on its own.

1.29 DEVIATIONS FROM THE MASTER PLAN. The Master Plan originally called for the development of a 120-acre recreation lake, which would occupy the existing channel of the Los Angeles River from Balboa Boulevard downstream to Burbank Boulevard. The Record of Decision for this project was signed on November 3, 1983. It changed the recreation lake to the concept discussed in Alternative B, which means that the Los Angeles River channel would not be directly impacted. The Master Plan EIS included mitigation for the loss of 63 acres of wetlands in the Los Angeles River but stated that Bull Creek would be preserved. Current plans would result in direct impacts to 1.4 acres of Bull

Creek. Because of this change in impacts to wetlands, it would be acceptable to reduce the required mitigation. One of the original mitigation items was that effluent from the treatment plant would be discharged into Bull Creek and Woodley Channel and flow from there into the recreation lake. Current plans show outlets from the treatment plant directly into the lake which then has overflow outlets into both Bull Creek and Hayvenhurst Channel. The recreation lake was also supposed to have some natural edges and an island to partially replace riparian areas lost due to development. The current plan shows no such edges or island.

1.30 The EIS stated that tertiary treated water would be available for supplying the lake. The Tillman plant discharges an effluent which has had an advanced secondary treatment (i.e., secondary plus filtration). Some agencies consider this to be tertiary treatment, whereas others reserve the term tertiary for nutrient removal. From discussions in the EIS, it is apparent that nutrient levels in the effluent were expected to be high.

1.31 CORRECTION IN LAND-USE DESIGNATION. The 40-acre parcel of land immediately west of the Los Angeles River channel and south of Encino Channel (which runs south of Burbank Boulevard and parallel to it) was designated as an operations/natural area in the Master Plan. Agriculture is not considered to be a suitable land use for areas with this designation. This piece of land is currently in agriculture and does support significant wildlife resources (i.e., it is a foraging area for Canada geese). In order to preserve this use and provide the opportunity for enhancing this area further for wildlife, particularly the Canada goose, this parcel would be designated as a wildlife management area. This action is not related to the development of the recreation lake or the wildlife area.

2. NEED FOR THE PROPOSED ACTION

2.01 The Master Plan identified four communities which would be served by recreation projects in the Sepulveda Basin. Projected populations taken from the Master Plan for the year 2000 for these communities are listed in table 2. The Sepulveda Basin lies in the center of these four communities and is the only regional-scale public open space within the confines of these communities. Based both on the total population projected for the year 2000 for these communities and on the need as perceived by the City of Los Angeles for 6 acres of regional park for each 1000 people, 2,190 acres of regional park should be provided by the year 2000 (the 1979 population required 2,010 acres). According to the EIS for the Master Plan only 1625 acres is available for recreational development in the basin and, in 1980, only 904 acres had been developed. Little additional areas have been developed since then.

2.02 The establishment of a wildlife area and a portion of the planned plantings are considered to be mitigation for the development of Sepulveda Basin. The Corps committed itself in the EIS for the Master Plan to completing the wildlife area before or at the same time as the recreation lake. Therefore, the wildlife area is a necessary action at this time.

2.03 The operations/natural area south of Burbank Blvd. and west of the Los Angeles River is currently being used for agriculture, but would have to be removed from agriculture in the future as this use is not compatible with the

current land use designation. This agricultural field, as well as other such fields in the basin, serves as a foraging area for Canada geese and other migratory waterfowl. Agricultural uses and the foraging habitat they supply are declining in the basin. Changing the land use designation for this parcel of land would allow agriculture to continue and would provide the opportunity for enhancing the foraging values of this land.

Table 2. Projected Populations* for the Year 2000 for Four Communities in the Vicinity of Sepulveda Basin.

Encino - Tarzana	83,789
Reseda - W. Van Nuys	90,405
Sherman Oaks - Studio City	76,588
Van Nuys - North Sherman Oaks	<u>114,007</u>
	364,789

*Projected Population (1990-2000), L.A. City Planning Dept. April, 1979.

3. ALTERNATIVES TO THE PROPOSED ACTION

3.01 In the formulation of the EIS for the master plan, alternatives for development of the basin were examined which ranged from an intensive, spectator-oriented program, including facilities anticipated to accommodate Olympic events, to an open park-like approach, with no sports facilities oriented to spectator activity. In addition, a no action alternative was considered. The proposed master plan offered a balance between intensive use and the notion of maintaining an open, park-like setting. The Record of Decision altered the proposed master plan by modifying the recreation lake concept from a 120-acre lake in the LA River channel to a much smaller lake that would avoid the channel. However, some controversy still remains over the need for even a reduced lake as currently proposed.

3.02 In deciding upon a location for the recreation lake, three alternatives were considered. The lake could be:

1. Located so that Bull Creek would run through the lake.
2. Located so that Bull Creek would not run through the lake.
 - a. West of Bull Creek
 - b. East of Bull Creek

3.03 Bull Creek, being an urban flood control channel, frequently has rather low water quality. In addition to chemical constituents, debris and sediment would create problems for the lake if Bull Creek flowed through it. Therefore, it would be preferable to locate the lake to either side of Bull Creek. The west side of the creek would not provide enough room for the desired configuration of the lake, therefore the lake was situated in the parcel of land east of Bull Creek.

3.04 Alternatives were also considered for the source of water for the lakes. In addition to the effluent from the Tillman Reclamation Plant, domestic water and mixtures of the two were considered. Well water was not considered once it was learned that the cost would be roughly equivalent to the cost of potable water and that, in addition, drilling would be done at the user's expense. The City of Los Angeles, Department of Recreation and Parks would not be charged for the use of Tillman Plant effluent, whereas domestic water would cost about \$560 per million gallons. With this cost differential for a lake with a capacity of about 78 million gallons and because it was felt that with proper maintenance and design the algae problem could be managed, 100 percent Tillman Plant effluent was selected as the water source for the lake.

3.05 An alternative for the operation of the pond in the wildlife area was proposed by USFWS as their preferred alternative (see attachment B). This proposal for a year-round pond was not selected for implementation because of anticipated problems with emergent vegetation, mosquito control, and algal blooms.

4. AFFECTED ENVIRONMENT

4.01 LAND USE. Although the primary purpose of the Sepulveda Flood Control Basin is flood control, there are several other uses being made of the basin. Recreation and agriculture are the two largest uses within the basin, occupying approximately 950 acres and 390 acres, respectively, out of a total of 2097 acres. These uses could be affected by this project.

4.02 Flood Control. The primary purpose of the Sepulveda Flood Control Basin is flood control. Runoff from a drainage area of 152 square miles (including 85 square miles of relatively steep mountainous terrain) flows into the basin and is funneled into a flood control channel. The water in the basin will reach an elevation of 702 feet during a 30-year flood and cover 865 acres (U.S. Army Corps of Engineers 1985). During a 50-year flood, the water will reach 707 feet and cover 1,187 acres. The standard project flood (200-year flood) reaches an elevation of 713.5 feet and covers 1,529 acres, with an inflow of 50,000 cfs which is reduced to an outflow of 41,300 cfs.

4.03 Recreation. The City of Los Angeles, Department of Recreation and Parks is the largest lease holder in the basin, leasing 1527 acres. The city has developed 816 acres of this land for recreation, including: golf courses, little league and public baseball fields, public park, model airplane field, multipurpose playfields, tennis courts, garden center, youth center, and bicycle path. Franklin Fields, Inc. holds a separate lease of 28 acres for

lands occupied by baseball fields and a velodrome. There are also about 108 acres devoted to a wildlife refuge that provides recreation in the form of hiking and birdwatching.

4.04 Agriculture. Agricultural use is an interim use of land in the Sepulveda Basin. The entire flood control basin has been allocated for recreational use. The 390 acres currently in agricultural production is land allocated to the City of Los Angeles for recreational development.

4.05 Corn is currently the dominant crop. Planting is staggered, beginning in the later part of February, if conditions permit, and continuing into the summer to allow a continuous harvest ending about mid-November. Some of the fields are double cropped if the first planting was completed on time. Other warm season crops, all found south of Burbank Boulevard between Hayvenhurst Avenue and Hjelte Park, included eggplant, peppers, squash, green beans, tomatoes, and melons. Onions and garlic, cool season crops, have been grown on higher ground on a very limited basis. A small nursery and a store selling produce and nursery plants occur west of Hayvenhurst Avenue and south of Burbank Boulevard. Another produce store is located near the corner of Balboa and Victory Boulevards.

4.06 The Soil Conservation Service (U.S.D.A.) classified about 460 acres of land within the basin as prime agricultural land in a letter dated May 29, 1984. One hundred and eighty seven acres of this land is currently being used for agriculture. Another 108 acres is in the wildlife refuge, and the rest is occupied by a golf course, a naval installation, and a model airplane field.

4.07 Wildlife Management/Preservation. The EIS for the Master Plan identified two land uses that contribute to the goal of wildlife management and preservation: Wildlife Management Area and Operations - Natural Area. The former allows for management of habitat for fish and wildlife, and the latter identifies lands acquired for project operations and allocated for preservation of scientific, ecological, historical, archeological or visual values. No agricultural uses are permitted on these latter lands. Wildlife Management Areas in Sepulveda Basin occupy 108 acres in the area north of the Los Angeles River and west of the dam. Operations - Natural Areas include a 40-acre parcel south of Burbank Boulevard and immediately west of the river and various drainage channels in the basin including: the Los Angeles River, Encino Creek, Bull Creek, Woodley Channel and Haskell Channel.


4.08 BIOLOGICAL RESOURCES. The extensive area of open space within the Sepulveda Flood Control Basin provides important habitat for wildlife within the highly urbanized San Fernando Valley. Even the 500 acres of golf courses (with their many trees and small bodies of water), the parks, and the agricultural fields attract birds and other wildlife. More important however, are the approximately 140 acres of riparian habitat and 108 acres of wildlife reserve.

4.09 Wildlife in the Sepulveda Basin includes, but is not limited to, over 200 species of birds reported from various sources (see coordination letter from USFWS, attachment B for a list of some of these plus 20 species of mammals, 13 species of reptiles and amphibians, and five species of fish (U.S.


Army Corps of Engineers 1981)). Large numbers of migratory waterfowl and shorebirds utilize low-lying flooded areas within the basin (e.g., the borrow pits) for wintering.

4.10 The recreation lake/informal park area is currently in agricultural production. The usual crop is sweet corn. Agricultural lands generally provide some habitat for a limited number of species. Rodents can usually be found in agricultural fields, and raptors can be found preying upon the rodents. A number of migratory waterfowl and shorebirds are also commonly found in these fields in the winter. The most noteworthy of these is the Canada goose (Branta canadensis). Large numbers of this species have been seen in the fallow agricultural fields of the basin. These geese, according to the USFWS coordination letter, move back and forth between the basin and Encino Reservoir where they spend the night. Great blue heron (Ardea herodias) and flocks of gulls (Larus spp.) have also been observed in the project area during the winter.

4.11 Bull Creek is a drainage which runs from north to south, dividing the 160-acre recreation lake/park area into two parts. This drainage is about 20 feet deep and 2600 feet long. The channel is currently only sparsely vegetated with giant reed (Arundo donax), castor bean (Ricinus communis), and various other ruderal species after having been cleared and sprayed with herbicides to facilitate mosquito control and to protect stabilizers in the channel. In the past, Bull Creek has been lined with a dense growth of willows (Salix spp.), mulefat (Baccharis glutinosa), and a few small sycamores (Platanus racemosa). This area has supported a diverse group of birds in the past, including many warbler species. It is expected that without the project and without additional spraying, Bull Creek would return to this former condition.

4.12 The wildlife area is divided into two sections by a service road which runs north and south. The eastern section is primarily annual grassland, with black mustard (Brassica nigra), curly dock (Rumex crispus), sow thistle (Sonchus oleraceus) and other ruderal species. The western section contains an old borrow pit which seasonally contains water. The edge of this borrow pit, which is approximately 10 acres, is vegetated with relatively dense mulefat. The wetland vegetation around the borrow pit occupies about 4.5 acres and also contains arroyo willows (Salix lasiolepis), black willow (Salix gooddingii), cottonwood (Populus fremontii), cattail (Typha latifolia) and umbrella sedge (Cyperus sp.), with a ground cover when dry consisting of knotweed (Polygonum spp.), black mustard, sweet clover (Melilotus albus), and cocklebur (Xanthium strumarium). 

4.13 A narrow drainage channel, Haskell Channel, runs along the west side of the wildlife area. This channel is vegetated with bulrush (Scirpus californicus), cattails, and a few willows. The ground cover consists of annual grasses and other ruderal species.

4.14 The wildlife area contains a variety of bird species, particularly during the winter when migrating waterfowl are present. Pied-billed grebes (Podilymbus podiceps), mallards (Anas platyrhynchos), northern pintails (Anas acuta), and cinnamon teals (Anas cyanooptera) use the seasonal pond. Many birds use the wetland vegetation around the pond, including Bewick's wren 

(Thryomanes bewickii), yellow-rumped warbler (Dendroica coronata), Lincoln's sparrow (Melospiza lincolni), tri-colored blackbird (Agelaius tricolor), and the American goldfinch (Carduelis tristis). Loggerhead shrikes (Lanius ludovicianus), savannah sparrows (Passerculus sandwichensis), and western meadowlarks (Sturnella neglecta) are among the birds that were seen using the field in the eastern portion of the site. Several raptors, including the Cooper's hawk (Accipiter cooperi) have been observed foraging in the area. The most common prey in the area are the California ground squirrel (Spermophilus beecheyi) and Audubon's cottontail (Sylvilagus audubonii). Botta's pocket gopher (Thomomys bottoe) and a variety of other small rodents are also common. Raccoon (Procyon lotor) and skunk (Mephitis mephitis) are also certain to use the area.

4.15 Besides Bull Creek and Haskell Channel, there are two other channels in the basin that would be affected by the project, Woodley Channel and Hayvenhurst Channel. These are narrow ditches which flow from north to south for 4200 feet and 3100 feet, respectively. They both support "low quality wetland/aquatic habitat" with mostly ruderal species (U.S. Army Corps of Engineers 1986).

4.16 The area on the downstream side of the dam that is a possible disposal site for material excavated from the wildlife area pond is about 10.5 acres. A mowed annual grassland vegetation occupies the site. Rodents and raptors probably utilize this area.

4.17 The area to be redesignated to a wildlife management area is currently in agriculture (sweet corn). The biological resources of this area are similar to those described for the recreation lake site.

4.18 A 14,300-foot section of the Los Angeles River flows through the basin. An 7,365-foot portion of this is a natural channel with another 4,700-foot section having an earth bottom and grouted stone sides. There is only one other section of the Los Angeles River, 2.6 miles near Griffith Park, that has a natural bottom, making this a very unique resource. This section of river with a natural bottom in Sepulveda Basin is also a very important resource because it allows ground water recharge and provides both a substrate and a water supply for riparian plants which, in turn, provide food and cover, adjacent to a water supply, for wildlife. Vegetation along this natural section is annual grasses, coastal sagebrush (Artemisia californica), and ruderal species in portions of the channel, and arroyo willow, sandbar willow (Salix hindsiana), and mulefat in other portions. The river is known to support several fish species, including the native arroyo chub (Gila orcutti).

4.19 ENDANGERED AND THREATENED SPECIES. There are no federally listed Endangered and Threatened Species likely to be found within the Sepulveda Basin. The Endangered Species Office of the U.S. Fish and Wildlife Service (USFWS) listed one candidate species for the area, the tri-colored blackbird (attachment C). This species was observed foraging in the park north of the wildlife area in mixed flocks with red-winged blackbirds (Agelaius phoeniceus). It also moves through the wildlife area and perches in vegetation along Haskell Channel. According to the USFWS coordination letter (attachment B), it is doubtful that the species breeds on the project site due to a lack of extensive freshwater habitat.

4.20 The least Bell's vireo (Vireo bellii pusillus), an endangered species, has been included in previous lists for the Sepulveda Basin. However, it has not been seen in the basin recently. As habitat in the basin matures, potential habitat for the least Bell's vireo could become available.

4.21 The San Diego coast horned lizard is another candidate species that has been reported to occur in the basin. According to the coordination letter from the USFWS, however, adequate habitat for this species does not occur.

4.22 Special status species which have been found or which could be found in the project area are included in table 3 (taken from USFWS coordination letter). Several of these species were sighted by the USFWS in their most recent survey. The blue grosbeak is another species of interest that, although not uncommon in the western U.S., is a rare nester in Los Angeles County and is found nesting along this part of the Los Angeles River Channel.

Table 3. Special Status Species Found or Which Could Be Present at Sepulveda Basin in Recreation Lake and Wildlife Area Sites.

SPECIES	FEDERAL ^{1,2} , CATEGORY 2 CAND.	SENSITIVE USFWS ³	SPECIES CDFG ⁴	AUDUBON BLUE LIST ⁵
<u>Reptiles</u>				
San Diego coast horned lizard	X			
<u>Birds</u>				
Canvasback			X	
*Turkey vulture				X
*Northern harrier				X
*Cooper's hawk			X	X
Red-shouldered hawk				X
*Bewick's wren				X
*Loggerhead shrike		X		X
Yellow warbler		X	X	X
*Tricolored blackbird	X			

¹USFWS 1980

²USFWS 1982a

³USFWS 1982b

⁴Remsen 1979

⁵Tate & Tate 1982

*Sighted by USFWS in most recent survey

4.23 CULTURAL RESOURCES. The entire Sepulveda flood control basin has been surveyed for the presence of cultural resources (Martz 1977; Cottrel, et al 1985). Two prehistoric archeological sites have been identified within the basin: LAN-111 and LAN-345. No other cultural resources have been identified within the basin. However, as the cultural resources surveys of the basin were not conducted until many years after completion of the dam, there is a possibility that additional archeological sites may be present, but are now covered by sediment accumulated behind the dam.

4.24 WATER QUALITY. In order to protect the quality of surface and ground water the Los Angeles Regional Water Quality Control Board (LARWQCB) has established water quality objectives which should be maintained in order to protect the identified uses of surface and ground waters of the basin. These uses are defined and identified for the Los Angeles River in the San Fernando Valley, as well as for Bull Creek, in tables 4 and 5. Table 6 summarizes the water quality objectives of surface water in the project area. In addition to meeting water quality objectives, the surface and groundwaters should meet state water quality standards as well.

4.25 Even though water quality objectives are not absolute standards they have been adopted to protect the identified beneficial uses which include groundwater recharge. The concentrations of total dissolved solids (TDS) and nitrate-nitrogen are of concern for several reasons. As TDS levels increase, a water source becomes unpalatable for consumers and adverse impacts to salt sensitive plants begin. The U.S. Public Health Service and the California Department of Health Services have set recommended levels for TDS in water supplies at 500 mg/l unless no other water sources are available. Nitrates are of concern in water supplies because of the public threat to infant children when nitrate concentrations in their drinking water reach high levels. The State Department of Health has established 45 mg/l as a maximum nitrate-nitrogen level (as NO₃) allowable in a drinking water supply source. In addition, TDS and nitrates are considered to be the characteristics most indicative of groundwater pollution (Eccles 1979).

4.26 The bacteriological quality of water is another important consideration. The presence of total and fecal coliforms are an indication of fecal contamination of water. However, the measurement of total coliforms may provide false evidence of fecal contamination because some coliform, such as Aerobacter in soil, occur naturally and not as a result of contamination. Total coliforms are addressed throughout this report because State Standards for drinking water include this parameter.

4.27 The surface water flow in the Los Angeles River upstream of the Tillman Water Reclamation plant's outfall is normally composed of urban and agricultural runoff and some perennial flow from the mountains. Under these low flow conditions, the concentrations of nutrients (nitrogen and phosphorus) and trace metals, as is common in urban and agricultural runoff, are elevated. Following storms the quality of initial runoff is usually poor (high concentrations of trace metals, oil and grease, nutrients, turbidity and coliform bacteria) because storm drains are flushed and accumulated pollutants are washed from roads and lawns (pers. comm with Taira Yoshimura, Los Angeles Regional Water Quality Control Board 1986). As the storm progresses the

quality of the runoff improves because of dilution (except for turbidity). Downstream of the outfall, the surface flow in the river is dominated during low flow conditions by sewage effluent from the Tillman plant which has high concentrations of nutrients but low concentrations of hazardous compounds, including trace metals. A more detailed description of the quality of the Tillman plant effluent occurs later in this section. Surface flows in Bull Creek are composed primarily of urban and agricultural runoff, including runoff from the Van Nuys airport. The quality of these flows is expected to be slightly worse than those in the Los Angeles River above the Tillman outfall. Surface flows in Hayvenhurst are made up of agricultural runoff and storm runoff while Haskell channel is composed primarily of industrial, agricultural, and storm runoff. Oil slicks have been seen on the surface of the water in Haskell channel and Bull Creek (see figure 2).

Table 4. Definition of Beneficial Uses of Surface Water.

Gwr	Groundwater Recharge. Natural or artificial recharge of groundwater, either for future extraction and use, or to maintain salt balance or halt saltwater intrusion into freshwater aquifers.
Rc1	Water Contact Recreation. Includes all recreational uses involving body contact with water, such as swimming, wading, water skiing, sport fishing, use in therapeutic spas, or other uses where ingestion of the water is reasonably possible.
Rc2	Non-contact Water Recreation. Recreational uses which involve the presence of water, but do not necessarily require body contact, such as picnicking, sunbathing, hiking, camping, pleasure boating

Source: LARCQCB, 1975

Table 5. Beneficial Uses of Surface Water in Los Angeles River Basin.

Water Body	Beneficial Uses		
	Gwr	Rc1	Rc2
Los Angeles River	x	x	x
Bull Creek	I	I	I

Note: x = Present or Potential Beneficial Use
I = Intermittent Beneficial Uses

Source: LARWQCB, 1975

Table 6. Water Quality Objectives for Los Angeles River and Tributaries above Figueroa Street.

Constituent	Maximum Concentration (mg/l.)
total dissolved solids	950
sulfate	300
chloride	150
nitrogen (nitrate + nitrite)	8

Source: LARWQCB, 1975

4.28 Because effluent from the Tillman Plant is going to be used for irrigation of golf courses and parks in the Sepulveda Basin as well as for the source of water for the recreation and wildlife lakes, the quality of this reclaimed water is important. The Tillman plant provides advanced secondary treatment of domestic sewage. Although the plant is effective in removing pathogenic organisms (viruses and bacteria), trace metals and organic matter, its efficiency in removal of nutrients, such as nitrogen and phosphorus, is lower. Table 7 summarizes the quality of Tillman effluent during 1985. Since this wastewater is discharged into the Los Angeles River, it must meet the stringent standards established by the LARWQCB to protect the downstream beneficial uses which include water contact recreation, for which the standards are the strictest. The LARWQCB has issued the Tillman plant a discharge permit (known as a National Pollutant Discharge Elimination System permit) which defines the standards that the plant's effluent must meet (see table 7). On the whole, the effluent meets these standards as well as the water quality objectives for the river. Occasionally, the nitrogen objective is exceeded.

4.29 The LARWQCB permit also incorporates the requirements of the State of California, Department of Health Services (DOHS) that were established to ensure that reclaimed waste water does not impose risks to human health. The Tillman plant must meet stringent standards concerning the bacterial quality of the discharge water. These standards specify the median number of coliform (bacterial) organisms shall not exceed 2.2 per 100 milliliters as determined from the bacteriological results for seven consecutive days for which analyses have been completed, and the number of coliform shall not exceed 23 per 100 milliliters in more than one sample within any 30 day period. Currently the Tillman effluent meets and exceeds these requirements. If there is ever a malfunction at the plant and the effluent exceeds these requirements, it would be discharged into the sewer line for treatment at the Hyperion Plant. The Tillman plant is conducting a viral study on its effluent. Initial testing indicates that the plant is effective at removing viruses from the wastewater.

4.30 The Tillman Plant effluent contains high concentrations of nutrients (phosphorus and nitrogen) that could promote the production of algae. However, the concentration of heavy metals in the effluent are extremely low. In fact, they are present at concentrations which meet DOHS drinking water standards. Since the Tillman Plant receives primarily domestic sewage, the effluent should not contain trace organics, such as pesticides.

Table 7. Water Quality Data for Tillman Water Reclamation Plant Effluent and LARWQCB Permit Requirements.

Elements ^a	Tillman Effluent ^b	RWQCB 30-day Avg.	RWQCB Max. Limit
BIOLOGICAL OXYGEN DEMAND	3.8 (3-6)	20	60
SUSPENDED SOLIDS	2.4 (2-3)	15	40
OIL AND GREASE	1.2	10	10
TURBIDITY	1.3 (1.0-2.2)	2.0	
pH	7.0-7.4		6.0-9.0
TEMPERATURE	69-82		100
DISSOLVED OXYGEN	3.8 (1.0-6.0)		
BORON	0.80		1.5
SODIUM	83		
POTASSIUM	11.2		
CALCIUM	36.2		
MAGNESIUM	10.3		
FLUORIDE	1.01		1.2
NITRATE-N	4.3 (0.6-27)		
NITRITE-N	0.71 (0.03-1.74)		
AMMONIA-N	8.9 (5.8-17.7)		
ORGANIC-N	1.9 (1.24-2.46)		
TOTAL-N	15.8		40
DISSOLVED PHOSPHORUS	4.76 (4.28-5.88)		
TOTAL PHOSPHORUS	5.09 (4.28-6.02)		
SULFATE	81		300
ARSENIC	0.014		0.05
BARIUM	0.027		1.0
CADMIUM	0.005		0.01
CHROMIUM (T)	0.014		0.05
COPPER	0.035		0.10
IRON	0.068		0.3
LEAD	0.036		0.05
MANGANESE	0.030		0.05
MERCURY	0.0001		0.002
SELENIUM	0.005		0.01
SILVER	0.027		0.05
ZINC	0.054		5.0

^aUnits are in mg/l, except turbidity in NTU, pH in pH unit, temperature in °F.

^bAnnual average of 1985, () for range.
Lee and Ro (1986).

4.31 WATER SUPPLY/GROUNDWATER. Parklands and agricultural lands in the basin currently require vast amounts of water for irrigation. All of this water comes from the domestic supply as there are no wells in the area (Lee and Ro, 1986). The Department of Recreation and Parks has estimated that peak summer usage in the recreation areas in the basin (including the proposed park in the vicinity of the recreation lake) would be 10 million gallons per day (MGD). Most of this water would be lost to evapotranspiration and very little, if any, would percolate into the groundwater supply. Some groundwater recharge, however, does occur in the basin since an 7,365-foot portion of the Los Angeles River has an earth bottom and sides and another 4,700-foot portion has an earth bottom and grouted stone sides. In addition, side channels in the basin, such as Haskell, Woodley, and Hayvenhurst Channels and Bull and Encino Creeks have natural bottoms and sides that allow percolation.

4.32 The highest level on record for groundwater in the vicinity of the recreation lake is 59 feet below the ground surface (Appendix C to FDM, Geology and Soils Analysis). In the fall of 1980, Corps geotechnical staff found that depth to groundwater in the vicinity of the wildlife area was about 80 feet.

4.33 The Donald C. Tillman Water Reclamation Plant is currently producing about 25 MGD of effluent which is being discharged into the Los Angeles River at a point about 3900 feet downstream from the Hayvenhurst Channel confluence. The plant has the capacity to produce 40 MGD and is scheduled to increase to this figure in 1987. Additional capacity, to a total of 80 MGD, is planned to be added by 1991.

4.34 ESTHETICS. Visually the Sepulveda Basin is a flat open area that offers a sharp contrast with the highly developed commercial and residential areas around it. Agricultural fields such as those in the recreation lake site offer a visual feature that is unusual in the San Fernando Valley and which many people find attractive. Vegetation has recently been cleared from Bull Creek leaving a barren channel that offers no visual relief to the openness of the agricultural fields. This has not always been the case. A row of trees has lined this channel in the past and will return in the future, providing maintenance activities allow it to return.

4.35 The wildlife area, the disposal area, and the area to be redesignated as a wildlife management area are all open areas directly adjacent to the dam. The dam, a concrete and earthwork structure which reaches elevations of 40 to 45 feet above the base grade, dominates these sites visually. However, it also screens the two areas on the upstream side from the Ventura and San Diego Freeways, which run along the south and east sides of the basin.

4.36 AIR QUALITY. Air quality was discussed in the EIS for the Master Plan. Although traffic on roads in the basin has increased to a greater degree than predicted in the EIS, air quality has not changed significantly in the project vicinity since the EIS was written.

4.37 NOISE. The EIS for the Master Plan listed traffic as the primary source of noise in the Sepulveda Basin. The recreation lake site is situated near two of the busiest streets in the basin, Balboa Boulevard and Victory Boulevard.

The wildlife area and the area to be redesignated are near Burbank Boulevard, which is not as busy as the other streets. However, these areas are not far from the freeways that run along the edge of the basin. Fortunately, the dam tends to screen these areas from the noise generated by the freeways.

4.38 The Van Nuys Airport, a general aviation airport located about 4,000 feet north of the basin, generates some noise in the basin. Noise due to the nearly 250,000 annual departures from this airport would be noticeable in the project area. Multiple engine jet aircraft and C-130 military aircraft are among the types of aircraft that utilize this airport. Departures, which are generally more noisy than approaches, occur over the basin as a rule. The 65 CNEL (Community Noise Equivalent Level) noise contour around the airport comes near the northeast corner of the project area for the recreation lake (figure 5).

4.39 TRAFFIC. A traffic study was completed for the EIS for the Master Plan in 1981. Predictions were made in this study of traffic conditions in 1984. Actual traffic in the basin in 1984 exceeded these predictions according to staff of the City of Los Angeles, Department of Transportation. Additional traffic studies have not been undertaken at this time.

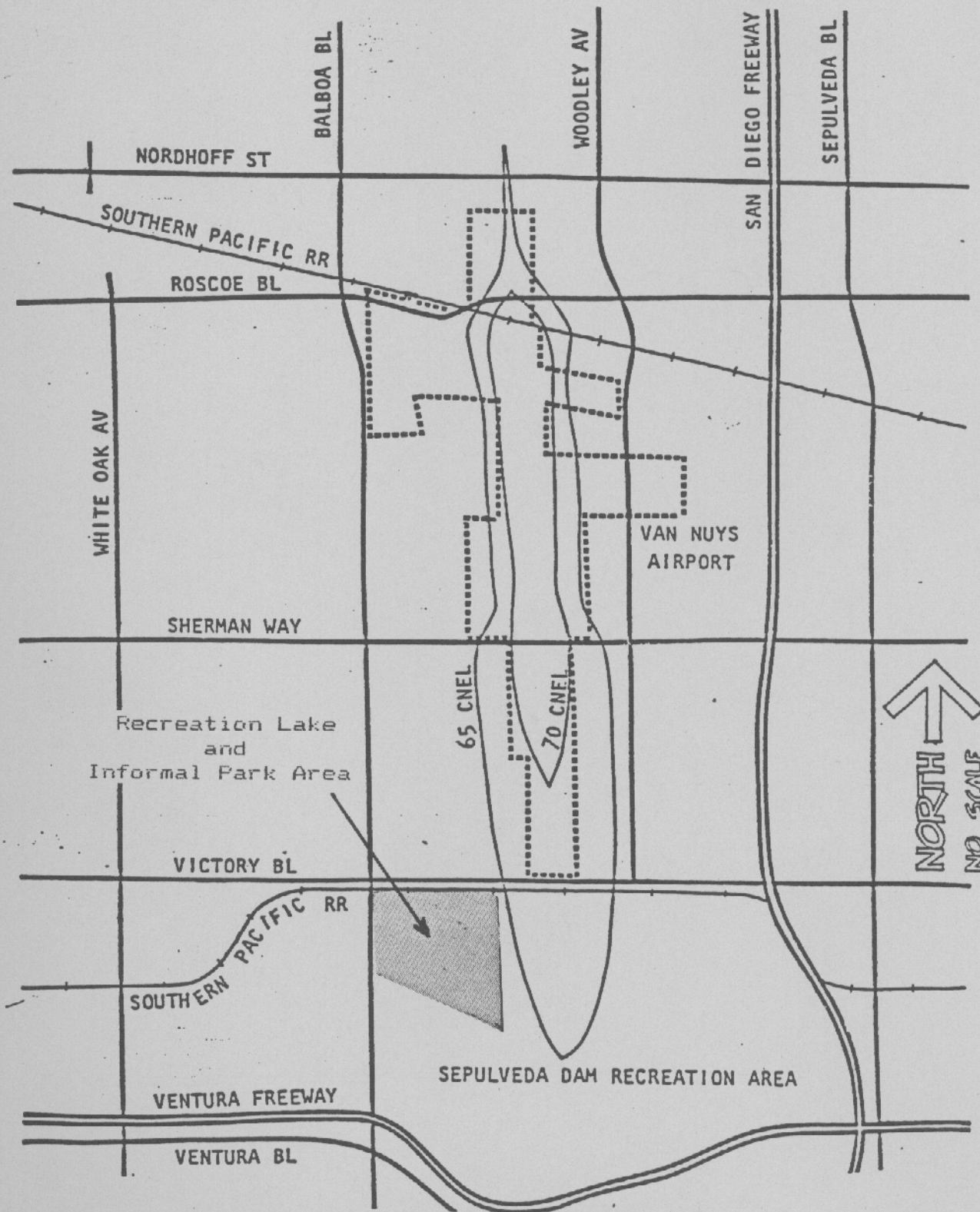
4.40 HEALTH AND SAFETY. There are a number of health and safety issues that have been raised in relation to the proposed project. These issues are:

- (1) Mosquitos.
- (2) Bird hazards to aircraft.
- (3) Aircraft hazards to people on the ground.
- (4) Steepness of Bull Creek slopes.

4.41 Mosquitos. The Southeast Mosquito Abatement District is very concerned about the mosquito problem in the Sepulveda Basin. There are a number of drainage channels in the basin, including Bull Creek, Haskell Channel, Hayvenhurst Channel, Woodley Channel, and Encino Creek. These areas and the Los Angeles River channel provide water sources in which mosquitos can breed. Poor irrigation practices on agricultural lands and ponds in golf courses are other sources of water for mosquitos.

4.42 The concern over mosquitos has been heightened in recent years by the threat of encephalitis. Encephalitis is a serious viral disease that is known to be transmitted to humans by only one species of mosquito (Culex tarsalis). This species is only active during and after dark. A number of cases of encephalitis (four in 1984 and one in 1985) have been reported from the San Fernando Valley in recent years (Mr. Frank Pelsue, Southeast Mosquito Abatement District, personal communication). Although none of these cases have been conclusively linked to the Sepulveda Basin, chickens kept at the Balboa Golf Course and monitored did develop antibodies to the disease in 1985. The virus was found in a species of mosquito not known to bite humans.

4.43 Bird Hazards to Aircraft. The Van Nuys Airport has a continuing problem with bird hazards to aircraft. According to a letter from the U.S. Fish and Wildlife Service to the FAA, dated December 12, 1983, the bird hazard problem is due to gulls, crows, pigeons, and starlings. The letter mentions that infield areas around the airport are attractive foraging and nesting areas for starlings, pigeons, and crows. The Sepulveda Basin is not mentioned in this letter.



**VNY 65 AND 70 CNEL CONTOURS
PROJECTED FOR 1986**

FIGURE 5. NOISE CONTOURS AROUND VAN NUYS AIRPORT.

4.44 Birds are abundant in the project areas under existing conditions. The agricultural fields are utilized by many species. The Canada goose, gulls and great blue heron use these fields in the winter for foraging and/or resting. Crows and other blackbirds, including starling, are commonly found in agricultural fields in the summer. The wildlife area has an existing seasonal pond which attracts migratory waterfowl in the winter. Raptors also use this area on a year-round basis for foraging.

4.45 Aircraft Hazards to People on the Ground. Project areas currently have very low density use. Therefore, any potential hazard to people on the ground is, for all practical purposes, non-existent.

4.46 Steepness of Bull Creek Slopes. The slopes of Bull Creek have been cleared of vegetation and, thereby, exposed to accelerated erosion. They are, therefore, very steep, on the order of about 1:1 or greater. These slopes currently pose a hazard only to the leaseholder, his workers, Mosquito Abatement personnel and to Corps and City of Los Angeles maintenance personnel.

5. ENVIRONMENTAL EFFECTS

5.01 LAND USE. Flood Control. The proposed projects covered in this EA do not conflict with the flood control purpose of the basin. Any loss of flood storage capacity due to construction activities or the presence of water in the recreation lake or the wildlife area pond would be balanced by excavation at similar elevations in the basin.

5.02 Vegetation is allowed to grow in many of the channels within the Sepulveda Basin without inhibiting the flood control function of the basin. According to Corps hydrologists, vegetation in Bull Creek does not create an upstream flooding hazard outside of the basin. A hydrological study will be conducted before plans for Bull Creek are implemented.

5.03 Recreation. The proposed project would provide, on lands currently in agriculture, an additional 100 acres of recreational opportunities in the Sepulveda Basin, 26 acres of lake and 74 acres of informal park. Using the same assumptions as used in the EIS, except for number of units of each activity, the maximum annual use of the recreation lake and informal park would be 659,000 recreation days (table 8). The 60-acre wildlife area is currently being utilized for passive recreational use, so development of this area should not add greatly to recreational use of the basin. However, if wildlife blinds are installed, they will attract more visitors to the area.

5.04 Other recreational resources of the basin would be subjected to short-term impacts during construction. The grounds of Woodley Park and Woodley Golf Course would be disturbed while the water supply pipeline is constructed from the Tillman Plant to the recreation lake and the wildlife area. Areas of impact for the alternatives are listed in table 9. This disturbance would be temporary and would not preclude use of the entire golf course or park. Construction of the pipeline and the lakes would also cause some temporary impacts on recreationists due to noise and dust generated at the construction sites.

Table 8. Maximum Practical Use of Potential Facilities in Recreation Lake and Informal Park.

Activity	Units	Density (Number of People)	Turnover	Activity Days	Duplication Ratio	Rec Days	Maximum Annual Rec. Days
Picknicking	74 ac.	30/acre	2	4440	0.833700	512,300	
Bicycling	1.5 mi.	29/mi	8.2	357	0.833300	41,500	
Shore fishing	7000 ft.	1/30ft.	2.5	583	0.833490	67,800	
Boating (non-motorized)	26 ac.	5/acre	2.5	325	0.833270	37,400	
						<u>Total=</u>	<u>659,000</u>

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Land Capacity Method: Maximum Activity Days (AD) = Density x Units x Turnover

 Maximum Recreational Days (RD) = AD x Ratio of Duplication of Activities (R)

 Maximum Annual Recreation Days = RD x Number of Weekend Days During Peak Month (N)

 percent of annual percent of peak month
 use during peak x use occurring on
 month (M) weekends (W)

For Sepulveda Basin

N = 9 days
M = 13 percent *
W = 50 percent

* Average from monthly visitation data 1977, 1978 and 1979.

Table 9. Areas (Acres) Likely to be Disturbed in Woodley Golf Course and Woodley Park and in Agricultural Fields During Construction of Water Supply Pipelines for Alternative Pipeline Alinements.

Recreation Lake	Woodley Golf Course	Woodley Park	Agricultural Field
Alternative 1	2.9	0.41	0.21
Alternative 2	0.31	1.9	----
<u>Wildlife Area</u>			
Alternative 1	----	1.9	----
Alternative 2	----	0.46	1.3

*assuming a 50-foot wide corridor of disturbance

5.05 Agriculture. Excluding the 6 acres that are occupied by Bull Creek, approximately 154 acres of agricultural lands would be lost by implementation of the proposed project. About 118 acres would be lost due to the lake, the park, and mounding. The remaining 36 acres would be removed from the agricultural lease since it would not be practical to farm it. The 40-acre parcel of land that is being changed from an operations/natural area to a wildlife management area would serve to partially offset this loss of agricultural lands. The existing land-use designation would require that agriculture be terminated in this wildlife area. The new designation would permit agriculture. Additional temporary losses of agricultural land would result from construction of the pipelines from the Tillman Plant. The pipelines would cross the agricultural fields west of Woodley Avenue, if alternative number 1 is used for the pipeline to the recreation lake, and east of the Tillman Plant, if alternative number 2 is used for the pipeline to the wildlife area (table 9).

5.06 The Soil Conservation Service (SCS) indicated on the Farmland Conversion Impact Rating Form (Attachment D) that the entire 154 acres of agricultural lands, which would be converted from agriculture in the proposed lake development, is considered to be prime farmland. The SCS gave this farmland a rating of 90 out of a possible 100. The Corps completed a site assessment and determined that this farmland should receive 44 points out of a possible 160. The farmland to be converted represents 0.3% of farmland in the county. However, it should be noted here that agriculture has always been considered only an interim use in the basin.

5.07 Wildlife Management/Preservation. The proposed project would affect several areas that have land-use designations related to wildlife management and/or preservation. The project would enhance wildlife values on a 60-acre parcel of land designated as a Wildlife Management Area. The 40-acre parcel

designated as an Operations - Natural Area would be changed to a Wildlife Management Area to allow agricultural use, which provides foraging areas for waterfowl, including Canada geese. The lower 640 feet of the Operations - Natural Area in Bull Creek would be impacted by the limited development of the esthetic treatment plan. Bull Creek, Woodley Channel and Haskell Channel would all be impacted by the installation of pipelines. However, this would only be a short-term impact to the use of this land.

5.08 BIOLOGICAL RESOURCES. The major long-term losses of biological resources due to the proposed project would be the loss of about 150 acres of agricultural fields and direct and indirect impacts on about 5.5 acres of potential riparian habitat along Bull Creek. Significant direct impacts to wetlands have been minimized by not using the Los Angeles River Channel for the lake. Partially offsetting this gain is the fact that 1.4 acres of riparian habitat along Bull Creek, which was not to have been removed according to plans in the EIS, would now be directly impacted by the project. Because of these changes and because of anticipated problems with lake maintenance, provisions in the EIS for natural features in the recreation lake have been eliminated. Short term disturbance impacts would also occur in the wildlife area, in the disposal area below the dam, in areas where the water supply pipeline crosses Hayvenhurst, Woodley and Haskell Channels and where irrigation pipeline crosses Bull Creek.

5.09 The loss of agricultural lands would result in the loss of foraging habitat for raptors and for waterfowl, including Canada geese. This loss, however, was addressed in the 1981 Master Plan EIS. Raptor foraging would be enhanced in the wildlife area by the proposed project. Changing the operations/natural area to a wildlife management area would allow agriculture to persist and would, thereby, preserve the foraging value of that field to Canada geese and to raptors. This change would also provide the opportunity to instigate management practices which could enhance foraging values (e.g. more corn could be left in the field, less post-harvest disking of fields could leave more waste corn on the surface, or strips could be planted with clover after harvest to enhance grazing by the geese).

5.10 The esthetic treatment plan proposed for Bull Creek would result in direct and indirect impacts to biological resources along a 640-foot section (about 1.4 acres) of the creek. Direct impacts would result from the removal of riparian vegetation on the slopes, the terracing of one-half of the slopes, the construction of two stone-weir bridges within the channel, the construction of a pedestrian/bicycle bridge over the channel (design is not complete, but it could require a footing) and the placement of rocks in the channel bottom. Because the vegetation was removed (without authorization by the Corps), existing conditions do not include much riparian vegetation, but it is anticipated that future conditions without the project would include a dense growth of riparian species, primarily willow and mulefat, in a band along the creek. Cattails and bulrush would also occur in the bottom of the channel. Impacts on one side of the creek would be short-term as a dense riparian vegetation would be allowed to reestablish. Impacts on the other side would be long-term as an open, manicured stand of native vegetation, not necessarily riparian species, would be established. In addition, because of trails, human activity would have a direct impact on biological resources on this side of the creek.

5.11 Other direct impacts on Bull Creek would be caused by the overflow from the lake and the installation of an irrigation pipeline under Bull Creek. The rock treatment at the outlet would impact vegetation but the area of impact is small and not significant. The added flow in the portion of Bull Creek downstream from this outlet may actually enhance this portion of Bull Creek. The pipeline installation would be done at the same time as the grading and, therefore, would not cause additional impacts to Bull Creek.

5.12 Until plans for esthetic treatment are finalized and then implemented, Bull Creek would physically be left alone, except for the lake outlet. However, indirect effects to the entire length of Bull Creek (about 5.5 acres) would result from converting lands adjacent to the creek from agriculture to recreation. These indirect effects would also have occurred with the original project. The increased human disturbance factor would impact some of the birds which use the area. The esthetic treatment plan would aggravate this indirect impact on the riparian area by making the area that is free from use narrower. An additional indirect impact to Bull Creek could result from increased pressure for flood control within the basin due to the presence of the recreation lake. Vegetation removal in Bull Creek might be requested to increase the speed of flow in the channel and thereby reduce the potential for flooding the lake.

5.13 Direct impacts to biological resources would also occur in Hayvenhurst channel (about 0.25 acres). The construction of a concrete box culvert for the access road, the placement of stone revetment along about a 160-foot length of the channel between the existing culvert and the new culvert, the construction of a pedestrian bridge, and placement of rocks at the outlet from the lake would impact wetlands in the channel. The loss of these wetlands in Hayvenhurst channel, however, is only a very minor loss since the wetlands were of such poor quality.

5.14 Short-term losses of biological values in the wildlife area would result from expansion of the existing seasonal pond and soil preparation for plantings. Most of the area is vegetated by introduced annual grasses and other ruderal species. Short-term losses of this habitat would not be a major concern. There are, however, about 4.5 acres of riparian habitat in the existing seasonal pond. This vegetation would be removed during pond excavation. The creation of an island, the extension of the season in which the pond would be filled, the reestablishment of riparian species around the entire pond (not just the wetter southern portion), and the planting of native riparian species on a portion of the island and on about 15 acres around the pond would more than compensate for the short-term losses.

5.15 The short-term loss of raptor foraging habitat in the disposal area (10.5 acres) would be minor. Enhancement of the wildlife area would compensate for this loss. Short-term losses of herbaceous riparian vegetation in strips across Haskell, Woodley and Hayvenhurst Channels (less than 1 acre) due to pipeline construction would be minor. Increased flow of water in Bull Creek, Hayvenhurst Channel, and Haskell Channel would enhance riparian development and, thereby, adequately compensate for these short-term losses.

5.16 ENDANGERED AND THREATENED SPECIES. The proposed project would not affect any federally listed endangered or threatened species or their critical habitat pursuant to the Endangered Species Act of 1973 (87 Stat. 844). Therefore, formal consultation with the USFWS pursuant to Section 7 of this Act is not required. The federal candidate species, the tri-colored blackbird may be impacted by the project. Since this species has been observed in the wildlife area, development in that area may have some short-term impacts. In the long-term, however, more habitat would become available.

5.17 The birds listed in table 3 as special status species would all be subject to short-term impacts in the wildlife area. Raptors would suffer a permanent loss of foraging habitat due to the loss of agricultural lands. Enhancement in the wildlife area may compensate in part, for this loss. The yellow warbler and the blue grosbeak could be permanently impacted, unless compensated, by the loss of habitat in Bull Creek and by the indirect effects of increased human activity in the vicinity of Bull Creek. Expansion of wooded wetland in the wildlife area would compensate for this loss.

5.18 CULTURAL RESOURCES. The proposed development will not affect any known cultural resources within the basin. However, there is a possibility that excavation for the proposed development may uncover buried archeological sites. Only excavations which are deep enough to penetrate to the original ground surface have this potential.

5.19 WATER QUALITY. A DOHS survey showed that reclaimed wastewater is being used in the State of California for irrigation as well as for moderate and low body contact recreation with no adverse health effects. Lee and Ro (1986) investigated nine impoundments which use potable water or reclaimed wastewater as the sole water source. Most of these lakes experienced problems such as excessive vascular plant growth, algae growth, or anaerobic conditions at some time. These problems were due to shallow depth, no aeration system, nutrient rich surface runoff, no drains, and/or accumulation of nutrients. Of all the lakes studied those at Los Angeles/Glendale Water Reclamation Plant (LA Glendale WRP) and Prado Regional Park most resemble the proposed Sepulveda Recreation lake. The lake at LA/Glendale WRP, which uses effluent similar to that from the Tillman Plant, experienced heavy algae growth. This was attributed to the lake's shallow depth (approximately 5 feet) and high concentration of nutrients. The lake at Prado Park, which uses effluent from the Chino Water Reclamation Plant, was actually designed as a recreation lake and is operated similarly to the way the proposed recreation lake will be. However, this lake experiences algal blooms and occasional fish kills. These are apparently caused by poor circulation and high concentrations of nutrients.

5.20 It is obvious from this investigation of other man-made impoundments that there are potential problems associated with the use of reclaimed wastewater. An algal biostimulation test performed on Tillman effluent by Lee and Ro (1986) indicated that this nutrient enriched wastewater stimulates algal growth and that occasional algae blooms may occur. Blooms of free floating algae and mats of filamentous algae may not be acceptable esthetically. As the algae grow and become overly dense, they may die and decompose, producing unpleasant odors. This decomposition could deplete the

dissolved oxygen concentration and lead to fish kills, which are also not esthetically pleasing. The high nutrient concentrations in the effluent may also cause excessive growth of emergent vegetation. Although desirable in a wildlife area, the vegetation would interfere with circulation and maintenance and cause mosquito control problems. However, water containing high levels of nutrients is excellent for irrigation and would reduce the need for additional application of fertilizer.

5.21 Fish toxicity testing, conducted by Lee and Ro (1986), indicated that the effluent was not toxic to fish. However, the test was run at a temperature (68°F) that is lower than would occur during the summer months. This is important because the toxicity of ammonia increases as temperature increases. In fact, the concentration of ammonia in the effluent is at times high enough to be toxic to fish when water temperatures are high. Lee and Ro testing does indicate that other toxic compounds are not present in elevated concentrations in the effluent. Low dissolved oxygen concentrations could be a problem in the lakes because the concentration in the effluent is low. In addition, algal respiration at night and on cloudy days as well as the decomposition of organic matter that builds up in the lake, depletes the levels of dissolved oxygen. Furthermore, the solubility of oxygen in water decreases as water temperature increases, and elevated water temperature coincides with higher concentrations of algae and increased algal respiration. Therefore, extremely low dissolved oxygen concentrations could occur during the summer months and could cause fish kills. This condition also could, together with warm temperatures, result in conditions conducive to the development of problems with avian botulism.

5.22 In order to lessen the occurrence of the problems discussed above, the proposed recreation and wildlife lakes were carefully designed. The recreation lake will have a maximum depth of 12 feet, a continuous aeration system, a recirculation system, short retention time (seven days), drains, concrete sides down to 2 feet, multiple inflow and outflow points, and limited surface runoff to the lake. A maximum water depth of 12 feet, with a vertical drop from the waters edge to 2 feet and a concrete liner on all shallow areas, will inhibit the growth of vascular plants. It will also assure that the lake will not heat up quickly which will help avoid stagnant conditions. Aeration and recirculation will also help prevent the formation of stagnant anoxic areas. Low dissolved oxygen concentrations and accompanying fish kills may still be a problem if there is an algal bloom during a very hot period, when the air temperatures are over 100°F. In addition, ammonia toxicity may still be a problem during the summer months. Since short retention time, recirculation, aeration, and multiple inlets and outlets improve circulation in the lake, they may reduce the formation of free floating algae and will flush some algae from the lake. However, there is very little information on the effects of these design features on the development of algae in lakes. It is known that these features will not prevent the formation of filamentous algae and some types of algal mats, but they could reduce the degree to which these algal types become a problem. Limiting the amount of surface runoff flowing into the lake may also help reduce algal blooms because the addition of additional nutrients was found to greatly increase algal growth (Lee and Ro, 1986). Although it is impossible to eliminate all surface runoff to the lake, the area around the lake will be graded such that only 100 to 200 feet

of slopes, mostly within the range of 5:1 to 10:1, will drain into the lake. However, until turf is established on the entire slope, soil nutrients from these slopes may enter the lake along with eroded soils during heavy rains. It is likely that surrounding areas will require little or no extra fertilization because they will be irrigated with nutrient rich reclaimed wastewater. Thus, once turf is established, any runoff into the lake will probably not contain a greater concentration of nutrients than the lake water used for irrigation. Trace metals are not expected to accumulate in lake water or sediment because their concentrations are extremely low in the Tillman plant effluent.

5.23 Even with careful design, problems such as algal blooms could probably occur without proper maintenance. A vigorous maintenance program will be required to remove any nuisance conditions which may develop in the recreation lake. This program would include manual removal of algal mats and filamentous algae, cleaning aerators to avoid clogging, cleaning debris from the edges of the lake (debris can be an added nutrient source), application of an approved non-copper-based algaecide, growth inhibitor or shading compound, removal of dead fish, and draining and cleaning of the lake. A visual monitoring program will be set up to provide an early indication of problems developing in the lake so that measures, such as dilution with potable water or application of algaecide, can be initiated before nuisance conditions develop. If a major algal bloom occurs, the lake may need to be emptied. The LARWQCB has indicated that the turbidity of the water would exceed the permit requirements under these conditions. If the turbidity exceeds LARWQCB permit requirements, it will be necessary to discharge the lake water to a sewer line or to parklands through the irrigation system.

5.24 The wildlife area pond has been designed to have a maximum depth of 5 feet and gently sloping sides to encourage the growth of emergent vegetation and use by wildlife. However, the pond would probably be emptied by late March or early April and refilled in late August or September each year to eliminate mosquito abatement problems. Some of the vegetation would be cleaned from the pond bottom while it is empty. This pond has been designed so that managers would also have the capability to reduce residence time to as little as three days. The pond's seasonality and short residence time should prevent excessive algal growth, low dissolved oxygen concentrations, and other nuisance conditions from developing.

5.25 Discharge from the recreation lake into Hayvenhurst Channel and Bull Creek, which flow into the Los Angeles River, is not expected to affect the water quality in these receiving water courses (Pers. Comm. Taira Yoshimura, LARWQCB, 1986). This is because of the quality of the water source. (These impacts are discussed in the Environmental Impact Report written for the Tillman Plant; City of Los Angeles 1975). However, heavy algal growth in the recreation lake would cause the turbidity in the lake discharge to exceed standards. Discharge from the wildlife area pond into Haskell Channel may actually dilute its poor quality water.

5.26 The LARWQCB has expressed concern that the soil in the areas where the lake and the pond are to be excavated may contain high concentrations of pesticides (particularly DDT) and trace metals (lead). These areas have been

used for agricultural production for many years and have received many applications of pesticides. In addition, this area is at the junction of two busy freeways. The associated air pollution may be a source of lead in the soil. The soil in these areas has been tested for trace metals and pesticides; results appear as Attachments J and K of this FEA. For the wildlife pond area, the chemical tests indicated that selected heavy metal and pesticide/PCB levels were well below accepted standards or were non-existent. For the recreation lake area, lead levels were very low, and chlorinated pesticides were found to be below detection limits.

5.27 The City of Los Angeles has already received a permit from the LARWQCB for reuse of the effluent for landscape irrigation. The coliform limits required for this use are less stringent than those for release to the Los Angeles River. Since the Tillman effluent meets or exceeds these requirements, there should be no problem meeting the standards for irrigation. To further reduce the possibility of any adverse health effects due to ingestion of the effluent, DOHS has required nighttime irrigation as well as design elements such as color coding all spigots to differentiate between reclaimed water and potable water sources. The State Department of Health Services' reclaimed water guidelines are to be followed to the extent reasonable for this type of development. A complete discussion of these features is included in Lee and Ro (1986).

5.28 In order for Tillman effluent to be used as the primary source of water for the recreation lake and wildlife area pond it must meet coliform limits imposed by DOHS. Again these standards are less stringent than those for release to the Los Angeles River. This is because these water bodies will be used for non-body contact recreation whereas one of the downstream uses of the Los Angeles River is body contact recreation. However, Tillman plant effluent will continue to meet the more stringent standards for release to the river. Table 10 compares the coliform standards for irrigation and recreational use. In the unlikely event that partially treated sewage is released from the Tillman Plant, this effluent will be discharged to the Los Angeles River or the sewer line rather than the lake. The City of Los Angeles, Department of Public Works already has an NPDES permit for the Tillman Plant discharge. The City of Los Angeles, Department of Recreation and Parks has applied for a NPDES permit for the discharges from the two lakes.

5.29 Burying irrigation and water supply pipes in Hayvenhurst Channel, Bull Creek, Woodley Channel, and Haskell Channel, terracing the banks of Bull Creek, building box culverts, stone weirs, and pedestrian bridges in Bull Creek and Hayvenhurst Channel, and placing rocks in these same two drainages may cause a temporary increase in turbidity in these water courses during construction. However, this impact is expected to be minor. To the extent possible, construction will take place during the dry season when flow in these channels is reduced.

5.30 Water discharged from the two lakes and a small quantity of percolation from the lakes will recharge groundwater basins in the area. This is not expected to have an adverse affect on groundwater quality because Tillman Plant effluent is currently recharging groundwater.

Table 10. Water Quality Criteria For Reclaimed Water

Type of Use	Coliform Limits
Landscape irrigation (golf course, cemeteries, etc)	Less than 23/100ml ¹ and less than 240/100ml in any two consecutive samples
Restricted Recreational Impoundment (non-body contact recreation)	Less than 2.2/100ml
Landscape irrigation (parks, playgrounds, etc) and nonrestricted recreation (body contact recreation) ²	Less than 2.2/100ml ¹ and a maximum less than 23/100ml

¹ The median of the last 7 days

² The turbidity of filtered effluent cannot exceed an average of 2 turbidity units during any 24-hour period.

Source: Lee and Ro (1986)

5.31 WATER SUPPLY/GROUNDWATER. In order to provide for a seven-day residence time for water in the recreation lake, approximately 12 MGD are required. A portion of this water would be lost to percolation and another portion to evaporation. Any remaining flow would go through the outlets to Bull Creek and Hayvenhurst Channel or, possibly, directly to the Los Angeles River. The Master Plan EIS estimated that 1.9 billion gallons per year could be lost by percolation in the 120-acre recreation lake if soils were not compacted. Assuming the loss is proportional to surface area, the currently proposed lake could lose up to 1 MGD. However, existing clay soils would be compacted, which would make percolation losses insignificant. Evaporation losses from the lake could reach as high as about one inch per day, 0.6 MGD, or even higher on days with dry Santa Ana winds (U.S. Army Corps of Engineers 1985).

5.32 Effluent from the Tillman Plant would also be used for park irrigation and to supply water to the wildlife area and Haskell Channel. During peak summer demand, 10 MGD would be drawn from the holding tank for irrigation, thereby reducing the demand on the domestic water supply by an equivalent amount. A flow of 6.5 MGD is required for the wildlife area. The pond will only require water seasonally, but Haskell Channel would get a year-round flow. Another 1.5 MGD is needed for operational purposes in the Tillman plant. Based on the uses mentioned above, the total use of effluent during peak demand would be 30 MGD.

5.33 This 30 MGD requirement for effluent would be spread over the entire day whereas irrigation would be done at night when recreationists are not present. The irrigation holding tank would be filled at a constant rate of 10

MGD but drawn down at a rate of 22 MGD during irrigation hours. Therefore, the water level in the tank would vary, and the tank capacity would need to be about 6 million gallons.

5.34 During preparation of the Master Plan EIS, there was a concern expressed that excavation for the recreation lake and the wildlife area pond would encounter groundwater, which then would require pumping of groundwater, and discharge into the Los Angeles River. Mitigation was proposed that involved the installation of observation wells "in potential excavation areas a minimum of one year prior to construction to monitor seasonal groundwater fluctuations" (Corps of Engineers, 1981). A review of the need for these observation wells by Corps geotechnical staff has concluded that, since observed groundwater levels in the past have been a minimum of 59 feet below ground surface, groundwater would not be encountered during excavation and, therefore, observation wells are not needed for either the recreation lake or the wildlife area pond.

5.35 One of the methods for managing the lake would impact domestic water supply. If an algal problem begins developing, domestic water could be used to lower the temperature and concentrations of nutrients and, thereby, lower the algal growth rate. A connection with a 4 MGD compacity would be available. This water source could also be used if the Tillman Plant is shut down for any reason or if needed for initial filling.

5.36 ESTHETICS. The proposed recreation lake development would result in the conversion of agricultural lands to parklands. Esthetically, while personal preferences may differ, both provide open areas that contrast with the urban setting surrounding the Sepulveda Basin. The proposed landscaped mounding on the site and the lake would create a greater visual variety than currently exists in the area.

5.37 The proposed project includes an esthetic treatment plan for Bull Creek. The purpose of this plan would be to integrate the creek into the park, to tie together portions of the park on either side of the creek and to exercise some control on the appearance of the creek. Bull Creek currently has rather barren slopes and is certainly not esthetically pleasing. Without the project, however, a native riparian vegetation would reestablish on slopes that have recently been cleared without Corps authorization. Proper maintenance in the channel bottom would prevent the need for future clearing according to staff of the Southeast Mosquito Abatement District. Therefore, natural revegetation would also provide some esthetic treatment for Bull Creek compared to existing conditions. Natural revegetation, however, would not be as desirable as the esthetic treatment plan, from an esthetic viewpoint, since the channel would remain a barrier, which would tend to split the park in two.

5.38 Excavation and disposal of soils in the project areas would result in short-term esthetic impacts due to exposed soils. These soils would be revegetated as soon as possible to prevent erosion and to mitigate visual impacts.

5.39 The recreation lake would be filled with effluent from the Tillman Reclamation Plant. This effluent is of excellent quality. It is clean and has no odor associated with it. However, it is high in nutrients and this

will support rapid algal growth. The lake has been designed, as discussed elsewhere, to minimize this problem. In addition, a lake management plan would be prepared before this lake is constructed. However, if the lake is not managed properly, an algal bloom could develop, which would create visual esthetic problems and odor problems. Floating mats of decomposing algae would result from an algal bloom. Decomposition could deplete oxygen concentrations in the lake to the point that fish were killed, which would then contribute to the odors of decomposition. In addition to decomposition, odors could be produced by certain species of blue-green algae. The sights and smells of a lake in this condition would not be esthetically acceptable. For this reason, and because the lake, in this condition, could not be discharged to the Los Angeles River, the lake has been provided with a 4-MGD drain to the sewer line. The lake could only be discharged to the sewer line during off-peak hours to prevent overloading. The City of Los Angeles, Department of Public Works will be consulted before such discharge to assure that the flow will not occur during critical periods. It could take up to about 7 weeks or longer to drain in this manner. During this time algae would continue to grow unless control measures were taken. Lake draining could be accelerated by continuing to use the lake for irrigation. Once drained the lake would need to dry out, which could take anywhere from 3 weeks to 3 months, and then be cleaned before it could be refilled.

5.40 In a lake like this, algae grow, die, and sink to the bottom continuously. The short residence time would minimize the accumulation of dead algae on the lake bottom, but eventually this layer would deepen and begin to present problems for the lake. For this reason, one of the proposed management measures for the lake would be to drain and clean it or to dredge it. This will be covered in the lake management plan. If dredging is required, a permit from the LARWQCB may be required.

5.41 If the lake is to be completely emptied and scraped clean, it would have to remain empty for a long period (perhaps as long as three months) in order to dry out sufficiently to allow equipment to work. During this period the accumulated dead algae and fish would decompose, producing foul odors and, perhaps, insect population explosions (e.g. gnats). Golfers at Woodley, Balboa, and Encino Golf Courses, visitors to other recreational attractions in the vicinity, and residents who are as close as about 1200 feet from the lake could be exposed to these nuisances. However, it is anticipated that draining and cleaning would only be necessary every 5 to 10 years if the lake is properly managed and algal blooms are avoided.

5.42 AIR QUALITY. Sufficient information for an adequate analysis of air quality impacts was available during the preparation of the Master Plan EIS. The conversion of agricultural lands was considered a beneficial impact due to reduced dust generation. Construction of the project would result in a short term increase in dust and exhaust emissions. A minor increase in traffic due to recreational use of the proposed project would not result in a measurable degradation of air quality.

5.43 The Master Plan EIS suggested that a monitoring program should be considered to ascertain lead concentrations in the soils of Sepulveda Basin. It is assumed that this concern arose over the proximity of two major freeways

to the basin and the fact that lead is present in automobile exhaust. Lead, being very heavy, settles out of the air quickly, usually within 30 or 40 feet of the edge of the highway (Ray Thompson, U.C. Riverside, Air Pollution Research Center, personal communication). This lead is fixed in soils unless the soil is very acidic. Plants are not able to take up lead when it is fixed, and if the soil is acidic enough to release the lead, then it is probably too acidic for the plants. A community garden does exist on Corps land just south of the Ventura Freeway near Hayvenhurst Avenue. This area is within 30 to 40 feet of the freeway and, therefore, particulate lead could be deposited on the surface of the plants. This lead can be washed off the plants without causing harm. Therefore, no monitoring of lead concentrations in soils will be undertaken in Sepulveda Basin.

5.44 NOISE. Noise emanating from the proposed project, after construction, is not usually expected to present any problem for other uses in the basin or for nearby residential areas. No spectator or participant sports are planned for the recreation area. Any increased traffic generated by recreational use would not have a significant effect on noise in surrounding areas. In addition, surrounding areas, including the residential area north of Victory Boulevard, would be buffered from the park by earth mounding. The residential area would also be screened from the park by noise generated on Victory Blvd.

5.45 Noise due to construction of the recreation lake and the wildlife area pond "poses the likelihood of temporary but significant impacts on nearby residences and on recreation uses within the basin", according to the Master Plan EIS (Corps of Engineers, 1981). Noise would also be generated periodically when the recreation lake is drained and cleaned. Residences most likely to be impacted are those north of Victory Boulevard in the case of the recreation lake, and east of the San Diego Freeway in the case of the wildlife area. Victory Boulevard and the freeway would tend to screen some of this noise and perhaps most in the case of the freeway. A list of mitigation measures to be implemented during construction was included in the EIS.

5.46 Recreationists utilizing the park would be exposed to external noises from surrounding traffic, the railroad, and Van Nuys Airport. Earth mounding would tend to buffer the park from traffic noise on Balboa and Victory Boulevards and from the railroad tracks. Noise from the airport would not have a significant impact on the park. A summarization of three different sets of noise standards (1. California State Office of Noise Control; 2. U.S. Department of Housing and Urban Development; 3. Federal Aviation Administration) in the Airport Land Use Planning Handbook (California Department of Transportation 1983) states that, "playgrounds, parks, and outdoor sports facilities should not be permitted in areas above 75 CNEL (Community Noise Equivalent Level), and strong consideration should be given to precluding these uses from areas exposed to 70-75 CNEL as well." The 65 CNEL contour around the airport falls between the park and the airport (figure 5). Therefore, the park is well outside the 70 CNEL contour. According to the Master Plan EIS, the City of Los Angeles Noise Element also indicates that the park is compatible with existing noise levels. Nevertheless, single-event noise levels from twin engine corporate jet aircraft and military transports flying directly over the project area on departure from the airport could cause significant disturbance to park

users. Because of this conflict between the airport and the park, an aviation easement or letter of agreement will be negotiated between respective city departments. This agreement would recognize the rights of the airport to continue operations over the recreation area and would, perhaps, establish some limitations on those operations.

5.47 TRAFFIC. A traffic analysis conducted for the Master Plan EIS concluded that, by 1984, 6 intersections in the vicinity of the Sepulveda Basin would have reached or exceeded their estimated allowable capacities. Actual traffic conditions in 1984 exceeded the predictions made in this EIS (Mr. Haripal Vir, City of Los Angeles, Department of Transportation (DOT), personal communication). However, the EIS also concluded that the Master Plan would not significantly aggravate traffic congestion in the area. The currently proposed development of recreation facilities is less extensive than originally proposed. The only impact on traffic that might result from the proposed project is that a conflict between vehicular traffic and bicycle traffic at the Woodley Avenue entrance might be aggravated by the increased vehicular traffic on the access road. The City DOT, in a preliminary review of the project, concluded that the Woodley Avenue access would not cause any traffic problems. The access off of Balboa Boulevard, however, could present problems for traffic on Balboa Blvd. This access would be delayed until a future phase of the site's development, when plans for Arts Park are finalized. The alignment and access point shown in figure 3 are not necessarily those that would appear in future plans. This road would not be constructed until a traffic study and an additional NEPA document are completed.

5.48 Traffic during construction could be impacted if material excavated from the recreation lake had to be transported on streets within the basin to the west side of Bull Creek. In order to avoid putting heavy equipment on city streets, a "Bailey" bridge or other structure to be approved by concerned agencies would be constructed across Bull Creek.

5.49 Construction of the water-supply pipeline from the Tillman Plant to the recreation lake would have to cross Woodley Avenue. This crossing would cause a temporary impact to traffic on Woodley Avenue and to other streets in the area as motorists took alternative routes.

5.50 HEALTH AND SAFETY. Mosquitos. The proposed project should not have a significant impact on the mosquito problem in Sepulveda Basin. The wildlife area pond would only be filled from late August or early September to about late March, and mosquitofish would be planted in the pond as soon as it was filled. Managed in this way, the pond would be dry during the period when mosquitos are most active. The pond would be monitored in the fall and could be drained if necessary. Haskell Channel would have water in it year-round. Enough water would be present in this channel to maintain mosquitofish and to prevent stagnant conditions conducive to mosquito breeding. Vegetation in the channel would be maintained so that mosquitofish could adequately control the mosquito problem.

5.51 Mosquito control in the recreation lake should be relatively easy since the intention is to keep it free of vegetation that might impede mosquitofish. The 2-foot-deep, 5-foot-wide shelf around the edge of the lake would be covered with concrete. This would be a great aid to aquatic vegetation

control. The gentle 5:1 slope off of the shelf will provide about a 10-foot-wide belt of lake bottom less than 4-feet-deep around the edge of the lake. Rooted aquatic plants could become established within this belt. Control of this vegetation could require considerable effort and will be an important maintenance function from the point of view of mosquito abatement. If the lake is not properly managed, algal growth could also impede circulation and access for mosquitofish. If this condition (an algal bloom) arises, the lake would have to be drained.

5.52 If the recreation lake has to be drained to the sewer, conditions would be conducive to growth of the mosquito population. Inflow of water would have to be cut off, and outflow could only occur during off-peak hours which would create stagnant water. The lake would become quite warm since this situation would be most likely to occur during the summer. If anoxic conditions did not kill all of the mosquitofish, algal mats could block their access to mosquitos. It could take up to 7 weeks or longer to drain the lake to the sewer. In order to shorten this time and avoid the problems mentioned above, irrigation water could be drawn from the lake for as long as possible. Mosquito control measures may have to be taken in the lake as it is drained.

5.53 Overflow from the lake into Bull Creek and Havenhurst Channel should not cause a mosquito problem. Since water is generally present year-round in Bull Creek, it can support mosquitofish, which can control mosquitos if, according to Mosquito Abatement personnel, the bottom of the channel is kept from becoming overly dense with vegetation. Additional flow, even if intermittent, would not create a problem. Hayvenhurst Channel is a much smaller channel which does not have water in it year-round. If discharge from the lake is intermittent, pools of stagnant water that would support mosquitofish could be left in this channel. Mosquitos could breed in these pools.

5.54 Water-supply and irrigation pipelines would have to be installed under several drainage channels in the basin (i.e., Haskell, Woodley and Hayvenhurst Channels and Bull Creek). During construction, flow within these channels could be modified, perhaps creating stagnant water which would be conducive to the development of mosquito larvae. If this condition arises, steps would have to be taken to control mosquitos.

5.55 The potential encephalitis problem in Sepulveda Basin makes mosquito control a more important issue. The probability of human contact with Culex tarsalis, the mosquito of greatest concern, can be reduced by closing the park at dusk.

5.56 Bird Hazards to Aircraft. The proposed project is not expected to result in significant impacts on the bird hazard problem at Van Nuys Airport. Both the agricultural field in which the recreation lake would be built and the wildlife area get abundant bird use under existing conditions as discussed in the "Affected Environment" section. With development of the project, use of the area by birds would not be significantly increased.

5.57 The recreation lake would not have any emergent vegetation and very little shoreline vegetation that would provide cover for waterfowl or shore birds. The lack of shallow water and the cement treatment around the edge would simplify aquatic vegetation control and would reduce the development of a benthic food source for these birds. Greater effort in aquatic vegetation

control would be necessary in the initial phase of the lake, before the shelf is covered with concrete. Finally, recreational use of the lake would discourage bird use, particularly use by Canada geese which are one of the birds of greatest concern.

5.58 The wildlife pond would expand upon existing conditions rather than create new conditions. Season of use would be prolonged and quality and diversity of habitat would be increased, but carrying capacity for problem species would not be greatly affected.

5.59 Input from the Federal Aviation Administration (FAA) and the U.S. Department of Agriculture, Office of Animal Damage Control suggest that gulls, waterfowl, starlings, and blackbirds are the birds that could pose a hazard to aircraft if their populations were increased or their behavior altered by the proposed project (attachments E and F). According to the USFWS, gulls are "very uncommon at small lakes such as are planned for Sepulveda Basin" (attachment G). They tend to roost on open ground rather than water. In addition, human activity in the recreation lake should discourage their use of this lake. Bare soils during and immediately after construction may temporarily increase their numbers in the area. Gulls and probably crows would also be attracted to the area if the lake had to be drained. Decomposing algae and fish and the associated insects could attract large numbers of birds. Fortunately, in the spring and summer, when the lake would most likely be drained, shorebirds would not be as likely as during the winter to congregate in large numbers.

5.60 Waterfowl, particularly Canada geese, are another group of birds that could present a hazard to aircraft. The lack of shallow water and aquatic plants and the high level of human activity in the recreation lake should prevent waterfowl from being attracted in large numbers. The Canada goose was identified by the USDA as the species of primary concern. The geese currently forage in the agricultural fields of the Sepulveda Basin, including the one at the site of the proposed recreation lake. These birds generally roost at Encino Lake, which is only about two miles south of the basin. The removal of agricultural fields from the basin would probably result in a decline in the goose population in the basin since foraging habitat in the area is more scarce than roosting habitat.

5.61 Both the USDA and the FAA suggested that blackbirds and starlings may form roosts in the wildlife area and/or the park. These birds could then fly from the basin to the airport in flocks that could pose a hazard to aircraft.

5.62 Aircraft Hazards to People on the Ground. Los Angeles County does not have guidelines for development around airports. Other counties do have these guidelines, and they are briefly summarized in the Airport Land Use Planning Handbook (California Department of Transportation 1983). This handbook proposes guidelines for safety zones. Guidelines for an inner safety zone generally correspond to airport clear zones, and those for an outer safety zone generally correspond to airport approach zones. Van Nuys Airport has a clear zone designated but not an approach zone. The clear zone, however, extends well beyond the standard outer safety zone recommended in the handbook, but it does not reach into the project area. According to the handbook, the proposed project would not be subject to significant hazards due to aircraft since it is outside of the outer safety zone which allows up to 50 persons per acre at any one time.

5.63 Steepness of Bull Creek Slopes. Since recreational uses are planned for park areas immediately adjacent to Bull Creek, the steep slopes of that channel represent a safety hazard to users of the park. Future plans for the park include an esthetic treatment for Bull Creek that consists of a steep slope on one side with native plantings designed to discourage use and a terraced slope on the other with public access onto the terraces. Until this esthetic plan is implemented, however, Bull Creek could pose a safety hazard.

6. MITIGATION

6.01 This section will identify mitigation measures that are necessary in order to minimize project impacts. Mitigation which was required by the Master Plan EIS and which applies to this project will also be included, where appropriate. In other cases, the mitigation from the EIS has been incorporated in project design or has been referred to previously. Many project design features are critical to the acceptability of this project from an environmental perspective (e.g. lake configuration, depth, back-up water supply, etc.). Therefore, all changes in design must be evaluated to determine whether additional NEPA documentation is necessary. Table 11 summarizes this section and indicates when compliance would be checked for each commitment.

6.02 LAND USE. Flood Control. A hydrological study of Bull Creek would be conducted before the esthetic treatment plan is implemented to evaluate the impact of such a plan on flood control characteristics of the creek.

6.03 BIOLOGICAL RESOURCES. Impacts to biological resources resulting from construction of the recreation lake are less under the current proposed project than under the original plan described in the Master Plan EIS. Originally, 63 acres of wetlands in the Los Angeles River would have been impacted. Now, only about 1.4 acres of Bull Creek would be impacted by the esthetic treatment plan. Impacts to agricultural lands remain the same. The main mitigation from the EIS, i.e., the wildlife area, is still a part of the plans for the current project. The EIS also made the commitment that "a biological enhancement element should be incorporated in feature design memoranda" to specify revegetation efforts which would attract wildlife. Although not referred to as a "biological enhancement element", the current FDM does specify both native plant zones within the project area and the species to be planted in these zones. A minimum percentage for each species in a native planting should be specified to ensure a good mix of species. These percentages will be determined by the Corps in coordination with resource agencies. Any sycamores that are planted will not be inoculated to prevent heartrot. The Corps would also coordinate with resource agencies in the development of an operations and maintenance plan for the wildlife area and in the refinement of an esthetic treatment plan for Bull Creek. Vegetation clearing should not be done in the wildlife area during the breeding season for birds in the area (i.e., about March through late August). Finally, the original commitment to complete the wildlife area before or at the same time as the recreation lake area will be met. Both areas will be completed in phases, but the recreation lake area will not be completed before the wildlife area. No additional mitigation is required.

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Table 11. Environmental Commitments

Resource	Mitigation Measure or Study	Timing of Compliance Inspection				
		Before P & S*	P & S*	Instructions to Field	During Construction	Post Construction
1. Land Use - Flood Control	Hydrological Study of Bull Creek	X				
2. Biological Resources	Native Species Plantings		X		X	X
	Minimum Percentage for Each Species		X		X	
	Operations and Maintenance Plan for Wildlife Area	X				
	Clearing Vegetation in Wildlife Area		X	X	X	
	Refine Esthetic Treatment Plan for Bull Creek	X	X			
	Complete Wildlife Area First	X				
3. Cultural Resources	Monitor Excavations		X	X	X	
4. Water Quality	Design Features		X		X	
	Lake Management Plan	X				X
	Excavation During Dry Season		X	X	X	
	Erosion Control Measures		X	X	X	
	Seed Turf Around Lake		X		X	

Table 11. (Cont'd)

Resource	Mitigation Measure or Study	Timing of Compliance Inspection				
		Before P & S*	P & S*	Instructions to Field	During Construction	Post Construction
	Color Code Water Spigots		X		X	
	Irrigate at Night					X
5. Water Supply	Obtain Assurances of Adequate Supply of Effluent	X				
	Potable Water Supply Line		X		X	
	Compact Lake Bottom		X		X	
6. Esthetics	Revegetate As Soon as Possible		X	X	X	
	Lake Management Plan**	X				X
7. Air Quality	Limit Area of Exposed Soils		X	X	X	
	Dust Control		X	X	X	
	Revegetate As Soon As Possible**		X	X	X	
8. Noise	Noise Abatement		X	X	X	
	Avigation Easement or Letter of Agreement	X				

Table 11. (Cont'd)

Resource	Mitigation Measure or Study	Timing of Compliance Inspection				
		Before P & S*	P & S*	Instructions to Field	During Construction	Post Construction
9. Traffic	Transportation of Soils on City Streets		X	X	X	
	Traffic Study	X				
10. Health and Safety						
a. Mosquitos	Lake Management Plan**	X				X
	Use Mosquitofish For Control	X				X
	Use Chemical Treatment When Necessary	X				X
b. Bird Hazards	Revegetate As Soon As Possible**		X	X	X	
	Drain as Quickly as Possible	X				X
	If Problem Develops, Discourage Bird Use		X	X	X	X

* Plans and Specifications

** Mentioned More Than Once in Table

6.04 CULTURAL RESOURCES. As mitigation for the potential disturbance of buried archeological sites, it is recommended that all major excavations in the basin where sediment obscures the original ground surface, be periodically monitored by a qualified archeologist. If such resources are uncovered, the provisions of 36 CFR 800.7 will be followed.

6.05 WATER QUALITY. Water quality is a major concern with this project. In order to minimize problems with water quality in the recreation lake, a variety of lake design features have been incorporated into project plans, including the capability to drain the lake through the irrigation system. In addition, monitoring, operation, and maintenance plans will be described in detail in a lake management program that will be developed prior to lake construction by the Corps in coordination with concerned agencies.

6.06 Water quality problems can also be created by construction activities. For example, exposed soil can get into surface water and increase turbidity. Excavation will only be done in the dry season to minimize this problem. In addition, erosion control measures such as spraying water to minimize dust and replanting as soon as possible will be implemented. A 20-foot band around the lake will be seeded with turf species and irrigated carefully to establish a buffer around the lake that would help to prevent irrigation waters or rainfall from eroding the slopes and carrying sediment into the lake.

6.07 Additional mitigation measures related to water quality have been suggested by the State DOHS. This agency requires, at least, that water spigots in the basin be color coded to differentiate potable water and reclaimed water. They also require that irrigation be done at night to essentially avoid human contact. As recommended by the State DOHS, "Guidelines for the Use of Reclaimed Water" will be used as a guideline during the preparation of project plans and specifications. Testing for pesticides and lead in soils in the recreation lake and wildlife ponds has been completed (see Attachments J and K). Because these tests indicate that there are no problems, no mitigation measures regarding such potential contaminants are necessary.

6.08 WATER SUPPLY/GROUNDWATER. The supply of water to the recreation lake, in particular, but also the wildlife area, is an essential feature of this project. A continuous supply is needed in order to maintain a short residence time. Therefore, except on rare occasions, the Tillman Plant will provide assurances that it can provide a continuous supply of water at a rate not less than 30 MGD. In addition, a back-up supply of potable water will be available for use in the lake during times when the Tillman Plant is shut down. A minimum capacity for the potable water supply line would be 4 MGD. In order to minimize the loss of water from the recreation lake due to percolation, existing clay soils would be compacted.

6.09 ESTHETICS. Bare soils exposed during construction would be revegetated as soon as possible to minimize esthetic impacts. A lake management plan (mentioned previously) would be developed and implemented in the recreation lake to avoid or minimize problems with algae development and to prolong periods between draining and cleaning of the lake.

6.10 AIR QUALITY. The generation of dust due to construction would be mitigated by:

1. Limiting the area of soils exposed to the wind at any one time.
2. Applying a non-toxic dust palliative to exposed surfaces.
3. Seeding as soon as it is practical to do so.

6.11 NOISE. Once the project is completed, earth berms will serve to both buffer the park from surrounding noises and to buffer surrounding areas from noise generated in the park. During construction, a variety of noise abatement measures listed in the EIS for the Master Plan would be implemented. An avigation easement or letter of agreement will be negotiated between the City Department of Airports and Department of Recreation and Parks. This agreement would recognize the rights of the airport to continue operations over the recreation area and would, perhaps, establish some limitations on those operations.

6.12 TRAFFIC. Heavy equipment would be kept off city streets during grading operation. Material that is needed to be transported to the west side of Bull Creek would be transported over a "Bailey" bridge or some other structure to be approved by concerned agencies. Transportation of material to the downstream side of the dam from the wildlife area would also be accomplished without using city streets. The access road off of Balboa Boulevard would not be constructed until a traffic study and additional NEPA documentation is completed.

6.13 HEALTH AND SAFETY. Mosquitos. If the lake management plan (mentioned previously) for the recreation lake is adequately implemented, mosquitofish should be able to control mosquitos in this lake. A continuous effort may be necessary to keep emergent vegetation under control to avoid impacts on circulation and access for mosquitofish. If an algal bloom impedes mosquitofish access to areas of the lake, chemical treatment may be necessary if the lake cannot be drained quickly enough. In the case of the pond in the wildlife area, in the unlikely event that a problem with mosquitos develops (most likely in the fall), chemical treatment could be instigated or the pond could be drained. The lake management plan will cover this situation.

6.14 Bird Hazards to Aircraft. Gulls may be attracted to bare soils in the basin for roosting during and immediately after construction. These soils will be revegetated as quickly as possible to discourage the gulls. When necessary, the recreation lake would be drained and cleaned as quickly as possible to shorten the time when gulls and crows might be attracted to the lake. This is expected to be routinely done about once every 5 to 10 years. If a conflict develops between birds using the recreation lake, informal park, or wildlife area and aircraft departing from Van Nuys Airport, the City of Los Angeles would have to take steps to discourage birds, such as the use of scare devices or the removal of roosts of blackbirds and crows by pruning and/or thinning trees.

7. COMPLIANCE WITH ENVIRONMENTAL REGULATIONS

7.01 Consideration of applicable environmental laws, Executive Orders, and other policies in the planning process is noted as follows:

7.02 National Environmental Policy Act. This assessment is prepared in accordance with the requirements of the National Environmental Policy Act. The assessment includes a description of the proposal, the need for the project, a description of the affected environment, the environmental impacts of the project, and coordination with agencies and groups.

7.03 Fish and Wildlife Coordination Act. In compliance with the Act, the Corps of Engineers initiated early informal coordination with the U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Game (CDFG). As part of this coordination the Corps conducted a joint biological survey of the project area with USFWS personnel and visited the wildlife area with CDFG personnel. Comments and recommendations were solicited from the above agencies. Recommendations of the USFWS and the CDFG were incorporated into the project plans. The USFWS was concerned about preserving the future values of Bull Creek, and both agencies were concerned about the loss of foraging habitat for the Canada goose and about the proper development of the wildlife area.

7.04 Endangered Species Act of 1973, as amended. The Endangered Species Office did not identify any potential endangered and threatened species for the project area. They did, however, identify a candidate endangered species, the tri-colored blackbird, that could occur in the project area (attachment C). During a site survey, a biologist from the USFWS found this species in the vicinity of the wildlife area, foraging in mixed flocks with other blackbird species and perching in trees along Haskell Channel. The USFWS thought that it was not likely that the species breeds in the area (attachment B). The species would probably be affected by short-term impacts on existing vegetation in the wildlife area but, in the long-term, would probably benefit by enhancement of the wildlife area.

7.05 Farmland Protection Policy Act. The Corps identified 154 acres of agricultural lands that would be impacted by the proposed project, completed the Farmland Conversion Impact Rating Form (attachment D), and mailed it to the local office of the Soil Conservation Service (SCS). The SCS identified all 154 acres of farmland as prime farmland and gave it a rating of 90 out of 100. The Corps completed the site assessment criteria, giving the site a rating of 44 out of 160 for a combined score of 134. No practicable alternatives were available to lessen adverse impacts on agricultural lands.

7.06 Executive Order 11988, Floodplain Management. The goals of this Executive Order were considered during study of the proposed recreation lake, informal park, wildlife area, and change in land-use designation. All of these items fall within the Sepulveda Flood Control Basin. None of these proposed uses would interfere with the basin's flood control function, and there would be no change in the water holding capacity of the basin below the PMF flood elevation. Impacts to existing natural values within the floodplain would be completely mitigated.

7.07 Executive Order 11990, Protection of Wetlands. Construction of the proposed project would result in long-term losses to wetlands in Bull Creek and Hayvenhurst Channel. Additional short-term losses would occur to wetlands in Haskell, Woodley and Hayvenhurst Channels and to wetlands in the existing seasonal pond in the wildlife area. A determination has been made that no practicable alternative to undertaking construction in the wetlands areas exists. The enhancement of wetlands in the wildlife area would adequately mitigate for all wetland losses.

7.08 National Historic Preservation Act of 1966, as amended. In two prior consultations, the State Historic Preservation Officer (SHPO) concurred with the determination that construction operations within the project area would not involve historic or cultural properties. Archeological surveys were conducted within the proposed project area in 1977 and 1984. These surveys resulted in the determination that all known historic properties/cultural resources at Sepulveda Basin have been destroyed.

7.09 Clean Air Act. The adverse impacts associated with construction of the proposed project would not be long term impacts, and short term impacts would not reach a level of significance. Thus, no formal coordination with the Air Quality Management District was pursued.

7.10 Clean Water Act of 1977, as amended. A draft Section 404(b)(1) evaluation has been prepared which covers the water distribution and irrigation pipeline crossings in Hayvenhurst Channel, Woodley Channel, Bull Creek, and Haskell Channel, and terracing the banks of Bull Creek. This evaluation also includes: the placement of fill from the wildlife area around the edges to form berms and in the center of the proposed wildlife lake to create an island; the placement of rocks in Bull Creek and Hayvenhurst Channel; the construction of bridges over these drainages; and the placement of stone revetment along Hayvenhurst Channel. This project is in compliance with Section 404 of this Act; testing of the sediment from the wildlife area and the recreation lake is complete. The results show uncontaminated sediments. The final 404(b)(1) evaluation reflects these results. These test results appear as Attachments J and K in the EA. The discharge of water from the two lakes into receiving waterways requires a National Pollutant Discharge Elimination System (NPDES) permit in order to be in compliance with Section 402 of this Act. The City of Los Angeles, as the local sponsor, has applied for the required permit.

8. COORDINATION.

8.01 Corps staff has coordinated both formally and informally with various agencies to inform them of the proposed actions, to obtain information, and to offer them the opportunity to provide informal comments. Meetings to which agencies were invited were held on March 25, 1986 and on July 15, 1986. Those agencies which attended one or more of these meetings were:

U.S. Fish and Wildlife Service
State Department of Health Services
Los Angeles Audubon Society
California Regional Water Quality Control Board
City of Los Angeles, Bureau of Sanitation
Federal Aviation Administration

City of Los Angeles, Bureau of Engineering
Los Angeles County Department of Health Services
City of Los Angeles, Department of Airports
Southeast Mosquito Abatement District
California Department of Fish and Game
City of Los Angeles, Department of Water and Power
City of Los Angeles, Department of Recreation and Parks
City of Los Angeles, Department of Transportation
Sierra Club

8.02 In addition to receiving input from these agencies through our contact with them at these meetings, we contacted most of them by phone several times during the course of preparation of this environmental assessment. Other agencies which were contacted were:

U.S. Department of Agriculture
Soil Conservation Service
Animal Damage Control
Environmental Protection Agency
California, Department of Transportation

8.03 Some of the written input received from the above agencies are included in the attachments to this report. Many other letters were received, including some from private citizens. Comments were incorporated into plans where appropriate.

8.04 The Draft EA was sent to about 80 interested individuals and agencies for a 30-day review period. Letters of comment and the Corps response to those comments are included in Attachment I. Comments were incorporated into the Final EA where appropriate.

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LIST OF PREPARERS

<u>Name</u>	<u>Professional Discipline</u>	<u>Role in Preparation of Ea</u>
Robert Koenigs	Ecologist	Environmental Coordinator/Biology
Steve Schwartz	Archeologist	Archeology
Sandy Lemlich	Environmental Engineer	Water Quality
Terry Breyman	Ecologist	Technical Review/ Supervisory Review
Laura Tschudi	Geographer	Supervisory Review
Sheila Murphy	Landscape Architect	Review
Rich Metzinger	Landscape Architect	Review

ATTACHMENT A

NATIVES FOR NATIVE PLANT VEGETATION AREA
(using recommendations from USFWS)

TREE

<u>Alnus rhombilifolia</u>	White Alder
<u>Heteromeles arbutifolia</u>	Toyon
<u>Juglans californica</u>	California Walnut
<u>Platanus racemosa</u>	Western Sycamore
<u>Populus fremontii</u>	Fremont Cottonwood
<u>Quercus agrifolia</u>	Coast Live Oak
<u>Quercus engelmannii</u>	Engelman Oak
<u>Quercus lobata</u>	Valley Oak

GROUND COVER

<u>Arctostaphylos edmundsii</u> "Carmel Sur"	Little Sur Manzanita
<u>Arctostaphylos edmundsii</u> "Emerald Carpet"	" " "
<u>Baccharis pilularis</u> "Pigeon Point"	Coyote Brush
<u>Ceanothus griseus</u> var. <u>horizontalis</u> "Yankee Point"	California Lilac



United States Department of the Interior

FISH AND WILDLIFE SERVICE
LAGUNA NIGEL FIELD OFFICE
24000 Avila Road
Laguna Niguel, California 92656

June 2, 1986

Colonel D. Fred Butler
District Commander
Los Angeles District, Corps of Engineers
P.O. Box 2711
Los Angeles, California 90053

Re: Sepulveda Basin Recreation Lake and Wildlife Area

Dear Colonel Butler:

This is a Coordination Letter of the U.S. Fish and Wildlife Service (FWS) prepared in accordance with the Fiscal Year 1986 Scope of Work with the U.S. Army Corps of Engineers (CE), Los Angeles District. This letter provides input to the CE for its proposed Sepulveda Basin Recreation Lake and Wildlife Management Area, Los Angeles County, California. Its purpose is to provide information for consideration of fish and wildlife resources in the planning of this project. This letter is of a planning aid nature and does not constitute a report within the meaning of Section 26 of the Fish and Wildlife Coordination Act (48 Stat. 401 as amended; 16 U.S.C. 661 et seq.).

PROJECT DESCRIPTION

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. The proposed project, consisting of a recreation lake/informal park and a wildlife improvement area, is located within the basin and will be constructed on 2 sites (see Figure 1):

1. the proposed Recreation Lake/Informal Park site which covers 90 acres and is bordered on the north by Victory Boulevard, on the south by the Los Angeles River, on the west by Bull Creek, and on the east by the Woodley Golf Course;

2. the proposed Wildlife Management Area which covers 60 acres and is bordered on the north by Woodley Avenue Park, on the south by Burbank Blvd., on the west by Haskell Channel, and on the east by Sepulveda Dam.

The land is owned by the CE, but a majority is leased to the Los Angeles Department of Recreation and Parks for recreational development. In 1981, the CE prepared a Master Plan/EIS for the Sepulveda Basin which featured elements that are addressed in this project. However, some changes in design have occurred that impact the mitigation plan. These changes will be addressed in a Supplemental Environmental Assessment to be prepared by the CE. The key design

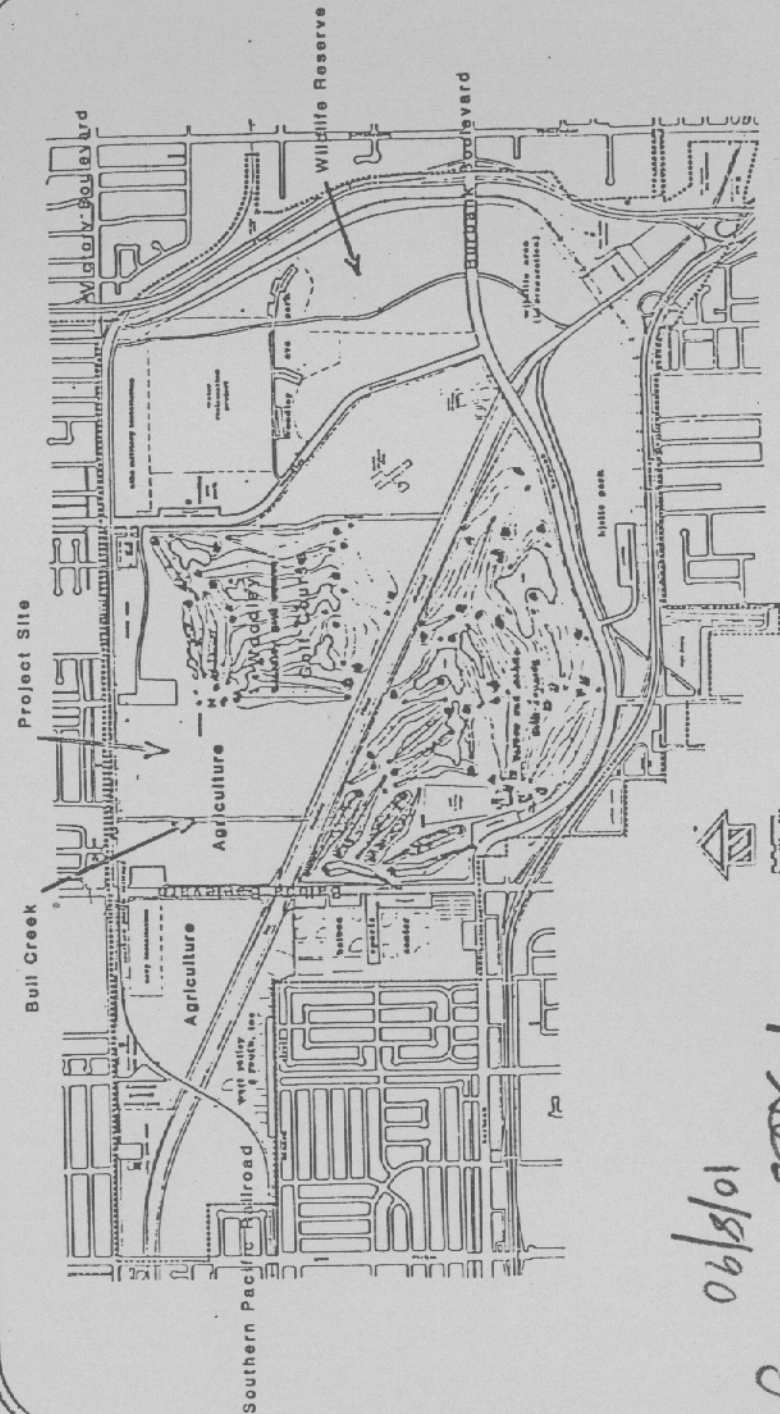


Figure 1. Map of Sepulveda Basin Showing Project Site Locations

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features which are currently proposed are as follows:

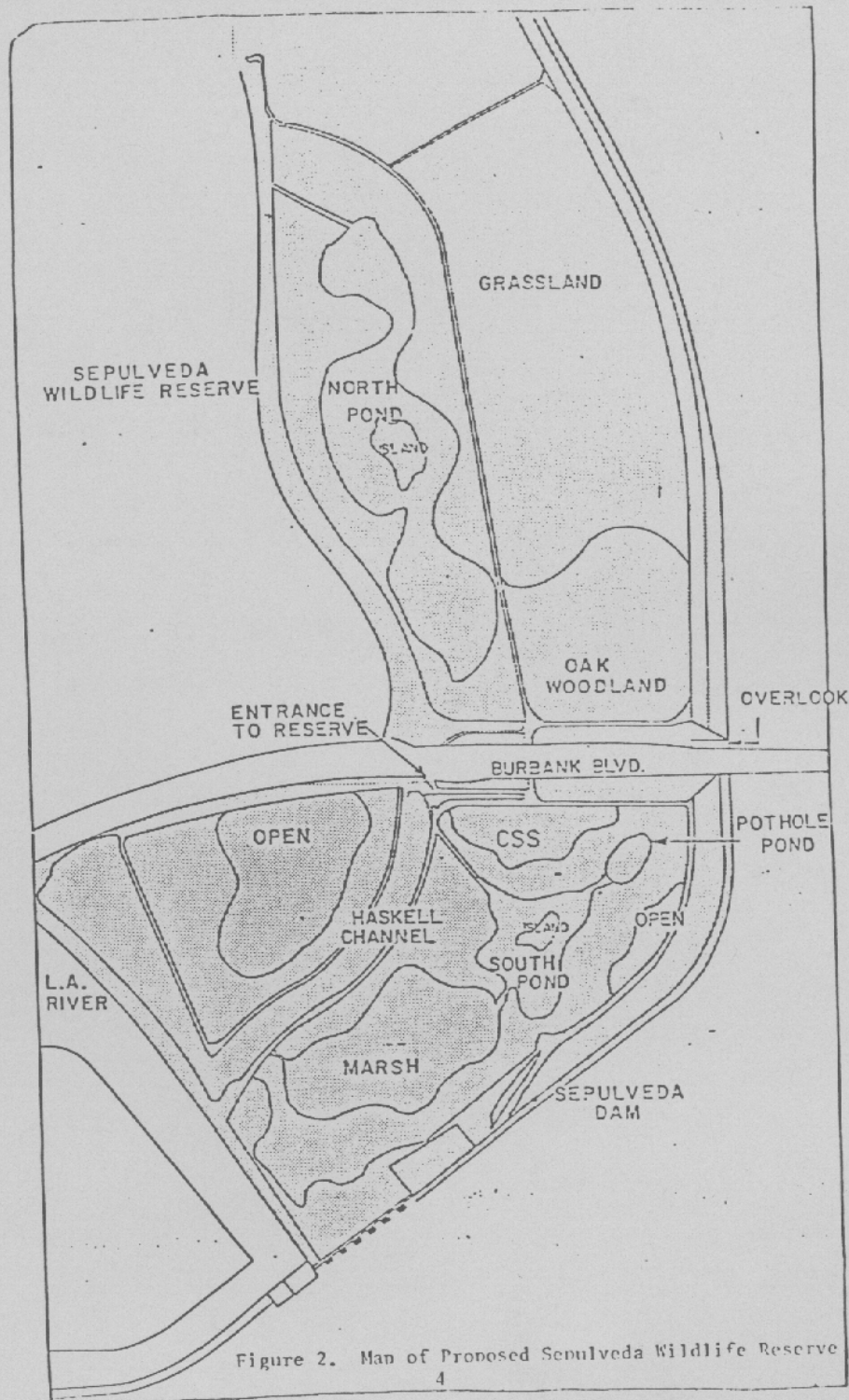
° A 27 acre recreation lake designed to support non-powered boating and fishing will be constructed immediately west of Bull Creek. The lake will not directly impact the Los Angeles River channel as originally proposed. However, overflow from the lake could provide a year-round water source for the river. Spoil material from lake excavation would be deposited along the east side of Balboa Boulevard, the south side of the railroad tracks, and in areas above the 100-year flood elevation. The water source for the recreation lake is uncertain at this time. A 46-acre informal park will be developed around the lake. Facilities will include dispersed and group picnic areas, restrooms, a pedestrian and bicycle trail, and parking. The northern 17 acres of the site and the 70 acre parcel between Bull Creek and Balboa Boulevard will be developed as an Arts Park at a later date. It is expected that Bull Creek will be altered by the project, but the extent of impacts is unknown at this time.

° The 60 acre Wildlife Improvement Area north of Burbank Boulevard and west of the dam is planned to feature a small lake to provide habitat for wildlife (see Figure 2). The water source for this lake possibly will be treated wastewater from the nearby Tillman Reclamation Plant which would enter the lake by way of buried pipes at the northerly end of the lake and exit via a small channel at the southerly end which would drain into the adjacent Haskell Channel. This would provide additional water to the pond and marsh in the wildlife area south of Burbank Boulevard. Flow to the lake would be regulated to control water surface level and water quality. The Master Plan also shows a grassland area east of the lake, and a small oak woodland southeast of the lake adjacent to Burbank Boulevard. An existing parking lot north of the site will be connected to the wildlife areas by an access road/bike trail. Wildlife observation blinds are proposed for the area. This portion of the project is designed in part to provide mitigation for the development of other facilities within the Sepulveda Basin. It would not only enhance habitat for wildlife, but also increase interpretive and recreation opportunities within this portion of the basin.

BIOLOGICAL EVALUATION

Methods

Field visits were made to the Sepulveda Basin on 11 December 1985 and 13 January and 3 February 1986 for a total of 20 biologist hours to collect information on the biological resources of the project area. A survey of birds was conducted throughout the project area and identification made by sight and vocal recognition. An assessment of amphibian, reptile, and mammal species present was done by recording incidental observations of sign (scat and tracks) and sightings. Special effort was made to locate sensitive species which could be present in the area. A list of plant species present was compiled from observations made on each trip. The amount of wetland vegetation present on the wildlife lake site was determined by planimetry of a 1:4,800 aerial photograph supplied by the CE. To gather information on the design of man-made lakes and on the use of such facilities by wildlife, visits were made to the Whittier



Narrows Nature Center near the San Gabriel River, ponds located on the Pepperdine University Malibu campus, and the Santee Lakes in San Diego County.

Physical Description of the Project Site

The topography of the Sepulveda Basin is flat and bisected by drainage channels, Bull Creek, and the Los Angeles River. The water courses of concern in this project are a 2,750 foot long section of Bull Creek which empties into the Los Angeles River, a 1,750 foot long segment of the Los Angeles River, and a 2,450 foot long section of Haskell Channel in the eastern basin. The area comprises a portion of the large alluvial plain that is the San Fernando Valley. The site is covered almost entirely by Recent alluvium composed of relatively fine materials. Soils in the basin contain a high proportion of fine-grained, silty clay material which has compactive qualities and a low organic content (Corps of Engineers 1981). These properties have implications for lake construction and use of plant materials in any development scheme proposed for the area.

The 66.9 acre wildlife management area contains an approximately 7 acre shallow depression excavated several years ago to obtain fill for another project. In winter months, this depression collects varying amounts of water to form a shallow pond which drains into Haskell Channel.

Biological Description of the Project Area: Vegetation

The recreation lake/informal park site is used entirely for agricultural crops. The north end of the 90 acre block bordering the railroad tracks contains a few ornamental and native plant species including sycamore (Platanus racemosa), pepper-tree (Schinus molle), California fan palm (Washingtonia filifera), and non-native pines (Pinus sp.). This area is within the proposed Arts Park development.

Bull Creek, which runs the entire length of the westerly side of the site, empties into the Los Angeles River. The northern portion of this stream is lined with riprap, but the remainder is a natural channel. In the past, this creek has been lined with a thin but dense growth of willows (Salix sp.), mulefat (Baccharis glutinosa), a few small sycamores, and thickets of giant reed (Arundo donax) (Bontrager 1984). However, the city maintains the channel for flood control purposes and recently cleared this vegetation. On FWS field visits in 1985-86, only isolated young willow growth, giant reed, castor-bean (Ricinus communis), and various ruderal species were seen. A small group of mature walnut trees (Juglans sp.) is located on the east side of the creek at the top of the bank. The majority of the recreation lake/informal park site is an agricultural field usually planted in corn.

The Los Angeles River in this section is a natural channel except for a short westerly portion with sides lined with grouted rock. The bottom is soft throughout. This 1.5 mile length of the river between Balboa Ave. and just southeast of Burbank Boulevard comprises the only natural river bottom left on the Los Angeles River with the exception of 2.6 miles near Griffith Park. The natural portion bordering the recreation lake site is lined with moderately dense vegetation dominated by arroyo willow (Salix lasiolepis), sandbar willow

(S. hindsiana), and mulefat in the easterly section, and castor bean, tree tobacco (Nicotiana glauca), and giant reed to the west. Other plants include curly dock (Rumex crispus), cocklebur (Xanthium strumarium), cheeseweed (Malva parviflora), coastal sagebrush (Artemisia californica), mugwort (Artemisia douglasiana), black mustard (Brassica nigra), field mustard (Brassica rapa ssp. sylvestris), Russian thistle (Salsola iberica), wild radish (Raphanus sativus), annual introduced grasses, and other ruderal species.

The wildlife management area is bordered on the west by a narrow, manmade water course called Haskell Channel. This channel passes beneath Burbank Boulevard and eventually empties into the Los Angeles River. The vegetation within the channel is primarily bulrush (Scirpus californicus) with some cattails (Typha sp.). A few scattered arroyo willows and black willows (Salix gooddingii) are found on the banks, but ground cover is comprised primarily of introduced annual grasses, mustard, milk thistle (Silybum marianum), and other ruderal species.

The wildlife management area is bisected by a path which runs north to south the length of the parcel. The shallow depression in the western section, which seasonally contains water, is lined with relatively dense mulefat, particularly at the southern end. It also contains scattered arroyo willows, cottonwoods (Populus fremontii), and an assortment of ruderal species. A few isolated patches of giant reed and pampas grass (Cortaderia atacamensis) are found on the perimeter of the depression. The wetland vegetation in this area covers 4.5 acres. The field surrounding this "pond" area has a few scattered shrubs or mulefat, Emory baccharis (B. emoryi), and California sagebrush. Ground cover consists of introduced annual grasses, filaree (Erodium cicutarium), horehound (Marrubium vulgare), black and field mustards, wild radish, milk thistle, Russian thistle, curly dock, sow thistle (Sonchus oleraceus), and other introduced weedy species.

Fish

No fish were observed in the discolored waters of Bull Creek, nor in Haskell Channel. The Los Angeles River is known to support several fish species including golden shiner (Notemigonus crysoleucas), bluegill (Lepomis macrochirus), mosquitofish (Gambusia affinis), and the native arroyo chub (Gila orcutti) (Bontrager 1984).

Amphibians and Reptiles

No amphibians or reptiles were observed within the project area, undoubtedly because the sites were visited on cool winter mornings. Many species are expected in the area. Four amphibians have been sighted in recent years in the basin (CE 1981). These are the Western toad (Bufo boreas), Pacific treefrog (Hyla regilla), red-legged frog (Rana aurora), and the bullfrog (Rana catesbeiana). Reptiles which have been observed in the area include the western pond turtle (Clemmys marmorata), western fence lizard (Sceloporus occidentalis), side-blotched lizard (Uta stansburiana), the coast horned lizard (Phrynosoma coronatum), coachwhip (Masticophis flagellum), gopher snake (Pituophis melanoleucus), California kingsnake (Lampropeltis getulus californiae), and the southern Pacific rattlesnake (Crotalus viridis helleri). Additional

species may occur, particularly along the Los Angeles River and in the wildlife management areas.

Birds

43 avian species were observed in the project area during surveys conducted by FWS during winter 1985-86. The agricultural field on the recreation lake site was a popular foraging place for Canada geese (Branta canadensis), rock doves (Columba livia), and American crows (Corvus brachyrhynchos). Eight great blue herons (Ardea herodias) were observed in this field on one occasion. Red-tailed hawks (Buteo jamaicensis) were often seen perching in the few trees on the site and hunting over the fields in the area. Seven mallards (Anas platyrhynchos) were seen swimming in the waters of Bull Creek in December. Anna's hummingbirds (Calypte anna), yellow-rumped warblers (Dendroica coronata), song sparrows (Melospiza melodia), white-crowned sparrows (Zonotrichia leucophrys), red-winged blackbirds (Agelaius phoeniceus), and lesser goldfinches (Carduelis psaltria) were common in vegetation remaining in Bull Creek. Killdeer (Charadrius vociferus), European starlings (Sturnus vulgaris), and house finches (Carpodacus mexicanus) were also seen in the area. Prior to clearing by the city's flood control personnel, the willows and mulefat in Bull Creek were a favored location for many warbler species (see Appendix A for a complete list of warblers observed in the Basin in past years).

The wildlife habitat improvement area and adjacent Haskell Channel contained a greater variety of bird species during the FWS winter surveys than did the recreation lake site. Canada geese, rock doves, American crows, and common ravens (Corvus corax) foraged in the field immediately west of Haskell Channel. On one occasion, a minimum of 135 geese were seen among the corn stubble remains. Larger numbers were observed in the field to the north adjacent to the reclamation plant. These geese move back and forth between Encino Reservoir, generally several times per day, and spend the night at the reservoir (K. Garrett, pers. comm.).

Pied-billed grebes (Podilymbus podiceps), mallards (Anas platyrhynchos), northern pintails (Anas acuta), cinnamon teals (Anas cyanoptera), and bufflehead (Bucephala albeola) used the shallow seasonal pond which was excavated in the wildlife area. A single turkey vulture (Cathartes aura), a northern harrier (Circus cyaneus), Cooper's hawks (Accipiter cooperii), and red-tailed hawks were seen foraging over the fields in and around the wildlife area, using eucalyptus trees in adjacent parkland as perches from which to hunt. Killdeer, mourning doves (Zenaida macroura), Say's phoebes (Sayornis saya), loggerhead shrikes (Lanius ludovicianus), savannah sparrows (Passerculus sandwichensis), and western meadowlarks (Sturnella neglecta) preferred the weedy field between the pool and the dam. Meadowlarks and mourning doves probably nest here. A ring-necked pheasant (Phasianus colchicus) was flushed from the grass adjacent to the pond. Anna's hummingbirds were frequently seen in courtship display throughout the area and probably nest in vegetation along the sides of the pond. A downy woodpecker (Picoides pubescens) was observed foraging low in mulefat at the south end of the site. Scrub jays (Aphelocoma coerulescens), seen more frequently in the park vegetation, forage occasionally in the wildlife area. The willows, mulefat, cottonwoods, and other vegetation adjacent to the pond

and Haskell Channel supported many bird species. These included Bewick's wren (Thryomanes bewickii), European starling, yellow-rumped warbler, common yellowthroat (Geothlypis trichas), song sparrow, Lincoln's sparrow (Melospiza lincolni), white-crowned sparrow, red-winged blackbird, tri-colored blackbird (Agelaius tricolor), Brewer's blackbird (Euphagus cyanocephalus), house finch, lesser goldfinch, and American goldfinch (Carduelis tristis). All three species of blackbirds also foraged in the grassy turf of the adjacent park. Only a few tricolored blackbirds were seen with the others, but their presence is significant due to their status as a sensitive species.

Several bird species were seen in and around the Los Angeles River. A pied-billed grebe, great blue herons, great egrets (Casmerodius albus), snowy egret (Egretta thula), mallards, a redhead (Aythya americana), bufflehead, and American coots were seen in the river itself. Anna's hummingbirds, black phoebes (Sayornis nigricans), yellow-rumped warblers, song sparrows, white-crowned sparrows, dark-eyed juncos (Junco hyemalis), and lesser goldfinches foraged along the river banks.

A FWS biologist observed additional bird species in the Sepulveda Basin during surveys for the Los Angeles County Drainage Area (LACDA) study in the spring of 1984 (Bontrager 1984). These include American bittern (Botaurus lentiginosus), red-shouldered hawk (Buteo lineatus), black-necked stilt (Himantopus mexicanus), spotted sandpiper (Actitis macularia), western sandpiper (Calidris mauri), least sandpiper (Calidris minutilla), dunlin (Calidris alpina), spotted dove (Streptopelia chinensis), black-chinned hummingbird (Archilochus alexandri), Costa's hummingbird (Calypte costae), belted kingfisher (Ceryle alcyon), western wood-pewee (Contopus sordidulus), western flycatcher (Empidonax difficilis), northern rough-winged swallow (Stelgidopteryx serripennis), cliff swallow (Hirundo pyrrhonota), solitary vireo (Vireo solitarius), warbling vireo (Vireo gilvus), yellow warbler (Dendroica petechia), Townsend's warbler (Dendroica townsendi), Wilson's warbler (Wilsonia pusilla), blue grosbeak (Guiraca caerulea), and brown-headed cowbird (Molothrus ater). The blue grosbeak nests along the Los Angeles River and is a sensitive species.

Additional species have been recorded from the Sepulveda Basin by members of the Los Angeles Audubon Society, bringing the total number for the basin to 190 species. A complete list is given in Appendix A of this report.

Mammals

Five species of mammals were detected during the field surveys. The most commonly observed were the California ground squirrel (Spermophilus beecheyi) and Audubon's cottontail (Sylvilagus audubonii), both most prevalent on the wildlife lake site. Coyote (Canis latrans) scat, raccoon (Procyon lotor) tracks, and the odor of skunk (probably Mephitis mephitis) were detected along the Los Angeles River. Virginia opossum (Didelphis virginiana), a variety of bats, black-tailed jackrabbit (Lepus californicus), brush rabbit (Sylvilagus backmani), Botta's pocket gopher (Thomomys bottae), a variety of small rodent and long-tailed weasel (Mustela frenata) have also been observed in the basin (CE 1981, Bontrager 1984).

SENSITIVE SPECIES

No federally endangered, threatened, or proposed endangered species occur within the project area. No sensitive plant species were found nor are expected to occur in the basin. However, there is potential for the proposed endangered least Bell's vireo (Vireo bellii pusillus) to occur in the wildlife areas as the habitat matures. The FWS identified one reptile, the San Diego coast horned lizard, and one bird, the tricolored blackbird, both of which are candidates for listing as endangered species, which could be in or adjacent to the project area. These are shown in Table 1 with other species which have special status in California. Several bird species appearing in the comprehensive bird list for the basin given in Appendix A are endangered or candidate species. Sightings of these birds are rare occurrences, however, and these birds do not occur regularly nor do they nest in the basin.

The San Diego coast horned lizard has been listed as occurring or having been sighted in the basin. We have been unable to obtain any information on this sighting, however. It is our opinion that adequate habitat for this species does not occur in the basin. The coast horned lizard prefers level to gently sloping plains and slopes immediately adjacent to hillsides with exposed bedrock. This bedrock generally consists of outcrops of granite boulders which provide parent material for soils which serve as nest sites for carpenter ants, the principal food prey of this species. The coast horned lizard also prefers alluvial valley floors with well-drained, deep, loose alluvial soils. Such soils with open, barren areas covering 20-40% of the habitat are required for foraging and thermoregulation. Primary habitat indicators are chamise (Adenostoma fasciculatum) and California buckwheat (Eriogonum fasciculatum). Such conditions are not present in the project areas.

The tricolored blackbird is a local resident in coastal counties throughout California and into Baja California. This species breeds in dense colonies in freshwater marshes, usually of cattails or tules, and congregates in agricultural areas or on open lawns in mixed or pure flocks in the winter. Several individuals were observed in mixed flocks with red-winged blackbirds and Brewer's blackbirds foraging on the turfed areas of the park north of the wildlife area. They also moved through the wildlife areas, perching in vegetation along Haskell Channel. Although it is apparent that this species used the basin to some degree, it is doubtful that it breeds on the project site due to lack of extensive freshwater marsh habitat.

IMPACTS OF PROPOSED PROJECT

Recreation Lake Site. Development of the recreation lake and informal park will result in the loss of an agricultural field which currently serves as winter foraging habitat for several species of birds, in particular Canada geese. Because of its planned depth of approximately 10 feet, the recreation lake has the potential to provide only minimal winter foraging and loafing habitat for migratory waterfowl. The informal park will provide some cover and possibly nest sites for some passerine bird species depending on how it is designed. However, it is doubtful that Canada geese will use the park for foraging.

Table 1. Special status species found or which could be present at Sepulveda Basin in Recreation Lake and Wildlife Area sites

SPECIES	FEDERAL ^{1,2} , CATEGORY 2 CAND.	SENSITIVE USFWS ³	SPECIES CDFG ⁴	AUDUBON BLUE LIST
<u>Reptiles</u>				
San Diego coast horned lizard	X			
<u>Birds</u>				
Canvasback				X
Turkey vulture				X
Northern harrier				X
Cooper's hawk			X	X
Red-shouldered hawk				X
Bewick's wren				X
Loggerhead shrike		X		X
Yellow warbler		X	X	X
Tricolored blackbird	X			

¹USFWS 1980
²USFWS 1982a
³USFWS 1982b
⁴Remsen 1979
⁵Tate & Tate 1982

Cook

Alterations to Bull Creek have the potential to destroy approximately 1500 feet of natural stream bed with recovering willow riparian habitat. Removal of growing willows, mulefat, and emergent vegetation would reduce cover, forage, and nesting sites for a variety of species, particularly birds. Species abundance and diversity would decline. Some individual reptiles, amphibians, and small mammals, particularly species that are slow moving, would be killed by construction activities. If project implementation occurs during the breeding season, nests and their contents will be destroyed. Streamside vegetation would no longer provide forage and cover for migratory bird species. Depending on the extent of alterations to the streambed and the manner in which it is restored, this creek can continue to provide some habitat or even improve existing values for wildlife. However, if the creek is channelized, impacts will be irreversible and irretrievable.

Los Angeles River. Because no alterations are proposed for the Los Angeles River, the only impacts to this stream would result from the provision of a year-round water supply. These impacts could be beneficial depending on the quality of the water.

Wildlife Lake. Implementation of the proposed project will replace approximately 7 acres of shallow seasonal pond with a 5 to 7 acre lake which may have both shallow and deep areas. 4.5 acres of riparian wetland dominated by mulefat may be destroyed. Revegetation of this area has the potential of providing willow riparian habitat of higher quality and value to wildlife than that which presently exists. An as yet unknown number of acres of ruderal fields will be replaced with oak woodland.

Negative impacts of the wildlife lakes portion of the project are expected to be temporary. Removal of mulefat and other vegetation during project implementation will remove cover, forage, and breeding sites for amphibians, reptiles, birds and mammals. Some slower moving species will be killed by excavation and clearing. Nests and young may be destroyed if the project is implemented during the breeding season. However, restoration of the area for habitat improvement has the potential to provide great benefits to wildlife in the area.

RECOMMENDATIONS

Recreation Lake Site. As presently designed, the recreation lake will provide only minimal benefits to wildlife. These benefits can be improved by constructing areas of shallow water, i.e. less than 2 feet in depth, along the lake's perimeter. In addition, providing some cover along the shore using native plant species would increase value to wildlife. Although current plans call for primarily non-native species use in the informal park surrounding the lake, some areas of native plantings are proposed. On April 10, 1986, we provided to the CE a list of native plants appropriate for use in the park. This list is given in Appendix B.

We caution that many native plants are incompatible with the extensive irrigation practices currently in use for cultivated plant species in southern California. The Corps of Engineers(CE) should consult with an expert in

cultivation of native plants to determine the best management practices for these species. Many are ideal for park use in southern California because of their low irrigation requirements and resistance to drought.

The southern perimeter of the informal park along the Los Angeles River should be planted with sycamore, alder (Alnus rhombifolia), and cottonwood trees interspersed with native shrubs. Recommended shrub species include toyon (Heteromeles arbutifolia), elderberry (Sambucus mexicana), and coffeeberry (Rhamnus californica). All are attractive in appearance, tolerate some watering, and provide cover and food for wildlife.

Bull Creek.

In the absence of specific plans for Bull Creek, it is difficult to make recommendations for this primarily natural watercourse. However, Bull Creek should be retained in its natural state to the greatest extent possible, and the FWS would discourage any attempts to channelize it. We have previously expressed our concerns with further removal of any riparian/wetland habitat in the basin, including that along Bull Creek (Bontrager 1984). Its previous value to wildlife has been documented by the observation of many migratory warbler species in the willows along the stream (Wohlgemuth pers. comm.).

We are aware of the city's concerns regarding maintaining flood capacity in the creek. Consideration should be given to planting at least the upper two thirds of the banks with vegetation to retain the wildlife habitat values of the creek. Dense plantings of arroyo willow, black willow, and sandbar will interspersed with scattered Fremont cottonwood trees would provide adequate habitat. The tops of the banks should be planted with sycamores, Fremont cottonwoods, toyon, and elderberry with a dense understory of California rose (Rosa californica) and California blackberry (Rubus ursinus) to prevent human intrusion onto the stream banks and creek bottom. A giant reed control program should be developed and implemented. A memorandum of Agreement (MOA) should be signed by the city and the CE regarding clearing of vegetation for flood control purposes with the goal of protecting the wildlife habitat along the creek. This MOA should restrict the amount of vegetation which could be removed to that on the lower 1/3 of the banks, the frequency of removal to no less than every three years, and the timing of removal to the period from mid-August to mid-March to avoid impacts to breeding birds.

Wildlife Area. The primary goals for development of the wildlife area should be 1) habitat diversity to attract a large number of wildlife species, 2) high quality habitat to provide nesting, foraging, and cover sites for wildlife, 3) mitigation of development impacts to the remainder of the basin and 4) low maintenance.

As currently proposed by the city, the wildlife lake would cover 5 to 7 acre with a depth of 4 feet at the shoreline dropping to 10 feet in the center. It is our opinion that a lake of this design will attract a relatively low number of wildlife, in particular migratory waterfowl species. It appears that the lake is designed primarily to facilitate maintenance. The city's concern with this issue is understandable, but because the purpose of the lake is to provide

habitat for wildlife, a deep lake with few wildlife values seems inappropriate. The pond should have a perimeter or very shallow water with areas of emergent vegetation to provide cover for wildlife. Natural foods for migratory waterfowl should be available. Shallow waters (4 inches to 2 feet) are preferred by such species as American widgeon, gadwall, cinnamon and green-winged teal, mallard, northern pintail, northern shoveler, canvasback, and redhead. Most of these ducks forage primarily on seeds, stems, leaves, and/or roots of aquatic plants, although some also utilize to some extent aquatic insects and small molluscs such as fingernail clams. Deeper waters are used by diving ducks such as scaup and bufflehead, and by ruddy ducks, whose diets consist largely of aquatic insects, crustaceans, molluscs, and small fish. Seeds, tubers, and leaves of aquatic plants constitute a smaller percentage of their diets. Shallow water would also provide habitat for amphibians and western pond turtles.

We offer for consideration two alternatives to the city's proposal. Both feature an 11 acre pond with shallow (4 inches to 2 feet deep) areas along the perimeter with a maximum depth of 7 to 10 feet. An elongated configuration with a water inlet at the northerly end and a spillway emptying into Haskell Channel at the southerly end is an acceptable design. The configuration should be such that no areas of stagnant water will result, and water will flow constantly throughout the system. The quality of the water source is a major consideration but is not being addressed in detail by the FWS at this time. A consultant with expertise in this field has been hired by the CE to assess the water quality issue.

Alternative 1. Year-round pond. In this alternative water would flow through the pond year round. Bulrush, cattail, and other emergent vegetation would be allowed to grow along the perimeter in selected areas to provide cover for wildlife. This alternative provides maximum values for wildlife including shallow water for dabbling ducks, amphibians, and western pond turtles, and deeper water for diving ducks. The presence of year-round water and emergent vegetation would provide potential breeding habitat for those waterfowl species which may nest in the basin (mallard, cinnamon teal, and ruddy duck) as well as rails, common moorhens, and coots. Because of the high values which would be provided for wildlife, this is the FWS preferred alternative.

Mallards build a nest consisting of a shallow cup of grasses or sedges usually among dense marsh plants or grass near water. However, they are known to nest in a variety of situations if these conditions are not present (Cogswell 1977). It is uncertain whether cinnamon teal would use the wildlife area for nesting. This species breeds on fresh water marshes with a nest of grasses or other plants placed among cattails or sedges. Dense cover appears to be the primary prerequisite for the nest site. Ruddy ducks prefer lakes bordered by dense marshes. The nest is placed among sedges or cattails close to or over shallow water. Therefore, if the lake is to serve as a breeding area for these species, areas of dense emergent vegetation are a requirement.

Fish are a desirable element in any pond, and the presence of year-round water would permit this resource. However, the city has expressed the desire not to stock the lake with game fish because they wish to discourage fishing (Koenigs

pers. comm.). Other fish species suitable for use in the pond are discussed under vector control.

It may be desirable to seed the pond with crayfish and other invertebrates from a nearby freshwater area to facilitate the rapid colonization of the pond with these species. Western pond turtles should also be introduced. The CDFG should be contacted for assistance in stocking the pond.

There is no question that a pond of this design would require some maintenance to avoid problems which could develop. Potential problems with the year-round pond are: 1) proliferation or growth of emergent and other aquatic vegetation due to high nutrient levels associated with the treated effluent proposed as the water source, 2) mosquitos, 3) avian botulism, and 4) maintenance of circulation in deeper portions of the pond, in particular during warm months of the year. Nutrients, such as phosphates and/or nitrates, impact surface water by stimulating plant growth, particularly algae, and can result in eutrophication. Other factors which can affect plant growth are light, temperature, carbon, water flow velocities, wind exposure, and the complexity and stability of the structure of the biological community. It is not our intent to go into a detailed discussion of nutrients in water and their relationship to plant growth. However, it can be said that nitrogen and phosphorus are the primary nutrients which limit aquatic plant growth. Researchers have found that lakes in Wisconsin having average total nitrogen concentrations greater than 0.8 mg/l generally had recurring algal growth problems; those with less than 0.2mg/l did not (Peters and Paznokas 1985). However, even with low nitrogen concentration problems can result if high phosphorus levels are present. This condition may result in a shift of the algal composition towards blue-green algae. This problem occurred recently at the Santee Recreational Lakes in San Diego County. Up to three years ago, wastewater used to fill the ponds had low nitrogen and high phosphorus concentrations leading to blooms of nitrogen-fixing bluegreen algae. This condition resulted in oxygen depletion of the water and fish kill (Stevens, pers. comm.). This problem has since been solved by precipitation of the phosphorus using alum.

Total nitrogen levels in the effluent from the Tillman Reclamation Plant have ranged from approximately 10 to 17 mg/l. Data on total phosphorus levels were not available (Longley, pers. comm). Control of algal blooms and maintenance of a healthy water regime in both the Sepulveda Recreation Lake and the Wildlife Lake will require the assistance of a qualified limnologist, particularly if treated effluent is to be used as a water source. We caution that the use of chemicals to control nutrients, algae, or other aquatic vegetation must be carried out with extreme care. Extensive preliminary research should be conducted to assure that no adverse effects will occur on the overall pond ecosystem.

Although some emergent vegetation is desirable to provide cover for waterfowl and other wildlife, water with high nutrient levels can be expected to accelerate growth of cattails and bulrushes. Cattails in particular, which are extremely productive emergent macrophytes that require large amounts of nutrients for growth, remove these nutrients from the wastewater and store them as plant tissue. If cattails and bulrushes reach the point where they fill shallow water areas with dense growth, thereby severely reducing or eliminat

foraging areas for puddle ducks and preventing movement of fish introduced for mosquito control, then the vegetation may have to be removed periodically. Several methods are available for controlling vegetation. One is mechanical removal which probably would have to be done on a 3 to 4 year cycle. Other means of controlling vegetation include dredging which may be very expensive and disruptive to the ecosystem, removal by hand, water level fluctuation, discing, and mowing. Many of these processes can be facilitated by partial drawdown of water to provide easier access to the vegetation. To maintain some cover for wildlife at all times, we recommend that only 1/3 to 1/4 of the emergent vegetation be removed in any one year.

A vector control program can be developed if necessary to control mosquito larvae and to prevent the occurrence of mosquitos. Mosquito larvae hang from the surface film of water in order to breathe. They are unable to live in open water areas where there is wind-wave action. Therefore, maintenance of good water circulation in the pond will discourage mosquito larvae. A variety of organisms prey upon mosquito larvae. These include several fish species and dragon fly nymphs. They must be able to circulate among the emergent vegetation to prey upon the larvae.

The mosquitofish (Gambusia affinis) is widely used in California as a mosquito-control agent because of its high reproductive rate, adaptability to environmental conditions also favored by mosquitos, and omnivorous feeding habits which allow them to feed on other organisms when mosquitos are not present (Moyle 1976). They do not require a special spawning substrate, another feature which makes them especially adaptable to artificial ponds. In some cases, mosquitofish have been a problem where small native fish species are also present, competing with them for limited resources and causing the native species to decline. The city should consult with an ichthyologist familiar with freshwater species if consideration is to be given to stocking the pond with native fish together with Gambusia.

Other mosquito control techniques include spraying oil on the water surfaces and the use of biocides and larvicides. The FWS discourages the use of chemical means of vector control. However, if the use of chemicals should become necessary, it should be done under the supervision of local mosquito abatement authorities and after consultation with an expert on the overall biological effects of such chemicals.

Avian botulism is caused by ingestion of the lethal neurotoxin produced by the bacterium Clostridium botulinum whose natural habitat is soil and mud. Certain factors may accompany the occurrence of botulism but not necessarily lead to development of the disease. These factors are a prolonged period of warm weather, large areas of shallow stagnant water, alkalinity, an abundance of aquatic invertebrates, and oxygen depletion associated with large amounts of organic material such as sludge or rotting vegetation (Smith 1982). Decaying invertebrates or waterfowl carcasses provide favorable growth media for the bacterium. Techniques for preventing the onset of botulism include: 1) removal of floating or rotting vegetation and debris, 2) removal of any dead animal material daily from the pond and shoreline, 3) stabilization of water levels and prevention of recession of the waterline during hot weather, 4) continuous

circulation of water throughout the pond, 5) examination of sick or dead birds for external signs of botulism, 6) provision of a means of completely draining the pond if necessary, and 7) prevention of water stagnation (Smith 1982). These features should be incorporated into pond design and an operation and maintenance plan. Further assistance with botulism control should be obtained from the California Department of Fish and Game (CDFG).

Problems could arise if circulation of water is not maintained in the deepest portions of the pond during warm weather. Pond water may stratify as surface waters warm, and oxygen levels will remain high only in the top layer. The lower layer will become toxic as a result of oxygen depletion and anaerobic decomposition. The Soil Conservation Service of the U.S. Department of Agriculture has suggested two solutions to this problem. The first is to begin aeration of pond water in the spring to prevent stratification and to maintain water quality. This can be done by pumping water from near the bottom and exposing it to the air by dropping it over rocks or spraying. Another aeration method is to release air bubbles from underwater perforated pipelines to rise through the water profile. It is preferable to run aeration systems at night when water oxygen content is lowest. A second solution to oxygen depletion is to add fresh, cool water to the pond while removing oxygen depleted water from near the bottom (Ruiz, pers. comm.).

Alternative 2. Seasonal pond. In this alternative, water would flow through the pond during the fall and winter months but be drawn down, and all or portions be allowed to dry during the late spring and summer. This strategy would avoid many of the problems associated with the year-round pond but provide somewhat lesser values for wildlife. Habitat for migratory waterfowl and visiting shorebirds would be available during the wet season, but because water would not be present during the breeding season, nesting waterfowl probably would not use the area. Because of dry conditions during the spring and summer months, mosquitos would not be expected to breed to any great degree, only minimal growth of emergent vegetation would occur, algae blooms would be reduced or eliminated, and the threat of avian botulism would be significantly reduced. However, draw-down could negatively affect species such as rails and amphibians and high quality emergent vegetation would not develop to provide cover for wildlife.

The major concern with this alternative is timing of filling and subsequent draw-down of the pond. This should be coordinated with waterfowl use of the area and with other natural processes. Water should remain long enough through the winter so that migratory birds gain maximum benefits from the area. However, water should be withdrawn before nest-building is initiated by resident waterfowl species, prior to the time spring growth of emergent vegetation accelerates, and before the major emergence of mosquitos.

A few migratory waterfowl species arrive in southern California early in the season; pintail and green-winged teal may arrive as early as mid-July. Northern shovelers generally arrive in late August. However, most other species (gadwall, American widgeon, canvasback, redhead, ring-necked duck, scaup, and bufflehead) arrive between September and November. Thus the pond could remain dry until early September. Most migratory waterfowl have left the area by mid-

April, although some may linger into May. Dramatic draw-downs should occur in early spring prior to territory establishment by bird species which require water for breeding activities (Weller 1978).

Mallard pair bond formation occurs in winter with nesting beginning in early April and continuing into July. Cinnamon teal generally nest from April to late June. Ruddy ducks begin courtship in late February but begin nesting in late April or early May. They may have downy chicks as late as mid-August. Thus, draw-down should probably occur no later than mid-March. As an alternative, only shallow portions of the pond could be drained, allowing water to remain in the deep portions. Experimentation with the timing and extent of pond draining may be necessary over several years before ideal conditions are determined for Sepulveda Basin. Once the pond is established, the area should be monitored by a wildlife biologist over several years to assist in development of the best long-term management practices for the pond.

Irregardless of which alternative is chosen, development of habitat associated with and adjacent to the wildlife lake is critical to establishing a high quality wildlife area. Several techniques can be implemented to maximize benefits to native species. One or more islands should be provided in the lake for roosting and for a safe haven from terrestrial predators. Ideally one large island should be constructed and vegetated with trees and shrubs. A second smaller island of low profile with a minimum of low vegetation should be constructed to provide a secure loafing area for waterfowl and shorebirds.

Vegetation surrounding the pond should not be a continuous dense stand, but provide diversity in structure as well as species. Studies in wetland habitats show that numbers of bird nests and general benefits to wildlife are correlated positively with the presence of several plant communities rather than homogeneous stands of vegetation (Weller 1978). Vegetation structure is of great importance to nesting species whereas taxonomic composition of the vegetation is important for providing food for wildlife (Weller 1978). Appendix C contains a list of native plant species which could be used in the wildlife area. Tests should be conducted to assure suitability of the soils in the basin for these species.

Additional habitat for amphibians and reptiles can easily and economically be provided along the pond shore and in other areas by placing logs and brush piles in strategic locations. These also will furnish important nesting and cover sites for small mammals and increase the habitat diversity of the area.

It would be desirable to attract wood ducks (*Aix sponsa*) to the area. This species uses natural cavities in trees for nest sites, but will readily utilize man-made nest boxes constructed as described by Bellrose (1955). Wood ducks feed on acorns, wild grapes, and seeds of other plants; they also will forage on waste corn (Bellrose 1980).

One of the major factors which could prevent optimal wildlife use of the wildlife area is a lack of high yield food crops. Pondweed, smartweed, and dock will provide food for ducks. Techniques for planting these species may be found in the reference by Yoakum et al (1980). Seeds, leaves, and flowers of maple are

eaten by song birds and many other animals. Acorns of the three oak species listed in Appendix C are at or near the top in value as a wildlife food source. Many other plants on the list provide seeds and berries for birds and small mammals.

Sycamores to be planted should not be inoculated to prevent heart rot. Heart rot leads to the development of natural cavities in the wood and provides the proper substrate for excavation of nest sites by primary cavity nesting birds. These cavities will also be used by secondary cavity nesters and thus provide a valuable resource in riparian habitats.

Finally, clearing of riparian vegetation for construction of the pond should be timed to avoid impacts to breeding wildlife. Clearing should be done between mid-August and mid-March.

Grassland/Coastal Sage Scrub Area. It is doubtful that the field between the dam and pond will soon develop a native grassland and/or coastal sage scrub community through natural succession as suggested in the Sepulveda Master Plan. Sources of most seed for the variety of plants which would be necessary to develop a healthy and diverse plant community are not found in this open space island surrounded by intensive urban development. It is recommended that portions of this field be planted with appropriate species to facilitate development of a coastal sage scrub community. Much of the area should be left open for foraging raptors, but scattered patches of shrubs and brush should be provided for cover for small mammals. The boundary between the park to the north and the field should be densely planted with upland shrub species; to increase linear "edge", this border should be irregular in shape and extend around the base of the dam. Portions of the area left in open field could be strip mowed each year to create additional islands of vegetation and maximize the "edge" effect. Plants recommended for the area are listed in Appendix C.

Consideration should be given to providing nest sites in this area for burrowing owls. This sensitive species once was found in the Sepulveda Basin but has not been seen for several years. Mounds of dirt from the pond excavation could be placed in a portion of the grassland/sage scrub area above the 50-year flood line, and tunnel box structures installed in these mounds to specifications described by Collins and Landry (1977).

Oak woodland. A small oak woodland area has been proposed for the southern portion of the field between the wildlife lake and dam. Wildlife would greatly benefit from creation of such habitat, even if small, because of the high use of oaks by many species of birds and mammals. Several species of oaks could be planted: coast live oak, Engelmann oak, and valley oak. Coast live oak is native to this portion of southern California and is adaptable to a variety of soil types although preferring dry conditions. It can withstand infrequent and brief periods of inundation and still survive (Vogel, pers. comm.). Englemann oak also prefers more dry conditions. The frequency of flooding in the basin should be considered when determining whether or not these species would be appropriate for the area. The proposed oak woodland site is entirely within the 50-year flood limit boundary.

The valley oak would be slightly out of its range in this part of the San Fernando Valley. Malibu Creek State Park is the southern end of its present range (Swirsky 1986). It is currently believed that there are two ecotypes of this species: an upland valley oak and a riparian valley oak. The type found in southern California is considered to be the upland type (Swirsky, pers. comm.) To maximize the potential for success at vegetating the area with this species, it would be preferable to grow trees in a nursery from locally gathered acorns. The valley oak appears to be more demanding regarding its preferred soil types. It is found naturally in deep, rich, well aerated, and well drained soil (Swirsky 1986). For this reason it should not be planted in areas containing easily compacted clay soils. An advantage to using valley oak would be its greater tolerance of wet soils and more frequent inundation. Other plant species suitable for use in the oak woodland are given in Appendix C.

Other considerations. It is proposed to install blinds in the area to facilitate observation of wildlife. These should be provided with a roof and sides and placed so that the observer is not looking into the sun.

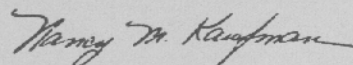
Security of the wildlife area is of major concern. The pond and environs should be available to the public for wildlife viewing and nature study but protected from off-road vehicle use, vandals, and domestic animals such as dogs. The FWS recommends fencing the area and providing a means of controlling access.

Other areas. No improvements are proposed for the Los Angeles River within the Basin. Although a portion of the river bank south of the recreation lake site has some good willow riparian habitat, the western section is covered primarily by ruderal species. Consideration should be given to clearing this disturbed area and planting the bank with appropriate native species such as those recommended for Haskell Channel.

Habitat should also be retained in the Basin for wintering Canada geese. Agricultural fields, particularly corn fields, are a preferred foraging habitat. Another alternative would be to plant fields in clover and grasses. Preferred foods of geese include clovers, bird's foot trefoil, barley, wheat, rye, alfalfa, millet, corn, oats, and buckwheat. Although agricultural crops are the primary food of this species during migration and on their wintering grounds, native plant species may also be consumed. These include roots, rhizomes, and seeds of the bulrush.

This concludes our comments and recommendations on the Sepulveda Basin Recreation Lake and Wildlife Area project. If you have any questions regarding this letter, please contact Mary Jo Elpers at FTS 796-4270 or 714-643-4270.

Sincerely yours,



Nancy M. Kaufman
Project Leader

cc: CDFG, Long Beach, CA

Appendix A. A Checklist of Birds Observed at Sepulveda Basin

Species	Observer
Pied-billed Grebe	<u>Podilymbus podiceps</u> 1,3
Eared Grebe	<u>Podiceps nigricollis</u> 1
American Bittern	<u>Botaurus lentiginosus</u> 2,3
Great Blue Heron	<u>Ardea herodias</u> 1,3
Great Egret	<u>Casmerodius albus</u> 1,3
Snowy Egret	<u>Egretta thula</u> 1,3
Cattle Egret	<u>Bubulcus ibis</u> 3
Green-backed Heron	<u>Butorides striatus</u> 3
Black-crowned Night-heron	<u>Nycticorax nycticorax</u> 3
Greater White-fronted Goose	<u>Anser albifrons</u> 3
Canada Goose	<u>Branta canadensis</u> 1,3
Wood Duck	<u>Aix sponsa</u> 3
Green-winged Teal	<u>Anas crecca</u> 3
Mallard	<u>Anas platyrhynchos</u> 1,2,3
Northern Pintail	<u>Anas acuta</u> 1,3
Blue-winged Teal	<u>Anas discors</u> 3
Cinnamon Teal	<u>Anas cyanoptera</u> 1,2,3
Northern Shoveler	<u>Anas clypeata</u> 3
Gadwall	<u>Anas strepera</u> 3
American Wigeon	<u>Anas americana</u> 3
Canvasback	<u>Aythya valisineria</u> 3
Redhead	<u>Aythya americana</u> 1,3
Ring-necked Duck	<u>Aythya collaris</u> 3
Greater Scaup	<u>Aythya marila</u> 3
Common Goldeneye	<u>Bucephala clangula</u> 3
Bufflehead	<u>Bucephala albeola</u> 1,3
Ruddy Duck	<u>Oxyura jamaicensis</u> 3
Turkey Vulture	<u>Cathartes aura</u> 1,3
Black-shouldered kite	<u>Elanus caeruleus</u> 3
Northern Harrier	<u>Circus cyaneus</u> 1,3
Sharp-shinned Hawk	<u>Accipiter striatus</u> 3
Cooper's Hawk	<u>Accipiter cooperii</u> 1,3
Red-shouldered Hawk	<u>Buteo lineatus</u> 2,3
Red-tailed Hawk	<u>Buteo jamaicensis</u> 1,2,3
Golden Eagle	<u>Aquila chrysaetos</u> 3
American Kestrel	<u>Falco sparverius</u> 3
Merlin	<u>Falco columbarius</u> 3
Peregrine Falcon	<u>Falco peregrinus</u> 3
Prairie Falcon	<u>Falco mexicanus</u> 3
Ring-necked Pheasant	<u>Phasianus colchicus</u> 1,3
California Quail	<u>Callipepla californica</u> 3
Virginia Rail	<u>Rallus limicola</u> 3
Sora	<u>Porzana carolina</u> 3
Common Moorhen	<u>Gallinula chloropus</u> 3
American Coot	<u>Fulica americana</u> 1,2,3
Sandhill Crane	<u>Grus canadensis</u> 3
Black-bellied Plover	<u>Pluvialis squatarola</u> 3

Lesser Golden Plover	<u>Pluvialis dominica</u>	3	Say's Phoebe	<u>Sayornis saya</u>	1,3
Semipalmated Plover	<u>Charadrius semipalmatus</u>	3	Ash-throated Flycatcher	<u>Myiarchus cinerascens</u>	3
Killdeer	<u>Charadrius vociferus</u>	1,2,3	Cassin's Kingbird	<u>Tyrannus vociferans</u>	3
Black-necked Stilt	<u>Himantopus mexicanus</u>	2,3	Western Kingbird	<u>Tyrannus verticalis</u>	3
American Avocet	<u>Recurvirostra americana</u>	3	Eastern Kingbird	<u>Tyrannus tyrannus</u>	3
Greater Yellowlegs	<u>Tringa melanoleuca</u>	3	Horned Lark	<u>Eremophila alpestris</u>	3
Lesser Yellowlegs	<u>Tringa flavipes</u>	3	Purple Martin	<u>Progne subis</u>	3
Solitary Sandpiper	<u>Tringa solitaria</u>	3	Tree Swallow	<u>Tachycineta bicolor</u>	3
Willet	<u>Catoptrophorus semipalmatus</u>	3	Violet-green Swallow	<u>Tachycineta thalassina</u>	3
Wandering Tattler	<u>Heteroscelus incanus</u>	3	Northern Rough-winged Swallow	<u>Stelgidopteryx serripennis</u>	2,3
Spotted Sandpiper	<u>Actitis macularia</u>	2,3	Barn Swallow	<u>Riparia riparia</u>	3
Whimbrel	<u>Numenius phaeopus</u>	3	Cliff Swallow	<u>Hirundo pyrrhonota</u>	2,3
Long-billed Curlew	<u>Numenius americanus</u>	3	Barn Swallow	<u>Hirundo rustica</u>	3
Ruddy Turnstone	<u>Arenaria interpres</u>	3	Scrub Jay	<u>Aphelocoma coerulescens</u>	1,3
Western Sandpiper	<u>Calidris mauri</u>	2,3	American Crow	<u>Corvus brachyrhynchos</u>	1,2,3
Least Sandpiper	<u>Calidris minutilla</u>	2,3	Common Raven	<u>Corvus corax</u>	1,3
Baird's Sandpiper	<u>Calidris bairdii</u>	3	Mountain Chickadee	<u>Parus gambeli</u>	3
Pectoral Sandpiper	<u>Calidris melanotos</u>	3	Plain Titmouse	<u>Parus inornatus</u>	3
Dunlin	<u>Calidris alpina</u>	2,3	Bushtit	<u>Psaltriparus minimus</u>	3
Long-billed Dowitcher	<u>Limnodromus scolopaceus</u>	3	Red-breasted Nuthatch	<u>Sitta canadensis</u>	3
Common Snipe	<u>Gallinago gallinago</u>	3	White-breasted Nuthatch	<u>Sitta carolinensis</u>	3
Wilson's Phalarope	<u>Phalaropus tricolor</u>	3	Bewick's Wren	<u>Thryomanes bewickii</u>	1,3
Red-necked Phalarope	<u>Phalaropus lobatus</u>	3	House Wren	<u>Troglodytes aedon</u>	3
Bonaparte's Gull	<u>Larus philadelphia</u>	3	Winter Wren	<u>Troglodytes troglodytes</u>	3
Ring-billed Gull	<u>Larus delawarensis</u>	3	Marsh Wren	<u>Cistothorus palustris</u>	3
California Gull	<u>Larus californicus</u>	3	Ruby-crowned Kinglet	<u>Regulus calendula</u>	3
Herring Gull	<u>Larus argentatus</u>	3	Blue-gray Gnatcatcher	<u>Polioptila caerulea</u>	3
Caspian Tern	<u>Sterna caspia</u>	3	Mountain Bluebird	<u>Sialia currucoides</u>	3
Forster's Tern	<u>Sterna forsteri</u>	3	Swainson's Thrush	<u>Catharus ustulatus</u>	3
Rock Dove	<u>Columba livia</u>	1,3	Hermit Thrush	<u>Catharus guttatus</u>	3
Spotted Dove	<u>Streptopelia chinensis</u>	2,3	American Robin	<u>Turdus migratorius</u>	3
White-winged Dove	<u>Zenaida asiatica</u>	3	Northern Mockingbird	<u>Mimus polyglottos</u>	3
Mourning Dove	<u>Zenaida macroura</u>	1,2,3	Water Pipit	<u>Anthus spinoletta</u>	3
Common Barn Owl	<u>Tyto alba</u>	3	Cedar Waxwing	<u>Bombycilla cedrorum</u>	3
Great Horned Owl	<u>Bubo virginianus</u>	3	Plainoepela	<u>Phainopepla nitens</u>	3
Burrowing Owl	<u>Athene cunicularia</u>	3	Loggerhead Shrike	<u>Lanius ludovicianus</u>	1,3
Short-eared Owl	<u>Asio flammeus</u>	3	European Starling	<u>Sturnus vulgaris</u>	1,2,3
Lesser Nighthawk	<u>Chordeiles acutipennis</u>	3	Solitary vireo	<u>Vireo solitarius</u>	2
Vaux's Swift	<u>Chaetura vauxi</u>	3	Warbling Vireo	<u>Vireo gilvus</u>	2,3
White-throated Swift	<u>Aeronautes saxatalis</u>	3	Tennessee Warbler	<u>Vermivora peregrina</u>	3
Black-chinned Hummingbird	<u>Archilochus alexandri</u>	2,3	Orange-crowned Warbler	<u>Vermivora calata</u>	3
Anna's Hummingbird	<u>Calypte anna</u>	1,2,3	Nashville Warbler	<u>Vermivora ruficapilla</u>	3
Costa's Hummingbird	<u>Calypte costae</u>	2,3	Virginia's Warbler	<u>Vermivora virginiae</u>	3
Rufous Hummingbird	<u>Selasphorus rufus</u>	3	Yellow Warbler	<u>Dendroica petechia</u>	2,3
Belted Kingfisher	<u>Ceryle alcyon</u>	2,3	Yellow-rumped Warbler	<u>Dendroica coronata</u>	1,3
Downy Woodpecker	<u>Picooides pubescens</u>	1,2,3	Black-throated Gray Warbler	<u>Dendroica nigrescens</u>	3
Northern Flicker	<u>Colaptes auratus</u>	3	Townsend's Warbler	<u>Dendroica townsendi</u>	2,3
Olive-sided Flycatcher	<u>Contopus borealis</u>	3	Hermit Warbler	<u>Dendroica occidentalis</u>	3
Western Wood-Pee-wee	<u>Contopus sordidulus</u>	2,3	Palm Warbler	<u>Dendroica palmarum</u>	3
Hammond's Flycatcher	<u>Empidonax hammondi</u>	3	Blackpoll Warbler	<u>Dendroica striata</u>	3
Western Flycatcher	<u>Empidonax difficilis</u>	2,3	MacGillivray's Warbler	<u>Oporornis tolmiei</u>	3
Black Phoebe	<u>Sayornis nigricans</u>	1,3			

Common Yellowthroat	<u>Geothlypis trichas</u>	1,2,3
Wilson's Warbler	<u>Wilsonia pusilla</u>	2,3
Yellow-breasted Chat	<u>Icteria virens</u>	3
Western Tanager	<u>Piranga ludoviciana</u>	3
Black-headed Grosbeak	<u>Pheucticus melanocephalus</u>	3
Blue Grosbeak	<u>Guiraca caerulea</u>	2,3
Lazuli Bunting	<u>Passerina amoena</u>	3
Indigo Bunting	<u>Passerina cyanea</u>	3
Green-tailed Towhee	<u>Pipilo chlorurus</u>	3
Rufous-sided Towhee	<u>Pipilo erythrophthalmus</u>	3
Brown Towhee	<u>Pipilo fuscus</u>	3
Chipping Sparrow	<u>Spizella passerina</u>	3
Brewer's Sparrow	<u>Spizella breweri</u>	3
Vesper Sparrow	<u>Poocetes gramineus</u>	3
Lark Sparrow	<u>Chondestes grammacus</u>	3
Black-throated Sparrow	<u>Amphispiza bilineata</u>	3
Savannah Sparrow	<u>Passerculus sandwichensis</u>	1,2,3
Fox Sparrow	<u>Passerella iliaca</u>	3
Song Sparrow	<u>Melospiza melodia</u>	1,2,3
Lincoln's Sparrow	<u>Melospiza lincolni</u>	1,3
Golden-crowned Sparrow	<u>Zonotrichia atricapilla</u>	3
White-crowned Sparrow	<u>Zonotrichia leucophrys</u>	1,3
Dark-eyed Junco	<u>Junco hyemalis</u>	1,3
Bobolink	<u>Dolichonyx oryzivorus</u>	3
Red-winged Blackbird	<u>Agelaius phoeniceus</u>	1,2,3
Tricolored Blackbird	<u>Agelaius tricolor</u>	1,3
Western Meadowlark	<u>Sturnella neglecta</u>	1,3
Yellow-headed Blackbird	<u>Xanthocephalus xanthocephalus</u>	3
Brewer's Blackbird	<u>Euphagus cyanocephalus</u>	1,3
Brown-headed Cowbird	<u>Molothrus ater</u>	2,3
Hooded Oriole	<u>Icterus cucullatus</u>	3
Northern Oriole	<u>Icterus galbula</u>	3
Purple Finch	<u>Carpodacus purpureus</u>	3
House Finch	<u>Carpodacus mexicanus</u>	1,3
Pine Siskin	<u>Carduelis pinus</u>	3
Lesser Goldfinch	<u>Carduelis psaltria</u>	1,3
Lawrence's Goldfinch	<u>Carduelis lawrencei</u>	3
American Goldfinch	<u>Carduelis tristis</u>	1,3
House Sparrow	<u>Passer domesticus</u>	3

- 1 = Observed by FWS Biologist, winter 1985-86
2 = Observed by FWS Biologist during LACDA Study, Spring 1984
3 = Observed by J. Dunn, J. Menke, & S. Wohlgenuth, Los Angeles Audubon Society

Appendix B. Native plants appropriate for use in Informal Park, Sepulveda Basin Recreation Lake

Perennial bedding plants

<u>Eriogonum fasciculatum</u> "Dana point"	California buckwheat
Prostrate, compact; deep green leaves, white-pink flowers	
<u>Heuchera maxima</u> x hybrids	Hybrid coral bells
Semi-shade; effective in mass or border; white to crimson flowers	
<u>Mimulus cardinalis</u>	Scarlet monkey flower
Sun or semi-shade, water	
<u>Mimulus puniceus</u>	Red monkey flower
<u>Penstemon azureus</u>	Skyblue penstemon
Vigorous, spreading; tight habit; sun, lean soil, semi-dry	
<u>Sisyrinchium bellum</u>	Blue-eyed grass
Wooded or open areas; many dainty flowers; long bloom; reseeds; tolerates semi-dry or watered situations	
<u>Sisyrinchium californicum</u>	Golden-eyed grass
Moist soil, good drainage, full sun	

Perennial plants for semi-shade

<u>Aquilegia formosa</u> var. <u>truncata</u>	Red Columbine
Woodland plant; good for borders; moist soil	
<u>Heuchera maxima</u> x hybrids	Hybrid coral bells
See above	
<u>Iris douglasiana</u>	Douglas Iris
Orchid-like flowers; border or accent; moisture, humus in soil	
<u>Mimulus cardinalis</u>	Scarlet monkey flower
<u>Woodwardia fimbriata</u>	Giant chain fern
Requires water	

Ground cover

<u>Arctostaphylos edmundsii</u> "Carmel Sur"	Little Sur manzanita
Very dependable; moderate to rapid growth; sun; tolerates moisture and heavy soil	
<u>Arctostaphylos edmundsii</u> "Emerald Carpet"	
Some shade and moisture; prefers rich, acid soil	

Ground cover (cont.)

Baccharis pilularis var. pilularis "Pigeon Point"
Prostrate; full sun to light shade; tolerates watering

Ceanothus griseus var. horizontalis "Yankee Point"
Sun to light shade, semi-dry

Zauschneria californica
Drought-tolerant; semi-dry, lean soil California fuchsia

Shrubs

Berberis nevadensis Nevin's barberry
Adaptable to dry and watered situations; compact growth; good for erosion control

Ceanothus griseus "Louis Edmunds" California lilac
Profuse bloom, blue flowers, dark green foliage; mounding habit

Heteromeles arbutifolia Toyon
May be trained into a small tree; drought-tolerant

Rosa californica California rose
Prickly, low shrub; erosion control; barrier

Trees

Alnus rhombifolia White alder
Deciduous, rapid growing; ample moisture, sun

Juglans californica California walnut
Deciduous, tolerates poor soil

Pinus attenuata Knobcone pine
Takes heat and wind; well-drained soil; water occasionally

Pinus sabiniana Digger pine
Takes heat and poor soils

Platanus racemosa California sycamore
Sun, water

Populus fremontii Fremont cottonwood
Sun, water

Quercus agrifolia Coast live oak
Slow growing; drought-tolerant; subject to disease if watered too often; high value to wildlife; keep out of high-traffic areas

Quercus engelmannii Engelman Oak
Quercus lobata Valley oak

Rapid growth; water tolerant with good drainage

Appendix C. Native plants suitable for use in Wildlife Area

SPECIES	In pond	Pond edge	Back from pond edge	Along Haskell Channel	Sage/Grassland	Oak woodland
<u>Acer macrophyllum</u> Big-leaf maple		X		X		
<u>Alnus rhombifolia</u> White alder				X		
<u>Arctostaphylos edmundsii</u> Manzanita			X			
<u>Artemisia californica</u> Coastal sagebrush					X	
<u>Baccharis glutinosa</u> Mulefat		X	X	X		
<u>Baccharis pilularis</u> Dwarf chaparral broom			X		X	
<u>Ceanothus griseus</u> Ceanothus					X	
<u>Cercocarpus betuloides</u> Mountain mahogany					X	
<u>Eriogonum fasciculatum</u> California buckwheat					X	
<u>Eschscholzia californica</u> California poppy			X	X	X	
<u>Fremontia californicum</u> California fremontia					X	
<u>Heteromeles arbutifolia</u> Toyon					X	
<u>Iris douglasiana</u> Douglas iris						X
<u>Juglans californica</u> California walnut		X	X	X		
<u>Lonicera suspicata</u> Chaparral honeysuckle					X	
<u>Mahonia nevadensis</u> Nevin's mahonia			X	X		
<u>Mimulus cardinalis</u> Scarlet monkeyflower		X	X	X		
<u>Mimulus puniceus</u> Red monkeyflower					X	
<u>Platanus racemosa</u> Sycamore		X	X	X		
<u>Polygonum amphibium</u> Water smartweed	X					
<u>Polygonum punctatum</u> Smartweed		X				
<u>Populus fremontii</u> Fremont cottonwood		X	X	X		
<u>Potamogeton pectinatus</u> Pondweed	X					
<u>Prunus ilicifolia</u> Hollyleaf cherry		X			X	X
<u>Quercus agrifolia</u> Coast live oak						X
<u>Quercus engelmannii</u> Engelman oak						X
<u>Quercus lobata</u> Valley oak			X			X
<u>Rhamnus californica</u> Coffeeberry			X		X	
<u>Rhus integrifolia</u> Lemonadeberry					X	
<u>Rhus laurina</u> Laurel sumac					X	
<u>Ribes aureum</u> Golden currant		X		X		
<u>Ribes speciosum</u> Fuschia flowering goosberry						X
<u>Rosa californica</u> California wild rose		X	X	X		
<u>Rubus ursinus</u> California blackberry			X	X		
<u>Rumex californicus</u> Dock		X		X		
<u>Sagittaria latifolia</u> Wapato		X				
<u>Salix gooddingii</u> Black willow		X	X	X		

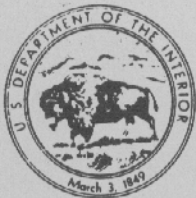
SPECIES	In pond	Pond edge	Back from pond edge	Along Haskell Channel	Sage/Grassland	Oak woodland
<u>Salix hindsiana</u>		X	X	X		
<u>Salix lasiolepis</u>		X	X	X		
<u>Sambucus mexicana</u>		X	X	X		X
<u>Scirpus californicus</u>	X	X				
<u>Scirpus robustus</u>	X	X				
<u>Sisyrinchium bellum</u>			X	X		
<u>Solanum xantii</u>			X	X		X
<u>Sparganium erycarpum</u>	X	X				
<u>Typha angustifolia</u>	X	X				
<u>Umbellularia californica</u>			X		X	
<u>Vitis girdiana</u>		X	X	X		X
<u>Woodwardia fimbriata</u>		X				X

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ATTACHMENT C



United States Department of the Interior

FISH AND WILDLIFE SERVICE
LAGUNA NIGUEL FIELD OFFICE
24000 Avila Road
Laguna Niguel, California 92656

February 4, 1986

Colonel D. Fred Butler
District Commander
Los Angeles District, Corps of Engineers
P.O. Box 2711
Los Angeles, California 90053

Re: Endangered Species Information for the Proposed Sepulveda Basin
Recreation Lake and Wildlife Habitat Improvement (#1-6-86-SP-80)

Dear Colonel Butler:

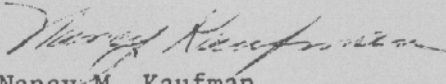
This is in response to your letter, dated January 10, 1986 and received by us on January 21, 1986, requesting information on listed and proposed endangered and threatened species which may be present within the area of the subject project in Los Angeles County, California.

Your request and this response are made pursuant to Section 7(c) of the Endangered Species Act of 1973, as amended.

To the best of our present knowledge there are no listed or proposed species occurring within the area of the subject project. I have enclosed a list of candidate species (Enclosure A) presently under review by this Service for consideration as endangered or threatened. Only listed species receive protection under the Act; however, candidate species should be considered in the planning process in the event they become listed or proposed for listing prior to project completion. You are not required to prepare a biological assessment as described in Section 7(c) of the Act, but we recommend that you address these species in any environmental documents prepared for this project. If you determine that your project is likely to affect a candidate species, you may wish to request technical assistance from this office.

We appreciate your concern for endangered species and look forward to continued coordination with your agency. If you have further questions, please contact me or Mary Jo Elpers of our Laguna Niguel Field Office at FTS 796-4270 or (714) 643-4270.

Sincerely yours,


Nancy M. Kaufman
Project Leader

Enclosure

LISTED AND PROPOSED ENDANGERED AND THREATENED SPECIES AND
CANDIDATE SPECIES THAT MAY OCCUR IN THE AREA OF THE PROPOSED

Sepulveda Basin Recreation Lake and Wildlife
Habitat Improvement
#1-6-86-SP-80

CANDIDATE SPECIES

Birds

Tricolored Blackbird

Agelaius tricolor (2)

- (E) -Endangered (T) -Threatened (CH) -Critical Habitat
(1) -Category 1: Taxa for which the Fish and Wildlife Service has sufficient biological information to support a proposal to list as endangered or threatened.
(2) -Category 2: Taxa which existing information indicates may warrant listing, but for which substantial biological information to support a proposed rule is lacking.
(3) -Category 3(c): Taxa more common than previously thought, no longer being considered for a listing proposal at this time.

ATTACHMENT D

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I (To be completed by Federal Agency)	Date Of Land Evaluation Request 10 January 1986
Name Of Project Sepulveda Recreation Lake	Federal Agency Involved Army Corps of Engineers
Proposed Land Use Recreation	County And State Los Angeles, California
PART II (To be completed by SCS)	Date Request Received By SCS 1-16-86

Does the site contain prime, unique, statewide or local important farmland? (If no, the FPPA does not apply - do not complete additional parts of this form).		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Acres Irrigated 37,000	Average Farm Size 136
Major Crop(s) Alfalfa, Fruits/vegetables, Berries/wholes	Farmable Land In Govt. Jurisdiction Acres: 52,000 % 2	Amount Of Farmland As Defined in FPPA Acres: Data Not Available		Date Land Evaluation Returned By SCS 4-7-86
Name Of Land Evaluation System Used Calif - Storie System	Name Of Local Site Assessment System None			

PART III (To be completed by Federal Agency)	Alternative Site Rating			
	Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	72.2	72.1	74.2	
B. Total Acres To Be Converted Indirectly	81.8	81.9	79.8	
C. Total Acres In Site	154	154	154	

PART IV (To be completed by SCS) Land Evaluation Information	Site A	Site B	Site C
A. Total Acres Prime And Unique Farmland	154	154	154
B. Total Acres Statewide And Local Important Farmland	0	0	0
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted	.3%	.3%	.3%
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value	Data NOT Available		

PART V (To be completed by SCS) Land Evaluation Criterion Relative Value Of Farmland To Be Converted (Scale of 0 to 100 Points)	90	90	90
--	----	----	----

PART VI (To be completed by Federal Agency)	Maximum Points	Site A	Site B	Site C
1. Area In Nonurban Use	15	0	0	0
2. Perimeter In Nonurban Use	10	1	1	1
3. Percent Of Site Being Farmed	20	20	20	20
4. Protection Provided By State And Local Government	20	0	0	0
5. Distance From Urban Builtup Area	0	0	0	0
6. Distance To Urban Support Services	0	0	0	0
7. Size Of Present Farm Unit Compared To Average	10	10	10	10
8. Creation Of Nonfarmable Farmland	25	0	0	0
9. Availability Of Farm Support Services	5	5	5	5
10. On-Farm Investments	20	8	8	8
11. Effects Of Conversion On Farm Support Services	25	0	0	0
12. Compatibility With Existing Agricultural Use	10	0	0	0
TOTAL SITE ASSESSMENT POINTS	160	44	44	44

PART VII (To be completed by Federal Agency)	Maximum Points	Site A	Site B	Site C
Relative Value Of Farmland (From Part V)	100	90	90	90
Total Site Assessment (From Part VI above or a local site assessment)	160	44	44	44
TOTAL POINTS (Total of above 2 lines)	260	134	134	134

Site Selected:	Date Of Selection:	Was A Local Site Assessment Used? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
----------------	--------------------	--

Reason For Selection:

STEPS IN THE PROCESSING THE FARMLAND AND CONVERSION IMPACT RATING FORM

Step 1 - Federal agencies involved in proposed projects that may convert farmland, as defined in the Farmland Protection Policy Act (FPPA) to nonagricultural uses, will initially complete Parts I and III of the form.

Step 2 - Originator will send copies A, B and C together with maps indicating locations of site(s), to the Soil Conservation Service (SCS) local field office and retain copy D for their files. (Note: SCS has a field office in most counties in the U.S. The field office is usually located in the county seat. A list of field office locations are available from the SCS State Conservationist in each state).

Step 3 - SCS will, within 45 calendar days after receipt of form, make a determination as to whether the site(s) of the proposed project contains prime, unique, statewide or local important farmland.

Step 4 - In cases where farmland covered by the FPPA will be converted by the proposed project, SCS field offices will complete Parts II, IV and V of the form.

Step 5 - SCS will return copy A and B of the form to the Federal agency involved in the project. (Copy C will be retained for SCS records).

Step 6 - The Federal agency involved in the proposed project will complete Parts VI and VII of the form.

Step 7 - The Federal agency involved in the proposed project will make a determination as to whether the proposed conversion is consistent with the FPPA and the agency's internal policies.

INSTRUCTIONS FOR COMPLETING THE FARMLAND CONVERSION IMPACT RATING FORM

Part I: In completing the "County And State" questions list all the local governments that are responsible for local land controls where site(s) are to be evaluated.

Part III: In completing item B (Total Acres To Be Converted Indirectly), include the following:

1. Acres not being directly converted but that would no longer be capable of being farmed after the conversion, because the conversion would restrict access to them.
2. Acres planned to receive services from an infrastructure project as indicated in the project justification (e.g. highways, utilities) that will cause a direct conversion.

Part VI: Do not complete Part VI if a local site assessment is used.

Assign the maximum points for each site assessment criterion as shown in §658.5(b) of CFR. In cases of corridor-type projects such as transportation, powerline and flood control, criteria #5 and #6 will not apply and will be weighed zero, however, criterion #8 will be weighed a maximum of 25 points, and criterion #11 a maximum of 25 points.

Individual Federal agencies at the national level, may assign relative weights among the 12 site assessment criteria other than those shown in the FPPA rule. In all cases where other weights are assigned, relative adjustments must be made to maintain the maximum total weight points at 160.

In rating alternative sites, Federal agencies shall consider each of the criteria and assign points within the limits established in the FPPA rule. Sites most suitable for protection under these criteria will receive the highest total scores, and sites least suitable, the lowest scores.

Part VII: In computing the "Total Site Assessment Points", where a State or local site assessment is used and the total maximum number of points is other than 160, adjust the site assessment points to a base of 160. Example: if the Site Assessment maximum is 200 points; and alternative Site "A" is rated 180 points:

Total points assigned Site A = 180 x 160 = 144 points for Site "A."

Maximum points possible 200

ATTACHMENT E



US Department
of Transportation
**Federal Aviation
Administration**

Western-Pacific Region

P.O. Box 92007
Worldway Postal Center
Los Angeles, CA 90009

May 12, 1986

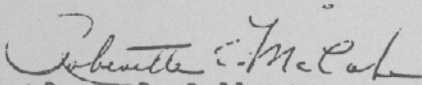
Mr. Mike Bornhoeft
Environmental Resources Branch
U.S. Army Corps of Engineers
Los Angeles District
P.O. Box 2711, Los Angeles, CA 90053

Dear Mr. Bornhoeft:

The enclosed memorandum signed by Mr. Michael Harrison on May 5, 1986, expresses Federal Aviation Administration (FAA) concerns about the Sepulveda Basin Master Plan project creating a bird hazard, as well as airport noise and capacity problems. We encourage you to aggressively seek and obtain the information recommended by Mr. Harrison, who is Manager of FAA's Airport Safety Data Program. As you will note in the attached letter, the FAA will assist in evaluating the data as soon as it is made available.

We trust this response will provide the guidance needed to formulate the airport bird hazard and land-use compatibility sections of the Environmental Assessment that your agency is developing as a supplement to the Environmental Impact Statement (EIS) for the Sepulveda Basin Master Plan.

Sincerely,


Duane R. Bullard
Manager, Planning, Appraisal and
International Aviation Staff

Attachment



U.S. Department
of Transportation
**Federal Aviation
Administration**

Memorandum

Subject: INFORMATION: Bird Hazards

Date:

MAY 5 1966

From: Manager, Airport Safety Data Program, AAS-330

Reply to
Attn. of Harrison: 426-3854

To: Manager, Certification and Safety Section, AWP-622

I have reviewed the information sent to me regarding planned development by the U.S. Corps of Engineers for the Supulveda Basin. This development will be south of the Van Nuys Airport, in line with the primary runway. Development includes a recreation lake and a wildlife habitat enhancement pond southeast of the recreation lake.

I also discussed the project with the Corps. The wildlife enhancement pond will not present a significant bird hazard. As I understand the project, the pond will be seasonal, supporting some ducks and nesting birds. The major concern I have is with the recreational lake and landscaping. It may be used as a roosting site for gulls, waterfowl, blackbirds and Starlings. Gulls and waterfowl would be expected to use the larger lake as a safe haven at night, flying out of the lake each morning. If these birds departed to the north, they would be in direct conflict with aircraft using Runway 16R.

I cannot address the likelihood of gulls using the lake without knowing the location of solid waste disposal facilities and other feeding sites. I suggest the Corps identify known bird attractants within 25 miles and then estimate feeding flight tracks. We can then compare bird movements with aircraft flight tracks.

I would expect waterfowl to travel in a line parallel to the runway in flights between the recreation lake and Van Norman Reservoir. If waterfowl or gulls are currently using Van Norman, or Hansen Lake, then it is safe to assume they will also use the recreation lake, creating a bird hazard. It would be extremely useful to have some bird counts on these other lakes so conclusions can be drawn relating to the magnitude of the potential bird hazard problem. I suggest you request the Corps to collect the data.

RECEIVED

MAY 1966

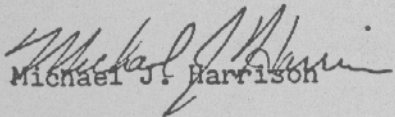
Alh.

AWP-600

With respect to blackbirds and Starlings, the possibility of roosts being established in trees should be addressed by the Corps. There are several locations in Southern California where large bird roosts can be found in eucalyptus trees. Assuming both the recreation lake and the wildlife pond will be landscaped, there should be some planning to reduce canopy closure of the trees, reducing likelihood of roost formation. Assuming a roost does form, and the birds begin flying from the roost into or across aircraft flight tracks, some prearranged procedure needs to be initiated to remove the roost. If a hazard is created, how fast will the Corps move to eliminate the hazard? What assurance does the airport and the FAA have that prompt action will be taken to mitigate any hazard? There needs to be assurances that proper attention will be given to flight safety.

Finally, there is one other area of the developmental plan which is outside of the realm of biology, but relates to airport noise and capacity. Construction of cultural parks and amphitheaters in the direct flight path of aircraft represents an incompatible land use. Even though the noise level may be within an acceptable range for residential activities, outside cultural events will certainly be disrupted. This will result in noise complaints and could lead to community restriction of airport operations which impact capacity. The airport needs to work with the Cultural Foundation, eliminating open air assemblies in the takeoff corridor for the main runway.

If the Corps of Engineers can provide data on bird use of other lakes and reservoirs, and feeding sites in the area, I will assist in analyzing the data. If you have any questions, please call me at FTS 426-3854.


Michael J. Harrison

ATTACHMENT F



United States
Department of
Agriculture

Animal and
Plant Health
Inspection Service

Animal Damage Control

2800 Cottage Way, Rm.E183
Sacramento, CA 95825

May 20, 1986

Mr. Carl F. Enson
Chief, Planning Division
Environmental Resources Branch
U.S. Army Corps of Engineers
Los Angeles District
P.O. Box 2711
Los Angeles, CA. 90053

Dear Mr. Enson:

At your request, I have evaluated the potential for an increase in the bird-strike hazard problem at the Van Nuys Airport resulting from the implementation of specific features of the Sepulveda Basin Master Plan.

The San Fernando Valley, including the Sepulveda Basin, is a wintering area for up to 2000 Canada geese and an unknown number of ducks including mallards and American wigeons. Both the proposed 24 acre recreation lake (permanent water) and the 11 acre wildlife lake (seasonal, watered September 1 to April 30) could provide rest and roost areas between feeding flights and at night for these waterfowl. One of the stated purposes of the wildlife lake is to provide refuge for Canada geese. Fishing and boating at the recreation lake could limit its attractiveness for waterfowl especially during the daytime. Flights of waterfowl from these lakes to feeding areas or other water bodies could be a problem for aircraft operating at Van Nuys Airport. Canada geese would be of particular concern because of their size and the large winter population in the immediate area.

The recreation lake and associated facilities will be built on agricultural land. As the amount of agricultural land decreases in the already densely populated and heavily developed San Fernando Valley, Canada goose use and potential hazard may decline because of lack of waste grain and green grain foods.

Wigeons, since they readily graze on grass, find suitable habitat at the small ponds on the golf courses south of the airport. Hundreds of these ducks are found there in the winter. The wigeon population could increase with the building of the lakes, especially the wildlife lake which would provide a large, secure feeding and resting area. Flights from one area to another would probably be limited, however.

Little information is available on the gull population and its use areas in the San Fernando Valley. The peak population occurs during the winter and flocks of several hundred gulls rest on pavements at the Van Nuys Airport during inclement weather in that season. Gull flocks could use the two

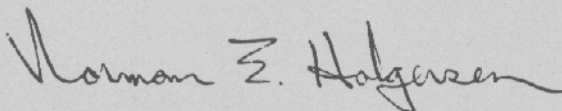
planned lakes as nocturnal roosts and for diurnal resting, fresh-bathing and drinking. This is more likely at the larger recreation lake. Gull flights to and from the lakes, depending upon their direction could be a hazard to aircraft operations.

The growth of tall, thick stands of emergent vegetation such as cattails in the wildlife lake is a possibility and would provide roost cover for blackbirds and starlings. This situation can be monitored and vegetation controlled as necessary during the summer dewatering. I know of no roosts in the general area now though flocks of several hundred starlings occur on the airport at times during the winter.

The wildlife lake will contain water from September 1 through April 30. Since extensive areas of shallow water and wet earth can attract large shorebird flocks, the lake should be watered and dewatered rapidly if large shorebird flocks are otherwise attracted and their flights constitute a hazard to aircraft.

I believe the greatest potential hazard to aircraft in the Van Nuys Airport environs is the winter occurrence of Canada geese in the Sepulveda Basin. New lakes, if they concentrated the goose use south of the airport, could increase the hazard.

Sincerely yours,



Norman E. Holgersen
Wildlife Biologist

NEH:ac

cc: Michael Harrison, FAA, Washington, DC
Ellsworth Chan, FAA, Los Angeles, CA.
RD, ADC, Western Region, Denver, CO.

ATTACHMENT G



United States Department of the Interior

FISH AND WILDLIFE SERVICE
LAGUNA NIGUEL FIELD OFFICE
24000 Avila Road
Laguna Niguel, California 92656

May 21, 1986

Colonel D. Fred Butler
District Commander
Los Angeles District, Corps of Engineers
P.O. Box 2711
Los Angeles, California 90053

Attention: Robert Koenigs, Environmental Section

Re: Sepulveda Basin Recreation Lake

Dear Colonel Butler:

This letter is in reference to a phone conversation between Robert Koenigs, Corps of Engineers biologist, and Mary Jo Elpers of our office regarding possible impacts of the proposed Sepulveda Basin Recreation Lake project on flight activities at Van Nuys Airport. The concern has been expressed by airport authorities that the lake will draw large numbers of birds, in particular sea gulls, to the basin, and that these birds could pose a safety hazard to airport operations.

The lake, as presently proposed, will have depths ranging from 4 feet to 10 feet, have a relatively barren shoreline providing little if any vegetative cover for wildlife, and be stocked with sport fish. The lake is designed to provide recreational boating and fishing opportunities for residents of the San Fernando Valley and environs.

It is our opinion that a lake of this type will not attract large numbers of gulls or other water birds because of the lack of food resources for avian species. The majority of waterfowl that could be attracted to the area feed primarily on aquatic plants in shallow (4 inches to 2 feet deep) waters. The recreation lake will not provide this habitat for ducks. The major gull species found in southern California are the Western gull (Larus occidentalis), California gull (L. californicus), ring-billed gull (L. delawarensis), and Heermann's gull (L. heermanni). The Western and Heermann's gulls are more restricted to marine habitats. The California and ring-billed gulls are primarily scavengers but may follow farm plows to forage on insects or upturned worms and grubs. These species travel inland in our area, but primarily to forage at garbage dumps, school yards, and shopping center parking areas. They are very uncommon at small lakes such as are planned for Sepulveda Basin. One bird species which may be attracted to the lake from November through March is the common merganser (Mergus merganser). This species prefers freshwater lakes and ponds where it forages on small fish. However, because of the small size of the proposed lake and impacts from human activities, large numbers are not expected.

We hope this information is of value to you in planning this project. If you have any questions, please contact Mary Jo Elpers at FTS 796-4270.

Sincerely yours,

Wayne G. Harper

for Nancy M. Kaufman
Project Leader

cc: CDFG, Reg. 5, Long Beach, CA (Attn: E. Lauppe)

ATTACHMENT H

SECTION 404 (b) (1) EVALUATION

THE EVALUATION OF THE EFFECTS
OF THE DISCHARGE OF DREDGED OR FILL MATERIAL
INTO THE WATERS OF THE UNITED STATES

I. INTRODUCTION. The following evaluation is provided in accordance with Section 404 (b) (1) of the Federal Water Pollution Control Act Amendments of 1972 (Public Law 92-500) as amended by the Clean Water Act of 1977 (Public Law 95-217). Its intent is to succinctly state and evaluate information regarding the effects of discharge of dredged or fill material into the waters of the U. S. As such, it is not meant to stand alone and relies heavily upon information provided in the environmental document to which it is attached. Use of the "Documentation" category is for expansion of discussions only when necessary or for references and citations.

II. PROJECT DESCRIPTION. (Referenced and described briefly as follows:)

A. Location: The proposed project would be located in the Sepulveda Flood Control Basin which is located at the intersection of the Ventura and San Diego Freeways (see paragraph 1.01 of the EA).

B. General Description: The project is generally described in Section 1 of the attached environmental document.

Brief Summary: A 26-acre recreation lake, a 74-acre informal park and a 60-acre wildlife area have been proposed for the Sepulveda basin.

C. Authority and Purpose: The Flood Control Act of 22 June 1936 (PL 74-738) set the primary purpose of Sepulveda basin as flood control. Public Law 77-387, 1941 which was superseded by the Flood Control Acts of 1944 (PL 78-534) and 1946 (PL79-526) set a secondary project purpose; i.e., recreation. The Code 710 Supplemental Appropriation Bill, 22 May 1985, provided funding for the proposed recreational development.

D. General Description of Dredged or Fill Material: Fine grained material from Bull Creek, and Hayvenhurst, Woodley and Haskell Channels and irrigation and water supply pipelines would be deposited in these channels. In addition, fine grained material from the area of the seasonal pond in the wildlife area and material from the sideslopes of Bull Creek would be deposited during construction of berms around the pond and during terracing of slopes of Bull Creek. Large rocks would be placed in Bull Creek and Hayvenhurst Channel where the rock stream outlets from the recreation lake entered these channels and in scattered locations along Bull Creek for aesthetic treatment. Concrete would be placed in Hayvenhurst Channel for a box culvert crossing for the access road and in Bull Creek for two stone weir trail crossings and possibly for support footings for a pedestrian/bicycle bridge. Stone revetment would be placed on the slopes of Hayvenhurst Channel for about 160 feet.

E. Description of the Proposed Discharge Site: The proposed discharge sites are described in paragraph 4.11, 4.12, 4.13, 4.14 and 4.15 of the attached environmental document.

Brief Summary: Bull Creek is a drainage with a history of providing good wooded wetland habitat in a 100-foot-wide band just north of the Los Angeles River. The edge of the wildlife pond, where the berm would be built, is on the edge of what is currently a seasonal pond. The area is vegetated by mostly ruderal species in the north but also has wooded wetland species along a large part of it. Haskell, Woodley, and Hayvenhurst Channels are relatively narrow ditches which run through the area and support a "low quality wetland/aquatic habitat".

F. Description of Disposal Method:

Brief Summary: Earth moving equipment would excavate and move material.

III. FACTUAL DETERMINATIONS.

A. Disposal Site Physical Substrate Determinations:

1. Substrate Elevation and Slope:

DOCUMENT

Impact: N/A X INSIGNIF. SIGNIF. PARAG. #

Documentation: The various actions associated with this project would not affect flood control use of the basin.

2. Sediment Type:

DOCUMENT

Impact: N/A X INSIGNIF. SIGNIF. PARAG. #

Documentation: Same as existing since material would be taken from adjacent areas, except for large rocks/stones and concrete which would be deposited in Bull Creek and Hayvenhurst Channel.

3. Dredged/Fill Material Movement:

DOCUMENT

Impact: X N/A INSIGNIF. SIGNIF. PARAG. #

4. Physical Effects on Benthos (Burial, changes in sediment type, composition, etc.):

DOCUMENT

Impact: N/A X INSIGNIF. SIGNIF. PARAG. #

Documentation: Terracing of slopes and pipeline construction would result in excavation and burial of benthic organisms in the channels. Because of seasonality, minimal benthic development would exist in wildlife pond area. The placement of rocks and of concrete structures in Bull Creek and Hayvenhurst Channel would remove a relatively small area of habitat for benthic organisms. In addition, the habitat is of poor quality in Hayvenhurst Channel.

5. Other Effects

Impact: N/A INSIGNIF. SIGNIF. DOCUMENT PARAG. # _____

6. Actions taken to Minimize Impacts

Needed?: YES NO

B. Effect on Water Circulation, Fluctuation, and Salinity Determinations:

1. Effect on Water. The following potential impacts were considered:

- | | | |
|----|--|----------------------|
| | | DOCUMENT
PARAG. # |
| a. | Salinity <input type="checkbox"/> N/A <input checked="" type="checkbox"/> INSIGNIF. <input type="checkbox"/> SIGNIF. | _____ |
| b. | Water Chemistry (pH, etc.) <input type="checkbox"/> N/A <input checked="" type="checkbox"/> INSIGNIF. <input type="checkbox"/> SIGNIF. | _____ |
| c. | Clarity <input type="checkbox"/> N/A <input checked="" type="checkbox"/> INSIGNIF. <input type="checkbox"/> SIGNIF. | _____ |
| d. | Color <input type="checkbox"/> N/A <input checked="" type="checkbox"/> INSIGNIF. <input type="checkbox"/> SIGNIF. | _____ |
| e. | Odor <input type="checkbox"/> N/A <input checked="" type="checkbox"/> INSIGNIF. <input type="checkbox"/> SIGNIF. | _____ |
| f. | Taste <input type="checkbox"/> N/A <input checked="" type="checkbox"/> INSIGNIF. <input type="checkbox"/> SIGNIF. | _____ |
| g. | Dissolved gas levels <input type="checkbox"/> N/A <input checked="" type="checkbox"/> INSIGNIF. <input type="checkbox"/> SIGNIF. | _____ |
| h. | Nutrients <input type="checkbox"/> N/A <input checked="" type="checkbox"/> INSIGNIF. <input type="checkbox"/> SIGNIF. | _____ |
| i. | Eutrophication <input type="checkbox"/> N/A <input checked="" type="checkbox"/> INSIGNIF. <input type="checkbox"/> SIGNIF. | _____ |
| j. | Others <input type="checkbox"/> N/A <input checked="" type="checkbox"/> INSIGNIF. <input type="checkbox"/> SIGNIF. | _____ |

Documentation: None of these parameters will be affected except water clarity. There will be a short term increase in turbidity in channels during construction.

2. Effect on Current Patterns and Circulation. The potential of discharge or fill on the following conditions were evaluated:

- | | | |
|----|--|----------------------|
| | | DOCUMENT
PARAG. # |
| a. | Current Pattern and Flow <input checked="" type="checkbox"/> N/A <input type="checkbox"/> INSIGNIF. <input type="checkbox"/> SIGNIF. | _____ |
| b. | Velocity <input checked="" type="checkbox"/> N/A <input type="checkbox"/> INSIGNIF. <input type="checkbox"/> SIGNIF. | _____ |
| c. | Stratification <input checked="" type="checkbox"/> N/A <input type="checkbox"/> INSIGNIF. <input type="checkbox"/> SIGNIF. | _____ |
| d. | Hydrology Regime <input type="checkbox"/> N/A <input checked="" type="checkbox"/> INSIGNIF. <input type="checkbox"/> SIGNIF. | _____ |

Documentation: The flood control capacity of Sepulveda basin would not be changed by the proposed project (parag. # 5.01). A

hydrological study will be completed to determine if the Bull Creek aesthetic treatment plan would affect the capacity of the channel.

3. Effect on Normal Water Level Fluctuations. The potential of discharge on fill on the following were evaluated:

a. Tide N/A INSIGNIF. SIGNIF. _____

b. River Stage N/A INSIGNIF. SIGNIF. _____

1. Action Taken to Minimize Effects:

None were taken.

C. Suspended Particulate/Turbidity Determinations at the Disposal Site:

1. Expected Change in Suspended Particulate and Turbidity levels in Vicinity of Disposal Site:

Impact: _____ N/A INSIGNIF. SIGNIF. _____ DOCUMENT PARAG. #
Documentation: Short term increase during construction.

2. Effects (degree and duration) on Chemical and Physical Properties of the Water Column:

a. Light Penetration _____ N/A INSIGNIF. SIGNIF. _____ DOCUMENT PARAG. #

b. Dissolved Oxygen _____ N/A INSIGNIF. SIGNIF. _____ DOCUMENT PARAG. #

c. Toxic Metals & Organic _____ N/A INSIGNIF. SIGNIF. _____ DOCUMENT PARAG. #

d. Pathogen _____ N/A INSIGNIF. SIGNIF. _____ DOCUMENT PARAG. #

e. Esthetics _____ N/A INSIGNIF. SIGNIF. _____ DOCUMENT PARAG. #

f. Others _____ N/A INSIGNIF. SIGNIF. _____ DOCUMENT PARAG. #

Documentation: Attachments J and K of the EA.
Levels of contaminants in sediment samples were found to be below accepted standards or non-existent.

3. Effects of Turbidity on Biota: The following effects of turbidity on biota were evaluated:

DOCUMENT
PARAG. #

a. Primary Productivity
____N/A_x____INSIGNIF.____SIGNIF.____

b. Suspension/Filter Feeders
____N/A_x____INSIGNIF.____SIGNIF.____

c. Sight feeders
____N/A_x____INSIGNIF.____SIGNIF.____

Terracing of Bull Creek and pipeline construction would cause only short term losses of productivity. Construction of bridges and weirs and placement of rocks/stones on slopes and in channel bottoms would result in some minor permanent losses of productivity. Disposal areas in the wildlife area and along Bull Creek currently contain wooded wetland species which would be lost. However, riparian plantings will replace them. Some freshwater marsh species in the above areas and in the other affected channels would also be lost. These would rapidly reestablish where feasible. Expansion of the pond in the wildlife area would replace permanent losses.

4. Actions taken to minimize Impacts.

Documentation: Wooded wetland species will be planted in the wildlife area and along Bull Creek.

D. Contaminant Determination:

The following information has been considered in evaluating the biological availability of possible contaminants in dredged or fill material. (Check only those appropriate).

1. Physical characteristics..... _
2. Hydrography in relation to known or anticipated sources of contaminants..... x
3. Results from previous testing of the material or similar material in the vicinity of the project..... _
4. Known, significant, sources of contaminants (e.g. pesticides) from land runoff or percolation..... x
5. Spill records for petroleum

- products or designated (Section 311 of CWA) hazardous substances..... —
- 6. Other public records of significant introduction of contaminants from industries, municipalities or other sources..... X
- 7. Known existence of substantial material deposits of substances which could be released in harmful quantities to the aquatic environment by man-induced discharge activities..... X
- 8. Other sources (specify)..... —

An evaluation of the appropriate information above indicates that there is reason to believe the proposed dredge or fill material is not a carrier of contaminants, or that levels of contaminants are substantively similar at extraction and disposal sites and not likely to constraints. The material meets the testing exclusion criteria.

YES _____ NO X _____

Impact: _____ N/A X _____ INSIGNIF. _____ SIGNIF. _____ DOCUMENT PARAG. #

Documentation: Low levels of contaminants were found. See following statement and Attachments J and K.

If the material does not meet the testing exclusion criteria above, describe what testing was performed and results:

Tests of soil samples were accomplished and results appear in Attachments J and K. The test results for the wildlife pond area indicated that selected heavy metal and pesticide/PCB levels were well below accepted standards or were non-existent. For the recreation lake area, levels of lead were very low and chlorinated pesticides were below detection limits.

Effect on Aquatic Ecosystem and Organism Determinations: The Following ecosystem effects were evaluated:

- 1. On Plankton _____ N/A X _____ INSIGNIF. _____ SIGNIF. _____ DOCUMENT PARAG. #
- 2. Benthos _____ N/A X _____ INSIGNIF. _____ SIGNIF. _____
- 3. Nekton _____ N/A X _____ INSIGNIF. _____ SIGNIF. _____
- 4. Food Web _____ N/A X _____ INSIGNIF. _____ SIGNIF. _____

5. Sensitive Habitats:

a. Sanctuaries, refuges

N/A INSIGNIF. SIGNIF. _____

b. Wetlands

N/A INSIGNIF. SIGNIF. _____

c. Mudflats

N/A INSIGNIF. SIGNIF. _____

d. Eelgrass beds

N/A INSIGNIF. SIGNIF. _____

e. Riffle and Pool Complexes

N/A INSIGNIF. SIGNIF. _____

6. Threatened & Endangered Species

N/A INSIGNIF. SIGNIF. _____

7. Other Wildlife

N/A INSIGNIF. SIGNIF. _____

8. Actions to Minimize Impacts:

Documentation: A wildlife management area has been established, and native riparian species will be planted in Bull Creek and in the wildlife area.

F. Proposed Disposal Site Determinations: Is the mixing zone for each disposal site confined to the smallest practicable zone?

N/A

G. Determination of Cumulative Effects of Disposal or Fill on the Aquatic Ecosystem:

DOCUMENT

Impacts: N/A INSIGNIF. SIGNIF. PARAG. # _____

Documentation: No other activities of this kind are planned in the area.

H. Determination of Indirect Effects of Disposal or Fill on the Aquatic Ecosystem:

DOCUMENT

Impacts: N/A INSIGNIF. SIGNIF. PARAG. # _____

IV. FINDING OF COMPLIANCE.

A review of the proposed project indicates that:

a. The discharge represents the least environmentally damaging practicable alternative and if in a special aquatic site, the activity associated with the discharge must have direct access or proximity to, or be located in the aquatic ecosystem to fulfill its basic purpose

YES NO

b. The activity does not appear to: 1) violate applicable state water quality standards or effluent standards prohibited under Section 307 of the CWA; 2) jeopardize the existence of Federally listed endangered or threatened species or their habitat; and 3) violate requirements of any Federally designated marine sanctuary.

YES NO¹

c. The activity will not cause or contribute to significant degradation of waters of the U.S. including adverse effects on human health, life stages of organisms dependent on the aquatic ecosystem, ecosystem diversity, productivity and stability, and recreational, aesthetic, and economic values;

YES NO¹

d. Appropriate and practicable steps have been taken to minimize potential adverse impacts of the discharge on the aquatic ecosystem.

YES NO

On the Basis of the Guidelines, the Proposed Disposal Site(s) for the Discharge of Dredged or Fill Material (specify which) is (select one):

- (1) Specified as complying with the requirements of these guidelines; or,
- (2) Specified as complying with the requirements of these guidelines, with the inclusion of appropriate and practical conditions to minimize pollution or adverse effects on the aquatic ecosystem; or,
- (3) Specified as failing to comply with the requirements of these guidelines.

¹ A negative response indicates that the proposed project does not comply with the guidelines.

ATTACHMENT I

Letters of Comment and Corps Responses

Bennett J. Mintz 
public relations/advertising

November 3, 1986

Lt. Col. Daniel Waldo
Acting District Engineer
U.S. Army Corps of Engineers
P.O. Box 2711
Los Angeles, CA 90053-2325

Attn: Dr. Robert Koenigs

Dear Dr. Koenigs:

This letter is for the Sierra Pacific Flyfishers, Inc., in regards the Sepulveda Basin Recreation Lake feature design memorandum dated August, 1986.

Let me first say that the document is a remarkable piece of work. I'm not certain what your role is in its development, but I feel it should be viewed with a great deal of pride. I am astounded at the talent that went into it!

I received the document last week and immediately began a review of those aspects concerned with our Sierra Pacific Flyfishers' fly casting instructional area. Some of our committee's questions are, no doubt, answered; however, since we lack map and plan-reading sophistication, we do hope to clarify a few things.

Questions are related to Plate 14 and Plate 18.

1. When we first discussed the project with your staff it was our understanding that the area would be designated as a fly casting rather than fly fishing section. Our club's intent is to offer members and the general public an opportunity to practice various distance and accuracy casting techniques rather than fishing. Additionally, since fly casting takes as much room behind the caster as in front, [making it somewhat dangerous to passers-by] we hope to discourage the use of hooks. It is our hope that the area can be re-designated in favor of Fly Casting instead of Fly Fishing.
2. Plate 18 shows a fly caster making a backcast, however it appears by your 1:10 scale there is only 35 or so feet in backcast distance being allowed. In general, we need about 100 feet of space clear of trees and other obstructions behind each caster. We certainly hope we can discourage the planting of trees between the walkway and water in the fly casting area.
3. We had spoken and otherwise communicated with your staff regarding both casting distance and accuracy markers. We hope you will consider the placement of buoys or markers at the 50-75-100 foot marks from shore to determine distance; and plan for the installation of accuracy casting rings. These rings -- approved for international competition -- are about the

. . .Cont'd

Responses to Public Comments on the

SEPULVEDA RECREATION LAKE
FEATURE DESIGN MEMORANDUM/
ENVIRONMENTAL ASSESSMENT

To Sierra Pacific Flyfishers, Inc.

1. Re-designation in favor of Fly Casting instead of Fly Fishing.

Because the area will be available for fishing as a regular use, the designation (as appears in the FDM) will remain as Fly Fishing Cove. However, the area has been designed and will be installed to serve the use criteria of a Fly Casting Area.

2. Requirement of 100-foot clear backcast distance. The plans and specifications will be prepared to accommodate this criteria.

3. Buoy markers for international casting competitions. Buoy markers are a special use item and cannot be purchased with federal funds. However, Sierra Pacific Flyfishers, Inc. will be free to place these markers at the appropriate location prior to each competition. Since they could interfere with regular fishing activities, they should not be permanently installed.

Dr. Robert Koenigs
Cont'd. . .

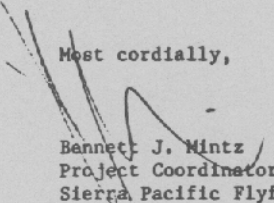
diameter of Hula-Hoops with an inner-ring constructed within the hoop. Rings are generally anchored with a heavy sinker and duck decoy line. Has installation of distance and accuracy markers been taken into consideration?

4. We had discussed and drawn into the initial plan a burn to be fitted with plank seats to function as a mini-amphitheater. We hope to have seating capacity for about 100. Is our amphitheater or teaching area still a possibility?
5. Is there an electric power source nearby for portable P.A. system, coffee pot, lights, etc.?
6. How far away are the nearest picnic tables and barbecues? We plan many community-wide events that will require cooking and dining.
7. What is the approximate length of the area designated "pattern surface" on Plate 14? My amateur calculations make it about 140 feet. . .is that right?

We hope to have squares or other designations painted every 8-10 feet for casters to stand. If we do in fact have 140 feet it will allow us room for nearly 20 casters at one time. Terrific!
8. How deep is the lake in the Fly Casting Cove? Is it shallow enough for someone in boots to wade out and place markers or targets? [See question #3.]
9. Finally, the Sierra Pacific Flyfishers annually conducts a series of free community-wide casting lessons. When can we schedule the 1987 classes to be held at our own Lake Balboa site?

Thank you again for your thoughtful help and cooperation on this.

Most cordially,


Bennett J. Mintz
Project Coordinator,
Sierra Pacific Flyfishers

CC: John Crisp
President

4. Mini-amphitheater for 100-person capacity. There will be mounding adjacent to the Fly Fishing Cove that could be used for an informal group viewing area, but amphitheater-style plank seating is not planned for this area. Some consideration for this use may be made during the development of plans and specifications, subject to limitations for federal funds.

5., 6., 7. All can be adjusted during plans and specifications.

8. Depth of water at the lake edge is approximately 30" for 5' from shore, then descends gradually to an ultimate depth of 12' (see plate 20 - Grading Plan).

9. The lake and Fly Fishing Cove area of Bull Creek Park should be completed by September 1988.



United States Department of the Interior

NATIONAL PARK SERVICE
450 GOLDEN GATE AVENUE, BOX 36063
SAN FRANCISCO, CALIFORNIA 94102

CORPS RESPONSE TO:

United States Department of the Interior, National Park Service

IN REPLY REFER TO:

L7619(WR-RG)
06-00061

November 18, 1986

Lieutenant Colonel Daniel Waldo
Acting District Engineer
Los Angeles District
U.S. Army Corps of Engineers
P.O. Box 2711
Los Angeles, California 90053-2325

Attention: Dr. Robert Koenigs

Dear Colonel Waldo:

We have reviewed the Draft Environmental Assessment and Draft Feature Design Memorandum for the Sepulveda Recreation Lake and Wildlife area. The proposed project consists of a 160-acre park with a 26-acre lake.

Land and Water Conservation Fund (L&WCF) monies (\$291,667) were made available to the City of Los Angeles in 1968 to assist them in the development of a 80-acre site within the 1619 acre Sepulveda Dam Recreation Area. Construction and/or installation included landscaping, a water supply system, picnic units, parking spaces, roads, walks, support lighting and sanitary facilities. At the time of grant approval, the recreation area was already extensively developed with an elaborate array of recreation facilities.

It should be noted that Los Angeles initiated, on April 26, 1966, a 50 year lease with the U.S. Army Corps of Engineers for the use of the recreation area. The City is restricted by the agreement with the Corps not to impede the primary function of the recreation basin as a flood control area.

Our L&WCF case file maps show the proposed development to be located just south and west of the L&WCF project area. Section 6(f)(3) of the L&WCF Act would not be a factor in this instance. In any event, the new development should do nothing more than enhance the existing recreation area. ??

No Response Needed.

Thank you for giving the NPS an opportunity to review the feature design and environmental assessment documentation.

Sincerely,

M. P. Jones

507 John D. Cherry
Associate Regional Director
Resource Management and Planning



Homeowners of Encino

"Serving the homeowners of Encino"

GERALD A. SILVER
President
PO Box 453
Encino, Ca. 91426
Phone (818) 990-2757

CORPS RESPONSE TO:

Mr. Gerald A. Silver
President, Homeowners of Encino

November 24, 1986

L.A. District, U.S. Army Corps of Engineers
Att: Dr. Robert Koenigs
PO Box 2711
Los Angeles, CA 90053-2325

✓
IMMEDIATE
RESPONSE
REQUESTED

Re: Sepulveda Basin Feature Design Memorandum

This is our formal response to your request for comments dated October 30, 1986. After studying the feature design memo I was concerned about the "NIKE Military Installation" located north of the water reclamation plant. I was unaware that a NIKE base was part of the Sepulveda Basin master plan. In light of this turn of events I would appreciate your answering the following questions as soon as possible:

1. Is an active NIKE military installation still part of the Basin master plan?
2. Does this installation contain silos that house nuclear warheads?
3. If nuclear warheads are installed on the missiles in this installation, what plans have been made to relocate civilian populations in the event of a nuclear mishap?
4. If such warheads are not permanently housed at the site, what routes will be taken through civilian neighborhoods to transport nuclear warheads?
5. If the NIKE installation is not functional, why is it part of the master plan, and might not the site be better used for activities more compatible with the surrounding residential community?
6. In the event of a mishap at the NIKE installation, what effect would this have on the adjacent water reclamation plant, and could this cause a failure of a substantial part of the Los Angeles sewage processing capability?

Your feature design memo does not adequately address these concerns and I believe that the above questions should be dealt with before you move ahead with the project.

Cordially yours,

Gerald A. Silver
cc: Homeowner Assns, Sen. Robbins, Cong. Bellensen, media

The military installation indicated as "NIKE" on the Sepulveda Basin Master Plan is no longer a NIKE site. In 1973, the Air National Guard took over the base from the Army for the purpose of establishing a training site for Air National Guard Reservists who specialize in communication. The installation is now occupied by the 261st Combat Communication Squadron.

There are not now and never were nuclear warheads housed at this site. All weapons were removed during the mid 1960's when all the NIKE sites in the San Fernando Valley were deactivated. Congressman Beilenson and Corps representatives recently inspected the silos and found no weapons or dangerous materials of any kind. The three silos are used to store war readiness materials, such as blankets, canteens, and radio equipment.

The civilian neighborhood is in no danger from any equipment or activities at the Air National Guard installation. On the contrary, the Combat Communication Squadron would serve as an emergency communication center for the Los Angeles area in the event of a National Disaster.

City of Los Angeles Department of Airports | World Way, Los Angeles, California 90009 • (213) 646-5252 Telex 65-3413
Tom Bradley, Mayor

**Board of
Airport Commissioners**

Robert A. Chlck
President
Maria D. Hummer
Vice President
Johnnie L. Cochran, Jr.
Jerry B. Epstein
Samuel Greenberg

Clifton A. Moore
General Manager

CORPS RESPONSE TO:

City of Los Angeles, Department of Airports

December 1, 1986

Lieutenant Colonel Daniel Waldo
Acting District Engineer
Los Angeles District
U. S. Army Corp of Engineers
ATTN: Dr. Robert Koenigs
P.O. Box 2711
Los Angeles, California 90053-2325

Dear Colonel Waldo:

Comments on the Draft Feature Design Memorandum
and Environmental Assessment for the
Sepulveda Basin Recreation Development

The City of Los Angeles Department of Airports appreciates the opportunity to review and comment on the above referenced documents. Airport staff's review focused on the relationship of this proposed recreation development with the ongoing activities at Van Nuys Airport (VNY).

Van Nuys Airport has been in continuous operation since the 1930's. VNY is the largest general aviation airport in Southern California and a major facility in both the State and National Aviation System Plans. Standard departure paths from the runways at VNY are to the south over the Sepulveda Basin. Weather and traffic permitting both arrivals and departures occur over the basin from 10:00 p.m. to 7:00 a.m. The Los Angeles City Council adopted long term plans for the area which include VNY as an aviation facility. The airport is a legitimate use of the land. Notwithstanding meaningful noise control efforts by airport authorities people closest to VNY remain concerned. Naturally, the Department of Airports would prefer that no further development occur in the Sepulveda Basin for both aviation safety and noise compatibility reasons. However, recognizing that the proposed recreation project will proceed, airport staff would like to offer the following comments:

Draft Feature Design Memorandum

1. The description of the proposed projects location on page 2-1 fails to recognize the proximity of Van Nuys Airport.

1. A reference to the Van Nuys Airport has been added to Section 2.1.

2. The graphics in Section 10 do not identify the location of Van Nuys Airport, except for Plate No. 5 which is not accurate.

Draft Environmental Assessment

3. The Arts Park described in Paragraph 1.11 should be included in the assessment of the total project as required by both NEPA and CEQA guidelines. The Arts Park project represents a potential land use conflict primarily due to the proposed open air amphitheater. The environmental assessment should include alternatives to the proposed site. Additionally, the traffic impact from the entire project including the Arts Park should be assessed in a cumulative fashion contrary to the statement made in Paragraph 1.19 on page 8.
4. Paragraphs 4.43 and 4.44 starting on page 21 minimize the potential bird hazard effects of both proposed lakes based on a 1983 U.S. Fish and Wildlife Service letter. The potential for increased large waterfowl to be attracted to the airspace above the lakes is not adequately addressed. Section 5.57 on page 40 states that, "recreational use of the lake would discourage bird use." Practical observation contradicts that statement.

During the day waterfowl wheel and soar above fresh water with the larger lakes and ponds being preferred. Such an activity is inconsistent with the Department of Airports goals to maximize safety at the arrival/departure thresholds and clear zones at VNY. Therefore, additional bird activity analysis and mitigation measures such as those recommended by the FAA and U.S. Fish and Wildlife Services to reduce bird hazard conflicts should be included in the Final Environmental Assessment.

5. The description of noise impacts provided in Paragraph 5.44 on page 38 does not adequately address noise and land use compatibility impacts associated with the proposed recreation lake or Arts Park. Federal Aviation Regulation Part 150 on noise compatibility planning guidelines and State noise impact guidelines were adopted to preclude and/or minimize incompatible land uses being developed near airports.

The potential sound levels at the recreation lake and Arts Park should be related to potential single event noise levels in addition to CNEL levels. Twin engine corporate jet aircraft and military transports on departure from VNY could inhibit the positive recreation experience for users of the facility.

2. Plate 5 does not attempt to depict the location of the Van Nuys Airport, but rather to acknowledge the presence of the flight path.

3. The Arts Park was included in the 1981 Master Plan/Final Environmental Impact Statement. It and the recreation lake are independent projects, and therefore, do not need to be assessed together. Furthermore, it is not known for sure whether funding for the Arts Park will be obtained.

*↓
~~that~~ if "yes" (they get it) - then what?*

4. Paragraphs 4.43 and 4.44 are only concerned with the bird hazards that result from the existing uses of the project area. No statement regarding potential bird hazard effects of the proposed lakes is intended. Paragraphs 5.56 to 5.61 address this potential hazard. The statement regarding recreational use discouraging birds is not meant to imply that birds will avoid the recreation lake entirely but that they will not occur in the numbers which they would otherwise attain. The point of the analysis in these paragraphs is that birds already utilize the project areas in large numbers, and that the proposed lakes will not increase bird use of the area for problem species to any significant degree. Nevertheless, in paragraph 6.14, the Corps commits to taking the necessary steps to discourage birds that are found to cause problems at the airport. These steps will be covered in greater detail in the lake management plan.

5. Paragraph 5.46 addresses the impact of aircraft noise on land use in the project area. FAA and state guidelines were included in this assessment.

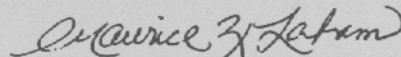
Although all guidelines are based on average noise levels, noise from single events could negatively impact park users. This point will be added to the EA.

December 1, 1986

The Draft EA also failed to include flight track information provided to your staff which illustrates that once airborne, departing aircraft initiate a 180 degree turn either to the east or west to avoid the mountains. These turns routinely occur over the recreation lake. This potential noise compatibility issue is difficult to mitigate. Therefore, the Department of Airports recommends that an avigation easement or letter of agreement be negotiated in accordance with the FAA recommendation, during the finalization of the project's construction approval documentation.

Thank you again for the opportunity to comment. The Department of Airports looks forward to cooperating with the Army Corp of Engineers in resolving the concerns enumerated above. Please contact my office at (213) 646-3853 for any additional information you may require.

Sincerely yours,



Maurice Z. Laham, AICP
Airport Environmental Coordinator

MZL:MDF:sr
14

cc: D. A. Miller
W. M. Schoenfeld
J. H. Pearson
J. R. Norville
C. D. Zeman

Flight track information is irrelevant if the analysis is based on noise contours around the airport. When considering single events, however, this information is essential. Because these single event noise levels may create conflict between the airport and the park, an avigation easement or letter of agreement will be negotiated between the City Department of Airports and Department of Recreation and Parks, subject to Corps approval.

CORPS RESPONSE TO:

San Fernando Valley Audubon Society

Stephen H. Duestman, M.D.
Sepulveda Basin Bird Walk Leader
San Fernando Valley Audubon Society
22931 Sylvan Street
Woodland Hills, Ca 91367
(818) 999-2658
November 27, 1986

Lieutenant Colonel Daniel Waldo
U.S. Army Corps of Engineers
Attn: Dr. Robert Koenigs
P.O. Box 2711
Los Angeles, Ca. 90053-2325

Dear Dr. Koenigs,

As the new Sepulveda Basin Bird Walk leader I read with interest the plans for the development of Sepulveda Basin. In general I think the plans are to be commended. As a person very much interested in conservation I wish that there could be more area for wildlife and less for people, who already have taken over the majority of land on the planet. I recognize that this can not be so.

1. Of more concern is what is going to happen to the wildlife area once it is constructed. Currently dogs are allowed to run loose throughout the park. Rarely is an offending owner ticketed. Dogs are quite destructive to the local rodent population and to ground nesting birds. Inclusion of "No Dogs Allowed" signs at all entrances to the wildlife area would be helpful and of minimal cost. The no dogs allowed area should include the banks of the Los Angeles River, where the Blue Grosbeak nests, and Bull Creek. Currently we have had many walks ruined by dogs whose owners are using the river to train them to retrieve sticks from the middle of the channel. Needless to say not much wildlife can be seen when a loose dog is around. Throughout the rest of the basin dogs should only be allowed on leash and signs should be posted.
2. I do not know what effect the bike trails along the river will have but I do not imagine it can be helpful. Rerouting the trails

1. As indicated in your letter, the problems caused by dogs are due to those dogs which are unleashed. Therefore, signs will be posted at all entrances to the wildlife area stating that all dogs must be kept on leashes at all times.

up Haskell channel then along the new road to be built to Balboa lake would keep at least the East Bank of the Los Angeles River free for pedestrians only. Vehicles should also be kept away from the Northeast bank of the river. Currently the river channel between Balboa Blvd. and the golf course (Woodley) is where many sandpipers including the spotted and solitary, egrets including the cattle and snowy, and herons, and kingfishers choose to be. The entire channel needs to be protected from intrusion.

Thank you for listening to me. Since taking over as bird walk leader last June I have become familiar with the many problems of the Basin. I am eager to help in any way I can to preserve the Basin for all. Feel free to contact me as needed.

Sincerely yours,

Stephen H. Duesatman, M.D.
Stephen H. Duesatman, M.D.

2. A pedestrian/bike trail running along the north side of the Los Angeles River in the vicinity of the recreation lake is planned. However, a buffer area between the trail and the river bank will be planted with native plants. The trail will end about 150 feet east of Hayvenhurst Channel. The Corps feels that bicyclists would have less impact on wildlife along the Los Angeles River than pedestrians. Vehicles will be confined to roads which are north of the trail and the buffer area. Mounds of soil will be placed in some of the space between the road and the trail.

jill swift

November 26 '86

CORPS RESPONSE TO:

Ms. Jill Swift:

Lt. Colonel Daniel Waldo
Acting District Engineer
Los Angeles District
U.S. Army Corps of Engineers
P.O. Box 2711
Los Angeles, CA 90053-2325

Attention: Dr. Robert Koenigs
(FDM for Sepulveda Basin Rec. Lake

Dear Lt. Col. Waldo

I have perused the FDM for the Sepulveda Basin Recreation Lake and have the following questions and comments:

1. What agencies will be monitoring the water quality on the lake project? Who will the lead agency be?? For what period of time will this monitoring continue?? Where is the Memo of Understanding for such a coordinated approach?? What is the budget??

Under cost estimates (page ix) reference is made to "Operation and Maintenance" with no specifics or discussion of monitoring, only ". a \$100,000 reserve for periodic lake recirculation system repair and clean-out." Please note enclosure #1 (Chemicals Found in Hansen Dam Fish) which discusses the fact that the "lack of monitoring was significant because state and local agencies have encouraged fishing at the lakes by stocking them with hundreds of thousands of edible catfish over the past decade."

Please note also enclosure #2 (A Management Program for Harbor Regional Park), a consortium after the fact (unfortunately) and enclosure #3 which lists the organizations and the three year monitoring program for the lake in question. Enclosure #4 (an inter-office memo addressing the question of Treatment of Park Lakes for Algae Control) demonstrates the City of Los Angeles' Recreation and Parks Departments handling of the matter, one very small part of the three year monitoring and probably one of the rationales for more complete testing than hitherto accomplished.

It is not clear who will be providing the leadership to insure and assure the public health and safety in the recreational uses of this water treatment/boating lake.

1. The City of Los Angeles will be responsible for monitoring the water quality on the lake project. The Corps and the City will determine specific guidelines for monitoring schedules and procedures during the overall development of the operation and maintenance manual for the entire project prior to lake construction, approximately summer of 1987. After the completion of the project, and the O & M manual, the City will select a monitoring agency. Water quality monitoring will be maintained to insure public health and safety for the life of the project. The budget has not yet been determined but will be sufficient to satisfy the monitoring required by city and state discharge permits.

2. Why was the (Tillman) wastewater not considered for alternative uses in irrigating the 101 (Ventura) Freeway?? Although Cal Trans was consulted and involved in information meetings with the Corps, there seems to be no discussion of this oft-suggested beneficial use of treated wastewater. It would appear that freeway irrigation would rank as high as golfcourse irrigation since both utilize (presently) precious drinking water.

2. The Corps of Engineers and the City of Los Angeles have not coordinated with Cal Trans on their water source. The water from the Tillman Reclamation Plant is intended for use within the Sepulveda Basin for support of recreation facilities.

3. Why is the addenda (referred to on page 7-2) being offered at a later date? The FDM states "An in-depth evaluation of flood storage needs will occur at a later date and will be presented in the form of design addenda." The Corps has been studying the areas below the Dam (at a cost of \$4 million for the past four years or so) as part of a re-evalu-

3. An in-depth evaluation of the project impact on flood storage capacity will be completed as part of plans and specifications. The Corps is committed to maintain the present flood storage capacity.

19261 wells drive, tarzana, california 91356

uation of expanded flood areas. Storage will obviously be impacted (in the dam) by the displacement and development of the 50-year flood level discussed in the FDM. The addenda should be a part of the FDM prior to approvals. (Please note enclosure #5, a Daily News article, 6-29-86, which refers to the inadequacies of the flood control system, topping of the emergency spillway, etc.)

4. Why is the holding pond for treated wastewater being called a "lake"? By definition, an area of Restricted Recreational Impoundment is "...a body of reclaimed water in which recreation is limited to fishing, boating and other non-body contact water recreation." The general public may need a considerable amount of re-educating to understand the difference between non-body contact and taking the (caught) fish out of the water...(without body contact??)

Either the lake should be filled with water of a higher treatment level (so that it can be classified as a Non-Restricted Recreational Impoundment, thus permitting all kinds of contact) or it should be called a holding pond for treated sewage waters so that the public understands the nature of the water and the inherent risks.

5. When was the Los Angeles River water considered for body contact recreation? Why are the standards more stringent for the (channelized) Los Angeles River, where "body contact" is incidental use, not necessarily permissible by law, as opposed to the Sepulveda Basin Recreation Lake where activities will be quite specific and legal? It would appear that the more stringent (or equally stringent) standards should be applied to the Sepulveda Basin Recreation Lake (Appendix D, p. 34, sec. 5.28).
6. Should historic or cultural resources be discovered (even though SHPO has determined that "...all known cultural resources at Sepulveda Basin have been destroyed"..) what recourse will there be? Will a trained archeologist be present during excavation/construction? Will a thorough search of historical documents be made to determine whether there were any adobes, etc., in the area?
7. Why are there no practicable alternatives suggested to lessen the adverse impacts on agricultural lands? Why has there been no compliance with Ex. Order 11988 (Floodplain Mgmt., 24 May, 1977) which is quite specific about preventing avoidable adverse or incompatible developments and considering alternative approaches when adverse effects would result (especially item 7, the loss of 154 acres of prime agricultural land with no alternatives). Prime farmland is at a premium in the United States today. For the federal government to be complicit in the destruction of this valuable acreage is not acceptable; for the Corps not to suggest an alternative is unconscionable and non-compliant with law.

In summary, I would like to express my concern that many of the points raised in this commentary were stated at a recent Corps-sponsored public meeting. They still have not been addressed. Ex. Order 11988 should be followed. Thankyou for the opportunity to reiterate in writing.

Sincerely,

Jill Swift

Jill Swift
19261 Wells Dr.
Tarzana, CA 91356

Enclosures: 5

P.S. I look forward to responses to this commentary as well as these questions being included in your final FDM or similar document.

4. The water quality of the recreation lake will be suitable for human contact. As with other City of Los Angeles park lakes, swimming is not one of the recreational activities desired for this location. Recreational uses are restricted to fishing and boating. Posted signs will identify the Tillman Reclamation Plant as the reclaimed water source for the lake and explain restrictions of recreational uses. This quality level is higher than that required by the State Water Quality Control Board for fishing. There will be no inherent risks to public users due to the use of reclaimed water.

didn't respond to

5. For the purposes of establishing standards for coliform concentrations, the Los Angeles River was designated for body contact recreational use. The river is often used in that manner and it is not practical to enforce that use restriction. Consequently, water quality standards were set to protect the health of the users. Since swimming will be prohibited in the recreation lake, the water quality standards would not normally need to be as stringent, however, the water quality will be maintained at the same level of quality required for the Los Angeles River.

6. The Corps has already conducted a thorough review of the records and has coordinated its findings with the State Historic Preservation Office. An archeologist will be present during excavation unless it is determined that excavation will only disturb recent sediments. If cultural resources are discovered during excavation, grading would be diverted until the site could be evaluated for eligibility for national registration and a mitigation plan could be developed and implemented (in accordance with 36 CFR 800.7).

7. The Sepulveda Basin Recreation Lake project conforms to floodplain protection standards and consideration of alternatives in Executive Order 11988. Alternatives, including a no action alternative, were considered for a basin-wide development during the planning process which led to the preparation of the Final Master Plan/EIS in 1981. The current Feature Design Memorandum and associated NEPA document consider changes that have been made in the project since the Master Plan. It does not reconsider previous development decisions. Agriculture is only considered to be an interim use in flood control basins. Therefore, agriculture could not be considered as an ultimate land use in the basin.

DEPARTMENT OF FISH AND GAME



245 W. Broadway, Suite 350
Long Beach, CA 90802-4467
(213) 590-5113

December 2, 1986

Lieutenant Colonel Daniel Waldo
Acting District Engineer
Los Angeles District
U.S. Army Corps of Engineers
Attn: Dr. Robert Koenigs
P.O. Box 2711
Los Angeles, CA 90053-2325

Dear Lt. Colonel Waldo:

The Department biologist has completed a field reconnaissance of the project site and has reviewed the Draft Environmental Assessment and Feature Design Memorandum (FDM) for the Sepulveda Recreation Lake and Wildlife Area located in the San Fernando Valley area of Los Angeles. The project consists of a 26-acre recreation lake, a water distribution system for effluent water from the Tillman Water Reclamation Plant, and a wildlife management area including an 11-acre wildlife pond. We have the following comments and recommendations:

1. We disagree with the proposed development of 640 feet of Bull Creek for recreation purposes. This area has high wildlife values and has supported a high density of both nesting and migrating birds. Impacts would also occur to reptiles, amphibians, and mammals with the alteration to the streambed and loss of riparian vegetation. The removal of 1.4 acres of riparian vegetation, some of which has already occurred, is counter to the Department's position due to the wildlife values associated with this type of habitat and the rapid loss of riparian habitat occurring in California. The minor increase in recreational values in this area will not offset the losses engendered by direct and indirect impacts to wildlife. (Because finalized plans are not included, any major changes to design as stated in the PEM would require a supplemental NEPA document.
2. The Department is concerned with the operations schedule for filling and draining of the wildlife pond. The pond should remain filled long enough for migrating waterfowl and birds to gain the maximum benefits from the area. However, there is a possible conflict with nesting waterfowl such as cinnamon teal (*Anas cyanoptera*), ruddy ducks (*Oxyura jamaicensis*), and mallards (*Anas platyrhynchos*). We recommend that drawdown occur between mid- to late-March. Filling should begin in late August to

CORPS RESPONSE TO:

California Department of Fish and Game

1. The original, approved project, described in the 1981 Master Plan EIS, impacted 63 acres of riparian habitat in the Los Angeles River. The current project, described in this EA, no longer results in direct impacts to the Los Angeles River. There are, however, direct impacts to Bull Creek (1.4 acres) associated with this new project. Although the Corps recognizes that Bull Creek has provided good habitat in the past and has the potential to develop good habitat again, currently the area is in a highly disturbed state and does not have high wildlife values. However, because of the potential of the site, development in and around Bull Creek will result in loss of future habitat value. This loss is mitigated by development of the wildlife management area, which was also the main mitigation item for the original project. In addition, native plantings will be made along one-half of the lower 640-feet of the creek. As mentioned in the EA (paragraph 1.09), changes in design could require a supplemental NEPA document.

2. Comments incorporated; except that filling of the wildlife pond may not be possible in late August due to the potential for problems with mosquitos at this time of year. The establishment of an optimum cycle for the ponds will be discussed in the lake management plan.

December 2, 1986

accommodate early arriving species of waterfowl. The timing and extent of filling and draining should be monitored over several years to determine optimum schedules.

3. The placement of artificial snags and perching poles for raptors is recommended in the wildlife management areas. The department agrees with the recommendation to increase burrowing owl (*Athya cunicularia*) habitat within this area with the use of artificially created burrows. Nesting boxes for cavity nesters should be provided in appropriate locations.
4. The inoculation of sycamores to prevent heartrot is discouraged. In future years the development of natural cavities in these trees will provide valuable nesting areas for cavity dwelling species.
5. There should not be any grading, construction, or clearing of vegetation during the breeding season. Any clearing of vegetation should be done in late-August to early-March.
6. Our main concern is the loss of over 154 acres of foraging area for wintering geese, most of which is used to grow sweet corn. The Canada geese (*Branta canadensis*) use this portion of the Sepulveda Basin area to forage and then return to Encino Reservoir in the evenings to roost. No mitigation is offered to offset this area's loss. We urge that the proposed cricket field and entire area west of the wildlife area be left in agriculture. This would not only maintain a foraging area for the geese but would serve as a necessary buffer between the wildlife and the recreation areas. Other areas that should be considered for long-term agriculture use are the natural area northeast of the dam or the one just southwest of the dam. We recommend that a long-term lease be entered into with the agricultural operator. Also, the retention of some crops in the fields after harvest should be encouraged. Crops should consist of one or more of the following: corn, grasses, clover, barley, wheat, rye, alfalfa, millet, buckwheat, and oats. Provision of adequate foraging areas for geese is a condition that is needed before we can concur with the proposed development.
7. All replanting and revegetation should occur as soon as possible so as to lessen impacts to wildlife. This matter should be resolved between the City and Corps of Engineers prior to project approval. The department considers the replanting of riparian vegetation a high priority that should be addressed.

3. Artificial snags, burrows and nesting boxes could be installed by interested parties, with Corps approval. A known source of perching poles already exists. The Corps will attempt to get these poles installed.

non-responsive

4. Comment incorporated.

5. Construction is not scheduled to begin until late-August or later.

6. This environmental assessment is addressing changes and refinements in project plans. Impacts to the Canada geese have not changed from the project as described in the Master Plan EIS. However, in an unrelated action covered in this EA, the land-use designation was changed on a parcel of land to allow that land to continue in agriculture and to be managed for its wildlife resources, especially foraging habitat for Canada geese.

a non-responsive

7. Riparian plantings in the wildlife area will occur following construction of the pond as soon as weather conditions are suitable. Additional plantings will follow shortly thereafter.

December 2, 1986

8. We agree with the design of the wildlife pond and viewing blinds. Project design shows two blinds while cost estimates are for four blinds. This should be clarified.

The project sponsor should be advised that diversion of the natural flow or changes in the channel, bed, or bank of any river, stream, or lake will require notification to the Department of Fish and Game as called for in the Fish and Game Code. This notification (with fee) and the subsequent agreement must be completed prior to initiating any such changes. Notification should be made after the project is approved by the lead agency. The Corps of Engineers should also be contacted as there may be a need for a Section "404" permit as required under regulations of the Clean Water Act.

Thank you for the opportunity to review and comment on this project. If you have any questions, please contact Jack L. Spruill of our Environmental Services staff at (213) 590-5137.

Sincerely,

Bruce E. Ehlman for

Fred Worthley
Regional Manager
Region 5

cc: S. Teresa
T. Paulek
D. Drake

8. Wildlife blinds have been moved to the lowest priority for work to be done in the wildlife management area to allow a higher level of funding for plantings. Wildlife blinds, therefore, will only be constructed if additional funding for that specific purpose becomes available, and then only two blinds would be built.

The City of Los Angeles will be advised that stream alteration permits may be required. The Corps, however, does not require such permits for Corps projects on Federal land.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

215 Fremont Street
San Francisco, Ca. 94105

Lieutenant Colonel Daniel Waldo
Acting District Engineer
Los Angeles District
U.S. Army Corps of Engineers
P.O. Box 2711
Los Angeles, California 90053-2325

DECEMBER 2, 1986.

Dear Colonel Waldo:

The Environmental Protection Agency (EPA) has reviewed the Draft Environmental Assessment (DEA) titled SEPULVEDA RECREATION LAKE AND WILDLIFE AREA, LOS ANGELES COUNTY, CALIFORNIA. We have the enclosed comments regarding this DEA.

We appreciate the opportunity to comment on this DEA and request 2 copies of any subsequent National Environmental Policy Act documents. If you have any questions, please contact David Powers, Federal Activities Branch, at (415) 974-8193 or FTS 454-8193.

Sincerely yours,

Loretta Kahn Barsamian
for Loretta Kahn Barsamian, Chief
Federal Activities Branch

Enclosure (1 page)

CORPS RESPONSE TO:

Environmental Protection Agency

Section 404 Comments:

"Mitigation which was required by the Master Plan EIS and which applies to this project will also be included, when appropriate. In other cases, the mitigation from the EIS has been incorporated in project design or has been referred to previously" (DEA p. 42). Page 4-5 of the Feature Design Memorandum (FDM) indicates that a 60-acre extension was made to the existing wildlife area to enhance wildlife values of the project area and to compensate for the loss of existing farmland uses (foraging areas) and riparian areas that would result from implementation of the Master Plan. Corps staff have also indicated that mitigation measures for this project may serve as mitigation for future projects.

It is not clear from the DEA or FDM which habitat losses the project's mitigation measures are compensating for. The EA should indicate by habitat type the total acreage of habitat which will be lost or degraded as a result of project activities. The acreage and types of habitat loss expected from other planned Corps' projects should be included if they will rely on this project's mitigation measures. The EA should also indicate the acreage, by habitat type, which will be created as part of the mitigation plan.

2. Page 2 of the 404(b)(1) evaluation indicates that the Bull Creek drainage has historically provided good wooded wetland habitat just north of the Los Angeles River. It is not clear from the DEA how much of this habitat will be lost or degraded as a result of this project. Page 30 of the DEA states that "...indirect effects to the entire length of Bull Creek would result from converting lands adjacent to the creek from agriculture to recreation". This page also indicates that increased pressure for flood control (vegetation removal) within the basin may occur due to the presence of the recreation lake. If Bull Creek habitat will be degraded or lost, the EA should describe the impacts and discuss the specific mitigation measures that will offset those impacts.

1. The Master Plan EIS described the loss of 440 acres of agricultural lands and 63 acres of riparian habitat in the Los Angeles River Channel. The recreation lake was to be responsible for all losses, except 290 acres of agriculture. Development of the wildlife management area and of edge vegetation around the recreation lake was to be the mitigation for these losses. However, since that report was written the recreation lake project has been modified. The recreation lake will no longer impact the Los Angeles River (i.e. other than the flow of water through the lake and into the river), but it will impact Bull Creek (about 1.4 acres of riparian habitat). Indirect impacts to Bull Creek due to recreation would have occurred with the original design. Additional impacts, not discussed in the EIS, would be long term impacts to poor quality riparian habitat in about 0.25 acres of Havenhurst Channel and short-term impacts to less than 1 acre of similar habitat in Woodley, Haskell, and Havenhurst Channels due to pipeline crossings. Finally, there would be a temporary impact to about 10.5 acres of disturbed annual grassland in the disposal area. (Paragraph 1.18 describes the acreages, by habitat type, which would be created as part of the mitigation plan).

2. Bull Creek has the potential to provide about 5.5 acres of riparian habitat in the project area. It is currently in a much degraded condition but has provided good habitat in the past. About 1.4 acres of this habitat would be directly impacted by the aesthetic treatment plan. Half of this area would be planted with native riparian species. Indirect impacts would occur to the entire area, but these impacts would also have occurred due to the original plan. A hydrological study will be conducted to determine how Bull Creek would be managed for flood control. A supplemental NEPA document may be necessary to assess the impacts of a management plan for Bull Creek. Impacts in Bull Creek would be mitigated by the development of riparian habitat in the wildlife management area.

it was supposed to be W.M.A. before the Bull Creek incursion.

STUDY



United States Department of the Interior

FISH AND WILDLIFE SERVICE
LAGUNA NIGUEL FIELD OFFICE
24000 Avila Road
Laguna Niguel, California 92656

CORPS RESPONSE TO:

U.S. Fish and Wildlife Service

December 2, 1986

Colonel D. Fred Butler
District Engineer
Corps of Engineers, Los Angeles District
P.O. Box 2711
Los Angeles, California 90053

Re: Feature Design Memorandum and draft Environmental Assessment for Sepulveda Basin Recreation Lake and Wildlife Area

Dear Colonel Butler:

The Fish and Wildlife Service (Service) has reviewed the Feature Design Memorandum and draft Environmental Assessment for Sepulveda Basin Recreation Lake and Wildlife Area dated October 30, 1986. The project consists of a 160-acre informal park with 26-acre recreation lake and 60-acre wildlife area with 11-acre seasonal pond. A water supply system would be constructed to provide treated effluent from the Donald C. Tillman Water Reclamation Plant as the water source for the lake and pond. The wildlife area is intended to serve as mitigation for impacts to fish and wildlife resources resulting from construction of other recreation facilities within the flood control basin. These comments are prepared under the authority, and in accordance with the provisions, of the Fish and Wildlife Coordination Act (16 U.S.C. 661-667e) and other authorities mandating Department of Interior concern for environmental issues. Although the design memorandum and environmental assessment are for the most part complete and adequate, we have several comments and concerns on specific sections of the documents.

Specific Comments: Feature Design Memorandum

1. Sections 6.4 and 6.5. Project Development: Initial and Future Phases. Section 6.4 states that "...a viable 11-acre wildlife pond will be developed in the initial phase to meet commitments made previously in the EIS for the 1981 Updated Master Plan that we mitigate for the loss of wildlife habitat in the basin resulting from recreation development." However, the initial phase for the wildlife pond involves only construction of the lake itself and the water supply system. No revegetation is budgeted (see Section 8: Cost Estimates), even though riparian habitat will be removed to construct the pond. The Service does not believe that development of a viable pond during the initial phase will be accomplished without revegetation of the site to provide cover for wildlife. Furthermore, compensation for losses to riparian habitat incurred through pond construction should be included in the initial phase. Section 6.5 also should address plans for future improvements in the wildlife area.

1. Sections 6.4 and 6.5 Project Development: Initial and Future Phase. Sections 6.4 through 6.9 have been revised to more accurately reflect the phases of development. Riparian plantings in the wildlife area will occur following construction of the pond, as soon as weather permits. Additional plantings will follow shortly thereafter.

budget ?

Section 7.52. Bull Creek Physical Development. This section states that the development plan was coordinated with and complies with recommendations by the Service. However, our coordination letter to the Corps of Engineers dated June 2, 1986, discussed our concerns with channelization of Bull Creek and recommended retaining it in its natural state with plantings of dense willow and scattered sycamores. The proposal by the Corps represents a compromise to meet flood control and recreation needs while retaining and enhancing some wildlife values. Thus, the creek probably will be channelized in the northern portion of the park while planting the lower portion in a mosaic of dense and open plantings of native riparian species. Because the Service would have preferred to see the lower portion of Bull Creek planted in its entirety with dense riparian vegetation and access by the public restricted, the proposal is viewed by our office as a compromise but acceptable.

Section 7.64. Wildlife Management Area: Wildlife Pond. The phrase "supplemental native riparian species" implies minimal revegetation of riparian habitat around the pond. Again, the Service strongly recommends that the area around the pond and the 1 acre island be heavily vegetated with the recommended riparian plant species during the initial phase following pond construction. We agree that some revegetation will occur naturally, although it is expected that mulefat (Baccharis glutinosa) will be the resulting dominant species. This is because mulefat is the dominant species on the site at the present time with only a few scattered willows and cottonwoods present. The goal should be to reestablish riparian habitat as quickly as possible, improve this habitat over what presently exists, and reduce the invasion of the area with ruderal species. The Service has recommended that plantings include big leaf maple (Acer macrophyllum), California walnut (Platanus racemosa), cottonwood (Populus fremontii), three willow (Salix) species, and a variety of shrubs and herbaceous perennials which do not presently occur on the site.

This section also states that "oak woodland will...provide habitat for the 200 species of birds which have been sighted within the basin." However, because these birds use a variety of habitats and include waterfowl and shorebirds, oak woodland will provide habitat for only a portion of these species.

Section 8.6. Cost Estimates. This section provides an estimate for the total cost of the wildlife lake of \$1,676,500. However, Tables 6 and 7 provide information on the initial phase project costs only. Because Section 7.64 implies that only minimal planting with native riparian species will be done, and details of this planting are not given as is done for the Recreation Lake, the Service is concerned that adequate consideration has not been given to revegetation of the wildlife area. The pond alone will not compensate fully or in-kind for losses to riparian habitat. Again, we stress that revegetation of the riparian area around the pond should be included in the initial phase. Planting of the coastal sage scrub and oak woodland habitats is appropriate under future phases, but a cost estimate of this work should be provided.

Specific Comments: Draft Environmental Assessment.

Section 1.12. Wildlife Area. This section states that "a commitment was made in the EIS to develop wildlife areas prior to or during construction of the recreation lake." Clarification should be provided concerning timing of revegetation of the wildlife area in relation to recreation lake construction.

2. Section 7.52 has been adjusted to acknowledge that the design of Bull Creek represents an acceptable compromise.

3. Section 7.64. The Corps will coordinate with USFWS during the preparation of plans and specifications to address these concerns.

4. Section 8.6. Cost Estimates. Sections 8.1 and 8.3 have been revised to clarify the development costs for the wildlife mitigation area. These sections have been coordinated with Section 7 in describing the phasing of the development. A more detailed breakdown of future expenditures will be developed as funding becomes available.

5. Current plans are for planting the riparian area immediately after construction of the seasonal pond, which would be during construction of the recreation lake. Planting of the oak woodland, grassland, and coastal sage scrub would occur at the same time as the planting around the recreation lake.

6. Section 1.15. Planting Plan. Table 1. Seed Mixture for Erosion Control. The Service is aware that a variety of introduced plant species is currently present in the wildlife area. However, introduction of additional non-native species via the seed mix for erosion control does not seem appropriate in light of the intent of the plan to ultimately create an area revegetated with native species. The seed mixture proposed in Table 1 contains 5 native and 8 non-native species. We recommend that a separate seed mix of native species be developed for the wildlife area.

7. Section 1.18. Wildlife Area. See above comments on Section 7.64 of the Feature Design Memorandum dealing with the Wildlife Management Area.

8. Section 1.27. Wildlife Area. The Service disagrees with the order of priority of work listed in this section. We recommend the following changes:

- a. As stated in report
- b. As stated in report
- c. As stated in report
- d. Planting of native vegetation in the following order:
 - (1) Riparian vegetation
 - (2) Oak woodland
 - (3) Native grassland
 - (4) Coastal sage scrub
- e. As stated in report
- f. Development of minimal wildlife blinds

Placing planting of native vegetation as the lowest priority is not consistent with the purpose of the wildlife area, which is to provide habitat for wildlife and compensate for losses to habitat in other portions of the basin.

9. Section 3. Alternatives to Proposed Action. This section should include a discussion of the Service's Alternative 1 for the Wildlife Area, which is a year-round pond. This is the Service's preferred alternative and would provide maximum values for wildlife, including shallow water for dabbling ducks, amphibians, and western pond turtles, deeper water for diving ducks, and breeding habitat for waterfowl.

10. Section 5.15 Biological Resources. Many raptor species which are not endangered on threatened currently forage over the agricultural fields which will be converted to the informal park and recreation lake. This would constitute a permanent loss of foraging habitat. This impact should be addressed in this section.

6. The seed mixture in Table 1 was intended only for areas around the recreation lake. Native species will be used in the wildlife area.

7. The riparian area will be planted with riparian plant species after pond construction, as soon as weather conditions are suitable. The Corps will coordinate with the USFWS during plan preparation.

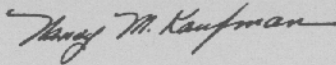
8. It is expected that initial funding will be adequate to at least complete the riparian planting, according to the priorities listed in the EA. Fencing has a higher priority than planting because, without it, vehicles will enter the area and destroy plantings and disturb wildlife. Wildlife blinds can be moved to the lowest priority.

9. A reference to the Services' preferred plan will be added.

10. Paragraph 5.09 discusses the loss of raptor foraging values in agricultural fields.

This concludes our comments on the Feature Design Memorandum and the draft Environmental Assessment. If you have any questions, please contact Mary Jo Elpers at FTS 796-4270.

Sincerely yours,



Nancy M. Kaufman
Project Leader

cc: CDFG, Region 5, Long Beach, CA

United States
Department of
Agriculture

Soil
Conservation
Service

1523 E. Valley Pkwy, Suite 213
Escondido, CA 92027
(619) 489-1959

CORPS RESPONSE TO:

Soil Conservation Service

December 11, 1986

Lt. Col. Daniel Waldo
Acting District Engineer
Los Angeles District
U.S. Army Corps of Engineers
ATTN: Dr. Robert Koenigs
P.O. Box 2711
Los Angeles, CA. 90053-2325

Dear Lt. Col. Waldo:

We acknowledge receipt of the draft environmental report for Sepulveda Recreation Lake and Wildlife Area in Los Angeles County, California, that was addressed to the Lancaster Field Office, for review and comment.

We have reviewed the above draft environmental report and find that there are no controversial items in the document within the realm of the Soil Conservation Service's expertise and responsibilities. We find no conflict with any SCS on-going or planned programs or projects.

The environmental report did not adequately address alternatives to the use of prime agricultural lands that would be involved in the proposed project.

We appreciate the opportunity to review and comment on this proposed project.

Sincerely,

Ward S. David
acting

WARD S. DAVID
Area Conservationist

- The proposed project is in compliance with the Farmland Protection Policy Act. Alternatives to the use of prime agricultural lands were considered during EIS preparation for the 1981 Master Plan. In addition, a Farmland Conversion Impact Rating Form was completed during preparation of the current EA.

What were they (refers to N.P. 81)



COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

1540 ALCAZAR STREET
LOS ANGELES, CALIFORNIA 90088
Telephone: (213) 226-8111

CORPS RESPONSE TO:

County of Los Angeles, Department of Public Works

ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 4089
LOS ANGELES, CALIFORNIA 90081

IN REPLY PLEASE
REFER TO FILE P-4
1.21

December 29, 1986

Ms. Sheila Murphy
U.S. Army Corps of Engineers
Environmental Resources Branch
P.O. Box 2711
Los Angeles, CA 90053

Dear Ms. Murphy:

REVIEW OF FEATURE DESIGN MEMORANDUM

Thank you for the opportunity to provide comments on the Feature Design Memorandum for the proposed Sepulveda Basin Recreational Lake.

As you may know, this Department operates and maintains Bull Creek in the vicinity of your proposed project. Public and/or park related activities involving this facility should be discouraged due to unregulated fluctuating flows that may occur in both storm and dry periods. Dry period discharges of up to 600 cfs are not unusual. Page A-1,2 of the report states that the required channel design capacity for the proposed bridge over Bull Creek is unknown. The 50-year frequency rainfall flow rate for this reach is 11,300 cfs based on a 1967 hydrology study.

If you have any questions regarding the environmental reviewing process of this Department, please contact Mr. Maged El-Rabaa of our Planning Division at the above address or (213) 226-4369.

Very truly yours,

T. A. TIDEMANSON
Director of Public Works

for *[Signature]*
N. C. DATWYLER
Assistant Deputy Director
Planning Division

MR:as/MRMU

Bull Creek is located within the project area. The Corps will lease this land to the City of Los Angeles for the development and management of recreational resources described in the EA. Therefore, in the future the City of Los Angeles will be responsible for maintenance in this channel. The recreational use of this land has been authorized by Congress. The proposed project has also undergone environmental review by interested agencies and members of the public during the preparation of both the EIS for the 1981 Master Plan and current EA. Dry period discharges in the channel will be considered in the Bull Creek hydrological study, which will be used in design of features in Bull Creek. The access road off of Balboa Blvd., including any bridges, will be considered in a separate NEPA document when plans for the Arts Park are more certain.

✓
But what's the answer to the question?

CORPS RESPONSE TO:

Federal Aviation Administration

December 10, 1966

Lt. Colonel Daniel Waldo
Acting District Engineer
Los Angeles District
U.S. Army Corps of Engineers
P.O. Box 2711
Los Angeles, CA 90053-2325

Dear Colonel Waldo:

Thank you for the opportunity to review the Draft Feature Design Memorandum for the Sepulveda Recreation Lake and Wildlife Area. Because of the project's close proximity to the Van Nuys Airport, we still have two major concerns:

a. Bird Hazard - There is currently a considerable amount of bird activity on and adjacent to the Van Nuys Airport. In addition, many birds are presently located in the Dam Basin due to the existing corn fields. Many geese use this area as a resting area for their flight south in the winter and north in the spring. With the development of the two proposed lakes, it is our opinion that this activity will only increase.

b. Aircraft Noise - Van Nuys Airport is a very noise-sensitive airport with a considerable amount of homeowner participation for reducing aircraft noise. Van Nuys Airport Regulations require all aircraft departing to the south on Runway 16R/L to "climb straight out over the Dam Basin before starting turn." Most departing aircraft are currently at an altitude of 1,000 feet or less above ground level when passing over this area. Since there are approximately 750 departures per day from Van Nuys Airport, this would create a considerable noise impact on the users of the area.

We recommend close coordination be maintained with the Van Nuys Airport management to monitor the above concerns when the project becomes a reality.

We also recommend close coordination between the Los Angeles Department of Airports and the Los Angeles Department of Parks and Recreation in order to mitigate any bird hazard, noise, or safety impact that may result from the project.

1. Geese are currently attracted to the Sepulveda Basin by the agricultural fields which they use for foraging. Construction of the project would remove about 150 acres of agricultural fields, reducing foraging habitat for geese. These fields are the ones that are closest to the airport. Geese are not expected to use the recreation lake in large numbers. Therefore, geese use in the basin should decrease, particularly in the area nearest to the airport.

2. According to state and federal planning guidelines and noise contours developed for the airport, the park's location is compatible with the airport. The City Department of Airports and the Department of Recreation and Parks will negotiate an aviation easement or letter of agreement which will address structures, overflights, noise and bird hazards.

Furthermore, we suggest that an aviation easement or a Letter of Agreement containing provisions addressing structures, overflights, noise, flora growth and bird abatement be negotiated and obtained by the Department of Airports to preclude detrimental impacts on aircraft operations at Van Nuys Airport.

Sincerely,



Duane R. Bullard
Manager, Planning Appraisal &
International Aviation Staff

AHP-4B:RMcCabe:mjm:X1232:12/10/86:PL566L30X

CITY OF LOS ANGELES

CALIFORNIA



TOM BRADLEY
MAYOR

DEPARTMENT OF
PUBLIC WORKS
BUREAU OF
ENGINEERING
ROBERT S. HORR
CITY ENGINEER

Room 800, City Hall
Los Angeles, CA 90012

CORPS RESPONSE TO:

City of Los Angeles, Bureau of Engineering

BOARD OF PUBLIC WORKS MEMBERS

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B. J. McKELVEY
SECRETARY

Lieutenant Colonel Daniel Waldo
Acting District Engineer
Los Angeles District
U.S. Army Corps of Engineers
P.O. Box 2711
Los Angeles, CA 90053-2325

November 21, 1986
W.O. 31351
Sepulveda Basin Re-
claimed Water Supply
System

Attn: Dr. Robert Koenigs

Dear Lieutenant Colonel Waldo:

The Wastewater Systems Engineering Division has reviewed the Feature Design Memorandum and the Draft Environmental Assessment for the Sepulveda Basin Recreation Lake. We offer the following comments:

1. The flows discharged into the City of Los Angeles sewage conveyance system are not quantified; therefore, the following concerns remain unanswered:

a. Hydraulic effect of the discharged flows on the conveyance system and the possibility of overflows at several critical locations along the route of the sewer to the Hyperion Treatment Plant.

b. Hydraulic impact of the discharged flows on the Hyperion Treatment Plant.

2. The draft Environmental Assessment indicates a proposal to discharge flow from the lakes into the City's sewer system when water quality problems occur. We are very concerned about this proposal. The discharged flow would go into the Hyperion system which is operating at or near capacity. Appropriate chemical treatment of the lakes to enhance water quality should be used prior to considering discharge to the City sewer system. Only if chemical treatment proves ineffective, will discharge to the City sewer system be permitted. During certain periods of the year, there may not be capacity in the conveyance system or at the Hyperion Treatment Plant to allow discharge of flows from the lakes. There may also be time limitations on a daily basis when flows may not be discharged from the lakes.

3. Section 5-28 of the Draft Environmental Assessment indicates that a permit modification to an existing NPDES Permit for the discharge from the Tillman Water Reclamation Plant is required. It should be noted that the City's Department of Public Works upholds extremely stringent water quality standards for the discharge of effluent from the Tillman Water Reclamation Plant to the Los Angeles River and does not want to be responsible for any degradation of water quality

1. The proposed connection to the sewer from the lake would have a potential flow rate of 4 MGD (added to text). Discharges from restroom facilities would be minimal.

2. Every step possible will be taken to enhance water quality of the lake to avoid the necessity of discharging into the sewer system. Chemical treatment for the control of algae will be detailed in the lake management plan. However, plans for the use of chemicals will first be coordinated with the RWQCB and will be subject to NPDES requirements. The lake management plan will include requirements for consulting with the Department of Public Works before any discharge into the sewer may take place. It is understood that discharge may not be permitted during certain times, such as during high-use daylight hours. During the development of the Plans and Specifications and Lake Management Plan, the City of Los Angeles Public Works Department will be included in the review and coordination process.

3. The City of Los Angeles, Department of Recreation and Parks has applied for a NPDES permit (as per 19 Dec 86 letter to CA RWQCB).

ADDRESS ALL COMMUNICATIONS TO THE CITY ENGINEER

AN EQUAL EMPLOYMENT OPPORTUNITY - AFFIRMATIVE ACTION EMPLOYER



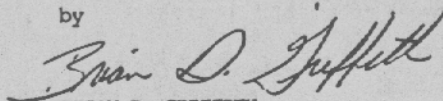
that may occur in the lakes. Therefore, a new permit for lake discharge to the Los Angeles River by the City's Department of Recreation and Parks will be necessary rather than any modification to the existing permit issued to the City's Department of Public Works.

If further information is necessary, please contact Mr. Wayne Mohr of my staff at telephone number (213) 485-3063.

Sincerely,

ROBERT S. HORII
City Engineer

by



BRIAN D. GRIFFITH
Division Engineer
Wastewater Systems
Engineering Division

BDG:FM:djs/G54-7

cc: Duncan J. McNeil, Division Engineer
Project Management Division
Attn: Ara J. Kasparian, PhD.

James E. Hadaway, General Manager
Department of Recreation and Parks
Attn: Gary Schussolin

Delwin A. Biagi, Director
Bureau of Sanitation
Attn: James Langley, Plant Manager
Tillman Water Reclamation Plant
Attn: Ramon Jellison, Manager II
Wastewater Collection Systems Division

DEPARTMENT OF HEALTH SERVICES—Sanitary Engineering Branch

1449 WEST TEMPLE STREET
LOS ANGELES, CA 90026-5698
(213) 620-2980



CORPS RESPONSE TO:

State of California Department of Health Services

November 26, 1986

Lieutenant Colonel Daniel Waldo
Acting District Engineer
Los Angeles District
U.S. Army Corps of Engineers
Attn: Dr. Robert Koenigs
P.O. Box 2711
Los Angeles, CA 90053-2325

Dear Lt. Colonel Waldo:

SEPULVEDA RECREATION LAKE AND WILDLIFE AREA

We have reviewed the Draft Environmental Assessment and Draft Feature Design Memorandum for the above-mentioned project and have the following comments.

Reclaimed water from the Donald C. Tillman Water Reclamation Plant will be for landscape irrigation and for supplying a recreational lake and a seasonal pond. To provide public health protection, the attached documents, "Guidelines for Use of Reclaimed Water" and "Guidelines for the Preparation of an Engineering Report on the Production, Distribution, and Use of Reclaimed Water," should be followed.

If you have any questions or need further information concerning these comments, please contact us.

Sincerely,

Handwritten signature of Cary H. Yamamoto in cursive.

Cary H. Yamamoto, P.E.
District Sanitary Engineer

Attachments (2)

cc: City of Los Angeles
Dept. of Public Works

"Guidelines for the Use of Reclaimed Water" will be used as a guideline for the formulation of project Plans and Specifications. It should be kept in mind, however, that the Tillman effluent water is very good as compared to other reclaimed waters.

The engineering report guidelines referred to are applicable to the producer of the water—the Tillman plant. Tillman has informed us that the report has been prepared by the City of Los Angeles, and is presently in the final stage of review and approval.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD—
LOS ANGELES REGION107 SOUTH BROADWAY, SUITE 4027
LOS ANGELES, CALIFORNIA 90012-4598
(213) 620-4460

CORPS RESPONSE TO:

California Regional Water Quality Control Board

November 25, 1986

Lieutenant Colonel Danial Waldo
Acting District Engineer
Los Angeles District
U.S. Army Corps of Engineers
P.O. Box 2711
Los Angeles, CA 90053-2325

ATTN: Dr. Robert Koenigs

DRAFT ENVIRONMENTAL ASSESSMENT FOR THE SEPULVEDA BASIN RECREATION
LAKE

This is in response to your request for comments on the Sepulveda Recreation Lake. We perceive our role in this project as both regulatory and advisory. Any discharge from the lake will require an NPDES permit from this Board. Also, if dredging is to take place it may be subject to requirements by this Board.

1. In regard to NPDES permit requirements, there are two options available. The first option is that the discharge coming out of the lake would be named as a discharge point for Tillman Water Reclamation Plant. In that case Tillman must file for an amended NPDES permit at least 180 days prior to the start of the discharge. In the second option the lake would be treated separately. The Department of Parks and Recreation would be required to file for a separate NPDES permit at least 180 days prior to any discharge from the lake. The Department of Parks and Recreation will be subject to reclaimed water use requirements.
2. The use of algicides and insecticides in the lake would also be regulated in the NPDES permit.
3. We suggest lining the shallow shelf area and having a steep dropoff in order to minimize shallow, unlined areas. In shallow water (≤ 4 ft.) tule will grow. Removal of the tule may cause an undesirable increase in the turbidity of the lake. Lining the shelf will minimize the need for tule removal.
4. We also recommend that algae be controlled by non-chemical methods.
5. As reclaimed water will be used to fill and maintain the lake, the potential exists for the accumulation of heavy metals and synthetic organic materials in both lake sediments and aquatic

1. A NPDES permit has been applied for by the City of Los Angeles, Department of Recreation and Parks (as per 19 Dec 86 letter to CA RWQCB).

2. Control of algae and mosquito abatement are definite concerns in the management of the lake and pond proposed for Sepulveda Basin. Control options will be necessary. Use of algicides and insecticides will be coordinated with the RWQCB, subject to NPDES requirements, and covered in a lake management plan for each of the lakes.

3. The lake will be lined, but the dropoff will not be steep (it is a 5:1 slope) due to cost constraints on the removal of additional soil to provide for steep slopes. Tule removal operations will be performed in a manner that will minimize increased turbidity in the lake. Such methods include partially draining the lake before cutting the tule, avoiding disturbance to the bottom while cutting, and/or clearing only small portions of the lake at one time.

4. Every effort will be made to control algae by non-chemical methods. However, it may be necessary at times to supplement these efforts with the use of chemicals to control algae.

Sepulveda Basin Recreation Lake

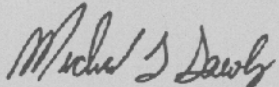
25 November 1986

Page 2

organisms. We recommend that, at a minimum, tissue from sport fish inhabiting the lake be analyzed for these contaminants both initially and at yearly intervals.

6. A lake management plan should be adopted prior to the filling of the lake in order to prevent future problems.

Thank you for this opportunity to comment. If you have any questions please call me at (213) 620-4697.



MICHAEL L. SOWBY
Environmental Specialist IV

5. Monitoring of sport fish for tissue concentrations of heavy metals and synthetic organic materials will be included in the lake management plan.

6. A lake management plan will be adopted prior to filling the lakes.

ATTACHMENT J

Wildlife Area Geotechnical Investigation:
Coring, Soils, and Chemical Laboratory Testing

October 10, 1986



H. M. Scott & Associates, Inc.
9145 East Valley Boulevard
P.O. Box 128
Rosemead, California 91770

Attention: Mr. Mike Scott

Subject: GEOTECHNICAL INVESTIGATION
Proposal Sepulveda Basin Wildlife Area
Sepulveda Dam Basin
Los Angeles, California
CCP Project No. 86-31-352-01

Gentlemen:

INTRODUCTION

This report presents the results of our geotechnical investigation performed at the site of the proposed man-made lake. The purpose of this investigation was to evaluate the existing subsurface site conditions and to provide recommendations for the design and construction of the man-made lake, including estimated seepage losses through the underlying natural soils. In addition, we were to test the existing subgrade soils and shallow ground water for the presence of heavy metals and pesticide pollution.

A site plan prepared by H. M. Scott dated May 16, 1985 was used as a reference during our investigation. The locations of the exploratory borings are shown with respect to the existing and proposed lake boundary on Drawing 1.

It is understood that the new lake will use the outline of the existing man-made lake with some cuts and fills around the perimeter. In addition, an island will be constructed in the central portion of the lake. Proposed lake bottom will be at roughly elevation 678.6 with a water surface elevation ranging from 682 to 684. The Tillman Water Plant will supply water through an inlet structure near the north end of the lake. A spillway and underground drainage structure will be constructed at the south end of the lake. Some excavated soils from the lake construction may be exported from the site.

SCOPE OF WORK

The scope of our work included the following:

- o A field exploration program which consisted of drilling, logging and sampling of eight test borings to a depth of 15 feet. Approximate locations of the borings are shown on Drawing 1. Continuous logs of the subsurface soils encountered in the borings were recorded in the field by our personnel. Descriptions of the field equipment and procedures, and the boring logs are presented in Appendix A.
- o A laboratory testing program which consisted of existing moisture and density determinations, laboratory maximum density and permeability tests. Descriptions and results of the laboratory tests are presented in Appendix B, and on the boring summary sheets of Appendix A.
- o Testing of selected soil and shallow water samples for the presence of heavy metals and pesticides/PCB's. The test results are presented in Appendix C.
- o Engineering analyses and evaluation of the results of the field exploration and laboratory testing.
- o Development of recommendations for the design and construction of the man-made lake including estimated seepage losses through the underlying natural soils.
- o Conclusions on the degree of any soil contamination, based on laboratory test results and visual observations.
- o Preparation of this report which summarizes the results of our field exploration, laboratory testing, engineering analyses, and presents design recommendations and conclusions for the proposed development.

MAP REVIEW

A review of topographic maps before and after the construction of the Sepulveda Dam Flood Control Basin indicated that the present lake area was not a natural feature. The lake was apparently created either during or after the construction of the Flood Control Basin embankment.

SITE CONDITIONS

At the time of our field investigation the site had been previously developed; however, the area of the man-made lake appeared to be dry most of the year. The site appeared to be used as a nature/hiking area with numerous trails and

a perimeter access road. Vegetation around the lake area consisted of tall grasses and weeds which were brown and very dry. Vegetation within the lake depression consisted of numerous trees, areas of cat-tails, grasses and weeds. The vegetation within the lake depression was green indicating the presence of shallow ground water. Large shrinkage cracks were present at the surface of the lake bottom in several areas.

The subsoils to the depths explored generally consisted of very stiff silty clays, clayey silts and sandy silts overlying medium dense to dense sands and silty sands. Fill was encountered in several of the perimeter borings to depths ranging from 2 to 9 feet. No fill was encountered in the two borings drilled in the lake bottom. In general, the borings graded from clays at the surface to silts at relatively shallow depths to sands and silty sands, in the deepest borings. Laboratory testing indicated that the shallow subgrade soils generally had moderate to high dry densities and good shear strengths. Permeability tests performed on samples from 2 to 3 feet below the existing grade indicated that these near surface soils had relative permeabilities ranging from very low to impervious.

Ground water was encountered only in the two borings drilled in the lake bottom. Using approximate elevation data from the site plan prepared by H. M. Scott, the approximate ground water elevation was 664.5 feet. This is possibly a perched water level since ground water contour maps published by City of Los Angeles Department of Water and Power indicated that the ground water level is at roughly elevation 625 (Maps from 1976 to 1983).

Based on the results of our subsurface exploration and experience, variations in the continuity and depth of the subsoil deposits should be anticipated. Care should be exercised in interpolating or extrapolating subsurface soil conditions between or beyond test borings.

CHEMICAL TESTS

Even though no buried wastes were detected during our field investigation, the purpose was to identify if specific pollutants were present. Therefore, soil and water samples were tested for the presence of heavy metals and pesticides/PCB's. These tests were performed by Brown and Caldwell Analytical Laboratories in accordance with the following EPA standards:

<u>Test Substance</u>	<u>Soil Analyses</u>		<u>Water Analyses</u>	
	<u>Method Reference</u>	<u>Number</u>	<u>Method Reference</u>	<u>Number</u>
CAM Metals	SW 846 ⁽¹⁾		EPA ⁽²⁾	
- Antimony		7041		204.2
- Arsenic		7060		206.2
- Beryllium		7090		210.1
- Barium		6010		200.7

(table continued)

<u>Test Substance</u>	<u>Soil Analyses</u>		<u>Water Analyses</u>	
	<u>Method Reference</u>	<u>Number</u>	<u>Method Reference</u>	<u>Number</u>
- Cadmium		7130		213.1
- Chromium		7190		218.1
- Cobalt		6010		200.7
- Copper		7210		220.1
- Lead		7420		239.2
- Mercury		7471		245.1
- Molybdenum		6010		200.7
- Nickel		6010		200.7
- Selenium		7740		270.2
- Silver		7760		272.1
- Thallium		7841		279.2
- Vanadium		6010		200.7
- Zink		7950		289.1
Pesticides/PCB's	SW 846 ⁽¹⁾	8080	EPA ⁽³⁾	608

- (1) Test methods of evaluating solid waste, EPA, 1982.
 (2) Methods for Chemical Analysis of Water and Wastes, EPA, 1979.
 (3) 40 CFR Part 136.

The test results, which are presented, in Appendix C, indicated that only background levels of certain heavy metals were present. Tests for pesticides/PCB's indicated that possible levels were less than the lower detection limit of the test methods. Therefore, the chemical test results indicated that selected heavy metal and pesticide/PCB levels were well below accepted standards or were non-existent.

EVALUATION AND RECOMMENDATIONS

General Evaluation

Based upon the results of the field exploration and laboratory testing combined with engineering analyses and our own experience and judgement, it is our opinion that the site is suitable for the construction of the proposed lake.

Laboratory testing indicated that the permeability of the near surface soils ranged from very low to impervious. Therefore, unless very permeable surface discontinuities exist, seepage losses from the lake should be minor.

Chemical tests for heavy metals and pesticides/PCB's indicated levels which were well within accepted standards; therefore; excess onsite soils could be exported from the site. Also, the perched ground water underlying this site does not appear to be contaminated with heavy metals or pesticides/PCB's.

Estimated Seepage Losses

The maximum estimated seepage loss was computed using the largest laboratory permeability test result, an assumed 4 foot minimum clay layer at the bottom of the lake, a maximum water height of 5.5 feet, and the assumption that vertical permeability is much greater than horizontal permeability. Maximum estimated seepage losses on the order of $\frac{1}{4}$ inch per day per square foot of area were computed using this criteria. If no very permeable surface discontinuities exist, we expect the actual seepage losses to be much less since rates based on laboratory test results are usually higher than the actual field rates.

We recommend that following stripping, the lake bottom and lake perimeter be observed for the presence of very permeable soils at surface. If such areas exist, the soils should be evaluated to determine if remedial action is required to prevent excessive seepage losses. Remedial action could take the form of a localized clay liner.

Earthwork

Site development is expected to consist of the removal of existing vegetation, cuts and fills around the lake perimeter, minor grading of lake bottom, construction of an island in the central portion of the lake, and minor excavations and fills for spillway and pipelines. Recommendations for site preparation, structural fill and backfill, permanent cut and fill slopes, and utility trench backfill are presented in the following sections.

- o Site Preparation: Removal of existing vegetation within the lake area should also include the removal of major root systems which could result in seepage losses from the lake. All soft or loose soils should be removed from areas to receive structural fill.
- o Structural Fill and Backfill: Excavated onsite soils or similar imported soils are considered suitable for use as fill and backfill. Structural fill and backfill should be placed and compacted in accordance with Appendix D.
- o Permanent Cut and Fill Slopes: Based upon the soils encountered in the test borings, it is our opinion that permanent cut and fill slopes around the lake perimeter be constructed with slope gradients of 2:1 (horizontal to vertical) or flatter.
- o Utility Trench Backfill: Buried utility conduits should be bedded and backfilled around the conduit in accordance with the project specifications. Where conduit underlies concrete slabs-on-grade and pavement, the remaining backfill above the pipe should be placed and compacted in accordance with Appendix D.

Spillway

An upstream concrete cut-off should be included in the spillway design. The spillway cut-off should extend at least 5 feet beyond the sidewalls and 3 feet below the bottom of the spillway. In addition, low permeability soils should be used as backfill behind a spillway which is not poured "neat" against the natural soils. Vertical cantilevered spillway walls poured "neat" or which support clay backfill should be designed using an equivalent fluid density of 100 pcf.

Plan Review

This report has been prepared to aid in the evaluation of the site and to assist the engineer in the design of the project. It is recommended that this office be provided the opportunity to review the final design drawings and specifications to determine if the recommendations of this report have properly implemented.

Observations and Testing During Construction

Following stripping, the lake bottom should be observed for the presence of very permeable soils at the surface or any unknown conditions which could cause excessive seepage losses. All fill and backfill should be placed and compacted under observation and testing by this office.

CLOSURE

The findings and recommendations of this report were prepared in accordance with generally accepted professional engineering principles and practice. We make no other warranty, either express or implied. The findings and recommendations are based on the results of the field and laboratory investigations, combined with an extrapolation of soils conditions between and beyond the boring locations. If conditions encountered during construction appear to be different from those shown by the borings, this office should be notified.

Respectfully submitted,

CONVERSE CONSULTANTS PASADENA

Ronald J. Payne

Ronald J. Payne
Senior Engineer

Reviewed and approved

Leonard T. Evans, Jr.

Leonard T. Evans, Jr., Ph.D.
Chief Engineer

RJP/LTE:86X

Encl: Drawing 1
Appendices A, B, C, and D

Dist: 5/Addressee

CHANNEL

HASKELL

EXISTING

PROPOSED INLET
ENERGY DISSIPATOR

PROPOSED
WATER SURFACE
682.0 TO 684.0

PROPOSED
ISLAND

PROPOSED LAKE
OUTLINE

PROPOSED
SPILLWAY

BURBANK
BLVD.



1" = 100'

BH-1

BH-2

BH-4

BH-3

BH-5

BH-6

BH-7

BH-8

LEGEND:
⊕ APPROXIMATE LOCATION OF EXPLORATION BORING
--- AREAS OF PROPOSED EXCAVATION

REFERENCE:
EXHIBIT A PLAN PREPARED BY H.M. SCOTT
& ASSOCIATES, DATED 5-16-85

LOCATION OF BORINGS

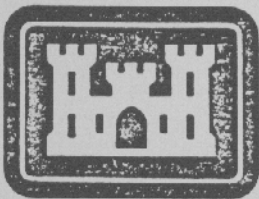
SEPUVEDA BASIN WILDLIFE AREA		Project No.	86-31-352-01
Los Angeles, California		Date	10/6/86
for: H.M. Scott & Associates		Drawn by	HS
Converse Consultants		Checked by	RJP
Specialized Engineering and Applied Sciences		Scale	1" = 100'
LTE			

ATTACHMENT K

Recreation Lake Sediment Analysis:
Lead and Pesticide Concentrations

Division Laboratory
Sausalito, California

SUPULVEDA BASIN
ANALYSIS OF SEDIMENTS



**US Army Corps
of Engineers**
South Pacific Division

FEBRUARY 1987

SUPULVEDA BASIN
ANALYSIS OF SEDIMENTS

FEBRUARY 1987

AUTHORIZATION

1. Results of tests reported herein were requested by DA Form 2544, E86-87-0028 from the San Francisco District.

PURPOSE

2. The purpose of this testing was to determine the amount of chemical constituents of sediments.

SAMPLES

3. Samples in plastic containers were received on 4 February 1987.

TEST METHODS

4. Test methods are as follows:
 - a. Chlorinated pesticides were run according to EPA 600/4-79-020, 1983.
 - b. Heavy metals were run according to EPA/CE-81-1.

TEST RESULTS

5. The attached table shows results of chemical analysis.
 - a. The lead content was far below toxic or action levels.
 - b. Chlorinated pesticides were not detected.
 - c. Analyses were run on sediments in duplicate as requested.

L.A. Sepulveda Basin Sediment Analysis

LAB No.	I.D. #	RUN 1 Pb mg/kg	RUN 2 Pb mg/kg	AVR. Pb mg/kg	RUN 1 Chl. Pesticides ug/kg	RUN 2 Chl. Pesticides ug/kg
87-54	# 1	5.0	5.1	5.05	<0.01	<0.01
87-55	# 2	4.8	4.8	4.8	<0.01	<0.01
87-56	# 3	5.4	4.7	5.05	<0.01	<0.01

DETECTION LIMITS:

Pb - 1.0 mg/kg

Chlorinated Pesticides - 0.01-0.25 ug/kg