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List of Tables and Figures:

I. BACKGROUND AND INTRODUCTION

The proposed El Capitan Golf Course is located along both the north and south sides of the San Diego River, west of the County's El Monte Park, and east of the community of Lakeside (see Figures 1 and 2). The property lies on both sides of the channelized San Diego River and is owned by the Helix Irrigation District. The property is essentially flat lying — consisting primarily of the historical flood plain of the river — and is generally bounded on the north by Willow Road and on the south by El Monte Road.

The Stephens' Kangaroo Rat (*Dipodomys stephensi*) is a small rodent characterized by excessively large hind feet and a saltatory (jumping) form of locomotion. Although unfortunately referred to as a "rat" they are evolutionarily far removed from that group of rodents and are much more closely aligned with the squirrels. Kangaroo Rats are endemic to the southwestern United States and several of the species (including the Stephens') are considered endangered. The Stephens' Kangaroo Rat was listed as Endangered under the Federal Endangered Species Act in 1988 (US Fish and Wildlife Service).

The distribution of the Stephens' Kangaroo Rat has historically been known to include significant portions of western Riverside County (west of the San Jacinto Mountains, east of the Santa Ana Mountains, and south of the Santa Ana River) and portions of extreme northeastern San Diego County (originally along the San Luis Rey River and through Fallbrook), and in the broad Valle de San Jose near Warner Springs. Populations originally known to occur along the San Luis Rey River (Lackey, 1967) are now thought to be extirpated, however, additional populations of the species have been found in the Cahuilla Reservation/Anza area in south-central Riverside County, and quite recently (1997), Stephen Montgomery suggested and Dr. Wayne Spencer identified an additional disjunct population of the species along the Santa Maria Creek, near the Ramona Airport. The discovery of this Ramona population has led to additional questions as to the potential occurrence of the species in the southern and central portions of San Diego County. It is in response to this discovery that the question as to the occurrence of the Stephens' Kangaroo Rat along the San Diego River was raised. In a general sense, many of the habitats on the proposed El Capitan Golf Course are consistent with the habitat requirements of the species. For this reason, and in an abundance of caution, it was deemed appropriate to conduct a survey for the species.

The Stephens' Kangaroo Rat is a species of heavily disturbed habitats. Colonies of the Stephens' are generally found on heavily grazed lands or on lands characterized by a paucity of vegetation. Work performed in western Riverside County has demonstrated a positive correlation between the degree to which a given property has been grazed by sheep, and the size of the extant Stephens' Kangaroo Rat colony (for example, the former Peloy Ranch, with densities approaching 160 animals per acre; RBRiggan and Associates, 1989). The Stephens' Kangaroo Rat does not appear to be a strong burrower although it is fossorial by nature. The Kangaroo Rat utilizes burrows initially dug by another species — the Valley Pocket Gopher (*Thomomys bottae*) or the California Ground Squirrel (*Spermophilus beecheyi*), for example. Abandoned burrows appear to be reopened, modified in ways that are not fully understood, and utilized by the Stephens' as "home."

Perhaps as a species' specific adaptation to the intra-generic, antagonistic nature of Kangaroo Rats in general, and in response to the fairly close proximity within which many Stephens' find themselves living, the species typically mark the burrow entrance with numerous scat (fecal pellets). The burrow of the Stephen's Kangaroo Rat may be characterized as:

- The burrow is typically ±2 inches in diameter.
- Generally the tunnel has a low angle of attack as it enters the ground (easier for a saltatory animal to negotiate).
- Typically has an activity zone around the mouth of the burrow where the vegetation has been removed and where frequently the field observer can find tracks assignable to the species.
- The activity zone and the burrow mouth will be ornamented with the pellets typical of the species.
- Typically there is a system of trails connecting burrows and burrows and dust baths. There will also be pellets scattered along the trails and in the dust baths.
- All of the above sign will be in an "open" vegetative context with little or no shrub cover and with significant openings (bare soil) between even the annual and perennial plants.

As has been pointed out in the literature (O'Farrell and Uptain, 1989) this combination of open exposed habitats with the characteristic burrow system ornamented with scat is a sufficient combination of parameters as to be diagnostic for the species. It is, therefore, possible to perform a pedestrian survey to ascertain the presence or absence of the species by focusing solely on the presence or absence of the typical scat ornamented burrow complex. A burrow complex generally associated with set paths or trails and typical utilize dust baths. A Stephens' Kangaroo Rat colony then will consist of a series of classically marked burrows, connected by a series of trails along with dust baths dispersed at appropriate distances. Both the dust baths and the trails will also be marked with scat.

II. METHODOLOGY

The El Capitan Golf Course site was surveyed over a period of three field days between 12 August and 26 August 1998. The total of 14½ person hours were expended in the field by the RBRiggan and Associates staff. The participating staff, Royce Riggan, Jr., and Lisa Seneca, have over 20-years and 9-years of experience respectively with surveys for the Stephens' Kangaroo Rat. The survey effort consisted of a field exercise focused onto habitats and areas which exhibited characteristics consistent with the habitat requirements of the species. For example, the San Diego River itself has been channelized through the proposed golf course property. The floor of the channel is heavily vegetated (with a closed canopy in most cases) and consists of a coarse gravelly entisol. This is a friable soil formation and is not conducive to burrowing by fossorial mammals. A brief examination

of the channel at several locations was sufficient to demonstrate that this area is not occupied by fossorial rodents, has in most cases a closed vegetation canopy (which is inconsistent with the habitat requirements of the Stephens' Kangaroo Rat) and which is not a habitat that would be utilized by the species. Accordingly, a minimal survey effort was devoted to the actual channel itself.

Other portions of the property have been in active agriculture in recent years and presently support a moderately dense to dense ruderal association. The plowing and discing normally associated with crops is inconsistent with the habitat requirements of the Kangaroo Rat and in fact, these mechanical activities are directly destructive of the species. Many fields within the bounds of the project exhibit fairly recent agricultural activity and support very small populations of other fossorial mammals (if any). These fields were examined to what is best referred to as "a point of diminishing returns." Any one given field was examined to a point at which additional field work produced minimal or no fossorial mammals and/or was sufficient to demonstrate a closed ruderal canopy. When a point of diminishing returns had been reached no additional field effort was expended on that given sub-component of the property and the observer(s) moved on.

Both to the north and south of the incised channel of the San Diego River, and generally in close proximity to the channel, are a number of topographic benches that appear to be older and which have apparently not been subject to agricultural utilization in recent years. Many of these benches support invasive, adventive shrubs (for example, California Buckwheat, *Eriogonum fasciculatum*) and occasionally have cryptogamic crusts on the soil surfaces. Typically, these benches support large numbers of fossorial rodents and in some cases as many as two or three active or inactive burrows can be seen per square meter. These benches represent the portion of the subject property that most closely matched the habitat requirements of the Stephens Kangaroo Rat and it was on these benches that the bulk of the field effort was expended.

When surveying, the observer walks a slow course focusing on active burrow entrances, active dust baths, and trails. The observer is most attentive to the presence of scat and all pellets found were collected. Put in a very simplistic way, the observer expends a fair amount of time on his or her hands and knees searching for rat droppings. It should be noted that there had been no rain in the survey area in the weeks immediately preceding the survey effort. Heavy rain would have the effect of burying or dispersing scat and could potentially influence the results of a survey. Additionally there was no sign of aestivation at any of the Kangaroo Rat burrows (or potential Kangaroo Rat burrows) that were found. During periods of extreme summer heat, fossorial rodents have a tenancy to physically close the burrow entrance and enter a physiological dormancy, a summer equivalent of hibernation. Despite high day time temperatures during the survey period there was no apparent sign of aestivation.

In order to ascertain location accurately, a Garmin 12XL Global Positioning System Receiver was utilized. Locations were taken frequently as a means of documenting the areas surveyed. Detailed field notes of the survey effort were taken and are part of the senior author's permanent Field Notebook. These notes are not included in this report but will be made available to appropriate individuals upon request.

III. RESULTS

No sign indicative of occupation of any portion of the property by the Federally designated Endangered Stephens' Kangaroo Rat (*Dipodomys stephensi)* was found during the course of the survey effort. A single area in the eastern portion of the site, does appear to support a dispersed colony of Kangaroo Rats (see Figure 2). As is discussed below, given the almost complete lack of scat and certain other considerations, it is assumed that this population is the Coastal Pacific Kangaroo Rat (*Dipodomys simulans*).

In that the scat are diagnostic of the species, all scat found during the course of the field effort were collected. A total of 13 pellets were recovered. It must be emphasized that ***all*** of the Kangaroo Rat-like pellets seen were collected — despite 14½-hours of intense effort, we were only able to find 13 pellets that even resembled those of Kangaroo Rats.

The 13 pellets approximated, in a very general way (in terms of color and size), the scat of the Stephens' Kangaroo Rat. Pellets associated with Valley Pocket Gopher, California Ground Squirrels, Brush Rabbits (*Sylvilagus* sp.), and Black-tailed Jackrabbits (*Lepus californicus*) are easily distinguished from *Dipodomys* scat in the field and were not retained. It should be reemphasized that a total of 13 scat were found and collected in a total of 14½ hours of field effort. Had a Stephens' Kangaroo Rat colony been found, that many scat could be easily picked up in twice as many seconds! Of the 13 scat, six were found in association with what is felt to be a colony of Kangaroo Rats of a different species, and seven were found scattered at random on other benches within the subject property. The mean length, mean diameter, and mean length to width ratio was determined for each of these two small populations of scat. These are compared in the following table with the mean length, mean diameter, and mean length to width ratio of scat collected from a known Stephens' Kangaroo Rat colony.

Location of Scat Collection	Mean Length	Mean Diameter	Mean Length to Width Ratio
Known Stephens' Kangaroo Rat Colony	6.08 mm	2.59 mm	2.37
Randomly Collected Pellets from the El Capitan Golf Course	4.75 mm	2.10 mm	2.28
Pellets Collected from Kangaroo Rat Colony within the Golf Course	5.79 mm	2.63 mm	2.25

As can be seen in an examination of the above table, the six scat collected as a random scatter across the property are on average considerably smaller than the scat characteristic of the Stephens' Kangaroo Rat. These scat probably represent the leavings of larger members of the genus *Peromyscus* (the Deer Mice) and do not represent Kangaroo Rats.

It should also be noted that the pellets recovered from the El Capitan Golf Course site did not exhibit the classic shape of pellets associated with *D. stephensi* (or for that matter, those of *D. simulans*). Typical K-rat pellets have a smooth, hard exterior (when relatively fresh) are essentially bilaterally symmetrical, and are slightly concave to one side. None of the 13-pellets found matched this description, although some fell within the general range of shapes normally associated with Kangaroo Rats.

The pellets labeled as being from a Kangaroo "colony" pose a slightly greater difficulty of interpretation. In San Diego County west of the mountains (the Cuyamacas and the Lagunas) conventional wisdom holds that there is generally a single Kangaroo Rat species — the Coastal Pacific (*D. simulans*) — with the exception of the known Stephens' colonies in the extreme northwestern part of the county (see Bond, 1977, Hall and Kelson, 1959) and now in the vicinity of Ramona. In that the sign present is certainly not consistent with Stephens', and since there are no other known *Dipodomys* species in this part of the county except *D. simulans*, it is assumed that the loose, open colony is that of a group of Coastal Pacific Kangaroo Rats.

The area of apparent Kangaroo Rat occupation is a widely dispersed colony found in the extreme eastern part of the golf course project (see Figure 2). The center of this occupied area is located at:32° 52.848' and 116°51.980'. This area consists of a bench immediately above the incised channel of the river. The bench is presently occupied by a ruderal association consisting of non-native adventive weed species. This ruderal association is composed largely of wild mustards and is four to six feet in height. At the time of the survey, the dried plants formed a closed canopy, a canopy that would have been far denser during the spring and summer of the year. A series of well-used dirt truck trails cross this vegetative association. It is in these truck trails that the majority of burrows were found. Vehicles are actively utilizing this area in order to maintain a small truck farm and in order to service a small herd of cattle free roaming in this part of the property. Burrows observed were generally open and active, at a low angle of attack as they enter the ground, had a large cleared activity area associated with them, and numerous Kangaroo Rat tracks were clearly observed in the extremely soft powdery soil around the burrows. A total of seven scat were collected from the burrows in this complex. The number of scat is a minute fraction of what one would expect had this been a Stephens' colony. In addition (as can be seen in the above table) the length of the scat is less than what one would expect from a normal series of *stephensi* pellets (although this may not be statistically significant). Clearly there is a dispersed Kangaroo Rat colony at this location, but based on the lack of scat and other considerations, it is believed they are not *D. stephensi*, but instead are *D. simulans*, the Coastal Pacific Kangaroo Rat.

The conclusion that this colony is *D. simulans* is also supported by two other threads of evidence. There are habitats within the bounds of the project that strongly resemble the normal habitat of *D.*

stephensi — flat lying benches with scattered shrubs, large open expanses of soil and limited cover by forbs and grasses. These areas were closely examined for Kangaroo Rat sign and none was found, no burrows, tracks or scat. If *stephensi* was present on the property, the greatest potential for occurrence would be in these habitats. Additionally, there is no apparent corridor for the movement of *D. stephensi* from known populations in the central and northern parts of the County to the San Diego River in the vicinity of El Monte. Recalling that the *stephensi* is an animal of open (not closed habitats) — the San Diego River itself occupies a chaparral covered course that swings well to the east of Ramona. Between the headwaters of the River and potential source populations in the Warner Springs area there are also extensive blocks of chaparral. The foothills between the El Monte area and Ramona are similarly occupied by extensive stands of chaparral.

IV. RECOMMENDATIONS

Given a complete lack of diagnostic sign indicative of the presence of Stephens Kangaroo Rats, it is believed that the proposed El Capitan Golf Course site does not represent occupied habitat. Lacking any diagnostic sign indicative of the presence of the Stephens Kangaroo Rat trapping does not appear to be warranted and no additional field work appears appropriate.

However, following completion of the initial version of this report, conversations were had with both Dr. Wayne Spencer at Ogden Environmental Services and with Mr. Art Davenport of the Fish and Wildlife Service. While both Dr. Spencer and Mr. Davenport concur that, in all probability the Stephens' Kangaroo Rat is not present at the El Capitan Golf Course site, there never-the-less remains a small probability that the sign seen represents a perhaps aberrant expression of the species. Were this to be the case, the only conclusive way of determining the species of the Kangaroo Rats at the one known colony would be through a trapping program. It order to conclusively state the species of the individuals at the one known colony site, with a zero potential for error, it will be necessary to trap a small number of the Kangaroo Rats and examine them individually.

V. CERTIFICATION

This report presents the results of an intense ground survey for sign indicative of the endangered Stephens' Kangaroo Rat. This document summarizes the results of an original field survey and independent analysis. Any errors or omissions are solely the responsibility of the author.

Royce B. Riggan, Jr., AICP
Consulting Biologist
Principal

619-233-5454
rbriggan@compuserve.com

RBRiggan and Associates
11228 Zapata Avenue
San Diego, California 92126

RBR Job Number 1704.21A
28 August 1998
Revised 16 September 1998

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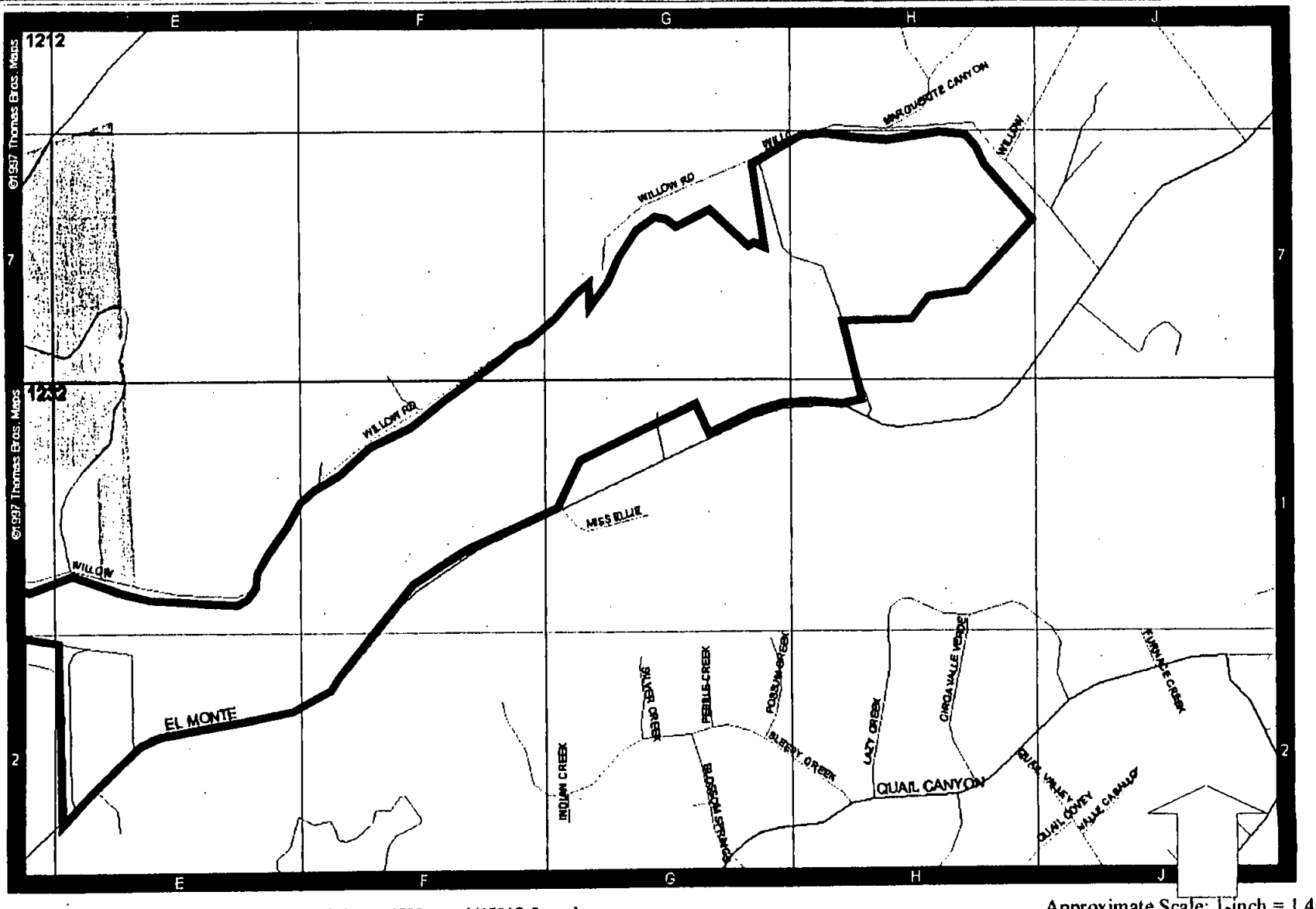
Price, Mary V., et al. 1994. Managing habitat for the endangered Stephens' Kangaroo Rat (*Dipodomys stephensi*): Effects of shrub removal. Am. Midl. Nat. 131:9-16.



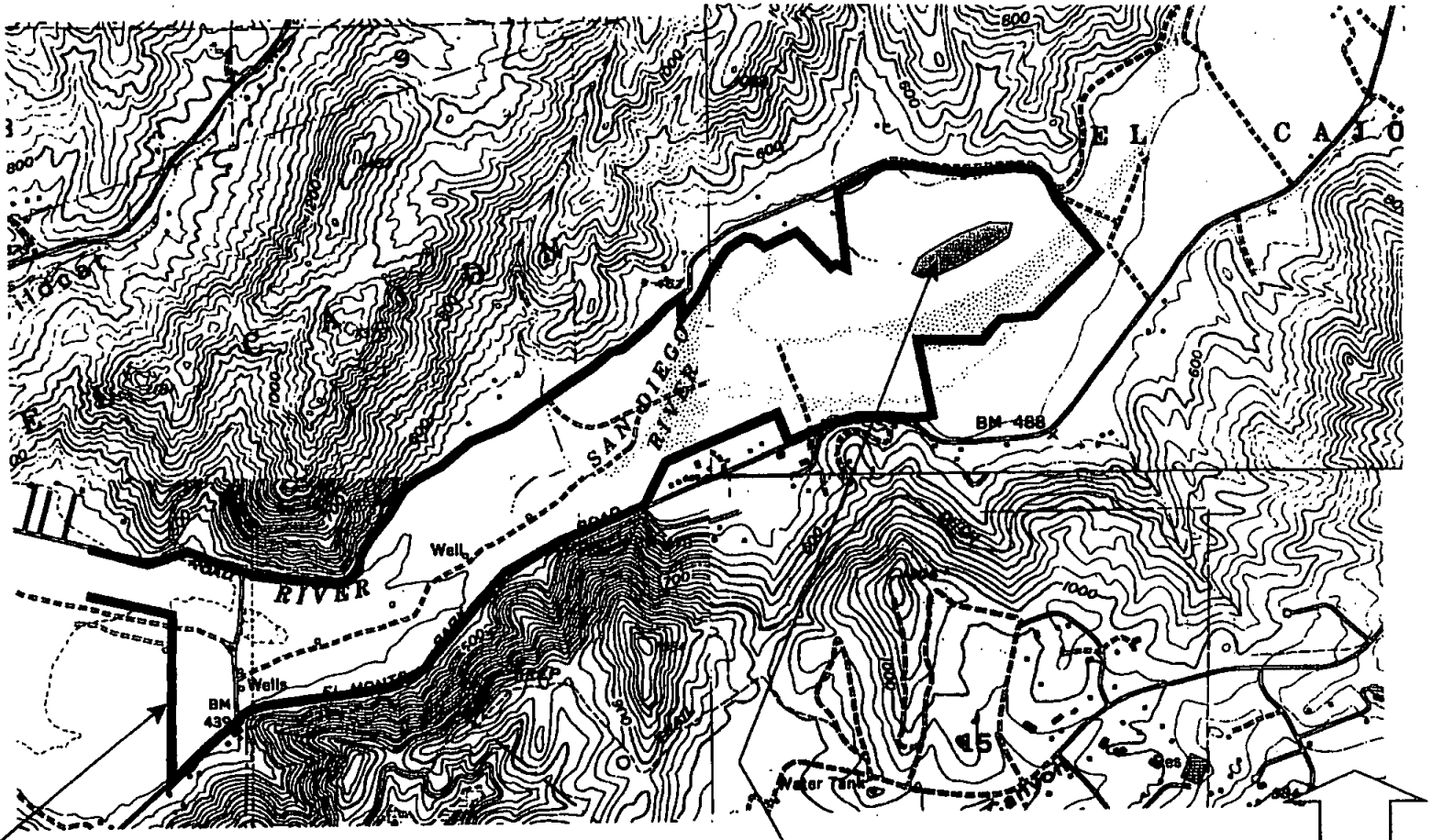
RBRiggan and Associates Job Number 1704.21A 21 August 1998 [:\1704fig2.wpg]

Approximate Scale: 1-inch = 1,400-feet

RBRiggan and Associates

Location of the Proposed El Capitan Golf Course on a Thomas Brothers Base Map
[map © Thomas Bros Maps]

Figure 1



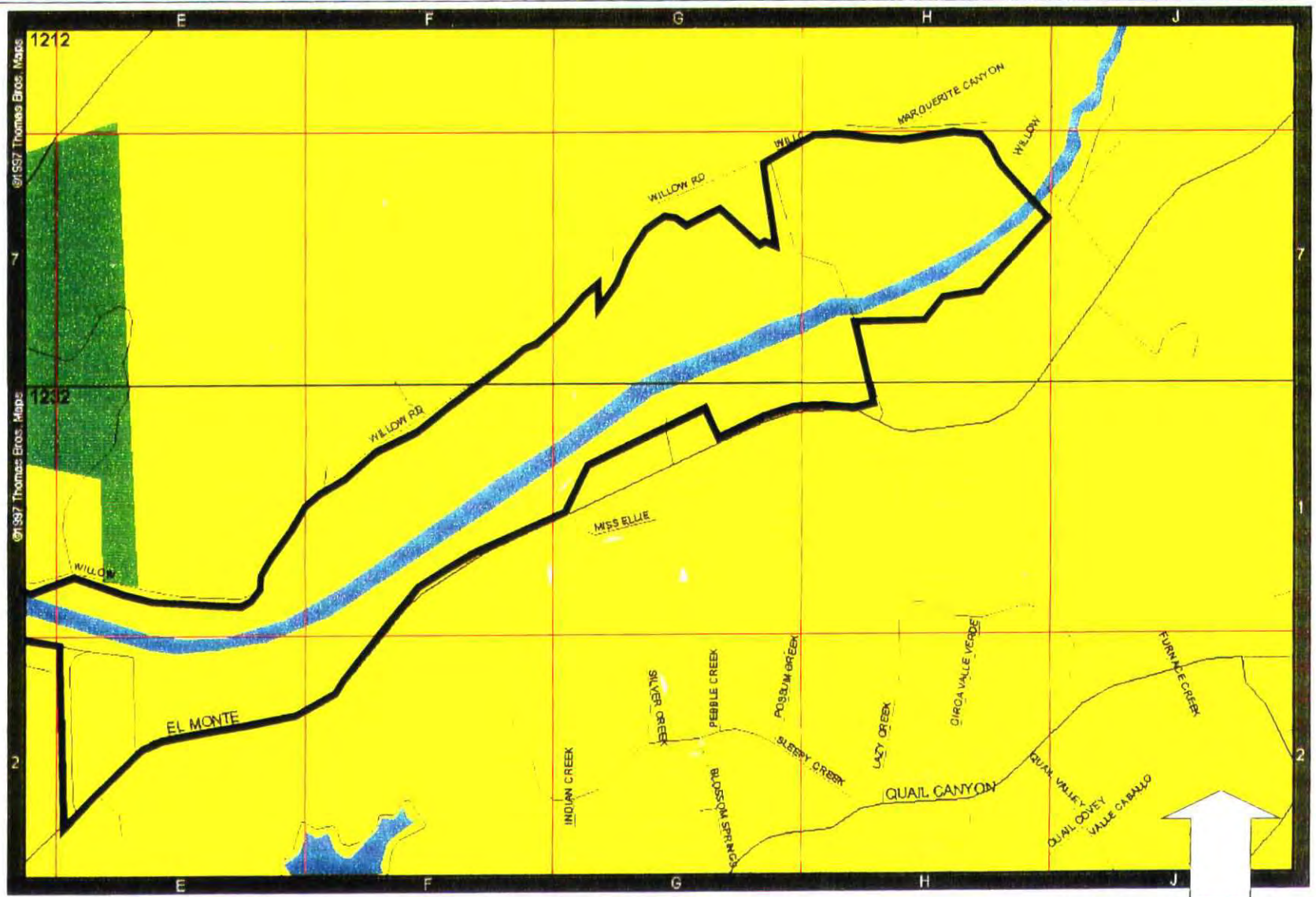
[:\1704fig2.wpg]

RBRiggan and Associates Job Number 1704.21A 29 August 1998

RBRiggan and Associates

Location of the Proposed El Capitan Golf Course on a Scanned Composite taken from the U.S.G.S. Alpine, El Cajon, El Cajon Mountain and San Vicente Reservoir 7½-minute Quadrangle Maps

Figure 2



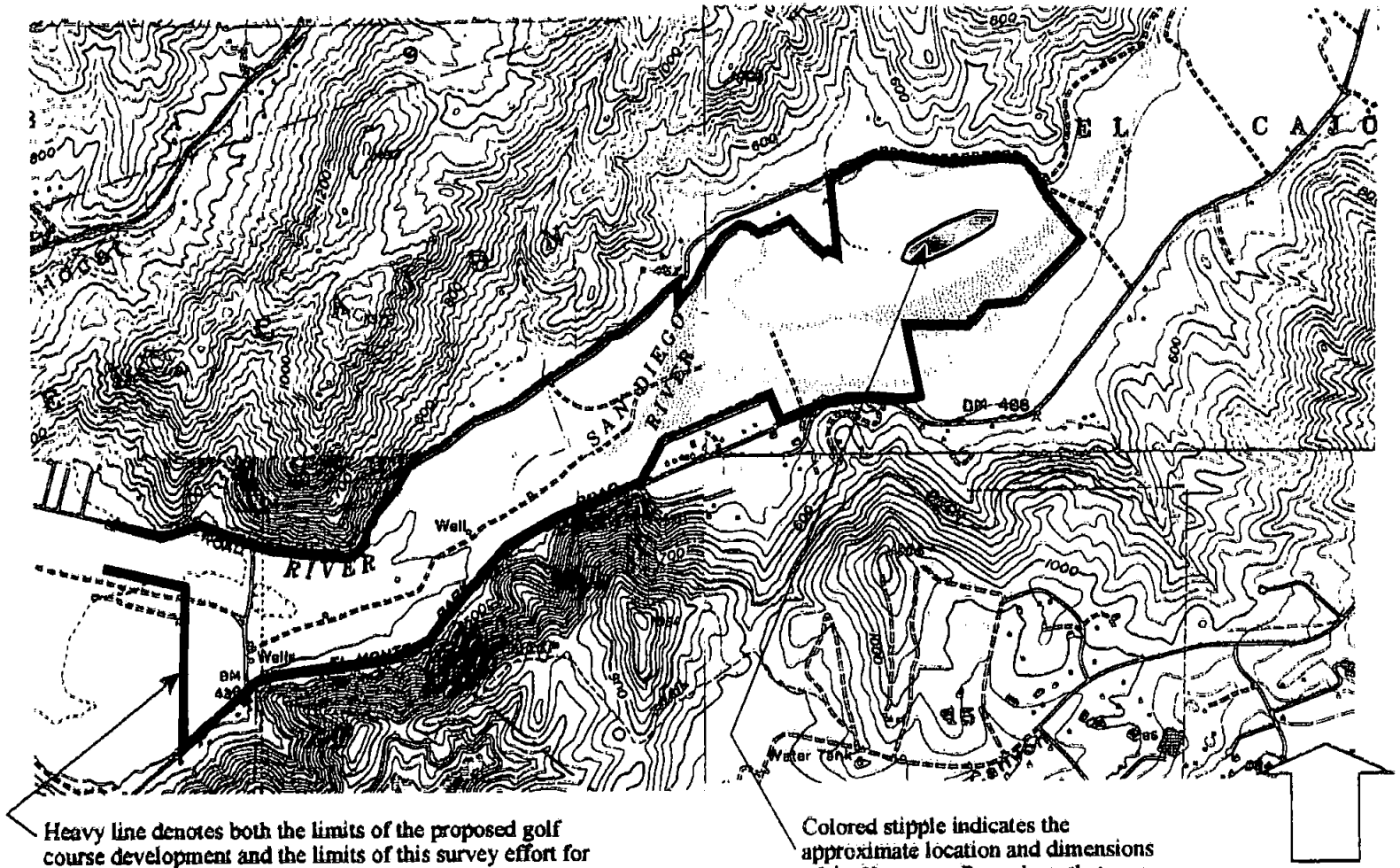
RBRiggan and Associates Job Number 1704.21A 21 August 1998 [:\1704fig2.wpg]

Approximate Scale: 1-inch = 1,400-feet

RBRiggan and Associates

Location of the Proposed El Capitan Golf Course on a Thomas Brothers Base Map
[map © Thomas Bros Maps]

Figure 1



RBRiggan and Associates Job Number 1704.21A 29 August 1998 [:\1704fig2.wpg]

RBRiggan and Associates	Location of the Proposed El Capitan Golf Course on a Scanned Composite taken from the U.S.G.S. Alpine, El Cajon, El Cajon Mountain and San Vicente Reservoir 7½-minute Quadrangle Maps	Figure 2

El Capitan Golf Course

Final
Environmental Impact Report

May 20, 1999

SCH Number 96091016

PREPARED FOR:
Helix Water District
7811 University Avenue
La Mesa, CA 91941

Attn: Mr. Larry Campbell

PREPARED BY:
EnviroMINE
3511 Camino Del Rio South, #403
San Diego, CA 92108

FINAL

99 0 0 0 ...

Gregory J. Smith, Recorder/County Clerk

JUN 17 1999

NOTICE OF DETERMINATION

TO: ___ Clerk of the Board of Supervisors
or
_X_ County Clerk
County of:
San Diego

FROM: Helix Water District
7811 University Avenue
La Mesa, CA 91941-4927

___ Office of Planning and Research (If the project requires state approval)
1400 Tenth Street
Sacramento, CA 95814

SUBJECT: Filing of Notice of Determination in Compliance with Section 21152 of the Public Resources Code.

El Capitan Golf Course, WO 2505
Project Title

96091016 — State Clearinghouse Number (If submitted to Clearinghouse)
Antero Rivasplata — Contact Person
(916) 445-0613 — Telephone Number

Site is in the community of Lakeside, County of San Diego. App 1/2 mile east of the intersection of Lake Jennings Park Rd. & El Monte Rd.
Project Location (Include County)

Construct 2 36-hole golf courses, a 9-hole practice facility driving range, club house, & maintenance facility on approx. 500 acres. Project includes 1 all-weather bridge, 4 golf cart paths, and 1 equestrian trail across the San Diego River.
Project Description

This is to certify that the Helix Water District
(Lead Agency ~~or Responsible Agency~~)
approved the above described project on 6-16-99 and made the following determinations:

1. The project ___ will _X_ will not have a significant effect on the environment.
2. _X_ An Environmental Impact Report was prepared and certified for this project pursuant to the provisions of CEQA and reflects the independent judgment of the Lead Agency.
   ___ A Negative Declaration was prepared for this project pursuant to the provisions of CEQA and reflects the independent judgment of the Lead Agency.
   ___ A Mitigated Negative Declaration was prepared for this project pursuant to the provisions of CEQA and reflects the independent judgment of the Lead Agency.
3. Mitigation measures _X_ were ___ were not made a condition of the approval of the project.
4. A Statement of Overriding Considerations ___ was _X_ was not adopted for this project.
5. Findings _X_ were ___ were not made pursuant to the provisions of CEQA.
6. The location and custodian of the documents which comprise the record of proceedings for the Final EIR (with comments and responses) or Negative Declaration are specified as follows: Custodian: Helix Water District
   Location: 7811 University Avenue, La Mesa, CA 91941-4927

6/16/99
Date

Mark S. Weston
Signature Mark S. Weston

Date Received for Filing

Title Director of Engineering

DIST/1998/RVPUB/32071

FORM "F"

FILED IN THE OFFICE OF THE COUNTY CLERK
SAN DIEGO COUNTY ON JUN 17 1999
POSTED JUN 17 1999 REMOVED JUL 19 1999
RETURNED TO AGENCY ON JUL 19 1999
DEPUTY

HELIX WATE[illegible] STRICT
Setting standards of excel[illegible] in public service
June 10, 1999

MEMORANDUM

TO: Donald J. Kuhl, General Manager

FROM: Mark S. Weston, Director of Engineering

INITIATED BY: Larry Campbell, SR/WA, Senior Right of Way Agent

SUBJECT: Certification of the El Capitan Golf Course EIR

RECOMMENDATIONS

After consideration of comments made at the public hearings held on November 18, and December 7, 1998, written comments received, and the responses to written comments, the Board is requested to:

1. **ADOPT:** RESOLUTION 99-39 OF THE BOARD OF DIRECTORS OF HELIX WATER DISTRICT CERTIFYING AN ENVIRONMENTAL IMPACT REPORT ON THE EL CAPITAN GOLF COURSE PROJECT, ADOPTING FINDINGS AND MITIGATION MONITORING PROGRAM IN CONNECTION THEREWITH AND APPROVING THE CONCEPTUAL PLAN FOR THIS PROJECT.

BACKGROUND

1. At its May 26, 1999, meeting, the Board was asked by the Lakeside Community Planning Group to postpone certifying the Final EIR for 30 days, so that they would be able to review our responses to their comments. The Board established June 16, 1999, as the date to certify the Final EIR.

   The Lakeside Community Planning Group met on June 2, 1999 to discuss the Final EIR, and review the responses to comments. After a brief discussion, the Planning Group voted to recommend certifying the Final EIR, subject to one (1) revision.

   The revision is indicated on the errata sheet that will become a part of the Final EIR.

2. At its October 21, 1998, meeting, the Board established November 18, 1998, as the date for a public hearing, and the last date to comment on the Draft EIR.

JUN 16 1999 6

RESOLUTION NO. 99-39 OF THE BOARD OF DIRECTORS OF HELIX WATER DISTRICT CERTIFYING AN ENVIRONMENTAL IMPACT REPORT ON THE EL CAPITAN GOLF COURSE PROJECT, ADOPTING FINDINGS AND A MITIGATION MONITORING PROGRAM IN CONNECTION THEREWITH AND APPROVING A CONCEPTUAL PLAN FOR THE PROJECT

WHEREAS, on January 1, 1997 Helix Water District ("District") entered into a lease with El Monte Canyon, L.L.C. ("Applicant") for the design, construction, operation, and management of a golf course (the "Project") on certain real property owned by the District in the San Diego River Basin, northeasterly of Lakeside, California; and

WHEREAS, the lease requires that the Applicant submit a Conceptual Plan to the District for the District's consideration and approval; and

WHEREAS, the project requires discretionary approvals by several Responsible Agencies, including the County of San Diego, the California Department of Fish & Game, and the Army Corps of Engineers; and

WHEREAS, acting as lead agency, the District caused to be prepared and circulated a Draft Environmental Impact Report ("DEIR") in accordance with the provisions of the California Environmental Quality Act; and

WHEREAS, at public hearings held on November 18, 1998 and December 7, 1998, the District solicited public comment on the DEIR; and

WHEREAS, the DEIR was revised to reflect comments received during the public review period and was reformatted to include the comments and responses thereto as a Final Environmental Impact Report ("FEIR"); and

WHEREAS, consistent with the requirements of Pubic Resources Code Section 21081.6(a) and State CEQA Guidelines Section 15091(d), the District prepared a Mitigation Monitoring Program ("MMP") for reporting and monitoring the mitigation measures contained in the DEIR to ensure compliance with the mitigation measures during project implementation; and

WHEREAS, on May 26, 1999, the District's Board of Directors held a duly advertised public hearing on the Project; and

WHEREAS, the District Board considered the Staff Report, the Final Environmental Impact Report, all recommendations by staff, and public testimony.

NOW, THEREFORE, BE IT RESOLVED, DETERMINED AND ORDERED by the Board of Directors of the Helix Water District, after considering the evidence presented at the public hearing, as follows:

1. That the Board of Directors hereby certifies that the FEIR attached hereto as Exhibit A and incorporated herein by this reference has been completed in compliance with the California Environmental Quality Act, and that the FEIR has been presented to the Board of Directors, and that the Board of Directors has reviewed and considered the information contained in the FEIR prior to approving the Project. The FEIR reflects the Board's independent judgment and analysis.

2. That the Board hereby adopts and approves (1) those certain Findings of Fact for the El Capitan Golf Course Project attached hereto as Exhibit B and incorporated herein by this reference and (2) that certain Mitigation Monitoring Program attached hereto as Exhibit C and incorporated herein by this reference.

3. That the Board hereby approves the Conceptual Golf Course Plan attached hereto as Exhibit D and incorporated herein by this reference.

PASSED, ADOPTED, AND APPROVED this 16th day of June 1999, by the following vote:

Ayes: Directors Barbara J. Barber, Lillian M. Childs, James J. Lewanski, Harold W. Ball, and H. Warren Buckner

Noes: None

Absent: None

Attest:

Sarah M. Arnold
Assistant Secretary

Barbara J. Barber
President

Helix Water District

Setting standards of excellence in public service

7811 University Avenue
La Mesa, CA 91941-492
(619) 466-058
FAX (619) 466-182

Certification

I, Sarah M. Arnold, Assistant Secretary of the Helix Water District, do hereby certify the foregoing to be a true and exact copy of Resolution No. 99-39 of said Water District passed and adopted at the date and by the vote set forth.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the official seal of said Water District this 17th day of June, 1999.

Sarah M. Arnold

Sarah M. Arnold, Assistant Secretary

Errata Sheet

Helix Water District
Final Environmental Impact Report
for the
El Capitan Golf Course Project

Helix Water District Work Order Number: W.O. 2505

State Clearing House Number: 96091016

The following discussion identifies changes made to the Final Environmental Impact Report (FEIR) for the proposed El Capitan Golf Course project. FEIR text in section 19.2 Response to Comments, shall be changed

from:

19.2. Project-related increases of traffic on El Monte Road are not considered to be a significant impact. Therefore, the project ~~is not~~ required to make improvements to El Monte Road to address increased traffic volume.

to:

19.2. Project-related increases of traffic on El Monte Road are not considered to be a significant impact. Therefore, it is not anticipated that the project would be required to make improvements to El Monte Road to address increased traffic volume.

FEIR text in section 19.13 Response, to Comments, shall be changed

from:

19.13. Project-related increases of traffic on El Monte Road are not considered to be a significant impact. Therefore, the project ~~is not~~ required to make improvements to El Monte Road.

to:

19.13. Project-related increases of traffic on El Monte Road are not considered to be a significant impact. Therefore, it is not anticipated that the project would be required to make improvements to El Monte Road.

EXHIBIT "B"

FINDINGS OF FACT FOR THE EL CAPITAN GOLF COURSE PROJECT FINAL ENVIRONMENTAL IMPACT REPORT

I.
INTRODUCTION

The Final EIR prepared on this project addresses the potential environmental effects of a Golf Course as implemented through (1) Helix Water District's approval of a ground lease and Conceptual Golf Course Plan, (2) the County of San Diego's approval of a Major Use Permit and Grading Permit, (3) the California Department of Fish and Game's approval of a Streambed Alteration Agreement, and (4) the U.S. Army Corps of Engineer's approval of a Section 404 Nationwide Permit, hereinafter referred to collectively as the "Project". In the course of preparing the Draft EIR, it became clear that the proposed project would result in several potentially significant impacts. In response to these potential impacts, Helix Water District (the "District") and El Monte Canyon, L.L.C. (the "Applicant") worked together to generate a series of mitigation measures and project revisions which would reduce and/or avoid these impacts. The Applicant has in fact chosen to implement each of these mitigation measures and project revisions as discussed below.

After hearing public testimony on the DEIR and a thorough review of comments submitted on the application and the DEIR the District's Board of Directors adopted project revisions and mitigation measures set forth in the Final EIR intended to further mitigate the potentially significant impacts identified in the DEIR.

II.
DEFINITIONS

"Applicant" means El Monte Canyon, L.L.C., the lessee of the El Capitan Golf Course site.

"Approved Project" means the El Capitan Golf Course project described in the Draft EIR and the Final EIR with additional modifications intended to further mitigate the potentially significant impacts identified in the DEIR.

"CDFG" means the California Department of Fish and Game.

"CEQA" means the California Environmental Quality Act, Public Resources Code Sections 21000-21178.1.

"CEQA Guidelines" means the State of California Guidelines for Implementation of the California Environmental Quality Act, Cal. Code Regs. tit. 14 §§ 15000-15387.

"District" means the Helix Water District.

"Board" means the Helix Water District Board of Directors.

"Draft EIR" means the Draft Environmental Impact Report for the El Capitan Golf Course project, the lease between the District and the Applicant, the Conceptual Golf Course Plan, the Major Use Permit, Grading Permit, the Streambed Alteration Agreement, and the Section 404 Nationwide Permit.

"EIR" means an environmental impact report.

"Final EIR" means the Final Environmental Impact Report for the El Capitan Golf Course project and other related actions. (May 1999.)

"Local Guidelines" means the Helix Water District Local Guidelines for Implementing the California Environmental Quality Act.

"MMP" means the Mitigation Monitoring and Reporting Program.

"NCCP" means the Joint Water Agency Habitat Conservation Plan/Natural Communities Conservation Plan and Helix Water District's Subarea Plan adopted in connection with the NCCP, which focuses on biological resource planning for the southwestern quarter of San Diego County.

"Project" means the El Capitan Golf Course project described in the Draft EIR and the Final EIR.

"USACOE" means the U.S. Army Corps of Engineers.

"USFWS" means the U.S. Fish and Wildlife Service.

III.
PROJECT DESCRIPTION

The project site is located in southwestern San Diego County, California immediately east of the community of Lakeside. The project site is generally aligned along both sides of the San Diego River, beginning approximately one-half mile east of the intersection of Lake Jennings Park Road and El Monte Road and extending for a distance of approximately two miles to the east along El Monte Road.

The Project includes approval of a golf course master plan on land leased from the District. The 481-acre project includes construction of two 18-hole public golf courses, a 9-hole practice facility, driving range, club house, and maintenance facilities. The lease runs for 50 years from the date of issuance and would require construction and maintenance of the golf facility as described in the lease document. Also included in the proposal is the construction of access roads, a roadway bridge across the San Diego River channel, and construction of approximately four cart bridges for cross channel access to various playing areas on the golf course.

Discretionary Actions

The discretionary actions which will or may in the future be taken by the decision makers in approving this Project and which are covered by this Final EIR include:

1. Helix Water District's approval of a Conceptual Golf Course Plan.

2. San Diego County's approval of a Major Use Permit.

3. CDFG's approval of a Streambed Alteration Agreement.

4. USACOE's approval of a Section 404 Nationwide Permit.

IV.
RECORD OF PROCEEDINGS

For purposes of CEQA and these Findings, the Record of Proceedings for the Project consists of the following documents, at a minimum:

- The Notice of Preparation and all other public notices issued by the District in conjunction with the Project;
- The Draft EIR;
- The Final EIR;
- All comments submitted by agencies or members of the public during the public comment period on the Draft EIR;
- All comments and correspondence submitted to the District with respect to the Project, in addition to timely comments on the Draft EIR;
- The MMP;
- All findings and resolutions adopted by the District Board in connection with the Project, and all documents cited or referred to therein;
- All final reports, studies, memoranda, maps, staff reports, or other planning documents relating to the Project prepared by the District, consultants to the District, or responsible or trustee agencies with respect to the District's compliance with the requirements of CEQA and with respect to the District's actions on the Project;
- All documents submitted to the District by other public agencies or members of the public in connection with the Project, up through the close of the public hearing;

- Minutes and/or verbatim transcripts of all information sessions, public meetings, and public hearings held by the District in connection with the Project;
- Any documentary or other evidence submitted to the District at such information sessions, public meetings, and public hearings;
- Matters of common knowledge to the District, including, but not limited to federal, state, and local laws and regulations;
- Any documents expressly cited in these Findings, in addition to those cited above; and
- Any other materials required to be in the record of proceedings by Section 21167.6 (e) of CEQA.

The custodian of the documents comprising the record of proceedings is the District Secretary, whose office is located at 7811 University Avenue, La Mesa, California. Copies of all these documents, which constitute the record of proceedings upon which the District's decision is based, are and at all relevant times have been available upon request at all times at the offices of the District, the custodian for such documents or other materials.

The District Board has relied on all of the documents listed above in reaching its decision on the project approval, even if not every document was formally presented to the District Board or District Staff as part of the District files generated in connection with the Project. Without exception, any documents set forth above not found in the Project files fall into one of two categories. First, many of them reflect the NCCP and other prior planning or legislative decisions of which the District Board was aware in approving the Project. (See District of Santa Cruz v. Local Agency Formation Commission 76 Cal.App.3d 381, 391-392, 142 Cal.Rptr. 873 (1978); Dominey v. Department of Personnel Administration, 205 Cal.App.3d 729, 738, n.6, 252 Cal.Rptr. 620 (1988).) Second, other of the documents influenced the expert advice provided to District Staff or consultants, who then provided advice to the District. For that reason, such documents form part of the underlying factual basis for the District's decisions relating to the adoption of Project. (See Pub. Res. Code § 21167.6(e)(10); Browning-Ferris Industries v. District Board of District of San Jose, 181 Cal.App.3d 852, 866, 226 Cal.Rptr. 575 (1986); Stanislaus Audubon Society, Inc. v. County of Stanislaus, 33 Cal.App.4th 144, 153, 155, 39 Cal.Rptr.2d 54 (1985).)

The Final EIR was completed in compliance with CEQA, and reflects the District's independent judgment. The District Board believes that its decision on the Project is one which must be made after a hearing required by law at which evidence is required and discretion in the determination of facts is vested in the District. As a result, any judicial review of the District's decision will be governed by Section 21168 of CEQA and Code of Civil Procedure Section 1094.5. Regardless of the standard of review which is applicable, the District Board has considered evidence and arguments presented to the District prior to or at the public hearings on this matter. In determining whether the Project has a significant impact on the environment, and in adopting Findings pursuant to Section 21081 of CEQA, the District Board has complied with CEQA Sections 21081.5 and 21082.2.

V.
FINDINGS REQUIRED UNDER CEQA

Section 21002 of CEQA provides that "public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would *substantially lessen* the significant environmental effects of such projects[.]" (Pub. Res. Code § 21002 (emphasis added).) The same statute states that the procedures required by CEQA "are intended to assist public agencies in systematically identifying both the significant effects of proposed projects and the feasible alternatives or feasible mitigation measures which will *avoid* or *substantially lessen* such significant effects." (Id. (emphasis added).)

The mandate and principles announced in Public Resources Code Section 21002 are implemented, in part, through the requirement that agencies must adopt findings before approving projects for which EIRs are required. (See Pub. Res. Code § 21081(a); Cal. Code Regs. tit. 14 § 15091(a).) For each significant environmental effect identified in any EIR for a proposed project, the approving agency must issue a written finding reaching one or more of three permissible conclusions:

- The first such finding is that "[c]hanges or alterations have been required in, or incorporated into, the projects which avoid or substantially lessen the significant environmental effect as identified in the final EIR." (Cal. Code Regs. tit. 14 § 15091(a)(1).)

- The second permissible finding is that "[s]uch changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency." (Cal. Code Regs. tit. 14 § 15091(a)(2).)

- The third potential conclusion is that "[s]pecific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the final EIR." (CEQA Guidelines, § 15091(a)(3).) Public Resources Code Section 21061.1 defines "feasible" to mean "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social and technological factors." CEQA Guidelines Section 15364 adds another factor: "legal" considerations. (See also Citizens of Goleta Valley v. Board of Supervisors ("Goleta II"), 52 Cal.3d 553, 565, 276 Cal.Rptr. 410 (1990).)

As explained in full below, the District can make the first finding with regard to all impacts identified as potentially significant in the DEIR. The CEQA Guidelines do not define the difference between "avoiding" a significant environmental effect and merely "substantially lessening" such an effect. The District must therefore glean the meaning of these terms from the other contexts in which the terms are used. Section 21081 of CEQA, on which CEQA Guidelines Section 15091 is based, uses the term "mitigate" rather than "substantially lessen." The CEQA Guidelines therefore equate "mitigating" with "substantially lessening." Such an understanding of the statutory term is consistent with the policies underlying CEQA, which include the policy that "public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects." (Pub. Res. Code § 21002.) For purposes of these Findings, the term "avoid" refers to the

effectiveness of one or more mitigation measures to reduce an otherwise significant effect to a less than significant level.

Moreover, although Section 15091, read literally, does not require findings to address environmental effects that an EIR identifies as merely "potentially significant," these Findings will nevertheless fully account for all such effects identified in the Final EIR. In short, CEQA requires that the lead agency adopt mitigation measures or alternatives, where feasible, to substantially lessen or avoid significant environmental impacts that would otherwise occur.

VI.
LEGAL EFFECTS OF FINDINGS

To the extent that these Findings conclude that various proposed mitigation measures outlined in the Final EIR are feasible and have not been modified, superseded or withdrawn, the District hereby binds itself to implement these measures. These Findings, in other words, are not merely informational, but rather constitute a binding set of obligations that will come into effect when District decisionmakers formally approve the Project.

The mitigation measures are referenced in the MMP adopted concurrently with these Findings, and will be effectuated through the process of constructing and implementing the Project.

VII.
MITIGATION MONITORING AND REPORTING PROGRAM

CEQA requires the lead agency approving a project to adopt a MMP for the changes to the project which it has adopted or made a condition of project approval in order to ensure compliance with project implementation. A MMP has been prepared and serves that function for the Final EIR.

The MMP designates responsibility and anticipated timing for the implementation of mitigation. The District will serve as the overall MMP Coordinator, unless another responsible Agency subsequently assumes that responsibility.

A MMP has been prepared for the Project and has been adopted concurrently with these Findings. (See Pub. Res. Code § 21081.6(a)(1).) The District will use the MMP to track compliance with Project mitigation measures. The MMP will remain available for public review during the compliance period.

VIII.
IMPACTS DETERMINED TO BE LESS THAN SIGNIFICANT

The following impacts were studied in the EIR, but were determined to be less than significant, either directly or cumulatively, without mitigation in the preparation of the EIR and the Final EIR:

- Impacts on the feasibility of recovering sand resources at a future date;
- Impacts on prime agricultural soils and important farmlands;
- Impacts on residential uses/existing structures;
- Displacement of existing equestrian uses;[1]
- Traffic increases on Julian Avenue and Lake Jennings Park Road;
- Traffic increases at the SR67/Mapleview Street intersection;
- Traffic increases at the Lake Jennings Park Road/El Monte Road intersection; and
- Impacts on the least Bell's vireo, the Arroyo Toad, the Willow Flycatcher, and the Stephens' Kangaroo Rat.

The District Board hereby makes this same determination that the foregoing impacts will be less than significant based on the conclusions in the Final EIR.

IX.
SIGNIFICANT EFFECTS, MITIGATION MEASURES AND FINDINGS OF FACT

The Final EIR discusses several impacts that are potentially significant and identifies project revisions and mitigation measures that mitigate these impacts to a level of non-significance. The District Board hereby adopts these same conclusions. A discussion of these potentially significant impacts and the project revisions and mitigation measures that mitigate them to a level of non-significance follows.

The Applicant/Lessee shall be responsible at all times for ensuring compliance with all project conditions based on the approved Project. The Applicant shall be responsible for paying all applicable fees, completing all project conditions and mitigation measures, and installing all major infrastructure and facilities improvements. The Applicant shall not be released from any of the project conditions or mitigation measures unless a successor in interest or assign executes an assignment and assumption agreement assuming the responsibility to perform such project conditions or mitigation measures in a form acceptable to the District.

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[1] An equestrian trail system has been incorporated into the project design.

A. LAND USE

Significant Project Impact: Two properties are adjacent to the maintenance facility. Due to proposed setbacks, walls, landscaping and proposed architectural design, the land use impacts would be limited but could still potentially be significant. Further, the start-up operations for the golf course would typically begin at approximately ½ hour prior to sunrise. Activity associated with motorized golf course maintenance equipment, golf carts, and mowers would produce noise as operations begin in the morning. If outdoor lighting is used to illuminate work areas around the maintenance yard before dawn and after dusk, substantial light and glare could affect adjacent residences. These operations could result in substantial conflicts with nearby residences. This is a significant land use impact.

Finding: Pursuant to CEQA Section 21081(a)(1), CEQA Guidelines Section 15091(a)(1) and Local Guidelines Section 4.8-7(Y), changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the significant environmental effects identified in the Final EIR to below a level of significance.

Facts in Support of Finding: The following mitigation measures set forth in Section 2.1.4 of the EIR are feasible, are required as a condition of approval, and are made binding on the Applicant through these Findings:

- Mitigation Measure (A)-1: Other than lighting required for security and safety, there shall be no outdoor nighttime lighting of the project site.

- Mitigation Measure (A)-2: Berming/mounding and landscaping shall be installed between the maintenance facility and residences west and southeast of the facility to provide an intervening buffer for noise, visual, and light/glare effects.

- Mitigation Measure (A)-3: All vehicles/equipment powered by internal combustion engines shall be equipped with mufflers in accordance with manufacturer's specifications.

- Mitigation Measure (A)-4: The maintenance facility shall be redesigned to eliminate entry gates on the west side of the perimeter wall, as shown in Figure 2.1-4 of the Final EIR. (Note: Figure 2.1-4 was revised from the Draft EIR to the Final EIR to reflect additional mitigation brought about by Mitigation Measure 2(A)-5 below.) This measure is necessary to reduce the potential for significant impacts which could result from maintenance facility operations.

- Mitigation Measure (A)-5: The design of the maintenance facility shall be changed to include relocating the compound approximately 900 feet to the east as shown in the revised Figure 2.1-4 and Figure 2.1-5 of the Final EIR. The relocated maintenance compound shall be approximately 100 feet north of and 20 feet lower in elevation than El Monte Road compared to the previous location. Access to the maintenance compound shall be taken from El Monte Road approximately 100 feet to the east of the structure. This new access shall eliminate maintenance employee vehicle and delivery access from behind existing residences.

B. VISUAL QUALITY

Significant Project Impact: The Project would change the character of the visual environment through elimination of agricultural production and planting of lawn areas and other landscaping. The overall agricultural patchwork viewshed pattern would be replaced with views of fairways and greens, ponds, and the club house and parking areas. Due to the potential for the Project to result in changes to the visual character of scenic roadways, impacts are seen as potentially significant.

Finding: Pursuant to CEQA Section 21081(a)(1), CEQA Guidelines Section 15091(a)(1) and Local Guidelines Section 4.8-7(Y), changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the significant environmental effects identified in the Final EIR to below a level of significance.

Facts in Support of Finding: The following mitigation measures set forth in Section 2.2.4 of the EIR are feasible, are in conformance with the Lakeside Community Plan and Design Guidelines, are required as a condition of approval, and are made binding on the Applicant through these Findings:

- Mitigation Measure (B)-1: Landscaping and proposed structures shall be designed in conformance with the Lakeside Design Guidelines. At a minimum, the following shall be required:

  1. Existing significant trees shall be preserved.

  2. If fences or walls (other than security fencing at specific golf course facilities) are proposed, low walls of native stone, wooden rail fences, wire fences, boulders and native rocks building materials shall be used.

  3. All utilities shall be placed underground in an effort to reduce visual clutter.

- Mitigation Measure (B)-2: The landscaping plan shall provide for liberal use of trees along El Monte Road. Eighty percent of tree species shall be naturally occurring species typical of the valley (e.g. Oak, Sycamore, Willow, Cottonwood, etc.).

- Mitigation Measure (B)-3: Landscaping along Willow Road shall respect the current open view corridors to the south of the site with the exception of planting trees to screen off site areas from errant golf shots. Landscaping shall either be below three feet in height, or, in the case of trees, widely spaced clusters with branching patterns above eight feet in height.

- Mitigation Measure (B)-4: The parking lot proposed for location adjacent to Willow Road shall be set back from the roadway a minimum of 30 feet with liberal use of landscaping planted within the buffer area and throughout the parking lot.

- Mitigation Measure (B)-5: No buildings shall be placed within 50 feet of the edge of the pavement along El Monte Road.

- Mitigation Measure (B)-6: The proposed maintenance facilities shall be constructed with materials typical of residential development in the Lakeside community. Building materials

shall be consistent with the Lakeside Design Review Guidelines. Landscaping shall be used to screen and buffer views from adjacent residential development.

- Mitigation Measure (B)-7: Adherence to Mitigation Measures (A)-1 through (A)-5 for Land Use Impacts shall be a requirement of the building and grading permit.

C. TRAFFIC

Significant Project Impact: Given the speeds and curves on El Monte Road, with one main driveway on the north side of El Monte Road to the club house, the Project presents limited sight distances for oncoming traffic and potentially unsafe turning movements.

Finding: Pursuant to CEQA Section 21081(a)(1), CEQA Guidelines Section 15091(a)(1) and Local Guidelines Section 4.8-7(Y), changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the significant environmental effects identified in the Final EIR to below a level of significance.

Facts in Support of Finding: The following mitigation measure as set forth in Section 2.3.4 of the EIR is feasible, is required as a condition of approval, and is made binding on the Applicant through these Findings:

- Mitigation Measure (C)-1: Project access driveways and channelization shall be designed to the satisfaction of the Director of Public Works. Figure 2.3-9 of the Final EIR illustrates site access changes made to the golf clinic training facility to improve site distance/visibility.

D. BIOLOGICAL RESOURCES

Significant Project Impact: The Project has been designed to retain the 34 on-site coast live oaks, which are a sensitive species, in place and to grade only outside the "drip line" of these oaks. However, grading adjacent to the dripline may remove or cover surface roots, or cause a change in drainage such that the oaks could be damaged or eventually killed. Significant indirect impacts to the live oaks are projected as a worst-case scenario. The Project will also permanently impact all 1.9 acres of coastal sage scrub habitat, which is a significant impact. The Project, through construction of four cart path crossings, an entry bridge, and the equestrian trail, will permanently impact 0.56 acre and temporarily impact 0.74 acre of disturbed riparian scrub within the river channel. The temporary and permanent impacts are significant. Based on a worst-case analysis, the Project will permanently impact 4.1 acres and temporarily impact 0.16 acre of riparian woodland within and adjacent to the river channel. The 38-foot wide elevated entry bridge will result in permanent impacts from its "shadowing-effect," although vegetation will reestablish under the bridge to some extent after construction. The golf course footprint/grading and the edges of the associated planting zones would impact approximately 3.9 acres of riparian woodland under the jurisdiction of CDFG. The Project will permanently impact 0.3 acre of waters of the U.S., a sensitive resource.

Finding: Pursuant to CEQA Section 21081(a)(1), CEQA Guidelines Section 15091(a)(1) and Local Guidelines Section 4.8-7(Y), changes or alterations have been required in, or incorporated into, the

Project which avoid or substantially lessen the environmental effects on the identified in the Final EIR to below a level of significance.

Facts in Support of Finding: The following mitigation measures as set forth in Section 2.4.4 of the EIR are feasible, are required as a condition of approval, and are made binding on the Applicant through these Findings:

- Mitigation Measure (D)-1: A Biological Resource Management Plan shall be prepared. approved and implemented in concert with the preparation of site specific development plans. The intent of this plan shall be to provide specific methodologies to reduce all significant project-related impacts to a level below significance. The implementation of, or mechanism to implement all recommendations contained in the plan, shall be made a condition of project approval. This plan shall contain at a minimum:

  1. A comprehensive revegetation/habitat enhancement component to compensate for direct losses of wetland habitat associated with river crossing improvements. This plan shall define the specific area and acreage of wetlands to be lost, establish revegetation ratios, define specific areas to be used for revegetation, specify biological monitoring periods, require maintenance, removal of exotics, and construction monitoring. This plan shall be prepared by a County-certified and qualified professional experienced in riparian wetland restoration and enhancement.

  2. A biological buffer averaging 50-feet wide (minimum of 25-feet wide) area shall be established adjacent to the floodway. This buffer area shall be revegetated with strictly native, indigenous, alluvially-dependent shrubs and herbs.

  3. A 100-foot "planning buffer" shall be established at the outer edge of the biological buffer. The planning buffer shall preclude the establishment of structures (except bridge crossings, cart paths, and equestrian trail) and shall permit play.

  4. Mature Coast Live Oak, California sycamores and Western cottonwood trees shall be retained. Where retention cannot be accommodated, like-kind replacement for any trees unavoidably lost shall be required.

  5. Landscape plans and plant pallets shall be reviewed for wetlands compatibility as a function of the Biological Resource Management Plan.

  The plan shall be on file at the Helix Water District main office. The Applicant will prepare the biological resource management plan for submission to the District with the Project's construction plan. The District will review the plan based on overall guidelines in the Joint Water Agency Subregional Plan, and evaluate the plan for consistency with the County MSCP, Jamul-Lakeside Subunit Plan. The wildlife agencies will be given an opportunity to review and comment on the Management Plan at that time. The golf course project proponents shall be responsible for implementation of the Management Plan in concert with its regular maintenance and management operations.

- Mitigation Measure (D)-2: Ongoing equestrian and off-road vehicle usage of the sensitive riparian area within the San Diego River floodway shall be discouraged. The Project includes construction of an equestrian trail. Vegetation barriers shall be used to discourage riding within the floodway, and signage will advise riders to use the trail.

- Mitigation Measure (D)-3: The entire golf course development will be fenced using a variety of fencing types to prevent unauthorized entrance onto the property while also allowing for wildlife movement through the proposed wildlife corridor as well as equestrian use of the equestrian trail. In addition, the golf course operators will actively discourage off-road vehicle activity since it is inherently incompatible with the golf course use.

- Mitigation Measure (D)-4: Natural barriers comprised of thorny shrubs or other appropriate vegetative barriers and signage shall be incorporated along both sides of the cart paths and equestrian path wherever they enter or cross the river channel, wildlife corridor/habitat creation area, or other areas specifically designated as biological open space by the golf course design or the Helix Water District Subarea Plan. These barriers shall be designed to prevent golfers, equestrians, or other humans from casual entry into biological resource areas.

- Mitigation Measure (D)-5: Any coast live oak trees with diameters at breast height (DBH) of 4 inches or greater that are indirectly impacted by proposed grading at adjacent driplines shall be mitigated at a 5:1 replacement ratio utilizing five-gallon container replacement stock. Based on the recommended replacement ratio of 5:1 (utilizing five-gallon container stock), a total of 170 trees should be planted onsite to mitigate for the 34 trees that would be indirectly impacted. It is recommended that most or all of these replacement trees be installed in the biological buffer that is proposed on both sides of the river.

- Mitigation Measure (D)-6: Although an isolated Western sycamore is not a sensitive species, isolated specimens of this species shall be protected to the extent feasible. Specimens that are directly or indirectly impacted shall be replaced in-kind.

- Mitigation Measure (D)-7: In response to the USFWS project comment letter dated December 11, 1997, a focused survey for San Diego ambrosia along the river terraces will be conducted in Spring (i.e., after May) 1999. This survey will be used as an opportunity to re-check for sensitive plant species that are known for the general vicinity, but that have not been detected onsite during past surveys. If this species is found, the project shall provide appropriate additional mitigation in banks established by the Helix Subarea Plan as a first choice, or in another approved NCCP bank.

- Mitigation Measure (D)-8: The impact to 1.9 acres of coastal sage scrube shall be adequately mitigated by the proposed creation of 21.1 acres of coastal sage scrub as part of the wildlife corridor/preserve area. Creation of this habitat onsite will result in over an 11:1 replacement ratio. A detailed coastal sage scrub restoration plan shall be prepared by a qualified biologist that details issues such as site preparation, installation specifications, maintenance, monitoring and reporting. To ensure the created habitat is adequately established, maintenance and monitoring shall occur for three to five years after installation, or until

specified success standards are achieved (e.g., cover of desirable native shrubs, and elimination of particular invasive weed species).

- Mitigation Measure (D)-9: Upon project implementation, the projected permanent and temporary impacts to the disturbed riparian scrub, riparian woodland and waters of the United States shall be mitigated by an onsite habitat restoration program including wetland creation and enhancement. Permanent impacts to disturbed riparian scrub and riparian woodland shall be mitigated at a 3:1 ratio, while permanent impacts to waters of the U.S. shall be mitigated at a 1:1 ratio. To satisfy USACOE and CDFG permitting requirements, temporary impacts to vegetated wetlands shall be mitigated at a 2:1 ratio, or other ratio designated by USACOE and/or CDFG. Assuming the projected impact to 4.0 acres of riparian woodland (CDFG jurisdictional habitat) can be avoided (see mitigation measure below), then the combined permanent vegetated wetland impacts would total 0.69 acre and temporary impacts would total 0.9 acre. Probable mitigation ratios and acreages are listed below:

  - Permanent impacts to disturbed riparian scrub and riparian woodland total 0.69 acre -- multiplied by a 3:1 ratio equals 2.07 acres.

  - Permanent impacts to waters of the U.S. total 0.3 acre -- multiplied by a 1:1 ratio equals 0.3 acre.

  - Temporary impacts to disturbed riparian scrub and riparian woodland total 0.9 acre -- multiplied by a 2:1 ratio equals 1.8 acres.

  Therefore, the wetland mitigation restoration program (excluding mitigation for projected impacts to riparian woodland along the river banks) would total 4.17 acres. A detailed wetland restoration plan shall be prepared by a qualified biologist that details issues such as site preparation, installation specifications, maintenance, monitoring and reporting. To ensure the created habitat is adequately established, maintenance and monitoring for wetland programs shall occur for five years after installation, or until specified success standards are achieved (e.g., cover of desirable native overstory and understory plants, and elimination of particular invasive weed species). As a guideline, ACOE and CDFG typically require that at least 1:1 replacement of all impacts be accomplished by wetland habitat creation (i.e., converting upland into wetland). Based on the projected impacts referenced above, approximately 1.9 acres of the 4.17 acres would involve wetland habitat creation. The remaining 2.47 acres of mitigation could be accomplished through wetland enhancement measures.

  The Project shall identify the most ecologically appropriate onsite location adjacent to the river to accomplish 1.9 acres of wetland creation. The remainder of the mitigation (i.e., 2.27 acres) shall be accomplished by enhancing the existing riparian habitat in the river within and partially upstream and downstream of the proposed wildlife corridor. Since ACOE and CDFG typically provide ½ credit for enhancement mitigation, at least 4.5 to 5.0 acres should be included in this enhancement effort. Enhancement in this situation would involve removal and control of particular invasive weed species (e.g., tamarisk, pampas grass etc.) and possible planting of native species where weed species are removed. Because there is

a high volume of invasive weed species upstream of this proposed enhancement location, removal of target weed species must occur throughout the life of the golf course project to be effective.

- Mitigation Measure (D)-10: Avoidance of Projected Riparian Woodland Impacts. Necessary cart path crossings and the entry bridge crossing of the river to complete golf course circulation cannot be avoided, although most or all of the projected impacts from the golf course footprint to riparian woodland that overhangs the channel banks on either side of the river can be avoided. The overlay of the existing habitat and golf course footprint indicate up to 4.0 acres of this edge habitat could be impacted. Most of the riparian tree (e.g., willow and cottonwood) stems that provide canopy overhang on the river banks grow out of the river bottom, such that most of the grading that is proposed on the banks will actually impact scattered native and non-native upland understory species without directly impacting the tree stems. To ensure potential impacts to riparian woodland species do not occur, measures such as vegetation barriers to prevent intrusion and erosion, signage, construction monitoring, and/or project redesign shall be implemented. If the projected worst-case impacts do occur to 4.0 acres of riparian woodland, then up to 12 acres of additional mitigation shall be required based on a 3:1 replacement ratio.

- Mitigation Measure (D)-11: During the February 24, 1998 survey, the five proposed river crossings (i.e., one entry bridge and four cart paths) were examined. Golf Properties Design indicated in regard to the cart path crossings, that field adjustments could be made during construction to avoid trees and align the paths between vegetation openings to minimize impacts. These alignment adjustments during construction shall be made. The alignment shifting recommendations are contained in the Biological Resources Technical Report.

Significant Project Impact: The Project is not anticipated to significantly impact the arroyo toad, least Bell's vireo or the willow flycatcher as these species were not identified within the project boundaries during field surveys. The conversion of approximately 400 acres of open foraging area could displace certain less tolerant raptors from the property, including Cooper's hawk, prairie falcon, and great horned owl. The removal of mature trees, including snags, would result in a loss of numerous roost sites. Nighttime lighting and overhead spray irrigation could also contribute to this impact.

Finding: Pursuant to CEQA Section 21081(a)(1), CEQA Guidelines Section 15091(a)(1) and Local Guidelines Section 4.8-7(Y), changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the environmental effects on the identified in the Final EIR to below a level of significance.

Facts in Support of Finding: The following mitigation measures as set forth in Section 2.4.4 of the EIR are feasible, are required as a condition of approval, and are made binding on the Applicant through these Findings:

- Mitigation Measure (D)-12: Directed field surveys shall be conducted for the arroyo toad, a federally-listed Endangered Species, unless the resource agencies determine the surveys are not required. If surveys are done and arroyo toads are found on site, specific mitigation shall be developed in consultation with the USACOE and the USFWS. Potential impacts

resulting from fairway construction would be mitigated through buffers adjacent to riparian areas.

- Mitigation Measure (D)-13: Prior to construction in areas adjacent to the floodway, field surveys for the least Bell's vireo, a state and federal listed endangered species, shall be conducted. If this species is determined to be present, specific mitigation shall be developed in consultation with the U. S. Army Corps of Engineers, U.S. Fish & Wildlife Service, and California Department of Fish & Game.

- Mitigation Measure (D)-14: Prior to construction in areas adjacent to the floodway, field surveys for the Willow flycatcher, a state and federally-listed Endangered Species, shall be conducted. If found on site, specific mitigation shall be developed in consultation with the U. S. Army Corps of Engineers, U.S. Fish & Wildlife Service, and California Department of Fish & Game. Potential impacts resulting from fairway construction would be mitigated through buffers adjacent to riparian areas.

- Mitigation Measure (D)-15: A plan to manage lighting and watering shall be developed to limit the potentially significant impacts to foraging raptors. Elements of this plan may include a prohibition against lighting of the golf course and driving range, and variable irrigation schedules which would be less disruptive to morning and evening foraging by raptors.

- Mitigation Measure (D)-16: The wildlife movement corridor was specifically designed to mitigate for impacts to coastal sage scrub and associated species in the study area, as well as potential impacts to wildlife movement corridors. The approximately 21 acres of coastal sage scrub habitat to be created in the corridor zone should compensate for any adverse effects on these biological resources, subject to the following conditions:

  1. A habitat restoration plan shall be prepared and implemented for the wildlife corridor/habitat creation area. The goal of the restoration plan shall be to create at least 20 contiguous acres of potential breeding habitat for California gnatcatchers in the river valley. The created habitat shall be configured to accommodate north-south wildlife movement from existing coastal sage scrub habitat, on the north and south valley slopes, to the existing river channel. This corridor area shall have a minimum width of 400 feet and an average width of at least 500 feet across the valley.

  2. Success of the restoration plan shall be measured by a biological monitoring program to last a minimum of 3 years, or until all success criteria are achieved. The monitoring program will track the success of habitat creation by recording appropriate success criteria for (1) individual plant species (e.g., growth and reproduction by species), (2) appropriate vegetation community characteristics (e.g., species composition, percent canopy closure) and (3) use of the area by gnatcatchers and other wildlife. Specific success criteria shall be defined in the restoration plan.

- Mitigation Measure (D)-17: In addition to habitat creation within the wildlife corridor/habitat creation area, approximately 44 additional acres of the golf course shall be landscaped using the Zone 1 (19.2 acres) and Zone 2 (24.9 acres) planting palettes. The

Zone 1 palette consists of native coastal sage scrub species and the Zone 2 palette consists of native California shrub species. Areas planted using these palettes are expected to provide some additional habitat value to native wildlife species; however, no specific mitigation credit is expected for these areas because they are not designed specifically to re-create naturally occurring, native vegetation communities, and because they are primarily small and non-contiguous areas scattered throughout the golf course. However, some of the Zone 1 plantings are positioned adjacent to native coastal sage scrub habitat along the project boundaries, and may enhance or expand habitat values in these areas.

- Mitigation Measure (D)-18: In response to projected direct and indirect impacts to wetland and riparian habitat from the proposed golf course, the resource agencies (i.e., CDFG and USFWS) have recommended and the Applicant shall: (1) revegetate the channel banks that will be recontoured with appropriate native upland and riparian plants, and (2) perform a 10-acre revegetation/enhancement program within the San Diego River channel with a combination of native wetland and alluvial wash plants. Revegetation of the recontoured channel banks will encompass approximately 28 acres and is intended to enhance the buffer between the golf course and the river channel by providing a physical barrier with native shrubs and trees and creating wildlife habitat.

- Mitigation Measure (D)-19: Various enhancement options within the channel have been discussed with the agencies and a 10-acre pilot revegetation/enhancement program shall be performed. The Pilot Revegetation/Enhancement Program is shown on Figure 2.4-3 of the Final EIR. Recommended guidelines for the program include that part of the effort occur within the portion of the river channel that coincides with the proposed north-south wildlife corridor, and that the program be divided between existing wetland and alluvial wash habitats. As indicated in the Project's biological technical information, the majority of vegetative cover in the channel is provided by undesirable exotic species (non-native) that degrade wildlife habitat value.

- Mitigation Measure (D)-20: Portions of the channel have water near the surface and support wetland species in the overstory such as willow (Salix sp.) and understory such as rushes (Juncus sp.). Although due to a highly variable water table, most of the channel vegetation is characterized as alluvial wash with riparian scrub species comprising the mid-story and upland plants in the understory. Based on discussion with the agencies, the two primary goals of the pilot program shall be to: (1) revegetate and enhance existing habitat to improve wildlife habitat values as mitigation for golf course impacts, and (2) determine what methods are most feasible and successful for performing revegetation/enhancement and how long will it take to establish native vegetation.

- Mitigation Measure (D)-21: Prior to implementation of the proposed golf course, a detailed plan for the channel revegetation/enhancement program shall be prepared for final approval by the agencies.

- Mitigation Measure (D)-22: The 10-acre program will be divided between two locations: an approximate 5-acre area that corresponds to a wetter portion of the channel adjacent to existing offsite homes, and an approximate 5-acre area that corresponds to the alignment of the proposed north-south wildlife corridor. For ease of discussion, the more easterly, wetter

area will be referred to as Area A and the more westerly area within the wildlife corridor will be referred to as Area B. For Area A, it is estimated that approximately 2 to 3 acres can support willow woodland, while the remaining portion will support alluvial wash (i.e., riparian scrub) with scattered trees such as California sycamore (Platanus racemosa). In both locations, the revegetation/enhancement will occur across the entire channel bottom. The eastern limit of Area A will be defined by the proposed entry bridge and cart path, while the eastern limit of Area B will be defined by the proposed equestrian trail and cart path. The western limits of these areas will be defined by permanent markers such as metal t-posts.

- Mitigation Measure (D)-23: The primary implementation steps shall include contractor education and delineation of access; initial removal of invasive exotic plants; installation of temporary irrigation; installation of container plants and seed; and follow-up maintenance and monitoring. No grading is proposed in the channel bottom.

- Mitigation Measure (D)-24: Prior to the initiation of revegetation/enhancement activities, the project biologist shall meet with maintenance personnel to review project guidelines and goals. Native species to be retained and exotic species to be removed will be reviewed at that time. The least impactive access routes for equipment and program personnel will also be determined in the field and marked.

- Mitigation Measure (D)-25: The primary exotic species that shall be removed include tamarisk/salt cedar (Tamarix sp.), pampas grass (Cortaderia selloana), giant reed (Arundo donax), castor bean (Ricinus communis), eucalyptus (Eucalyptus sp.), tree tobacco (Nicotiana glauca), and fennel (Foeniculum vulgare). This list may be adjusted by the project biologist during the implementation phase. It is recommended that the initial exotic species removal effort begin in the late summer. There are 3 basic methods for initial removal of exotics that can be used depending on the specific conditions within portions of Areas A and B. The 3 methods are: (1) hand-cutting most of the above-ground biomass and then applying herbicide to the stump; (2) applying herbicide without cutting the specimen; and (3) physical removal with motorized equipment. In cases where there is an isolated exotic with a sufficient density of native species around it (such that no follow-up planting will be necessary where the exotic presently occurs), herbicide can be applied without cutting the exotic. In cases where there is a grouping of exotics but motorized equipment could not avoid impacting existing native species, specimens shall be hand-cut and herbicide applied so space will be created for follow-up native planting. In cases where there is a grouping of exotics and motorized equipment could avoid impacting native species, this method can be used.

- Mitigation Measure (D)-26: Since there is a significant amount of weed seed that already exists in the seedbank, physical removal of all the exotic biomass and seedheads out of the channel is not considered necessary. Except for a species such as giant reed, it is considered acceptable to chip this biomass and distribute it as mulch within the channel. It is understood that after the initial control/removal of exotics, follow-up maintenance shall be undertaken to ensure these species are completely eradicated. In the case of initial control/removal and follow-up maintenance, very small specimens can be hand-pulled if the entire root system can be removed.

- Mitigation Measure (D)-27: To ensure survival and establishment of native container plants, some form of temporary irrigation shall be used at least in the alluvial wash areas. It is expected that more than one method of irrigation may be used. It is likely the primary method will be a drip system (extended from the golf course irrigation system) to deliver water to individual container plants. Another potential method is selective hand-watering or installation of slow-release water products (e.g., DriWater) for more isolated container plants. An overhead irrigation system is not recommended because the spray is likely to be blocked by existing vegetation and it is not a feasible way to promote deep-watering. Particularly within this setting, periodic deep-watering is preferable over more frequent surface watering. The intent of irrigation will be to establish the container plants by promoting root systems that tap into channel's available water. For most of the planted species it is expected that temporary irrigation will be needed for 2 to 3 years, after which time it can be permanently discontinued. For the wetter areas in Area A, it is expected that little to no temporary irrigation will be needed to establish the plants.

- Mitigation Measure (D)-28: The primary method for native plant revegetation will be container plants and promoting establishment of native volunteers, although some limited hand-seeded may be tried in select areas. Generally in openings without native plants larger than 8 by 8 feet, appropriate container plants will be installed. Planting shall include a mixture of shrub and tree species. As a guideline, container shrubs can be installed with spacing on center ranging from 6 to 12 feet with an 8 foot average, while trees can be installed from 12 to 25 feet apart with a 15 foot average (this assumes some mortality). Most of the container plants will be 1-gallon, although some 5-gallon trees may be included. For experimental purposes, some vegetative cuttings should be installed in the wetter Area A and possibly in Area B. Also for experimental purposes, some selective hand-seeding should occur in Areas A and B. After the initial control/removal of exotics, native planting should occur with the onset of the rainy season.

- Mitigation Measure (D)-29: In regard to the wetter portions of Area A that will support willow woodland (approximately 2 to 3 acres), recommended container plants include, but are not limited to, arroyo willow (Salix lasiolepis), black willow (Salix gooddingii), shining willow (Salix lucida ssp. lasiandra), and Fremont cottonwood (Populus fremontii). Seeded species could include Mexican rush (Juncus mexicanus), spikerush (Eleocharis sp.), and monkey flower (Mimulus nasutus). In regard to the drier portions of Area A and all of Area B that will support alluvial scrub with scattered trees (approximately 7 to 8 acres), recommended container plants include, but are not limited to, mule fat (Baccharis salicifolia), sandbar willow (Salix exigua), arroweed (Pluchea sericea), blue elderberry (Sambucus mexicana), and California sycamore. Seeded species could include Douglas mugwort (Artemisia douglasiana), giant wild rye (Leymus condensatus), and evening primrose (Oenothera hookeri). Many of the plants listed here are appropriate for both habitat types, although the final palettes should be "weighted" toward more wet- and alluvial-adapted species, depending on planting locations.

- Mitigation Measure (D)-30: Once installation of the planting palettes is complete, a 5-year maintenance and monitoring program shall begin. In addition, since invasive exotics from upstream portions of the river channel will continue to re-invade the 2

revegetation/enhancement areas over time, some form of periodic long-term maintenance and monitoring beyond 5 years shall occur. The focus of the 5-year maintenance effort will be to eradicate all invasive exotics in the revegetation/enhancement areas and to promote establishment of a self-sustaining native plant community in the portions of Areas A and B that are currently nonnative. The focus of the 5-year monitoring effort will be to provide direction to maintenance personnel, document progress and success of the program, and determine what methods of exotic plant control and native plant revegetation are most beneficial. Ultimately, monitoring will also help determine if the revegetation/enhancement is self-sustaining and whether this approximate 2-mile stretch of the river channel is a good candidate area for other projects to perform revegetation/enhancement mitigation.

- Mitigation Measure (D)-31: During the initial 5-year period, the primary maintenance items will include exotic plant control, maintaining the irrigation system, promoting establishment of container plants, promoting establishment of seeded species and native volunteers, trash removal and site protection. After the initial exotic control/removal effort, exotic plant control will focus on treating re-sprouts with herbicide and eradicating new specimens that germinate from the seedbank. After the initial effort is conducted between July and August, herbicide shall be applied to the re-sprouts (before they get over 4 feet high) between August and October, before the first frost. In the following spring (i.e., between March and May) and late summer/fall of the next year, herbicide shall be applied again to the re-sprouts. This follow-up treatment shall be conducted each year until the individual specimen is dead. In terms of promoting establishment of container plants, the primary items will include overseeing temporary irrigation, maintaining weed-free basins, and adding fertilizer as necessary. Once some of the faster growing species such as willow and cottonwood reach approximately 25 feet in height in 2 to 3 years, temporary irrigation should no longer be necessary. Scattered annual weeds, such as mustard (Brassica sp.) and clover (Melilotus sp.), should only need to be controlled when they occur in dense patches in open areas or in container planting basins. Once the 5-year program is considered successful and complete, long term maintenance may only be necessary twice a year to eradicate any exotics that have re-invaded.

- Mitigation Measure (D)-32: A qualified biologist shall oversee the initial 5-year monitoring period. The biologist will meet with maintenance personnel on a regular basis to review the condition of Areas A and B and the highest maintenance priorities. Horticultural and botanical monitoring will be performed. Horticultural monitoring will focus on exotic plant control and the health and growth of container plants. Botanical monitoring can use a combination of techniques, such as transects and quadrats, to quantify the progress of native plant development in areas previously dominated by nonnative plants. Permanent photographic viewpoints shall also be established to document revegetation progress over time. As part of monitoring, a set of success standards will be established to assess revegetation progress. Within the alluvial wash habitat for example, success standards for the end of year 5 could include 90 percent survival of container plants, 65 percent native cover in areas previously dominated by non-native, and no invasive exotics present. Success standards could be similar within the wetter willow woodland area, except for a slightly higher native plant cover goal. Horticultural and botanical monitoring results, including any recommended remedial measures (e.g., replacement plants, fertilizer etc.), will be included

in five annual reports to be submitted to the agencies. The annual reports shall also review the relative success of the revegetation techniques conducted in Areas A and B, so potential future revegetation/enhancement programs performed by other projects in the channel can benefit from the results of this pilot program.

- Mitigation Measure (D)-33: Once the program has met its 5-year success standards in Areas A and B, that portion of the program will be complete. If portions of Areas A and B have not met their success standards after 5 years, then consultation shall occur with the agencies to determine whether sufficiently beneficial revegetation/enhancement can be feasibly performed within this setting. If revegetation/enhancement was successful after 5 years, then some form of long-term monitoring and reporting shall be coordinated with the long-term maintenance effort to ensure invasive exotics do not re-invade and intended wildlife habitat values are retained.

  The Pilot Revegetation/Enhancement Program is shown on Figure 2.4-3 of the Final EIR.

Significant Project Impact: The existing east-west corridor along the river channel is likely to become further constrained by construction of golf facilities and by the expected increase in human activity on both sides of the river. The river crossings will collectively and permanently remove about 0.69 acres of natural vegetation in the river channel and may disrupt natural movement of some species along the river. The bridge, and to a lesser degree the car and equestrian crossings, may also be perceived as barriers by some species, especially large mammals. Increased human presence in the river channel due to the crossings could further constrain the functionality of the movement corridor. In addition, construction of these crossings will temporarily remove about 0.90 acrs of natural vegetation. The close proximity of golf holes along either side of the river channel may result in increased noise levels and increased perception of human presence by species using the channel. This may indirectly reduce use of the movement corridor by some species, at least during daylight hours.

Finding: Pursuant to CEQA Section 21081(a)(1), CEQA Guidelines Section 15091(a)(1) and Local Guidelines Section 4.8-7(Y), changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the environmental effects on the identified in the Final EIR to below a level of significance.

Facts in Support of Finding: The following mitigation measures as set forth in Section 2.4.4 of the EIR are feasible, are required as a condition of approval, and are made binding on the Applicant through these Findings:

- Mitigation Measure (D)-34: The bridge/crossing shall be of adequate height such that wildlife movement within the riparian corridor is not discouraged.

- Mitigation Measure (D)-35: Natural barriers comprised of thorny shrubs or other appropriate vegetative barriers and signage shall be incorporated along both sides of the cart paths and equestrian path wherever they enter or cross the river channel, wildlife corridor/habitat creation area, or other areas specifically designated as biological open space by the golf course design or the Helix Water District Subarea Plan. These barriers shall be designed to

prevent golfers, equestrians; or other humans from casual entry into biological resource areas.

- Mitigation Measure (D)-36: Signage shall be erected at appropriate locations along cart paths and equestrian trails to educate users about the biological resources and prohibited uses in the biological open space areas.

- Mitigation Measure (D)-37: The wildlife corridors proposed for the project site have been extensively discussed with the Wildlife Agencies and adequately provide the desired linkages. A north-south wildlife movement corridor shall be created to mitigate for impacts to small scattered patches of coastal sage scrub and associated species as well as potential impacts to wildlife movement. Approximately 21 acres of coastal sage scrub habitat will be created in the corridor zone. The corridor shall range in width from approximately 650 feet to over 1,000 feet wide and shall be approximately 1,300 feet long. The corridor shall be located in an area with a low level of human disturbance, especially at night. The wildlife corridor has been redesigned on the north side of the river by changing the footprint of golf hole No. 5 (see Figure 2.4-4 of the Final EIR). The area north of the fifth hole will be revegetated in a mix of coastal sage scrub and native grassland species. The cart path shall be located so that it wraps around the east end of the fifth green and has limited impact on the wildlife corridor. All trees will be planted on the "golf side" of the cart path. This enhanced wildlife corridor will connect Pre-approved Mitigation Areas that were previously separated by the agricultural land use and will contribute to the preservation of wide-ranging species.

- Mitigation Measure (D)-38: The integrity of the San Diego River channel corridor will be enhanced by the establishment of a biological buffer averaging 50 feet and a 100-foot wide planning buffer on both sides of the channel. The biological buffer will remove exotic invasive plant species and shall be revegetated with native plant materials. The proposed variable width biological buffer starts at the edge of the Army Corps of Engineers jurisdiction boundary (approximately two feet in elevation above the base of the river channel bank) and varies from a minimum of 25 feet to as much as 200 feet wide in several areas.

- Mitigation Measure (D)-39: The area included within the biological buffer will be re-contoured to accommodate the overall grading concept of the golf course. All of the non-native plant species, including a significant amount of invasive exotic plants, will be removed while protecting and retaining the riparian woodland species rooted in the channel and overhanging the bank of the river channel. The variable biological buffer will be revegetated with native plant species such as toyon, sumac, rhus species, live oak, and western sycamore. The golf operator will irrigate and maintain the buffer area to preclude invasion of non-native species and preserve its function as a biological buffer for current and future revegetation efforts in the river channel.

E. ARCHAEOLOGY

Significant Project Impact: Grading activities required for Project implementation have the potential to significantly impact the buried archaeological resources associated with archaeological site CA-SDI-13,652.

Finding: Pursuant to CEQA Section 21081(a)(1), CEQA Guidelines Section 15091(a)(1) and Local Guidelines Section 4.8-7(Y), changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the significant environmental effect identified in the Final EIR to below a level of significance.

Facts in Support of Finding: The following mitigation measures as set forth in Section 2.5.4 of the EIR are feasible, are required as a condition of approval, and are made binding on the Applicant through these Findings:

- Mitigation Measure (E)-1: CA-SDI-13,652 shall be preserved by "capping" the site. This will mitigate any adverse impacts that might result form construction of the proposed project. Capping will involve the placement of 6 inches of clean sand followed by 2 to 4 feet of clean, sterile fill soil over the entire site.

- Mitigation Measure (E)-2: The boundaries of CA-SDI-13,652 shall be appropriately delineated on all project maps with prohibitions against future excavation, grading, or other substantial subsurface disturbance. Irrigation, other utilities, and improvements must not penetrate the sand stratum above the site.

- Mitigation Measure (E)-3: All archaeological resources mitigation work shall be performed under the direct supervision of a qualified archaeologist.

- Mitigation Measure (E)-4: The boundaries of the site area shall be appropriately delineated on project maps with prohibitions against future excavation and/or disturbance. Irrigation, other utilities, and improvements must not penetrate the sand stratum demarcating the top of the site. Additionally, a qualified archaeological monitor shall be present during any extensive grading and subsurface excavation during the construction phase of the project.

- Mitigation Measure (E)-5: All archaeological collections resulting from the testing program and subsequent excavations shall be curated.

F. HYDROLOGY

Significant Project Impact: Depending on final engineering design, river crossings (four golf cart path crossings and an automobile/cart bridge crossing) could result in changes in the hydraulics of the river. Design modifications are available to address any impacts. Grading for golf course construction could increase flow velocities on offsite properties and erosion of the floodway. Proposed impoundments could act as sedimentation ponds and as sediment traps that increase the flow velocity of the river during high flow events. Grading for the golf course construction could alter erosion and sedimentation equilibrium and removal of materials from the site could increase

channel erosion. Excessive topographic changes from site grading could increase erosion and sedimentation.

Finding: Pursuant to CEQA Section 21081(a)(1), CEQA Guidelines Section 15091(a)(1) and Local Guidelines Section 4.8-7(Y), changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the significant environmental effect identified in the Final EIR to below a level of significance.

Facts in Support of Finding: The following mitigation measures as set forth in Section 2.6.4 of the EIR are feasible, are required as a condition of approval, and are made binding on the Applicant through these Findings:

- Mitigation Measure (F)-1: The Project proposes the construction of four golf cart path crossings and an automobile/cart bridge crossing the main river channel. The golf cart path crossings shall follow the existing channel bed profile. Such crossings shall have no significant impacts on flood level. The design for the automobile/cart crossing (bridge) shall be evaluated based on a hydraulic analysis. If the proposed design is found to cause adverse impacts on the flood level, design modifications shall be implemented to maintain existing flood levels.

- Mitigation Measure (F)-2: A 50-foot grading buffer at the up-stream and down-stream property line shall be enforced along portions of the golf course boundaries that are lower than the 100-year flood level. No grading shall occur within the buffer zone. Compliance with this condition mitigates for potential increases in overbank flow velocities and consequent channel erosion off of the project site.

- Mitigation Measure (F)-3: Proposed water impoundments shall be constructed such that they will not become sediment traps. The following measures shall be implemented:

    1. Where ponds are within the 100-year flood level, a berm surrounding each impoundment shall be constructed to prohibit floodwater encroachment. Said berm shall have a top elevation that is at least 2 feet above the 100-year flood level.

    2. Impoundments shall have a clay core, or other impermeable barrier, to prevent seepage of water from the water table into the impoundments.

    3. All impoundments shall respect a minimum setback of 150 feet from the main channel.

- Mitigation Measure (F)-4: No export of materials shall occur during development of the golf course. An exception to this measure would include any materials extracted from the lakes.

- Mitigation Measure (F)-5: The applicant shall submit the grading plan, and the design and plan for the lakes to the County of San Diego for review and approval. The design of berms shall be prepared by a registered civil engineer specializing in geotechnical engineering.

- Mitigation Measure (F)-6: The applicant shall be responsible for the maintenance of the lakes, golf cart crossings, and the bridge.

G. GROUNDWATER

Significant Project Impact: Groundwater extraction by the golf course and anticipated annual demand plus withdrawals by other users could result in a significant reduction in groundwater supplies within the El Monte Groundwater Basin. In addition, the Project could have a significant impact on nearby wells if it lowers the groundwater elevation below depth of 75 feet bgs in unpumped wells. The Project could have a significant impact during extended drought periods without an effective groundwater monitoring and management plan.

Finding: Pursuant to CEQA Section 21081(a)(1), CEQA Guidelines Section 15091(a)(1) and Local Guidelines Section 4.8-7(Y), changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the significant environmental effect identified in the Final EIR to below a level of significance.

Facts in Support of Finding: The following mitigation measures as set forth in Section 2.7.4 of the EIR are feasible, are required as a condition of approval, and are made binding on the Applicant through these Findings:

- Mitigation Measure (G)-1: Flow meters shall be installed on all production wells on the site. A record of flow meters readings shall be taken twice per month. Monitoring reports shall be provided to the Helix Water District and the County of San Diego Department of Planning and Land Use semi-annually. The reports shall be submitted no later than July 31 and January 31 of each year, for the periods of January 1 through June 30 and July 1 through December 31, respectively. The reports shall summarize the flow meter and water level data. The reports shall be signed by a Certified Hydrogeologist or Registered Engineer with experience in groundwater management.

- Mitigation Measure (G)-2: Should groundwater levels drop below minimum levels (65' in MW-1, MW-2, MW-4, MW-5, MW-6, MW-7, or 100' in MW-3) in monitor wells, the golf course operator shall begin reporting monitor well groundwater levels on a monthly basis.

- Mitigation Measure (G)-3: Permanent monitoring devices (such as pressure transducers) with data loggers will be installed in seven unpumped wells on site. Figure 1 of the Groundwater Technical Report (Appendix F) shows the approximate locations of the proposed production and observation wells. The observation wells are located at least 100 feet from any production wells. The monitoring devices will record depth to water every 12 hours. In the event that water levels decline below the target depths shown on mitigation measure No. 3, the monitoring devices will be capable of contacting the golf course operator and Helix Water District. The type of connection/notification system shall be designed to the satisfaction of Helix Water District.

- Mitigation Measure (G)-4: Groundwater production shall be limited in accordance with the following criteria:

  1. A maximum of 1,172 afy shall be extracted from groundwater at a rate reasonably anticipated to reflect the Estimated Consumptive Water Use for Proposed Golf Course described in the table in Section 2.7.3.a of the Final EIR. This rate of

extraction shall be maintained while groundwater levels measured in the seven monitoring wells remains at 65 feet bgs (100 feet bgs for well MW-3) or higher.

2. If the groundwater levels measured in any of the seven monitoring wells drop lower than 65 feet bgs (100 feet bgs for well MW-3), groundwater extraction from the nearest production well or wells shall be stopped until the groundwater depth returns to a level of less than 65 feet bgs (100 feet bgs for well MW-3) for at least 7 days. Once groundwater depth remains above 65 feet bgs (100 feet bgs for well MW-3) for seven days, extraction from the nearest production well may resume.

3. Water level monitoring to determine impacts for individual production wells shall relate to the following table. If water levels in either monitoring well listed in the second row drops below a threshold level, production in the corresponding well shall be reduced or curtailed.

Production Well	Monitor Well(s)
EW-1	MW-7, MW-1
EW-2	MW-1, MW-6
EW-3	MW-2, MW-5
EW-4	MW-3, MW-4

4. If the groundwater levels measured in any of the seven monitoring wells drop lower than 75 feet bgs (110 feet bgs for well MW-3), groundwater extraction shall be stopped on all production wells. Extraction may resume when groundwater depths in all monitoring wells (MW-1 through MW-7) returns to a level of less than 65 feet bgs (100 feet bgs for well MW-3) for at least 7 days.

5. Groundwater extraction is dependent on the elevation of groundwater (below ground surface) as measured in each of 7 monitor wells identified on Figure 1 of the Groundwater Technical Report (Appendix F). If groundwater extraction is not sufficient to meet project irrigation demands, the golf course operator shall implement irrigation conservation procedures and/or utilize a supplemental water source. Such supplemental source shall be a non-potable water source provided by Helix Water District or other approved water purveyor.

   Helix Water District has storage capacity of 10,000-acre feet of water in El Capitan Reservoir. This water is captured at Lake Cuyamaca, and transferred to El Capitan through Boulder and Conejos Creeks. The stored water is pumped to either Lake Jennings or the R.M. Levy Treatment Plant through a jointly owned Helix/City of San Diego 48-inch diameter pipeline located within El Monte Road via Helix's El Monte Pump Station.

   Helix Water District is constructing a new El Monte Pump Station that will be on line in the year 1999. This pump station will allow the District to pump raw water

from and to El Capitan through a metered 36-inch diameter pipeline that connects to the existing 48-inch diameter pipeline.

Helix Water District will provide supplemental raw water as necessary for this Project through a metered line off of the new 36-inch diameter pipeline. The new 36-inch diameter line lies along the southerly edge of El Monte Road, directly across from the Project's westerly boundary.

- Mitigation Measure (G)-5: The golf course irrigation system shall be designated for non-potable water use. All piping shall be color coded purple to denote this requirement.

- Mitigation Measure (G)-6: A minimum of four production wells shall be drilled for water supply purposes. Wells shall be separated by a minimum of 500 feet and shall be metered to measure output.

- Mitigation Measure (G)-7: The applicant shall replace any well located on properties adjacent to the project site (within 500 feet of the property boundary) that has not been completed to at least 90 feet in depth. Such wells shall be deepened to 100 feet below ground surface. At the option of the applicant, and approval of the affected homeowner, the home may be connected to a potable water source. Any increase in pumping costs or monthly bills for purchasing potable water would be the sole expense of the property owner. Wells W, Y, Z, and DD, shown on Figure 1 in Appendix C, Groundwater Monitoring and Management Plan, of Appendix F, Groundwater Study have been designated for deepening or replacement.

Significant Project Impact: Irrigation, fertilization, human activity, and the use of herbicides and pesticides could contribute to impacts on groundwater quality. Existing wells could be impacted if golf course septic systems are located too close to these wells.

Finding: Pursuant to CEQA Section 21081(a)(1), CEQA Guidelines Section 15091(a)(1) and Local Guidelines Section 4.8-7(Y), changes or alterations have been required in, or incorporated into, the Project which avoid or substantially lessen the significant environmental effect identified in the Final EIR to below a level of significance.

Facts in Support of Finding: The following mitigation measures as set forth in Section 2.7.4 of the EIR are feasible, are required as a condition of approval, and are made binding on the Applicant through these Findings:

- Mitigation Measure (G)-8: Turf grasses shall be selected from "new varieties" of cultivars. "New varieties" are species of turf grasses that have been developed for reduced nutrient and water requirements.

- Mitigation Measure (G)-9: Organic, slow release, microfoliar application fertilizers shall be used.

- Mitigation Measure (G)-10: Water soluble fertilizer applications shall be closely monitored to insure that the application rate does not exceed plant assimilation rates.

- Mitigation Measure (G)-11: Azospirillum soil bacteria shall be incorporated into soils.

- Mitigation Measure (G)-12: Fertilizers shall not be applied within 24 hours of expected precipitation events.

- Mitigation Measure (G)-13: Soils and plant tissue analysis shall be conducted on an annual basis. Fertilizer application rates shall be adjusted according to the results of these tests.

- Mitigation Measure (G)-14: Prior to initiating planting and grow-in, the Applicant shall develop an integrated pest management program (IPM). The IPM shall be submitted to the District for review and approval prior to initiating planting and grow-in. The IPM shall include the following:

  1. Monitoring to detect pest populations.

  2. Determination of pest injury levels and establishment of treatment thresholds.

  3. Integrated biological, cultural, and chemical control strategies.

  4. Education program for personnel involved in biological and chemical control planning and implementation.

  5. Identification of guidelines for timing and spot treatment of chemical control agents.

  6. Evaluation of test results and modification of practices.

  7. Record keeping.

- Mitigation Measure (G)-15: County of San Diego Department of Environmental Health standards for septic system setbacks from wells shall be observed.

- Mitigation Measure (G)-16: If applied fertilizers, pesticides, and herbicides are detected at levels which exceed 75% of USEPA's Primary Maximum Contamination Levels, use of the detected chemical(s) shall be terminated.

- Mitigation Measure (G)-17: A groundwater quality monitoring and reporting program shall be conducted by a Certified Hydrogeologist, or qualified Registered Civil Engineer, and reported to the Helix Water District on an annual basis. The water quality analysis shall include the following tests:

Analysis	Method	Sample Frequency
Nitrate	SM4500-NO_3	Quarterly
TDS	SM 2540	Quarterly
Acid and base/neutral extractable organics	SW846 8270	Annually
Carbamate pesticides	DW 531	Annually
Chlorinated herbicides	SW 846 8150	Annually
Glyphosate	DW 547	Annually

Organochlorine pesticides	SW846 8080	Annually
Volatile Organics	SW846 8260	Annually

SM - Standard methods for the Examination of Water and Wastewater, 23rd Edition; SW846 - Test Methods for Evaluating Solid Waste; Physical/Chemical Methods, Update III; DW - EPA 500 Series, Methods for the Determination of Organic Compounds in Drinking Water, including Supplements I and II.

X.
PROJECT ALTERNATIVES

Where a project will cause unavoidable significant environmental effects, CEQA requires that the District consider the feasibility of any environmentally superior alternative to the Project, as finally approved. The Final EIR contains a discussion of seven alternatives. Several design elements and project revisions analyzed in the Alternatives section were incorporated into the final project design and the Project mitigations. In general, in preparing and adopting findings, a lead agency need not necessarily address the feasibility of both mitigation measures and environmentally superior alternatives when contemplating the approval of a project. Where the significant impacts can be mitigated to an acceptable (insignificant) level solely by the adoption of mitigation measures, the agency, in drafting its findings, has not obligation to consider the feasibility of environmentally superior alternatives, even if their impacts would be less severe than those of the Project as mitigated. Laurel Heights Improvement Ass'n v. Regents of the University of California, 47 Cal.3d 376, 253 Cal. Rptr. 426 (1988); Laurel Hills Homeowners Ass'n v. City Council, 83 Cal.App.3d 515, 147 Cal. Rptr. 842 (1978); see also Kings County Farm Bureau v. City of Hanford, 221 Cal.App.3d 692, 270 Cal. Rptr. 650 (1990).

Nevertheless, the District considers whether one or more of the alternatives could avoid or substantially lessen the environmental effects of the Project–despite the fact that the imposition of project revisions and mitigation measures mitigates all potential direct and cumulative impacts to a level of non-significance, the District considers. Because it is a judgment call whether an alternative is environmentally superior, these Findings contrast and compare the alternatives analyzed in the Final EIR with the Project.

If there is a feasible alternative to the Project, the decisionmakers must decide whether it is environmentally superior to the Project. Proposed Project alternatives considered must be ones which "could feasibly attain the basic objectives of the Project." However, the Guidelines also require an EIR to examine alternatives "capable of eliminating" environmental effects even if these alternatives "would impede to some degree the attainment of the project objectives." CEQA Guidelines § 15126(d).

CEQA provides the following definition of the term "feasible," as it applies to the findings requirement: "'Feasible' means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social and technological factors." Pub. Res. Code § 21061.1. The CEQA Guidelines provide a broader definition of "feasibility" that also encompasses "legal" factors. CEQA Guidelines § 15364 states, "The lack of

legal powers of an agency to use in imposing an alternative or mitigation measure may be as great a limitation as any economic, environmental, social or technological factor."

Accordingly, "feasibility" is a term of art under CEQA and thus is afforded a different meaning as may be provided by a dictionary or other source. Moreover, CEQA Section 21081 governs the "findings" requirement under CEQA with regard to the feasibility of alternatives and states, in pertinent part, that:

> ... no public agency shall approve or carry out a project for which an environmental impact report has been certified which identifies one or more significant effects on the environment that would occur if the Project is approved or carried out unless the public agency makes one or more of the following findings: (a)(3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the environmental impact report.

The concept of "feasibility," therefore, as it applies to findings, involves a balancing of various economic, environmental, social, legal and technological factors. See Pub. Res. Code § 21061.1; CEQA Guidelines § 15364; Pub. Res. Code § 21081; see also City of Del Mar v. City of San Diego, 133 Cal. App. 3d 401, 414-417 (1992).

In City of Del Mar v. City of San Diego, 133 Cal. App. 3d 401, 415-417 (1992), the Court found that the City of San Diego had ". . . considered and reasonably rejected . . . [certain] project alternatives . . . as infeasible in view of the social and economic realities in the region." Id at 417. The court determined that the City of San Diego had attempted to accommodate the feasibility factors based on its growth management plan, which included the proposed development project. Accordingly, the Court concluded:

> Assuming this accommodation is a reasonable one (citation omitted), San Diego is entitled to rely on it in evaluating various project alternatives. The cost-benefit analysis which led to the accommodation is of course subject to review, but it need not be mechanically stated at each stage of the approval process. In this sense, "feasibility" under CEQA encompasses "desirability" to the extent that desirability is based on a reasonable balancing of the relevant economic, environmental, social, and technological factors. We accordingly conclude that San Diego did not abuse its discretion under CEQA in rejecting the various project alternatives as infeasible.

Id. These Findings contrast and compare the alternatives where appropriate in order to demonstrate that the selection of the finally approved Project, while still resulting in significant environmental impacts, has substantial environmental, planning, fiscal and other benefits. These benefits are discussed in detail in the Final EIR and within these Findings. In rejecting all of the alternatives, the City Council has examined the finally approved Project objectives and weighed the ability of the various alternatives to meet the objectives. The decisionmakers believe that the Project best meets the finally approved Project objectives with the least environmental impact. The objectives considered by the decisionmakers are:

- Service the established market area for the facility over the life of the 50-year lease of the property.
- Provide a reasonable economic return on the project proponents' real estate investment.
- Mitigate to a level that is less than significant, by design, and through proposed mitigation measures, significant potential environmental impacts on the land that might otherwise be created by project implementation.
- Provide biological open space to comply with the District's NCCP Subarea Plan.
- Create a championship golf course or recreational facility serving San Diego County.
- Provide a land use which generates revenue for the District.

The Final EIR for the Project examined a broad range of reasonable alternatives to the Project to determine whether Project objectives could be met while providing an environmentally superior project. To that end, and as set forth below, the District has properly considered and reasonably rejected Project alternatives as "infeasible" pursuant to CEQA.

A. NO PROJECT ALTERNATIVE

The no project alternative would result in the continued use of the Project site within current limitations. Neither the whole of the Project, nor any of its components would be implemented.

The predominant use of the Project site has been for agricultural production. This has included row crops on the south side of the river including melons, squash, oats and bamboo, as well as grain crops and cattle pasture on the north. Continued use of these lands for agricultural purposes would likely be reinstated should the proposed not be developed as planned. In addition, the San Diego County General Plan and Zoning Ordinance have designated approximately 380 acres of the Project site for extractive uses. This designation was applied to the site due to the high quality sand resource that exists within the alluvial valley. Because of the value of the underlying mineral resource found on the Project site, and the presence of active extractive operations located immediately adjacent to the site on the west, it is reasonable to assume that sand extraction could expand onto the Project site.

1. Project-Related Impacts.

Significant impacts identified as a result of the proposed Project would occur upon Project implementation, although mitigation measures have been proposed that would reduce these impacts to a level below significance.

2. Impacts Associated with the No Project Alternative.

Under the No Project Alternative, the potential would exist for a more intensive, and therefor more impactive, land use on the site in lieu of the proposed golf course.

3. **Project Objectives and Benefits.**

The No Project Alternative would not achieve some of the basic Project objectives. Most notably, it would not guaranty biological open space to comply with the District's NCCP Subarea Plan. It would also not create a championship golf course or other recreational facility to serve San Diego County. Although in the interim, the No Project Alternative would leave the site in an undeveloped state or revert to agricultural production, this alternative would not provide the wildlife corridor across the site linking the sage scrub habitats which would serve as habitat for California gnatcatchers and other species in the valley and facilitate movement across the valley.

4. **Conclusion.**

The No Project Alternative is not environmentally superior to the proposed Project, and the District rejects this alternative because it fails to meet the Project objectives. For this reason, the Board rejects the No Project Alternative. (See City of Del Mar, supra, 133 Cal.App.3d at 417; Cequoyah Hills, supra, 23 Cal.App.4th at 715.)

E. REDUCED INTENSITY ALTERNATIVE

This alternative evaluates the development of one Championship 18-hole and one Executive 18-hole Golf Course. The Championship course would be developed on the eastern portion of the site with an Executive course constructed on the western portion of the site. Executive golf courses are typically much smaller than Championship golf courses. The Championship course would be developed in accordance with the concept development plan set forth for the East Course. The clubhouse, parking lot, roads, water impoundment features, water wells, driving range, maintenance compound, and other facilities would remain unchanged from this design. The existing course layout for the East Course would remain unchanged. The Executive course on the western portion of the site would require only 60-85 acres of land for development. The land developed would be to the north of the floodway and would abut the clubhouse area. River crossings for golf carts would not be necessary/built. Therefore, approximately 190-175 acres of the western portion of this site would not be developed for golf activities under this alternative and would remain unchanged.

1. **Project-Related Impacts.**

Significant impacts to traffic, biology, hydrology, and groundwater, occurring as a result of East and Executive Courses only would occur upon Project implementation, although mitigation measures have been proposed that would reduce these impacts to a level below significance.

2. **Impacts Associated with the Reduced Intensity Alternative.**

Because the Reduced Intensity Alternative does not utilize approximately 190-175 acres, this alternative could be environmentally superior with respect to those acres depending on what use was made of those acres.

3. **Project Objectives and Benefits.**

The Reduced Intensity Alternative would accomplish some of the Project's objectives and would reduce the overall scope of the Project. However, it is considered by the Project proponent to be

financially infeasible and therefore does not meet all of the Project's objectives. If the Project is not does not succeed, it would impact the revenues to the District. A Reduced Intensity Alternative could also result in fewer job opportunities. This Alternative may fail to provide the applicant sufficient incentives to enter into the Project.

4. **Conclusion**.

The No Project Alternative is not environmentally superior to the proposed Project, and the District rejects this alternative because it fails to meet the Project objectives. For this reason, the Board rejects the No Project Alternative. (See City of Del Mar, supra, 133 Cal.App.3d at 417; Cequovah Hills, supra, 23 Cal.App.4th at 715.)

C. COMMERCIAL NURSERY ALTERNATIVE

The commercial nursery alternative proposes installation of a commercial plant propagation facility. The facility would require approximately 300 acres of land, graded into relatively flat pad areas, which would be used for both plant propagation and plant transplanting procedures. Since this location has been used for plant development in the past, it is viewed as a favorable location for this type of commercial use. The Project would utilize approximately 30 acres for green houses and shaded plant-growing facilities, although all structures on-site would be temporary and portable (i.e., greenhouses, offices, storage trailers, etc.). The Project would demand about 1,000 acre-feet of water per year. This water would either be extracted from local ground water sources, or it would be imported.

1. **Project-Related Impacts**.

Significant impacts identified as a result of the proposed Project would occur upon Project implementation, although mitigation measures have been proposed that would reduce these impacts to a level below significance.

2. **Impacts Associated with the Commercial Nursery Alternative.**

Visual, biological, and groundwater segments of the environment could sustain significant impacts from implementation of this alternative. Traffic, noise, groundwater, and air quality would receive similar impacts as the proposed use.

3. **Project Objectives and Benefits**.

Although the Commercial Nursery Alternative creates similar impacts to the site as the proposed Project, this alternative cannot be viewed as environmentally preferable and would not accomplish Project objectives, particularly providing a recreational facility to serve San Diego County and ensuring open space and habitat.

4. **Conclusion**.

The Commercial Nursery Alternative is not environmentally superior to the proposed Project, and the District rejects this alternative because it fails to meet the Project objectives. For this reason, the

Board rejects the No Project Alternative. (See City of Del Mar, supra, 133 Cal.App.3d at 417; Cequoyah Hills, supra, 23 Cal.App.4th at 715.)

D. EXTRACTIVE/MINERAL RESOURCE ALTERNATIVE

This alternative would result in the implementation of an extractive/mineral resource operation on-site. This site reflects many desirable qualities sought after by mineral extraction operators and would be compatible to surrounding land uses, as there is a similar use adjacent to the southwest of the Project site. In addition, an extractive/mineral resource use would comply with the provisions of the S82 Extractive zoning designation, of the County of San Diego Zoning Ordinance, which provides for mining, quarrying and oil extracting uses, and is designated as Extractive by the Lakeside Community Plan.

1. Project-Related Impacts.

Significant impacts identified as a result of the proposed Project would occur upon Project implementation, although mitigation measures have been proposed that would reduce these impacts to a level below significance.

2. Impacts Associated with the Extractive/Mineral Resource Alternative.

The Extractive/Mineral Resource Alternative would produce potentially significant impacts to biology, truck traffic, visual qualities, groundwater, air quality, and noise. It would be about as impactive as the proposed Project in terms of erosion, sedimentation, and water quality effects. Automobile traffic would decrease.

3. Project Objectives and Benefits.

Upon review of the potentially significant environmental impacts stated above, this alternative cannot be viewed as environmentally preferable and would not accomplish Project objectives, particularly the objectives of providing a recreational facility to serve San Diego County and ensuring open space and habitat.

4. Conclusion.

The Extractive/Mineral Resource Alternative is not environmentally superior to the proposed Project, and the District rejects this alternative because it fails to meet the Project objectives. For this reason, the Board rejects the No Project Alternative. (See City of Del Mar, supra, 133 Cal.App.3d at 417; Cequoyah Hills, supra, 23 Cal.App.4th at 715.)

E. RELOCATED BRIDGE (EASTERLY) AND MAINTENANCE FACILITY ALTERNATIVE

This alternative evaluates the development of two full sized Championship 18-hole golf courses and one 9-hole practice course. The golf courses would be developed similarly to the proposed project except the main entry bridge and maintenance facility would be relocated.

1. **Project-Related Impacts**.

Significant impacts identified as a result of the proposed Project would occur upon Project implementation, although mitigation measures have been proposed that would reduce these impacts to a level below significance.

2. **Impacts Associated with the Relocated Bridge (Easterly) and Maintenance Facility Alternative**.

This alternative would reduce impacts resulting from traffic, and traffic related noise/dust, and land use compatibility resulting from the proximity of the entry road, bridge, and maintenance facility to residences. Relocating the bridge to the east results in similar biological resource impacts, but reduces land use compatibility impacts.

3. **Project Objectives and Benefits**.

This alternative is considered but rejected. Relocating the bridge to the east would hinder golf course circulation and the functionality of the maintenance facility would be substantially compromised if it were not centrally located within the Project site. Upon review of the potentially significant environmental impacts, this alternative cannot be viewed as environmentally preferable.

4. **Conclusion**.

The Relocated Bridge (Easterly) and Maintenance Facility Alternative is not environmentally superior to the proposed Project, and the District rejects this alternative because it fails to meet the Project objectives. For this reason, the Board rejects the No Project Alternative. (See City of Del Mar, supra, 133 Cal.App.3d at 417; Cequoyah Hills, supra, 23 Cal.App.4th at 715.)

F. RELOCATED BRIDGE (WESTERLY) ALTERNATIVE

This alternative evaluates the development of two full sized Championship 18-hole golf courses and one 9-hole practice course. The golf courses would be developed similarly to the proposed Project except the main entry bridge would be relocated approximately 200 feet to the west of its currently proposed location.

1. **Project-Related Impacts**.

Significant impacts identified as a result of the proposed Project would occur upon Project implementation, although mitigation measures have been proposed that would reduce these impacts to a level below significance.

2. **Impacts Associated with the Relocated Bridge (Westerly) Alternative**.

This alternative would reduce biological impacts. The existing alignment will traverse through disturbed riparian scrub with approximately 40 percent cover (i.e., evenly distributed between native and non-native species) and riparian woodland along the north side of the channel. Shifting this alignment approximately 200 feet to the west could substantially avoid these impacts to riparian

woodland and would result in impacts to lower quality riparian scrub (i.e., dominated by non-native species such as pampas grass).

3. **Project Objectives and Benefits**.

The golf course circulation and sound design of existing play areas on hole numbers 10 and 18 on the East Course would be substantially compromised if the main entry bridge were relocated approximately 200 feet to the west. This could impact the expected returns and the ability to provide a championship golf course or recreational facility to serve San Diego County. Therefore, this alternative is considered but rejected.

4. **Conclusion**.

The Relocated Bridge (Westerly) Alternative is not environmentally superior to the proposed Project, and the District rejects this alternative because it fails to meet the Project objectives. For this reason, the Board rejects the No Project Alternative. (See City of Del Mar, supra, 133 Cal.App.3d at 417; Cequoyah Hills, supra, 23 Cal.App.4th at 715.)

G. ALTERNATIVE PROJECT LOCATION

This alternative involves relocating the proposed 45-hole golf course to an off-site location. The off-site location chosen for this analysis is a 356-acre development currently proposed for a combination residential/golf community in Alpine. The development is referred to as the Stagecoach Ranch Specific Plan. The Stagecoach Ranch Specific Plan provides residential and recreational opportunities including 131 single-family lots, an 18-hole golf course, and a waste water reclamation facility within the planned development. This alternatives analysis considers the replacement of development proposed under the Stagecoach Ranch Specific Plan with a full-sized 45-hole golf facility and ancillary structures. Therefore, under the Alternative Project Location scenario, conditions would remain unchanged at the El Monte Valley site (as described in the No Project Alternative), but would reflect changes associated with development of a 45-hole golf facility at the Stagecoach Ranch Specific Plan site.

1. **Project-Related Impacts**.

Significant impacts identified as a result of the proposed Project would occur upon Project implementation, although mitigation measures have been proposed that would reduce these impacts to a level below significance.

2. **Impacts Associated with the No Project Alternative**.

Potential impacts at the alternative site would include nom-compliance with the Resource Protection Ordinance, landform alteration, traffic, archaeological resource, biological resources, and hydrology/ground water. As discussed above under the No Project Alternative, the potential exists for a more intensive, and therefor more impactive, land use on the site in lieu of the proposed golf course. Because development of the 45-hole golf course at the alternative site location would likely result in above referenced environmental impacts both on site and off, it cannot be considered environmentally preferable to the proposed project location.

3. **Project Objectives and Benefits**.

The No Project Alternative would not achieve some of the basic Project objectives. Most notably, it would not guaranty biological open space to comply with the District's NCCP Subarea Plan. It would also not create a championship golf course or other recreational facility to serve San Diego County. Although in the interim, the No Project Alternative would leave the site in an undeveloped state or revert to agricultural production, this alternative would not provide the wildlife corridor across the site linking the sage scrub habitats which would serve as habitat for California gnatcatchers and other species in the valley and facilitate movement across the valley.

4. **Conclusion**.

The Alternative Project Location is not environmentally superior to the proposed Project, and the District rejects this alternative because it fails to meet the Project objectives. For this reason, the Board rejects the No Project Alternative. (See City of Del Mar, supra, 133 Cal.App.3d at 417; Cequoyah Hills, supra, 23 Cal.App.4th at 715.)

Helix Water District

El Capitan Golf Course Mitigation Monitoring Plan

Issue	Mitigation Measures	Responsible Agency	Department	Monitor	Initial	Comments
Land Use	1. Other than lighting required for security and safety, there shall be no outdoor nighttime lighting of the project site. 2. Berming/mounding and landscaping shall be installed between the maintenance facility and residences west and southeast of the facility. 3. All vehicles/equipment powered by internal combustion engines shall be equipped with mufflers in accordance with manufacturer's specifications. 4. The maintenance facility shall be redesigned to eliminate entry gates on the west side of the perimeter wall, as shown in Figure 2.1-4 of the FEIR. 5. The design of the maintenance facility shall be changed to include relocating the compound approximately 900 feet to the east as shown in the revised Figure 2.1-4 and Figure 2.1-5 of the FEIR. The relocated maintenance compound shall be approximately 100 feet north of and 20 feet lower in elevation than El Monte Road compared to the previous location. Access to the maintenance compound shall be taken from El Monte Road approximately 100 feet to the east of the structure.	Helix Water District	Engineering/ Right-of-Way			

Helix Water District
El Capitan Golf Course Mitigation Monitoring Plan (Continued)

Issue	Mitigation Measures	Responsible Agency	Department	Monitor	Initial	Comments
Visual Quality	1. Landscaping and proposed structures shall be designed in conformance with the Lakeside Design Guidelines. At a minimum, the following shall be required: a. Existing significant trees shall be preserved. b. Other than security fencing at specific golf course facilities, building materials shall be low walls of native stone, wooden rail fences, wire fences, boulders and native rocks. c. All utilities shall be placed underground. 2. The landscaping plan shall provide for liberal use of trees along El Monte Road. Eighty percent of tree species shall be naturally occurring species typical of the valley (e.g. Oak, Sycamore, Willow, Cottonwood, etc.). 3. Landscaping along Willow Road shall respect the current open view corridors to the south of the site, with the exception of planting trees to screen off site areas from errant golf shots. Landscaping shall either be below three feet in height, or, in the case of trees, widely spaced clusters with branching patterns above eight feet in height. 4. The parking lot proposed for location adjacent to Willow Road shall be set back from the roadway a minimum of 30 feet with liberal use of landscaping planted within the buffer area and throughout the parking lot. 5. No buildings shall be placed within 50 feet of the edge of the pavement along El Monte Road.	Helix Water District	Engineering/ Right-of-Way			

Helix Water District
El Capitan Golf Course Mitigation Monitoring Plan (Continued)

Issue	Mitigation Measures	Responsible Agency	Department	Monitor	Initial	Comments
Visual Quality (continued)	6. The proposed maintenance facilities shall be constructed with materials typical of residential development in the Lakeside community. Building materials shall be consistent with the Lakeside Design Review Guidelines. Landscaping shall be used to screen and buffer views from adjacent residential development. 7. Adherance to Section 2.1.3 c. for land use impacts shall be a requirement of the building and grading permit.	Helix Water District	Engineering/ Right-of-Way			
Traffic	1. Project access driveways and channelization shall be designed to the satisfaction of the Director of Public Works.	Helix Water District/San Diego County Dept. of Public Works	Engineering/ Right-of-Way/Public Works Dept.			
Biology	**Plants and Vegetation Communities.** A Biological Resource Management Plan shall be prepared, approved and implemented in concert with the preparation of site specific development plans. This plan shall contain at a minimum: 1. A comprehensive revegetation/habitat enhancement component to compensate for direct losses of wetland habitat associated with river crossing improvements. 2. A biological buffer averaging 50-feet wide (minimum of 25 feet wide) area shall be established adjacent to the floodway. This buffer area shall be revegetated with strictly native, indigenous, alluvially-dependent shrubs and herbs. 3. A 100-foot "planning buffer" shall be established at the outer edge of the biological buffer. The planning buffer shall preclude the establishment of structures (except bridge crossings, cart paths, and equestrian trail) and shall permit play.	Helix Water District to monitor. The golf course project proponents will be responsible for implementation of the Management Plan in concert with its regular maintenance and management operations.	Engineering/ Right-of-Way			

Helix Water District
El Capitan Golf Course Mitigation Monitoring Plan (Continued)

Issue	Mitigation Measures	Responsible Agency	Department	Monitor	Initial	Comments
Biology (continued)	4. Mature Coast Live Oak, California sycamores and Western cottonwood trees shall be retained. Where retention cannot be accommodated, like-kind replacement for any trees unavoidably lost shall be required. 5. Landscape plans and plant pallets shall be reviewed for wetlands compatibility as a function of the Biological Resource Management Plan 6. The District will review the plan based on overall guidelines in the Joint Water Agency Subregional Plan, and evaluate the plan for consistency with the County MSCP, Jamul-Lakeside Subunit Plan. The wildlife agencies will be given an opportunity to review and comment on the Management Plan at that time. 7. The entire golf course development will be fenced using a variety of fencing types to prevent unauthorized entrance onto the property while also allowing for wildlife movement through the proposed wildlife corridor as well as equestrian use of the equestrian trail. In addition, the golf course operators will actively discourage off-road vehicle activity since it is inherently incompatible with the golf course use. 8. Natural barriers comprised of thorny shrubs or other appropriate vegetative barriers and signage shall be incorporated along both sides of the cart paths and equestrian path wherever they enter or cross the river channel, wildlife corridor/habitat creation area, or other areas specifically designated as biological open space by the golf course design or the Helix Water District Subarea Plan.	Helix Water District to monitor. The golf course project proponents will be responsible for implementation of the Management Plan in concert with its regular maintenance and management operations.	Engineering/ Right-of-Way			

Helix Water District
El Capitan Golf Course Mitigation Monitoring Plan (Continued)

Issue	Mitigation Measures	Responsible Agency	Department	Monitor	Initial	Comments
Biology (continued)	<u>Plants</u> 9. For any coast live oak trees with a DBH of 4 inches or greater that are indirectly impacted by proposed grading at adjacent driplines, it is recommended that they be mitigated at a 5:1 replacement ratio utilizing five-gallon container replacement stock. Based on the recommended replacement ratio of 5:1 (utilizing five-gallon container stock), a total of 170 trees should be planted onsite 10. Western sycamore that may be directly or indirectly impacted should be replaced in-kind. 11. A focused survey for San Diego ambrosia along the river terraces shall be conducted in the spring (i.e., after May). 12. Ongoing equestrian and off-road vehicle usage of the sensitive riparian area shall be discouraged. <u>Vegetation Communities</u> 13. Coastal Sage Scrub. The impact to 1.9 acres shall be adequately mitigated by the proposed creation of 21.1 acres of coastal sage scrub as part of the wildlife corridor/preserve area. A detailed coastal sage scrub restoration plan should be prepared by a qualified biologist that details issues such as site preparation, installation specifications, maintenance, monitoring and reporting. Maintenance and monitoring shall occur for three to five years after installation, or until specified success standards are achieved	Helix Water District	Engineering/ Right-of-Way			

Helix Water District
El Capitan Golf Course Mitigation Monitoring Plan (Continued)

Issue	Mitigation Measures	Responsible Agency	Department	Monitor	Initial	Comments
Biology (continued)	Plants (continued) 14. Disturbed Riparian Scrub, Riparian Woodland and Waters of the U.S. Upon project implementation, the projected permanent and temporary impacts to these three wetland resources shall be mitigated by an onsite habitat restoration program including wetland creation and enhancement. Permanent impacts to disturbed riparian scrub and riparian woodland shall be mitigated at a 3:1 ratio, while permanent impacts to waters of the U.S. be mitigated at a 1:1 ratio. Temporary impacts to vegetated wetlands should be mitigated at a 2:1 ratio. Assuming the projected impact to 4.0 acres of riparian woodland (CDFG jurisdictional habitat) can be avoided then the combined permanent vegetated wetland impacts would total 0.69 acre and temporary impacts would total 0.9 acre. Recommended mitigation ratios and acreages are listed below: - Permanent impacts to disturbed riparian scrub and riparian woodland total 0.69 acre -- multiplied by a 3:1 ratio equals 2.07 acres. - Permanent impacts to waters of the U.S. total 0.3 acre -- multiplied by a 1:1 ratio equals 0.3 acre. - Temporary impacts to disturbed riparian scrub and riparian woodland total 0.9 acre -- multiplied by a 2:1 ratio equals 1.8 acres.	Helix Water District	Engineering/ Right-of-Way			

Issue	Mitigation Measures	Responsible Agency	Department	Monitor	Initial	Comments
Biology (continued)	Plants (continued) 15. Therefore, the recommended wetland mitigation restoration program (excluding mitigation for projected impacts to riparian woodland along the river banks) would total 4.17 acres. A detailed wetland restoration plan should be prepared by a qualified biologist that details issues such as site preparation, installation specifications, maintenance, monitoring and reporting. Maintenance and monitoring for wetland programs shall occur for five years after installation, or until specified success standards are achieved. As a guideline, ACOE and CDFG typically require that at least 1:1 replacement of all impacts be accomplished by wetland habitat creation (i.e., converting upland into wetland). Based on the projected impacts referenced above, approximately 1.9 acres of the recommended 4.17 acres should involve wetland habitat creation. The remaining 2.47 acres of mitigation could be accomplished through wetland enhancement measures. 16. The project shall identify the most ecologically appropriate onsite location adjacent to the river to accomplish 1.9 acres of wetland creation. The remainder of the mitigation (i.e., 2.27 acres) shall be accomplished by enhancing the existing riparian habitat in the river within and partially upstream and downstream of the proposed wildlife corridor. Since ACOE and CDFG typically provide 1/2 credit for enhancement mitigation, at least 4.5 to 5.0 acres should be included in this enhancement effort.	Helix Water District	Engineering/ Right-of-Way			

Helix Water District
El Capitan Golf Course Mitigation Monitoring Plan (Continued)

Issue	Mitigation Measures	Responsible Agency	Department	Monitor	Initial	Comments
Biology (continued)	Plants (continued) 17. If the projected worst-case impacts do occur to 4.0 acres of riparian woodland, then up to 12 acres of additional mitigation would be required based on a 3:1 replacement ratio. 18. Field adjustments shall be made during construction to avoid trees and align the cart paths between vegetation openings to minimize impacts. **Wildlife/Habitat** 19. With concurrence of the resource agencies, directed studies for the Southwestern arroyo toad will not be required. Significant water flow has only occurred in the San Diego River five (5) times since construction of El Capitan Dam was completed in 1935, and the habitat is unsuitable for this species. 20. The golf course project will conduct protocol surveys in Spring, 1999 for Least Bell's vereo, Willow flycatcher, and California gnatcatcher. If any of these species are found, the project will provide appropriate additional mitigation in banks established by the Helix Subarea Plan as a first choice, or in another approved NCCP bank. 21. A plan to manage lighting and watering shall be developed to limit the potentially significant impacts to foraging raptors.	Helix Water District	Engineering/ Right-of-Way			

Helix Water District
El Capitan Golf Course Mitigation Monitoring Plan (Continued)

Issue	Mitigation Measures	Responsible Agency	Department	Monitor	Initial	Comments
Biology (continued)	Wildlife Habitat (continued) 22. Approximately 21 acres of coastal sage scrub habitat shall be created in the corridor zone to compensate for any adverse effects on biological resources. A habitat restoration plan shall be prepared and implemented for the wildlife corridor/habitat creation area. The goal of the restoration plan shall be to create at least 20 contiguous acres of potential breeding habitat for California gnatcatchers in the river valley. The created habitat shall be configured to accommodate north-south wildlife movement from existing coastal sage scrub habitat, on the north and south valley slopes, to the existing river channel. Success of the restoration plan shall be measured by a biological monitoring program to last a minimum of 3 years, or until all success criteria are achieved. 23. In addition to habitat creation within the wildlife corridor/habitat creation area, approximately 44 additional acres of the golf course will be landscaped using the Zone 1 (19.2 acres) and Zone 2 (24.9 acres) planting palettes. As discussed above, the Zone 1 palette consists of native coastal sage scrub species and the Zone 2 palette consists of native California shrub species.	Helix Water District	Engineering/ Right-of-Way			

Helix Water District
El Capitan Golf Course Mitigation Monitoring Plan (Continued)

Issue	Mitigation Measures	Responsible Agency	Department	Monitor	Initial	Comments
Groundwater (continued)	11. Water soluble fertilizer applications shall be closely monitored to insure that the application rate does not exceed plant assimilation rates. 12. Azospirillum soil bacteria shall be incorporated into soils. 13. Fertilizers shall not be applied within 24 hours of expected precipitation events. 14. Soils and plant tissue analysis shall be conducted on an annual basis. Fertilizer application rates shall be adjusted according to the results of these tests. 15. Prior to initiating planting and grow-in, the applicant shall develop an integrated pest management program (IPM). The IPM shall be submitted to Helix Water District for review and approval prior to initiating planting and grow-in. The IPM shall include the following: a. Monitoring to detect pest populations. b. Determination of pest injury levels and establishment of treatment thresholds. c. Integrated biological, cultural, and chemical control strategies. d. Education program for personnel involved in biological and chemical control planning and implementation. e. Identification of guidelines for timing and spot treatment of chemical control agents. f. Evaluation of test results and modification of practices. g. Record keeping.	Helix Water District	Engineering/ Right-of-Way			

Helix Water District
El Capitan Golf Course Mitigation Monitoring Plan (Continued)

Issue	Mitigation Measures	Responsible Agency	Department	Monitor	Initial	Comments
Biology (continued)	**Wildlife Corridors.** 26. Contractor Education and Access. Prior to the initiation of revegetation/ enhancement activities, the project biologist will meet with maintenance personnel to review project guidelines and goals. Native species to be retained and exotic species to be removed will be reviewed at that time. The least impactive access routes for equipment and program personnel will also be determined in the field and marked. Initial Control/Removal of Exotic Species. The primary exotic species that should be removed include tamarisk/salt cedar (Tamarix sp.), pampas grass (Cortaderia selloana), giant reed (Arundo donax), castor bean (Ricinus communis), eucalyptus (Eucalyptus sp.), tree tobacco (Nicotiana glauca), and fennel (Foeniculum vulgare). This list may be adjusted by the project biologist during the implementation phase. It is recommended that the initial exotic species removal effort begin in the late summer. There are 3 basic methods for initial removal of exotics that can be used depending on the specific conditions within portions of Areas A and B. The 3 methods are: (1) hand-cutting most of the above-ground biomass and then applying herbicide to the stump; (2) applying herbicide without cutting the specimen; and (3) physical removal with motorized equipment. In cases where there is an isolated exotic with a sufficient density of native species around it (such that no follow-up planting will be necessary where the exotic presently occurs), herbicide can be applied without cutting the exotic.	Helix Water District	Engineering/ Right-of-Way			

Helix Water District
El Capitan Golf Course Mitigation Monitoring Plan (Continued)

Issue	Mitigation Measures	Responsible Agency	Department	Monitor	Initial	Comments
Biology (continued)	Wildlife Habitat (continued) 24. Perform a 10-acre revegetation/enhancement program within the San Diego River channel with a combination of native wetland and alluvial wash plants. Part of this effort shall occur within the portion of the river channel that coincides with the proposed north-south wildlife corridor, and the program shall be divided between existing wetland and alluvial wash habitats. 25. The two primary goals of the pilot revegetation/enhancement program will be to: (1) revegetate and enhance existing habitat to improve wildlife habitat values as mitigation for golf course impacts, and (2) determine what methods are most feasible and successful for performing revegetation/enhancement and how long will it take to establish native vegetation. The program will include revegetation/ enhancement locations and implementation methods, and recommended maintenance and monitoring guidelines. The primary implementation steps will include contractor education and delineation of access; initial removal of invasive exotic plants; installation of temporary irrigation; installation of container plants and seed; and follow-up 5-year maintenance and monitoring. Prior to implementation of the proposed golf course, a detailed plan for the channel revegetation/enhancement program will be prepared for final approval by the agencies.	Helix Water District	Engineering/ Right-of-Way			

Helix Water District
El Capitan Golf Course Mitigation Monitoring Plan (Continued)

Issue	Mitigation Measures	Responsible Agency	Department	Monitor	Initial	Comments
Biology (continued)	An overhead irrigation system is not recommended because the spray is likely to be blocked by existing vegetation and it is not a feasible way to promote deep-watering. Particularly within this setting, periodic deep-watering is preferable over more frequent surface watering. The intent of irrigation will be to establishment the container plants by promoting root systems that tap into channel's available water. For most of the planted species it is expected that temporary irrigation will be needed for 2 to 3 years, after which time it can be permanently discontinued. For the wetter areas in Area A, it is expected that little to no temporary irrigation will be needed to establish the plants. Installation of Container Plants and Seed. The primary method for native plant revegetation will be container plants and promoting establishment of native volunteers, although some limited hand-seeded may be tried in select areas. Generally in openings without native plants larger than 8 by 8 feet, appropriate container plants will be installed. Planting will include a mixture of shrub and tree species. As a guideline, container shrubs can be installed with spacing on center ranging from 6 to 12 feet with an 8 foot average, while trees can be installed from 12 to 25 feet apart with a 15 foot average (this assumes some mortality). Most of the container plants will be 1-gallon, although some 5-gallon trees may be included. For experimental purposes, some vegetative cuttings should be installed in the wetter Area A and possibly in Area B.	Helix Water District	Engineering/ Right-of-Way			

Helix Water District
El Capitan Golf Course Mitigation Monitoring Plan (Continued)

Issue	Mitigation Measures	Responsible Agency	Department	Monitor	Initial	Comments
Biology (continued)	In cases where there is a grouping of exotics but motorized equipment could not avoid impacting existing native species, specimens should be hand-cut and herbicide applied so space will be created for follow-up native planting. In cases where there is a grouping of exotics and motorized equipment could avoid impacting native species, this method can be used. Since there is a significant amount of weed seed that already exists in the seedbank, physical removal of all the exotic biomass and seedheads out of the channel is not considered necessary. Except for a species such as giant reed, it is considered acceptable to chip this biomass and distribute it as mulch within the channel. It is understood that after the initial control/removal of exotics, follow-up maintenance will be necessary to ensure these species are completely eradicated. In the case of initial control/removal and follow-up maintenance, very small specimens can hand-pulled if the entire root system can be removed. Installation of Temporary Irrigation System. To ensure survival and establishment of native container plants, some form of temporary irrigation will be necessary at least in the alluvial wash areas. It is expected that more than one method of irrigation may be used. It is likely the primary method will be a drip system (extended from the golf course irrigation system) to deliver water to individual container plants. Another potential method is selective hand-watering or installation of slow-release water products (e.g., DriWater) for more isolated container plants.	Helix Water District	Engineering/ Right-of-Way			

Helix Water District
El Capitan Golf Course Mitigation Monitoring Plan (Continued)

Issue	Mitigation Measures	Responsible Agency	Department	Monitor	Initial	Comments
Biology (continued)	Maintenance and Monitoring Once installation of the planting palettes is complete, a recommended 5-year maintenance and monitoring program will begin. In addition since invasive exotics from upstream portions of the river channel will continue to re-invade the 2 revegetation/enhancement areas over time, some form of periodic long-term maintenance and monitoring beyond 5 years is considered necessary. The focus of the 5-year maintenance effort will be to eradicate all invasive exotics in the revegetation/enhancement areas and to promote establishment of a self-sustaining native plant community in the portions of Areas A and B that are currently nonnative. The focus of the 5-year monitoring effort will be to provide direction to maintenance personnel, document progress and success of the program, and determine what methods of exotic plant control and native plant revegetation are most beneficial. Ultimately, monitoring will also help determine if the revegetation/enhancement is self-sustaining and whether this approximate 2-mile stretch of the river channel is a good candidate area for other projects to perform revegetation/enhancement mitigation. Maintenance and monitoring are discussed in more detail below.	Helix Water District	Engineering/ Right-of-Way			

Helix Water District
El Capitan Golf Course Mitigation Monitoring Plan (Continued)

Issue	Mitigation Measures	Responsible Agency	Department	Monitor	Initial	Comments
Biology (continued)	Also for experimental purposes, some selective hand-seeding should occur in Areas A and B. After the initial control/removal of exotics, native planting should occur with the onset of the rainy season. In regard to the wetter portions of Area A that will support willow woodland (approximately 2 to 3 acres), recommended container plants include, but are not limited to, arroyo willow (Salix lasiolepis), black willow (Salix gooddingii), shining willow (Salix lucida ssp. lasiandra), and Fremont cottonwood (Populus fremontii). Seeded species could include Mexican rush (Juncus mexicanus), spikerush (Eleocharis sp.), and monkey flower (Mimulus nasutus). In regard to the drier portions of Area A and all of Area B that will support alluvial scrub with scattered trees (approximately 7 to 8 acres), recommended container plants include, but are not limited to, mule fat (Baccharis salicifolia), sandbar willow (Salix exigua), arroweed (Pluchea sericea), blue elderberry (Sambucus mexicana), and California sycamore. Seeded species could include Douglas mugwort (Artemisia douglasiana), giant wild rye (Leymus condensatus), and evening primrose (Oenothera hookeri). Many of the plants listed here are appropriate for both habitat types, although the final palettes should be "weighted" toward more wet- and alluvial-adapted species, depending on planting locations.	Helix Water District	Engineering/ Right-of-Way			

Helix Water District
El Capitan Golf Course Mitigation Monitoring Plan (Continued)

Issue	Mitigation Measures	Responsible Agency	Department	Monitor	Initial	Comments
Biology (continued)	Monitoring. A qualified biologist will oversee the initial 5-year monitoring period. The biologist will meet with maintenance personnel on a regular basis to review the condition of Areas A and B and the highest maintenance priorities. Horticultural and botanical monitoring will be performed. Horticultural monitoring will focus on exotic plant control and the health and growth of container plants. Botanical monitoring can use a combination of techniques, such as transects and quadrats, to quantify the progress of native plant development in areas previously dominated by nonnative plants. Permanent photographic viewpoints should also be established to document revegetation progress over time. As part of monitoring, a set of success standards will be established to assess revegetation progress. Within the alluvial wash habitat for example, success standards for the end of year 5 could include 90 percent survival of container plants, 65 percent native cover in areas previously dominated by non-native, and no invasive exotics present. Success standards could be similar within the wetter willow woodland area, except for a slightly higher native plant cover goal. Horticultural and botanical monitoring results, including any recommended remedial measures (e.g., replacement plants, fertilizer etc.), will be included in five annual reports to be submitted to the agencies. The annual reports should also review the relative success of the revegetation techniques conducted in Areas A and B, so potential future revegetation/enhancement programs performed by other projects in the channel can benefit from the results of this pilot program.	Helix Water District	Engineering/ Right-of-Way			

Helix Water District
El Capitan Golf Course Mitigation Monitoring Plan (Continued)

Issue	Mitigation Measures	Responsible Agency	Department	Monitor	Initial	Comments
Biology (continued)	Maintenance. During the initial 5-year period, the primary maintenance items will include exotic plant control, maintaining the irrigation system, promoting establishment of container plants, promoting establishment of seeded species and native volunteers, trash removal and site protection. After the initial exotic control/removal effort, exotic plant control will focus on treating re-sprouts with herbicide and eradicating new specimens that germinate from the seedbank. After the initial effort is conducted between July and August, it is recommended that herbicide be applied to the re-sprouts (before they get over 4 feet high) between August and October, before the first frost. In the following spring (i.e., between March and May) and late summer/fall of the next year, herbicide should be applied again to the re-sprouts. This follow-up treatment should be conducted each year until the individual specimen is dead. In terms of promoting establishment of container plants, the primary items will include overseeing temporary irrigation, maintaining weed-free basins, and adding fertilizer as necessary. Once some of the faster growing species such willow and cottonwood reach approximately 25 feet in height in 2 to 3 years, temporary irrigation should no longer be necessary. Scattered annual weeds, such as mustard (Brassica sp.) and clover (Melilotus sp.), should only need to be controlled when they occur in dense patches in open areas or in container planting basins. Once the 5-year program is considered successful and complete, long term maintenance may only be necessary twice a year to eradicate any exotics that have re-invaded.	Helix Water District	Engineering/ Right-of-Way			

Helix Water District
El Capitan Golf Course Mitigation Monitoring Plan (Continued)

Issue	Mitigation Measures	Responsible Agency	Department	Monitor	Initial	Comments
Biology (continued)	30. A north-south wildlife movement corridor will be created to mitigate for impacts to small scattered patches of coastal sage scrub and associated species as well as potential impacts to wildlife movement. Approximately 21 acres of coastal sage scrub habitat will be created in the corridor zone. The corridor shall range in width from approximately 650 feet to over 1,000 feet wide and is approximately 1,300 feet long. The corridor shall be located in an area with a low level of human disturbance, especially at night. The wildlife corridor shall be redesigned on the north side of the river by changing the footprint of golf hole No. 5 (see Figure 2.4-4 in the FEIR). The area north of the fifth hole will be revegetated in a mix of coastal sage scrub and native grassland species. Wildlife Corridors (continued) The cart path shall be moved so that it wraps around the east end of the fifth green and has limited impact on the wildlife corridor. All trees will be planted on the "golf side" of the cart path. This enhanced wildlife corridor will connect Pre-approved Mitigation Areas that were previously separated by the agricultural land use and will contribute to the preservation of wide-ranging species. The integrity of the San Diego River channel corridor will be enhanced by the establishment of a biological buffer averaging 50 feet and a 100-foot wide planning buffer on both sides of the channel. The biological buffer will remove exotic invasive plant species and be revegetated with native plant materials.	Helix Water District	Engineering/ Right-of-Way			

Helix Water District
El Capitan Golf Course Mitigation Monitoring Plan (Continued)

Issue	Mitigation Measures	Responsible Agency	Department	Monitor	Initial	Comments
Biology (continued)	Once the program has met its 5-year success standards in Areas A and B, that portion of the program will be complete. If portions of Areas A and B have not met their success standards after 5 years, then consultation should occur with the agencies to determine whether sufficiently beneficial revegetation/enhancement can be feasibly performed within this setting. If revegetation/enhancement was successful after 5 years, then some form of long term monitoring and reporting should be coordinated with the long term maintenance effort to ensure invasive exotics do not re-invade and intended wildlife habitat values are retained. The Pilot Revegetation/Enhancement Program is shown on Figure 2.4-3. 27. The bridge/crossing shall be of adequate height such that wildlife movement within the riparian corridor is not discouraged. 28. Natural barriers comprised of thorny shrubs or other appropriate vegetative barriers and signage shall be incorporated along both sides of the cart paths and equestrian path wherever they enter or cross the river channel, wildlife corridor/habitat creation area, or other areas specifically designated as biological open space by the golf course design or the Helix Water District Subarea Plan. 29. Signage shall be erected at appropriate locations along cart paths and equestrian trails to educate users about the biological resources and prohibited uses in the biological open space areas.	Helix Water District	Engineering/ Right-of-Way			

Helix Water District
El Capitan Golf Course Mitigation Monitoring Plan (Continued)

Issue	Mitigation Measures	Responsible Agency	Department	Monitor	Initial	Comments
Archaeology	1. CA-SDI-13,652 shall be preserved by "capping" the site. This will mitigate any adverse impacts that might result form construction of the proposed project. Capping will involve the placement of 6 inches of clean sand followed by 2 to 4 feet of clean, sterile fill soil over the entire site. 2. The boundaries of CA-SDI-13,652 shall be appropriately delineated on all project maps with prohibitions against future excavation, grading, or other substantial subsurface disturbance. Irrigation, other utilities, and improvements must not penetrate the sand stratum above the site. 3. All archaeological resources mitigation work shall be performed under the direct supervision of a qualified archaeologist. 4. The boundaries of the site area shall be appropriately delineated on project maps with prohibitions against future excavation and/or disturbance. Irrigation, other utilities, and improvements must not penetrate the sand stratum demarcating the top of the site. Additionally, a qualified archaeological monitor shall be present during any extensive grading and subsurface excavation during the construction phase of the project. 5. All archaeological collections resulting from the testing program and subsequent excavations shall be curated.	Helix Water District	Engineering/ Right-of-Way			

Helix Water District
El Capitan Golf Course Mitigation Monitoring Plan (Continued)

Issue	Mitigation Measures	Responsible Agency	Department	Monitor	Initial	Comments
Biology (Continued)	The proposed variable width biological buffer starts at the edge of the Army Corps of Engineers jurisdiction boundary (approximately two feet in elevation above the base of the river channel bank) and varies from a minimum of 25 feet to as much as 200 feet wide in several areas. The area included within the biological buffer will be re-contoured to accommodate the overall grading concept of the golf course. All of the non-native plant species, including a significant amount of invasive exotic plants, will be removed while protecting and retaining the riparian woodland species rooted in the channel and overhanging the bank of the river channel. The variable biological buffer will be revegetated with native plant species. The golf operator hsall irrigate and maintain the buffer area to preclude invasion of non-native species and preserve its function as a biological buffer for current and future revegetation efforts in the river channel.	Helix Water District The golf operator will irrigate and maintain the buffer. Helix Water District to monitor.	Engineering/ Right-of-Way			

Helix Water District
El Capitan Golf Course Mitigation Monitoring Plan (Continued)

Issue	Mitigation Measures	Responsible Agency	Department	Monitor	Initial	Comments
Hydrology (continued)	4. The applicant shall submit the grading plan, and the design and plan for the lakes to the County of San Diego for review and approval. The design of berms shall be prepared by a registered civil engineer specializing in geotechnical engineering. 5. The design for the automobile/cart crossing (bridge) shall be evaluated basded on a hydraulic analysis. If the proposed design is found to cause adverse impacts on the flood level, design modifications shall be implemented.	Helix Water District	Engineering/ Right-of-Way			
Groundwater	1. The applicant is responsible for the maintenance of the lakes, golf cart crossings, and the bridge. 2. Flow meters shall be installed on all production wells on the site. A record of flow meters readings shall be taken twice per month. Monitoring reports shall be provided to the Helix Water District and the County of San Diego Department of Planning and Land Use semi-annually. The reports shall be submitted no later than July 31 and January 31 of each year, for the periods of January 1 through June 30 and July 1 through December 31, respectively. The reports shall summarize the flow meter and water level data. The reports shall be signed by a Certified Hydrogeologist or Registered Engineer with experience in groundwater management. Should groundwater levels drop below minimum levels (65' in MW-1, MW-2, MW-4, MW-5, MW-6, MW-7, or 100' in MW-3) in monitor wells, the golf course operator shall begin reporting monitor well groundwater levels on a monthly basis.	Helix Water District	Engineering/ Right-of-Way			

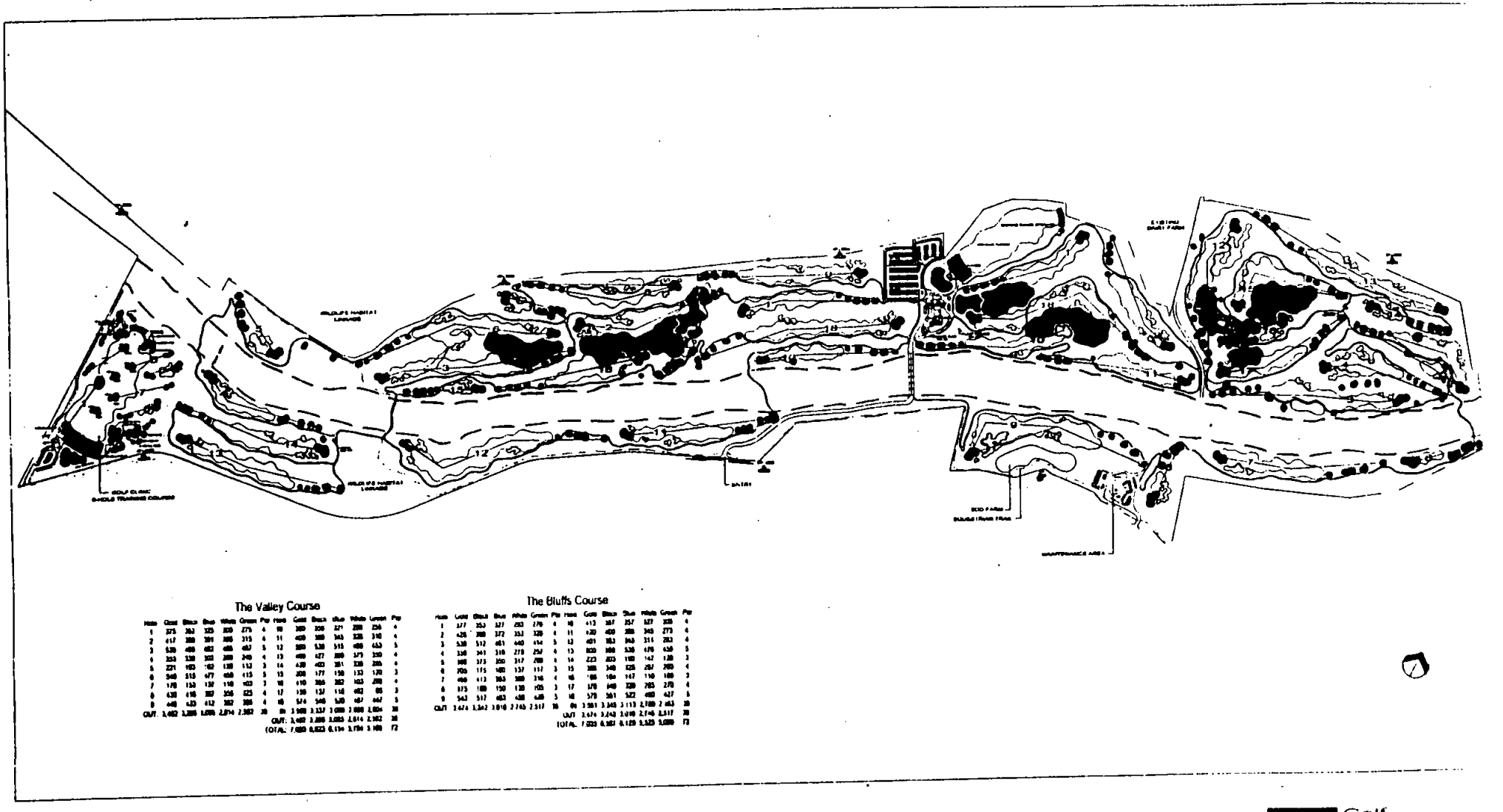
Helix Water District
El Capitan Golf Course Mitigation Monitoring Plan (Continued)

Issue	Mitigation Measures	Responsible Agency	Department	Monitor	Initial	Comments
Hydrology	1. A 50-foot grading buffer at the up-stream and down-stream property line shall be enforced along portions of the golf course boundaries that are lower than the 100-year flood level. No grading shall occur within the buffer zone. Compliance with this condition mitigates for potential increases in overbank flow velocities and consequent channel erosion off of the project site. 2. Proposed water impoundments shall be constructed such that they will not become sediment traps. The following measures shall be implemented: a. Where ponds are within the 100-year flood level, a berm surrounding each impoundment shall be constructed to prohibit floodwater encroachment. Said berm shall have a top elevation that is at least 2 feet above the 100-year flood level. b. Impoundments shall have a clay core, or other impermeable barrier, to prevent seepage of water from the water table into the impoundments. c. All impoundments shall respect a minimum setback of 150 feet from the main channel. 3. No export of materials shall occur during development of the golf course. An exception to this measure would include any materials extracted from the lakes.	Helix Water District	Engineering/ Right-of-Way			

EXHIBIT D

CONCEPTUAL GOLF COURSE PLAN

EXHIBIT "D"



The Valley Course

Hole	Gold	Black	Blue	White	Green	Par	Hcap
1	377	353	327	283	270	4	11
2	426	388	372	332	320	5	13
3	530	512	461	448	414	5	15
4	356	341	316	278	252	4	17
5	388	373	356	317	288	4	9
6	206	175	168	157	117	3	5
7	406	413	388	368	338	4	1
8	375	368	350	338	308	4	3
9	543	517	483	458	448	5	7
OUT	3,601	3,442	3,321	2,979	2,715	36	
OUT:	3,601	3,442	3,321	2,979	2,715	36	
TOTAL:	7,020	6,823	6,194	5,794	5,108	72	

The Bluffs Course

Hole	Gold	Black	Blue	White	Green	Par	Hcap
1	377	353	327	283	270	4	10
2	426	388	372	332	320	5	12
3	530	512	461	448	414	5	14
4	356	341	316	278	252	4	16
5	388	373	356	317	288	4	8
6	206	175	168	157	117	3	4
7	406	413	388	368	338	4	2
8	375	368	350	338	308	4	6
9	543	517	483	458	448	5	18
OUT	3,601	3,442	3,321	2,979	2,715	36	
OUT	3,601	3,442	3,321	2,979	2,715	36	
TOTAL	7,020	6,823	6,194	5,794	5,108	72	

EL CAPITAN GOLF COURSE

LAKESIDE, CALIFORNIA

SCALE: NONE

DATE: APRIL 2, 1999

Golf Properties Design

Comments and Responses to the Draft EIR

Contents of the Final Environmental Impact Report must include comments and recommendations received on the draft EIR either verbatim or in summary; a list of persons, organizations, and public agencies commenting on the draft EIR; and responses to the Lead Agency to significant environmental points raised in the review and consultation process.

The following is a listing of all persons and organizations that have provided comments to the Helix Water District during the public review period for the Draft EIR.

Following the listing of commentators, individual comment letters are included with responses following each letter. Each comment within each letter has been numbered with the appropriate responses having corresponding numbers.

No.	Respondent to Draft EIR
1	Lakeside Community Planning Group letter dated 11/18/98
2	City of San Diego, Water Utilities Dept. letter dated 10/20/98
3	David Sorbie, dated 11/6/98
4	San Diego County Archaeological Society, dated 11/9/98
5	Mr. H. O. Story, dated 11/9/98
6	St. of Calif., Department of Water Resources, dated 11/10/98
7	St. of Calif., Dept. of Conservation, dated 11/16/98
8	County of San Diego, DPLU, dated 11/23/98
9	Marilyn Grames, dated 11/19/98
10	Gail Sabbadini, dated 11/20/98
11	Nancy M. Stall & the Riders of Willow Road, dated 11/20/98
12	Joint letter from USF&WS and CDF&G, dated 11/23/98
13	Everharts & Blossom Valley Riders, dated December 8, 1998
14	Rhonda Kabot, dated December 7, 1998
15	Padre Dam Municipal Water District, dated December 14, 1998
16	Gwen Eatherton, recieved November 18, 1998
17	Zack Noonan,recieved November 18, 1998
18	David Van Ommering, recieved November 18, 1998
19	Luke Ninteman, dated January 15, 1999
20	Foster/El Monte Road Drivers, dated January 19, 1999

11/18/98

LAKESIDE COMMUNITY PLANNING GROUP

PO Box 2040 Lakeside, CA 92040

TO: Helix Water District
7811 University Ave.
La Mesa, CA 91941
att. Larry Campbell

SUBJECT: Draft Environmental Impact Report for the El Capitan Golf Course

Dear Mr. Campbell,

The Lakeside Community Planning Group submits the following questions / comments regarding the draft Environmental Impact Report for the El Capitan Golf Course.

1.1. 1. Preservation of equestrian access through the valley is an important community character issue. How does a "revocable license agreement" for a trail alignment ensure the proposed trail will be sited?

1.2. 2. Will the project be compatible with existing agricultural uses? The golf course borders an existing dairy with the club house and driving range being sited comparatively nearby given the size of the project area. Will the project increase the likelihood of incompatibilities with the normal activities and characteristics of a dairy.? Why does the ground water study assume the dairy and other agricultural activities in the valley will cease in the future?

1.3. 3. Will the project be compatible with existing residential uses? The golf course borders existing residences. The maintenance facility has been located immediately next to the homes as well El Monte Rd which may create unnecessary impacts given the size of the project. Issues of lighting, noise, open storage, and visual impacts could be avoided by selection of another location.

1.4. 4. Wells immediately next the course will be deepened, what if impacts occur to homes farther away? Does lowering existing wells provide adequate mitigation for a drop in water tables, when wells are dependent upon having a water pressure head to work?

1.5. 5. What mosquito abatement procedures will occur after the new water features are added?

1.6. 6. Night lighting of the golf course would create definite community character impacts. None has been proposed, however the dEIR states a lighting plan may be prepared if required for biological considerations. This implies that night lighting may occur.

1.7. 7. Traffic- Changing from LOS C to D is significant, no mitigations proposed. How often will special events be held, what will be the traffic impacts?

1.8. 8. Oaks- dEIR states oaks will be mitigated on a 5:1 basis. But there is no discussion of special protections to preserve oaks, how many oaks will be removed, or how they will be protected from over irrigation.

1.9. 9. Is the ground water Helix's to use, where will potable water come from for residents if they are forced to hook-up?

1.10. 10. Alternative location of Stagecoach Ranch in Alpine is very outdated, site is open space.

1.11. 11. Is there an alternative golf course layout that is less impactive to the dairy, residents, and minimizes visual impacts?

1.12 12. DEIR commits to deepening existing wells to 100 ft while production wells are at 145 ft, why not deepen all wells to the same depth?

1.13 13. The technical study looks at the area as one big alluvial aquifer. Instead is there actually a series of underground basins, broken up by underground geological formations?

1.14. 14. Are there businesses or agricultural uses in the valley that could be made impractical if forced to pay for imported water?

1.15. 15. Section 2.7.5- clarify how all fees will be handled.

1.16. 16. What provisions will be taken for erosion in the event of a 25, 50, or 100 year flood?

1.17. 17. Discuss impacts of the project's extension of urban services beyond the CUDA line.

Submitted by,

Janis Shackelford

Janis Shackelford, Secretary

Responses to Comments: Lakeside Community Planning Group letter dated 11/18/98

1.1. The trail would be subject to a revocable license agreement with the County of San Diego, associated with the Major Use Permit. The license agreement for the trail would stay in force until the permitted use on site changes (i.e., expiration of the Major Use Permit), at which time the location of the trail could change to suit any new changes in land use.

1.2. The project will be compatible with existing agricultural land uses since it is in conformance with the San Diego County General Plan, Lakeside Community Plan, and the Zoning Ordinance. The purpose of the various plans and ordinances is to create a pattern of land use areas that are compatible with existing and proposed land uses, infrastructure, and sensitive resources. The project was planned and designed with the knowledge that the dairy was an existing land use, and established by right prior to the proposed golf course. The project applicants have recognized the potential for intermittent transient odor issues associated with the dairy, but also recognize that the rural/agricultural character of the area has its own inherent appeal. The clubhouse is located more than 1,700 feet westerly of the dairy, and prevailing winds are from the west, and would tend to blow any objectionable odors or vectors away from the clubhouse where the most sensitive uses would occur. The golf play areas nearby and down-wind of the dairy would support short duration and transient occupation inherent in golfing activity.

(second part of comment on groundwater, for response refer to Van Ommering 18.1.)

1.3. The project will be compatible with existing residential uses. Mitigation measures outlined in section 2.1.4 of the Draft EIR stated that other than lighting required for security and safety, there shall be no outdoor nighttime lighting of the project site. Berming/mounding and landscaping shall be installed between the maintenance facility and residences west and southeast of the facility to provide an intervening buffer for noise, visual, and light/glare effects. All vehicles/equipment powered by internal combustion engines shall be equipped with mufflers in accordance with manufacturer's specifications. The maintenance facility shall be redesigned to eliminate entry gates on the east, south and west sides of the perimeter wall, as shown in Figure 2.1-4 in the FEIR. No gates shall be allowed on the east, south or west sides of the maintenance facility. These mitigation measures would reduce the impacts to the adjacent residences and El Monte Road which could result from the maintenance facility operations.

Following public comment on the Draft EIR, a mitigation measure was added in Section 2.1.4 of the Draft EIR that required that the design of the maintenance facility be further changed to include relocating the compound approximately 900 feet to the east. This location is 900 feet farther away from the residence to the west that was previously 100 feet to the west of the facility. The closest residence to the relocated maintenance facility would be located approximately 200 feet to the west. This is the same residence that was previously approximately 200 feet to the southeast of the facility. In addition, the relocated maintenance compound is approximately 100 feet north of and 20 feet lower than El Monte Road compared to the previous location that was 50 feet north of and only several feet lower than El Monte Road. This elevation difference will further reduce the visual impact to motorists using El Monte Road (see Section 2.1.4 of the Final EIR and Figure 2.1-5 in the FEIR).

Access to the maintenance compound would be taken from El Monte Road approximately 100 feet to the east of the structure. This new access would eliminate maintenance employee vehicle and delivery access from behind existing residences and further buffer any associated land use impacts to near by residences. With these land use mitigation measures and design changes in place, the project would not be considered to have an significant impact on nearby residences.

In addition, the relocated maintenance compound would be approximately 20 feet lower in elevation than El Monte Road. This elevational difference would further reduce the visual impact to motorists using El Monte Road.

1.4. The mitigation measures listed in section 2.7.4 of the EIR are designed to protect groundwater users immediately adjacent to the golf course. These users have the potential to be affected the most. These measures eliminate the potential for significant impacts for nearby groundwater users and, therefore, assure that users located at greater distances would likewise enjoy similar protection

1.5. No traditional mosquito abatement measures such as spraying of oils and poisons will occur. The ponds are relatively large bodies of water. As such, wind action will circulate the water. Further, water will be circulated from one pond to the next. This will mix and oxygenate the water, thereby reducing the necessary amount of stagnation required for substantial mosquito propagation. In addition, the ponds will be maintained to support an aquatic community, including mosquito fish, that feed on any mosquito larva that may propagate in the ponds.

1.6. Other than minimal lighting around buildings and parking areas for purposes of safety and security, no night lighting of the golf course is proposed.

1.7. The change in Level of Service (LOS) from C to D is not significant. The County of San Diego has adopted the threshold that LOS D be the minimum acceptable standard for peak hour intersection conditions. Since traffic conditions as a result of the project do not cause any intersections in the study area to drop below LOS D, no significant impacts were identified. Therefore, no mitigation measures are required.

Special events are not currently planned; although, it is reasonably anticipated that the golf facility may attract special events such as charity golf tournaments on an infrequent basis. Special events would be short-term and intermittent, and therefore would not be considered a significant traffic impact.

1.8. The golf courses were designed to incorporate the existing native oaks. No grading will occur within the dripline of these trees. Any significant impacts to these trees would be indirect as a result of grading near the drip line of the trees. A total of 170 oaks would be planted on site to mitigate for any potential indirect impacts to the 34 existing oaks. The irrigation system will be designed to spray away from the dripline of each native tree. Over irrigation of these trees would not be anticipated as irrigation run-off from turf areas should not occur. Further, irrigation applied to turf would be shallow watering, whereas the root systems of oak trees would be much deeper and less apt to be substantially affected by such irrigation. The sandy, porous, alluvial soils provide adequate percolation and food conditions for the on site native oaks, even in the event that some additional irrigation occurs.

1.9. See EIR page 2-122, Groundwater Rights. The City of San Diego maintains primary groundwater rights within the San Diego River basin. As a land owner, Helix Water District may extract water for use on its lands, provided that this use would terminate, as would all other groundwater use (by individuals) within the basin at the direction of the City of San Diego. If a residential connection were requested, Padre Dam Municipal Water District would provide water service.

1.10. Comment noted.

1.11. Section 4.0 of the Draft EIR discusses the "Reduced Intensity Golf Development" and "Relocated Bridge/Maintenance Facility" Alternatives. Both of these alternatives would have reduced land use and/or visual impacts to adjacent residences relative to the proposed project; however, both alternatives substantially reduce the overall scope of the project, thereby compromising long-term project viability. Additionally, the relocation of the maintenance compound as discussed in Response No. 3 will have the effect of reducing land use and/or visual impacts to adjacent residents.

1.12. Production wells are completed into the residuum (weathered bedrock) beneath the alluvial fill materials in the central portion of the valley. Although the alluvial fill is expected to provide the majority of golf course irrigation requirements, the residuum also holds substantial amounts of groundwater. In addition, the maximum water table drawdown will be experienced in the production wells. Well depths of 100 feet should be adequate to provide groundwater for residential users. However, total depths should be based on ground surface elevation relative to the nearest monitoring well elevation.

1.13. Groundwater storage within the El Monte basin is found within fractures in the granitic bedrock, residuum (weathered bedrock), and in the alluvial fill predominant in the central portion of the valley. Although there are permeability and storativity contrasts between these units, they are thought to be hydraulically connected. The alluvial fill will serve as the primary source for golf course groundwater extraction. The alluvial fill varies in thickness depending on subsurface geological features. Although evidence indicates that the thickness of the alluvium is at least 100 feet along the central portion of the valley, it may be deeper or shallower in local areas.

1.14. Agricultural and equestrian boarding uses are included as existing and continuing uses in the groundwater basin. Mitigation measures have been developed to provide adequate water supply for existing users during periods of extended drought. Should a drought condition occur, the golf course would be required to discontinue groundwater extraction well before declining groundwater levels significantly effect other users. As such, groundwater extraction by the golf course should not effect the economic viability of existing businesses and agriculture.

1.15. See response to County 8.3.3.e. If the property owners identified in mitigation measure 6. of the EIR prefer to be connected to a potable water source, the golf course operator shall be responsible for paying water service connection fees.

1.16. Under existing conditions, the general trend of erosion occurs along/within the flood channel. The project is not proposing substantial development of permanent structures within the floodway/channel. If, during the process of obtaining permits from the U.S. Army Corps of Engineers for the minor crossings of the river channel, any measures are identified to control erosion, they will be implemented at that time.

While the main channel would not be affected by project grading or development, the overbank areas would be graded to create golf course land features which could potentially affect flow, erosion, and sedimentation patterns. Section 2.6.4 of the Draft EIR sets forth mitigation measures which reduce potential erosion impacts to less

than significant levels for flood events up to the anticipated severity of the 100-year flood.

1.17. The extension of water service beyond the CUDA line is the only "urban" service that would apply to the project. This would result through an "Out-of-District" service agreement with Padre Dam Water District to supply potable water and fire flows to the golf course facilities. Existing residential users identified in Mitigation Measure No. 6 on page 2-129 of the EIR may also be connected to a potable water system. All potentially affected residential areas are currently within Padre Dam Municipal Water District's service area and connection of any resident [within the District] is possible through payment of connection fees and extension of water mains to the individual properties.

Other urban services include roads, fire protection, and sewer service. The project proposes to construct private access roads to the project facilities. These roads will not facilitate development of surrounding properties. The project site and surrounding areas currently are located within the Lakeside Fire Protection District. The project proposes to use septic systems for liquid waste disposal. No extension of sewer services is requested or required.

THE CITY OF SAN DIEGO

October 20, 1998

Mr. Larry Campbell
Right-of-Way Agent
Helix Water District
7811 University Avenue
La Mesa, Ca. 91941

Dear Mr. Campbell:

Subject: El Capitan Golf Course EIR

Thank you for the opportunity to review the Draft EIR for the El Capitan Golf Course. Since the City of San Diego maintains pueblo water rights to all the groundwater within this basin, the City Water Department is concerned with the potential project impacts to the groundwater and in particular the
2.1. water quality within the basin. The Draft EIR proposes a groundwater quality monitoring and reporting program on an annual basis. The City agrees with this plan. In addition, the City requests that results of this water quality monitoring be forwarded to the City of San Diego Water Department on an annual basis.

The City also owns a 48-inch pipeline which is located along El Monte Road, the southern boundary of the project. The pipeline contains valves, valve vaults, and blow-off valves which drain onto the
2.2. project property. Please coordinate project improvements with the City to ensure project and City needs are properly addressed.

If you have any questions or comments please call me at (619) 527-7431 or Associate Civil Engineer Jesus Meda at (619) 527-7432.

Sincerely

Mark Stone
Deputy Director, Water Operations Division

cc.: Kent Floro, Assistant Deputy Director, Water Operations

WPDOCS\HELIX1B.WPD

DIVERSITY

Operations Division
Water Department • 2797 Caminito Chollas • San Diego, CA 92105-5097
Tel (619) 527-7470 Fax (619) 527-7412

Responses to Comments: City of San Diego, Water Utilities Dept. letter dated 10/20/98

2.1. Information will be provided to the City of San Diego Water Department on an annual basis.

2.2. Comment noted.

USER: LARRYC MAIL MESSAGE 11/06/98 09:25:39

MSG#845401 TO: LARRYC FROM: BATCH SENT: 11/06/98 08:24:06 (NEW)

SUBJECT: El Capitain Golf Course

The following mail has been forwarded to you from the HP9000

From DSorbie@aol.com Fri Nov 6 11:23:34 EST 1998
Received: from imo25.mx.aol.com (imo25.mx.aol.com [198.81.17.69]) by ABBY.hwd.com with ESMTP (8.7.1/8.7.1) id IAA26857 for <larryc@hwd.com>; Fri, 6 Nov 1998 08:23:32 -0800 (PST)
From: DSorbie@aol.com
Received: from DSorbie@aol.com
by imo25.mx.aol.com (IMOv16.10) id 8QGHa02317
for <larryc@hwd.com>; Fri, 6 Nov 1998 11:21:21 -0500 (EST)
Message-ID: <eee4ca31.36432201@aol.com>
Date: Fri, 6 Nov 1998 11:21:21 EST
To: larryc@hwd.com
Mime-Version: 1.0
Subject: El Capitain Golf Course
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7bit
X-Mailer: AOL 3.0 for Windows 95 sub 62

From: David C. Sorbie
Triple "S" Horse Ranch
15476 El Monte Road
Lakeside, CA 92040

To: Larry Campbell, SR/WA
Helix Water District
7811 University Ave.
La Mesa, CA 91941-4927

SUBJECT: EL CAPITAIN GOLF COURSE

At the Nov. 4, 1998 Lakeside Planning Board meeting we were advised to write and comment on the issues brought up concerning the building of a golf course on El Monte Road.

First, let me say in the way of a comment that building a golf course in the valley is and will be an asset to the surrounding community. Having said that, I would like to address some of the concerns I have in what was said and what was proposed at the meeting.

ISSUES:

1. EQUESTRIAN RIGHT OF WAY- I was pleased and surprised to find t hat an equestrian trail was already planned on the golf course. I was not comfortable with the term "TEMPORARY" when referring to the trail. I believe this would leave open problems for the equestrian community. Questions about who has the authority to close the trail and for what reasons would have to be defined very explicitly before this term should be left in the proposal.

3.1.

I agree with the planning board and others that the horse trail right of way should tied to the major use permit. I do believe there should be some group or person responsible to over see the maintenance of the trail since the builders want the community to maintain the trail.

3.2.

I also believe there should be an additional trail from Willow road down past the parking lot and club house, either over or under the bridge and then

connecting with the original trail. Most of your riders from Willow Road are
3.3. from ranchers that are midway between the Dairy Road and the paved portion of Willow Road. This additional trail would eliminate the need for them to ride long distances on Willow Road.

2. TRAFFIC- I think the statement was made by the builders was th at traffic
3.4. at present was at a "C" level and would degrade to a "D" level after the golf course was put in. Additionally it was added the traffic engineer did not think there would be much of an impact since most of the traffic generated by the golf course would be on the weekend when traffic was lighter.

That assumption is totally up side down. Did the traffic engineer ever bother to come out and actually see how traffic flows and on which days? On Sat. and Sun. there is twice as much traffic compared to Mon. through Fri. Weekends is when most horse owners come out to ride increasing traffic. El Capitain Reservoir is open only on weekends and brings hundreds of fishermen hauling boats onto El Monte Road. El Monte Park is used mostly on weekends by many people picnicking,, bring more traffic on to El Monte Road. Then there is Team Penning on Sat and Sunday that brings truck with horse trailers onto El Monte Road, and the church at the beginning of El Monte that brings more traffic on
3.5. Sundays.

At present the intersection of El Monte Road and Lake Jennings is a hazard. Adding the golf course traffic will make it that much more dangerous to transverse then it already is. I really believe a light should be considered before any project that increases traffic moves forward.

The other concern I have with traffic is the entrance to the golf course. The entrance is on a part of El Monte Road that is commonly consider to be the speed up area. After rounding the curve in the road, motorists use that straight section to attain speeds of 60 MPH or better. That is in either direction. To gain entrance into the golf course, East bound drivers will periodically be required to stop for incoming traffic. This will place them in the path of cars that are in the process of speeding up for the straight away. That is a dangerous situation which will eventually cause a major accident.
3.6. Leaving the golf course is by far less dangerous but by no means safe by any imagination. Golfers will be required to enter into a traffic lane that has oncoming traffic doing 60 MPH or better. Sadly we must consider that many of these drivers will have had some amount of alcohol. This will impair their ability to correctly judge entering traffic or oncoming traffic.

Both these concerns can be softened by putting in a left turn lane for East bound traffic and an entrance or feeder lane in for traffic exiting the golf course .

3. WATER TABLE- I listened very intently to the explanation of ho
3.7. w the seven wells would be set up with monitors that would shut them off when the water table declined to 65 feet. I believe Helix water and others have the best records of water table levels over the past 80 years in the valley. I understand that you believe there is plenty of water to supply the 1,114 board feet of water needed to operate the golf course every year.

3.8. Having said all that, my questions are, "If there is so much water, why is there a contingence plan, on the part of the golf course, to connect a water feed line to the Helix pumping station on El Monte Road"?

3.9. "Is it that all the records and experts could be wrong and that taking 1,114 board feet of water from the ground supply might just drain the supply of existing water currently in the valley"?

"If there is the slimmest chance that drawing that much water might effect the
3.10. ground water levels for the entire valley, why has there been no contingence plan adopted for those East of the golf course"?

Besides single residences, there are agricultural operation that depend on a certain amount of water that is now available and there are many ranches that board approximately 400 horses that require a daily

water supply. Depleting the water supply will have an adverse effect on agriculture in the valley and will jeopardize the health of the horses.
3.11. Depleting the water supply could drive agriculture out of the valley and could possibly cause the death of many horses. I don't think Helix Water or the golf course builders would want to be responsible for such eventualities if there is a chance their calculations are wrong.

4. MAINTENANCE FACILITY- I believe the maintenance facility should be mov ed
farther East to make it more esthetically compatible to the current residences
3.12. on El Monte Road. I know I would not want this type of a facility right next to my home. There will be lighting problems, noise problems, and pollution problems associated with being that close to residences in the area.

Respectfully,

David C. Sorbie

Note: Please confirm receipt of this e-mail. Thank You

SENT TO: LARRYC

Responses to Comments: E-mail letter from David Sorbie, dated 11/6/98

3.1. The trail would be subject to a revocable license agreement with the County of San Diego, associated with the Major Use Permit. The license agreement for the trail would stay in force until the permitted use on site changes (i.e., expiration of the Major Use Permit), at which time the location of the trail could change to suit any new changes in land use.

3.2. Comment noted.

3.3. Comment noted

3.4. The change in Level of Service from C to D is not significant. The County of San Diego has adopted the threshold that LOS D be the minimum acceptable standard for peak hour intersection conditions. Since traffic conditions as a result of the project do not cause any intersections in the study area to drop below LOS D, no significant impacts were identified.

3.5. Traffic generated by the golf course is spread throughout the entire day, as well as over a 7-day week, rather than concentrated during specific times of the day or on weekends. This is due to the spacing of tee off times throughout each day of the week. However, on an infrequent basis, the golf course may attract special events such as charity tournaments. Such special events would be short-term and intermittent, and therefore would not be considered a significant traffic impact.

3.6. Project access driveways and turn lane channelization shall be designed to the Public Roads Standards of the San Diego County Department of Public Works. These standards satisfy all highway and operational concerns.

3.7. The golf course operator will be responsible for monitoring groundwater levels in each of seven monitoring wells every 12 hours. However, production wells would not be automatically shut off when water levels decline to specified levels. Mitigation measures in section 2.7.4 requires that monitoring wells will be equipped with automated monitoring devices capable of contacting the golf course operator and Helix Water District if specified water levels are reached. The operator and Helix Water District would be responsible for assuring that production wells are turned off when the District is automatically contacted that thresholds are reached. As a practical matter, water levels would not be expected to vary dramatically from day to day. Water level declines would likely occur over a period of days.

3.8. The EIR analysis does not indicate that adequate groundwater resources are available for existing groundwater users and the golf course. This is especially true considering the history of periodic drought cycles. Discussion in section 2.7.3 of the EIR, states that it is difficult to quantify the amount the water table will be lowered since there are many factors which influence this process. Further discussion notes that it is not uncommon to go many years with little to no recharge. As such, mitigation measures must be in place to protect the other groundwater users within the groundwater basin while providing an alternative source of irrigation water for the golf courses. The mitigation measures require the golf course to stop extraction when significance thresholds are reached leaving adequate groundwater in storage to serve existing users through periods of drought.

3.9. As stated in the EIR, groundwater resources are replenished during a few very wet years. Long term records indicate, groundwater levels within the basin fluctuate greatly. This will continue to occur with or without the golf course. Mitigation measures listed in section 2.7.4 of the EIR reduce the potential for significant groundwater level reduction within the El Monte Groundwater Basin.

3.10. The mitigation measures listed in section 2.7.4 of the EIR are designed to protect groundwater users immediately adjacent to the golf course. These users have the potential to be affected the most. These measures eliminate the potential for significant impacts for nearby groundwater users and, therefore, assure that users located at greater distances would likewise enjoy similar protection.

3.11. Comment noted. Much of the agricultural use will be eliminated by development of the golf course, reducing the need for agricultural irrigation. As a land owner within the valley, the Helix Water District is entitled to use of the groundwater resource as are other property owners so long as that use does not significantly impact water availability to other users. Mitigation measures listed in section 2.7.4 of the EIR eliminate the potential for significant groundwater availability impacts.

3.12. Refer to Response to Comment No. 1.3 and Section 2.1.4 of the Final EIR which address impacts from the maintenance facility.

San Diego County Archaeological Society

Environmental Review Committee

9 November 1998

To: Mr. Larry Campbell
Helix Water District
7811 University Avenue
La Mesa, California 91941

Subject: Draft Environmental Impact Report
El Capitan Golf Course

Dear Mr. Campbell:

I have reviewed the cultural resources aspects of the subject DEIR on behalf of this committee of the San Diego County Archaeological Society.

Based on the information contained in the DEIR and its Appendix D, we concur in the impact analysis and mitigation measures presented, with the following two exceptions:

4.1. (1) The archaeological monitoring program described on page 6 of Appendix D has been omitted on page 2-104 of the DEIR itself.

4.2. (2) To the mitigation measures presented should be added a requirement for curation of all archaeological collections resulting from the testing program described in Appendix D and all subsequent excavations.

Thank you for including SDCAS in the District's environmental review process for this project.

Sincerely,

James W. Royle, Jr., Chairperson
Environmental Review Committee

cc: ASM Affiliates
SDCAS President
file

Responses to Comments: Letter from San Diego County Archaeological Society, dated 11/9/98

4.1. The boundaries of the site area should be appropriately delineated on all project maps with prohibitions against future excavation and/or disturbance. Irrigation, other utilities, and improvements must not penetrate the sand stratum demarcating the top of the site. Additionally, a qualified archaeological monitor shall be present during any extensive grading and subsurface excavation during the construction phase of the project. These have been added as mitigation requirements. See section 2.5.4 of the Final EIR.

However, with regard to indirect impacts to that portion of CA-SDI-13,652, it should be noted that the project cannot take responsibility for fencing or signage which restricts access to areas off of the project site.

4.2. All archaeological collections resulting from the testing program and subsequent excavations shall be currated. This has been added as a mitigation measure. See section 2.5.4 of the Final EIR.

11\9\98

Larry Campbell
Helix Water District
7811 University Ave.
La Mesa, CA 91941

P98-014: El Capitan Golf Course

Ref; Letter, El Monte LLC, Doug Gloff, From DPLU, dated July 31, 1998

I was asked to put my comments in writing.

I have reviewed your EIR and found some statements in error and others misleading. The main deficiently was that many requests in the reference letter were not addressed. I have heard that there have been negotiations between Helix and the DPLU and some of the more important items (to me) have been waived. I was under impression that new projects should improve the infrastructure and definitely not degrade them.

5.1. Traffic-El Monte is a narrow, crooked, two lane road. The pavement is 26 feet and in some locations the shoulders is only 2 or 3 feet. It is double yellow from Lake Jennings to near the exit to your project. The speed limit is 55 but in our last fatality she stated that she had slowed to 55 before she hit him. Normally the traffic is not bad but on Sat and Sun when El Monte Park and El Capitan are open it is bumper to bumper. Two fatalities near your planned exit was specified as alcohol related at El Monte Park. I assume you will have alcohol at your Club House and if you have a gathering and the parking lot empties at the same time your 400 cars merging on El Monte Road will be a mess regardless of the improvements you make on El Monte Road.

5.2. I was very much interested in what mitigation was proposed for your maintenance facility as there is a residence approximated 100 feet to the west and another residence less than that to the east. The open storage area would be for all practical purposes would be on El Monte Road. I did not find mention of any. In your alternatives you did state that if the maintenance facility was moved there would be a reduction of noise, visual, light/glare and potential odors. There will be odors from the mulch that would be objectionable to some. As I did not find any I can only assume that none is proposed and the residences and others can just learn to live with it.

5.3. Any vehicle maintenance and storage will have dirt and grease on the floor. You did not state any method of disposal so I can only assume that you will just hose down the floor and parking area and the grease will go into the ground water and contaminate the well below it.

5.4. The map you showed the Lakeside Planning Group showed the 100 year flood plain as a nice straight line which is not the contour of the present channel. In your EIR you state the ditch is 10 to 20 feet deep and the irregularities are due to sand mining. A more accurate statement is the ditch is 0 to 10 feet and the shape was caused by erosion in the 1980 overflow\flood. There is a place just east of your proposed bridge where the bank is approximately 3 feet and a place just west there is no bank or 0 feet. You state there will be little or no flooding during a 100 year flood this does not consider erosion. I am far more concerned with erosion than by flooding. I believe that a ten year flood would erode the banks into my property if past history is any indication.

Flooding Background-In 1973 Woodward Sand wanted to mine sand on the Helix property. It was proposed that it would be a combination sand pit and flood channel. The channel was to be 12 ft deep, 200 feet wide with banks of 4-1 which would make the banks 300 feet across. The channel was on the north side of the runway and the proposed ditch would be on the south side. The layout had a "s"curve that located the ditch to within 120 feet of our property.
Erosion is not an exact science but I could see the possibility of a flood S curving and eroding our property. I asked Helix and Woodward to at least move it a 100 feet out making it at least 220 ft. Woodward agreed but Helix said no as the land between the ditch and the private property would be of little or no value to them therefore for better utilization of their property leave it as is. They contacted Dr. Chin(?) SDSU and he said the water would be too swift to S curve. So all I could say was that I have brought it to your attention and if there is erosion you are liable. In the 1980 overflow which some considered to be a 10 year flood it did S curve and I would estimate the channel to be 450 to 500 feet across and the bottom of the ditch is approximately 60 ft from private property. Woodward recognizing their liability had a survey made planning on rip-raping the banks to prevent additional erosion. Mr. Unitt in his report stated "Parenthethically, I can only wonder at the wisdom of the property owners who built or bought homes in such a vulnerable area, and why Woodward Sand Company And/or Helix Irrigation district bears any obligation to spend money to protect these landowners from their own poor judgement." He did not realize we were here before the ditch. Since 1980 it has been a wet-back habitat where one of them was going to kill Mrs Langdon and the dope distribution center for the county.

5.5. I would predict that as the ditch has grown up in a ten year flood erosion would reach private property. A member of the Lakeside Planning Group suggested that rip-raping of the bank be made a requirement for this project.

5.6. It is proposed that the golf course be watered from ground wells and when the water level is at 65 bgl they will stop pumping. They also propose that if your well is not 90 feet deep they will dig it down to 90 feet. This sounds good until actuals are compared to theory. First the valley is not a flat plane so at 65 ft my wells could be dry. At present the water level in my wells is 10 feet below a Helix well that is monitored and the monitoring well that establishes the 65 foot level could 30 or 40 feet (ground level) below my wells. The wells are not in a pond of water and there is a cone of flow to the pump. The water head should be 20 to 40 feet above the pump depending on the size of the well, rating of the pump, and the soil through which the water flows to get to the pump. This becomes effective when the pump is started and without a head and water flow to the pump that will keep it supplied it could go dry. There are so many variables and the penalty for turning on the faucet and no water is so great this is not the answer. At a Lakeside Planning Group

5.7. meeting a member of the audience stated that Helix had a water line in ElMonte Rd. and the Golf course could use this. Being half way fair to the present residence the water for golf course should not use ground water but receive their water from the Helix line.

5.8. They propose water traps and water ponds. What is their mosquito control program.

H.O. Story

Gordon Shackelford-LCPG
Steve Wrada-DPLU

H.O.Story
14716 El Monte Rd.
Lakeside, CA 92040

Responses to Comments: Letter from Mr. H. O. Story, dated 11/9/98

5.1. Comment Noted.

5.2. Refer to Response to Comment No. 1.3 and Section 2.1.4 of the Final EIR which address impacts from the maintenance facility.

5.3. The maintenance facility includes a wash-down rack that will be used to clean the equipment used for golf course maintenance. Water from this wash-down rack will be filtered, cleaned and reused. Dirt, grease, oil, and other waste associated with the maintenance facility will primarily occur on impermeable surfaces (e.g., concrete slab) having containment features to control runoff.

5.4. Under existing conditions, the general trend of erosion occurs along/within the flood channel. The project is not proposing substantial development of permanent structures within the floodway/channel.

While the main channel would not be affected by project grading or development, the overbank areas would be graded to create golf course land features which could potentially affect flow, erosion; and sedimentation patterns. Section 2.6.4 of the Draft EIR sets forth mitigation measures which reduce potential erosion impacts to less than significant levels for flood events up to the anticipated severity of the 100-year flood. Mitigation measures to protect the primary access road may be required by the Army Corps of Engineers during the 404 Permit process.

5.5. Comment noted.

5.6. Monitoring well MW-5 is located approximately 1000 feet east of the respondents well at approximately 460 feet above mean sea level (AMSL). The respondents well is located at roughly the same elevation as MW-5. However, water levels evidenced at MW-5 should be lower than those experienced at the respondents well because MW-5 is closer to the production well.

5.7. The use of ground water for this project is essential to the overall viability of the golf course. Costs associated with purchasing raw or untreated water would render the course infeasible. Additionally, the District has the same rights to ground water as other property owners within the basin. These rights are subject to the City of San Diego's Pueblo Rights, as are the other property owners.

5.8. No traditional mosquito abatement measures such as spraying oils and poisons will occur. The ponds are relatively large bodies of water. As such, wind action will circulate the water. Further, water will be circulated from one pond to the next. This will mix and oxygenate the water, thereby not allowing the necessary amount of stagnation required for substantial mosquito propagation. In addition, the ponds will be maintained to support an aquatic community, including mosquito fish, that will feed on any mosquito larva that are propagated.

Responses to Comments: Letter from State of California, Department of Water Resources, Division of Safety of Dams, dated 11/10/98

6.1. None of the ponds proposed would fall under the jurisdiction of the Department of Water Resources, Division of Safety of Dams.

State of California **The Resources Agency**

MEMORANDUM

To: Project Coordinator
Resources Agency

Date: November 16, 1998

Mr. Larry Campbell
The Helix Water District
7811 University Avenue
La Mesa, California 91941

From: **Department of Conservation**
Office of Governmental and Environmental Relations

Subject: El Capital Golf Course (formerly El Monte Golf Course), San Diego County, **SCH # 96091916**

In 1982, the State Geologist, as part of the State Mining and Geology Board's Minerals Classification Program, classified an area of the San Diego River and adjacent flood plain as MRZ-2 (i.e. the area contains economic quantities of sand and gravel according to the Division of Mines and Geology Special Report No. 153). The Board formally designated this area in 1985 in its regulations as an area of Regional Mineral Significance (California Code of Regulations Section 3550.6, Sector M, Construction Aggregate Resources, Western San Diego County Region).

7.1. Subsequent to this formal designation, the County of San Diego (lead agency) incorporated the contents of DMG Special Report 153 into its General Plan via a Minerals Resource Management Policy, as required by the Surface Mining and Reclamation Act (SMARA, PRC § 2762). In so doing, the County established an Extractive Overlay that includes the minerals designated area, and determined that extraction of these minerals was to be the principal land use.

In 1996 the State Mining and Geology Board certified DMG Open-File Report 96-04, Update of Mineral Land Classification: Aggregate Materials in the Western San Diego County Production-Consumption Region. This report updated mineral resource and reserve information contained in the original DMG Special Report 153. According

7.2. to Open-File Report 96-04, the total Portland Concrete Cement (PCC) grade aggregate reserves of 352 million tons in western San Diego County are projected to last just 20 years, until the year 2016, at the present rate of production. If an unforeseen catastrophic event strikes the County and necessitates reconstruction, existing reserves may be depleted sooner. As we advised in our September 25, 1996 letter, the DEIR should refer to this revised edition (Open-File Report 96-04) when citing mineral reserve and resource amounts under Section 2.1.3.a.

7.3. The Board's Regulations define "Incompatible Land Use" and "Compatible Land Use" (PRC § 3675) with respect to mineral classified and designated lands as follows:

"Incompatible Land Use: Land uses inherently incompatible with mining and /or that require public or private investment in structures, land improvements, and landscaping and that may prevent mining because of the greater economic value of the land and its improvements. Examples of such uses may include, but shall not be limited to, high density residential, low density residential with high unit value, public facilities [emphasis added], geographically limited but impact intensive industrial, and commercial."

"Compatible Land Use: Land uses inherently compatible with mining and/or that require a minimum public or private investment in structures, land improvements, and which may allow mining because of the relative economic value of the land and its improvement. Examples of such uses may include, but shall not be limited to, very low density residential, geographically extensive but low impact industrial, recreational, agricultural, silvicultural, grazing, and open space."

The DEIR asserts that a golf course falls under "public facility" land use, but requires a minimum amount of land disturbance and few structures (club house, pro shop, maintenance facilities) and, therefore, is a compatible land use for future mining activities.

There are three major components involved in determining what are "Compatible" and "Incompatible" land uses.

First, physical compatibility with mining requires that the surface not be developed to such an extent that it prevents the physical imposition of a mine and its attendant access roads, processing equipment, and any other ancillary facilities.

Second, value compatibility with mining requires that the alternate land use not be such that the new value to the land surface and its structures, either monetarily or in its usefulness to the general public, be so great as to preclude future access to the mineral resource.

Third, cultural compatibility with mining requires that a local jurisdiction determine what is best for its own economic and cultural development.

It seems likely that land that is improved and made useful as a public facility acquires a cultural value of its own that eventually becomes inseparable from the community it serves. That developed use would then become an "incompatible" land use with respect to the future extraction of the mineral resource.

Inherent in the definition of "Compatible" land use is the factors of "low density, open spaces, low impact" activities. We deem the golf course, as proposed in this project, as an inherently "incompatible" land use in that it is a public facility that has a

high impact on the land surface. A golf course is, in effect, a high density, integrated land use that blankets the land surface. A golf course cannot operate with pieces of it missing so as to allow surface mining -- it is, in total, a singular, integrated, unit operation.

The Mineral Classification and Designation process in the Surface Mining and Reclamation Act of 1975 (SMARA) was established to insure, through appropriate lead agency policies and procedures, that mineral deposits of regional significance are available to local communities when needed. Portions of the project site referenced above lie within a Mineral Resource Zone 2 (MRZ-2) established by the State Mining
7.4. and Geology Board (SMGB) as an "Area of Identified Mineral Resource Significance." As stated previously, the proposed El Capitan golf course development proposes to impact approximately 440 acres of mineral lands designated by the Board to have regional economic mineral significance. The most recent (1996) DMG report indicates that the County is likely to run out of PCC-grade construction aggregate within the next 18 years, and the development of a golf course over these designated mineral lands would preclude these minerals from being available for the region's consumption.

The Department's classification of this mineral resource notwithstanding, it is ultimately the local jurisdiction's authority to approve the use of the site under consideration. Regardless of the decision to permit the golf course, SMARA requires a
7.5. Statement of Reasons by the local jurisdiction considering an alternate development on an identified mineral resource asset. The purpose of this statement is to provide the local jurisdiction with the opportunity to publicly determine the course it desires with respect to the development of the limited mineral resource asset and the alternative use (i.e., compatibility and incompatibility with local needs). This statement should be included in the final EIR.

Additionally, the SMGB respectfully offers what it believes are three key subject areas that must be considered, and included in the final EIR.

1. Market Region Affected. The SMGB suggests that the applicable market region for consideration should include the entire Western San Diego
7.6. Production-Consumption Region. A "Production-Consumption" (P-C) marketing region was initially defined by the Division of Mines and Geology to lie within the boundaries where a mineral material was both mined and marketed.

2. Designated Mineral Sector M. The SMGB suggests that the mineral resources and reserves contained within the entire Sector M region be evaluated in the report. In the mineral designation process, mineral resources purposefully are defined within "Sectors". These sector boundaries take into account geological units, the presence of the mineral resource within the geological units, geographic and topographic variables, current surface mining operations, and cultural and jurisdictional factors. The surface development on and adjacent to

only a portion of Sector M initially is proposed. However, this development may have an important impact on the future exploitation of the mineral resources within other portions of the sector when consideration is given to, dust control, viewshed, surface water drainage, haul road use and access, storage of tailings, etc.

7.7. Also, golf courses naturally attract peripheral commercial and residential developments, all of which would be incompatible with surface mining activities. This especially may be significant since there are established surface mines within Sector M, and in some of the adjacent areas (i.e. a surface mining infrastructure has been established).

3. Evaluation of Resources/Reserves in Sector M. The SMGB suggests that in evaluating the potential loss of mineral resources within Sector M, the evaluation should address the potential loss as it relates to annual aggregate consumption demands within the Affected Market Region; i.e., over the next 50 years what percentage of the annual aggregate demand from the market region could be expected to be met by Sector M resources, assuming that these

7.8. resources will be permitted? In determining the likelihood of future surface mining permits being issued within Sector M, consideration should be given to the presence of an existing surface mining infrastructure in this sector. This fact must be weighed against the likelihood that other designated mineral sectors in the affected market region, which may already be subject to adjacent or encroaching land use developments, could receive surface mining permits.

In summary, we believe that the DEIR should be revised to incorporate the latest findings by the State Geologist regarding the mineral resources and permitted reserves within the Sector M area, and address the three key subjects described above.

The SMGB greatly appreciates your consideration of incorporating the aforementioned information and analysis into the mineral evaluation report in the DEIR. The SMGB would be pleased to offer additional clarifications to these suggestions or provide any additional information if requested. If you have questions, please feel free to contact myself at (916) 445-5873, or Mr. John G. Parrish, Executive Officer of the State Mining and Geology Board, (916) 322-1082.

Jason Marshall
Assistance Director

Cc: John Parrish, Executive Director
State Mining and Geology Board

Responses to Comments: Letter from State of California, Department of Conservation, Office of Government and Environmental Relations, dated 11/16/98

7.1. Comment Noted.

7.2. According to Open-File Report 96-04, the total Portland Concrete Cement (PCC) grade aggregate reserves of 352 million tons in western San Diego County are projected to last just 20 years, until the year 2016, at the present rate of consumption. This information has been added to the Final EIR.

7.3. The State Mining and Geology Board's (SMGB) regulations identify incompatible land uses with respect to mineral classified and designated lands as land uses that require public or private investment in structures, land improvements, and landscaping and that may prevent mining because of the greater economic value of the land and its improvements.

The project site contains a regionally significant mineral deposit associated with the San Diego River. Zoning for the property is S-82 Extractive and A-70 Limited Agricultural. These land use designations and zones have been applied to the project area because the site contains documented regionally significant mineral resources (i.e., sand deposits associated with the San Diego River Valley). The site is also considered well suited to certain agricultural operations. The S-82 Use Regulations (San Diego County Zoning Ordinance Section 2820-2829) are intended to identify and create areas within the County where mining, quarrying, or oil extractive uses are permitted. Extraction of mineral resources could therefore take place on site.

However, under current and reasonably foreseeable economic and political conditions, the investment of time and capital that would be necessarily be involved with attempting to permit a mineral extraction operation on the site is highly speculative at best, and perhaps even prohibitive. Proposals to use this land therefore, have tend to be of a less intensive nature, such as irrigated pasture, crops, and recreational open space. Such uses also have avoided the ecologically sensitive river channel area.

The proposed project is a public golf facility, principally comprised of turf propagation and inherently devoid of substantial permanent structures. Extraction of mineral resources could become economically viable or necessary in the future. Should this occur, mineral extraction could become the highest and best use of the site at that time. Because the project is predominantly open space (i.e., no residential, commercial, or industrial development), physical conversion of the site from a golf course to a mineral extraction facility would be relatively easy.

The decision to convert from one use to another would be based upon need and the economics of the resource involved. If demand for PCC grade sand becomes substantially increased relative to supply, then the market price for such resources would experience a commensurate increase. The critical issue then, is whether or not one use would preclude conversion to another use in the event that circumstances change in the future. Since the golf course would allow for relatively easy conversion to an aggregate extraction operation, the project would not necessarily prevent extraction because the golf course would no longer be the highest and best use of the site under such conditions. Therefore, the project has "value compatibility" with future mining on site.

Approximately 460 acres of the proposed lease area is to be subject to a Major Use Permit pursuant to the Zoning Ordinance of the County of San Diego for use as a golf course. Of this, approximately 65 acres is within the streambed of the San Diego river and has been determined to be jurisdictional wetland habitat of the U.S. Army Corps of Engineers (ACOE). Use of this area by the golf course is proposed to be limited to one bridge crossing, four Arizona-style at-grade cart path/utility crossings, and one equestrian trail crossing. An existing access road to a dairy is also located within the ACOE jurisdictional area but is not proposed to be improved or used by the golf course. Therefore, with the exception of limited channel crossings, the 65-acre streambed area would be left as open space.

As a general rule, most PCC grade sand deposits occur as a result of sedimentation associated with surface flow of water, and are therefore concentrated in, or near, larger stream channels. While the golf course would be located in areas containing sand deposits dispersed across the width of the valley, it is assumed that the majority of any PCC grade deposits would be found within the 65-acre channel area which is proposed to be left as open space. Access to this area would not be directly precluded by the golf course.

As stated earlier, the proposed project is a public golf facility, principally comprised of turf propagation and inherently devoid of substantial permanent structures. Such a land use would not prevent conversion of the land to allow for mineral extraction and its attendant access roads, processing equipment, and other ancillary facilities. Therefore, the golf course would not be "physically incompatible" with the implementation of future sand mining operations on site.

While the proposed golf course would serve the community of Lakeside, it should be viewed as a "regional" facility. To maintain economic viability the facility would need to draw patronage from areas throughout east county and perhaps even some out-of-town tourism. The golf course would add to and change in a positive way

the existing character of the community, but because of its regional appeal (rather than local identity) is not expected to become one of Lakeside's cultural icons. As such, it would not necessarily be inseparable from the local community. A golf facility, as compared to sand mine and processing plant, would probably be considered by the community to be the more appealing land use of the two, but the project is not considered to be "culturally" incompatible with the possible future use of the site for sand mining.

7.4. While it may be true that San Diego County may run out of PCC-grade construction aggregate within the next 18 years, the golf course would not preclude these minerals from being available for the regions consumption. Refer to comment No. 7-3 above.

7.5. The reasons that the Helix Water District, as land owner and project Lead Agency, has decided to lease the site for use as a public golf facility are that:

a) Use of the site by the lessee will generate substantial revenue for the District which will translate into beneficial fiscal conditions for water rate payers within the District's service area.

b) The golf facility is not considered by the District to be substantially incompatible (i.e., neither a physical, value, nor cultural incompatibility) with the possibility of future uses of the site for mineral extraction and/or processing.

c) Mining of the identified sand resource would degrade the current capability of the site as an aquifer.

7.6. The Draft EIR adequately addresses PCC-grade construction aggregate from a regional perspective. Section 2.1.3a identifies that such minerals are important natural resources and stresses that there is a regional shortage of PCC-grade mineral resources. Issues related to "Market Region" and "Mineral Sector M" were not specifically addressed because the general purpose of the analysis was to provide for a meaningful comparison of the current and future situation regarding use and availability of mineral resources relative to the potential of the project to preclude extraction of PCC-grade aggregates on the project site. The comparison illustrates the decision process for alternative land uses on site relative as affected by supply and demand in the construction aggregates market. The Draft EIR established that extraction of mineral resources could become economically viable or necessary in the future. Should this occur, mineral extraction could become the highest and best use of the site at that time. However, because the project is predominantly open space (i.e., no residential, commercial, or industrial development), conversion of the site from a golf course to a mineral extraction facility

would be relatively easy should mineral extraction be determined to be the highest and best land use for the site.

7.7. Substantial peripheral commercial and residential development is not proposed as part of the project, nor is it anticipated. General Plan land use designations, physical constraints such as steep slopes, and environmental constraints would substantially limit development in the valley.

7.8. Refer to Response No 7.6.

GARY L. PRYOR
DIRECTOR
(619) 694-2962

County of San Diego

DEPARTMENT OF PLANNING AND LAND USE

5201 RUFFIN ROAD, SUITE B SAN DIEGO, CALIFORNIA 92123-1666
INFORMATION (619) 694-2960

SAN MARCOS OFFICE
338 VIA VERA CRUZ - SUITE 201
SAN MARCOS CA 92069-2620
(760) 471-0730

EL CAJON OFFICE
200 EAST MAIN ST - SIXTH FLOOR
EL CAJON CA 92020-3912
(619) 441-4030

November 23, 1998

Larry Campbell
Helix Water District
7811 University Avenue,
La Mesa, California 91941

RE: REVIEW OF DRAFT ENVIRONMENTAL IMPACT REPORT, EL CAPITAN GOLF COURSE P98-014

Dear Mr. Campbell:

The Department of Planning and Land Use has reviewed the draft Environmental Impact Report (dEIR) and attached technical appendices for the proposed El Capitan Golf Course. The document is dated September 28, 1998 and was completed by EnvironMINE. The dEIR has been completed for the Helix Water District that is working in the role of lead environmental agency in the California Environmental Quality Act (CEQA) review of the document. The County of San Diego is a responsible agency in the review of the dEIR and would issue a Major Use Permit (P98-104) for the facility. The supplied dEIR would be the CEQA review document for the requested Major Use Permit.

The dEIR has been deemed inadequate by County standards and must be revised before the Department could recommend approval of the requested Major Use Permit. The following topics and issues must be resolved before the County would be able to recommend for the approval of the Major Use Permit for the project.

Biological Resources

8.1.1. The project must comply with San Diego County's Multiple Species Conservation Program (MSCP) plan. Since it our understanding that no approved plan exists for the Helix Water District, the project must comply with the existing and approved County's plan. To comply with this plan the following must be completed:

1. Discuss the project's MSCP setting and a summary of the MSCP findings for the project in the biology sections of the dEIR. Also, please discuss compliance with the County's MSCP in the Land Use section. **8.1.2.**

2. Provide MSCP findings (See attachment). This would include a justification of the effectiveness of the proposed open space design. **8.1.3.**

3. Provide resource mapping according to the County's Mapping Guidelines. The mapping that is provided is not adequate in scale, definition of vegetation types, nor clarity to be used for our purposes. **8.1.4.**

4. The document must describe compliance with the County's Biological Mitigation Ordinance (BMO) (through the required findings). **8.1.5.**

5. Consider redesign of your project. Significant wildlife corridors such as the ones found on this project site. should be designed to comply with the 1000-foot wide criteria in the County's MSCP Subarea Plan (Metro-Lakeside-Jamul Segment – Goals and Criteria for Linkages and Corridors), or present a rational for adequacy of lesser width. **8.1.6.**

A determination of significance cannot possibly be made until definitive information is provided including results of the Stephens' kangaroo rat trapping program, and results of directed surveys for San Diego ambrosia and Southwestern arroyo toad. On page 2-86 reference is made to arroyo toad surveys but no documentation is provided in the technical appendices. Night surveys during the breeding season would be required.

8.1.7. If any of these species were present in a proposed development area, the project would probably have a significant not-mitigable effect on biological resources. Redesign of the project to avoid impacts would be required.

The following must also be addressed in the MSCP findings:

1. The project will have to provide better compensation for the impacts to this significant raptor foraging area. More natural open space must be included in the plan, particularly the grassland habitats. Roosting sites, which are removed, should also be replaced. **8.1.8.**

2. A major river corridor should have a 100-foot biological buffer, and preferably an additional 100-foot planning buffer. The standard for wetland mitigation under the County's Resource Protection Ordinance is no-net-loss, which should be stated in the document. **8.1.9.**

New biological information relating to the above comments should be presented in the technical appendix and be reflected in Section 2.4, biological summary. Details of

mitigation measures and implementation requirements should be presented in the dEIR summary table (Pages S-8 to S-13).

In general, the mitigation measures presented in the Summary Table must be more
8.1.10. detailed. Particularly, how will Off Road Vehicle usage be stopped? What is "in-kind"
8.1.11. replacement of a mature sycamore tree? Where is the mitigation site for the oaks that 8.1.12.
will be replaced? What is your definition of "proper design" of a bridge crossing (are you
8.1.13. using the County MSCP guidelines for this measure)?

Please see Attachment 1 that provides findings for conformance with the Biological Mitigation Ordinance.

Traffic

The Department of Public Works has reviewed the dEIR and will require traffic mitigation for a portion of Lake Jennings Park Road. Please see the attached memo (Attachment 2) to Gary Pryor from John Snyder dated November 16, 1998 for additional details.

8.2.1.
The traffic study states that a portion of Lake Jennings Park Road is operating at a LOS of "E". The study further states that the project will add approximately 692 ADT to Lake Jennings Park Road. The project as proposed does not conform with the Public Facility Element of the County General Plan, Objective 1, Implementation Measure 1.1.3. It should be noted that, in order for the Department of Planning and Land Use to recommend approval of the project's Major Use Permit, a General Plan Conformance finding must be made.

Groundwater

Since the project will use groundwater it falls under the requirements of the County Groundwater Ordinance #7994. It must be found for the project (as a water intensive use, Section 67.722 B) that "groundwater resources are adequate to meet the groundwater demands both of the project and the groundwater basin if the basin were developed to the maximum density and intensity permitted by the General Plan". Progress has been made within the document, however additional work will be required before this finding can be made. Specific items of concern include:

1. The estimate of groundwater storage assumes storage in the residuum and
8.3.1. fractured rock in the hillsides (2-123, page 11 Earth Tech report dated September 9, 1998). For the most part these resources will not be available for extraction during drought conditions. It is clear that during such conditions that wells in the Valley floor will go dry before any drawdown occurs in the fracture rock wells in the upper reaches of the watershed. It is very questionable to include this quantity of storage in analyzing the potential impacts of the project to the wells in the Valley.

2. **8.3.2.** Mitigation measure #9 on page 2-130, that addresses water quality, has no enforcement procedures. Without identified enforcement there is no way to ensure that the mitigation measure will be followed.

3. **8.3.3.** Further refinement will be necessary in the mitigation measures on page 2-128 and 2-129.

a. A table should be constructed that indicates the connected production well and monitoring wells. As an example EW 1 and 2 would correlate to monitor well MW-1 and EW-3 would correlate to monitoring well MW-2.

b. A reporting requirement must be added to ensure compliance with the shut down limitations. The current standard just assumes that the operator will shut down with no additional reporting requirements.

c. Mitigation measure 3.c on page 2-128 does not work. It at first states that if any well has a drawdown of greater than 75 feet, then all extraction must be stopped. However, the second sentence does not agree with the first sentence. The second sentence allows for continued production even though a production well might have a water level greater than 75 feet.

d. The type of water level (within the production well) is not identified. Is this the maximum production water level or a resting non-pumping water level?

e. The payment of connection charges for impacted wells has not been identified. item 6 page 2-129. Would the property owner or the developer be responsible for these charges?

Please contact John Peterson at 694-3820 if you have any questions regarding this review.

Sincerely,

GARY L. PRYOR, Director
Department of Planning and Land Use

GLP:SW:tf

cc: See next page. . .

cc: Brian Mooney, Mooney and Associates, 9903-B Businesspark Avenue, San Diego CA. 92131
Warren Coalson, EnvironMINE, 3511 Camino Del Rio S. #403, San Diego CA 92108
Marrty Eslambolchi, Department of Public Works, MS 0336

ATTACHMENT A

County of San Diego

STEPHEN THUNBERG
DIRECTOR
(619) 694-2212
FAX: (619) 268-0461
LOCATION CODE S50

DEPARTMENT OF PUBLIC WORKS

5555 OVERLAND AVE. SAN DIEGO, CALIFORNIA 92123-1295

COUNTY ENGINEER
COUNTY AIRPORTS
COUNTY ROAD COMMISSIONER
TRANSIT SERVICES
COUNTY SURVEYOR
FLOOD CONTROL
WASTEWATER MANAGEMENT

November 16, 1998

TO: Gary L. Pryor, Director
Department of Planning and Land Use (0650)
Attention: John Peterson

FROM: John L. Snyder, Deputy Director
Department of Public Works (0336)

THIS LETTER SUPERSEDES OUR LETTER OF OCTOBER 19, 1998

DRAFT ENVIRONMENTAL IMPACT REPORT (EIR) DATED SEPTEMBER 28, 1998, EL CAPITAN GOLF COURSE-MUP 98-014

We have reviewed the subject EIR and find the following:

Traffic/Circulation

1. The document indicates LOS "E" along a portion of Lake Jennings Park Road. The methodology to determine this LOS is not readily apparent in the document. Provide a LOS analysis using the Highway Capacity Manual for Lake Jennings Park Road for the "Existing" and "Existing plus project" conditions. Provide appropriate mitigation as necessary. Provide traffic mitigation in the main body EIR text that is consistent with the traffic mitigation in the traffic appendix.

Flood Control/Trails

1. The flood control and trails aspects have been adequately addressed.

If you have any questions regarding this matter, please contact Marty Eslambolchi at 495-5804.

Robert D. Thunberg for

JOHN L. SNYDER
Deputy Director

JLS:MKJ:ks

cc: P98-014 file; Jeff Bosvay, DPW (0336): Kent Burnham, DPW (0336)

ATTACHMENT 1

I. FINDINGS FOR CONFORMANCE WITH THE BIOLOGICAL MITIGATION ORDINANCE

The Biological Mitigation Ordinance has several sets of criteria that must be met when projects are designed. They include Findings under Article V. A. Project Design Criteria, and findings in Attachments G and H. These findings are to be made in addition to the overall findings listed for conformance with the Subarea Plan.

FINDINGS (EACH FINDING MUST EXPLAIN HOW THE IMPACT HAS BEEN AVOIDED. SUPPORTING FACTS RELATED TO THE PROJECT MUST BE PRESENTED):

Project Design Criteria.

1. **Project development shall be sited in areas to minimize impact to habitat;**

2. **Clustering to the maximum extent permitted by County regulations shall be considered where necessary as a means of achieving avoidance;**

3. **Notwithstanding the requirements of the Slope Encroachment Regulations contained within the Resource Protection Ordinance, effective October 10, 1991, projects shall be allowed to utilize design which may encroach into steep slopes to avoid impacts to habitat;**

4. **The County shall consider reduction in road standards to the maximum extent consistent with public safety considerations;**

5. **Projects shall be required to comply with applicable design criteria in the County MSCP Subarea Plan, attached hereto as Attachment G (Preserve Design Criteria) and Attachment H (Design Criteria for Linkages and Corridors).**

Preserve Design Criteria (Attachment G).

A. **Acknowledge the no-net-loss of wetlands standard that individual projects must meet to satisfy state and federal wetland goals, policies, and standards and implement applicable County ordinances with regards to wetland mitigation.**

B. **Include measures to maximize the habitat structural diversity of conserved habitat areas, including conservation of unique habitats and habitat features.**

C. **Provide for the conservation of spatially representative examples of extensive patches of coastal sage scrub and other habitat types that were ranked as having high and very high biological value by the MSCP habitat evaluation model.**

D. **Create significant blocks of habitat to reduce edge effects and maximize the ratio of surface area to the perimeter of conserved habitats (use criteria in Chapter 6, Section 6.2.3 of the Plan).**

E. **Provide incentives for development in the lease sensitive habitat areas.**

F. **Minimize impacts to narrow endemic species and avoid impacts to core populations of narrow endemic species.**

G. Preserve the biological integrity of linkages between Biological Resource core Areas.

H. Achieve the conservation goals for covered species and habitats (refer to Table 3-5 of MSCP Plan).

Design Criteria for Linkages and Corridors (Attachment H).

A. Habitat linkages as defined by the Biological Mitigation Ordinance, rather than just corridors, will be maintained.

B. Existing movement corridors within linkages will be identified and maintained.

C. Corridors with good vegetative and/or topographic cover will be protected.

D. Regional linkages that accommodate travel for a wide range of wildlife species, especially those linkages that support resident populations of wildlife, will be selected.

E. The width of a linkage will be based on the biological information for the target species, the quality of the habitat within and adjacent to the corridor, topography, and adjacent land uses. Where there is limited topographic relief, the corridor must be well vegetated and adequately buffered from adjacent development.

F. If a corridor is relatively long, it must be wide enough for animals to hide in during the day. Generally, wide linkages are better than narrow ones. If narrow corridors are unavoidable, they should be relatively short. If the minimum width of a corridor is 400 feet, it should be no longer than 500 feet. A width of greater than 1,000 feet is recommended for large mammals and birds. Corridors for bobcats, deer and other large animals should reach rim-to-rim along drainages, especially if the topography is steep.

G. Visual continuity (i.e., long lines-of-site) will be provided within movement corridors. This makes it more likely that animals will keep moving through it. Developments along the rim of a canyon used as a corridor should be set back from the canyon rim and screened to minimize their visual impact.

H. Corridors with low levels of human disturbance, especially at night, will be selected. This includes maintaining low noise levels and limiting artificial lighting.

I. Barriers, such as roads, will be minimized. Roads that cross corridors should have 10-foot high fencing that channels wildlife to underpasses located away from interchanages. The length-to-width ratio for wildlife underpasses is less than 2, although this restriction can be relaxed for underpasses with a height of greater than 30 feet.

J. Where possible at wildlife crossings, road bridges for vehicular traffic rather than tunnels for wildlife use will be employed. Box culverts will only be used when they can achieve the wildlife crossing/movement goals for a specific location. Crossings will be designed as follows: sound insulation materials will be provided; the substrate will be left in a natural condition, and vegetated with native vegetation if possible; a line-of-site to the other end will be

provided; and if necessary, low-level illumination will be installed in the tunnel.

K. If continuous corridors to not exist, archipelago (or stepping-stone) corridors may be used for short distances. For example, the gnatcatcher may use disjunct patches of sage scrub for dispersal if the distance involved is under 1-2 miles.

II. FINDINGS IN CONFORMANCE WITH THE SUBAREA PLAN

All projects whether considered an exception or an exemption to the Biological Mitigation Ordinance must conform to the San Diego County Subarea Plan. The concept of conformance to the plan does not mean specific and direct compliance with the mitigation ratios. Exemption and exception is intended to provide for flexibility from those standards when there are specific reasons to do so. Conformance with the Subarea Plan does involve the review of the project to see that it does not create a situation where a project is affecting the potential for preserve design. All projects within the Multiple Species Conservation Program, with the exception of the clearing exemptions, must be found in conformance with the Subarea Plan.

FINDINGS (EACH FINDING MUST EXPLAIN HOW THE IMPACT HAS BEEN AVOIDED. SUPPORTING FACTS RELATED TO THE PROJECT MUST BE PRESENTED):

1. The project will not conflict with the no-net-loss-of-wetlands standard in satisfying state and federal wetland goals and policies.

2. The project includes measures to maximize the habitat structural diversity of conserved habitat areas including conservation of unique habitats and habitat features.

3. The project provides for conservation of spatially representative examples of extensive patches of coastal sage scrub and other habitat types that were ranked as having high and very high biological values by the MSCP habitat evaluation model.

4. The project provides for the creation of significant blocks of habitat to reduce edge effects and maximize the ratio of surface area to the perimeter of conserved habitats.

5. The project provides for the development of the least sensitive habitat areas.

6. The project provides for the conservation of key regional populations of covered species, and representations of sensitive habitats and their geographic subassociations in biologically functioning units.

7. Conserves large interconnecting blocks of habitat that contribute to the preservation of wide-ranging species such as mule deer, golden eagle, and predators as appropriate. Special emphasis will be placed on conserving adequate foraging habitat near golden eagle nest sites.

8. All projects within the San Diego County Subarea Plan shall conserve identified critical populations and narrow endemics to the levels specified in the Subarea Plan. These levels are generally no impact to the critical populations and no more than 20 percent loss of narrow endemics and specified rare and endangered plants.

9. No project shall be approved which will jeopardize the possible or probable assembly of a preserve system within the Subarea Plan.

10. All projects that propose to count on-site preservation toward their mitigation responsibility must include provisions to reduce edge effects.

11. Every effort has been made to avoid impacts to sensitive resources and specific sensitive species as defined in the Biological Mitigation Ordinance.

III. CONCLUSION

Review of the project's impacts on biological resources and a determination of whether or not necessary mitigation has occurred in compliance with Section 10 of the Implementing Agreement between the County of San Diego and the California Department of Fish and Game and the U.S. Fish and Wildlife Service. Third Party Beneficiary Status shall occur at the point in time that (1) necessary mitigation has occurred in compliance with Section 10 of the Implementing Agreement (2) the determined mitigation includes an immediately effective requirement to maintain the biological values of the land committed for mitigation, and (3) the mitigation has been imposed through a condition of development (such as a mitigation agreement) that is recorded and runs with the land and is enforceable against and binding upon the Third Party Beneficiary and any successor in interest to the Third Party Beneficiary. Third Party Beneficiary Status may be attained for the project as a whole, or for a discrete phase(s) of the project so long as the mitigation for the discrete phase(s) is not functionally dependent in the context of the MSCP and Subarea Plan upon the mitigation proposed for subsequent phases.

TO COMPLY WITH THE MSCP EACH PROJECT MUST BE ABLE TO MAKE THE FOLLOWING FINAL FINDING:

This project has been found to conform to the San Diego County Multiple Species Conservation Program Subarea Plan, Biological Mitigation Ordinance and Implementing Agreement. Upon fulfillment of the requirements for permanent mitigation and management of preserved areas as outlined in Section 17.1 (A) of the County's Implementing Agreement for the Multiple Species Conservation Program (MSCP) Plan, Third Party Beneficiary Status can be attained for the project. Third party beneficiary status allows the property owner to perform "incidental take" under the State and Federal Endangered Species Acts, of species covered by the MSCP plan while undertaking land development activities in conformance with an approval granted by the County in compliance with the County's Implementing Agreement.

Responses to Comments: Letter from County of San Diego, Department of Planning and Land Use, dated 11/23/98

Biology

8.1.1. The Helix Water District, along with the Sweetwater Authority, Padre Dam Municipal Water District and Santa Fe Irrigation District, is in the final stages of completing a subregional plan in compliance with the NCCP to insure the preservation of higher long-term conservation value as defined by the extent of sensitive habitat, proximity of the sensitive habitat to other resources, value as wildlife corridors, or presence of species of concern. Water Agency projects would, therefore, be directed toward areas that have lower long-term conservation value such as areas that are smaller in extent, are more isolated, have limited value as corridors, support relatively fewer individuals of species of special concern, or are in a disturbed non-natural state. Each of the water agencies that are forming the Joint Water Agency Subregional Plan are also developing their own subarea plans. The Helix Water District is in the process of submitting its Subarea Plan for review by the Wildlife Agencies.

Each of these programs is identifying biologically based planning areas to target as potential preservation areas. Each subarea plan will include large manageable habitat areas and suitable peripheral corridor and buffer habitat areas. Corridor and buffer areas may consist of a variety of habitats. Lands consisting of remaining biological resources are presently being identified by these programs, and conservation areas and wildlife corridors are being designed. The efforts are being coordinated to create a regional habitat conservation system, although each subarea plan is tailored to its specific area.

The project site is identified as "golf course" within the Helix Water District Subarea Plan and has been extensively reviewed by the Wildlife Agencies. The Subarea Plan will be consistent with the other NCCP programs adopted by the Wildlife Agencies, including the County of San Diego MSCP. The Helix Water District takes the position that the proposed golf course project has to be in conformance with their Subarea Plan, and not with the County of San Diego MSCP.

However, if the proposed golf course project were subject to the County of San Diego MSCP, it would be in conformance based on the designation of the site and the mitigation measures provided in the EIR. It is important to note that the proposed golf course site is identified as "Agricultural Lands" and included within TIER IV in the County of San Diego MSCP.

8.1.2. The Helix Water District Subarea Plan will supersede the County of San Diego Subarea Plan. The project site is currently designated as Unincorporated Lands within the Metro-Lakeside-Jamul Segment of the County of San Diego MSCP. The site has historically been used for intensive agriculture. With the exception of a narrow corridor associated with the San Diego River channel identified as High, the majority of the site is identified as Agriculture on the Habitat Evaluation Map. The site is associated with the Lake Jennings/Wildcat Canyon - El Cajon Mountain critical biological resource area, however, it is specifically excluded from the Pre-Approved Mitigation Area.

All projects subject to the MSCP must be found in conformance with the County of San Diego Subarea Plan. Conformance with the Subarea Plan and the required findings is discussed in response #3.

8.1.3. Although the project is not subject to the County of San Diego MSCP, the project is in conformance with the Subarea Plan because of the following project design features and environmental mitigation measures:

A. The proposed project will create permanent impacts to 0.69 acres of riparian scrub and riparian woodland habitat, permanent impacts to 0.3 acres of waters of the U.S., and temporary impacts to 0.9 acres of disturbed riparian scrub and riparian woodland. Using applicable County ordinances for mitigation ratios of 3:1 for permanent impacts to riparian habitat, 1:1 for permanent impacts to waters of the U.S., and 2:1 for temporary impacts to riparian habitat, a total of 4.17 acres of wetland mitigation would need to be restored or preserved to meet the no-net-loss of wetland standard for the project. This standard will be met by the creation of wetland habitat on 1.9 acres and the enhancement of a minimum of 4.54 acres (2.27 acres of impact at an enhancement ratio or 2:1) of the existing riparian habitat in the river channel.

B. The integrity of the San Diego River channel corridor will be enhanced by the establishment of a biological buffer averaging 50 feet and a 100-foot wide planning buffer on both sides of the channel. The biological buffer will remove exotic invasive plant species and be revegetated with native plant materials.

C. A north-south wildlife movement corridor will be created to mitigate for impacts to small scattered patches of coastal sage scrub and associated species as well as potential impacts to wildlife movement. Approximately 21 acres of coastal sage scrub habitat will be created in the corridor zone. The corridor ranges in width from approximately 500 feet to over 1,000 feet wide

and is approximately 1,300 feet long. The corridor is located in an area with a low level of human disturbance, especially at night. This enhanced wildlife corridor will connect Pre-approved Mitigation Areas that were previously separated by the agricultural land use and will contribute to the preservation of wide-ranging species.

D. The project site has been extensively disturbed by agricultural activities. All proposed development is located within the least sensitive habitat area of the site which is designated as "Agriculture". The mature Coast Live Oak, California sycamore and western cottonwood trees have been incorporated into the golf course design and will be retained. The highly disturbed riparian/wetland habitat within the San Diego River channel will be conserved and enhanced over time to function as a wildlife corridor.

E. No critical populations or narrow endemics specified in the Subarea Plan have been identified within the project site and no critical populations of narrow endemics are anticipated to occur due to the historic agricultural use of the site.

8.1.4. Biological resource mapping can be provided according to the County's Mapping Guidelines.

8.1.5. Although the project is not subject to the County of San Diego Biological Mitigation Ordinance, the project is in conformance with the Subarea Plan because of the following project design features and environmental mitigation measures:

A. All proposed development is located within the least sensitive habitat area of the site which is designated as "Agriculture".

B. Clustering cannot be considered to avoid impacts to sensitive habitat since no residential development is proposed.

C. Encroachment into steep slopes will not be allowed to avoid impacts to habitat since the project site does not have any steep slopes.

D. Reduction in road standards will not be considered since no public or private roads are proposed.

E. The proposed project complies with the applicable design criteria in the County MSCP Subarea Plan as previously described in response No. 8.13.

8.1.6. The wildlife corridors proposed for the project site have been extensively discussed with the Wildlife Agencies and adequately provide the desired linkages.

8.1.7. The trapping study is complete, and no Stephen's kangaroo rats were found.

With concurrence of the resource agencies, directed studies for the Southwestern arroyo toad will not be required. Significant water flow has only occurred in the San Diego River five (5) times since construction of El Capitan Dam was completed in 1935, and the habitat is unsuitable for this species.

The golf course project will conduct protocol surveys in Spring, 1999 for Least Bell's vereo, California gnatcatcher, and San Diego ambrosia. If any of these species are found, the project will provide appropriate additional mitigation in banks established by the Helix Subarea Plan as a first choice, or in another approved NCCP bank.

8.1.8. Although golf courses do not typically provide native grassland habitats, they do attract a significant population of rodents that become prey for raptors. In addition, patches of native grasslands will be interspersed throughout the 21 acre north-south corridor to produce a mosaic of grassland and coastal sage scrub. All or most of the existing native trees used as roosting sites have been incorporated into the golf course design. A large number of additional trees will be planted on the golf courses that will become additional roosting sites.

8.1.9. A biological buffer with an average width of 50 feet has been provided. This width of the biological buffer is appropriate due to the low intensity of activity for the golf courses. A 100 foot wide planning buffer outside of the biological buffer has also been provided. The proposed project will create permanent impacts to 0.69 acres of riparian scrub and riparian woodland habitat, permanent impacts to 0.3 acres of waters of the U.S., and temporary impacts to 0.9 acres of disturbed riparian scrub and riparian woodland. Using applicable County ordinances for mitigation ratios of 3:1 for permanent impacts to riparian habitat, 1:1 ratio for permanent impacts to waters of the U.S., and 2:1 for temporary impacts to riparian habitat, a total of 4.17 acres of wetland mitigation would need to be restored of preserved to meet the no-net-loss of wetland standard for the project. This standard will be met by the creation of wetland habitat on 1.9 acres and the enhancement of a minimum of 4.54 acres (2.27 acres of impact at an enhancement ratio or 2:1) of the existing riparian habitat in the river channel.

8.1.10. The entire golf course development will be fenced using a variety of fencing types to prevent unauthorized entrance onto the property while also allowing for wildlife movement through the proposed wildlife corridor as well as equestrian use of the equestrian trail. In addition, the golf course operators will actively discourage off-road vehicle activity since it is inherently incompatible with the golf course use.

8.1.11. No sycamore trees are planned to be removed. If any sycamore trees are removed in error or unintentionally destroyed, the replacement ratio will be 5:1.

8.1.12. The golf courses have been designed to incorporate the existing native oak trees. Most or all of the native oak trees on-site will be preserved. Replacement of native oaks that may need to be removed will be at a 5:1 ratio and will be planted on the golf courses in areas located between fairways, out-of-play areas, and biological buffer areas.

8.1.13. The bridge crossing the river channel at the main entrance to the project has been designed to have the least impact to the existing highly disturbed riparian/wetland habitat in the San Diego River channel. The area of temporary and permanent impact will be mitigated at the appropriate ratios.

Traffic

8.2.1. A supplemental analysis was performed (Darnell and Associates, 12/7/98) to address conformance with County General Plan Public Facility Element Objective 1, Implementation Measure 1.1.3. This analysis is included in the Final EIR in the Technical Appendices. The analysis addresses the level of service on the segment of Lake Jennings Park Road north of Interstate 8. This two lane segment of roadway was re-analyzed using the PM Peak hour traffic volumes, as presented in the Technical Appendices of the Draft EIR, and the Highway Capacity Manual methodology. The segment was examined under two scenarios: 1) Existing Conditions, and 2) Existing Conditions Plus Project Conditions. The result of the analysis found that the actual operational level of service during the period of highest hourly volumes is D, not E as originally reported in the Draft EIR, as would be indicated by the application of the County Public Road Standards Level of Service Table. Therefore, the level of service for this segment of Lake Jennings Park Road will operate at an acceptable level of service under both scenarios.

Groundwater

8.3.1. It is agreed that the amount of water available for use within the immediate proximity of the golf course is less than the total storage listed in the draft EIR. However, the majority of existing groundwater users within the valley would not be affected by golf course pumping because most users derive their groundwater from wells completed into the residuum and granitics. These wells should not be significantly effected by golf course pumping which would utilize water within the alluvium found in the central portion of the valley. The groundwater mitigation and monitoring plan has been developed in recognition that pumping by the golf course would have the potential to effect existing nearby users. Measures have been provided to require cessation of pumping when water levels decline to critical levels. Without regard for total storage, the mitigation measures protect existing users from the potential for groundwater overdrafts.

8.3.2. The lease between El Monte Canyon, LLC and Helix Water District (the lead agency) incorporates strict criteria for monitoring water quality and specific remedies for violations of that criteria. Exhibit "F" to the lease contains Golf Course Maintenance Specifications covering such areas as quantities and application of fertilization, pest control, and weed control. Exhibit "G" contains specific standards relating to groundwater quality with a protocol for monitoring quality. Those same standards are incorporated into Mitigation Measure #9.

Section 18.1-1 of the lease provides that "failure by LESSEE to observe and perform any provision of this Lease to be observed or performed by LESSEE shall constitute a default of this Lease." The sections that follow contain specific notice and enforcement procedures under which Helix can hold the lessee in default of the lease, regain possession of the premises, and sue the lessee for breach of the lease covenants. In short, because Helix holds title to the premises and has incorporated specific water quality standards and measuring procedures into its lease, Helix stands in a position to enforce Mitigation Measure #9 through the lease's default provisions.

8.3.3. Mitigation Measures:

a. The following text and table have been added to mitigation measure in section 2.7.4 of the EIR:

Water level monitoring to determine impacts for individual production wells shall relate to the following table. If water levels in either

monitoring well listed in the second row drops below a threshold level, production in the corresponding well shall be reduced or curtailed.

Production Well	Monitor Well(s)
EW-1	MW-7, MW-1
EW-2	MW-1, MW-6
EW-3	MW-2, MW-5
EW-4	MW-3, MW-4

b. The following text has been added to in section 2.7.4 of the EIR:

"Should groundwater levels drop below minimum levels (65' in MW-1, MW-2, MW-4, MW-5, MW-6, MW-7, or 100' in MW-3) in monitor wells, the golf course operator shall begin reporting monitor well groundwater levels on a monthly basis."

c. The second sentence of mitigation measure 3.c. on page 2-142 has been changed in the EIR to state the following: "Extraction may resume when groundwater depths in all monitoring wells (MW-1 through MW-7) returns to a level of less than 65 feet bgs (100 feet bgs for well MW-3) for at least 7 days."

d. Water levels will not be monitored in production wells. Monitoring wells have been installed to monitor groundwater levels (unaffected by pumping conditions at production sites). No pumping of monitoring wells is anticipated.

e. If the property owners identified in mitigation measure 6. on page 2-143 prefers to be connected to a potable water source, the golf course operator shall be responsible for paying water service connection fees.

November 19, 1998

Helix Water District
Board of Directors
7811 University Avenue
La Mesa, Ca. 91941-4927

Re: Golf Course-El Monte Valley-Lakeside

Dear Sirs:

I attended your meeting on November 18, 1998 concerning the construction of the golf course in El Monte Valley. A riding
9.1. and hiking trail is proposed which we strongly agree and want. It must be an irrevocable offer to dedicate to the county of San Diego. Trail clubs as well as the county can
9.2. maintain this trail. We also need access from the San Diego Flume Trail which is a county trail and would make a complete loop around the golf course. We urge you to please get together with a person from Blossom Valley, preferrably Maryanne Vancio, 561-7755 and make a decision where this access should be. The various trails in the river valley have been used for over 50 years. There are many equestrian centers on El Monte Road and Willow Road. I hope that you will consider the fact that they have been there for many years, and to completely disrupt their use would be very hurtful to the equestrian community.

Yours truly,

Marilyn Gramse

Marilyn Gramse
15045 Quail Valley Way
El Cajon, Ca 92021

Responses to Comments: Letter from Marilyn Grames, dated 11/19/98

9.1. Comment Noted. The trail would be subject to a revocable license agreement associated with the Major Use Permit. The license agreement for the trail would stay in force until the permitted use on site changes (i.e., expiration of the Major Use Permit), at which time the location of the trail could change to suit any new changes in land use.

9.2. Comment Noted.

Dear Mr. Campbell,

I appreciate that your organization is considering the needs of the equestrians in the planning of the El Monte valley golf course. Lakeside is a very unique community, where there actually may be as many horses as golfers (if not more).

I have lived in Lakeside over twenty years. I was attracted to the area because of it's rural character and many equestrians. It is sad for me to watch the agricultural areas and open space disappear. However,

10.1.

I thank you for your willingness to allow an equestrian trail through the development. I respectfully request that the trail not be put too close to the traffic on El Monte Road. Riding near high speed traffic is not only unaesthetic, it is also quite dangerous.

10.2.

Sincerely,

Gail Sabbadini
12509 Del Sol Rd.
Lakeside, CA
92040

maintaining a viable wildlife movement corridor is critical to the overall preserve design in this area. In a previous letter to the District dated December 11, 1997, attached and incorporated by reference, the Wildlife Agencies emphasized, among other things, the need to ensure an adequately-sized north-south wildlife movement corridor. While some redesign of this corridor has taken place, we remain concerned that it is too narrow for its length. To increase the functional value of the north-south wildlife movement corridor, we recommend retaining the previously proposed 6-hole practice center, and widening the northern segment of the corridor by relocating Hole 5 adjacent to the practice center and west of the power lines. This would allow for the retention of a corridor width that is more consistent with the MSCP guidelines which recommends a width of no less than 400 feet for a length for 500 feet, and a width of 1,000 feet for large mammals and birds..

12.4. We are also concerned that the area proposed for revegetation in the north-south corridor will not be adequately buffered from surrounding uses including, horse trail, golf cart path, and golf greens which reduce the effective width of the corridor by making the edges less suitable for wildlife use and movement. We recommend that the wildlife corridor be appropriately fenced off to prevent encroachment by humans and horses.

12.5. The Wildlife Agencies typically recommend a 100-foot biological buffer to protect riparian corridors and reduce disturbance to wildlife, however, due to land dimension constraints and the proposed golf course design, it would appear that the preferred 100-foot width cannot be accommodated. If the project retained the proposed 25- to50- foot biological buffer, then additional enhancement and restoration of the river channel is recommended. This would include removing invasive, exotic plants such as giant reed (*Arundo donax*) and salt cedar (*Tamarix* spp.) and planting native riparian vegetation such as willows (*Salix* spp.). To ensure success, turf irrigation systems and landscape terracing should be designed for irrigation water to flow from the turf through the wetlands buffer and into the river channel to provide soil moisture for riparian plant survival and growth.

Wildlife impacts:

12.6. The Wildlife Agencies do not concur that adequate surveys have been conducted for the following species: coastal California gnatcatcher (*Polioptila californica callfornica*), arroyo toad, least Bell's vireo, southwestern willow flycatcher, and rare plants including the San Diego ambrosia. The DEIR states that a survey for the San Diego ambrosia will be performed in the spring when it is most detectable. Surveys for these other species should be conducted at the appropriate time of year and time of day when the species are active or otherwise detectable. We concur with the recommendations presented in the survey report for the Stephen's kangaroo rat (*Dipodomys stephensi*) (Appendix H) that a trapping program should be conducted on the

12.7. proposed project site to conclusively determine the presence or absence of this federally-listed endangered species.

The Wildlife Agencies are concerned with the loss of raptor foraging habitat that would occur with the currently-proposed project design. The DEIR states that the project will result in the conversion of approximately 400 acres of open foraging area to a public golfcourse. Biological surveys conducted for this project documented that this site is used by at least five sensitive raptor species. We concur with the finding that displacement of the raptor fauna from the large foraging area onsite would be a significant impact. However, we disagree that the mitigation, as proposed, consisting of a plan to manage lighting and watering, offsets this impact.

12.8. We recommend a combination of onsite and offsite mitigation. Onsite mitigation could consist of planting of: (1) patches of native grasslands interspersed throughout the 21.1-acre north-south corridor to produce a mosaic of grassland and coastal sage scrub; and (2) native grasses under the onsite power lines and on the narrow strip of land attached to the north-south wildlife corridor

12.9. that runs alongside El Monte Road. Offsite mitigation should consist of preservation of raptor foraging habitat (grassland or sparse coastal sage scrub) within an area that has long-term biological viability. In addition, we are concerned with the displacement of raptors during the construction of the golf course. To offset these temporary impacts we recommend that raptor

12.10. roosts and nesting boxes and platforms be considered for placement and maintenance on the project site.

Hydrologic issues:

1. In our December letter to the District, we requested that a hydrological analysis be conducted assuming a fully-vegetated channel to determine if the 100-year flood would be

12.11. contained within the channel. It is not clear if the hydrologic analysis presented in Appendix E included this parameter.

2. A Streambed Alteration Agreement (Section 1600 of the Fish and Game Code) is required for any impacts extending into wetlands that are associated with streams, and the Department should be contacted for consultation. To obtain a Streambed Alteration Packet

12.12. please contact the Department at 330 Golden Shore, Suite 50, Long Beach, California 90802 (attention: Ms. Sherry Avants). Also, a U. S. Army Corps of Engineers permit pursuant to Section 404 of the Clean Water Act will likely be required.

3. According to the Environmental Development Program (Appendix G), groundwater wells will be installed for extracting water and testing for potential contaminants, however, a maximum contamination level for all chemicals in the groundwater was not indicated. We are concerned that if the U.S. Environmental Protection Agency does not have a maximum

12.13. contamination level, chemicals could continue to be applied even after detection in the groundwater wells. This is especially significant because of the alluvial soils present in the floodplain.

Other Issues:

12.14. 1. The Biological Resources section of the DEIR mentions the preparation and implementation of a Biological Resource Management Plan in conjunction with the preparation of site specific development plans. The Wildlife Agencies request the opportunity to review and comment on the plan.

12.15. 2. It is not clear in the DEIR what, if any, actions will be implemented to control the re-infestation of invasive, exotic plants after the initial removal and enhancement of riparian habitats in and adjacent to the floodway. Although there is reference and acknowledgment of such need in the DEIR, no specific measures were outlined to maintain these areas in native vegetation. Without such measures, there would be little gain of habitat value over the long-term that would benefit the onsite biological resources.

12.16. In conclusion, the Wildlife Agencies remain concerned regarding the issues raised above, especially: (1) the width of the north-south corridor; (2) the loss of raptor foraging habitat; (3) disturbance to the riparian corridor resulting from numerous crossings and inadequate buffer; (4) lack of adequate biological surveys; and (5) the long-term management of the site. The Wildlife Agencies recommend that the "Reduced Intensity Golf Development" alternative be selected as the project. In the event that this least damaging alternative can not be selected, we recommend that the project incorporate the redesign elements discussed above, including onsite and offsite mitigation for raptor foraging habitat, improved wildlife corridor, increased riparian buffer, and habitat enhancement. The Wildlife Agencies are available to work with the District to provide technical assistance to ensure that project impacts are adequately minimized and mitigated. We recommend that the Final Environmental Impact Report be modified to address our concerns. If you have any further questions please contact Ms. Kim Marsden at (760) 431-9440 (Service) or Ms. Stacy Hewitson at (619) 467-4229 (Department) with any questions or comments.

Sincerely,

Sheryl L. Barrett
Assistant Field Office Supervisor
U. S. Fish and Wildlife Service

William E. Tippets
Habitat Conservation Supervisor
California Department of Fish and Game

cc: Department of Fish and Game
Tom Hall
Sacramento

Stacy Hewitson
San Diego

U. S. Fish and Wildlife Service
Nancy Gilbert
Kim Marsden

Responses to Comments: Joint letter from US Fish and Wildlife Service and California Department of Fish and Game, recieved 11/23/98

12.1. Comment Noted.

12.2. Development" Alternative. This alternative would be environmentally beneficial in many respects; however, this alternative substantially reduces the overall scope of the project, thereby compromising long-term project viability.

12.3. The wildlife corridors proposed for the project site have been extensively discussed with the Wildlife Agencies and adequately provide the desired linkages.

A north-south wildlife movement corridor will be created to mitigate for impacts to small scattered patches of coastal sage scrub and associated species as well as potential impacts to wildlife movement. Approximately 21 acres of coastal sage scrub habitat will be created in the corridor zone. The corridor ranges in width from approximately 650 feet to over 1,000 feet wide and is approximately 1,300 feet long. The corridor is located in an area with a low level of human disturbance, especially at night. The wildlife corridor has been redesigned on the north side of the river by changing the footprint of golf hole No. 5. The area north of the fifth hole will be revegetated in a mix of coastal sage scrub and native grassland species. The cart path has been moved so that it wraps around the east end of the fifth green and has limited impact on the wildlife corridor. All trees will be planted on the "golf side" of the cart path. This enhanced wildlife corridor will connect Pre-approved Mitigation Areas that were previously separated by the agricultural land use and will contribute to the preservation of wide-ranging species.

12.4. The entire golf course development will be fenced using a variety of fencing types to prevent unauthorized entrance onto the property while also allowing for wildlife movement through the proposed wildlife corridor as well as equestrian use of the equestrian trail. In addition, the golf course operators will actively discourage off-road vehicle activity since it is inherently incompatible with the golf course use.

Natural barriers comprised of thorny shrubs or other appropriate vegetative barriers and signage shall be incorporated along both sides of the cart paths and equestrian path wherever they enter or cross the river channel, wildlife corridor/habitat creation area, or other areas specifically designated as biological open space by the golf course design or the Helix Water District

Subarea Plan. These barriers shall be designed to prevent golfers, equestrians, or other humans from casual entry into biological resource areas.

12.5. The wildlife corridors proposed for the project site have been extensively discussed with the Wildlife Agencies and adequately provide the desired linkages. The integrity of the San Diego River channel corridor will be enhanced by the establishment of a biological buffer averaging 50 feet and a 100-foot wide planning buffer on both sides of the channel. The biological buffer will remove exotic invasive plant species and be revegetated with native plant materials. These issues are discussed in more detail in the following text.

The proposed golf course design is not linear in character and is compatible with a variable width biological buffer rather than a uniform width biological buffer would be more appropriate adjacent to more intense development that may include streets, parking lots, and buildings. The proposed variable width biological buffer starts at the edge of the Army Corps of Engineers jurisdiction boundary (approximately two feet in elevation above the base of the river channel bank) and varies from a minimum of 25 feet to as much as 200 feet wide in several areas.

The area included within the biological buffer will be re-contoured to accommodate the overall grading concept of the golf course. All of the non-native plant species, including a significant amount of invasive exotic plants, will be removed while protecting and retaining the riparian woodland species rooted in the channel and overhanging the bank of the river channel. The variable biological buffer will be revegetated with native plant species such as toyon, sumac, rhus species, live oak, and western sycamore. The golf operator will irrigate and maintain the buffer area to preclude invasion of non-native species and preserve its function as a biological buffer for current and future revegetation efforts in the river channel.

Specific details regarding revegetation/enhancement and restoration within the portions of the river channel that would remove invasive and exotic species is described as follows:

Introduction and Goals

In response to projected direct and indirect impacts to wetland and riparian habitat from the proposed golf course, the resource agencies (i.e., CDFG and USFWS) have recommended that the project: (1) revegetate the channel banks that will be recontoured with appropriate native upland and riparian plants,

and (2) perform a 10-acre revegetation/enhancement program within the San Diego River channel with a combination of native wetland and alluvial wash plants. Revegetation of the recontoured channel banks will encompass approximately 28 acres and is intended to enhance the buffer between the golf course and the river channel by providing a physical barrier with native shrubs and trees and creating wildlife habitat. Since this effort is outlined previously in the draft EIR response to comments, this review focuses on the proposed 10-acre revegetation/enhancement program within the river channel.

Various enhancement options within the channel have been discussed with the agencies. During a May 6, 1999 field visit, representatives of CDFG and USFWS recommended that a 10-acre pilot revegetation/enhancement program be performed. Recommended guidelines for the program include that part of the effort occur within the portion of the river channel that coincides with the proposed north-south wildlife corridor, and that the program be divided between existing wetland and alluvial wash habitats. As indicated in the project's biological technical information and EIR, the majority of vegetative cover in the channel is provided by undesirable exotic species (non-native) that degrade wildlife habitat value.

Portions of the channel have water near the surface and support wetland species in the overstory such as willow (Salix sp.) and understory such as rushes (Juncus sp.). Although due to a highly variable water table, most of the channel vegetation is characterized as alluvial wash with riparian scrub species comprising the mid-story and upland plants in the understory. Based on discussion with the agencies, the two primary goals of the pilot program will be to: (1) revegetate and enhance existing habitat to improve wildlife habitat values as mitigation for golf course impacts, and (2) determine what methods are most feasible and successful for performing revegetation/enhancement and how long will it take to establish native vegetation.

The following conceptual review discusses proposed revegetation/enhancement locations and implementation methods, and recommended maintenance and monitoring guidelines. Prior to implementation of the proposed golf course, a detailed plan for the channel revegetation/enhancement program will be prepared for final approval by the agencies.

Locations and Implementation Methods

To meet the guidelines and goals listed above, it was determined during the May 6 site meeting that the 10-acre program will be divided between two locations: an approximate 5-acre area that corresponds to a wetter portion of the channel adjacent to existing offsite homes, and an approximate 5-acre area that corresponds to the alignment of the proposed north-south wildlife corridor. For ease of discussion, the more easterly, wetter area will be referred to as Area A and the more westerly area within the wildlife corridor will be referred to as Area B. The proposed locations are shown on the attached figure. For Area A, it is estimated that approximately 2 to 3 acres can support willow woodland, while the remaining portion will support alluvial wash (i.e., riparian scrub) with scattered trees such as California sycamore (Platanus racemosa). In both locations, the revegetation/enhancement will occur across the entire channel bottom. The eastern limit of Area A will be defined by the proposed entry bridge and cart path, while the eastern limit of Area B will be defined by the proposed equestrian trail and cart path. The western limits of these areas will be defined by permanent markers such as metal t-posts.

The primary implementation steps will include contractor education and delineation of access; initial removal of invasive exotic plants; installation of temporary irrigation; installation of container plants and seed; and follow-up maintenance and monitoring. No grading is proposed in the channel bottom. The proposed implementation steps and methods are reviewed below.

Contractor Education and Access. Prior to the initiation of revegetation/ enhancement activities, the project biologist will meet with maintenance personnel to review project guidelines and goals. Native species to be retained and exotic species to be removed will be reviewed at that time. The least impactive access routes for equipment and program personnel will also be determined in the field and marked.

Initial Control/Removal of Exotic Species. The primary exotic species that should be removed include tamarisk/salt cedar (Tamarix sp.), pampas grass (Cortaderia selloana), giant reed (Arundo donax), castor bean (Ricinus communis), eucalyptus (Eucalyptus sp.), tree tobacco (Nicotiana glauca), and fennel (Foeniculum vulgare). This list may be adjusted by the project biologist during the implementation phase. It is recommended that the initial exotic species removal effort begin in the late summer. There are 3 basic methods for initial removal of exotics that can be used depending on the specific conditions

within portions of Areas A and B. The 3 methods are: (1) hand-cutting most of the above-ground biomass and then applying herbicide to the stump; (2) applying herbicide without cutting the specimen; and (3) physical removal with motorized equipment. In cases where there is an isolated exotic with a sufficient density of native species around it (such that no follow-up planting will be necessary where the exotic presently occurs), herbicide can be applied without cutting the exotic. In cases where there is a grouping of exotics but motorized equipment could not avoid impacting existing native species, specimens should be hand-cut and herbicide applied so space will be created for follow-up native planting. In cases where there is a grouping of exotics and motorized equipment could avoid impacting native species, this method can be used.

Since there is a significant amount of weed seed that already exists in the seedbank, physical removal of all the exotic biomass and seedheads out of the channel is not considered necessary. Except for a species such as giant reed, it is considered acceptable to chip this biomass and distribute it as mulch within the channel. It is understood that after the initial control/removal of exotics, follow-up maintenance will be necessary to ensure these species are completely eradicated. In the case of initial control/removal and follow-up maintenance, very small specimens can hand-pulled if the entire root system can be removed.

Installation of Temporary Irrigation System. To ensure survival and establishment of native container plants, some form of temporary irrigation will be necessary at least in the alluvial wash areas. It is expected that more than one method of irrigation may be used. It is likely the primary method will be a drip system (extended from the golf course irrigation system) to deliver water to individual container plants. Another potential method is selective hand-watering or installation of slow-release water products (e.g., DriWater) for more isolated container plants. An overhead irrigation system is not recommended because the spray is likely to be blocked by existing vegetation and it is not a feasible way to promote deep-watering. Particularly within this setting, periodic deep-watering is preferable over more frequent surface watering. The intent of irrigation will be to establishment the container plants by promoting root systems that tap into channel's available water. For most of the planted species it is expected that temporary irrigation will be needed for 2 to 3 years, after which time it can be permanently discontinued. For the wetter areas in Area A, it is expected that little to no temporary irrigation will be needed to establish the plants.

Installation of Container Plants and Seed. The primary method for native plant revegetation will be container plants and promoting establishment of native volunteers, although some limited hand-seeded may be tried in select areas. Generally in openings without native plants larger than 8 by 8 feet, appropriate container plants will be installed. Planting will include a mixture of shrub and tree species. As a guideline, container shrubs can be installed with spacing on center ranging from 6 to 12 feet with an 8 foot average, while trees can be installed from 12 to 25 feet apart with a 15 foot average (this assumes some mortality). Most of the container plants will be 1-gallon, although some 5-gallon trees may be included. For experimental purposes, some vegetative cuttings should be installed in the wetter Area A and possibly in Area B. Also for experimental purposes, some selective hand-seeding should occur in Areas A and B. After the initial control/removal of exotics, native planting should occur with the onset of the rainy season.

In regard to the wetter portions of Area A that will support willow woodland (approximately 2 to 3 acres), recommended container plants include, but are not limited to, arroyo willow (Salix lasiolepis), black willow (Salix gooddingii), shining willow (Salix lucida ssp. lasiandra), and Fremont cottonwood (Populus fremontii). Seeded species could include Mexican rush (Juncus mexicanus), spikerush (Eleocharis sp.), and monkey flower (Mimulus nasutus). In regard to the drier portions of Area A and all of Area B that will support alluvial scrub with scattered trees (approximately 7 to 8 acres), recommended container plants include, but are not limited to, mule fat (Baccharis salicifolia), sandbar willow (Salix exigua), arroweed (Pluchea sericea), blue elderberry (Sambucus mexicana), and California sycamore. Seeded species could include Douglas mugwort (Artemisia douglasiana), giant wild rye (Leymus condensatus), and evening primrose (Oenothera hookeri). Many of the plants listed here are appropriate for both habitat types, although the final palettes should be "weighted" toward more wet- and alluvial-adapted species, depending on planting locations.

Maintenance and Monitoring

Once installation of the planting pallettes is complete, a recommended 5-year maintenance and monitoring program will begin. In addition since invasive exotics from upstream portions of the river channel will continue to re-invade the 2 revegetation/enhancement areas over time, some form of periodic long-term maintenance and monitoring beyond 5 years is considered necessary. The focus of the 5-year maintenance effort will be to eradicate all invasive exotics in the

revegetation/enhancement areas and to promote establishment of a self-sustaining native plant community in the portions of Areas A and B that are currently nonnative. The focus of the 5-year monitoring effort will be to provide direction to maintenance personnel, document progress and success of the program, and determine what methods of exotic plant control and native plant revegetation are most beneficial. Ultimately, monitoring will also help determine if the revegetation/enhancement is self-sustaining and whether this approximate 2-mile stretch of the river channel is a good candidate area for other projects to perform revegetation/enhancement mitigation. Maintenance and monitoring are discussed in more detail below.

Maintenance. During the initial 5-year period, the primary maintenance items will include exotic plant control, maintaining the irrigation system, promoting establishment of container plants, promoting establishment of seeded species and native volunteers, trash removal and site protection. After the initial exotic control/removal effort, exotic plant control will focus on treating re-sprouts with herbicide and eradicating new specimens that germinate from the seedbank. After the initial effort is conducted between July and August, it is recommended that herbicide be applied to the re-sprouts (before they get over 4 feet high) between August and October, before the first frost. In the following spring (i.e., between March and May) and late summer/fall of the next year, herbicide should be applied again to the re-sprouts. This follow-up treatment should be conducted each year until the individual specimen is dead. In terms of promoting establishment of container plants, the primary items will include overseeing temporary irrigation, maintaining weed-free basins, and adding fertilizer as necessary. Once some of the faster growing species such willow and cottonwood reach approximately 25 feet in height in 2 to 3 years, temporary irrigation should no longer be necessary. Scattered annual weeds, such as mustard (Brassica sp.) and clover (Melilotus sp.), should only need to be controlled when they occur in dense patches in open areas or in container planting basins. Once the 5-year program is considered successful and complete, long term maintenance may only be necessary twice a year to eradicate any exotics that have re-invaded.

Monitoring. A qualified biologist will oversee the initial 5-year monitoring period. The biologist will meet with maintenance personnel on a regular basis to review the condition of Areas A and B and the highest maintenance priorities. Horticultural and botanical monitoring will be performed. Horticultural monitoring will focus on exotic plant control and the health and growth of container plants. Botanical monitoring can use a

combination of techniques, such as transects and quadrats, to quantify the progress of native plant development in areas previously dominated by nonnative plants. Permanent photographic viewpoints should also be established to document revegetation progress over time. As part of monitoring, a set of success standards will be established to assess revegetation progress. Within the alluvial wash habitat for example, success standards for the end of year 5 could include 90 percent survival of container plants, 65 percent native cover in areas previously dominated by non-native, and no invasive exotics present. Success standards could be similar within the wetter willow woodland area, except for a slightly higher native plant cover goal. Horticultural and botanical monitoring results, including any recommended remedial measures (e.g., replacement plants, fertilizer etc.), will be included in five annual reports to be submitted to the agencies. The annual reports should also review the relative success of the revegetation techniques conducted in Areas A and B, so potential future revegetation/enhancement programs performed by other projects in the channel can benefit from the results of this pilot program.

Once the program has met its 5-year success standards in Areas A and B, that portion of the program will be complete. If portions of Areas A and B have not met their success standards after 5 years, then consultation should occur with the agencies to determine whether sufficiently beneficial revegetation/enhancement can be feasibly performed within this setting. If revegetation/enhancement was successful after 5 years, then some form of long term monitoring and reporting should be coordinated with the long term maintenance effort to ensure invasive exotics do not re-invade and intended wildlife habitat values are retained.

The Pilot Revegetation/Enhancement Program is shown on the attached figure.

12.6. With concurrence of the resource agencies, directed studies for the Southwestern arroyo toad will not be required. Significant water flow has only occurred in the San Diego River five (5) times since construction of El Capitan Dam was completed in 1935, and the habitat is unsuitable for this species. Stevens kangaroo rat surveys have been completed and no animals were found. The golf course project will conduct protocol surveys in Spring, 1999 for Least Bell's vereo, California gnatcatcher, and San Diego ambrosia. If any of these species are found, the project will provide appropriate additional mitigation in banks established by the Helix Subarea Plan as a first choice, or in another approved NCCP bank.

12.7. Comment Noted.

12.8. Although golf courses do not typically provide native grassland habitats, they do attract a significant population of rodents that become prey for raptors. In addition, patches of native grasslands will be interspersed throughout the 21 acre north-south corridor to produce a mosaic of grassland and coastal sage scrub. All or most of the existing native trees used as roosting sites have been incorporated into the golf course design. A large number of additional trees will be planted on the golf courses that will become additional roosting sites.

12.9. Refer to comment No. 12.8 above.

12.10. Comment noted.

12.11. Appendix E identifies four (4) changes in the main channel as a result of the completion of sand mining by Woodward Sand in 1982.

Change 1: There has been extensive growth of vegetation in the channel. The trees, shrubs, and other plants are nourished by the steady groundwater through the alluvium underlying the channel bed. The dense vegetation growth indicates a higher degree of roughness for the channel, a higher flood level, and a lower velocity.

It goes on to state: Such changes in the post mining channel has altered conclusions form the Nolte study. The original HEC-2 computations by Nolte were updated to reflect changes in channel roughness.

12.12. Comment noted.

12.13. Comment noted.

12.14. Comment noted. The plan will be on file at the Helix Water District main office. The golf course project will prepare the biological resource management plan for submission to the District with the project's construction plan. The District will review the plan based on overall guidelines in the Joint Water Agency Subregional Plan, and evaluate the plan for consistency with the County MSCP, Jamul-Lakeside Subunit Plan. The wildlife agencies will be given an opportunity to review and comment on the Management Plan at that time. The golf course project proponents will be responsible for implementation of the Management Plan in concert with its regular maintenance and management operations.

12.15. – Refer to Response Nos. 12.5.

12.16. Refer to Response Nos. 12.3 through 12.15.

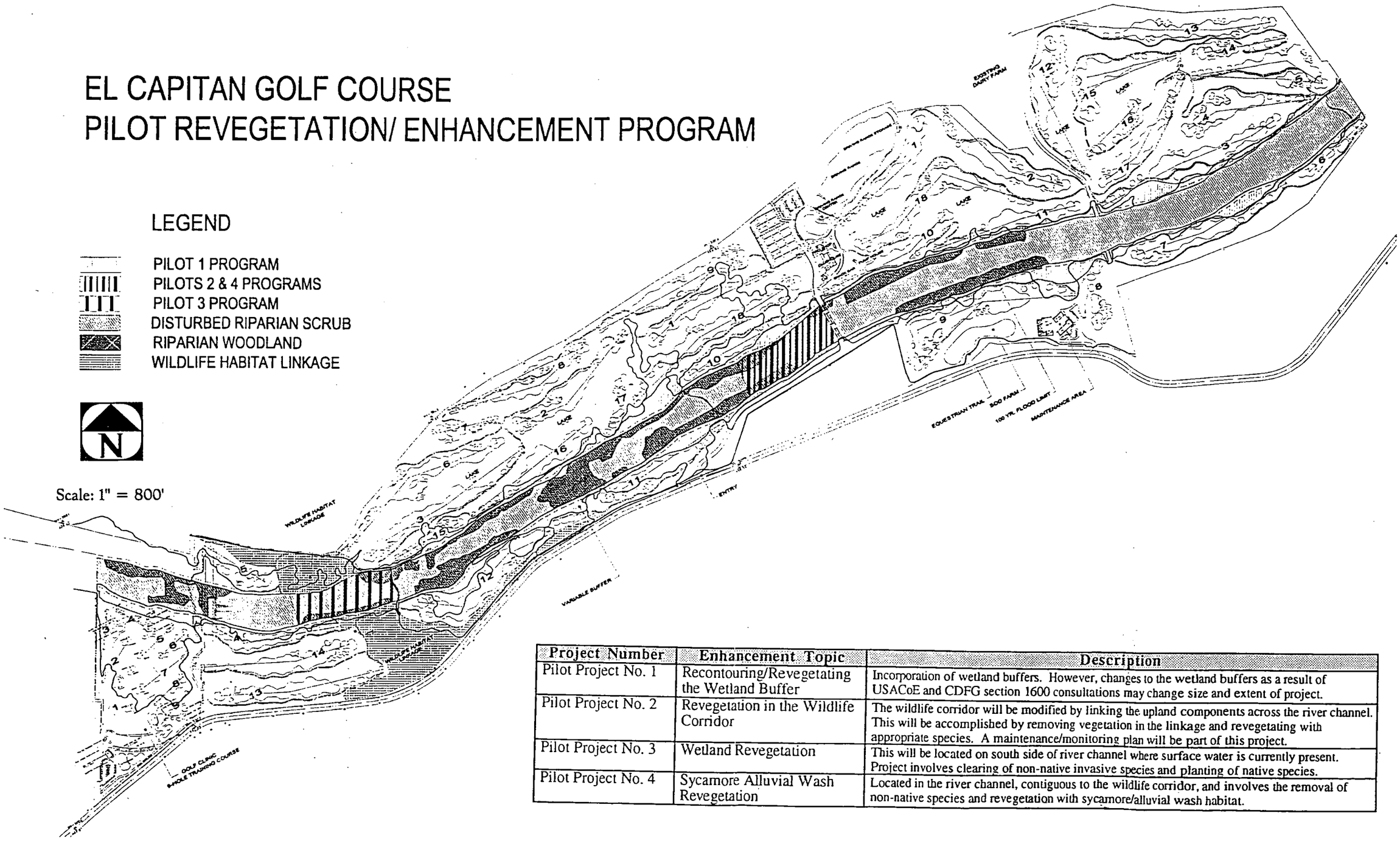
EL CAPITAN GOLF COURSE
PILOT REVEGETATION/ ENHANCEMENT PROGRAM

LEGEND

- PILOT 1 PROGRAM
- PILOTS 2 & 4 PROGRAMS
- PILOT 3 PROGRAM
- DISTURBED RIPARIAN SCRUB
- RIPARIAN WOODLAND
- WILDLIFE HABITAT LINKAGE

N

Scale: 1" = 800'



Project Number	Enhancement Topic	Description
Pilot Project No. 1	Recontouring/Revegetating the Wetland Buffer	Incorporation of wetland buffers. However, changes to the wetland buffers as a result of USACoE and CDFG section 1600 consultations may change size and extent of project.
Pilot Project No. 2	Revegetation in the Wildlife Corridor	The wildlife corridor will be modified by linking the upland components across the river channel. This will be accomplished by removing vegetation in the linkage and revegetating with appropriate species. A maintenance/monitoring plan will be part of this project.
Pilot Project No. 3	Wetland Revegetation	This will be located on south side of river channel where surface water is currently present. Project involves clearing of non-native invasive species and planting of native species.
Pilot Project No. 4	Sycamore Alluvial Wash Revegetation	Located in the river channel, contiguous to the wildlife corridor, and involves the removal of non-native species and revegetation with sycamore/alluvial wash habitat.

Pilot Revegetation/Enhancement Project

EnviroMINE

Responses to Comments: Public Responses to Draft EIR at November 18, 1998 Helix Water District Board Meeting

16.1. Gwen Eatherton

Following public comment on the Draft EIR, design of the maintenance facility was further changed to relocate the compound approximately 900 feet to the east which is 900 feet farther away from the adjacent residences. The closest residence to the relocated maintenance facility would be approximately 200 feet to the west. (see Section 2.1.4 of the Final EIR and Figure 2.1-5). Access to the maintenance compound would be taken from El Monte Road approximately 100 feet to the east of the structure. This would further buffer any associated land use impacts to near by residences. With these land use mitigation measures and design changes in place, the project would not be considered to have an significant impact on near be residences. In addition, the relocated maintenance compound is approximately 20 feet lower than El Monte Road. This elevation difference will further reduce the visual impact to motorists using El Monte Road.

Responses to Comments: Public Responses to Draft EIR at November 18, 1998 Helix Water District Board Meeting

17.1. Zack Noonan

Design of the maintenance facility has been further changed to include relocating the structure approximately 900 feet to the east (see Section 2.1.4 of the Final EIR and Figure 2.1-5). Access to the maintenance compound would be taken from El Monte Road approximately 100 feet to the east of the relocated maintenance facility. Project access driveways and channelization will bbe designed to the satisfaction of the Director of Public Works.

Responses to Comments: Public Responses to Draft EIR at November 18, 1998 Helix Water District Board Meeting

David Van Ommering

18.1. Table 3 indicates that the dairy currently uses approximately 56 acre feet on an annual basis, while Table 4 does not list the dairy as a continuing user. It was assumed that, over the long term, the dairy would not continue in operation. The golf course would result in an improvement in land values which would have the potential of bringing improved value for the dairy property. However, by adding the dairy back into the future land use calculations, future groundwater utilization with the project would be 1,813 acre feet per year. The EIR analysis on page 2-142 states that threshold of significance for extraction is 50% of recoverable storage. If no recharge were to occur, this threshold would be reached in roughly 3 years (4,750 af ÷ 1,757 afy = 2.7 years). Adding the dairy into the future use would result in the threshold being reach in about the same period of time (4,750 af ÷ 1,813 afy = 2.6 years).

18.2. Groundwater monitoring will be conducted by the golf course operator. Semi-annual reports are to be submitted to Helix Water District, the County of San Diego, and the City of San Diego. If significance thresholds are reached (i.e., if groundwater depths drop below 65' below ground surface), monitoring reports will be submitted more frequently. Mitigation measure 2 on page 2-142 requires that monitoring wells will be equipped with automated monitoring devices capable of contacting the golf course operator and Helix Water District if specified water levels are reached. As identified in mitigation measure 3.d., Helix Water District will provide supplemental raw water through a metered connection if groundwater extraction limits are reached. As such, Helix Water District will be responsible for assuring compliance with groundwater monitoring and mitigation.

January 15, 1999

Larry Campbell
Helix Water District
La Mesa, CA

RE: Golf Course Impact on the El Monte Valley

Dear Larry:

First let me thank you for returning my call today in such a timely fashion, and taking time from your busy schedule to update me on the proposed Golf Course development. As I shared with you it has been frustrating to receive information secondhand from my closet neighbors and dear friends Don and Lucille Foster. Personally up to this point I have felt
19.1. like the entire Development has been somewhat secretive and that the Fosters are being taken advantage of due to there age, not necessarily by you or the water district but by others who have " buddied up" to them suggesting they sell there home, or grant easement access through there property for a proposed maintenance building. The Fosters informed me several months ago that they did intend to grant an easement, until I pointed out to them all that a maintenance facility entails. Yesterday I received a call from the Fosters alerting me to the new proposed location of the maintenance facility. Apparently enough complaints from neighbors to the west of the Fosters have convinced the designers to move it to the east side of the Fosters adjacent to my property line. It now would be built directly into the "million dollar view" of the Fosters, all the rim properties in Quail Canyon, all the properties on the north side of the El Monte Valley, the properties adjacent to mine and especially my property and my dream home, which I designed and built myself to take full advantage of this magnificent view.

I would like my opposition of this proposed location of the maintenance facility to go on record as of today. As you suggested, I have listed my concerns for the entire project as well as the proposed location of the maintenance facility below. Thank you for your assurance that each and every one will be addressed by the Helix Water District and will be outlined in the environmental impact report.

A : TRAFFIC IMPACT TO EL MONTE ROAD (A.K.A.- EMR)

19.2. El Monte Rd. is narrow two lane road with little or no shoulder. What improvements will
19.3. be made to accommodate the increased traffic on E.M.R.? What is the estimated vehicle
19.4. impact to El Monte Rd.? How many big rig type delivery trucks will use E.M.R
19.5. daily/weekly? Can the road structure take that much heavy truck use? Has a structural 19.6.
19.7. analysis been performed on EMR? Sections of the road are built over a raised sand berm,
19.8. and have had a history of settlement and surface fractures! What type of products will be
19.9. in those delivery trucks? How many times will fuel trucks be on EMR? Will left turn lanes 19.10.

19.11. be provided? Will any improvements be made to the already taxed intersection of EMR
19.12. and Lake Jennings Rd.? Why not access the course from Willow Rd.? What improvements
19.13. will be made to accommodate pedestrian, equestrian, and bicycle use of EMR when little
19.14. or no shoulders exist? Has an historical accident survey of EMR been included in the EIR?
19.15. How many pedestrians, equestrians, and or bicyclists have been injured or killed on EMR?
Is the water district and or the Golf Course Developers willing to put up a bond to cover
19.16. damages and or injuries caused by the Golf Course its users or suppliers, to residents of
the valley?

B. WATER CONTAMINATION

19.17. Underground water via wells is the only source of domestic water available to residents of the valley. What measures will be taken to monitor and protect the water
19.18. quality? How many wells will be drilled and or used on the course? How deep will
19.19. those wells be? How many lakes and or water features are to build on the course? 19.20.
19.21. What is the estimated water consumption of the course? How will that consumption 19.22.
affect wells in the valley? Why can't the course be irrigated from the untreated water
19.23. main in El Monte Rd. as the farms on Water District land were before their demise?
19.24. How many septic systems will be on the course? Where will those septic systems be 19.25.
19.26. located? What pesticides, herbicides, insecticides, fertilizers, surfactants etc. will be
19.27. used on the course? Are these products compatible to our drinking water situation? Is
19.28. there a plan to monitor their usage? Is the water district and or the Golf Course
Developers willing to put up a bond to cover damages, repairs, redrilling, etc. and or
19.29. injuries from water contamination caused by the Golf Course its users or suppliers, to
residents of the valley?

C. NOISE POLUTION

This rural area is an extremely quiet and peaceful place to dwell. Visitors to our home
19.30. always comment on how quiet it is here. It is one of the major factors in our decision to
build here and the tranquility we experience is therapeutic and priceless.
19.31. What kind of plan is in place to mitigate noise pollution? How many vehicles will have
19.32. back up alarms? How early in the morning will equipment began working on the course?
19.33. How late at night will equipment began working on the course? Will golf carts be electric 19.34.
or gas powered?

D. AIR POLLUTION

19.35. The air in this narrow deep valley is cleansed daily by prevailing winds. What kind of
19.36. plan is in place to mitigate air pollution? Will golf carts and or maintenance vehicles be
19.37. electric or gas powered? How many gas/diesel powered vehicles or equipment will be
working on the course at any given time? (Include an analysis of vehicles delivering to or
19.38. accessing the course.) Has as any kind of air pollution impact study been performed? If
not I request one!

E. LIGHT POLLUTION

The night sky was extremely dark and viewable 18 years ago when I first moved here and have gradually deteriorated over the years. Not from development in the
19.39. valley but from developments to the south (Blossom Valley) and Viejas Casino and Barona Casino to the north. There has been very little development in the valley, we

personally do not leave any lights on over night. Will there be a lighting impact plan
19.40. developed and presented for review? Will lights be left on overnight? How late will
19.41. most lighting be left on? What type of lighting will be used?

F. ENIROMENTAL IMPACT

The El Monte valley and Upper San Diego River is rich with unique varied eco-systems. It is also a major wildlife corridor . Allthough development has diminished many of the corridor routes North and South , it is not uncommon to see deer, coyote, racoon, bobcat ,skunk, oppossum, rabbit, fox and Ive been told mountain lion cross EMR especially between the .5 to the 1.5 mile markers and around the 2.25 mile
19.42. marker. Many species of birds exist permanantlly or migrate in the valley including ducks, geese, golden eagles. I frequentlly see many species of reptile and amphibians as well. Although I am unable to identify many of them I suspect some are protected or endangered, California Rosy Boa, Horned Toad, etc how will these eco-systems and all the flora and fauna within them be identified and preserved within the
19.43. development? Will the enviromental impact report be available for review and comment by the community ?

G. QUALITY OF LIFE

Most of the residents of the valley did not come here to speculate. They came to build a home and stay. Many families like my own are forth generation residents of the valley. Some like the Fosters go back further and were instrumental in the formation of the early community of Lakeside. I feel extremely blessed and lucky to live here. It gives me great pleasure to look across this beautiful valley and know it virtually looks the same as it did when my children's great grandfather
19.44. looked out from the same spot on his way to hand milk cows at the Foster dairy. Alas change is inevitable and a golf course is probably the best of all evils, but please do not come here to take. This is unique development in a unique scenic environment with a varied and sensitive eco-system. Most courses are built then the development forms around it, this is just the reverse, so special consideration must be taken to form a marriage that is satisfactory to everyone. To just say here we come and everyone's property value will increase when were finished is unacceptable. Most folks would choose our quality of life over higher property value and taxes. A way of life that for some has been their entire life is about to change forever.

Very truly yours,

Luke J. Ninteman.

cc: Janis Shackleford
Diane Jacobs
Lakeside Planning Commision
San Diego County Planning Commision

Responses to Comments Received After Close of Public Comment Period: Letter from Luke Ninteman, dated January 15, 1999.

19.1. Comment Noted.

19.2. Project-related increases of traffic on El Monte Road are not considered to be a significant impact. Therefore, the project is not required to make improvements to El Monte Road to address increased traffic volume.

19.3. No significant impacts have been identified.

19.4. Occasional deliveries of fertilizer, soil amendments, grass seed, fuel, etc. would occur to support maintenance and operations of the golf courses. However, "big rig" truck usage associated with the project was not considered to be a substantial component of the overall traffic mix; and was therefore considered to have a negligible effect to traffic/circulation on El Monte Road.

19.5. Refer to Ninteman response No. 4 above. Additionally, El Monte Road was built in accordance with applicable construction standards. It is not anticipated that vehicular use of El Monte Road attributable to the project would jeopardize the structural integrity of the roadway.

19.6. Refer to Ninteman response Nos. 19.4 and 19.5 above.

19.7. Refer to Ninteman response Nos. 19.4 and 19.5 above.

19.8. Refer to Ninteman response Nos. 19.4 and 19.5 above.

19.9. Refer to Ninteman response Nos. 19.4 and 19.5 above.

19.10. As part of project-related mitigation, project access driveways and channelization will be designed to the satisfaction of the Director of Public Works.

19.11. All of the study area intersections (including El Monte Road and Lake Jennings Road) would operate at LOS D or better during peak hours with the addition of future without project and future with project traffic. Since the County's minimum standard for peak hour intersections is LOS D, no significant project-related impacts would occur for any study area intersections at peak hours. Therefore, no significant impacts from the project are expected. Refer to section 2.3.3 of the EIR.

19.12. The project proposes to use Willow Road only as a secondary access in case of emergency. Willow Road is classified as a Light Collector facility. East of the park property, the Willow Road

extension is an unpaved roadway along the northern edge of the project site. Willow Road is a private road from the east end of Stelzer County Park. A General Plan Amendment, structural improvements, and real property acquisitions/easements would be required to bring Willow Road up to acceptable levels of service for use by the project. This would therefore render use of Willow Road infeasible for primary access to the project site.

19.13. Project-related increases of traffic on El Monte Road are not considered to be a significant impact. Therefore, the project is not required to make improvements to El Monte Road. However, the project does propose the establishment of an equestrian trail.

19.14. No historical accident survey for El Monte Road was scoped as a potentially significant project-related issue for the EIR to address.

19.15. Refer to Ninteman response No. 19.14 above.

19.16. Project-related damage or injury to residents of the valley are not anticipated.

19.17. See section 2.7.3.b of the EIR.

Additionally, The lease between El Monte Canyon, LLC and Helix Water District (the lead agency) incorporates strict criteria for monitoring water quality and specific remedies for violations of that criteria. Exhibit "F" to the lease contains Golf Course Maintenance Specifications covering such areas as quantities and application of fertilization, pest control, and weed control. Exhibit "G" contains specific standards relating to groundwater quality with a protocol for monitoring quality. Those same standards are incorporated into Mitigation Measure #9. Helix Water District stands in a position to enforce Mitigation Measure #9 through the lease's default provisions.

19.18. Four production wells and seven monitoring wells will be used.

19.19. Depth of wells would be variable.

19.20. Eight ponds are proposed.

19.21. Refer to Section 2.7.3.a of the EIR.

19.22. Refer to Section 2.7.3.a of the EIR.

19.23. The 48-inch untreated water main in El Monte road was constructed circa 1935, and has been jointly owned by the City of San Diego and Helix Water District. There has never been anyone using water from this main in the project vicinity.

19.24. There are five septic systems planned for the facility.

19.25. One septic system will be located at each of the following facilities: the main club house, maintenance compound, golf clinic, east restroom, and west restroom.

19.26. Refer to Sections 2.7.3.a 2.7.4 of the EIR. Additionally, a groundwater quality monitoring and reporting program shall be conducted by a Certified Hydrogeologist, or qualified Registered Civil Engineer, and reported to the Helix Water District on an annual basis.

19.27. Water quality impacts will be reduced to below a level of significance by implementation of Best Management Practices for golf course irrigation and chemical use. Implementation of the prescribed mitigation measures will reduce project related impacts to below a level of significance.

19.28. Refer to Response No. 19.26 above.

19.29. Helix Water District and the Golf Course developers have taken reasonable precautions against any potentially significant adverse impacts resulting from the project.

19.30. Comment noted.

19.31. Noise impacts were not scoped as a potentially significant project-related issue for the EIR to address. Specific noise-related mitigation would not be required.

19.32. All small construction maintenance vehicles used at the golf courses would have buck-up alarms, per OSHA requirements. However, only a limited number of vehicles would be in operation at any given time.

19.33. Hours of operations would vary depending on season. Summer hours would be the most intensive (i.e., approximately 5:00 AM to 10:00 PM). In the absence of night lighting, golf play would be limited to the day-light hours, while other in-door-oriented activities could extend into the evening hours. Repair and maintenance crews typically work while there is enough daylight to perform their required tasks.

Final Environmental Impact Report

El Capitan Golf Course

Helix Water District

Helix Water District Work Order Number:	W.O. 2505
State Clearing House Number:	96091016
EIR Prepared By:	Rick R. Carpenter Project Manager EnviroMINE 3511 Camino Del Rio S., #403 San Diego, CA 92108
Prepared For:	Helix Water District 7811 University Avenue La Mesa, CA 91941
Helix Water District Contact:	Mr. Larry Campbell Senior Right-of-Way Agent Helix Water District 7811 University Avenue La Mesa, CA 91941-4917 (619) 667-6268
Date:	May 20, 1999

19.34. Golf carts are currently planned to be powered by electric motors. Maintenance vehicles/equipment would be powered by small 1, 2, or 3 cylinder internal combustion gas engines, equipped with manufacturer's specified exhaust mufflers.

19.35. Substantial air quality impacts were not scoped as a potentially significant project-related issue for the EIR to address. Specific noise-related mitigation would not be required.

19.36. Golf carts are currently planned to be powered by electric motors. Maintenance vehicles would be powered by small internal combustion gas engines, equipped with manufacturer's specified exhaust mufflers.

19.37. The precise number of vehicles operating at any given time cannot be accurately counted because daily operations and maintenance is highly variable. However, the project would have a work crew of about 20 individuals working during the most work-intensive parts of the day (i.e., A.M. hours). Some, but not all, of these individuals would be operating gas-powered equipment intermittently throughout the day. Maintenance vehicles/equipment typically would be powered by small 1, 2, or 3-cylinder internal combustion gas engines. Significant air-quality impacts related to operations and maintenance are not anticipated.

19.38. Substantial air quality impacts were not scoped as a potentially significant project-related issue for the EIR to address.

19.39. Other than lighting required for security and safety, there no outdoor nighttime lighting of the project site is proposed. As part of the project's required biological resource mitigation, a plan to manage lighting shall be developed to limit the potentially significant impacts to foraging raptors. Elements of this plan may include a prohibition against lighting of the golf course and driving range.

19.40. Refer to Ninteman response No. 19.39 above.

19.41. Lighting associated with the proposal is anticipated to include: driveway lights, security lights, and limited outdoor lighting for equipment yards. This type of lighting is categorized as Class II Outdoor Lighting. Class II lighting is described in the San Diego County Dark Sky Policy and refers to all outdoor lighting used for, but not limited to, the illumination of walkways, roadways, equipment yards, parking lots and outdoor security. Lamp types anticipated for use on the project site would use low pressure sodium, full shielded lighting fixtures, or 4,050 lumens and below lamps if the lamps are shielded and focused to minimize

spill light into the night sky or adjacent properties. Lamp types of 4,050 lumens and below include: 200 watt and less standard incandescent, 150 watt and less tungsten-halogen (quartz), 75 watt and less mercury vapor, 50 watt and less high pressure sodium, 40 watt and less fluorescent.

19.42. Refer to the Project Summary section and section MM of the EIR for a summary of baseline environmental conditions, potential impacts, and mitigation measures proposed to reduce impacts.

19.43. Although the official public review and comment period for the EIR has closed, the EIR is on file with Helix Water District.

19.44. Comment Noted.

JAN 28 1999

Helix Water District
Board of Directors:

JAN 19 1999

We, the daily and frequent drivers on El Monte Rd. definitely oppose moving the Maintenance Area to the east, locating in the vicinity of the most dangerous curve on El Monte Rd. This will require another exit or improving the Dairy Rd exit, either way it will bring additional

20.1. traffic to the curve section, where many accidents, many near misses, and many anxious moments have occurred. On this 1/4 mile curve, there are 8 exits, all with inadequate visibility. The speed and variety of vehicles, mixed with walkers, joggers, bikers, horses, and dogs, add to the hazardous condition.

However, we have no objection to the original west location of Maintenance Area, Travel safety will not be compromised. The 1/2 mile of straight roadway allows good visibility. The building would be less obtrusive situated

20.2. with the present structures, than standing alone in the SAN DIEGO RIVER BED in foreground of our MAJESTIC MOUNTAIN - EL CAPITAN'!

Respectfully Submitted;

Donald Foster Lucille M Foster 14806 El Monte Rd
Betty Ann Hartung 16072 el Monte Rd
Eden 2. Hartung
Colleen & Luke Nuteman 14889 EL Monte Rd
Bettie Head 15990 El Monte Rd.
Kim Diggman 15836 El Mont
Mildred Diggman 15836 El Monte Rd.
John J Diggman 15836 El Monte Rd

Ida Pimentel	15205 El Monte Rd.
Dave Pimentel	1529 El Monte Rd.
Don [illegible]	14951 El Monte Rd.
Rachelle Sherman	14951 El Monte Road.
[illegible]	14951 El Monte Road
Reba Sue Hemphill	15290 Willow Rd
Fonnie Hemphill	15290 Willow Rd.
Jenny Sue Earle	15190 Willow Rd Lakeside
Kenneth B Earle	15190 Willow Rd Lakeside 92040
[illegible]	15202 Willow Rd. Lakeside 92040
Laura L. Gookin	15202 Willow Rd. Lakeside
[illegible]	15296 Willow Rd Lakeside
[illegible]	15260 Willow Rd Lakeside
Don Bright	15568 El Monte Rd Lakeside
Margaret Bright	" " " "
Farrell Valentine	9355 Hillside Dr
[illegible]	"
[illegible]	15568 El Monte Rd Lakeside, Ca 92040
[illegible]	15568 EL MONTE RD. LAKESIDE, CA 92040
[illegible]	15043 El Monte Rd 92040
[illegible] Kermit	Flerie Ellmore

Responses to Comments Received After Close of Public Comment Period:
Letter from Foster/Drivers of El Monte Road, dated January 15, 1999.

20.1. Project-related increases of traffic on El Monte Road are not considered to be a significant impact. Project access driveways and channelization shall be designed to the Public Roads Standards of the San Diego County Department of Public Works. These standards satisfy all highway and operational concerns. Therefore, the project is not required to make improvements to El Monte Road. However, with regard to other users of the roadway corridor (e.g., pedestrians, equestrian, etc.), the project does propose the establishment of a trail.

20.2. The relocated maintenance compound would be approximately 20 feet lower in elevation than El Monte Road, and would abut against the existing hillside below the roadway. The elevational difference and location of the facility would reduce the visual impacts making it less obtrusive (refer to Figures 2.1-4 and 2.1-5 in the Final EIR).

THANK You! Helix Water District for helping our community with the golf course trail issue. That trail is used often by our family and now we

13.1. can be assured that we will have many more years of riding pleasure through that area.

Our Community of Blossom Valley is noted for the many horse owners that reside here. please let us know if we can help in any way.

Thank You Again!

Lacey, Krissy + Paula Everhart
members of Blossom Valley Riders

Responses to Comments: Letter from Lacey, Krissy, and Paula Everhart, and Members of the Blossom Valley Riders, dated December 8, 1998

13.1. Comment Noted

December 7, 1998

Rhonda M. Kabot
10337 Vista del Capitan
Lakeside, CA 92040

Larry Campbell
Helix Water District
7811 University Ave.
La Mesa, CA 91941-4927

To Whom It May Concern;

14.1. I wish to express my gratitude as a homeowner and horseowner in Lakeside regarding the proposed inclusion of an equestrian use trail on the El Capitan Golf Course plan. I have lived at my present home since 1982 and enjoy riding my horses several times each week. My home adjoins the Hering Ranch and the area leased by the Lakeside Team Penning Association. We are fortunate to live in an area that has been actively used by people riding their horses for many years. We treasure the rural atmosphere and hope the golfcourse will be an asset to the community. Lakeside is one of the last few communities where there are still areas to ride horses. Thank you for being sensitive to the needs of the community.

Sincerely,

Rhonda M. Kabot

Rhonda M. Kabot

Padre Dam Municipal Water District

Every Drop Counts!

10887 Woodside Avenue / P.O. Box 719003
Santee, CA 92072-9003
Telephone: 619-448-3111
FAX Administration: 619-449-9469
FAX Operations: 619-449-9537

December 14, 1998

Mr. Larry Campbell
Helix Water District
7811 University Avenue
La Mesa, CA 91941

SUBJECT: EL CAPITAN GOLF COURSE DRAFT ENVIRONMENTAL IMPACT REPORT

Thank you for providing a copy of the Draft Environmental Impact Report (DEIR) for the El Capitan Golf Course for our review.

15.1. The DEIR identifies Padre Dam Municipal Water District (District) as a potential source of potable water for domestic and fire protection purposes. The procedures for applying for, and the policy governing out-of-district water services are set forth in the District's Rules and Regulations. Out-of-District Service Agreements are authorized by Padre Dam Municipal Water District's Board of Directors on a case by case basis (PDMWD Rules and Regulations, Section 4.10.1), and (as of this date) no formal request for out-of-district water service has been received for the subject project. Based on the historical cooperation between the two water agencies, District staff believes (pending no unforeseen adverse impacts to the District's water system) that the Board of Directors would grant the request for out-of-District service.

15.2. However, an area of concern to the District is that the project will take water directly from the water transmission main serving our entire Eastern Service area; the District has no retail water storage facility designated to serve the project's vicinity. Therefore, in the unlikely event that the District's transmission main in El Monte Road is shut down, there currently is no water storage in the project's vicinity for domestic use and fire projection purposes. When domestic and fire protection water demands have been identified, Padre Dam will determine the storage requirements. If our wholesale transmission system cannot support their storage needs, Padre Dam may determine that retail storage may have to be built. Off-site and on-site water system improvements needed to serve the project would be the financial responsibility of the project's developer/ applicant.

Responses to Comments: Letter from Padre Dam Municipal Water District, dated December 14, 1998.

15.1. Comment Noted.

15.2. Comment Noted.

15.3. The project as described in the DEIR identified four (4) wells that were potentially at risk due to their depth. These are the only wells that will be either deepened, or offered a public water supply system (i.e., Lakeside Water District/PDMWD-Eastern Service Area).

PUBLIC RESPONSES TO DRAFT EIR AT November 18, 1998 BOARD MEETING

Gwen Eatherton –

16.1. Wanted to know of alternate locations for the maintenance building in addition to the noted alternate site which is not acceptable to her due to the proximity to her home.

Zack Noonan –

17.1. Concerned with the location of the future access road to the maintenance road as well as the stated location and the alternate location of the maintenance building due to their proximity to his properties.

David Van Ommering-

18.1. Wished to call our attention to the technical appendices, specifically appendix F, Table 3, page 13 – current ground water needs relative to the dairy

18.2. Page 16 – ground water monitoring and management plan; accountability of the monitoring, who is going to be responsible should the levels dip to or below the specified level.

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PROJECT SUMMARY

Project Synopsis

Project Location

The project site is located in southwestern San Diego County, California immediately east of the community of Lakeside. The project site is generally aligned along both sides of the San Diego River, beginning approximately one-half mile east of the intersection of Lake Jennings Park Road and El Monte Road and extending for a distance of approximately 2 miles to the east along El Monte Road. The proposed golf course would occupy low land (i.e., floodplain) areas within the river valley.

Project Description

The project includes approval of a golf course master plan on land leased from Helix Water District. The proposed golf course master plan is part of a lease for an approximate 481-acre site for the purpose of constructing two 18-hole golf courses, 9-hole practice facility, driving range, club house, and maintenance facilities. The lease will run for 50 years from the date of issuance and would require construction and maintenance of the golfing facility as described in the lease document. Also included in the proposal is the construction of access roads, a roadway bridge across the San Diego River channel, and construction of approximately 4 cart bridges for cross channel access to various playing areas on the golf course. The project would be a "public" golf course (as opposed to a "private" or "municipal" facility). Approximately 460 acres of the 481-acre project site is proposed to be the subject of a Major Use Permit pursuant the Zoning Ordinance of the County of San Diego for use as a golf course. The remaining 21 acres would be used for plant propagation. Zoning for this 21-acre area is A-70 Limited Agricultural. Because this would be an agricultural land use, pursuant to the Zoning Ordinance, the 21 acres would not be subject to the Major Use Permit.

Construction of the golf courses would require alteration of the natural ground surface for the development of fairways, greens, sand traps, and ponds. Tentative estimates identify that approximately 1,300,000 cubic yards of total grading will be required to construct the golfing facilities. This would be balanced cut and fill (i.e., importing or exporting graded materials is not anticipated). It should be noted, however, that the listed grading quantities are subjective estimates.

Water supplies for maintenance of the golf course playing areas and landscaping would be drawn from the groundwater resources located beneath the project site. The lease allows for extraction of up to 1,200 acre-feet of groundwater per year to be used for golf course irrigation, although irrigation requirements are expected to be much lower than this amount. Water would be drawn from a number of water supply wells to be drilled in various areas throughout the site.

The proposed Club House facility would occupy a footprint of approximately 18,000 square feet and would feature a Pro Shop, Restaurant, and Lounge on the upper level, with a below-grade golf cart storage and maintenance area on the lower level. Parking facilities would be placed adjacent to the Club House and would accommodate approximately 409 automobiles. The proposed driving range would

provide practice facilities for golfing patrons and is planned for location immediately north of the club house area. Driving range facilities would provide approximately of 35 practice positions. Range night lighting is not proposed at this time.

Maintenance facilities will be necessary to maintain equipment, and to store maintenance supplies and equipment. The maintenance area of the facility would be located on an approximate two-acre site at the south-central portion of the property. These facilities would include a large maintenance yard for the storage of irrigation supplies, mulch, sand, fuel, fertilizers, pesticides, and landscaping supplies. In addition, a 10,000 - 15,000-square-foot work shop/garage would be constructed for the purpose of equipment repair and housing, and storage of spare parts. The entire maintenance compound would be approximately 80,000 square feet in size, and would include a 33-space parking lot for employees.

Approximately 27 acres in the western portion of the project site would be utilized for a nine-hole golf clinic. This facility would have a 3,000 square-foot office, snack bar and Pro Shop building, 680 square-foot practice pavilion, and approximately 49 parking spaces.

Project Setting

The site is located in an area known as the "El Monte Valley" within the historic flood plain of the San Diego River. The El Monte Valley is located at the western fringe of the foothills of the Peninsular Ranges; a transitional area between the steeper mountain valleys and the gently sloping coastal plain.

On site elevations range from 484 feet above mean sea level (AMSL) on the east to a low of about 430 feet AMSL on the west. Site topography is nearly level with the river channel dropping at a .04% grade over a horizontal length of approximately 14,500-feet through the central portion of the property. The San Diego River bisects the site with gently sloping agricultural lands located on the north and south sides of the river channel.

The geologic setting is dominated by the granitic rocks of the Southern California Batholith. This formation is expressed in rock outcroppings and low hills that become more prominent to the east. In this stretch of the river, the channel gradient has been reduced resulting in the deposition of sand sized particles across the historic flood plain. This process has resulted in the formation of a broad, nearly level, alluvial plain overlying the granitic basement rocks.

Currently, water flows in the river during periods of extended precipitation only. The highly permeable nature of endemic soils in the project vicinity and other man-induced controls have reduced historic flows to minor levels. In 1935, the City of San Diego constructed the El Capitan Reservoir immediately east of the project site. This reservoir was constructed to capture runoff from the San Diego River basin for drinking water purposes. As a result, water releases from the reservoir are limited to periods of extended precipitation across the water shed.

Groundwater in the project vicinity is found under two separate conditions. The greatest abundance of groundwater supplies are associated with the alluvial fill materials of the San Diego River Valley. The other source of groundwater would be found within cracks and crevices of the underlying granitic rocks which are prominent to the north and south of the project site.

The biological characteristics of the project site and surrounding area have been significantly altered by a variety of man-caused influences. These include agricultural production on upland areas, sand extraction within the river channel, residential development, recreational use, and control of water releases from El Capitan Reservoir.

Vegetation associated with the San Diego River floodway occupy the central portion of the site. Three major Riparian Scrub plant associations were identified in this area, including Southern Willow Scrub, Tamarisk Scrub, and Mule Fat Scrub. These habitats are found throughout the riparian corridor and tend to overlap into a non-distinct community.

Existing conditions find a variety of land uses in the project vicinity. These land uses include rural residential, dairy farming, extractive, field and orchard crops, and open space. Existing land uses are of low intensity with the valley exhibiting a rural residential/agricultural setting. Land use is limited by physical constraints with the presence of the San Diego River floodway which passes through the site in an east to west direction and by steep terrain on the north and south.

Summary of Significant Effects and Mitigation Measures

Note:

LOS = Level of Service	LS = Less than Significant	S = Significant	N/A = Not Applicable

ISSUE	POTENTIAL EFFECTS	LOS	MITIGATION MEASURES	LOS W/MIT.
Land Use				
Regionally significant sand resource	Golf course development could impact the feasibility of recovering sand resources at a future date.	LS	No mitigation required. Only minimal permanent structures would be constructed on the site. Therefore, future recovery of the sand resource would not be compromised.	N/A
Agricultural Resources	Prime soils, Important Farmlands	LS	No significant impacts were identified to prime soils and important farmlands. Therefore, no mitigation measures are required.	N/A
Recreation and Equestrian Compatibility	The project could displace existing equestrian uses. However, as part of project design, an equestrian trail would be developed through the property. It is expected that a revocable license agreement would be executed with an appropriate custodial entity (e.g., the County of San Diego).	LS	No Mitigation Required.	N/A
Land Use Compatibility: Operational Impacts	Operational activities, especially near the maintenance compound, could potentially result in land use incompatibility with near by residences.	S	Other than lighting required for security and safety, there shall be no outdoor nighttime lighting of the project site. Berming /mounding and landscaping shall be installed between the maintenance facility and residences west and southeast of the facility to provide an intervening buffer for noise and light effects. All vehicles/equipment powered by internal combustion engines shall be equipped with mufflers in accordance with manufacturer's specifications. The maintenance facility shall be redesigned to eliminate entry gates on the ~~east, south and~~ west sides of the perimeter wall. ~~No gates shall be allowed on the east, south or west sides of the maintenance facility.~~ This measure is necessary to reduce the potential for significant impacts which could result from maintenance facility operations.	

ISSUE	POTENTIAL EFFECTS	LOS	MITIGATION MEASURES	LOS W/MIT.
Land Use Compatibility: Operational Impacts (continued)			The design of the maintenance facility shall be changed to include relocating the compound approximately 900 feet to the east as shown in the revised Figure 2.1-4 and Figure 2.1-5. The relocated maintenance compound shall be approximately 100 feet north of and 20 feet lower in elevation than El Monte Road compared to the previous location. Access to the maintenance compound shall be taken from El Monte Road approximately 100 feet to the east of the structure. This new access shall eliminate maintenance employee vehicle and delivery access from behind existing residences.	LS
Visual Quality				
Rural Agricultural Views	Golf courses would change the character of the visual environment through elimination of agricultural production and planting of lawn areas and other landscaping.	S	Landscaping and proposed structures shall be designed in conformance with the Lakeside Design Guidelines. The landscaping plan shall provide for use of trees along El Monte Road. 80% of tree species shall be naturally occurring species typical of the valley (e.g. Oak, Sycamore, Willow, Cottonwood, etc.). Landscaping along Willow Road shall respect the current open view corridors to the south, with the exception of planting trees to screen off site areas from errant golf shots. Landscaping shall either be below 3 feet in height, or, in the case of trees, widely spaced clusters with branching above 8 feet in height. The parking lot proposed for location adjacent to Willow Road shall be set back from the roadway a minimum of 30 feet with liberal use of landscaping planted within the buffer area and throughout the parking lot. No buildings shall be placed within 50 feet of the edge of the pavement along El Monte Road. The proposed maintenance facilities shall be constructed with materials typical of residential development in the Lakeside community. Landscaping shall be used to screen the view of this facility from adjacent residential development. Adherence to Section 2.1.3.c Mitigation for Land Use Impacts shall be a requirement of the building and grading permit.	LS

ISSUE	POTENTIAL EFFECTS	LOS	MITIGATION MEASURES	LOS W/MIT.
Traffic				
Additional ADT added to Julian Avenue and Lake Jennings Park	Julian Avenue and Lake Jennings Park Road segments are currently operating below County Standards.	LS	Less than desirable LOS on Lake Jennings Park Road (SA810), north of I-8 for ~~existing~~, near-term future without project, and future with project conditions). Future increases (1998) over existing conditions without the project will be approximately 1,290 ADT. Future increases (1998) with the project will be approximately 1,842 ADT - the project represents only a 6 percent increase to the existing traffic on this road segment. This condition is less than significant and no mitigation is required.	LS
SR67/ Mapleview Street intersection. Lake Jennings Park Road/El Monte Road intersection.	Intersections operating at or above County circulation standards.	LS	Julian Avenue (SC1910), west of Lake Jennings Park Road (LOS D for existing, near-term future without project, and future with project conditions). Future increases (1998) over existing conditions without the project will be approximately 790 ADT. Future increases (1998) with the project will be approximately 1,066 ADT. This condition is less than significant and no mitigation is required. Under existing traffic conditions, all studies indicate that each intersection operates at LOS C or better during peak hours. Project related traffic would decrease the intersection traffic standard to LOS "D". However, the minimum County standard is LOS "D" , so project implementation would not create significant traffic impacts. No mitigation is necessary	LS
Driveway into Golf Course	Limited sight distance for oncoming traffic.	S	Design project access driveways and channelization to the satisfaction of the Director of Public Works.	LS
Biology				
Riparian Scrub Vegetation	Construction of five river crossings and development of play areas adjacent to the sensitive floodway. Direct impacts of 0.4 acres due to construction of bridge pilings and shadow effects from bridge on riparian vegetation.	S	A Biological Resource Management Plan shall be prepared, approved and implemented in concert with the preparation of site specific development plans. A comprehensive revegetation/habitat enhancement component to compensate for direct losses of wetland habitat associated with river crossing improvements. A biological buffer with an average width of 50 feet, but not less than 25 feet, shall be established adjacent to the floodway. A 100-foot "planning buffer" shall be established at the outer edge of the biological buffer.	LS

ISSUE	POTENTIAL EFFECTS	LOS	MITIGATION MEASURES	LOS W/MIT.
Riparian Scrub Vegetation (Continued)		S	Mature Coast Live Oak, California sycamores and Western cottonwood trees shall be retained. Where retention cannot be accommodated, like-kind replacement for any trees unavoidably lost shall be required. Landscape plans and plant pallets shall be reviewed for wetlands compatibility. Ongoing equestrian and ORV usage of the sensitive riparian area within the San Diego River floodway shall be discouraged. The project proposes to construct an equestrian trail. This element shall be enhanced by placing vegetation barriers to discourage riding within the floodway, and signage to advise riders to use the trail.	LS
Plants		S	Coast live oak trees with a DBH of 4 inches or greater indirectly impacted by grading at adjacent driplines, will be mitigated at a 5:1 replacement ratio utilizing five-gallon container stock. Based on the replacement ratio of 5:1, a total of 170 trees should be planted onsite to mitigate for the 34 trees that would be indirectly impacted. It is recommended that most or all of these replacement trees be installed in the biological buffer that is proposed on both sides of the river. Isolated specimens of this sycamore will be protected to the extent feasible. Specimens that may be directly or indirectly impacted should be replaced in-kind. In response to the USFWS project comment letter dated December 11, 1997, a focused survey for San Diego ambrosia along the river terraces should be conducted in the spring (i.e., after May). This survey should also be used as an opportunity to re-check for sensitive plant species that are known for the general vicinity, but that have not been detected onsite during past surveys.	LS

ISSUE	POTENTIAL EFFECTS	LOS	MITIGATION MEASURES	LOS W/MIT.
Coastal Sage Scrub		S	The impact to 1.9 acres shall be adequately mitigated by the proposed creation of 21.1 acres of coastal sage scrub as part of the wildlife corridor/preserve area. Creation of this habitat onsite will result in over an 11:1 replacement ratio.	LS
Disturbed Riparian Scrub, Riparian Woodland and Waters of the U.S.		S	The projected permanent and temporary impacts to three wetland resources shall be mitigated by an onsite habitat restoration program including wetland creation and enhancement.	LS
Wildlife Corridor	Bridge crossings may effect wildlife movement within the riparian corridor.	S	Any crossing of the San Diego River could result in significant impacts to wildlife corridor movement. Proper design of the proposed bridge crossings will mitigate this impact to less than significant levels. Signage shall be erected at appropriate locations along cart paths and equestrian trails to educate users about the biological resources and prohibited uses in the biological open space areas. Natural vegetative barriers shall be incorporated along both sides of the cart paths and equestrian path wherever they enter or cross the river channel, wildlife corridor or habitat creation area.	LS
Wildlife Movement Corridor	Constrains Wildlife Movement	S	The approximately 21 acres of coastal sage scrub habitat to be created in the corridor zone should compensate for any adverse effects on these biological resources. In addition to habitat creation within the wildlife corridor/habitat creation area, approximately 44 additional acres of the golf course will be landscaped using the Zone 1 (19.2 acres) and Zone 2 (24.9 acres) planting palettes.	LS

ISSUE	POTENTIAL EFFECTS	LOS	MITIGATION MEASURES	LOS W/MIT.
least Bell's vireo	Numerous site specific focused surveys for this species were negative. Habitat which typically supports this species is of marginal quality, fragmented, and generally disturbed in many locations on site. Therefore, significant impacts to this species resulting from the project are not anticipated.	LS	No mitigation is required.	LS
Arroyo Toad	It is unlikely that the project would significantly impact this species . El Capitan Dam has altered the San Diego River valley hydrology such that the habitat may no longer be conducive to long-term viability of the species and no arroyo toads were found on the project site during field surveys. For these reasons, the proposed project is not expected to significantly impact arroyo toads.	LS	No mitigation is required.	LS
Willow Flycatcher	Numerous site specific focused surveys for this species were negative. Habitat which typically supports this species is of marginal quality, fragmented, and generally disturbed in many locations on site. Therefore, significant impacts to this species resulting from the project are not anticipated.	LS	No mitigation is required.	LS

ISSUE	POTENTIAL EFFECTS	LOS	MITIGATION MEASURES	LOS W/MIT.
Biology				
Stephens' Kangaroo Rat	The site was surveyed for this species. No evidence was found which suggests that this specific species inhabits the site. However, limited "sign" was found that suggests the site may be inhabited by some type of kangaroo rat. A trapping program will be undertaken to definitively determine if the Stephens' kangaroo rat inhabits the site.	LS	N/A	N/A
Oaks	Oaks could be indirectly impacted by grading activities.	S	For any coast live oak trees with a DBH of 4 inches or greater that are indirectly impacted by proposed grading at adjacent driplines, it is recommended that they be mitigated at a 5:1 replacement ratio utilizing five-gallon container replacement stock. It is recommended that most or all of these replacement trees be installed in the biological buffer that is proposed on both sides of the river.	LS
Raptor Foraging Areas	Golf course construction could result in the removal of roost trees and management activities could limit foraging activities.	S	A plan to manage lighting and watering shall be developed to limit the potentially significant impacts to foraging raptors. Elements of this plan may include a prohibition against lighting of the golf course and driving range, and variable irrigation schedules which would be less disruptive to morning and evening foraging by raptors.	LS

ISSUE	POTENTIAL EFFECTS	LOS	MITIGATION MEASURES	LOS W/MIT.
Archaeology				
Archaeological site identified within project area.	Golf course construction would impact CA-SDI-13,652	S	CA-SDI-13,652 shall be preserved by "capping" the site. This will mitigate any adverse impacts that might result from construction of the proposed project. Capping will involve the placement of 6 inches of clean sand followed by 2 to 4 feet of clean, sterile fill soil over the entire site. The boundaries of CA-SDI-13,652 shall be appropriately delineated on all project maps with prohibitions against future excavation, grading, or other substantial subsurface disturbance. Irrigation, other utilities, and improvements must not penetrate the sand stratum demarcating the top to the site. All archaeological resources mitigation work shall be performed under the direct supervision of a qualified archaeologist. The boundaries of the site area shall be appropriately delineated on project maps with prohibitions against future excavation and/or disturbance. Irrigation, other utilities, and improvements must not penetrate the sand stratum demarcating the top of the site. Additionally, a qualified archaeological monitor shall be present during any extensive grading and subsurface excavation during the construction phase of the project. All archaeological collections resulting from the testing program and subsequent excavations shall be currated.	LS
Hydrology				
River crossings could result in changes in the hydraulics of the river.	Bridge supports would change flow characteristics of the river.	S	The project proposes the construction of four golf cart path crossing and an automobile/cart bridge crossing the main river channel. The golf cart path crossings would follow the existing channel bed profile. Such crossings would have no significant impacts on flood level. The design for the automobile/cart crossing (bridge) shall be evaluated based on a hydraulic analysis. If proposed design are found to cause adverse impacts on the flood level, design modifications shall be implemented to maintain existing flood levels.	LS

ISSUE	POTENTIAL EFFECTS	LOS	MITIGATION MEASURES	LOS W/MIT.
Grading for golf course construction could increase flow velocities on offsite properties.	Potential for increased erosion of floodway.	S	A 50-foot grading buffer shall be enforced along portions of the golf course at the upstream and downstream property boundaries that are lower than the 100-year flood level. No grading shall occur within the buffer zone. Compliance with this condition mitigates for potential increases in overbank flow velocities and consequent channel erosion off of the project site.	LS
Proposed impoundments could act as sedimentation ponds.	Impoundments could act as sediment traps and increase the flow velocity of the river during high flow events.	S	Proposed water impoundments shall be constructed such that they will not become sediment traps. The following measures shall be implemented: a. Where ponds are lower than the 100-year flood level, a berm surrounding each impoundment shall be constructed to prohibit floodwater encroachment. Said berm shall have a top elevation that is at least 2 feet above the 100-year flood level. b. Impoundments shall have a clay core, or other impermeable barrier, to prevent seepage of water from the water table into the impoundments. c. All impoundments shall respect a minimum setback of 150 feet from the main channel.	LS
Hydrology	**(continued)**			
Grading for golf course construction could alter erosion and sedimentation equilibrium.	Removal of materials from the site would increase channel erosion. Excessive topographic changes resulting from site grading could increase erosion and sedimentation.	S	No export of materials shall occur during development of the golf course. An exception to this measure would include any materials extracted from the lakes. The applicant shall submit the grading plan, and the design and plan for the lakes to the County of San Diego for review and approval. The design of berms shall be prepared by a registered civil engineer specializing in geotechnical engineering. The applicant is responsible for the maintenance of the lakes, golf cart crossings, and the bridge.	LS

ISSUE	POTENTIAL EFFECTS	LOS	MITIGATION MEASURES	LOS W/MIT.
Groundwater				
Groundwater use for golf course irrigation.	Could substantially reduce groundwater supplies within the El Monte Groundwater Basin	S	If any individual monitoring well shows declining water levels, the golf course operation will eliminate use of the nearest production well until water levels return to an acceptable level. Water extraction will be based on the remaining six monitoring well's thresholds. A minimum of four production wells shall be drilled for water supply purposes. Each well shall be separated by a minimum of 500 feet and shall be metered to measure output. A report summarizing flow meter and water level data shall be provided to the Helix Water District and the County of San Diego on a semi-annual basis. The monitoring reports shall be signed by a Certified Hydrogeologist or Registered Engineer with experience in groundwater management. Flow meters shall be installed on-site. A record of flow meter readings shall be taken twice per month. Should groundwater levels drop below minimum levels (65' in MW-1, MW-2, MW-4, MW-5, MW-6, MW-7, or 100' in MW-3) in monitor wells, the golf course operator shall begin reporting monitor well groundwater levels on a monthly basis. Permanent monitoring devices (such as pressure transducers) with data loggers will be installed in seven unpumped wells on-site. Figure 2.7-2 shows the approximate locations of the proposed production and observation wells. The observation wells are located at least 100 feet from any production wells. The monitoring devices will record depth to water every 12 hours. In the event that water levels decline below the target depths shown on mitigation measure No. 3, the monitoring devices will be capable of contacting the golf course operator and Helix Water District. The type of connection/notification system shall be designed to the satisfaction of Helix Water District.	LS

ISSUE	POTENTIAL EFFECTS	LOS	MITIGATION MEASURES	LOS W/MIT.
Groundwater use for golf course irrigation (continued).			Groundwater production shall be limited in accordance with the following criteria: a. A maximum of 1,172 afy shall be extracted from groundwater at a rate reasonably anticipated to reflect the Estimated Consumptive Water Use for Proposed Golf Course described in the table in Section 2.7.3.a. This rate of extraction shall be maintained while groundwater levels measured in the seven monitoring wells remains at 65 feet bgs (100 feet bgs for well MW-3) or higher. If water levels in either monitoring well listed in the second row drops below a threshold level, production in the corresponding well shall be reduced or curtailed. b. If the groundwater levels measured in any of the seven monitoring wells drop lower than 65 feet bgs (100 feet bgs for well MW-3), groundwater extraction from the nearest production well or wells shall be stopped until the groundwater depth returns to a level of less than 65 feet bgs (100 feet bgs for well MW-3). for at least seven days. Once groundwater depth remains above 65 feet bgs (100 feet bgs for well MW-3) for seven days, extraction from the nearest production well may resume. c. If the groundwater levels measured in any of the seven monitoring wells drop lower than 75 feet bgs (110 feet bgs for well MW-3), groundwater extraction from the nearest production well or wells shall be stopped until groundwater depth returns to an acceptable level for 7 days. Extraction may resume when groundwater depths in all monitoring wells (MW-1 through MW-7) returns to a level of less than 65 feet bgs (100 feet bgs for well MW-3) for at least 7 days.	

ISSUE	POTENTIAL EFFECTS	LOS	MITIGATION MEASURES	LOS W/MIT.
Groundwater use for golf course irrigation (continued).			d. Groundwater extraction is dependent on the elevation of groundwater (below ground surface) as measured in each of the seven monitor wells identified on Figure 2.7-4. If groundwater extraction is not sufficient to meet project irrigation demands, the golf course operator shall implement irrigation conservation and/or utilize an alternate water source. Such alternative source shall be non-potable water provided by Helix Water District or other approved water purveyor.	
Groundwater use for golf course irrigation (continued).			Helix Water District has storage capacity of 10,000 acre feet of water in El Capitan Reservoir. This water is captured at Lake Cuyamaca, and transferred to El Capitan through Boulder and Conejos Creeks. The stored water is pumped to either Lake Jennings or the R.M. Levy Treatment Plant through a jointly owned Helix/City of San Diego 48-inch diameter pipeline located within El Monte Road via Helix's El Monte Pump Station. Helix Water District is constructing a new El Monte Pump Station that will be on line in the year 1999. This pump station will allow the District to pump raw water from and to El Capitan through a metered 36-inch diameter pipeline that connects to the existing 48-inch diameter pipeline. Helix Water District will provide supplemental raw water as necessary for this project through a metered line off of the new 36-inch diameter pipeline. The new 36-inch diameter line lies along the southerly edge of El Monte Road, directly across from the project's westerly boundary. The golf course irrigation system shall be designed for non-potable water use. All piping shall be color-coded purple to denote this requirement.	

ISSUE	POTENTIAL EFFECTS	LOS	MITIGATION MEASURES	LOS W/MIT.
Groundwater use for golf course irrigation (continued).			The applicant shall replace any wells located on properties adjacent to the project site (within 500 feet of the property boundary) that has not been completed to at least 90 feet in depth. Such wells shall be deepened to 100 feet below ground surface. At the option of the applicant, and approval of the affected homeowner, the home may be connected to a potable water source. Any increase in pumping costs or monthly bills for purchasing potable water would be the sole expense of the property owner. Wells W, Y, Z, and DD, shown on Figure 1 in Appendix C, Groundwater Monitoring and Management Plan, of Appendix F, Groundwater Study have been designated for deepening or replacement.	

Groundwater quality	Golf course chemical use could impact groundwater quality.	S	A groundwater quality monitoring and reporting program shall be developed by a qualified Hydrogeologist. Turf grasses shall be selected from "new varieties" of cultivars developed specifically for low nutrient and water requirements. Organic and slow release fertilizers shall be used. Water soluble fertilizer applications shall be closely monitored . Azospirillum soil bacteria shall be incorporated into soils. Fertilizers shall not be applied within 24 hours of expected precipitation events. Soils and plant tissue analysis shall be conducted on an annual basis. Fertilizer application rates shall be adjusted according to the results of these tests. Prior to initiating planting and grow-in, the applicant shall develop an integrated pest management program (IPM). The IPM shall be submitted to Helix Water District for review and approval prior to initiating planting and grow-in. The IPM shall include the following: a. Monitoring to detect pest populations. b. Determination of pest injury levels and establishment of treatment thresholds. c. Integrated biological, cultural, and chemical control strategies. d. Education program for personnel involved in biological and chemical control planning and implementation. e. Identification of guidelines for timing and spot treatment of chemical control agents. f. Evaluation of test results and modification of practices. g. Record keeping.	LS

ISSUE	POTENTIAL EFFECTS	LOS	MITIGATION MEASURES	LOS W/MIT.
Groundwater quality	Golf course chemical use could impact groundwater quality.	S	County of San Diego Department of Environmental Health standards for septic system setbacks from wells shall be observed. If applied fertilizers, pesticides, and herbicides are detected at levels which exceed 75% of USEPA's Primary Maximum Contamination Levels, use of the detected chemical(s) shall be terminated.	LS

Project Alternatives

This EIR discusses a range of alternatives to the proposed project, including changes in the design or scale of the project. The following alternatives are described in this EIR in Subchapters 4.2 through 4.7 of this EIR, respectively, and summarized below.

- No Project - Site Used for Agricultural/Extractive Uses
- Reduced Intensity Golf Development (Single 18-hole Golf Course and Executive Course)
- Commercial Nursery Alternative
- Extractive/Mineral Resource Alternative
- Relocated Bridge (Easterly) and Maintenance Facility Alternative
- Relocated Bridge (Westerly) Alternative
- Alternative Project Location

No Project - Site Used for Agricultural/Extractive Uses

The No Project Alternative would result in the continued use of the project site within current limitations. Neither the whole of the project, nor any of its components would be implemented.

The predominant use of the project site has been for agricultural production. This has included row crops on the south side of the river including melons, squash, oats and bamboo, as well as grain crops and cattle pasture on the north. Continued use of these lands for agricultural purposes would likely be reinstated should the proposed project not be developed as planned. In addition, the San Diego County General Plan and Zoning Ordinance have designated approximately 380 acres of the project site for extractive uses. This designation was applied to the site due to the high quality sand resource that exists within the alluvial valley. Because of the value of the underlying mineral resource found on the project site, and the presence of active extractive operations located immediately adjacent to the site on the west, it is reasonable to assume that sand extraction could expand onto the project site.

Adoption of the No Project alternative would result in a continuation of the existing conditions in the project vicinity. Significant impacts identified as a result of the proposed project would occur upon project implementation, although mitigation measures have been proposed that would reduce these impacts to a level below significance. However, under the No Project Alternative, the potential would exist for a more intensive, and therefore more impactive land use on site in lieu of the proposed golf course.

Reduced Intensity Alternative (One Championship 18-hole and One Executive Golf Course)

This alternative evaluates the development of one Championship 18-hole and one Executive 18-hole Golf Course. The Championship course would be developed on the eastern portion of the site with an Executive course constructed on the

western portion of the site. Executive golf courses are typically much smaller than Championship golf courses. The Championship course would be developed in accordance with the concept development plan set forth for the East Course. The club house, parking lot, roads, water impoundment features, water wells, driving range, maintenance compound, and other facilities would remain unchanged from this design. The existing course layout for the East Course would remain unchanged. The executive course in the western portion of the site require only 60 to 85 acres of land for development. The land developed would be to the north of the floodway and would abut the club house area. River crossings for golf carts would not be necessary/built. Therefore, approximately 190 to 175 acres of the western portion of the site would not be developed for golf activities under this alternative, and would remain unchanged.

Significant impacts to traffic, biology, hydrology, and ground water, occurring as a result of the East and Executive Courses only would occur upon project implementation, although mitigation measures have been proposed that would reduce these impacts to a level below significance. Development of this alternative would reduce significant environmental impacts relative to the proposed 45-hole course, thereby rendering this alternative environmentally preferable. Thereby, it would accomplish many of the project's objectives and would reduce the overall scope of the project. However, it is considered by the project proponent to be financially infeasible.

Commercial Nursery Alternative

The commercial nursery alternative proposes installation of a commercial plant propagation facility. The facility would require approximately 300 acres of land, graded into relatively flat pad areas, which would be used for both plant propagation and plant transplanting procedures. Since this location has been used for plant development in the past, it is viewed as a favorable location for this type of commercial use. The project would utilize approximately 30 acres for green houses and shaded plant-growing facilities, although all structures on-site would be temporary and portable (i.e., greenhouses, offices, storage trailers, etc.). The project would demand about 1,000 acre-feet of water per year. This water would either be extracted from local ground water sources, or it would be imported.

Visual, biological, and groundwater segments of the environment could sustain significant impacts from implementation of this alternative. Traffic, noise, groundwater, and air quality would receive similar impacts as the proposed use. Although this project alternative creates similar impacts to the site as the proposed project, this alternative cannot be viewed as environmentally preferable and would not accomplish project objectives.

Extractive/Mineral Resource Alternative

This alternative would result in the implementation of an extractive/mineral resource operation on-site. This site reflects many desirable qualities sought after by mineral extraction operators and would be compatible to surrounding land uses, as there is a similar use adjacent to the southwest of the project site. In addition, an extractive/mineral resource use would comply with the provisions of the S82 Extractive zoning designation, of the County of San Diego Zoning Ordinance, which provides for mining, quarrying and oil extracting uses, and is designated as Extractive by the Lakeside Community Plan.

This project alternative would produce potentially significant impacts to biology, truck traffic, visual qualities, groundwater, air quality, and noise. It would be about as impactive as the proposed project in terms of erosion, sedimentation, and water quality effects. Automobile traffic would decrease. Upon review of the potentially significant environmental impacts stated above, this alternative cannot be viewed as environmentally preferable and would not accomplish project objectives.

Relocated Bridge (Easterly) and Maintenance Facility Alternative

This alternative evaluates the development of two full sized Championship 18-hole golf courses and one 9-hole practice course. The golf courses would be developed similar to the proposed project except the main entry bridge and maintenance facility would be relocated. This alternative would reduce impacts resulting from traffic, and traffic related noise/dust, and land use compatibility resulting from the proximity of the entry road, bridge, and maintenance facility to residences. Relocating the bridge to the east results in similar biological resource impacts, but reduces land use compatibility impacts. However, golf course circulation would be hindered and the functionality of the maintenance facility would be substantially compromised if it were not centrally located within the project site. Therefore, this alternative is considered but rejected.

Relocated Bridge (Westerly) Alternative

This alternative evaluates the development of two full sized Championship 18-hole golf courses and one 9-hole practice course. The golf courses would be developed similar to the proposed project except the main entry bridge would be relocated approximately 200 feet to the west of its currently proposed location. This alternative would reduce biological impacts. The existing alignment will traverse through disturbed riparian scrub with approximately 40 percent cover (i.e., evenly distributed between native and non-native species) and riparian woodland along the north side of the channel. Shifting this alignment approximately 200 feet to the west could substantially avoid these impacts to riparian woodland and would result in impacts to lower quality riparian scrub (i.e., dominated by non-native species such as pampas grass). However, the golf course circulation and sound design of existing play areas on hole numbers 10 and 18 on the East Course would be substantially compromised if the main entry bridge were be relocated approximately 200 feet to the west. Therefore, this alternative is considered but rejected.

Alternative Project Location

This alternative involves re-locating the proposed 45-hole golf course to an off site location. The off site location chosen for this analysis is a 356-acre development currently proposed for a combination residential/golf community in Alpine. The development is referred to as the Stagecoach Ranch Specific Plan. The Stagecoach Ranch Specific Plan provides residential and recreational opportunities including 131 single-family lots, an 18-hole golf course, and a waste water reclamation facility within the planned development. This alternatives analysis considers the replacement of development proposed under the Stagecoach Ranch Specific Plan with a full-sized 45-hole golf facility and ancillary structures. Therefore, under the Alternative Project Location scenario, conditions would remain unchanged at the El Monte valley site (as described in the No Project Alternative), but would reflect changes associated with development of a 45-hole golf facility at the Stagecoach Ranch Specific Plan site.

Potential impacts at the alternative site would include non-compliance with the Resource Protection Ordinance, landform alteration, traffic, archaeological resource, biological resources, and hydrology/ground water. Because development of the 45-hole golf course at the alternative site location would likely result in above referenced environmental impacts, it cannot be considered environmentally preferable to the proposed project location.

Areas of Controversy

Section 15121 of the State CEQA Guidelines state that an Environmental Impact Report (EIR) is an informational document which will inform public agency decision-makers and the public of the significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project. While the information in the EIR does not control the agency's ultimate discretion on the project, the agency must respond to each significant effect identified in the EIR by making findings under Section 15091, and if necessary, by making a statement of overriding considerations under Section 15093 of CEQA.

This Draft EIR was available for public review for a minimum of 45 days. During this period, the Helix Water District received written comments from interested individuals and public agencies and responded to these comments in this Final EIR. The Final EIR along with public comments will be considered by Helix Water District prior to making a decision on this project.

Correspondence regarding this document should be directed to:

Mr. Larry Campbell
Right of-Way Agent
Helix Water District
7811 University Avenue
La Mesa, CA 91941

Re: El Capitan Golf Course EIR

This report has been prepared under the direction of the Helix Water District in accordance with both the District's procedures for implementation of the California Environmental Quality Act (CEQA), and the State of California Guidelines for the Implementation of the California Environmental Quality Act of 1970, as amended.

Areas of controversy related to the significance of environmental effects, mitigation, or alternatives known at the time of the writing of this EIR include: Groundwater Use. This issue is summarized below.

Groundwater Use

A number of different entities rely on groundwater in the El Monte valley, including residential and agricultural users, as well as the City of San Diego which asserts Pueblo Water Rights. Extraction of groundwater to serve the golf course may effect this resource. Management of groundwater resources and adequate monitoring of extraction rates/use have been an evolving issues associated with this project.

Issues to be Resolved by the Decision-Making Body

Issues expected to be resolved for this project by the decision-making body are expected to include whether and how to mitigate for significant environmental effects. The decision-making body is expected to make a reasoned choice between the proposed project and among project alternatives with regard to which of the feasible alternatives that satisfy the project's objectives would be the "environmentally preferable alternative." Based on these, and other issues, the decision-making body must make a determination as to whether the project has been evaluated such that the legal requirements of CEQA have been satisfied (i.e., certification of this EIR).

Cumulative Impacts

The proposed project would contribute to the cumulative effects associated with other projects in the Lakeside area. These effects include incremental social and visual changes in Lakeside's rural community character to a more suburbanized setting, traffic impacts, a reduction of sensitive habitat and impacts to sensitive wildlife species, and degraded surface and groundwater quality. Mitigation has been proposed to reduce these impacts to a level below significance.

Growth Inducing Impacts

The proposed project is not growth inducing. The project would not provide a new source of an essential resource, nor would it extend critical infrastructure to an area not already serviced. The project would, however, provide a new amenity to the area (recreation). Although, since no housing is proposed as part of the project, and since prevailing land use designations, zoning, and physical development constraints would substantially limit any secondary residential development that might occur as a result of the project, growth would not occur beyond that which has already been planned.

Effects Found Not To Be Significant

Pursuant to CEQA Section 15063, an Environmental Initial Study was prepared for the project. In addition to potentially significant environmental issues addressed in this EIR, such issues as population/housing, geology, air quality, health hazards, noise, and public services/utilities were also evaluated. The results of this initial study indicated that the project would not have the potential to cause significant adverse environmental effects associated with these issue areas. Therefore, they have not been addressed in depth in this EIR.

1.0 PROJECT DESCRIPTION, LOCATION, AND ENVIRONMENTAL SETTING

1.1 Project Description and Location

Project Location

The proposed El Capitan Golf Resort is located in southwestern San Diego County, California, immediately east of the community of Lakeside, as shown on Figure 1.1-1 and west of El Capitan Mountain (also known as El Cajon Mountain). The project site is generally aligned along both sides of the San Diego River, beginning approximately one-half mile east of the intersection of Lake Jennings Park Road and El Monte Road and extending for a distance of approximately two miles to the east, as shown in Figure 1.1-2. The proposed golf course would occupy low land (i.e., flood plain) areas within the river valley.

The site is accessed from Interstate 8 (I-8) by exiting the freeway at Lake Jennings Park Road, then turning north on Lake Jennings Park Road for a distance of approximately 1.75 miles to its intersection with El Monte Road. At this point the traveler would turn east and travel approximately one-half mile to the project site. The project also has frontage on Willow Road on the north. However, Willow Road is a private road and access other than emergency purposes is not proposed by the project.

Project Description

The project includes approval of a golf course master plan on land leased from Helix Water District. The master plan includes an approximate 481-acre site for the purpose of constructing two 18 hole golf courses, a golf clinic/9 hole golf training course, a driving range, club house, and maintenance facilities. One of the 18-hole courses would be located towards the west, and one towards the east of the clubhouse. Tables 1.1-1 and 1.1-2 provide a conceptual course length as shown on Figures 1.1-3 and 1.1-4. The lease runs for 50 years from the date of issuance and requires construction and maintenance of the golfing facility as described in the lease document. The project would be a "public" golf course (as opposed to a "private" or "municipal" facility). These project components are described in more detail in the following text.

Of the 481-acre lease area, approximately 460 acres are proposed to be subject to a Major Use Permit pursuant to the Zoning Ordinance of the County of San Diego for use as a golf course, and 21 acres would be used for plant propagation. Zoning for this 21-acre area is A-70 Limited Agricultural. Because this would be an agricultural land use, pursuant to the Zoning Ordinance, this 21 acre area would not be subject to the Major Use Permit.

Approximately 65 acres of the golf course use area is within the streambed of the San Diego river and has been determined to be jurisdictional wetland habitat of the U.S. Army Corps of Engineers (ACOE). Use of this area by the golf course is proposed to be limited to one bridge crossing, four Arizona-style at-grade cart path/utility crossings, and one equestrian trail crossing. An existing access road to a dairy is also located within the ACOE jurisdictional area but is not proposed to be improved or used by the golf course.

The project site is located on lands owned by the Helix Water District, and used by this agency for watershed. Until recently, these lands have been utilized for agricultural production and floodway.

Construction of the golf courses would require alteration of the natural ground surface for the development of fairways, greens, sand traps, and ponds. Tentative estimates identify that approximately 1,300,000 cubic yards of total grading will be required to construct the golfing facilities. This would be balanced cut and fill (i.e., importing or exporting graded materials on/off the project site is not anticipated).

The proposed club house facility would be approximately 18,000 square feet in size and would feature a Pro Shop, Restaurant, Lounge, banquet facilities, and underground cart storage. The club house and parking plan are shown on Figure 1.1-5. Building elevations for the club house are illustrated on Figure 1.1-6. The project is designed with the club house located central to both the east and west 18-hole courses. Parking facilities would be placed adjacent to the Club House and would accommodate approximately 409 automobiles.

The proposed driving range would provide practice facilities for golfing patrons and is planned for location immediately north of the club house area. Driving range facilities would provide upwards of 35 practice positions. Night lighting is not proposed for the driving range. Approximately 27 acres in the western portion of the project site would be utilized for a nine-hole golf clinic and would have a separate 3,000 square-foot office, snack bar and Pro Shop building, 680 square-foot practice pavilion and approximately 49 parking spaces.

The access road proposed for the facility would require construction of a two-lane road between El Monte Road (on the south side of the river) to the Club House facility (on the north side of the river). This will require construction of approximately .70 miles of access roads and a two-lane bridge crossing the San Diego River. Where the road is adjacent to existing residences, the roadway would be approximately 3 - 4 feet below grade, would have an approximate 3 - 4-foot-high intervening vegetation screen, and a 30-foot-wide setback/vegetation buffer from the houses, as shown on Figures 1.1-7 and 1.1-8. The bridge would be elevated on support pillars and would have a length of 350 feet and a width of 38 feet (two 15-foot-wide travel lanes and an 8-foot-wide cart path) as shown on Figures 1.1-9 and 1.1-10. The access road would also connect the Club House with the maintenance facilities located immediately north of El Monte Road near the eastern portion of the project site. Emergency access for the project would be taken from Willow Road, located to the north of the site.

In addition to automobile traffic, four Arizona-style at-grade equestrian/cart/utility crossings would be placed at various locations along the river. The foot/cart crossings would be approximately 10 feet wide.

The project proposes construction of an equestrian trail through the site as shown on Figures 1.1-3, 1.1-4, 1.1-7, and 1.1-8. The equestrian trail would have a width of 8 feet and would be screened from golf course play areas as necessary to protect and separate equestrian users from golf activities and to protect sensitive habitat along the trail. Where the trail is aligned with the entry road to the golf course, the trail would be located between the road and the existing residences. This would help buffer the trail from the golf course and the residences from the entry road.

Maintenance facilities will be necessary to maintain equipment, and to store maintenance supplies and equipment. The maintenance area of the facility would be located on an approximate two-acre site at the south-central portion of the property. The maintenance facility plot plan is shown on Figure 1.1-11 and building elevations for the maintenance structure are illustrated on Figure 1.1-12.

These facilities would include a large maintenance yard for the storage of irrigation supplies, mulch, sand, fuel, fertilizers, pesticides, and landscaping supplies. Fuel storage would include two 1,000-gallon above ground storage tanks for diesel and gasoline fuels (2,000 gallons total). In addition, a 10,000 - 15,000-square-foot work shop/garage would be constructed for the purpose of equipment repair and housing, and storage of spare parts. The entire maintenance compound would be approximately 80,000 square feet in size, and would include a 33-space parking lot for employees.

Other minor buildings include two restrooms, an irrigation water pump station, snack bars, greeter's booth, and a driving range control center. Identification signs would be located on El Monte Road at the main project entrance and at the golf clinic.

Daily operations would require the services of approximately 50 to 60 full-time equivalent positions (25 to 30 golf course maintenance staff and 20 to 30 golf shop and restaurant staff). Hours of operations would vary depending on season. Summer hours would be the most intensive (i.e., 5:00 AM to 10:00 PM). In the absence of night lighting, golf play would be limited to the day-light hours, while other in-door-oriented activities could extend into the evening hours.

The golf course architectural plans call for the courses to have approximately 264 acres of irrigated turf and 19.5 acres of lakes. An additional 44 acres will be planted to low water use native vegetation in the wildlife linkage corridor and non play fringe areas.

One existing (east-west) and one potential (north-south) regionally significant wildlife corridor cross the project boundaries. Both of the corridors are important design features under consideration for protection and enhancement as part of Helix Water District's "Natural Communities Conservation Plan" (NCCP) Subarea Plan. The existing river channel and associated vegetation communities provide a regionally important east-west corridor through the site for a wide variety of species. The project proposes to maintain the functionality of the river channel as a wildlife movement corridor.

A regionally significant north-south wildlife movement corridor crosses the site at a narrow portion of the valley directly north of the Lake Jennings area, where coastal sage scrub habitat currently exists off-site of the project on both the north and south slopes of the valley. The project proposes to create a wildlife corridor across the site linking these sage scrub habitats. The corridor would average at least 500 feet wide, and would increase coastal sage scrub habitat within the on-site corridor area by at least 20 acres. This would serve as habitat for California gnatcatchers and other species in the valley, and facilitate movement across the valley.

The project proposes two distinct native planting zones. The first zone, Zone 1, is a pure native coastal sage scrub planting pallet (also used for the north-south wildlife corridor). The second zone, Zone 2, is native California shrub which includes plant species from within and outside of this geographic region. The planting pallets for these zones is shown in Table 1.1-3. The conceptual landscape plan for the project is shown on Figures 1.1-13 and 1.1-14.

The project proposes two planning buffers (i.e., a biological buffer and a planning buffer) along either side of the river channel: buffers will range from a minimum 25-foot buffer to an average 50-foot-wide biological buffer and a 100-foot-wide

planning buffer. The biological buffer would be revegetated with strictly native, indigenous shrubs and herbs. Permanent thorny shrubs or other appropriate vegetative barriers or signage would be established to prevent encroachment and habitat degradation resulting from human activity. Signs would indicate that persons found beyond the sign (i.e., within the biologically sensitive areas posted as protected habitat) would be removed from the course. Trespassing for any purpose would be prohibited. The 100-foot-wide planning buffer would be established at the outer edge of the biological buffer and would preclude the establishment of structures or other improvements (except bridge and designated cart path and equestrian crossings), but would permit golf play. Appropriate signage stating "No Trespassing" will also be installed on-site.

Water supplies for maintenance of the golf course playing areas and landscaping would be primarily drawn from the groundwater resources located beneath the project site. The lease allows for upwards of 1,200 acre-feet of water extraction per year for use in meeting project irrigation needs. Ground water would be drawn from a number of water supply wells to be drilled in various areas throughout the site. The irrigation requirements for golfing facilities are variable depending on a variety climatic factors. In addition, the area available for the golf courses and ancillary uses totals approximately 361 acres. Therefore, not all of these areas would be dedicated to turf propagation. Other, less water consumptive, vegetation would be planted over portions of the project site. Much of this vegetation would be comprised of native species.

Although the lease allows for upwards of 1,200 afy of groundwater extraction, a conservative estimate of water requirements for the proposed golf course finds total requirements of approximately 1,172 afy (Environmental Development Program 1998). Should the project require more irrigation water than is available from on-site wells, an alternative water supply would be used to supplement local groundwater supplies. This alternative supply would be raw (i.e., non-potable) water provided by Helix Water District.

The project proposes several ponds. The purpose of the ponds is three fold: water storage, aesthetics, and recreation (water hazards). As a secondary benefit, water ponds will also serve as aquatic habitat for a variety of fish and wildlife species. The ponds would range in size from approximately 2.5 to 4.3 acres. Each pond would be constructed as an impoundment and would be lined with an impermeable liner to prevent infiltration of the water into the groundwater table. During normal operations, water would be pumped from the groundwater aquifer and stored in the ponds for use as irrigation. This will allow for high flow rates required for irrigation purposes.

The proposed irrigation system is designed to meet the supplemental water requirements of the turf beyond natural rainfall. The irrigation system will incorporate computerized controllers utilizing a weather station that calculates meteorological information on a daily basis. Since the soils maintain low water-holding capacity, and turf grass is shallow rooting, supplemental irrigation will be required to produce a healthy turf. While supplemental irrigation will be needed on a continuous basis, based on long term climatic records, it appears that the major irrigation needs will occur from March through September.

Ground water monitoring wells will be installed for the purpose of extracting water samples, and testing for potential pollution from fertilizers, and pesticides. Tests will start prior to the construction of the golf course and the use of fertilizers and pesticides to establish a base line before the development of the golf course. These wells also serve to monitor the ground water reserves.

1.2 Project Objectives

The overall objectives of the project are to:

- Obtain the necessary approvals to develop the project as described in Section 1.1 of this EIR. In so doing, the project proponents may receive a reasonable economic return on their real property investment.
- Service the established market area for the facility over the life of the 50-year lease of the property.
- Mitigate to a level that is less than significant, by design, and through proposed mitigation measures, significant potential environmental impacts on the land that might otherwise be created by project implementation.
- Provide biological open space to comply with the District's MSCP Subarea Plan.
- Create a championship golf course serving San Diego County.
- Provide a land use which generates revenue for the District.

1.3 Intended Uses of this EIR

This Environmental Impact Report (EIR) is an informational document which will inform public agency decision-makers and the public of the significant environmental effects of the construction and operation of a project, identify possible ways to minimize the significant environmental effects, and describe reasonable alternatives to the project. This document is a "project" EIR. The public agency must consider the information in this EIR along with other information which may be presented to the agency.

While the information in the EIR does not control the agency's ultimate discretion on the project, the agency must respond to each significant effect identified in the EIR by making findings under Section 15091, and if necessary, by making a statement of overriding considerations under Section 15093 of CEQA. The information in this EIR may constitute substantial evidence in the record to support the agency's action on the project.

This EIR will be used by the Helix Water District in their: 1) assessment of potentially significant project-related environmental impacts, 2) identification of feasible alternatives to the proposed project, and 3) identification of feasible mitigation measures that could substantially reduce any significant adverse environmental effects of the project. Responsible agencies will use this EIR in their discretionary approval processes involving issuance of the required permits (e.g., County of San Diego Major Use Permit).

This EIR has been submitted to the Helix Water District in accordance with both the District's procedures for implementation of the California Environmental Quality Act (CEQA), and the State of California *Guidelines for the Implementation of the California Environmental Quality Act of 1970*, as amended.

Persons reviewing this document should bear in mind that the material provided herein is informational in nature. It is intended to provide a complete base of informational concerning the environmental impacts associated with the project covered herein, thus permitting the Helix Water District to complete a necessary environmental analysis without additional major research.

1.3.1 Matrix of Project Approvals/Permits

This environmental analysis has been prepared to cover discretionary approvals necessary to construct and operate the project as proposed.

The project site is located on lands owned by the Helix Water District. Until recently, these lands have been utilized exclusively for agricultural production and floodway. Development of the golfing facility requires approval by the Helix Water District Board of Directors of a golf course master plan. Therefore, the Helix Water District will be the Lead Agency, with responsibility for preparing the EIR. Discretionary approvals required for this project include the following:

Agency	Status	Discretionary Approval
Helix Water District	Lead Agency	Conceptual Approval of Golf Course Master Plan
County of San Diego	Responsible Agency	Major Use Permit (No. P98-014), Grading Permit
CA Dept. of Fish & Game	Responsible Agency	Streambed Alteration Agreement (§1601)
U.S. Army Corps of Engineers	Responsible Federal Agency	§404 Nationwide Permit

In addition to the agencies listed above, a number of government agencies have an interest in the project due to the project's potential effects on certain resources (e.g., mineral resources, groundwater resources, wetlands, etc.). These agencies are identified in the Notice of Preparation

1.4 Environmental Setting

This section is intended to provide information related to the project's environmental setting. For more detailed and site-specific information on existing environmental conditions as they relate to potentially significant environmental effects of the project, refer to individual subject area existing conditions discussions contained in Section 2.0 of this EIR.

Site Access

The site is accessed from Interstate 8 (I-8) by exiting the freeway at Lake Jennings Park Road, then turning north on Lake Jennings Park Road for a distance of approximately 1.75 miles to its intersection with El Monte Road. At this point the traveler would turn east and travel approximately one-half mile to the project site.

Site Physiography

The project site and vicinity holds the appearance of rural agricultural lands placed within a broad flood plain contained by steeply sloping valley sidewalls. The site is

located in an area known as the "El Monte Valley" within the historic flood plain of the San Diego River. The El Monte Valley is located at the western fringe of the foothills of the Peninsular Ranges; a transitional area between the steeper mountain valleys and the gently sloping coastal plain.

On site elevations range from 484 feet above mean sea level (AMSL) on the east to a low of about 430 feet AMSL on the west. Site topography is nearly level with the river channel dropping at a .04% grade over a horizontal length of approximately 14,500-feet through the central portion of the property. The San Diego River bisects the site with gently sloping agricultural lands located on the north and south sides of the river channel.

Past sand mining operations conducted in the 1970's and early 1980's have resulted in a clearly defined river channel, which varies in width from 250', to nearly 400'. The channel is typically 10' to 20' lower than the elevations of the surrounding lands.

Geology/Soils

The project site lies within the Foothills Physiographic province of San Diego County. This is a transitional area between the mountainous areas to the east and the coastal plain. The geologic setting is dominated by the granitic rocks of the Southern California Batholith. This formation is expressed in rock outcroppings and low hills that become more prominent to the east. The San Diego River cuts through the foothills in this area as it descends toward the Pacific Ocean. In this stretch of the river, the channel gradient has been reduced resulting in the deposition of sand sized particles across the historic flood plain. This process has resulted in the formation of a broad, nearly level, alluvial plain overlying the granitic basement rocks.

The El Capitan Golf Course is proposed within an area of relative seismic safety. No faults are known to traverse the project site. The Rose Canyon Fault zone is located approximately 18 miles west of the site. Although this fault zone is currently classified as potentially active, recent earthquake activity along faults in the southern extension of the Rose Canyon Fault zone indicates that this zone could be reclassified as active. Other active fault zones in the region that could possibly affect the project site include: the Coronado Banks and San Clemente Fault zones to the west; the Elsinore and San Jacinto Fault Zones to the northeast; and the Agua Blanca and San Miguel Fault zones to the south.

The most likely geologic hazard to affect the site is ground shaking as a result of movement along one of the major active fault zones mentioned above. The following table shows the relative distance of active fault zones from the project site along with the expected maximum probable earthquake.

Fault Zone	Distance	Maximum Probable Earthquake
Rose Canyon	18 miles	6.5 magnitude
Elsinore	25 miles	7.3 magnitude
Coronado Banks	29 miles	6.5 magnitude
San Jacinto	49 miles	7.8 magnitude
San Clemente	57 miles	7.3 magnitude

Major seismic events are likely to be the result of movement along the Elsinore or San Jacinto Fault Zone. Recently there have been several earthquakes of magnitude as high as 4.0 on the Rose Canyon Fault zone and earthquakes of this magnitude or less are common along the Coronado Banks fault zone.

The project site is primarily underlain with unconsolidated saturated sands. Such materials are known to have liquefaction potential during strong earthquakes. Liquefaction primarily effects large rigid structures, especially with high floor-area ratios (i.e., multi-story buildings). However, since the project is a golf course having limited structural components, the potential for substantial liquefaction hazards is considered relatively low.

The U. S. Department of Agriculture Soil Conservation Service, San Diego County Soil Survey (Bowman, 1973) identifies that the Tujunga Sand and Visalia Sandy Loam soil series are represented on the project site. In addition, areas within the San Diego River floodway are distinguished as Riverwash.

Tujunga Sand is a recently formed soil derived from granitic alluvium found on alluvial fans and flood plains with slopes of less than 5 percent. Tujunga Sand exhibits a poorly differentiated horizonation, are low in fertility, and are highly permeable. Typical uses for Tujunga Sands soils is for avocados, flowers, and truck crops. Other uses common to this soil type would include rangelands and golf courses.

The Visalia series consists of moderately well drained, very deep sandy loams derived from granitic alluvium. These soils are on alluvial fans and flood plains and have slopes of 0 to 15 percent. Visalia series may be used for a variety of agricultural uses.

The State Department of Conservation, Farmland Mapping and Monitoring Program establishes categories of farmland based on the various physical and chemical attributes of the land. These categories are compiled from USDA-NRCS soil surveys and current land use information. The project site contains areas designated by the State Department of Conservation, Farmland Mapping and Monitoring Program as Prime Farmlands and Farmlands of Statewide Importance. Approximately 37 acres of the project site are designated as Prime Farmlands, and approximately 64 acres of the project site are mapped as Farmlands of Statewide Importance.

Surface and Ground Water Characteristics

The San Diego River channel crosses through the project site in an east to west direction. Currently, water flows in the river during periods of extended precipitation only. The highly permeable nature of endemic soils in the project vicinity and other man-induced controls have reduced historic flows to minor levels.

Changes in the river channel have resulted in significant alterations in the river flow characteristics. In 1935, the City of San Diego constructed the El Capitan Reservoir immediately east of the project site. This reservoir was constructed to capture runoff from the San Diego River basin for drinking water purposes. As a result, water releases from the reservoir are limited to periods of extended precipitation across the water shed. Water releases from El Capitan Reservoir into the San Diego River are uncommon and have occurred only once since 1980.

Other influences which have had an effect on the surface hydrology of the San Diego River include sand mining in the river channel. Between 1970 and 1982, the Woodward Sand & Materials company extracted sand and gravel along a 300-foot wide section of the river channel extending from the Highway 67 bridge (approximately 1 mile west of the project site) to a point approximately 300 feet east of the project site. As a result of these activities, an entrenched floodway was created. This floodway is capable of containing all but the largest of flows, with only small portions of the 100-year flood flows escaping onto the adjacent flood plain.

A number of ephemeral drainage channels also cross the project site before joining with the San Diego River channel. These drainage courses have small watershed areas and would only be expected to flow in response to intense and extended precipitation events.

Groundwater in the project vicinity is found under two separate conditions. The greatest abundance of groundwater supplies are associated with the alluvial fill materials of the San Diego River Valley. In this area, groundwater occupies the highly permeable sand and gravel sediments which occur as valley fill. The depth of groundwater occurrence from the surface varies considerably depending on recharge as a result of precipitation and seepage from El Capitan Reservoir. Water levels may range from 5 - 126 feet below the ground surface depending on annual precipitation levels over extended periods. Aquifer capacity is estimated at 19,254 acre-feet.

The other source of groundwater would be found within cracks and crevices of the underlying granitic rocks, which are prominent to the north and south of the project site. Where large joints or fractures are located in these massive rocks, significant quantities of water may be encountered. However, due to the limited storage potential of this water source, granitic aquifers should not be expected to produce significant water supplies for a high consumptive use.

Currently, water supplies for residential and agricultural use in the project vicinity are provided by a combination of private groundwater wells and water agency purveyors. The majority of the water wells are completed to shallow depths into the alluvial aquifer. However, on residential properties to the north and south of the river valley, wells are completed into the granitic basement rocks. Water services are also provided by Lakeside Water District to a limited number of residential properties.

Only limited historic groundwater quality data is available. Available data identifies that the alluvial aquifer does not meet federal drinking water standards for a variety of parameters. However, the water is of sufficient quality to service agricultural needs for most crops. A more detailed discussion of groundwater resources is provided in Section 4.7 of this EIR, (Groundwater).

Climate and Air Quality

Weather for the project site and vicinity is characteristic of a Mediterranean climate; a long warm dry period (April through October) is followed by a cool wet season (November through March). The average frost free period for the project site is 280 days, and 15 inches of precipitation is expected in a normal year. The average annual temperature for the project site is 58° F. Winter temperatures are normally mild, but can fall below freezing at times. Summer temperatures normally range between 80º to 90º F, with extremes exceeding 100° F.

Air flow in the project vicinity is influenced by a variety of factors including topography and proximity to the Pacific Ocean. The site is located within a transitional zone between the coastal terraces and the foothills of the Peninsular Mountain Range. Air flow across the project site is generally from the west-northwest.

A daily cycle of mountain and sea breezes affect air circulation on the site. In the late morning and afternoon, a rapid rise in temperatures causes lower atmospheric pressures in inland areas. This causes coastal air masses to move toward the inland valleys. After sunset, this process is reversed as land temperatures cool rapidly with the absence of solar radiation. Coastal temperatures are warmer relative to inland areas, and air moves back toward the oceans.

Some exceptions to this principle are observed. At times during the summer months, sea breezes do not penetrate into inland valleys. These periods of air stagnation result in inversion conditions where air pollutants are trapped within inland basins.

Other characteristics peculiar to the southern California air conditions include sporadic Santa Ana winds. High pressures building over Nevada and Utah often cause a reverse air flow condition. Winds blow from the deserts towards the sea resulting in warm clear days. During these conditions, air pollutants originating in the coastal urban areas are pushed out to sea.

The project site is located in the San Diego Air Basin. The basin is characterized as a "non-attainment area" for several air pollutants that periodically exceed state and federal air quality standards. Occasionally, ozone and suspended particulate exceed federal standards at the nearby El Cajon monitoring station.

Biological Characteristics

The biological characteristics have been significantly altered by variety of man-caused influences. These include agricultural production on upland areas, sand extraction within the river channel, residential development, recreational use, and control of water releases from El Capitan Reservoir.

Agricultural uses occupy the largest portion of the site on upland areas of the historic flood plain. Agricultural production includes a variety of specialty crops including bamboo shoots and chives, but grain crops and other vegetables have also been grown. In total, agricultural lands (including fallow agricultural vegetation) occupy approximately 300 acres of the site.

Vegetation associated with the San Diego River floodway occupy the central portion of the site. Three major Riparian Scrub plant associations were identified in this area, including Southern Willow Scrub, Tamarisk Scrub, and Mule Fat Scrub. These habitats are found throughout the riparian corridor and tend to overlap into a non-distinct community. This riparian corridor has been highly modified by past extraction activities. In addition, relict flood plain vegetation is evidenced within a break-out channel along the south-central area of the site between El Monte Road and the floodway.

Vegetation typical to the riparian habitats include Southwestern Willow (*Salix Gooddingii*), Arroyo Willow (*Salix lucida* spp. *lasiandra*), Sandbar Willow (*Salix hindsiana*), Western Cottonwood (*Populus fremontii*), Mule Fat (*Baccharis glutinosa*), and Salt Cedar (*Tamarix gallica*). Of these, Salt Cedar is a non-native weed which is commonly found within riparian areas. This species has a well developed tap-root system which is able to remove substantial amounts of groundwater from available aquifers. It is also known to grow in dense stands, crowding out and competing with native species.

Upland areas surrounding the project site on the north and south are occupied by brushy vegetation. This is primarily represented by Diegan Coastal Sage Scrub and Southern Oak Woodland plant communities.

Wildlife associated with the project site include a variety of amphibians, reptiles, mammals, and birds. A single amphibian, Western Toad (*Bufo boreas*) was identified on the site, but other species are expected. Reptiles include the Orange-throated Whiptail (*Cnemidophorus hyperythus*), Coastal Whiptail (*Cnemidophorus tigris*), Western Fence Lizard (*Sceloporus occidentalis*), Side Blotched Lizard (*Uta stansburiana*), and Common King snake (*Lampropeltis getulus*). A number of other reptilian species should also be expected.

Common mammals include Coyote (*Canis latrans*), Opossum (*Didelphis marsupialis*), Pacific Kangaroo Rat (*Dipodomys agilis*), Desert Cottontail (*Sylvilagus auduboni*), Valley Pocket Gopher (*Thomomys bottae*), and Gray Fox (*Urocyon cinereoargenteus*). Typical birds of the area may include Song Sparrow (*Melospiza melodia*), Northern Oriole (*Icterus galbula*), Phainopepla (*Phainopepla nitens*), and Lesser Goldfinch (*Carduelis psaltria*).

Recreational Uses

Due to the open, undeveloped nature of the project site, area equestrians utilize the site for horse back riding. These activities are primarily limited to the river channel, however, use of upland areas is common. This equestrian use has not been sanctioned by the property owner.

Surrounding Land Use

Existing conditions find a variety of land uses in the project vicinity. These land uses include rural residential, dairy farming, extractive, field and orchard crops, and open space. Existing land uses are of low intensity with the valley exhibiting a rural residential/agricultural setting. Land use is limited by physical constraints with the presence of the San Diego River floodway which passes through the site in an east to west direction and by steep terrain on the north and south.

A number of notable public utility facilities are found in the project vicinity. These facilities include the City of San Diego, Padre Dam Municipal Water District, which provides water to the south, Lakeside Water District, which provides water service to the west, and Helix Water District raw water pipelines which lie within an easement immediately north of El Monte Road. In the project vicinity, this pipeline extends from El Capitan Reservoir along El Monte Road past the project site. The Helix Water District operates a water pipeline immediately west of the project site. This pipeline crosses beneath the San Diego River and provides raw

water to the R.M. Levy Treatment Plant. The San Diego Gas & Electric Company maintains a power line which crosses above the project site near the western one-third of the property.

General Plan/Zoning

The project site is located within the Lakeside Community Planning Area as a subset of the San Diego County General Plan. The Lakeside Community Plan designates the project site as (24) Impact Sensitive with an (25) Extractive overlay. The Impact Sensitive designation is typically applied to areas considered unsuitable for urban development for reasons of public safety or environmental sensitivity. In this location, this designation is applied due to the presence of the San Diego River floodway and riparian zone. Under this designation, projects must be carefully planned to assure that no significant adverse environmental impacts will occur. Land uses which are typically compatible with designation would include large-lot residential parcels, agricultural pursuits, limited recreational uses, mineral extraction, or greenbelts connecting permanent open space areas.

The Extractive overlay designation is applied only to areas containing economically or potentially economically extractable mineral resources. This designation promotes extraction as the principal and dominant use, but allows other uses where they would not preclude the future extraction of the mineral resources.

Zoning for the property is S-82 Extractive and A-70 Limited Agricultural. The S-82 Zone (or Use Regulations) is intended to identify and create areas within the County where mining, quarrying, or oil extractive uses are permitted. Typically, the S82 Use Regulations would be applied to areas of mineral deposits, to signify the presence of such deposits and notify adjacent or affected properties of the intention to allow extraction of minerals within the zone. They may also be used to preserve areas with valuable mineral deposits until extraction can take place.

The California Department of Conservation, Division of Mines and Geology in its Special Report No. 153 classified and designated the majority of the site as containing a regionally significant sand resource. The sand resources are contained within the river laid sediments which make up the historic flood plain of the San Diego River. Due to the location of the designated resources, the County attached the S82 Use Regulations to these lands. Approximately 420 acres of the project site is zoned S82.

Although S82 zoned properties are ultimately intended for mineral extraction, a number of other uses may also be allowed. Permitted uses include agricultural crops and civic uses. A number of other uses may be allowed subject to approval of a Minor or Major Use Permit. Of the uses identified as allowable within the restrictions of a Major Use Permit, outdoor recreation and Major Impact Services and Utilities are cited. These use classifications would include a golf course.

The A-70 zoned lands encompass approximately 80 acres of the project site and allow limited development consistent with rural residential and a variety of agricultural uses. A golf course is also an allowed use by M.U.P. in an A-70 Zone.

1.4.1 Consistency of the Project with Applicable Regional and General Plans

The following regional and general plans were reviewed to determine project-related consistency:

- County of San Diego General Plan

  Lakeside Community Plan
- County Zoning Ordinance
- County Resource Protection Ordinance
- Joint Water Agencies (JWA) Subregional Natural Communities Conservation Plan (NCCP)
- Helix Water District's Multiple Species Conservation Plan (MSCP) Subarea Plan

Joint Water Agency Subregional NCCP Plan and Helix Water District Subarea Plan

The proposed El Capitan Golf Course project is intended to be incorporated into the Helix Water District Subarea NCCP (hereinafter referred as the "Subarea Plan"). The proposed project is intended to be permitted for state and federal endangered species acts purposed through take authorizations revised upon approval of the Subarea Plan. The Subarea Plan is, in turn, developed under the Joint Water Agency Subregional NCCP. The following discussions describe these two interrelated plans.

Joint Water Agencies Subregional NCCP Plan

The Joint Water Agencies Subregional NCCP Plan (hereinafter referred as the "Subregional Plan"), comprehensively addresses how participating water agencies in San Diego County will manage their lands to conserve natural habitats and species while continuing to provide their mandated water services to the public. It is a Subregional Plan adopted under the California NCCP Act of 1991. As such, it serves as an "umbrella document" to guide the preparation of NCCP Subarea Plans by each participating water agency. Subarea Plans prepared under the Subregional Plan will support the issuance of federal and state permits, and take authorizations under the Federal Endangered Species Act (FESA) and California Endangered Species Act (CESA). The combination of the JWA Subregional Plan and a Subarea Plan would serve as a multiple species Habitat Conservation Plan (HCP) under Section 10(a)(1)(B) of the FESA, as amended in 1982. The Plans also fulfill requirements for issuance of take authorizations under Section 2835 of the California NCCP Act (California Fish and Game Code Section 1900 et. seq.) and the Migratory Bird Act.

The Subregional Plan provides regulatory certainty to participating water agencies in the siting, development, maintenance, and operation of facilities necessary to provide water services to the public. It also will aid considerably in conserving the region's biodiversity (a variety of biological resources necessary to maintain long-term biological viability) and enhancing the overall quality of life for residents of the San Diego County region. The Subarea Plan addresses potential impacts to natural habitats and potential species endangerment due to water agency actions, and develops a strategy to proactively mitigate for the loss of species and habitats. This innovative approach emphasizes protection and management of functional

ecological communities, rather than focusing preservation efforts on one species at a time. It consequently provides participating agencies greater flexibility, autonomy, and certainty in developing and operating water facilities, while conserving biological resources more effectively than the former, "piece-meal" approach. The Subregional Plan provides direct economic benefits by reducing constraints on public facility development that result from the uncoordinated application of federal and state resource protection laws.

The Subregional Plan is complementary to other subregional NCCP plans under preparation in the greater San Diego region, including:

- Multiple Species Conservation Program in south coastal San Diego County;
- Multiple Species Conservation Program in north coastal San Diego County;
- County of San Diego Multiple Habitat Conservation and Open Space Program in eastern San Diego County.

The JWA Subregional Plan serves to guide the preparation of agency-specific Subarea Plans. Each agency's Subarea Plan describes how that water agency will make land use decisions and manage its property pursuant to the Subregional Plan. The Subregional Plan is designed to be expandable so that other agencies may prepare Subarea Plans under its auspices in the future.

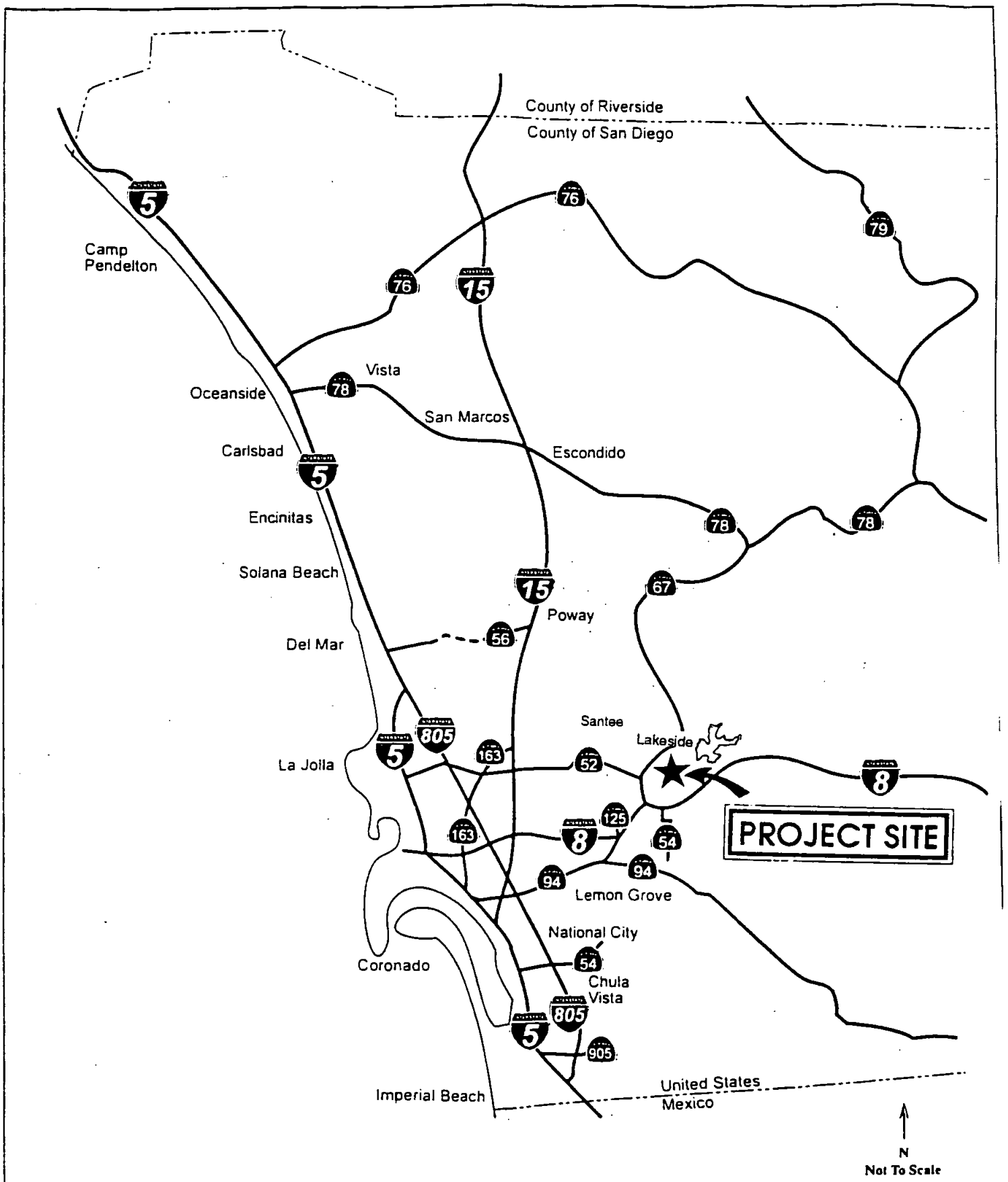
Helix Water District NCCP Subarea Plan

The Subarea Plan is under preparation by the Helix Water District (District) for land owned and managed by the District to comply with the FESA, CESA, and the California NCCP Act of 1991. The Subarea Plan summarizes the specific conservation, management, facility siting, land use, and other actions that the District will take to implement the JWA Subregional Plan. The Subarea Plan is required to support an Implementing Agreement between the District and the USFWS and the CDFG. The Subarea Plan is designed to coordinate management of sensitive habitats and their associated species with the public need for water supplies. It is the intent of the District to manage its own resources in cooperation with the USFWS and CDFG, and in a manner that complements the goals of the of the wildlife preserve. Approval of the Subarea Plan and its Implementing Agreement will allow the District to take individuals or habitats of covered plant or wildlife species so long as such a taking is incidental to the siting, construction, maintenance, or operation of District facilities.

Project Consistency with Joint Water Agency Subregional NCCP Plan and Helix Water District Subarea Plan

The JWA has prepared an NCCP Subregional Plan and Subarea Plans which include the District facilities and the proposed golf course project. An Environmental Impact Report/Environmental Assessment (EIR/EA) is being prepared for this comprehensive, multiple-agency planning effort. The District is coordinating inclusion of individual projects within its Subarea Plan. No conflicts between the proposed golf course project and the JWA NCCP Subregional and Subarea Plans are anticipated.

El Capitan Golf Course

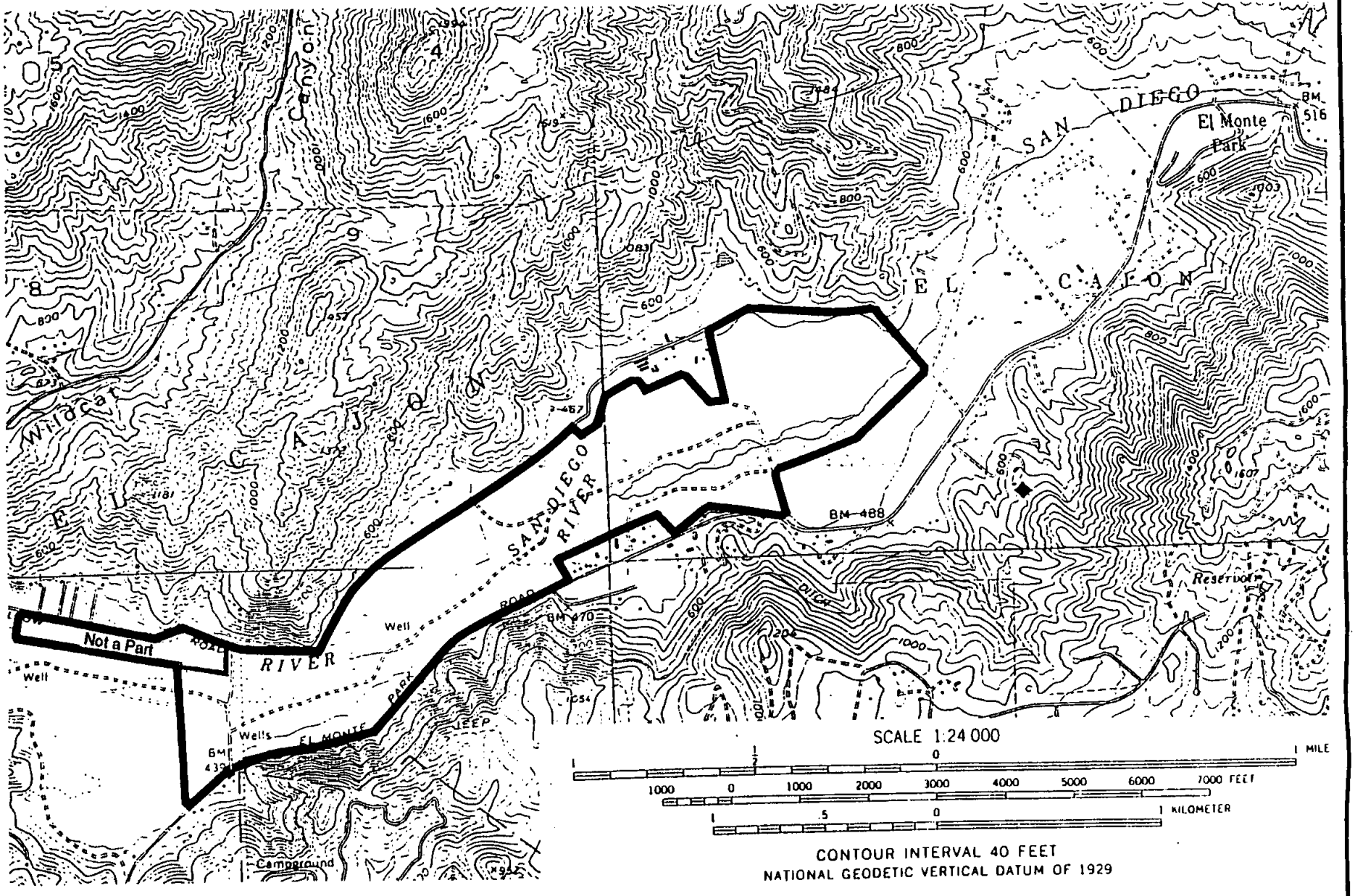


EnviroMINE

Regional Location Map

Figure 1.1-1

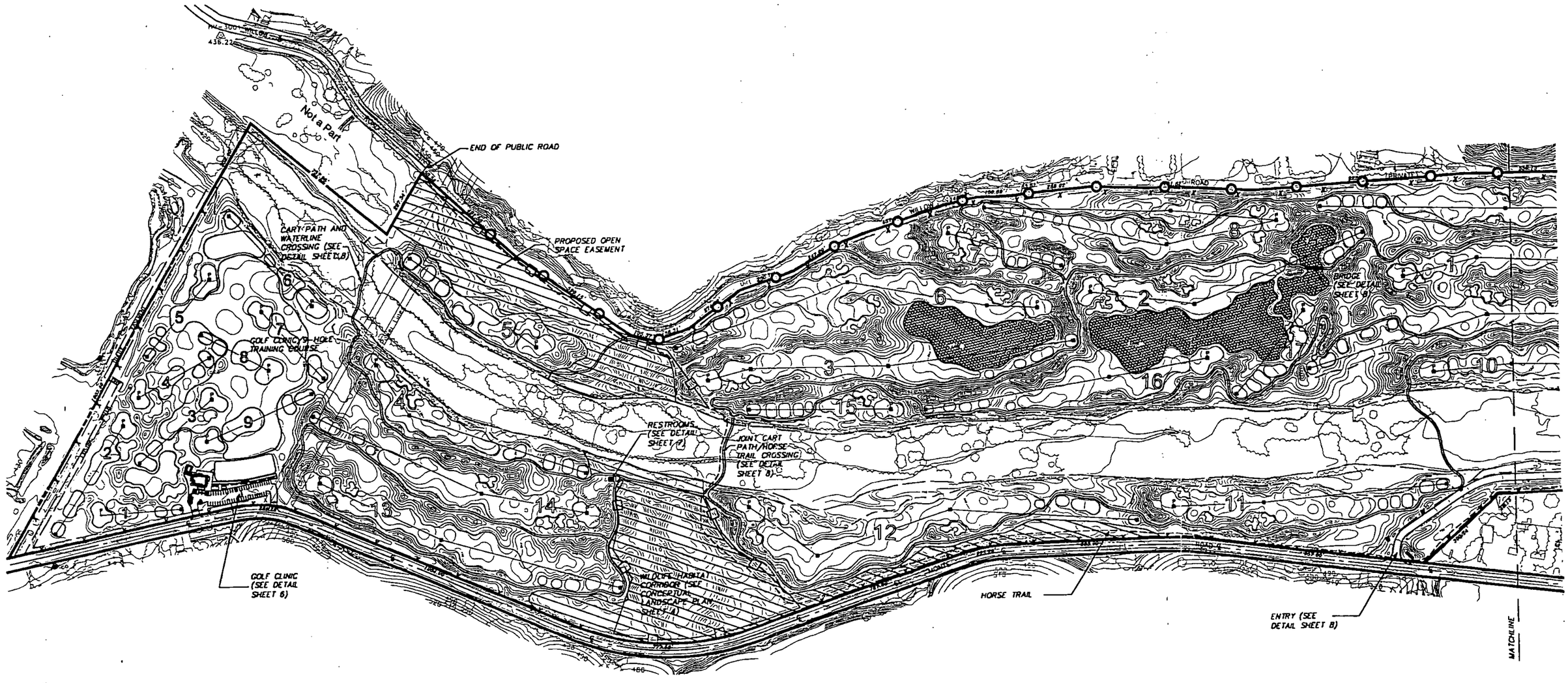
El Capitan Golf Course



EnviroMINE

Project Location Map

Figure 1.1-2

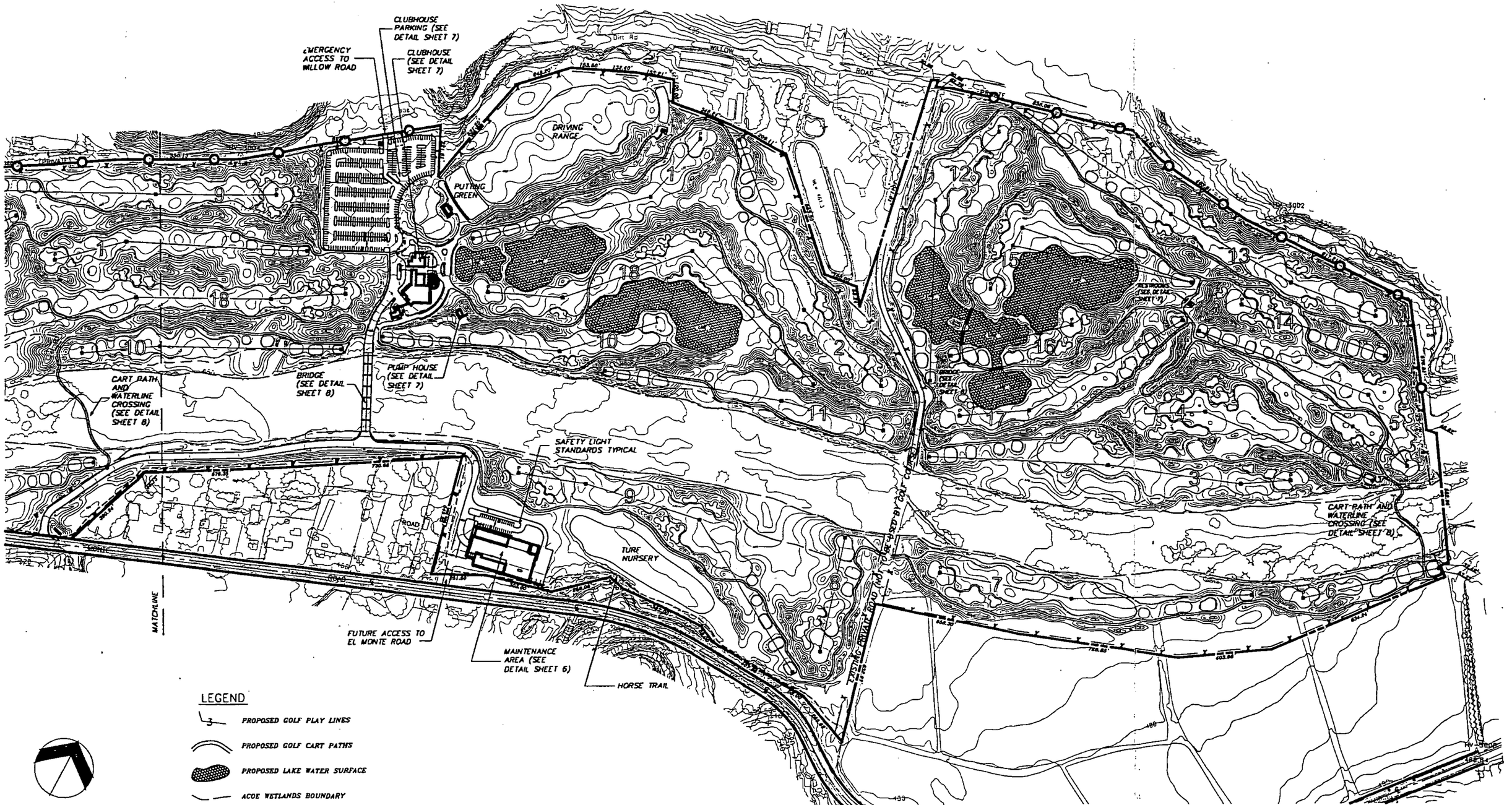


EnviroMINE

Golf Course Concept Plan (west)

Figure 1.1-3

El Capitan Golf Course



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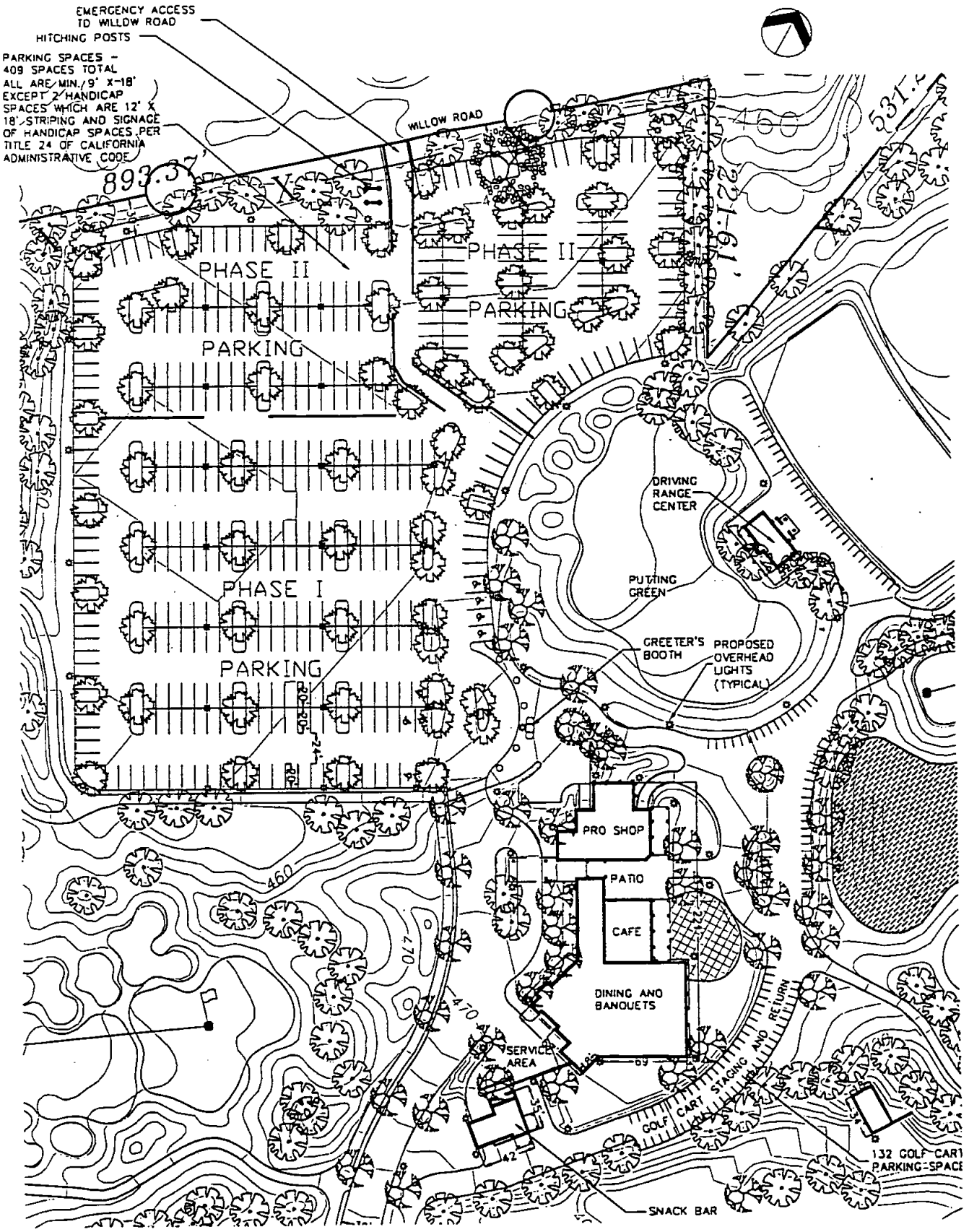
Golf Course Concept Plan (east)

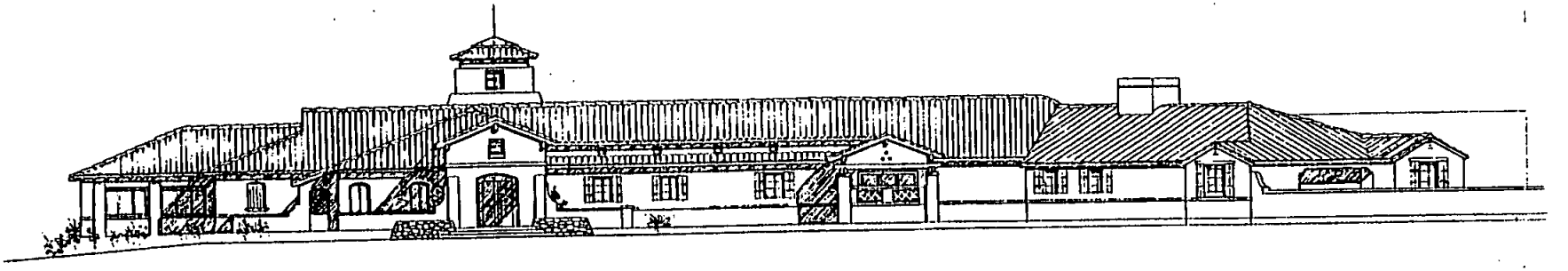
Figure 1.1-4



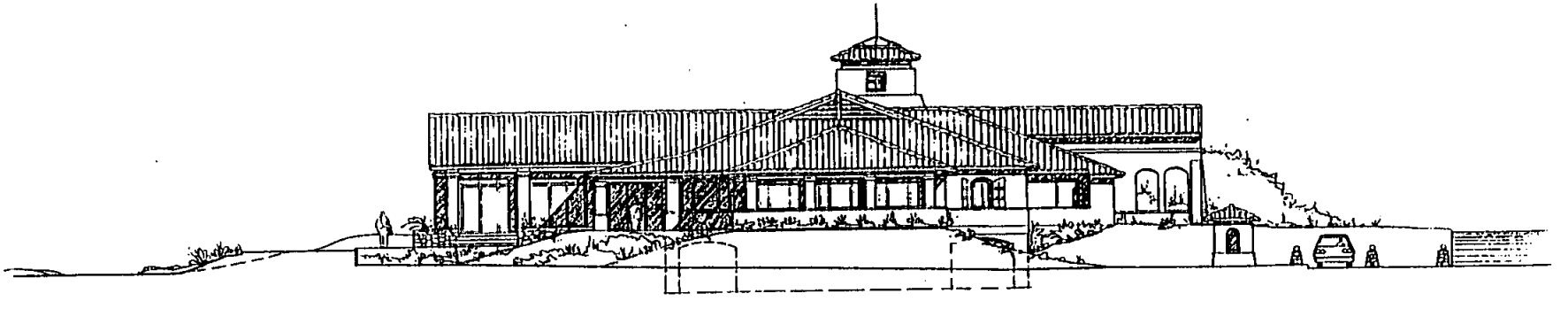
EnviroMINE

Club House Facility and Parking | **Figure 1.1-5**

El Capitan Golf Course



FRONT ELEVATION OF CLUBHOUSE



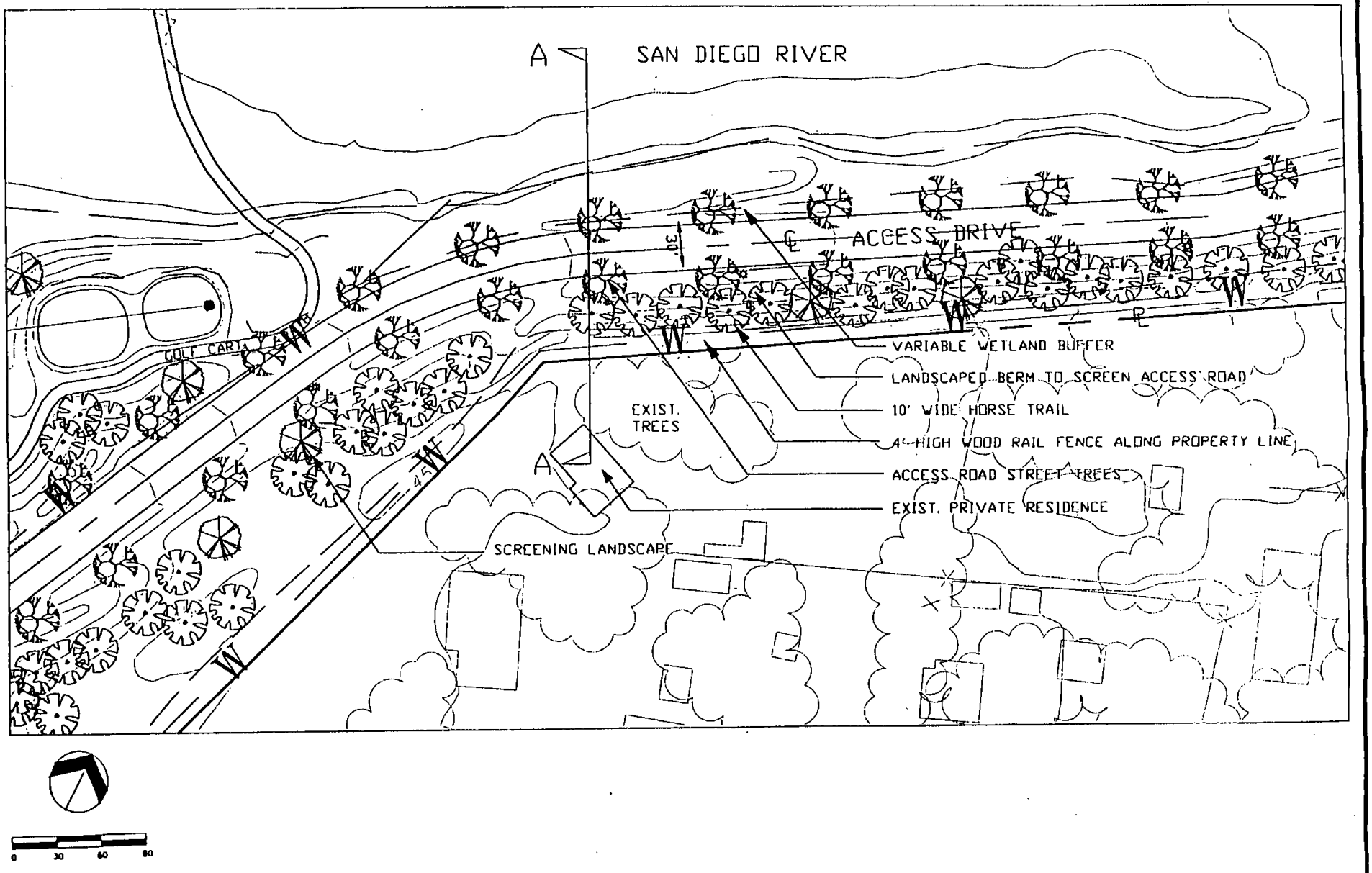
SIDE ELEVATION OF CLUBHOUSE

EnviroMINE

Club House Building Elevations

Figure 1.1-6

El Capitan Golf Course

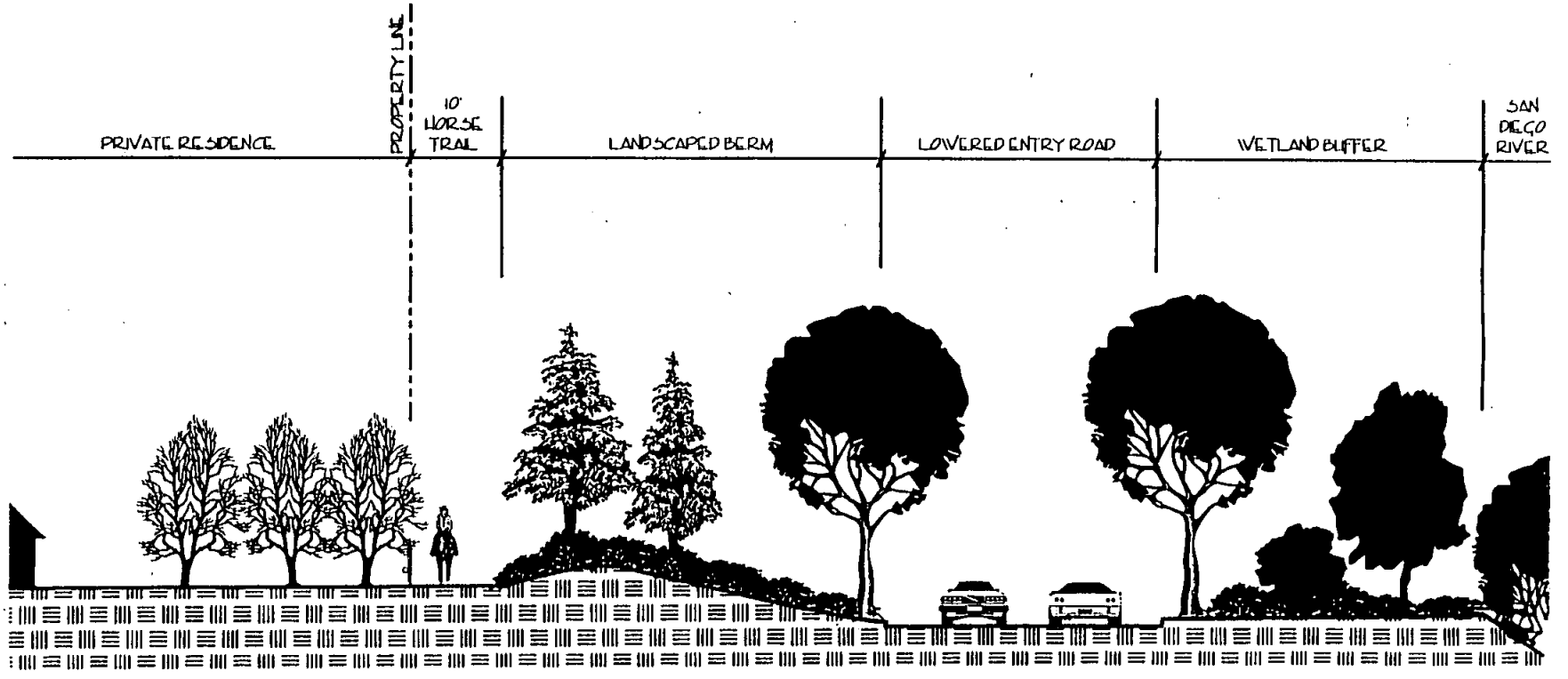


EnviroMINE

Entry Road and Equestrian Trail

Figure 1.1-7

El Capitan Golf Course



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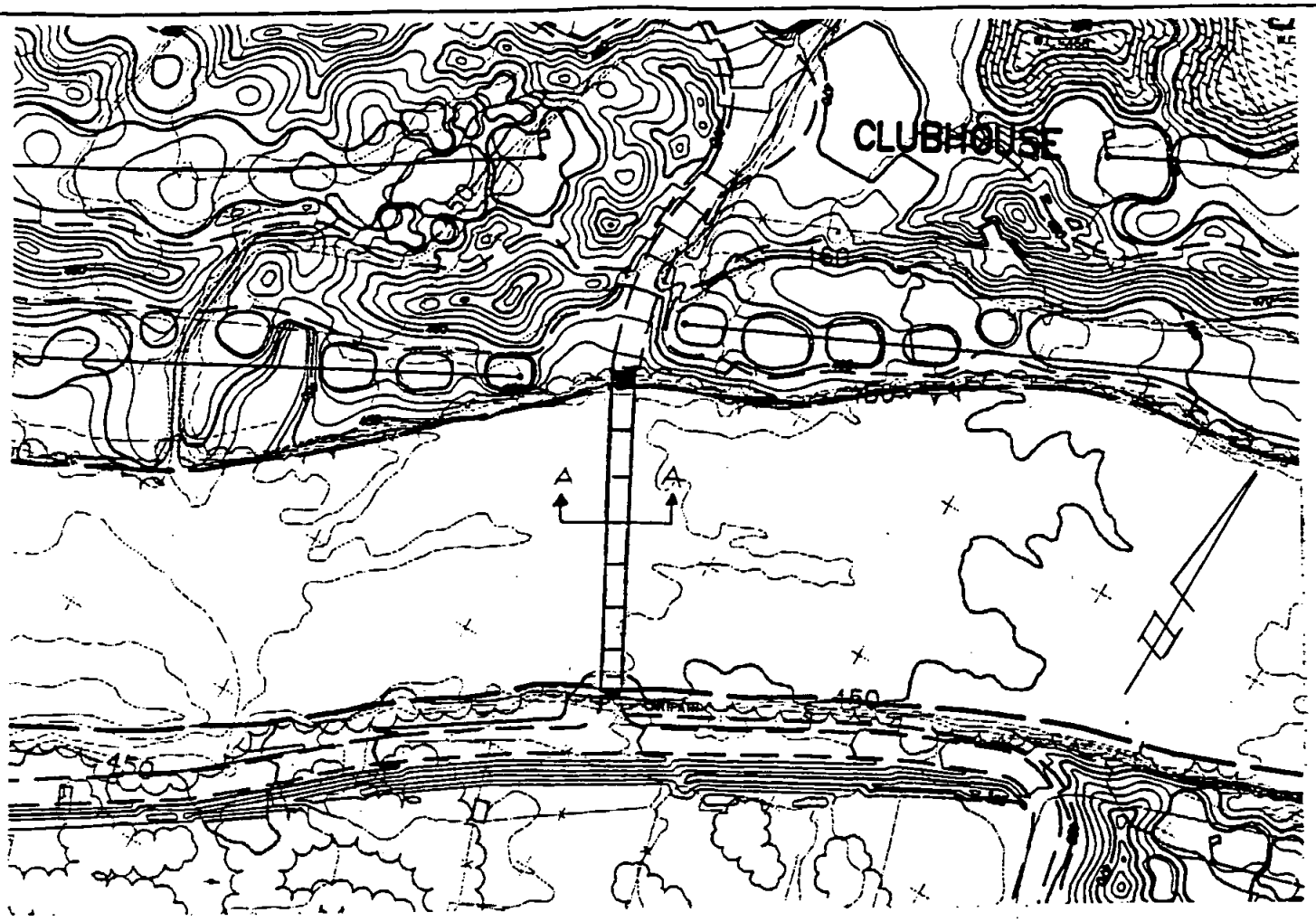
Entry Road and Equestrian Trail

Figure 1.1-8

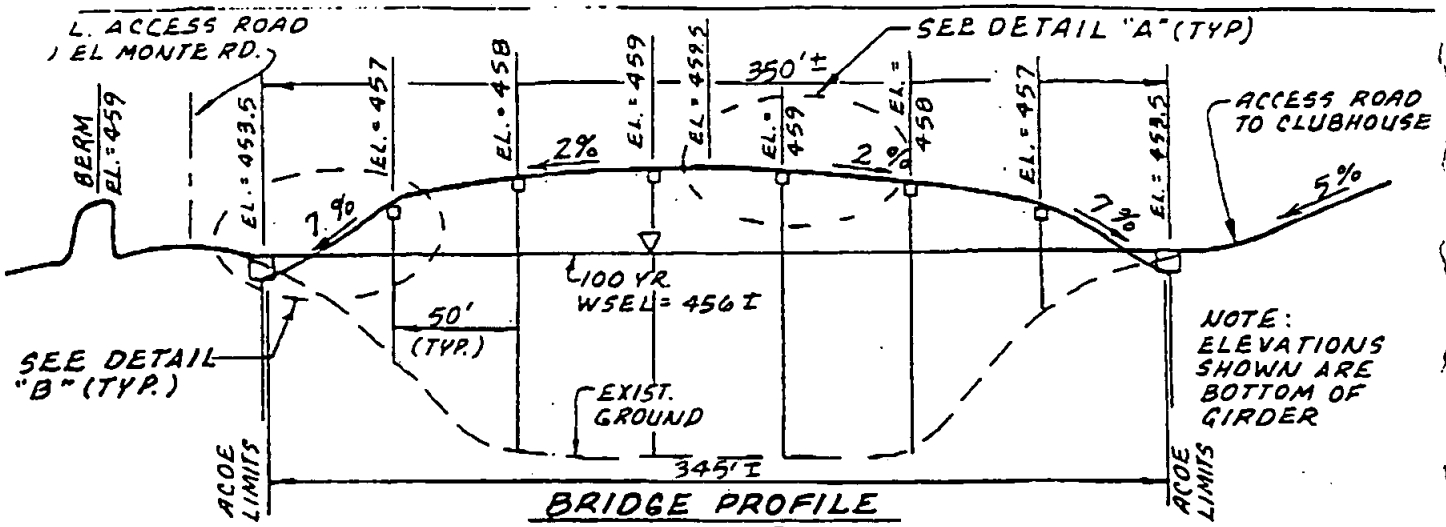


BRIDGE PLAN
NO SCALE

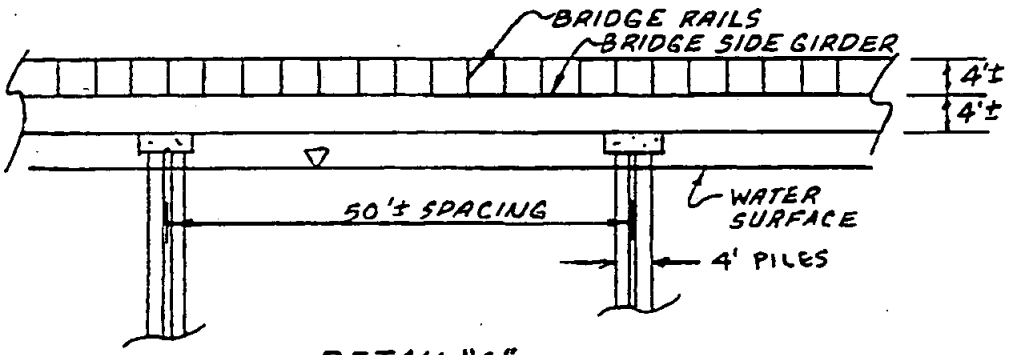
EnviroMINE

Preliminary Bridge Plan

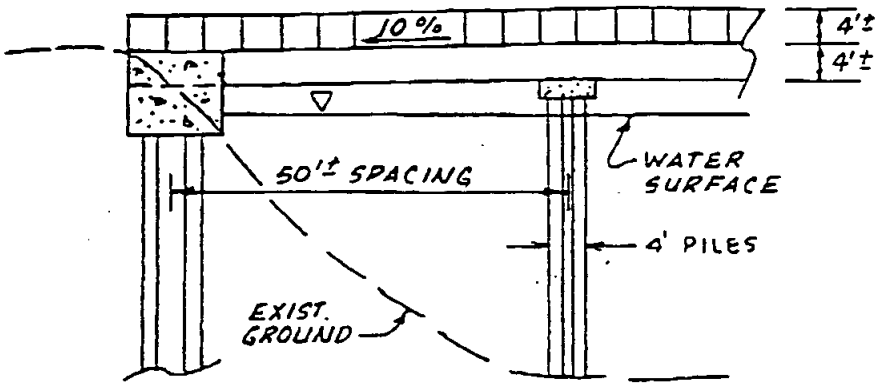
Figure 1.1-9



BRIDGE PROFILE
NO SCALE



DETAIL "A"
NO SCALE



DETAIL "B"
NO SCALE

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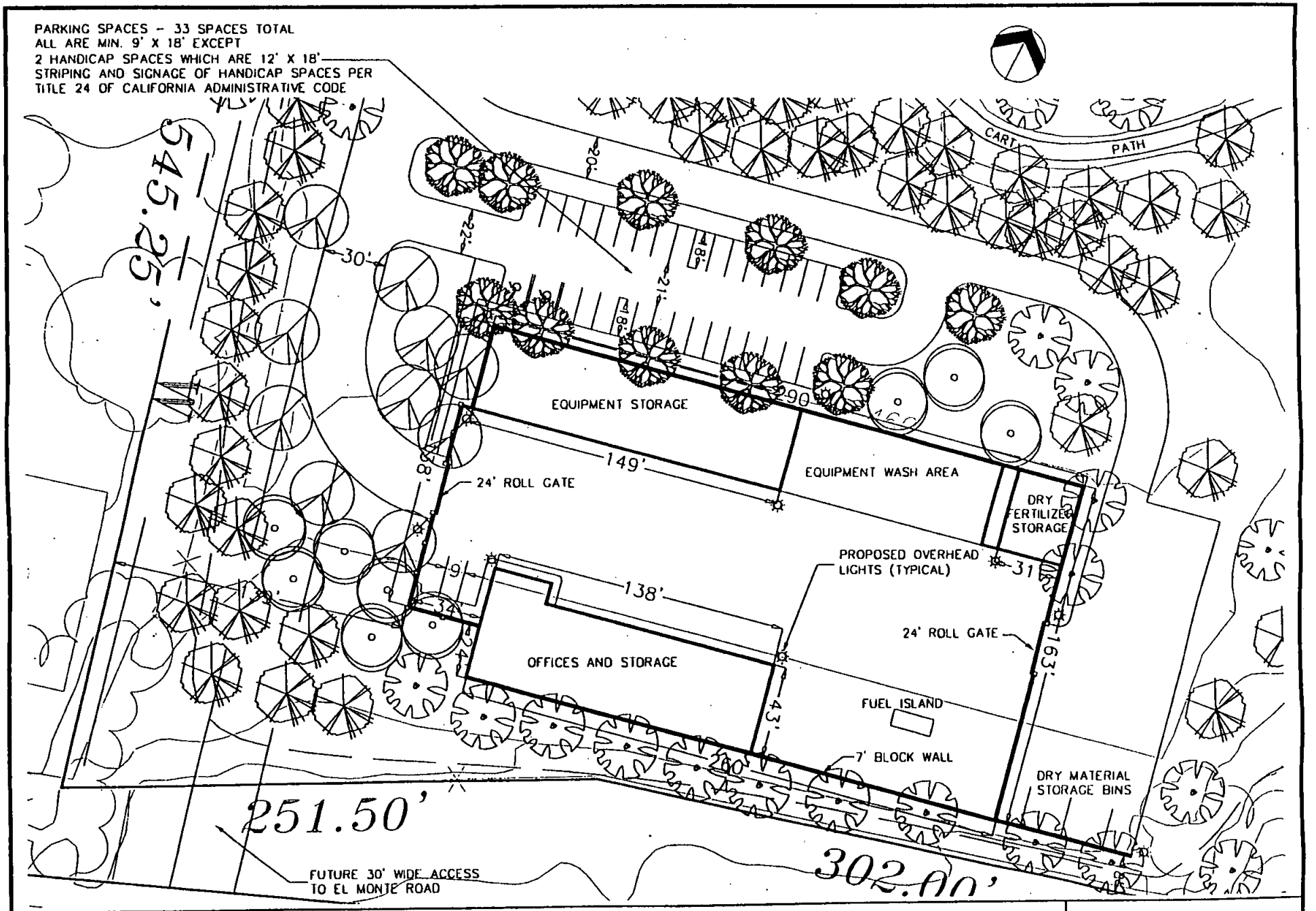
Bridge Plan Cross Section

Figure 1.1-10

El Capitan Golf Course



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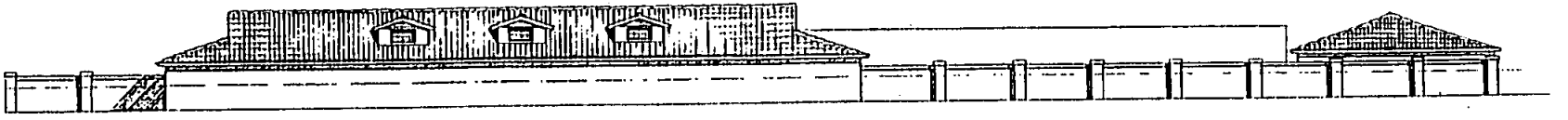
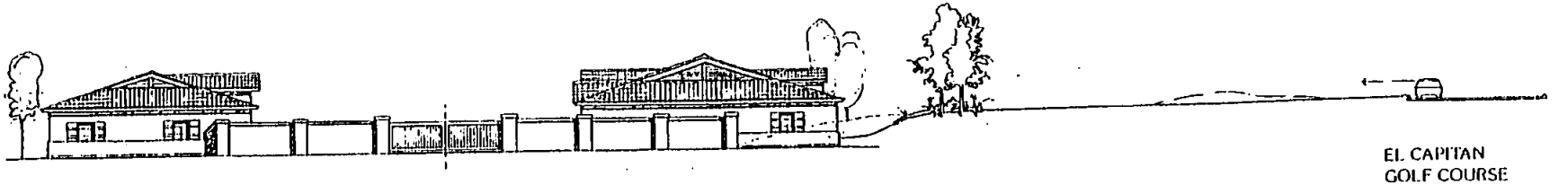
Maintenance Facility

Figure 1.1-11

El Capitan Golf Course



ELEVATION OF MAINTENANCE FACILITY



ELEVATION OF MAINTENANCE FACILITY

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Maintenance Facility Building Elevations

Figure 1.1-12

El Capitan Golf Course

TREE LEGEND	
○	EXISTING COAST LIVE OAK
◎	EXISTING WESTERN SYCAMORE
▨	EXISTING RIPARIAN WOODLAND
○	GOLF COURSE LANDSCAPING SEE PLANT MATRIX FOR COMPLETE PLANT LISTING

FENCE LEGEND	
— x —	BARBED WIRE
—⊟—	LODGE POLE FENCE
— w —	WOOD RAIL FENCE

Not a Part

END OF PUBLIC ROAD

PROPOSED OPEN SPACE EASEMENT

GOLF COURSE LANDSCAPING

WILLOW ROAD EDGE

RESTROOMS (SEE DETAIL SHEET 8)

GOLF CLINIC (SEE DETAIL SHEET 6)

VARIABLE WETLAND BUFFER

HORSE TRAIL

ENTRY (SEE DETAIL SHEET 8)

ZONE 1 - NATIVE LANDSCAPING

EL MONTE ROAD EDGE

MATCHLINE SEE SHEET 5

Planting Matrix

LEGEND

- PROPOSED GOLF PLAY LINES
- PROPOSED GOLF CART PATHS
- PROPOSED LAKE WATER SURFACE
- ACOE WETLANDS BOUNDARY
- NO ACCESS TO WILLOW ROAD- PRIVATE ROAD EASEMENT
- HORSE TRAIL

0 200 400 600

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Conceptual Landscape Plan (West)

Figure 1.1-13

El Capitan Golf Course

EnviroMINE

Conceptual Landscape Plan (East)

Figure 1.1-14

El Capitan Golf Course

The Valley Course (West)

Hole	Gold	Black	Blue	White	Green	Par	Hole	Gold	Black	Blue	White	Green	Par
1	375	352	325	300	275	4	10	380	350	321	290	255	4
2	417	399	381	366	315	4	11	400	380	345	328	310	4
3	530	495	482	455	407	5	12	590	530	515	490	453	5
4	353	330	302	260	245	4	13	460	427	399	373	350	4
5	221	193	162	128	112	3	14	420	403	351	338	285	4
6	540	515	477	450	415	5	15	206	177	158	133	120	3
7	170	153	137	118	103	3	16	410	385	362	103	296	4
8	430	416	387	355	325	4	17	158	137	118	482	95	3
9	446	433	412	382	365	4	18	574	548	520	487	447	5
OUT	3,482	3,286	3,065	2,814	2,562	36	IN	3,598	3,337	3,089	2,980	2,604	36
							OUT	3,482	3,286	3,065	2,814	2,562	36
							TOTAL	7,080	6,623	6,154	5,794	5,166	72

The Bluffs Course (East)

Hole	Gold	Black	Blue	White	Green	Par	Hole	Gold	Black	Blue	White	Green	Par
1	377	353	327	293	270	4	10	413	387	357	327	300	4
2	426	398	372	353	328	4	11	420	400	368	345	273	4
3	538	512	481	440	414	5	12	401	383	345	311	283	4
4	356	341	310	278	257	4	13	600	568	536	478	450	5
5	388	373	350	317	290	4	14	223	203	190	147	120	3
6	205	175	160	137	117	3	15	366	349	328	287	260	4
7	466	413	383	360	316	4	16	186	164	147	110	100	3
8	175	160	150	130	105	3	17	376	340	320	285	270	4
9	543	517	483	450	420	5	18	576	551	522	490	427	5
OUT	3,474	3,242	3,016	2,745	2,517	36	IN	3,561	3,345	3,113	1,780	2,483	36
							OUT	3,474	3,242	3,016	2,745	2,517	36
							TOTAL	7,035	6,587	6,129	5,525	5,000	72

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Golf Course Statistics

Table 1.1-1

PLANT ZONES	
Zone 1: Native Plants	**Zone 2: California Adaptive Plants**
Coastal Sage Scrub	N California sagebrush (*Sambucus mexicana*)
N California sagebrush (*Artemisia californica*)	N California encelia (*Encelia californica*)
N coyote bush (*Baccharis pilularis*)	N flat-top buckwheat (*Eriogonum fasciculatum*)
N California brickellbush (*Brickella californica*)	N Scarlet bugler (*Penstemon centranthifolius*)
N California encelia (*Encelia californica*)	N fushia-flower gooseberry (*Ribes speciosum*)
N Flat-top buckwheat (*Eriogonum fasciculatum*)	N white sage (*Salvia aplana*)
N coastal goldenbrush (*Isocoma venetus*)	N black sage (*Salvia mellifera*)
N deerweed (*Iotus scoparius*)	N San Diego sunflower (*Viguiera lacinata*)
N fushia-flower gooseberry (*Ribes speciosum*)	N wild rose (*Rosa californica*)
N white sage (*Salvia mellifera*)	CN little sur manzanita (*Arctostaphylos edmundsii*)
N San Diego sunflower (*Viguera lacinata*)	N big berried manzanita (*Arctostaphylos glaucal*)
Large Shrubs & Trees	CN Howard McMinn manzanita(*Arctostaphylos densiflora*)
N toyon (*Heteromeles arbutifolia*)	CN Yankee pnt ceanothus (*Ceanothus griseus "Yankee pt"*)
N laurel sumac (*Rhus laurina*)	N heavy leaf ceanothus (*Ceanothus crassifolius*)
N California sycamore (*Platanus racemosa*)	N red monkey flower (*Mimulus punicels*)
N western poplar (*Populus fremontii*)	N coffee berry (*Rhamnus californica*)
N coast live oak (*Quercus agrifolia*)	N red berry (*Rhamnus crocea*)
N blue elderberry (*Sambucus mexicana*)	

N- Native plant to San Diego
CN- Native plant to California

2.0 SIGNIFICANT ENVIRONMENTAL EFFECTS

2.1 Land Use and Community Character

Introduction

This analysis of land use and community character is based on a review of existing land use conditions as they relate to a variety of planning policies and regulatory requirements which apply to the project site and vicinity. These policies include the San Diego County General Plan, Lakeside Community Plan, San Diego County Zoning Ordinance, and the Resource Protection Ordinance. Aerial photos, applicable maps, and field reconnaissance were also used to determine potential project-related land use and community character impacts.

The purpose of this analysis is to 1) describe existing land use/community characteristics in the project area, and to identify applicable land use policy; 2) evaluate potential project-related impacts to land use and community character in the vicinity of the project site; and 3) propose feasible mitigation measures designed to reduce identified impacts to a level below significance.

The existing conditions section includes a basic description of four related issue areas: existing land uses (i.e., on site and surrounding land uses), planned land uses, the land use regulatory setting, and existing community character. An examination of these general issue areas typically provides a comprehensive understanding (i.e., a baseline) of existing land use/community characteristics of a given area. From this baseline, the potential for impacts may then be assessed. The land use impact section addresses physical land use conflicts, land use compatibility, land use plan/policy consistency, and community character changes. Because land use and community character issues involve a variety of considerations, a number of important physical constraints influence this analysis. These issues include the presence of regionally significant aggregate resources, important agricultural lands, and recreational (equestrian) use of the property as it would be affected by the proposed golf course. The following analysis addresses each of these concerns.

2.1.1 Existing Conditions

Existing Land Uses

The El Monte Valley is located at the eastern fringe of the unincorporated community known as Lakeside, California. The site is located approximately three miles north of Interstate 8, two miles east of State Route 67, and 1-1/2 miles west of El Capitan Reservoir (see Figures 1.1-1 and 1.1-2). The project site encompasses approximately 481 acres of land within the San Diego River flood plain between Willow Road and El Monte Road, of which, 460 acres is the subject of this analysis. Helix Water District owns and manages the subject property, although land use authority lies with the County of San Diego. Figure 2.1-1 shows existing land uses in the vicinity.

<u>On-Site Land Uses</u>

El Monte Valley has been used extensively over the years for agricultural production. Typically agricultural production has included specialty vegetables for oriental cuisine through contract to Taiwan Farms, Inc. These crops include

Bamboo Shoots, Chives, Snow Peas, and other vegetables used in oriental dishes. These uses are currently involved on portions of the site located south of the San Diego River channel. North of the river, much of the site is cultivated for dry land cereal grain production during the winter and spring, and as livestock pasture during the summer and fall. The San Diego River floodway occupies the central portion of the site and is characterized by riparian vegetation. This linear element is aligned in an east/west direction and forms a narrow strip of natural open space through the central portion of the property. The palm trees are used for landscaping purposes and are stored as potted plants.

Surrounding Land Uses

Surrounding land uses are a mixture of agricultural and rural residential development. Residential development typically consists of low density ranch-style homes. Agricultural uses are represented by an adjacent dairy operation (the Van Ommering Dairy) and general agricultural production (field crops and pasture).

A residential enclave of development is located immediately adjacent to the site on the north side of El Monte Road. This residential area includes 9 single family residences within an area of approximately 15 acres. Improvements associated with this residential area includes numerous agricultural out-buildings for equipment storage and other purposes. Other areas of residential development are found immediately south of El Monte Road and on the hillsides north of Willow Road.

A sand extraction operation is located immediately to the west of the project site. This on-going operation is located within the regionally significant alluvial sand deposits associated with the San Diego River valley. Activities on the site include dredging of materials from an extraction pond, stockpiling of extracted materials, and loading of sand onto trucks for transportation to off site users.

Several park lands are also found in the project vicinity. These parks include El Monte Park, Cactus County Park, El Capitan Reservoir Recreational Area, the Stelzer recreational facility, and Lake Jennings Park.

Other recreational uses important to El Monte Valley include active use of the area by equestrians. The Lakeside community has long been recognized for its association with equestrian uses. As a result, undeveloped lands, such as the project site, have traditionally been used for trail riding purposes. This has primarily occurred within the San Diego River channel, but use of upland areas is not uncommon. The site and surrounding area are used as a primary riding area for many area equestrians.

Planned Land Uses

Other than the proposed golf facilities, no other projects are currently proposed/planned for the project site. However, a number of residential development projects are proposed in the project vicinity. Planned land uses near the site include two residential development Specific Plan Areas (SPA). These development areas are in the process of buildout on lands located to the south of the project site. These development areas are known as Los Coches Hills and Quail Canyon Estates. Los Coches Hills occupies an area of approximately 1,140 acres with ultimate development to 236 dwelling units at full build-out (0.21 du/acre). Quail Canyon Estates occupies an area of approximately 819 acres with ultimate development of 201 dwelling units at ultimate build-out (0.24 du/acre).

The County of San Diego is in the process of developing Oak Oasis Park. This future park would be located off of Wildcat Canyon Road overlooking San Vicente Reservoir.

Regulatory Setting

San Diego County General Plan/Lakeside Community Plan

Land use in the project vicinity is governed by the San Diego County General Plan. In the Lakeside area, the General Plan is implemented by the Lakeside Community Plan and site specific use regulations (or zoning) for individual parcels. The Plan establishes certain land use, community character, conservation, scenic highway, and recreational goals and policies to help guide future development of the planning area. The Lakeside Community Plan designates the project site as (24) Impact Sensitive with an (25) Extractive overlay. The Extractive overlay designation is applied only to areas containing economically or potentially economically extractable mineral resources.

The Impact Sensitive designation is typically applied to areas considered unsuitable for urban development for reasons of public safety or environmental sensitivity. In this location, this designation is applied due to the presence of the San Diego River floodway and its associated sensitive riparian zone.

San Diego County Zoning Ordinance

Zoning for the property is S-82 Extractive and A-70 Limited Agricultural. These land use designations and zones have been applied to the project area because the site contains documented regionally significant mineral resources (i.e., sand deposits associated with the San Diego River Valley). The site is also considered well suited to certain agricultural operations.

The S-82 Use Regulations (San Diego County Zoning Ordinance Section 2820-2829) are intended to identify and create areas within the County where mining, quarrying, or oil extractive uses are permitted.

The A-70 zoned lands encompass approximately 80 acres of the project site and allow limited development consistent with low-density rural residential and a variety of agricultural uses. The A-70 Use regulations are intended to create and preserve areas primarily for agricultural crop production. Additionally, a limited number of small farm animals may be kept and agricultural products raised on the premises may be processed. Typically, the A-70 Use Regulations are applied to protect moderate to high quality agricultural land.

Special Area Regulations - Flood Plain Area Regulations

Portions of the subject property on the San Diego River Valley floor are subject to Zoning Ordinance Flood Plain Area Regulations. Flood Plain Area Regulations (San Diego County Zoning Ordinance Section 5500) protect the public health, safety, and welfare and reduce the financial burden on the County and property owners. This is accomplished by eliminating or reducing the need for the construction of flood control channels, dikes, dams, and other flood control improvements that would otherwise be required if scattered and unplanned development were permitted to occur. A flood plain designator "F" is applied to properties not planned for channelization but which are subject to inundation.

Resource Protection Ordinance

In establishing the Resource Protection Ordinance (compilation of Ordinance Nos. 7739, 7685, and 7631) the Board of Supervisors proclaimed that the unique topography, ecosystems, and natural characteristics of the County are fragile, irreplaceable resources, vital to the general welfare of all residents. The Board mandated that special controls on development must be established for the County's wetlands, flood plains, steep slopes, sensitive biological habitats, and prehistoric/historic sites. Accordingly, prior to approval of most discretionary applications including Major Use Permits, a Resource Protection Study must be completed and the approving authority is required to make a finding that the use or development permitted by the application is consistent with the provisions of the Ordinance.

Community Character

A commonly recognized reference point in defining the community character of an area is its "sense of place," or uniqueness from an overall qualitative standpoint. This is derived from the area's natural and formal boundaries, natural and man-made physical characteristics, and commonly shared human attitudes.

The community of Lakeside is located in the western foothills of the Cuyamaca Mountains on the San Diego River. Lakeside was essentially a rural community until the 1950s, when growth began to surge. Lakeside's rural atmosphere was very attractive to those seeking escape from the more densely settled areas of urbanized San Diego. With the completion of Interstate 8, convenient access was provided to employment centers located to the west. The result was a partial suburbanization of Lakeside. According to the Lakeside Community Plan, the population of Lakeside is currently about 52,000 persons, and is projected to grow to about 53,800 persons by the year 2000.

Despite the effects of suburbanization, Lakeside residents possess a strong desire to maintain and preserve a rural lifestyle. For example, a considerable amount of small-scale farming still exists in the community and many homes in the residential areas have small corrals evidencing a relatively high level of horse ownership. This type of rural/ranch-style imagery lends a sense of place and identity to the area.

The upper San Diego River Improvement Project is a key factor in the development of Lakeside. On-going construction material sales at various sites are the basis for a high profile industrial type component to the character of the community.

Community character surrounding the project site is a microcosm of the community at large. Attributes contributing to the imagery and atmosphere near the site include low-density rural or ranch-style residential housing, agricultural operations (crops and dairy facilities), equestrian facilities, sand extraction operations, natural open space, views of El Capitan Mountain and chaparral covered foothills. Disturbed (agricultural) and natural open space, and a rural ambiance are combined as identifiable attributes of the area. These characteristics help residents form and retain a viable, unique community identity.

2.1.2 Thresholds of Significance

Criteria or thresholds for determining the significance of an impact are presented in this section to clarify and quantify (if possible), to the extent feasible, at what point an impact to land use is considered significant. Significance thresholds are also presented here to achieve consistency when evaluating the impact associated with the different project alternatives. It is important to note that the significance of an activity may vary with the setting.

The following are determined to be significant land use impacts if the project results in a:

- Substantial physical land use conflict/constraint
- Substantial inconsistency with planned land uses
- Substantial inconsistency with applicable policy or plan

Determination of significant effects to community character is derived from the applicable goals and polices set forth in the Lakeside Community Plan.

- Significant community character impacts would result if the project or its parts are found to be in substantial conflict (adverse) with the community character attributes as outlined in the community plan.

Accordingly, discussion of potential land use impacts follows below.

2.1.3 Analysis of Project Effects and Determination as to Significance

2.1.3.a Physical On-Site Land Use Conflicts/Constraints

Potential physical on-site land use conflicts/constraints associated with the proposed project include the following issue areas: extractive/mineral resources, agricultural resources, archaeological resources, biological resources, residences, insitu public infrastructure/utilities, and construction impacts.

Extractive/Mineral Resources

Extractive/mineral resources (i.e., aggregate resources) are a regionally important natural resource. Sand, gravel, and crushed rock are included among mineral commodities classified as "construction materials." These commodities, collectively referred to as "aggregate," provide bulk and strength to Portland concrete cement (PCC), asphaltic concrete, and plaster. Aggregate is also utilized as road base, sub-base, and fill, normally providing 80 to 100 percent of the material volume of these uses.

Aggregate resources for the San Diego County Production Consumption Region (P-C Region) are discussed in the California Department of Conservation, Division of Mines and Geology (CDMG) *Special Report No. 153* (1982). In this report, the CDMG has classified land in western San Diego County according to the presence or absence of construction aggregate resources. Special attention was given to aggregate suitable for use in PCC, the highest quality use of sand, gravel, and crushed rock. Emphasis was placed on PCC aggregate because the material specifications for PCC aggregate are more restrictive than for other aggregate

types; consequently, few sand and gravel deposits satisfy these specifications. Those deposits that are acceptable for use as PCC aggregate are thus the scarcest aggregate resources in the county and therefore are of the most concern in terms of planning future availability of this commodity. As such, prudent land use planning to ensure conservation of this valuable natural resource is important.

Based upon projected population increases and predicted per-capita consumption rates, approximately 760 million tons of aggregate will be needed to supply the entire P-C Region to the year 2030. With a total aggregate reserve of 430 million tons (a 32-year supply) this leaves a 330 million ton deficit of aggregate to supply the region to the year 2030. Unforeseen events in the future such as massive urban renewal or disaster reconstruction could increase this deficit.

Assuming that all PCC quality material will be used for PCC only, there is expected to be a 60 million ton deficit of PCC aggregate within the next 50 years. Further, there is an uneven geographic distribution of PCC sand reserves within the P-C Region. According to Open-File Report 96-04, the total Portland Concrete Cement (PCC) grade aggregate reserves of 352 million tons in western San Diego County are projected to last just 20 years, until the year 2016, at the present rate of consumption. Approximately 70 percent of the current PCC sand reserves within the region are located within the San Luis Rey River, in the northern portion of the County. Transportation of these sand reserves to the major metropolitan and urbanizing areas in the southern portion of the County will result in a considerable increase in the cost of aggregate to the consumer.

Aggregate resource reserves and non-permitted resources for the P-C Region represent the total quantity of aggregate material that is geologically and technologically available for extraction. Except for the exclusion of urbanized areas, they do not reflect such constraints to extractive operations as current land use or political, sociological, and environmental issues, and other factors. Aggregate resources not currently under permit may be translated into reserves by 1) extending the operating life of existing operations where there are resources available beneath the permitted depth of extraction, 2) opening new operations, 3) developing alternate resources such as off-shore sand, and/or, 4) crushing coarse material to sand-size particles.

The proposed project is located within the CDMG study area referred to as the Upper San Diego River, Sector M. The Upper San Diego River extends from the head of Mission Gorge northeast for a distance of approximately 15 miles to within 1 mile of the El Capitan Reservoir dam, an area totaling approximately 2,150 acres. Because this deposit is centrally located, it has a long history of extractive activity. Drill holes in this area indicate an average thickness of suitable aggregate of 155 feet, with the top 20 to 60 feet predominantly sand underlain by sand and gravel and a basal layer of gravel and boulders. Fifteen percent of the material is waste. Using a density factor of 0.055 tons per cubic foot, a total resource of 540 million tons of aggregate is estimated to underlie Sector M (CDMG, 1982). Total resources of PCC-quality sand for Sector M are estimated at 300 million tons, of which 21.8 million tons consist of reserves. Coarse PCC-quality aggregate resources total 240 million tons, of which only 1.7 million tons consist of reserves. El Capitan Reservoir dam precludes any substantial replenishment of these resources from upstream.

In summary then, analyzing aggregate resource needs for the next 50 years, two major issues emerge: A) there is a shortage of aggregate reserves for the Western

Surrounding Residential Development

Surrounding residential development consists of low-density rural/ranch-style housing. Land uses that would typically be incompatible with the large-lot single-family detached housing near the project site would include high-density multi-family housing, or intensive industrial or commercial uses. Increased noise, light/glare, traffic, loss of open space, and other adverse urban-related effects often associated with these types of less desirable land uses would not occur as a result of the proposed golf facility.

The project is a public golf facility. As such, limited social functions may take place within the club house facilities from time-to-time, but are not expected to be a nuisance to off site residents. Since the project is not a resort/country club, large, frequent "after-hour" activities are not expected; however, local noise abatement ordinances must be observed during social functions. Therefore, the project is considered compatible with the surrounding residential development.

The landscaped open space characteristics of golf courses are generally considered to be desirable visual features and therefore compatible with adjacent residential development. Residential property located near golf courses typically command premium land values. On the other hand, some operations and structures associated with golf courses may have characteristics which are not compatible with single-family residential uses. This would include large buildings which are out-of-scale with existing residences in the area, noise from maintenance operations, and traffic from golf course patrons.

The project proposes a clubhouse/pro shop and a below-grade golf cart storage area approximately 18,000 square feet in size. It is a one-story structure with a height of 24-feet above grade, except for a clock tower which extends to 34-feet high. The nearest residences are located on the north side of Willow Road over 500 feet from the clubhouse, and over 300 feet from the driving range tees. This separation reduces potential land use conflicts to a less than significant level. Parking for the clubhouse consists of 409 parking spaces located adjacent to Willow Road. However, the facility has no easement for access to Willow Road, which is a private road in this area. Therefore, only emergency access to Willow Road is proposed by the project. The parking area also maintains a minimum 30-foot wide landscape setback from Willow Road, provides internal landscaping equivalent to a minimum of 5 percent of the parking area, and locates every parking space within 30 feet of the trunk of a tree. This setback distance and interior landscaping are in accordance with Guideline B2 of the Lakeside Design Guidelines. Because of these site and landscape design features, the clubhouse area will not have significant land use impacts.

The main entry road to the golf course will be from El Monte Road and runs near adjacent to nine existing single-family properties. The access road is designed to provide a minimum 30 foot landscaped setback from the adjacent residential property lines and also proposes to depress the access road approximately 3 to 4 feet and provide a landscaped mound of approximately 4 feet in height, relative to adjacent residential lots. This design will minimize visibility of project traffic and associated noise, while maintaining views of the golf course. Therefore, significant land use compatibility impacts on the existing residences from the access road are not anticipated.

The maintenance facility for the golf course is also located adjacent to existing residential properties and consists of the maintenance area plus 33 parking spaces. Three office storage and operations buildings are located within the maintenance area. These buildings are approximately 1,700, 6,200, and 6,700 square feet in size, and 20-feet high. To minimize impacts to the adjacent residential properties, the maintenance area is enclosed with a 7-foot high masonry wall with a stucco finish which matches the stucco finish of the buildings. A landscape setback of approximately 100 feet including topographic mounding is provided as a buffer between the nearest adjacent residence located to the west, and approximately 200 feet from the nearest residence located to the southeast. The project does not have frontage on El Monte Road in this area and the maintenance facility is located approximately 100 feet north of the road.

Because of the configuration of properties in this area, only the two properties described above are adjacent to the maintenance facility. Other than these two properties, the nearest other residence is located on the other side of El Monte Road approximately 200 feet from the maintenance facility. As currently designed, gates for the maintenance facility are located on the west side of the compound. However, the maintenance facility can be re-oriented such that all gates/doorways into and out of the facility face north, away from all residential structures. Due to these setbacks, walls, landscaping, and proposed architectural design, the maintenance facility impacts would be limited but could still have a significant impact. Refer to the discussion on Operational Impacts for more detail.

The golf clinic area is relatively low-intensity, limited use facility located next to a sand mining operation and in an area with few nearby residences. The parking lot will be setback 30 feet from El Monte Road and a landscape buffer will be provided in accordance with the Lakeside Design Guidelines. All buildings will not be more than 16 feet high, with the golf shop being a maximum of 3,000 square feet and the practice pavilion being 680 square feet. The architectural and landscape design features will ensure that the golf clinic does not create significant land use impacts.

Operational Impacts

Start-up operations for the golf course would typically begin at approximately 1/2-hour prior to sunrise. Activity associated with motorized golf course maintenance equipment, golf carts, mowers, etc., would produce noise as operations begin in the morning, and would be initially concentrated around the maintenance facility, but then disperse throughout the project site. As currently designed, gates for the maintenance facility are located on the west side of the compound. If outdoor lighting is used to illuminate work areas around the maintenance yard before dawn and after dusk, substantial light and glare could affect adjacent residences. Given the degree and location of activity, and the potential for it to occur in the early morning hours, daily operations at the golf course could result in substantial conflict with near by residences. This is considered a significant land use impact.

2.1.3.c Regulatory Setting: Consistency with Plans and Policy

Land Use Designations

The Lakeside Community Plan designates the project site as (24) Impact Sensitive with an (25) Extractive overlay. The Extractive overlay designation is applied only to areas containing economically or potentially economically extractable mineral resources. The Impact Sensitive designation is typically applied to areas

San Diego P-C Region, and B) there is an uneven geographic distribution of sand reserves within the P-C Region. While aggregate reserves (i.e., those deposits for which use permits have been issued) are insufficient to meet the 50-year demand for the P-C Region, approximately 11 billion tons of aggregate resources (i.e., those deposits for which no use permits have been granted) occur in the P-C Region. Critical then, is the wise land-use planning by local governmental officials to assure the availability of these valuable mineral resources to future generations of San Diego County residents.

The California Department of Conservation, Division of Mines and Geology in its *Special Report No. 153* classified and designated the majority of the project site as containing a regionally significant sand resource. The sand resources are contained within the river laid sediments which make up the historic flood plain of the San Diego River. Due to the location of the designated resources, the County attached the S82 Use Regulations to these lands. Approximately 440 acres of the project site are zoned S82.

The Lakeside Community Plan designates the project site as having a (25) Extractive overlay. This designation promotes extraction as the principal and dominant use, but allows other uses where they would not preclude future extraction of the mineral resources. The Extractive overlay designation is applied only to areas containing economically or potentially economically extractable mineral resources.

As discussed earlier, sand resources are an important resource and there is a deficit in permitted aggregate resources for the P-C Region. The sand resources that do exist are predominantly located in the northern portion of the County. Therefore, construction of substantial permanent structures which would preclude the extraction of aggregate resources on the project site would represent an adverse significant impact. However, the project proposes development of a golf facility and limited ancillary facilities. This type of land use, as an outdoor participatory sports/recreation facility, is consistent with the intent of the S-82 zoning use restrictions and the (25) Extractive Overlay. With the exception of the club house, maintenance building, and other small out-buildings, the project does not propose development that would preclude future extraction of on-site aggregate resources. These structures would require only a small percentage of the overall acreage on-site.

It should also be noted that use of the site for a public golfing facility is authorized by the land owner in accord with a 50-year lease. Currently, extraction of aggregate resources on-site is not permitted (i.e., no use permit has been authorized). However, extraction of these resources could become economically viable or necessary in the future. Should this occur, mineral extraction could become the highest and best use of the site at that time. Because the project is predominantly open space (i.e., no residential, commercial, or industrial development), conversion of the site from a golf course to a mineral extraction facility would be relatively easy. The decision to convert from one use to another would be based upon need and the economics of the resource involved. The issue then, is whether or not one use would preclude conversion to another use in the event that circumstances change in the future. Since the golf course would allow for conversion to an aggregate extraction operation, the project is not considered to have a significant impact to future extractive resources.

The proposed project is a public golf facility, principally comprised of turf propagation and inherently devoid of substantial permanent structures. The project would not, therefore, preclude future extraction of aggregate resources on-site. As such, no significant project-related physical land use impacts to aggregate resources would result.

Agricultural Resources

Much of the project site has been used for a variety of agricultural purposes. Land in the San Diego River valley floor has been, or is currently used by a dairy, with other portions cultivated for field crops or used for pasture. Typically agricultural production has included specialty vegetables for oriental cuisine through contract to Taiwan Farms, Inc. These crops include bamboo shoots, chives, snow peas, and other vegetables used in oriental dishes.

Agricultural production is a dominant land use in the project area. The California Department of Conservation (CDC) Farmland Mapping and Monitoring Program in its *Farmland Conversion Report 1992 to 1994* (1996) indicates that some of the agricultural production currently taking place on the project site utilizes "Important Farmlands." This report indicates that portions of the project site are either Prime Farmlands or Farmlands of Statewide Importance. The remaining portions of the site are either characterized as Grazing Land or Other Land which is either of marginal or no value for agricultural production.

Because the project proposes to convert existing farmland to a non-farmland land use, farmland conversion (i.e., the loss of farmland) is an important local issue. The loss of farmland is also a regional problem as well. Given the importance of agricultural land preservation, on-site agricultural resources which could be affected by project implementation are evaluated in this section. Agricultural resources for the project site are evaluated according to the following issues: 1) soils, and 2) designated Important Farmlands.

Soils. Soils on the project site are principally mineral (< 20% organic matter), as opposed to organic (>20% organic matter). Mineral soils consist of four major components: mineral materials, organic matter, water, and air. Soil component mixture ratios vary to form distinctive individual layers called "horizons." A soil "profile" consists of its constituent horizons to form a complete vertical section. These horizons above the parent material are collectively referred to as the "solum," from the Latin legal term meaning soil or land. Every well-developed, undisturbed soil has its own distinctive profile characteristics which are unitized in soil classification surveys and are of great practical importance. In judging a soil, its whole profile must be considered.

The upper layers of horizons of a soil generally contain considerable amounts of organic matter and are usually darkened due to such an accumulation; this is the "organic horizon" or "O" horizon. The underlying subsoil contains comparably less organic matter than upper layers. The various subsoil layers present two very general belts: "A" horizon, an upper zone of transition or leaching, and "B" horizon, a lower zone of accumulation of compounds. The solum thus extends to a moderate depth below the surface. Here the noticeably modified lower subsoil gradually merges with the less weathered portion of the "regolith" (unconsolidated debris above the bedrock) which may be material that has weathered from underlying rock or it may have been transported by the action of wind, water, or ice. This is the area of the "C" horizon, an area of least weathering, accumulation,

intensive agriculture based on soil characteristics. Crop suitability is the suitability of soils for five major crops in San Diego County. A soil rated good to fair in terms of crop suitability for any one of the five crops is considered agricultural land.

Soil types found on the subject property, capability unit, Storie Index ratings, and crop suitability are shown in Table 2.1-1. Related Tables 2.1-2 and 2.1-3, define capability classes and describe Storie Index ratings.

In general, capability classifications and the Storie Index are used to measure the relative ability of various lands to sustain long-term agricultural crops. Accordingly, the State Department of Conservation, Farmland Mapping and Monitoring Program establishes categories of farmland based on the various physical and chemical attributes of the land. These categories are compiled from USDA-NRCS soil surveys and current land use information. Table 2.1-4 lists the eight mapping categories.

As shown in Figure 2.1-3, the project site contains areas designated by the State Department of Conservation, Farmland Mapping and Monitoring Program as Prime Farmlands and Farmlands of Statewide Importance. Approximately 37 acres of the project site are designated as Prime Farmlands, and approximately 64 acres of the project site are mapped as Farmlands of Statewide Importance. In comparing Figures 2.1-2 and 2.1-3, it can be seen that the Prime Farmlands and Farmlands of Statewide Importance occur primarily in the TuB soils. This soil type is Soil Capability Class IV and has a Storie Index Rating of 39 (see Table 2.1-1). Both of these ratings indicators severe limitations for crops for TuB soils per Tables 2.1-2 and 2.1-3. In the year 1994, San Diego County had approximately 11,788 acres of Prime Farmland and 13,964 acres of Farmland of Statewide Importance. As a county-wide percentage, the loss due to the project of 37 acres of Prime Farmlands and 64 acres of Farmlands of Statewide Importance would represent a reduction of 0.31 and 0.46 percent, respectively. This is considered a minor reduction of the amount of Important Farmland and would therefore not be a significant impact.

From 1992 to 1994 San Diego County lost a total of 217 acres of Prime Farmland and 504 acres of Farmland of Statewide Importance. Under certain circumstances, the loss of an additional 37 acres of Prime Farmlands and 64 acres of Farmlands of Statewide Importance could be viewed as a cumulatively significant impact. However, the project proposes a land use type that does not necessarily preclude re-use of the site for agricultural purposes. The site could easily be converted back to agricultural use. No permanent structures are proposed in areas mapped as Prime Farmland or Farmland of Statewide Importance. In fact, cultivation of turf could be a beneficial effect of the project because long-term maintenance of turf grasses and landscaping would reduce top soil erosion due to wind and surface run-off and helps build a rich organic upper solid layer.

The conversion of these Important Farmlands (i.e., 37 acres of Prime Farmlands and 64 acres of Farmlands of Statewide Importance) to a golf facility is considered a minor and incremental change in land use. Further, this relatively small amount of acreage may not be financially viable for efficient agricultural production.

However, agricultural production using on-site Prime Farmland and Farmland of Statewide Importance could become economically viable or necessary in the future. Should this occur, farming on these lands could become the highest and best use of the site at that time. Because the project is predominantly open space (i.e., no residential, commercial, or industrial development), conversion of the site from a golf course to agriculture would be relatively easy. The decision to convert from

one use to another would be based upon need and the economics of the resource involved. Similar to on-site extractive resources, the issue then, is whether or not one use would preclude conversion to another use in the event that circumstances change in the future. Since the golf course would allow for conversion to agriculture, the project is not considered to have a significant impact to Prime Farmland and Farmlands of Statewide Importance.

Therefore, the project would not result in significant, or cumulatively significant impacts to agricultural resources related to Important Farmlands.

Existing Residences/Structures

Residential uses are not represented on the project site. No displacement of residents/tenants would occur. The land owners decision to replace two unoccupied residential structures with a golf course is not considered a significant physical land use impact.

Construction Impacts

Golf course construction/grading would involve approximately 1,300,000 cubic yards of balanced cut and fill. Construction activities would result in the generation of fugitive dust and other respirable particulates, an increase in ambient noise, and an increase in construction-related traffic (e.g., trucks, front-end loaders, paddle scrapers, etc.).

However, construction-related generation of dust, noise, and traffic would be temporary/short-term. Construction activities are estimated to have a duration of approximately two years. Therefore, while construction effects would be adverse, the project would not result in significant construction-related impacts.

2.1.3.b Compatibility with Current and Planned Land Uses

Off-site land use compatibility issues associated with the proposed project include parks/recreational/equestrian, and residential land uses. These topics are discussed below.

Recreation/Equestrian

Recreational uses important to El Monte Valley include active use of the property by area equestrians. The Lakeside community has long been recognized for its association with equestrian uses. As a result, undeveloped lands, such as the project site, have traditionally been used for trail riding purposes. This has primarily occurred within the San Diego River channel, but use of upland areas is not uncommon. The site is currently used as a riding area for many Lakeside area equestrians.

As part of project design, an equestrian trail would be developed through the property. The equestrian trail would have specially designed entrance gates at the east and west end that would allow horses/riders, walkers/joggers/hikers, and bicyclists to pass. These gates would however, prevent use of the trail by automobiles and motorcycles. It is expected that a revocable license agreement would be executed with an appropriate custodial entity, (e.g., the County of San Diego). Therefore, the project would not result in significant impacts to equestrian recreational uses.

considered unsuitable for urban development for reasons of public safety or environmental sensitivity. In this location, this designation is applied due to the presence of the San Diego River floodway and its associated sensitive riparian zone.

The proposed project would result in the construction of a major golfing facility over lands currently utilized for agricultural production. Because the majority of the site is planned for future extraction of regionally significant mineral resources, agricultural production is considered an interim use which would not conflict with future resource recovery. Although golfing uses are significant commercial enterprises, they do not require the development of high valued permanent structures and infrastructure over major portions of the site. Therefore, the development of a golfing facility is considered to be compatible with the mineral resource designation for the project site.

The Impact Sensitive designation is typically applied to areas considered unsuitable for urban development for reasons of public safety or environmental sensitivity. In this location, this designation is applied due to the presence of the San Diego River floodway and its associated sensitive riparian zone. Under this designation, projects must be carefully planned to assure that no significant adverse environmental impacts will result from construction and operations. Land uses which are typically compatible with this designation would include large-lot residential parcels, agricultural pursuits, certain recreational uses (e.g., golf courses), mineral extraction, or natural green belts connecting permanent open space areas. Therefore, the development of a golfing facility is considered to be compatible with the impact sensitive designation for the project site.

Lakeside Community Plan

A discussion of applicable elements and associated goals/policies of the Lakeside Community Plan follows:

Lakeside Community Plan Land Use Element

The Land Use Element of the Community Plan lists goals and policies applicable to the proposed project. These items are discussed below.

Agricultural Goal

Provide for the preservation of agricultural land uses while maintaining their compatibility with other non-rural uses.

Findings

Lakeside has a unique agricultural heritage, which the community wishes to perpetuate. In the urban core, large-scale agricultural uses have given way to residential development. In spite of this, extensive portions of the Plan Area display significant primary and secondary agricultural uses. These areas include Eucalyptus Hills, Moreno Valley, the El Monte Road area and Blossom Valley.

Policies and Recommendations

1. *Promote agricultural land uses which are compatible with the topography and environment.*

2. *Permit the co-existence of agricultural land uses which are compatible with other land uses in the community.*

3. *Encourage the continued development of suitable land or orchards and groves as well as truck and seed crops.*

4. *Promote agriculture as one of the highest and best uses for open space and flood plains.*

The proposed project would result in the construction of a major golfing facility over lands currently utilized for agricultural production. Because the majority of the site is planned for future extraction of a regionally significant mineral resource, agricultural production is considered an interim use which would not conflict with future resource recovery. Therefore, while the project site is suitable for agricultural production, agriculture should not be considered the permanent use of the site. Although golfing uses are significant commercial enterprises, they do not require the development of extensive, high valued permanent structures and infrastructure over major portions of the site. Golf courses are also considered as favorable land use types in open space/flood plains. Should agriculture be deemed as the highest and best use of the subject property, conversion from a golf course to cultivated fields would not be difficult. Development of the proposed golf course would not preclude future use of the site for agricultural production or the ultimate extraction of sand. Therefore, development of a golfing facility would be compatible with the agricultural goals and policies of the Lakeside Community Plan.

Lakeside Community Plan Community Character Element

Each community/subregional planning area within the San Diego County sphere of influence has community character attributes common to the area as outlined in the respective community/subregional plans. The community character goal as outlined in the Lakeside Community Plan follows:

Community Character Goal

Foster development which will preserve a rural atmosphere and enhance a sense of spaciousness.

Policies and Recommendations

1. *Protect Lakeside's unique natural environment; and preserve its rural way of life and cultural heritage.*

The proposed golf course would preserve and enhance a sense of spaciousness, and provide the public with additional recreational opportunities. Additionally, the green-belt established by the maintenance of large expanses of turf and landscaping is an aesthetically pleasing use of open space. However, the rural heritage of Lakeside connotes an agrarian, provincial, and somewhat rustic identity, where ranch-style homes and equestrian/agricultural uses are abundant. The proposed golf course, while maintaining open space, would suggest a more urban setting. This would differ from Lakeside's current rural/agricultural identity. However, the proposed change is not considered adverse. The addition of the proposed golf course is considered a compatible attribute to existing community character because it maintains and enhances spaciousness and preserves it in this condition for an extended period of time.

Lakeside Community Plan Conservation Element

The Conservation Element of the Community Plan lists several goals and policies applicable to the proposed project. These items include environmental, flood plain, and sand and gravel extraction issues which are listed below.

Environmental Goal

Provide a desirable, healthful, and comfortable environment for living while preserving Lakeside's rural atmosphere and unique resources.

Policies and Recommendations

5. *Ensure the land uses within or adjacent to recreational, natural preserve, agricultural, or industrial areas are compatible with those areas.*

The golf course would establish an aesthetically appealing open space greenbelt. Further, because the proposed golf course would not establish abundant permanent structures, and would not preclude future agricultural or extractive uses on site, the project is considered to be compatible with applicable environmental goals and policies. Further, the riparian corridor associated with the San Diego River would be preserved and enhanced.

Flood plain Goal

Enhance the flood plains as an environmental, recreational, and economic asset to Lakeside.

Findings

The appropriate utilization of flood plains is of primary interest to the citizens of Lakeside. The section of the Upper San Diego River from Santee to El Monte Park is utilized for a variety of activities including: crop raising, dairy farming, commerce, and industry. The prevailing use involves the extraction of sand for construction. Studies have proven that the sand resources of this portion of the San Diego River are substantial..

Policies and Recommendations

2. *Encourage the utilization of the flood plains outside of the Current Urban Development Area for recreation, open space, agriculture, and planned extraction of natural resources.*

6. *Design the use of floodways where public access is available so that all modes of recreational transportation will have an opportunity to enjoy this space.*

The project would establish a recreational opportunity for the community. This would occur in an existing flood plain. As such, the project would be an economic and recreational asset to the community. The project proposes the establishment of a trail along the southern boundary of the site which would provide public access

to the flood plain for recreational transportation. As such, the project is considered to be compatible with applicable flood plain goals and policies.

Sand and Gravel Extraction Goal

Balance the regional need for construction materials with the community need for freedom from any disturbing effects of the sand and gravel extraction.

Policies and Recommendations

6. *Protect areas designated in the Plan for sand, gravel, and rock excavation from scattered and incompatible urban intrusion by applying extractive use regulations to such areas.*

The proposed project would not preclude future extraction of aggregate resources on site. As such, the project is a suitable interim land use until such time that sand extraction on site is deemed as the highest and best use of the site. Therefore, the project is considered to be compatible with applicable extraction goals and policies.

Lakeside Community Plan Recreation Element

The Recreation Element of the Community Plan lists several goals and policies applicable to the proposed project. These items are listed below.

Goal

Provide a wide variety of recreational activities and facilities which will meet the needs and enrich the lives of all the residents of Lakeside.

Policies and Recommendations

4. *Minimize conflicts between trail users and adjacent properties.*

12. *Minimize costs of a trails system by utilizing flood plains, drainage channels, public lands, and major utility rights-of-way wherever legally possible.*

16. *Where appropriate, require trail easement dedication.*

The project would provide a dedicated trail along the southern boundary of the site. The trail would have a landscape buffer from the golf course. The trail would utilize a portion of the San Diego River flood plain. Trail riders would therefore be encouraged to utilize flood plain land rather than the more sensitive riparian floodway. The trail would be buffered from golfers using the proposed facility. Therefore, the project is considered to be compatible with applicable recreation goals and policies.

Lakeside Community Plan Scenic Highway Element

The Scenic Highway Element of the Community Plan lists several goals and policies applicable to the proposed project. These items are listed below.

Goal

Establish a network of scenic highway corridors where scenic, historical, and recreational resources are protected and enhanced.

Findings

There are four scenic corridors identified on the "Scenic Highway System" plan map which pass through the Lakeside Community Planning Area. Three of the corridors are listed as second-priority scenic routes in the Scenic Highways Element of the General Plan. They are as follows:

3. *Willow Road and El Monte Road, from State Route 67 to the southern end of El Capitan Reservoir.*

Policies and Recommendations

4. *Do not permit development which will detract form those unique environmental features which are intended to be protected by virtue of being located within or in clear view of a designated scenic corridor.*

The project site currently exists as open space associated with the San Diego River floodway and ongoing agricultural operations. The project proposes to preserve the floodway as natural open space. Other areas would be converted from disturbed pastures and vacant land to turf, rough, and landscaping (principally with natural vegetation species). The maintenance facilities are proposed to be located on the north side of El Monte Road in an area adjacent to existing residences and where the project is separated from the road by an intervening ownership. The maintenance area would consist of buildings and a 7-foot high stucco wall located with a minimum setback from the edge of the road of 50 feet. Vegetation on the intervening ownership and proposed project landscaping would screen the maintenance area, though not completely obscuring if from view to motorists and other users of Willow Road. However, its location adjacent to a residential area and its overall length of 350 feet would represent relatively minor obstructions along an improved scenic golf course view extending for approximately 8,400 feet along Willow Road. This would not cause a significant conflict with the scenic corridor designation. However, the maintenance facilities are proposed to be located with frontage along El Monte Road adjacent to existing residential development. Although this facility would be concealed from the roadway and adjacent residences by landscaping, it would block the views onto the agricultural fields to the north for a short distance. This effect could be partially mitigated by moving the maintenance facility back from the roadway a greater distance; however, location of the maintenance facilities in this area, as proposed, would not represent a significant change from the existing conditions.

With exception of the maintenance facilities, the resultant greenbelt created by development of the golf course is considered aesthetically beneficial relative to the existing viewscape. Therefore, the project is in compliance with the Lakeside Community Plan Scenic Highway Element. Significant adverse impacts to visual resources along the scenic roadways would not be expected.

San Diego County Zoning Ordinance

Zoning for the property is S-82 Extractive and A-70 Limited Agricultural. These land use designations and zones have been applied to the project area because the site contains documented regionally significant mineral resources (i.e., sand deposits associated with the San Diego River Valley). The site is also considered well suited to certain agricultural operations.
Although S-82 zoned properties are ultimately intended for mineral extraction, a number of other uses may also be allowed. Permitted uses include agricultural crops and civic uses. A number of other uses may be allowed subject to approval of a Minor or Major Use Permit.

Typically, the S-82 Use Regulations are applied to areas of mineral deposits, to signify the presence of such deposits and notify adjacent or affected properties of the intention to allow extraction of minerals within the zone. These regulations may be used to preserve areas with valuable mineral deposits until extraction can take place. Special regulations are to be imposed governing the conduct of mineral extraction, associated operation characteristics, and care of the site at conclusion of the extraction operation.

Permitted uses subject to a Major Use Permit include Major Impact Services and Utilities as well as Administrative Service, Medical Services (ambulance, clinic), Cultural Services, Postal and Parking Service, Explosive Storage, Scrap Operation (commercial) Mining and Processing (extractive), Community Recreation and Assembly, and Participatory Sports and Recreation (outdoor). Therefore, the proposed golf course, as an outdoor participatory sports and recreation facility, is in compliance with the S-82 Use Regulations.

Typically, the A-70 Use Regulations are applied to areas throughout the County to protect moderate to high quality agricultural land. Permitted use types include Family Residential (Residential) Essential Services and Fire Protection Service (Civic), and Horticultural (all types), Tree Crops, Row and Field Crops, and Packing and Processing (limited) (Agricultural). Permitted uses subject to a Major Use Permit include, among other uses, Community Recreation and Participatory Sports and Recreation (i.e., outdoor). Therefore, the proposed golf course, as an outdoor participatory sports and recreation facility, is in compliance with the A-70 Use Regulations.

Special Area Regulations - Flood Plain Area Regulations

Portions of the property lie within the San Diego River flood plain and are therefore subject to Zoning Ordinance Flood Plain Area Regulations. Flood Plain Area Regulations are designed to protect the public health, safety, and welfare and reduce the financial burden on the County and property owners. This is accomplished by eliminating or reducing the need for the construction of flood control channels, dikes, dams, and other flood control improvements that would otherwise be required if scattered and unplanned development were permitted to occur.

Permitted uses in this zone are those identified by applicable use regulations. No building or structure can be placed, erected, constructed, altered, or enlarged within the area subject to the Flood Plain Area Regulations except in accordance with such regulations and provisions of the San Diego County Code. No permanent structure used for human habitation, a place of work, or by the public, can be constructed in a floodway.

The project proposes use of the site as a golf course. Permanent structures would be limited to the club house, maintenance facility, and small out buildings. Under current conditions, these structures would be placed within the flood plain, (not in the floodway). Structures developed on site would be raised above the 100-year flood level. The floodway will be preserved as undisturbed open space. Therefore, the project would be compatible with Flood Plain Special Area Regulations

Resource Protection Ordinance

The Resource Protection Ordinance (RPO) addresses the unique topography, ecosystems, and natural characteristics of the County. RPO states that certain resources are fragile and irreplaceable and are vital to the general welfare of all residents. RPO has established special controls on development regarding wetlands, flood plains, steep slopes, sensitive biological habitats, and prehistoric/historic sites. Accordingly, prior to approval of most discretionary applications including Major Use Permits, a Resource Protection Study must be completed and the approving authority shall make a finding that the use or development permitted by the application is consistent with the provisions of the Ordinance. However, there are a number of exemptions to the Ordinance. These exemptions are outlined below:

> Any essential public facility or project, or recreational facility which includes public use when the authority considering an application makes the following findings:
>
> > *The facility or project is consistent with adopted community or subregional plans;*
> >
> > *All possible mitigation measures have been incorporated into the facility or project, and there are no feasible, less environmentally damaging, location, alignment, or non-structural alternatives that would meet project objectives;*
> >
> > *Where the facility or project encroaches into a wetland or flood plain, mitigation measures are required that result in a net gain in the wetland and/or riparian habitat;*
> >
> > *No mature riparian woodland is destroyed or reduced in size due to otherwise allowed encroachments.*

The project meets these requirements in the following manner:

- The project is consistent with the goals and policies contained in the Lakeside Community Plan.
- Mitigation measures have been proposed for the project which reduce potentially significant impacts to a level below significance, including wetlands impacts.
- The alternatives analysis has revealed that the proposed project is the least environmentally damaging practicable alternative that would meet project objectives.

- The riparian areas associated with the floodway would remain as open space.

As such, the project as a public recreational facility, meets the findings criteria, and should be exempt from the Resource Protection Ordinance.

In the absence of such an exemption, RPO permits only certain uses as well as requires particular development standards and criteria within the various categories of sensitive lands. The following are applicable in this case:

Wetlands. Permitted uses in wetland areas are restricted to the following (not involving grading, filling, construction or placement of structures): scientific research, educational or recreational uses provided that they do not harm the ecosystem; and wetland restoration projects where the primary function is restoration of the habitat.

Wetland Buffer Areas. In wetland buffer areas permitted uses are limited to: access paths; other improvements necessary to protect adjacent wetlands; and all uses permitted in wetland areas.

Floodways. The development of permanent structures for human habitation or as a place of work is not permitted in a floodway. Uses permitted in a floodway are limited to agricultural, recreation, and other low-intensity uses provided that such use does not substantially harm the environmental values of the particular floodway area.

Flood Plain Fringe. All uses permitted by zoning and those that are allowable in the floodway when the following criteria are met: fill must be limited to that necessary to elevate the structure above the elevation of the floodway and to permit minimal functional use of the structure.

Sensitive Habitat Lands. Development, grading, grubbing, clearing or any other activity or use damaging to sensitive habitat lands is prohibited. Development may be allowed when all feasible measures necessary to protect and preserve the sensitive habitat lands are required as a condition of permit approval and where mitigation provides an equal or greater benefit to the affected species.

Significant Prehistoric/Historic Site. Development, trenching, grading, clearing and grubbing, or any other activity or use damaging to significant prehistoric or historic site lands is prohibited, except for approved scientific investigations.

The project is a recreational land use which does not propose permanent structures within the floodway of the San Diego River. Cart operators would utilize one elevated bridge, and four at-grade Arizona-style crossings. The club house, maintenance facility, and other structures would be constructed in the flood plain, away from any wetland or floodway areas. Feasible mitigation measures have been proposed which would protect and preserve sensitive habitats. Cultural resources identified on site would be capped and no grading would occur below the cap.

Therefore, the project would be in compliance with the provisions of the Resource Protection Ordinance, either via exemption, or through project design features and mitigation measures.

2.1.3.d Community Character

A commonly recognized reference point in defining the community character of an area is its "sense of place," or uniqueness from an overall qualitative standpoint. This is derived from the area's natural and formal boundaries, natural and man-made physical characteristics, and commonly shared human attitudes. In San Diego County, community character attributes are clearly identified in community and subregional plans along with goals and policies to preserve these attributes. The goals and policies are implemented through land use designations, zoning classifications, and other regulatory ordinances. This assessment considers potential changes to community character from the perspective of the subject property, vicinity, and community as a whole.

Community character is not defined by CEQA, but is specifically addressed in Article 9.2 of the County of San Diego CEQA Guidelines. The County CEQA Guidelines define community character as:

> *An overall qualitative perception of a community, a sense of uniqueness, also commonly known as a "sense of place" is a common reference point in defining the community character of an area. It is based on a sense of space and boundaries, physical characteristics (i.e., geographical setting, presence of unique natural and man-made features, ambient noise and air quality) and qualitative psychological responses shared in common (i.e., "rural" and "friendly").*

Potential changes to the existing character associated with the community of Lakeside in general, and the project vicinity, is discussed in the following text, relative to the County CEQA Guidelines addressing "community character."

A variety of land uses in the project vicinity contribute to the area's community character. These land uses include rural residential, dairy farming, extractive, field and orchard crops, and open space. These land uses are of low intensity with the valley exhibiting a rural residential/agricultural setting. Land use is limited by physical constraints with the presence of the San Diego River floodway which passes through the site in an east to west direction and the steeply sloping hillsides which border the valley to the north and south. The existing viewshed of the river valley and nearby El Cajon Mountain lend a sense of spaciousness to the area.

Attributes contributing to the imagery and atmosphere near the site include low-density rural or ranch-style residential housing, agricultural operations (crops and dairy facilities), equestrian facilities, sand extraction operations, and natural open space. Agricultural, natural open space, and a rural ambiance are combined as identifiable attributes of the area. These attributes help residents form and retain a viable, unique community identity as reflected in the Lakeside Community Plan.

The rural heritage of Lakeside involves an agrarian, provincial, and somewhat rustic identity. Ranch-style homes with equestrian facilities are abundant. Small scale agricultural operations exist throughout the community. The proposed golf course, as developed open space, would suggest a more manicured recreational setting. Additionally, the facility would attract an approximate 1,500 average daily trips to the area, many of which would originate from areas outside of the Lakeside

community. This introduced manicured recreational setting would represent a deviation from characteristics that normally lend to Lakeside's rural identity and unique agrarian atmosphere.

Although the golf course would establish a recreational land use indicative of a less than rural setting, this change is not considered to be adverse. However, the project would contribute to incremental changes in the community character of Lakeside. The project would preserve open space and view corridors, and establish a green-belt along scenic roadways. Further, the project would provide additional public recreation opportunities and establish a trail system within the flood plain area. As such, the project should be viewed as a contributing addition to, rather than an adverse change in, the existing community character. The addition of the proposed golf course is considered a compatible attribute to existing community character, and would not be a significant adverse land use impact.

2.1.4 Mitigation Measures

Mitigation for Impact 2.1.3.b: Current Land Use Compatibility - Operational Impacts

1. Other than lighting required for security and safety, there shall be no outdoor nighttime lighting of the project site.

2. Berming/mounding and landscaping shall be installed between the maintenance facility and residences west and southeast of the facility to provide an intervening buffer for noise, visual, and light/glare effects.

3. All vehicles/equipment powered by internal combustion engines shall be equipped with mufflers in accordance with manufacturer's specifications.

4. The maintenance facility shall be redesigned to eliminate entry gates on the ~~east, south and west sides~~ west side of the perimeter wall, as shown in Figure 2.1-4. (Note: Figure 2.1-4 has been revised from the Draft EIR for the Final EIR to reflect additional mitigation brought about by Mitigation No. 5 below.) ~~No gates shall be allowed on the east, south or west sides of the maintenance facility.~~ This measure is necessary to reduce the potential for significant impacts which could result from maintenance facility operations.

5. The design of the maintenance facility shall be changed to include relocating the compound approximately 900 feet to the east as shown in the revised Figure 2.1-4 and Figure 2.1-5. The relocated maintenance compound shall be approximately 100 feet north of and 20 feet lower in elevation than El Monte Road compared to the previous location. Access to the maintenance compound shall be taken from El Monte Road approximately 100 feet to the east of the structure. This new access shall eliminate maintenance employee vehicle and delivery access from behind existing residences.

No other significant adverse land use impacts were identified. Therefore, no further mitigation is required.

2.1.5 Conclusions

Proposed operational limitations on noise and lighting sources would reduce impacts to adjacent residences to below a level of significance.

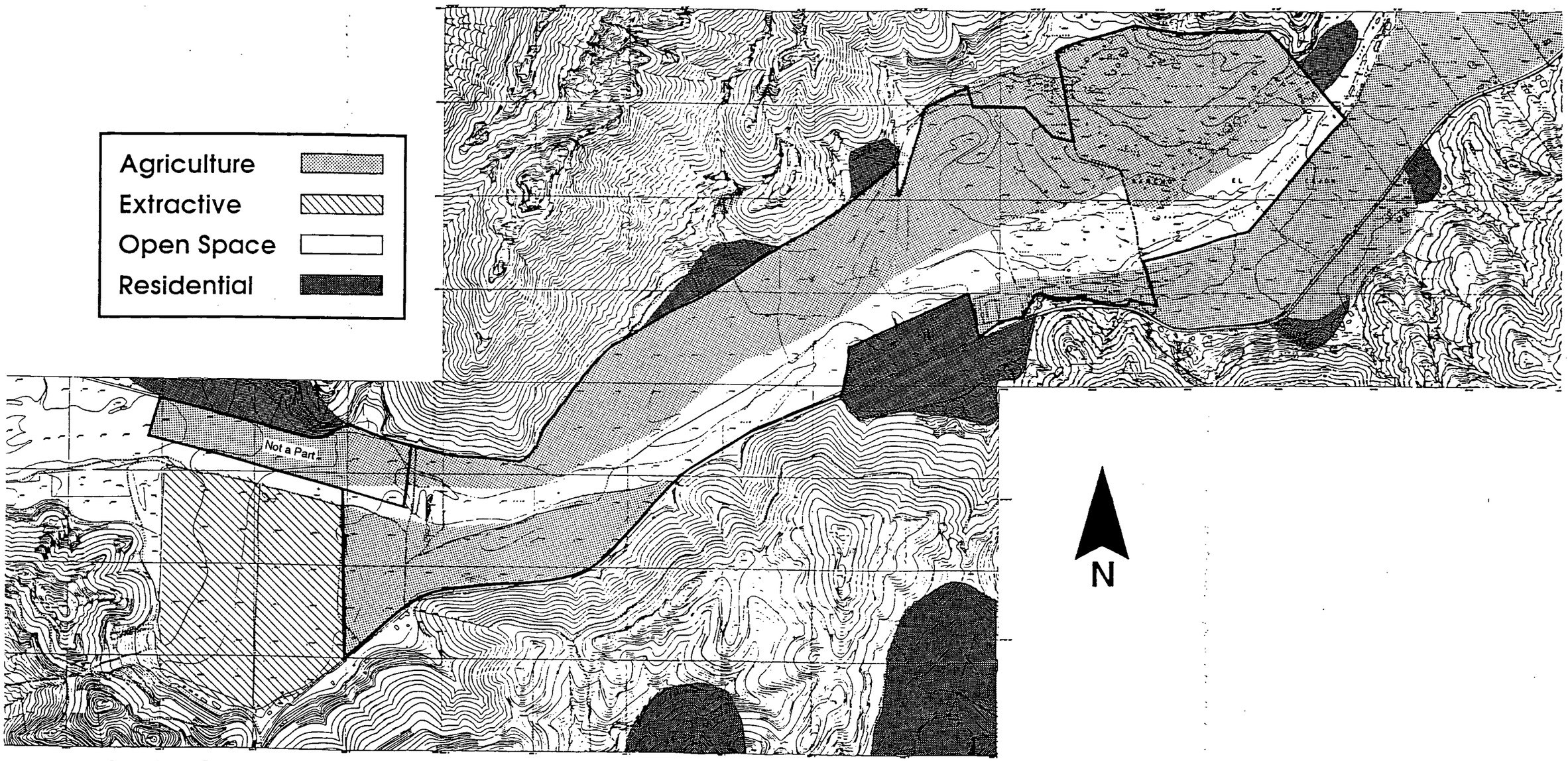
Following public comment on the Draft EIR, mitigation measure No. 5 above was added to Section 2.1.4 that required that the design of the maintenance facility be further changed to include relocating the compound approximately 900 feet to the east. This location is 900 feet farther away from the residence to the west that was previously 100 feet to the west of the facility. The closest residence to the relocated maintenance facility would be located approximately 200 feet to the west. This is the same residence that was previously approximately 200 feet to the southeast of the facility. In addition, the relocated maintenance compound is approximately 100 feet north of and 20 feet lower in elevation than El Monte Road compared to the previous location that was 50 feet north of and only several feet lower than El Monte Road. This elevation difference will further reduce the visual impact to motorists using El Monte Road (see Section 2.1.4 of the Final EIR and Figures 2.1-4 and 2.1-5).

Access to the maintenance compound would be taken from El Monte Road approximately 100 feet to the east of the structure. This new access would eliminate maintenance employee vehicle and delivery access from behind existing residences and further buffer any associated land use impacts to near by residences. With these land use mitigation measures and design changes in place, the project would not be considered to have a significant impact on nearby residences.

Proposed to the maintenance compound location, design, and access would reduce impacts to adjacent residences to below a level of significance.

No other significant adverse land use impacts were identified.

El Capitan Golf Course



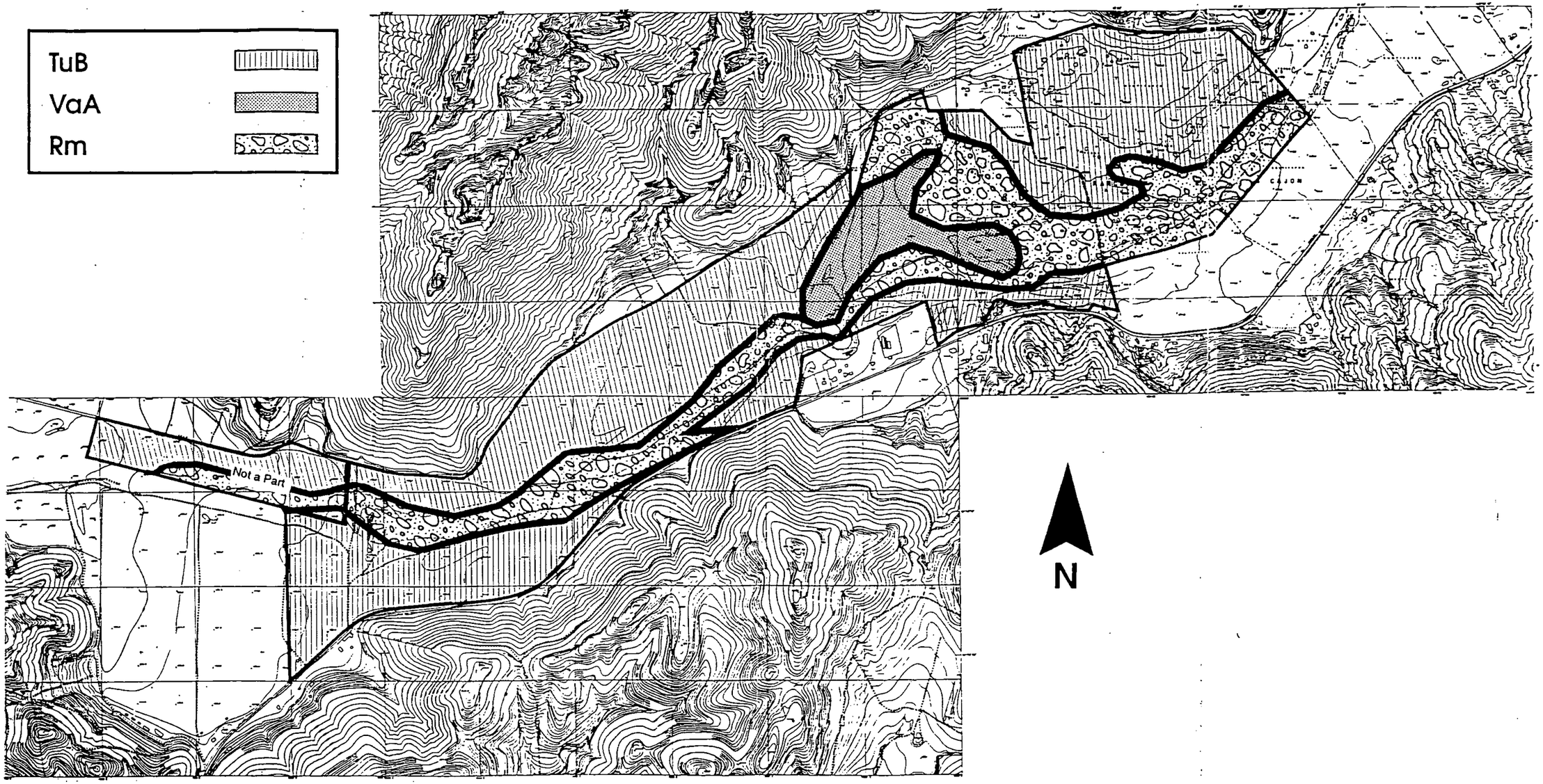
Scale: 1 inch = 1,100 feet

EnviroMINE

Existing Land Use

Figure 2.1-1

El Capitan Golf Course



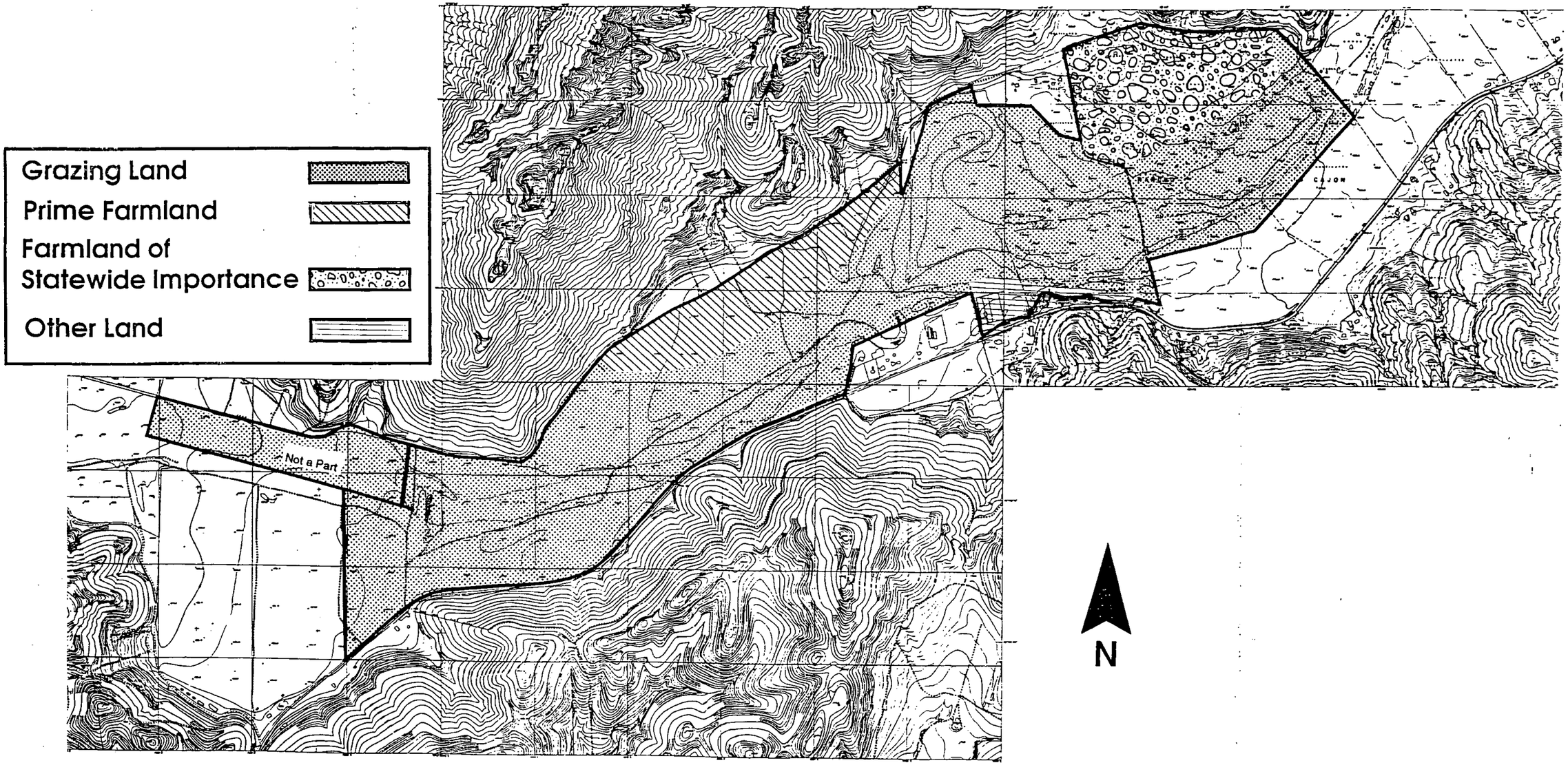
Scale: 1 inch = 1,100 feet

EnviroMINE

Soils Map

Figure 2.1-2

El Capitan Golf Course



Scale: 1 inch = 1,100 feet

EnviroMINE

Prime Farm Land

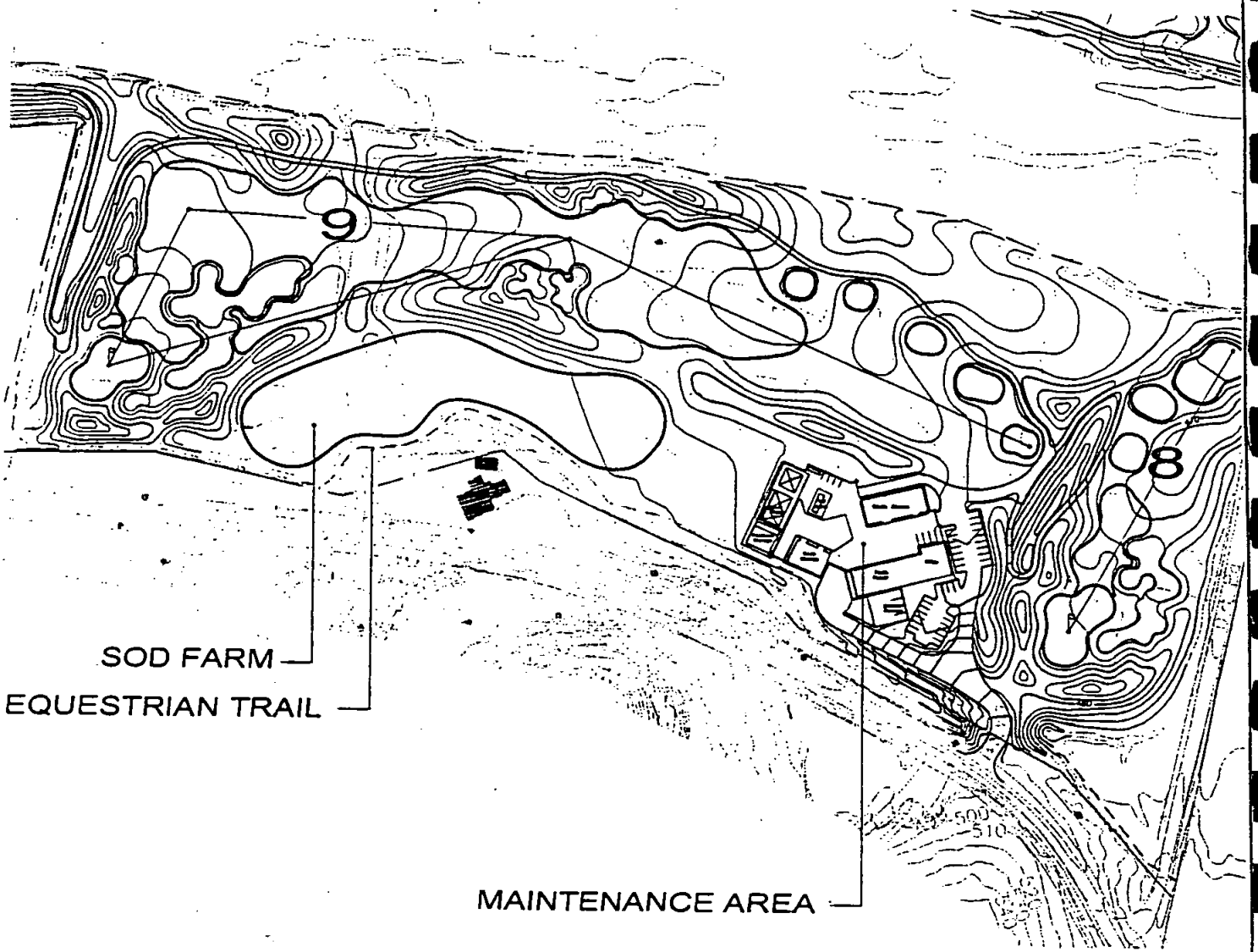
Figure 2.1-3

El Capitan Golf Course

MAINTENANCE AREA - REVISION

EnviroMINE | Redesigned Maintenance Facility | Figure 2.1-4

El Capitan Golf Course



EnviroMINE

Relocated Maintenance Facility | **Figure 2.1-5**

Project Site Soils Capability Unit and Crop Suitability

Map Symbol	Soil	Capability Class	Storie Index	Avacados	Citrus	Truck Crops	Tomatoes	Flowers
Rm	Riverwash	VIII	>10	********** Not Listed **********				
TuB	Tujunga sand, 0-5% slopes	IV	39	Good	*****	Fair (2)	*******	Good
VaA	Visalia sandy loam, 0-2% slopes	I	90	Good	Good	Good	Fair (2)	Good

Notes: Only arable soils are listed for crop suitability; dashes indicate soil is poorly suited or not suited to specified crop; numbers indicate adverse affects due to (1) slope, (2) surface layer texture, (7) permeability rate, (9) depth to hard rock, and (2/) permeability can be improved.

Table 2.1-2
Soils Capability Class Definitions

Class I.	Soils have few limitations that restrict their use.
Class II.	Soils have moderate limitations that reduce the choice of plants or that require moderate conservation practices.
Class III.	Soils have severe limitations that reduce the choice of plants, require special conservation practices, or both.
Class IV.	Soils that have very severe limitations that reduce the choice of plants, require very careful management, or both.
Class V.	Soils that are not likely to erode but have other limitations, impractical to remove, that limit their use largely to pasture or range, woodland, or wildlife habitat.
Class VI.	Soils have severe limitations that make them generally unsuited to cultivation and limit their use largely to pasture or range, woodland, or wildlife habitat.
Class VII.	Soils that have very severe limitations that make them unsuited to cultivation and that restrict their use largely to pasture or range, woodland, or wildlife habitat.
Class VIII.	Soils and landforms have limitations that preclude their use for commercial crop production and restrict their use to recreation, wildlife or water supply, or to aesthetic purposes.

Table 2.1-3
Soils Storie Index Descriptions

Index Rating	Grade	Suitability for General Intensive Agriculture
80 to 100	1	Few or no limitations restricting use for crops
60 to 80	2	Suitable for most crops; few special management needs; minor limitations narrowing choice of crops
40 to 60	3	Suited to a few or special crops; requires special management
20 to 40	4	Severely limited for crops; requires careful management
10 to 20	5	Not suited to cultivate crops; can be used for pasture and range
0 to 10	6	Not suited to farming

Source: Roy H. Bowman, Soil Survey of the San Diego Area, California (San Diego: United States Department of Agriculture Soil Conservation Service, 1973)

Table 2.1-4

Important Farmland Map Categories

PRIME FARMLAND
Farmland with the best combination of physical and chemical features able to sustain long term production of agricultural crops. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. The land must have been used for the production of irrigated crops at some time during the two update cycles prior to the mapping date.

FARMLAND OF STATEWIDE IMPORTANCE
Farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or with less ability to hold and store moisture. The land must have been used for the production of irrigated crops at some time during the two update cycles prior to the mapping date.

UNIQUE FARMLAND
Farmland of lesser quality soils used for the production of state's leading agricultural crops. This land is usually irrigated, but may include non irrigated orchards or vineyards as found in some climatic zones in California. The land must have been cropped at some time during the two update cycles prior to the mapping date.

FARMLAND OF LOCAL IMPORTANCE
Land of importance to the local agricultural economy, as determined by each county's board of supervisors and a local advisory committee that meets all the characteristics of Prime and Statewide, with the exception of irrigation. Farmlands not covered by the above categories but are of significant economic importance to the county. They have a history of good production for locally adapted crops. The soils are grouped in types that are suited for truck crops (such as tomatoes, strawberries, cucumbers, potatoes, celery, squash, romaine lettuce, and cauliflower) and soils suited for orchard crops (avocados and citrus).

GRAZING LAND
Land on which the existing vegetation is suited to the grazing of livestock. This category is used only in California and was developed in cooperation with the California Cattlemen's Association, the University of California Cooperative Extension Service, and other groups interested in knowing the extent of grazing activities. The minimum mapping unit for Grazing Land is 40 acres.

URBAN AND BUILT-UP LAND
Land occupied by structures with a building density of at least one unit to one and one-half acres, or approximately six structures to a ten-acre parcel.

2.2 Visual Quality

2.2.1 Existing Conditions

The project site is located within the El Monte valley which lies at the fringe of the community of Lakeside, a growing suburban community at the outskirts of the greater San Diego metropolitan area. The El Monte valley is a narrow valley formed by the westward flowing San Diego River.

Local physiography is characterized by steeply sloping hillsides rising to the north and south of the east/west trending El Monte valley. Of these hills, El Cajon Mountain (known locally as El Capitan Mountain) rises rapidly to the northeast and overlooks the valley floor. This mountain is a predominant element in the visual environment. El Monte valley is relatively narrow lowland area. The valley ranges from 4,000 feet in width near the eastern limits of the property to approximately 1,300 feet in width on the west. The valley floor is nearly level except for the river channel which bisects the valley. Here, a 10-foot deep by 300-foot wide floodway has been created by past sand extraction activities.

Vegetation in the project vicinity varies depending on land use and location. Brushy vegetation dominates the hillsides to the north and south of the site. These lands are steeply sloping with residential development limited to the lower margin adjacent to the valley floor. Vegetation within the historic San Diego River floodplain includes a mixture of riparian species (within the defined floodway), agricultural field crops, dry land cereal grains/pasture, and ruderal vegetation found in fallow fields. This mixture of vegetation on the valley floor gives the site a distinct characteristic of a rural river valley in southern California.

Land use in the project vicinity varies with location. The floodplain is predominantly developed for agricultural uses with residential uses limited to small inholdings. However, a number of exceptions do exist. These areas include a residential enclave just north of El Monte Road near the central portion of the project area. In this area, 9 homes and associated out-buildings are found south of the floodway on approximately 15 acres. In other areas of the valley, residential development is located to the south of El Monte Road, or to the north of Willow Road. In all cases, residential development is characteristic of a rural community showing evidence of equestrian and agricultural elements.

Agricultural uses dominate the visual environment. The majority of the lowlands adjacent to the floodway have been used extensively over the past for field crops and pastoral uses. These field crops include a variety of row crops used for oriental cuisine (e.g. bamboo shoots, chives, etc.). North of the floodway, much of the project property is used for dryland farming and as pasture for livestock. Although not located on the project property, the Van Ommerring Dairy is located immediately adjacent to the site on the north. The dairy operations include a number of residences, pasture, barns, and other outbuildings.

Other uses important to the visual environment include an active sand extraction operation located immediately adjacent to the site on the west. Although sand extraction is expected to extend southward toward El Monte Road, it is currently located at extensive distance from the roadway and does not attract attention.

Site Visibility

The subject property has a linear orientation and occupies an approximate 2-mile length of the valley floor. As such, the site has a broad area of visibility. Areas of visibility include vehicular traffic on El Monte Road and Willow Road, residential development within the valley adjacent to the site, and residential development at the crest of the ridge to the south of the site.

Clear and open views of the project site are available from all areas looking south from Willow Road. This is primarily due to the character of land use on the north side of the floodway. Cereal grains were farmed in this area during the winter and spring months followed by livestock pasturing in the summer and fall (Figure 2.2-1). Roadside vegetation elements which would screen views to the site are not common. In contrast, views from El Monte Road are restricted somewhat. Lands on the south side of the river valley are used for intensive agricultural production, and in some areas, riparian vegetation adjacent to the roadway screens views across the site to the north. At the west end of the site, views across the valley range from fallow agricultural fields to intensive cultivation of bamboo plants for use as bamboo sprouts. Views across fallow fields are unencumbered with exception of sparse roadside shrubs and weedy vegetation (Figure 2.2-2). In areas cultivated for bamboo sprouts, bamboo plants have grown to greater than 10 feet in height and screen near area views of the valley. Farther to the east along El Monte Road, views transition from a relatively open riparian corridor, through a concentrated residential enclave (Figure 2.2-3), to agricultural fields (Figure 2.2-4).

Residential development adjacent to the site generally enjoys short range views of the valley, with the prominent hillsides dominating the visual setting. Residential development located to the south of the site along the ridgeline includes only a limited number of viewers. These viewers are located along Quail Canyon Road and its adjoining residential roads. A number of residences are located west of the project site. These residences have an open view of the site which extends to the east, although the active sand extraction operations occupy the foreground (Figure 2.2-5).

Scenic Highways and Planning Policies

The most important views of the project site and the El Monte Valley are those associated with El Monte Road and Willow Road. Roadway travelers have a clear view of the rural valley environment from automobiles and bicycles as they transit through the valley enroute to El Monte County Park or El Capitan Reservoir along El Monte Road. Willow Road also provides scenic views although this roadway is less traveled. This is likely due primarily to its unpaved condition.

El Monte Road and Willow Road are identified as second-priority scenic routes in the Scenic Highways Element of the County General Plan. The Lakeside Community Plan further defines policies and recommendations for protection of the unique scenic values these roadways provide. These policies and recommendations include the following:

1. *Apply Scenic Area regulations to those scenic highway corridors identified in the General Plan and to areas adjacent to significant recreational, historic or scenic resources; including, but not limited to Federal and State Parks.*

2. *Provide for diverse modes of transportation in all scenic corridors.*

3. *Initiate a corridor study on the scenic route which runs along Willow and El Monte Road, from State Route 67 to the southern end of El Capitan Reservoir.*

4. *Do not permit development which will detract from those unique environmental features which are intended to be protected by virtue of being located within or in clear view of a designated scenic corridor.*

5. *Locate bikeways along designated scenic highways wherever possible.*

The Lakeside Design Guidelines provide further guidance with regard to protection of scenic roadways. These guidelines include:

- *Maintain the existing character of the scenic roads.*
- *Planted road edges are encouraged.*
- *Established, dominant tree species should be repeated in future plantings along a scenic road edge.*
- *Existing significant trees should be preserved whenever possible.*
- *On Scenic Roads, building setbacks in excess of minimum requirements are encouraged.*
- *Low walls of native stone, wooden rail fences, boulders and native rocks are encouraged.*
- *Retain existing land forms, stream beds, mature trees, and important rock outcroppings. When possible, driveways and underground utilities should be located to avoid destruction of important natural features.*
- *Enhance, rather than change, the qualities which are unique to the particular section of each road. If the road offers sweeping vistas, keep plantings either below 3 feet, or, in the case of trees, widely spaced clusters with branching patterns above 8 feet. Where roads wind through canyons, canopy trees can enhance the experience of being "enclosed." Planting native oaks or California Peppers along the road edge will provide an evergreen canopy over the roads. Shrubs of varying height may be used beneath the trees, but native grasses serve just as well.*

Development along scenic corridors must seek to embody these policies, recommendations, and guidelines.

2.2.2 Thresholds of Significance

The following are determined to be significant visual effects in terms of a) degree of visibility, b) degree of contrast, and c) number of residences (i.e., sensitive visual receptors):

- Physical change which is determined to be in substantial conflict with the visual character of the project area .

- Physical change which may preclude future compliance with the design criteria of the project area as defined by the design guidelines for the area.

- Physical change which will substantially affect the viewshed of a designated scenic highway.

- Physical change which will substantially degrade the quality of an identified visual resource, including unique topographic features, undisturbed native vegetation, and major drainages.

2.2.3 Analysis of Project Effects and Determination as to Significance

The project proposes the establishment of two 18-hole golf courses, a 9-hole practice facility, driving range, club house, and maintenance facilities on the project site. Construction of the golfing facility will require the elimination of existing agricultural crops; planting playing areas with lawns, native shrubs and trees; other types of landscaping, grading to establish ponds, fairways, course hazards, and greens; and construction of the club house and maintenance facilities.

The proposed golfing facility would change the visual environment in a variety of ways. The removal of agricultural crops followed by replacement with landscaping and lawns will change the character of the site from a rural/agricultural setting, to more of a park/recreational complex. Landform alterations can also change the visual character of a site and cause the viewer to pause at apparent anomalies in the surface configuration. The club house and maintenance facilities will also introduce buildings to an area that is currently used for livestock pasture/agricultural production, further altering the visual character of the site.

Visual analyses are generally quite subjective. To the resident that is familiar with an area, even slight changes in the visual environment will be noticeable and potentially significant. However, to the infrequent visitor, major changes in the landscape may be accepted as common place. Due to this subjectivity, it is important to use a systematic approach in analyzing the visual impacts of a proposed activity. The following methods are proposed for use in this evaluation:

Methods

The potential for visual impacts will be based on the following methods:

- The degree of visibility the proposed golfing facility would have from adjacent residences and roadways;

- The degree of visual contrast that the proposed golfing facility would have in the existing and future landscapes, based upon changes in line, form, bulk, color, and texture; and,

- The number of residents that would be within view of the proposed golfing facility.

2.2.3.a Degree of Visibility

Views of the proposed golf courses would be visible to a limited area given its location at the bottom of a narrow river valley. However the site is located directly adjacent to El Monte Road, a thoroughfare for visitors to El Capitan Reservoir and El Monte Park. Although daily roadway traffic volumes are quite low (2,300 ADT), visitors and residents of El Monte Valley have come to associate the valley with a rural agricultural community. Although no traffic counts are available, roadway travelers on Willow Road also enjoy views of the valley.

A number of nearby residents also enjoy broad views of the valley. These residents are generally located in close proximity to the site with view positions located slightly above the valley floor. Approximately 30 residences are located at positions just above the valley floor, providing views which extend across the valley. Of these residences, properties along Willow Road will notice the greatest changes as a result of the golf course. Currently, views from this area are largely unrestricted, with lands on the north side of the river channel used for livestock pasture. In most cases, no intervening vegetation is in place which would block views.

A number of other residences are located at roughly the same base elevation as the project site. These residences have restricted views of the site and are located on the southern perimeter of the site approximately 1.5 miles east of Lake Jennings Park Road. A total of 23 residences fall into this category, with nine residences congregated in an enclave located on the north side of El Monte Road. The remainder are located in more isolated locations, both east and west of these residences.

A number of residences will be able to view the golfing facility from upland areas south of El Monte valley (Figure 4.2-5). These residences are located (generally) along Quail Canyon Road and enjoy extensive long range views of the El Monte valley and other locations in Lakeside to the west, El Cajon Mountain to the north, and the Cuyamaca mountains to the east. In total, 15 residences in this area will have unrestricted (although incomplete) views of the golfing facility.

Impacts resulting from degree of visibility are not considered significant.

2.2.3.b Number of Residences

As described in the previous section, a total of 63 residences have full or partial views of the proposed golfing facility. None of the residences will have an unrestricted view of the facility due to intervening topography, and/or screening vegetation. In some cases, nearby residents will not be able to view the golf course due to screening vegetation or other structures located within their viewshed. Therefore, significant visual quality impacts to these sensitive receptors are not considered significant.

2.2.3.c Degree of Visual Contrast

The proposed golfing facility will change the visual environment and character of El Monte Valley. This will occur primarily as a result of the landscaping, planting of lawn areas and extensive watering to result in an overall greening of the valley floor will change the visual environment and character of El Monte Valley. Although these changes should not be viewed as negative influences, they would significantly

change the rural agricultural character of the project vicinity. This change would be most noticeable from Willow Road. From this view area, existing land use, as dryland grain (winter-spring) and livestock pasture (summer-fall), allows unrestricted views of an open undulating agricultural field. Development of the golf course would change this to provide variations in local relief, fairway separation with landscape buffers, and extensive lawn areas. This change would result in almost no change in line and form, although (depending on seasonal influence) the change in color would be substantial. During the dry season (May through December), annual grasses turn to brown and provide the predominant color in the visual backdrop. However, most viewers would welcome this change.

The eastern portion of the site, as viewed from Willow Road, would find high intensity use areas (i.e., driving range, maintenance facilities, parking lot, and club house). Views of these facilities would be readily visible from Willow Road and nearby residences in this area. Of these elements, the parking lot would result in a strong color contrast and if untreated by landscaping, would be considered a significant visual impact. The club house would result in slight changes in the line and form of existing visual conditions of the valley floor. Due to it's proposed position near the central portion of the site, and low elevation, these changes would only result in moderate changes from existing conditions. However, the parking lot is located directly adjacent to Willow Road and if not properly landscaped, the harsh appearance of the parking lot would represent a significant visual impact.

The maintenance facility is proposed for location immediately east of an existing residential enclave adjacent to El Monte Road. Many of these residences are large-lot rural-residential compounds (i.e., displaying prominent views of agricultural equipment, corrals, feed, etc.). Due to similarities of the maintenance facility (i.e., having horticultural equipment, piping, fertilizers, etc.) with existing development in this area, only limited differences from existing conditions should be expected. However, the maintenance building and other related structures would be partially concealed from the roadway and adjacent residences by landscaping and/or berming. Mitigation measures proposed for significant land use impacts would also reduce visual impacts.

Roadway travelers on El Monte Road would likely notice moderate changes in line and form due to the removal of the existing bamboo crops which occupy the western one-third of the project site. Removal of these visual elements would allow views for longer distances to the river channel and beyond. This change would allow views of play areas on the golf course. The use of liberal landscaping elements in this area would help to retain the existing visual conditions. However, eliminating the bamboo from this area should not be considered a significant adverse change from existing conditions. Agricultural crops have been placed in this area to the exclusion of native vegetation which once occupied the valley floor. The bamboo would be replaced by other types of green vegetation and the net effect would be to provide a visual environment similar to that which currently exists.

Further to the east along El Monte Road, riparian vegetation with interspersed annual grasslands occupy a "break-out" channel along the floodway. The proposed golf course would occupy this area resulting in the removal of portions of the existing vegetation. Much of this vegetation is the exotic "Salt Cedar", a noxious weed. Regardless of the character of the existing vegetation, the existing visual character would change from that of an undisturbed riparian woodland to that of an

intensive recreation use. These changes would be seen as moderate changes in color, and weak in line and form as grading requirements are minimal and no structures are planned which would block existing views.

Views from the residential enclave adjacent to the project site would not change significantly with exception of color contrasts. Introduction of the golf course would result in an overall "greening" of the valley. Dry season browns and yellows would be replaced by well watered lawn areas and landscaping. However, the club house and associated facilities are proposed directly north (approximately 800 to 1,000 feet) of this residential enclave. While these improvements will likely be visible from these residences, the changes would represent only weak changes in line and form as the predominant area of view are directed toward El Monte Road, away from the proposed club house and golf course. In addition, the low profile, abundant landscaping, and limited surface area will help to screen the club house and limit the overall effects of the changes to the existing visual environment.

Views from residences which overlook the valley from the south would change somewhat. These views currently include a patchwork of colors common to agricultural cropping, livestock facilities at Van Ommering Dairy, and sporadic residential compounds. This view would change through the elimination of the agricultural patchwork in favor of fairways and greens, ponds, and the club house and parking areas. This would represent a moderate change from the existing conditions, although the character of the valley would change significantly from these view areas. Although the character of this view would change substantially, the change is termed moderated due to the overall "greening" that will occur as a result of the introduction of landscaping and the establishment of extensive lawn areas. Construction of the club house and associated facilities would change the visual character of the northern portion of the valley, but these facilities would be placed at distances of greater than 2,000 feet from the overlooking residences. The distance from the viewer to the proposed club house, when combined with expected landscaping and extensive lawn areas, would help to mitigate any expected visual contrast that would occur. The landscaping and architectural design proposed by the project are proposed to comply with the Lakeside Community Plan and Design Guidelines.

Visual quality impacts resulting from degree of visual contrast are considered significant.

2.2.3.d Impact on Scenic Nature of Willow and El Monte Roads

As identified in Section 2.2.1 Existing Conditions, Scenic Highways and Planning Policies, the most important views of the project site and the El Monte Valley are those associated with El Monte Road and Willow Road. These roadways are identified as second-priority scenic routes in the Scenic Highways Element of the County General Plan. If not properly planned, the project has the potential to significantly impact views along these scenic routes.

Views from El Monte and Willow Roads are characterized by near-area agricultural impressions, with longer range views typical of the foothills found at the eastern fringe of urban development in San Diego County.

Agricultural/riparian images dominate the foreground. Existing visual conditions will change with the construction of the golf course as a result of grading to create play areas and ponds, construction of appurtenant facilities (i.e., club house,

parking lots, driving range, maintenance facility, and practice facility), and planting of turf and landscaping. These changes will affect near area views, but many viewers will see the overall greening of the valley as a positive change. Elements of the project which could detract from the existing visual environment include structural development.

The Club House is proposed to be an 18,000 square foot building located within a complex that will include a driving range and parking for approximately 400 automobiles. The Club House is designed to embody many of the Lakeside design guidelines. The building design includes variation in roof lines and earth tones are used for exterior colors. The variation in roof lines helps to reduce the bulk of the structure and lessen the effects of straight lines on a natural background. This feature will be strengthen by the use of earth tones on all exterior building surfaces. In addition, the Club House is proposed for the central portion of the property and will be partially screened from roadway views by abundant landscaping.

Although access is taken from El Monte Road, the parking areas are directly adjacent to Willow Road. The concept plan provides for plantings along the perimeter and evenly spaced within the parking lot (see Figure 1.1-5). Screening trees are proposed at the northern perimeter along Willow Road, but the proximity of the parking lot to the roadway has the potential to significantly impacts views from this scenic roadway. By respecting a minimum setback of approximately 30 feet and providing additional plantings within the buffer, significant impacts can be avoided.

The maintenance facility is located approximately 50 feet north of El Monte Road near the east end of the project site. In addition, two residences are located within 150 feet of this facility. As planned, the maintenance facility would be completely surrounded by a block wall and would have abundant landscaping and mounding between the building and the roadway and residences. These treatments are designed to reduce the signature of the structure from the roadway and residential viewers. In addition to landscaping, mitigation required for land use impacts would require redesign of the maintenance facility to reorient the structure on the site and provide visual relief through the architectural treatments (see Figure 2.1-4). These elements effectively reduce the potential for significant visual impacts.

The building for the practice facility is set back from the roadway approximately 150 feet. This building is designed to house a class room, snack bar, and restrooms. Like the club house and maintenance facility, the color of the exterior surfaces will be earth tones and abundant landscaping will partially screen the building. These elements reduce the potential for significant visual impacts.

Long range views will not be significantly impacted by construction of the golf course. El Cajon Mountain (El Capitan), a prominent visual feature, is visible from all areas of the project site except where roadside vegetation screens these views. Construction of the golf course will not significantly change the visibility of this natural topographic feature. Other long range views are those of the steep hill sides which surround the valley. Because the golf course is proposed for lowland areas of the valley, construction will not extend into upland areas.

Other scenic highway issues deal with the preservation of existing significant trees (oaks, sycamores). Wherever possible, the project proposes to preserve existing significant trees. However, screening tree plantings should endeavor to utilize natives where ever possible.

Because the project will result in near area changes to views from scenic roadways, it is important that landscaping/structural development respect the visual character of the Lakeside community and the El Monte valley. Due to the potential for the project to result in changes to the visual character of scenic roadways, impacts are seen as potentially significant.

2.2.4 Mitigation Measures

Mitigation for Impact 2.2.3.c, Degree of Visual Contrast and 2.2.3.d, Scenic Highways:

In conformance with the Lakeside Community Plan and Design Guidelines, the project should adopt the following mitigation measures to lessen the potential changes in visual contrast and significant impacts to scenic roadways.

1. Landscaping and proposed structures shall be designed in conformance with the Lakeside Design Guidelines. At a minimum, the following shall be required:

   a. Existing significant trees shall be preserved.

   b. If fences or walls (other than security fencing at specific golf course facilities) are proposed, low walls of native stone, wooden rail fences, wire fences, boulders and native rocks building materials shall be used.

   c. All utilities shall be placed underground in an effort to reduce visual clutter.

2. The landscaping plan shall provide for liberal use of trees along El Monte Road. Eighty percent of tree species shall be naturally occurring species typical of the valley (e.g. Oak, Sycamore, Willow, Cottonwood, etc.).

3. Landscaping along Willow Road shall respect the current open view corridors to the south of the site, with the exception of planting trees to screen off site areas from errant golf shots. Landscaping shall either be below three feet in height, or, in the case of trees, widely spaced clusters with branching patterns above eight feet in height.

4. The parking lot proposed for location adjacent to Willow Road shall be set back from the roadway a minimum of 30 feet with liberal use of landscaping planted within the buffer area and throughout the parking lot.

5. No buildings shall be placed within 50 feet of the edge of the pavement along El Monte Road.

6. The proposed maintenance facilities shall be constructed with materials typical of residential development in the Lakeside community. Building materials shall be consistent with the Lakeside Design Review Guidelines.

Landscaping shall be used to screen and buffer views from adjacent residential development.

7. Adherence to Section 2.1.3.c Mitigation for Land Use Impacts shall be a requirement of the building and grading permit.

2.2.5 Conclusions

As proposed, the project would result in significant changes to the existing visual environment. These changes would result in a definite transition from a rural agricultural environment to that of a manicured recreational environment. Although most viewers would not consider these changes to be adverse, adherence with the mitigation measures identified above would limit any negative effects which could otherwise occur. No residual significant impacts would be expected.

Adoption of the identified mitigation measures will reduce impacts to below a level of significance.

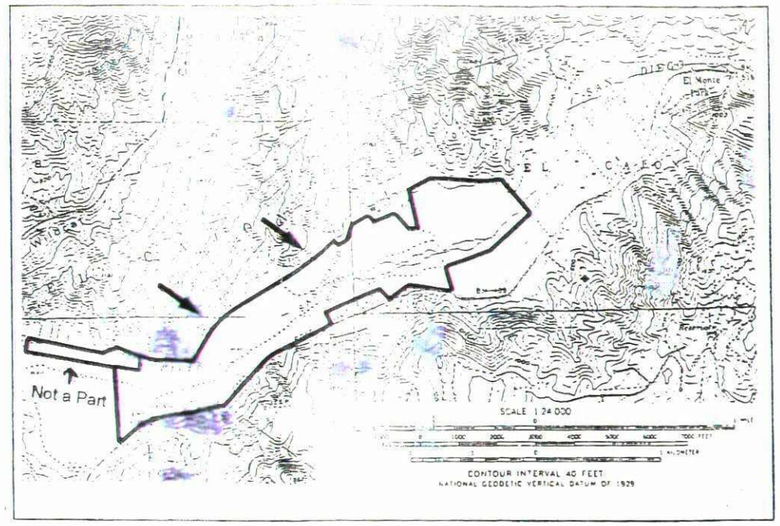
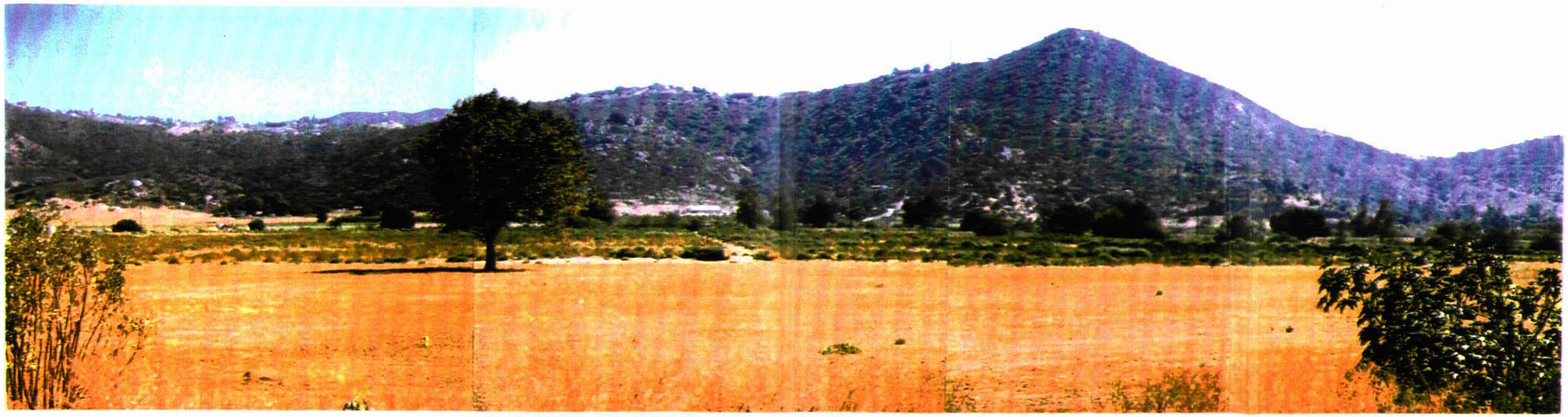


Photo Locations



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Views Looking Southeast from Willow Road

Figure 2.2-1

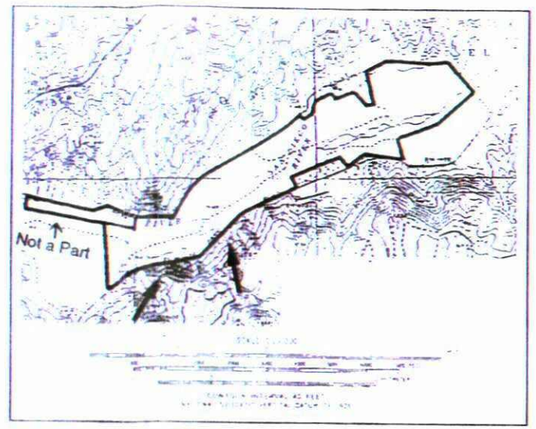


Photo Locations

EnviroMINE

Views Looking Northeast from El Monte Road

Figure 2.2-2

El Capitan Golf Course

Looking Northeast from El Monte Road

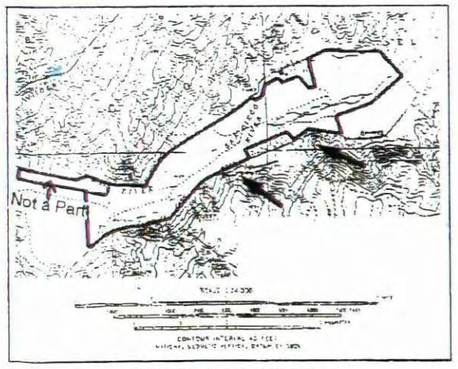


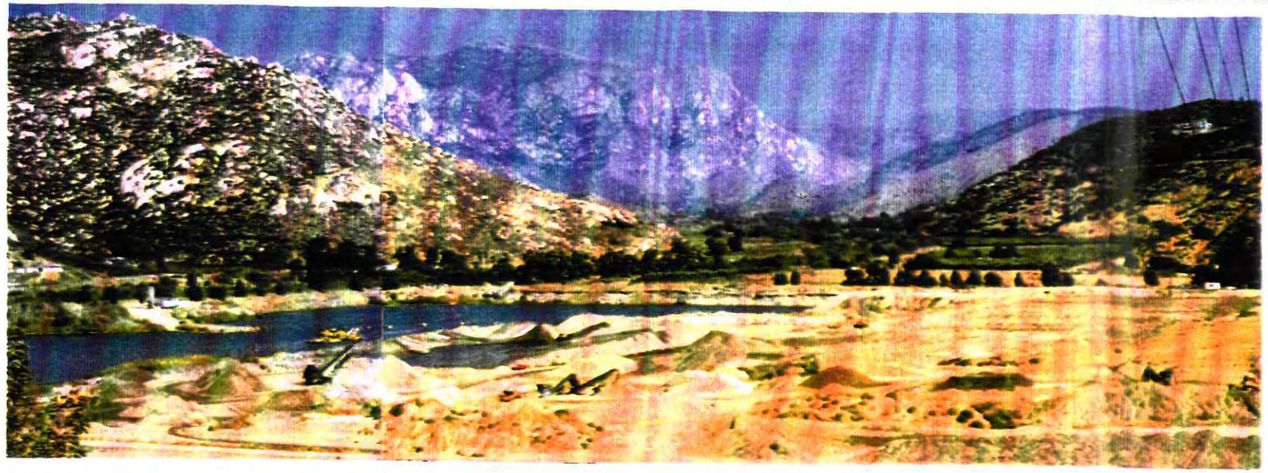
Photo Locations

EnviroMINE

Views from El Monte Road

Figure 2.2-3

El Capitan Golf Course



Looking East from Residents to West

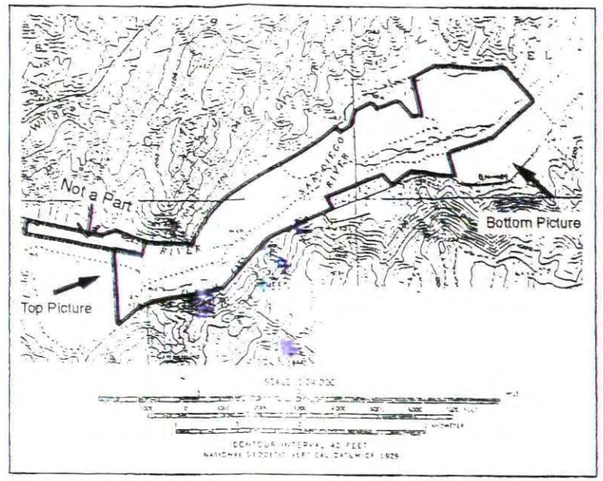


Photo Locations

Looking Northwest from Quail Canyon Estates

EnviroMINE

Residential Views

Figure 2.2-5

El Monte Golf Course

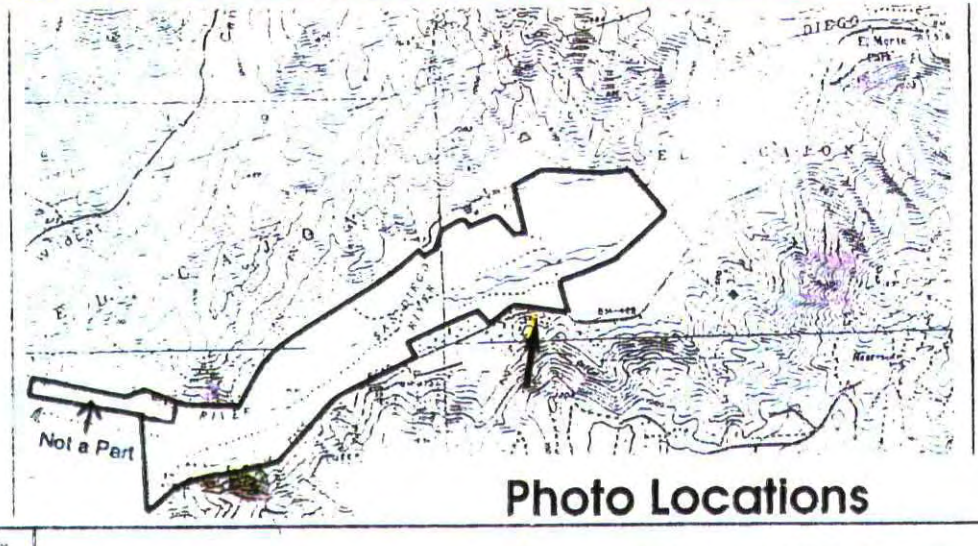


Photo Locations

EnviroMINE

View Looking Northeast from El Monte Road

Figure 2.2-4

2.3 Traffic/Circulation

This evaluation is principally based on the *El Monte Golf Course Traffic Impact Study* (Katz, Okitsu & Associates, 1996, revised August, 1998.) prepared for the proposed project. Field reconnaissance of the project area, aerial photos and maps, and review of applicable planning documents (e.g., San Diego County General Plan, Lakeside Community Plan) were also used in this evaluation.

The study approach for this analysis includes documentation of existing traffic/circulation conditions in the project study area, and a determination of potential project-related impacts. This analysis consists of 1) an evaluation of daily roadway segment operations, and 2) peak hour intersection operations during morning and evening peak hours. The following conditions are included in this traffic/circulation analysis:

- Existing Conditions (year 1996)
- Future Conditions (year 1998)
- Future Conditions with the Project (year 1998)

Existing average daily traffic data was obtained from the County of San Diego Traffic Engineering Division, and the San Diego Association of Governments' *San Diego Region Average Weekday Traffic Volumes 1991-1995* (April, 1996). Supplemental traffic counts were conducted specifically for this analysis in August, 1996.

Based on input from the San Diego County Department of Planning and Land Use, the key issues addressed in this analysis are the impact of the project on the daily and peak hour operations on the nearby circulation system. This analysis also addresses potential access-related problems to the project site.

2.3.1 Existing Conditions

The project is located in the unincorporated jurisdiction of the County of San Diego, as shown on the project location map (Figure 1.1-1). The project site is located approximately three miles north of Interstate 8, two miles east of State Route 67, and one and one-half miles west of the El Capitan Reservoir dam. The project area is situated at the eastern fringe of a rural community known as Lakeside, California. The project would be accessed from El Monte Road, approximately two miles east of Lake Jennings Park Road.

Existing Roadways in the study area include State Route 67, Mapleview Street/Lake Jennings Park Road (SA810), Julian Avenue/El Monte Road (SA1910), and Willow Road. These roadways are described below, and shown on Figure 2.3-1.

Description of Existing Roadways

State Route 67. State Route 67 is classified as a freeway on the County of San Diego's Circulation Element. This roadway provides north-south access from Interstate 8 (I-8) to the community of Ramona, where it meets State Route 78. Traffic volumes on SR 67 average 24,500 vehicles daily (ADT). At the intersection of Mapleview Street, State Route 67 crosses at grade, with traffic signals controlling each approach.

Mapleview Street/Lake Jennings Park Road (SA810). Mapleview Street (SA810) extends west to east from Channel Road to its terminus east of Vista Del Capitan. Between Channel Road and SR 67, Mapleview Street is a two-lane roadway. Where it has four travel lanes, Mapleview Street carries approximately 7,000 ADT and is separated by a double yellow stripe in most locations. East of SR 67, Mapleview Street is classified as a Prime arterial and carries approximately 20,400 ADT. Improvements to Mapleview Street in this location include a curb, gutter, sidewalk, and striping for a bike lane, but no on-street parking is allowed. East of Pino Drive, Mapleview Street runs eastward as an unclassified residential collector to its terminus just past Vista del Capitan.

The intersection of Mapleview Street at State Route 67 is located less than 120 feet east of its intersection with Maine Avenue. The next intersection to the east, Vine Street, is located less than 100 feet from Maine Avenue. Left turns to and from Vine Street are currently prohibited by permanent-type channelizers imbedded in the center of Mapleview Street. The combination of the short left turn lane for westbound vehicles on Pine Avenue and long delays for vehicles accessing State route 67 at grade result in blockage of Maine Avenue in this area. The County has attempted to ease this congestion by prohibiting left turns in and out from Vine Street.

Lake Jennings Park Road serves as the extension of SA810 where Mapleview Street diverges to the east. Lake Jennings Park Road is classified as a Prime Arterial on the County's Circulation element between Mapleview Street and El Monte Road (SC1910). Between Mapleview Street and El Monte Road, Lake Jennings Park Road is currently constructed as a four lane Major Arterial. The roadway has a bike lane and is separated by a painted median in this area. Generally, curb, gutter, and sidewalk improvements are in place, but no on-street parking is allowed.

Lake Jennings Park Road is classified as a Major Street from El Monte Road south to Jack Oak Road, and is constructed with two lanes southbound and one lane northbound. Northbound and southbound traffic are separated by a painted double yellow stripe. No curb, gutter, or sidewalk improvements are in place, and on-street parking is not allowed. In the immediate study area, daily traffic volumes on Lake Jennings Park Road north and south of Julian Avenue/El Monte Road were found to be 9,900 and 11,150 ADT, respectively. South of Jack Oak Road, Lake Jennings Park Road narrows to one lane in each direction, separated by a painted yellow stripe.

Julian Avenue/El Monte Road (SA1910). Julian Avenue (SA1910) provides east-west connection from Channel Road (SC1910) to El Monte Road. From Lake Jennings Park Road to Los Coaches Road (SF1400), Julian Avenue is classified as a Light Collector and accommodates 9,000 ADT on two travel lanes separated by a pained double yellow stripe. On-street parking along Julian Avenue is not allowed. From the intersection of Julian Avenue to Lake Jennings Park Road to approximately 400 feet west, curb, gutter, and sidewalk improvements are in place. Westbound from this point, the roadway is unimproved, except at intersections.

El Monte Road (SA1910) continues eastward from Lake Jennings Park Road and provides access to the El Capitan Reservoir and the project site. El Monte Road is classified as a Light Collector roadway and carries approximately 2,300 ADT. El Monte Road is striped for two lanes of traffic, separated by a double yellow painted stripe. No sidewalks, curbing, or gutter improvements are in place.

Willow Road. Willow Road (SA820) runs parallel and to the north of El Monte Road, north of the San Diego River. Classified as a Light Collector facility, Willow Road provides access to SR-67 and continues eastward past Wildcat Canyon Road and the southern portion of the Louis A. Stelzer County Park. East of the park property, the Willow Road extension is an unpaved roadway along the northern edge of the project site. Willow Road crosses the river and connects to El Monte Road through the Van Ommerring Dairy. Willow Road is a private road from the east end of Stelzer County Park.

Existing Daily Roadway Segment Performance

Daily roadway segment performance is typically expressed in terms of volume-to-capacity ratios (v/c) and Level of Service (LOS). Level of service is a qualitative measure of traffic operations and driver perception, ranging from LOS A (free flow) to LOS F (forced flow) Figure 2.3-2. For a more detailed explanation of the various levels of service, refer to Appendix B, *El Monte Golf Course Traffic Impact Study*.

The County of San Diego General Plan Public Facility Element states that LOS C is the minimum desired level of service for County roads. To determine existing and future service levels on study area roadway segments, the traffic engineer compared the County's adopted ADT thresholds for LOS, the daily capacity of the study area roadway segments, and existing traffic volumes in the study area. Table 2.3-1 summarizes the result of this comparison.

As shown in Table 2.3-1, the Julian Avenue, west of Lake Jennings Park Road, ~~and Lake Jennings Park Road between El Monte Road and I-8,~~ roadway segments currently exceeds ~~their~~ LOS capacity. A supplemental analysis was performed (Darnell and Associates, 12/7/98) to address conformance with County General Plan Public Facility Element Objective 1, Implementation Measure 1.1.3. This analysis is included in the Final EIR in the Technical Appendices. The analysis addresses the level of service on the segment of Lake Jennings Park Road north of Interstate 8. This two lane segment of roadway was re-analyzed using the PM Peak hour traffic volumes, as presented in the Technical Appendices of the Draft EIR, and the Highway Capacity Manual methodology. The segment was examined under two scenarios: 1) Existing Conditions, and 2) Existing Conditions Plus Project Conditions. The result of the analysis found that the actual operational level of service during the period of highest hourly volumes is D, not E as originally reported in the Draft EIR, as would be indicated by the application of the County Public Road Standards Level of Service Table. Therefore, the level of service for this segment of Lake Jennings Park Road will operate at an acceptable level of service under both of these scenarios. The remaining study area roadway segments meet the criteria for LOS C or better under existing volumes.

Existing Peak Hour Intersection Performance

Worst-case conditions for peak hour traffic volumes were assumed for this study. Like roadway segment performance, peak hour intersection performance is also expressed in terms of Level of Service, and ranges from LOS A (little delay) to LOS F (excessive delay). Existing peak hour volumes are shown in Figure 2.3-3 and Table 2.3-2, which present peak hour intersection performance of the study area intersections. Under existing traffic conditions, each study intersection operates at LOS C or better during peak hours.

Future Daily Roadway Segment Performance - Without Project Conditions

Using the County of San Diego's adopted ADT thresholds for LOS, the daily capacity of the study area roadway segments were determined and compared to the forecast future volumes for a scenario without the anticipated project effects. Table 2.3-3 summarizes the results of this comparison.

Without any planned improvements, the same two roadway segments found to be deficient under existing traffic volumes are expected to exceed their respective LOS capacities in the future without the addition of project trips. These segments are Julian Avenue, west of Lake Jennings Park Road, and Lake Jennings Park Road north of I-8. The remaining study area roadway segments operate at LOS C or better under forecast future daily volumes.

Under existing and future conditions (without any additional traffic demands associated with the project), the following roadway segments would continue to operate at less than desirable levels:

- Julian Avenue (SC1910), west of Lake Jennings Park Road (LOS D for existing and future conditions).
- Lake Jennings Park Road (SA810), north of I-8 (LOS ~~E~~ D for existing LOS E for ~~and~~ future conditions).

As stated earlier, a supplemental analysis was performed (Darnell and Associates, 12/7/98) to address conformance with County General Plan Public Facility Element Objective 1, Implementation Measure 1.1.3. This analysis is included in the Final EIR in the Technical Appendices. The analysis addresses the level of service on the segment of Lake Jennings Park Road north of Interstate 8. This two lane segment of roadway was re-analyzed using the PM Peak hour traffic volumes, as presented in the Technical Appendices of the Draft EIR, and the Highway Capacity Manual methodology. The result of the analysis for existing conditions found that the actual operational level of service during the period of highest hourly volumes is D, not E as originally reported in the Draft EIR, as would be indicated by the application of the County Public Road Standards Level of Service Table. Therefore, the level of service for this segment of Lake Jennings Park Road operates at an acceptable level of service under this scenario.

Future Peak hour Intersection Performance - Without Project Conditions

Table 2.3-4 and Figure 2.3-4 summarize the peak hour intersection performance of the study intersections. Accordingly, the addition of assumed growth/development in the study area has little adverse effect on the peak hour operations in the project vicinity.

Existing congestion would continue to occur in the vicinity of the SR 67/Mapleview Street intersection. This condition could be resolved if Caltrans were to continue the freeway to the north and grade separate the interchange at Mapleview Street. This condition is discussed in the Lakeside Community Plan.

2.3.2 Thresholds of Significance

Traffic analysis methodologies are typically described in terms of the concept of "Level of Service," (LOS). This concept is fundamental to many forms of traffic

analysis. Level of service measures are a method of quantifying the degree of freedom or restriction roadway users experience. Level of Service is a scale ranging from A to F which describes the varying conditions on a roadway during a specific time interval of study.

The following is determined to be a significant project-related traffic impact:

- In accordance with County of San Diego minimum peak-hour intersection standards, significant traffic impacts would occur if project-related effects result in levels of service (LOS) of peak-hour intersections to drop from LOS D to LOS E or lower.

2.3.3 Analysis of Project Effects and Determination as to Significance

2.3.3.a Impacts to Future Conditions With the Project

Trip Generation

Currently, the site for the proposed project generates only a small number of trips. Therefore, any future development of the site would necessarily result in an increased level of traffic activity in the project vicinity.

Any traffic that can be attributed to the proposed project site is known as "project-related" traffic, as shown on Figure 2.3-5. Project-related traffic consists of trips on the street system which begin or end on the project site as a result of the development of the proposed project. Project-related traffic is a function of the extent and type of development proposed for the site. This information is used to establish trip generation for the site.

Vehicular traffic generation characteristics for projects are normally estimated based on rates in the standard trip generation manuals. These manuals provide standards and recommendations for the probable traffic generation for various land uses based upon nation-wide and local studies of existing developments in comparable settings. Based on this, the estimated trip generation rates for the proposed project were assigned to the surrounding circulation network by the project traffic engineer. This assignment accounted for existing land uses in the project area and the most likely routes patrons of the new golf course would take to access the site.

Trip generation is a measure or forecast of the number of trips which begin or end at the project site. All, or part, of these trips will result in traffic increases on the streets where they occur. Table 2.3-5 summarizes the daily and peak-hour trip generation assumptions for the golf course. Through the addition of two 18-hole golf courses and a 9-hole practice facility, the proposed golf course would generate 1,500 average daily trips. This estimated traffic volume was assigned to the surrounding circulation network. It is assumed that all project-related trips would enter and leave the site via the Lake Jennings Park Road (SA810)/El Monte Road (SC1910) intersection.

It is estimated that eleven percent of the project-related trips would enter and leave the local circulation network from the north, via State Route 67, five percent from the west on Mapleview Road (SA810), fifteen percent from the southwest on State Route 67, twenty three percent from the west on Julian Avenue (SC1910), fifteen percent from I-8 to the west, twenty-six percent on I-8 to the east, and

finally five percent from the south on Old Highway 80. Figure 2.3-6 shows project trip distribution for the local circulation network. The amount of morning and afternoon peak hour traffic that would be added by the project (project trip assignment) was referenced earlier in Figure 2.3-5. It is not expected that any substantial amount of project-related traffic would access the site via the Willow Road/Van Ommerring Dairy route.

Roadway Segment Conditions

Typically, the addition of even one average daily trip to a roadway segment that is already operating at less than acceptable levels could result in a significant impact. However, it is important to note that LOS values reflect the County of San Diego's adopted guidelines for various functional classes of roadways. The values are not intended to serve as an exact description of the actual operating conditions on a particular roadway segment. The capacity of roadway facilities is affected by a number of factors, including pavement width, access to cross streets/driveways and related turning movements, intersection signal timing and geometry, and on-street parking. The actual functional capacity of urban facilities is based on the ability of arterial intersections to accommodate peak-hour volumes. Efficient designs of intersections to achieve acceptable LOS could result in higher capacities for roadway segments. Thus, volumes in excess of assigned LOS values can occur on arterial segments while still accommodating peak-hour traffic at acceptable circulation performance.

The daily roadway segment analysis is a useful planning guideline to indicate where further analysis may be required and provides technical support for the sizing of Circulation Element facilities in general terms. However, peak-hour intersection LOS provides the primary source of information on which actual circulation performance is judged.

Daily and peak hour project-related traffic were added to the future volumes to determine the impact of the project on future conditions. Using the County of San Diego's adopted ADT thresholds for LOS, and other factors, the daily capacity of the study area roadway segments were determined and compared to the forecast future volumes with project effects. Table 2.3-3 summarizes the results of this roadway segment comparison. Figure 2.3-7 presents the future conditions on study area roadway segments with the project.

The proposed golf course project would add approximately 1,500 additional ADT to the project vicinity circulation network. Under existing and future conditions (with and without any additional traffic demands associated with the project), the following roadway segments would operate at less than desirable LOS:

- Lake Jennings Park Road (SA810), north of I-8 (LOS ~~E~~ D for existing, LOS D for existing plus project conditions, LOS E for future without project, and LOS E for future with project conditions). Existing ADT is 11,800. Future increases (1998) over existing conditions without the project will be approximately 1,290 ADT (13,090). Future increases (1998) with the project will be approximately 1,980 ADT (13,780). Future with project increases (1998) over future without project increases would therefore be an additional 690 ADT. The project represents only a 6 percent increase to the existing traffic on this road segment.

- Julian Avenue (SC1910), west of Lake Jennings Park Road (LOS D for existing, future without project, and future with project conditions). Existing ADT is 9,000. Future increases (1998) over existing conditions without the project will be approximately 790 ADT (9,790). Future increases (1998) with the project will be approximately 1,135 ADT (10,135). Future with project increases (1998) over future without project increases would therefore be an additional 345 ADT.

As stated earlier, a supplemental analysis was performed (Darnell and Associates, 12/7/98) to address conformance with County General Plan Public Facility Element Objective 1, Implementation Measure 1.1.3. This analysis is included in the Final EIR in the Technical Appendices. The analysis addresses the level of service on the segment of Lake Jennings Park Road north of Interstate 8. This two lane segment of roadway was re-analyzed using the PM Peak hour traffic volumes, as presented in the Technical Appendices of the Draft EIR, and the Highway Capacity Manual methodology. The segment was examined under two scenarios: 1) Existing Conditions, and 2) Existing Conditions Plus Project Conditions. The result of the analysis found that the actual operational level of service during the period of highest hourly volumes is D, not E as originally reported in the Draft EIR, as would be indicated by the application of the County Public Road Standards Level of Service Table. Therefore, the level of service for this segment of Lake Jennings Park Road will operate at an acceptable level of service under both of these scenarios.

In order to achieve an acceptable LOS on Lake Jennings Park Road (SA810), north of I-8, the roadway would need to be improved to at least four-lane Collector standards. Since this roadway is classified in the General Plan as a Major Road, this would be an interim improvement. Because this roadway segment is physically constrained (e.g., along the earthen face of Chet Harritt Dam), no feasible mitigation is available.

The projected level of service on Lake Jennings Road does not represent actual conditions. This segment of roadway is approximately 64 feet wide with limited access and few side obstructions. In addition, there is no parking on either side of the roadway and there are intersection improvements to handle the peak-hour demands, allowing an improved flow of traffic compared to other roadways having similar ADT. Because of these factors, circulation performance is better than typically associated with LOS D. The project would have only a minor and incremental increase of traffic on this roadway segment. Therefore, the project would not have a significant impact on this roadway segment.

As shown in Table 2.3-3, the addition of project-related trips slightly increases daily traffic demand on study area roadways, but it does not significantly change the overall level of service on any other roadway segment.

Peak-Hour Intersections

As shown in Table 2.3-4, all of the study area intersections would operate at LOS D or better during peak hours with the addition of future without project and future with project traffic. Figure 2.3-8 shows intersection conditions with project implementation. Since the County's minimum standard for peak hour intersections is LOS D, no significant project-related impacts would occur for intersections at peak hours. Since a true indication of roadway conditions is determined by peak hour operations at arterial intersections, and since no study area intersection was found to operate below the County of San Diego standard of

LOS D under existing and near-term future conditions with or without the project, no significant impacts from the project are expected.

Existing congestion would continue to occur in the vicinity of the SR 67/Mapleview Street intersection. This condition could be resolved if Caltrans were to continue the freeway to the north and grade separate the interchange at Mapleview Street. This condition is discussed in the Lakeside Community Plan.

2.3.3.b Project Site Access

The project would take access from El Monte Road, with one main driveway on the north side of El Monte Road to the club house with another access to the golf clinic area. Given the speeds and curves on El Monte Road, the main project driveway should either align with Miss Ellie Lane on the south side of El Monte Road, with opposing left turn channelization provided, or provide enough site distance to allow for safe turning movements. Site access impacts are considered significant.

The provision of a northern leg to this existing intersection at Miss Ellie Lane provides an opportunity to enhance visibility for vehicles entering the roadway from the opposite side. A solid granite bluff exists on the south side of El Monte Road west of Miss Ellie Lane. Therefore, the widening of El Monte Road to provide left turn channelization may require moving the center of the road to the north at this location to achieve sight distance.

The project site can also be accessed by way of Willow Road, which borders the site to the north. Although Willow Road is identified as a Circulation Element facility, there is little impetus for developing an additional access route through El Monte valley. However, should this unlikely scenario eventuate, it would be necessary to acquire sufficient right-of-way to accommodate the ultimate improvements of this roadway to Light Collector standards. Albeit remote, it may be necessary to dedicate sufficient right-of-way to the County of San Diego for the ultimate improvements to the Willow Road Extension abutting the northern boundary of the project site.

2.3.4 Mitigation Measures

The following mitigation measures are required as conditions of permit approval and, when implemented, would reduce significant project-related impacts to a level below significance:

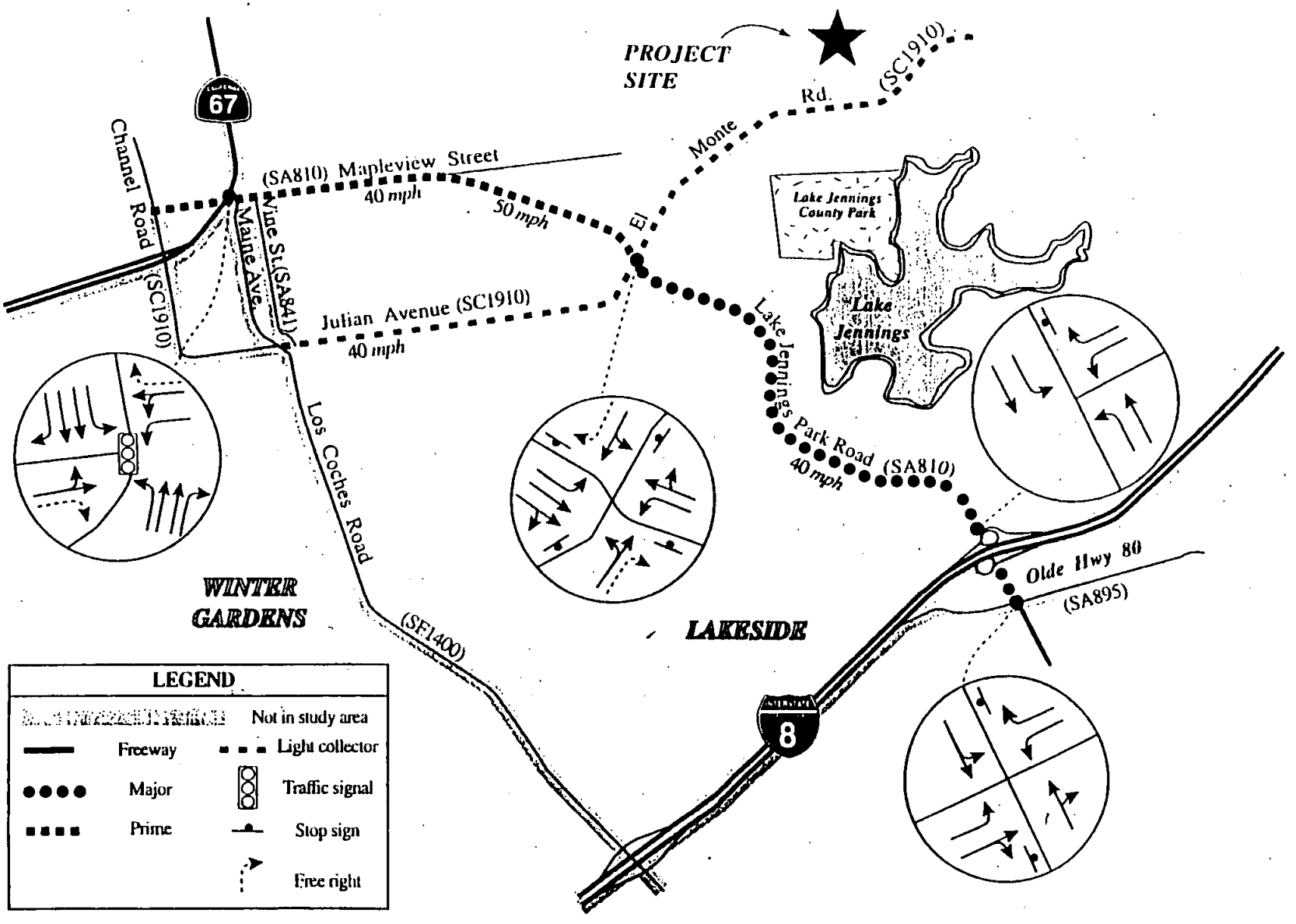
Mitigation for Impact 2.3.3.b: Project Site Access

1. Design project access driveways and channelization to the satisfaction of the Director of Public Works. Figure 2.3-9 illustrates site access changes made to the golf clinic training facility to improve site distance/visibility.

2.3.5 Conclusions

Implementation of the proposed mitigation measures would reduce all traffic impacts to a level below significance. No other significant impacts were identified.

El Capitan Golf Course

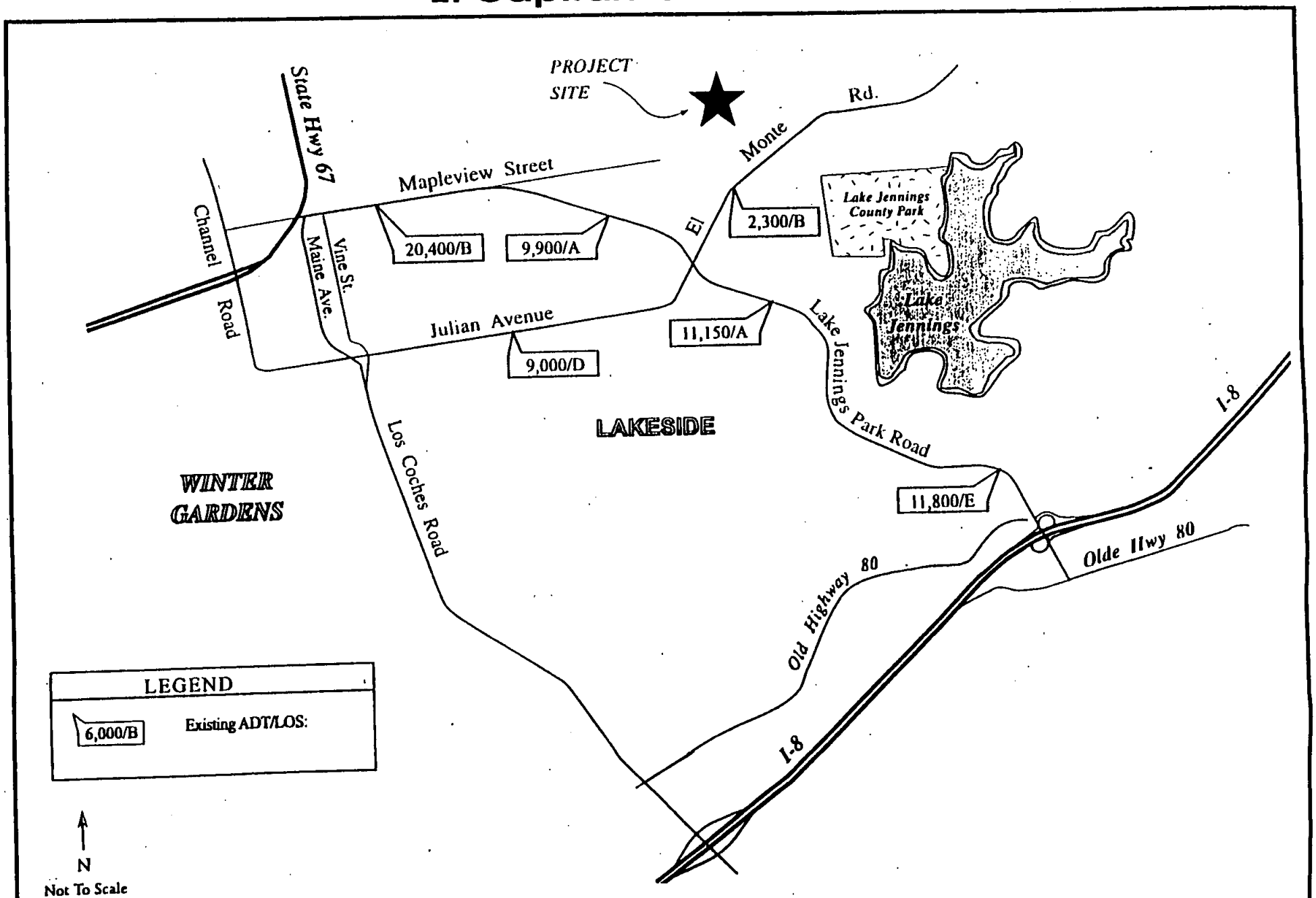


EnviroMINE

Existing Circulation Network

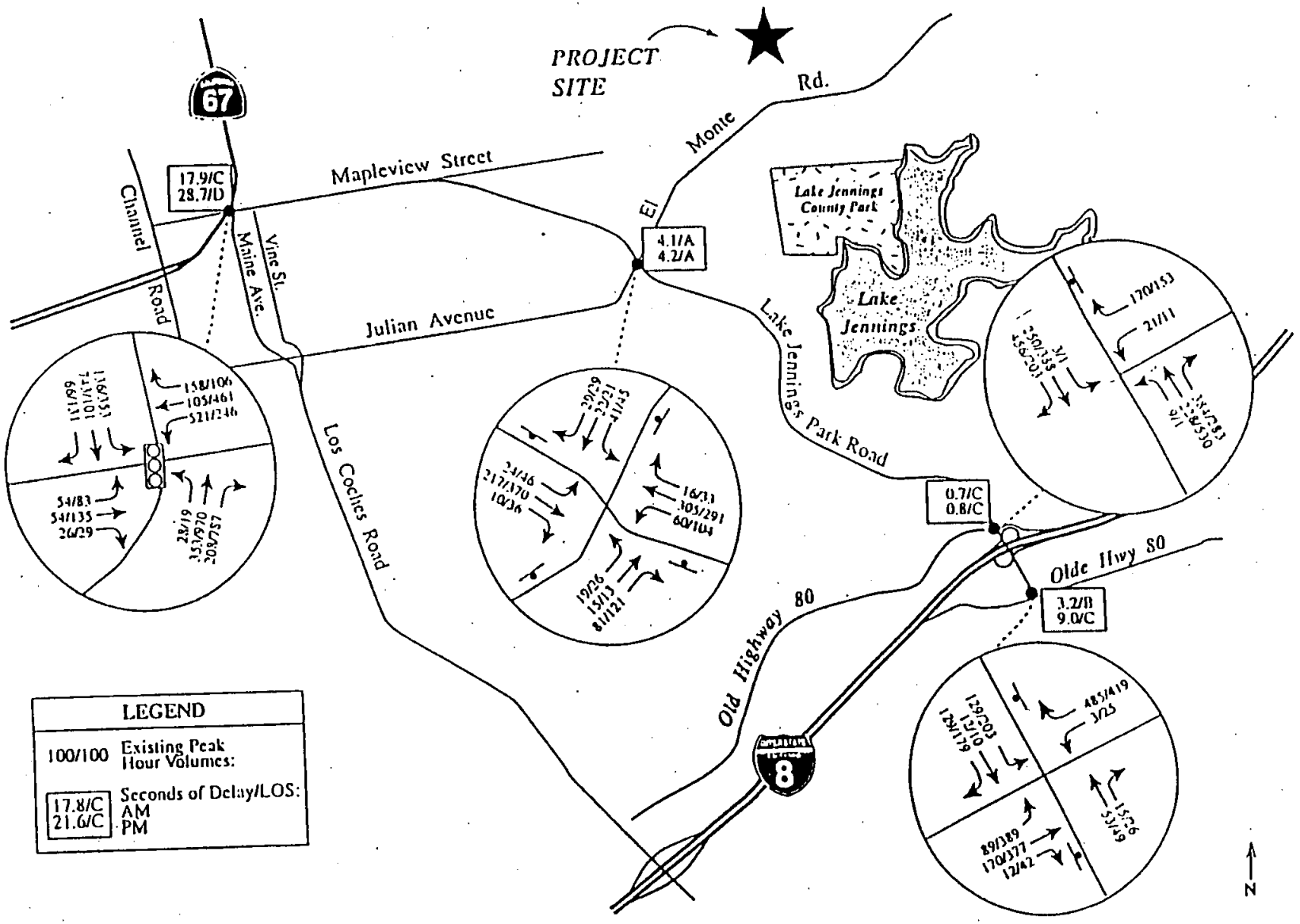
Figure 2.3-1

El Capitan Golf Course



Existing Roadway Segment Conditions

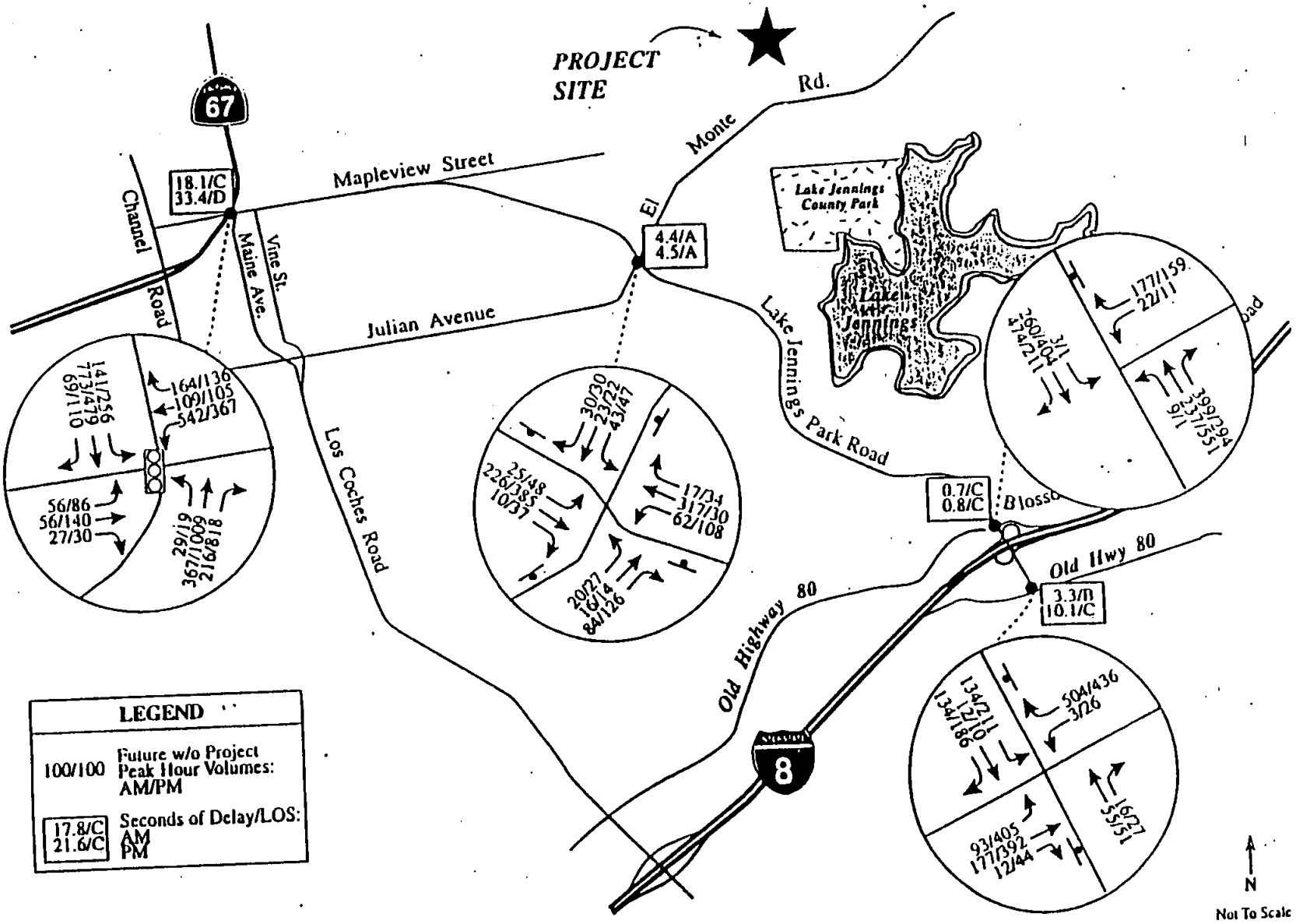
Figure 2.3-2



Peak Hour Intersection Conditions

Figure 2.3-3

El Capitan Golf Course



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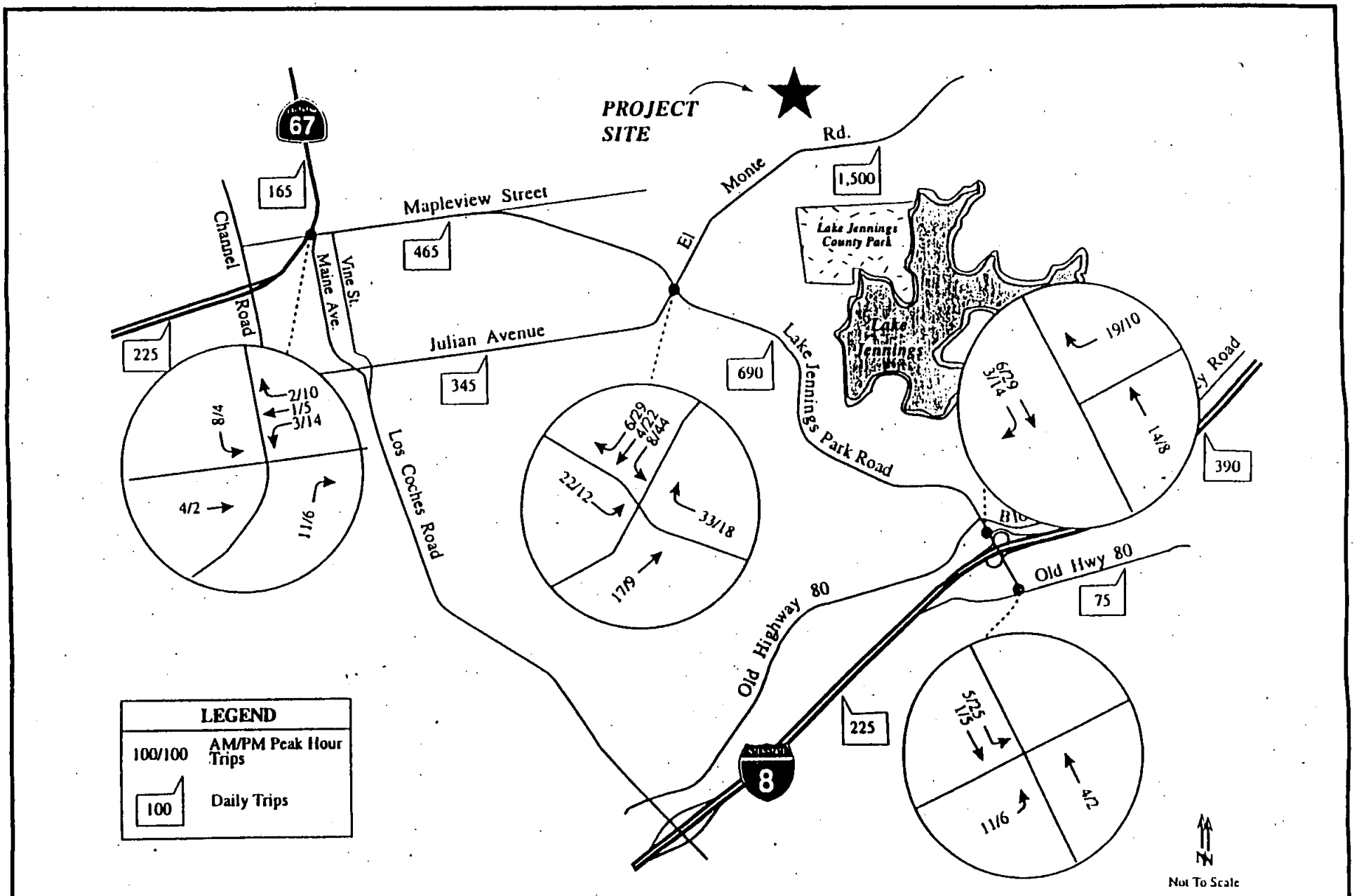
Future Intersection Conditions without Project

Figure 2.3-4

El Capitan Golf Course

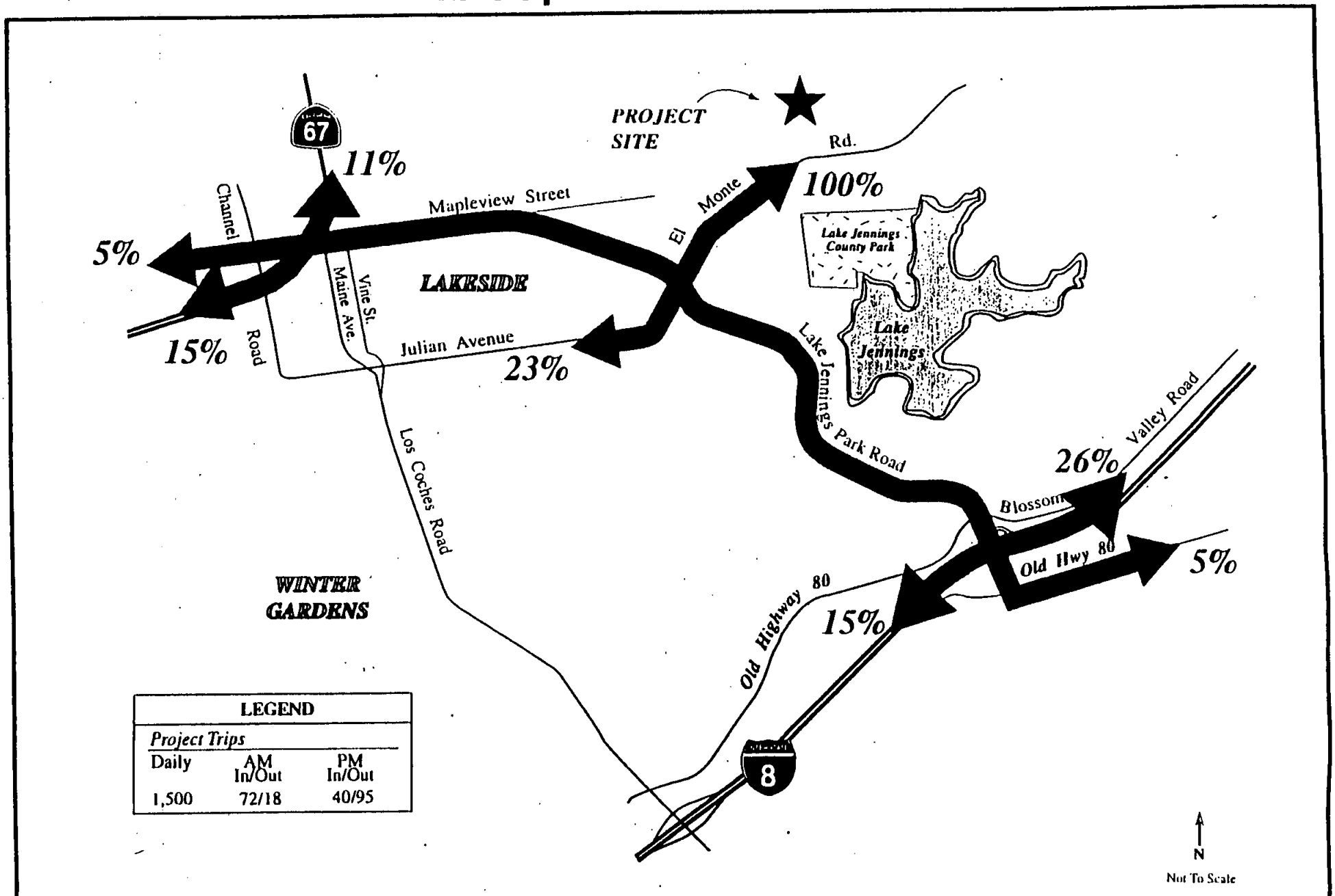


EnviroMINE

Project Trips

Figure 2.3-5

El Capitan Golf Course

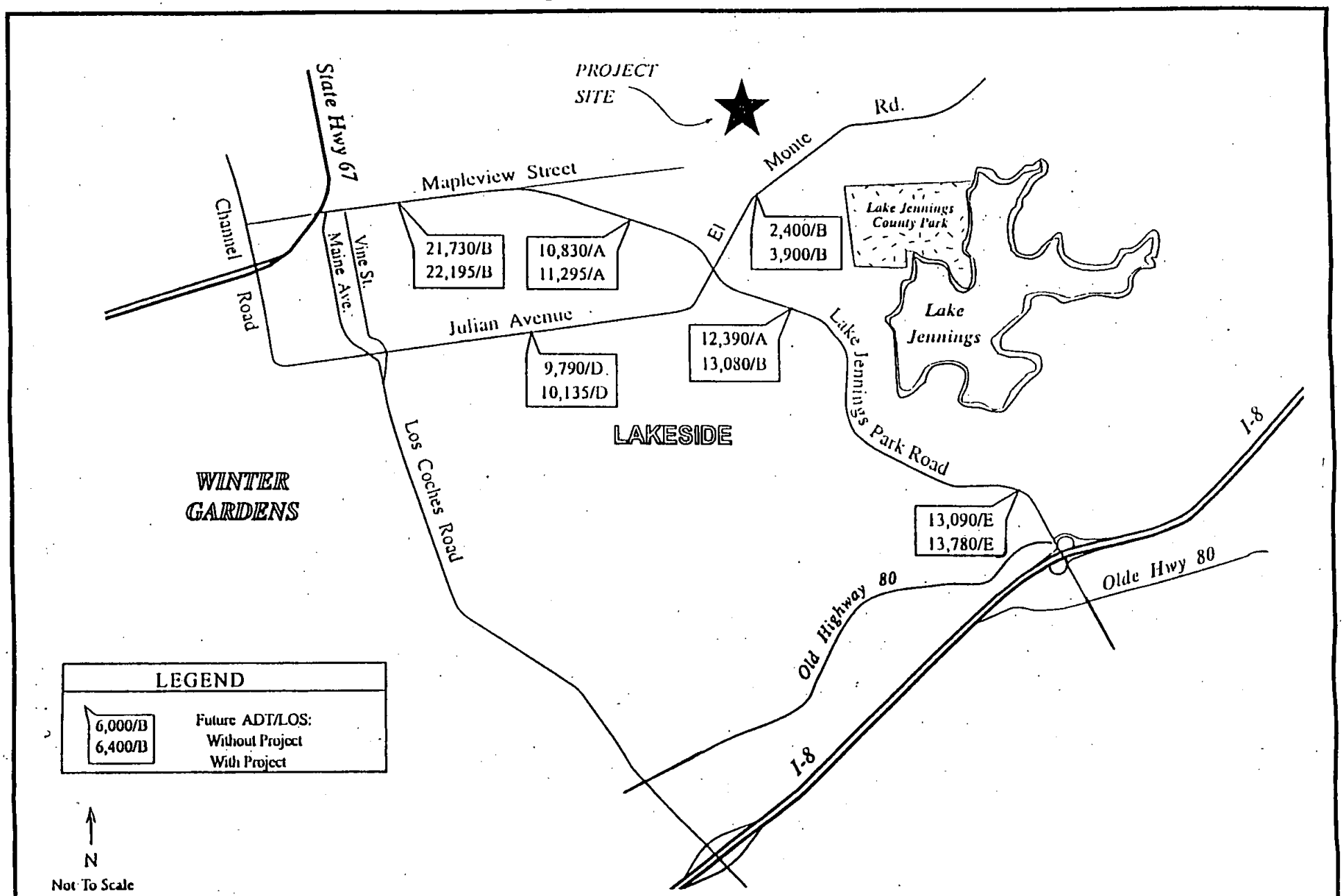


EnviroMINE

Trip Distribution

Figure 2.3-6

El Capitan Golf Course

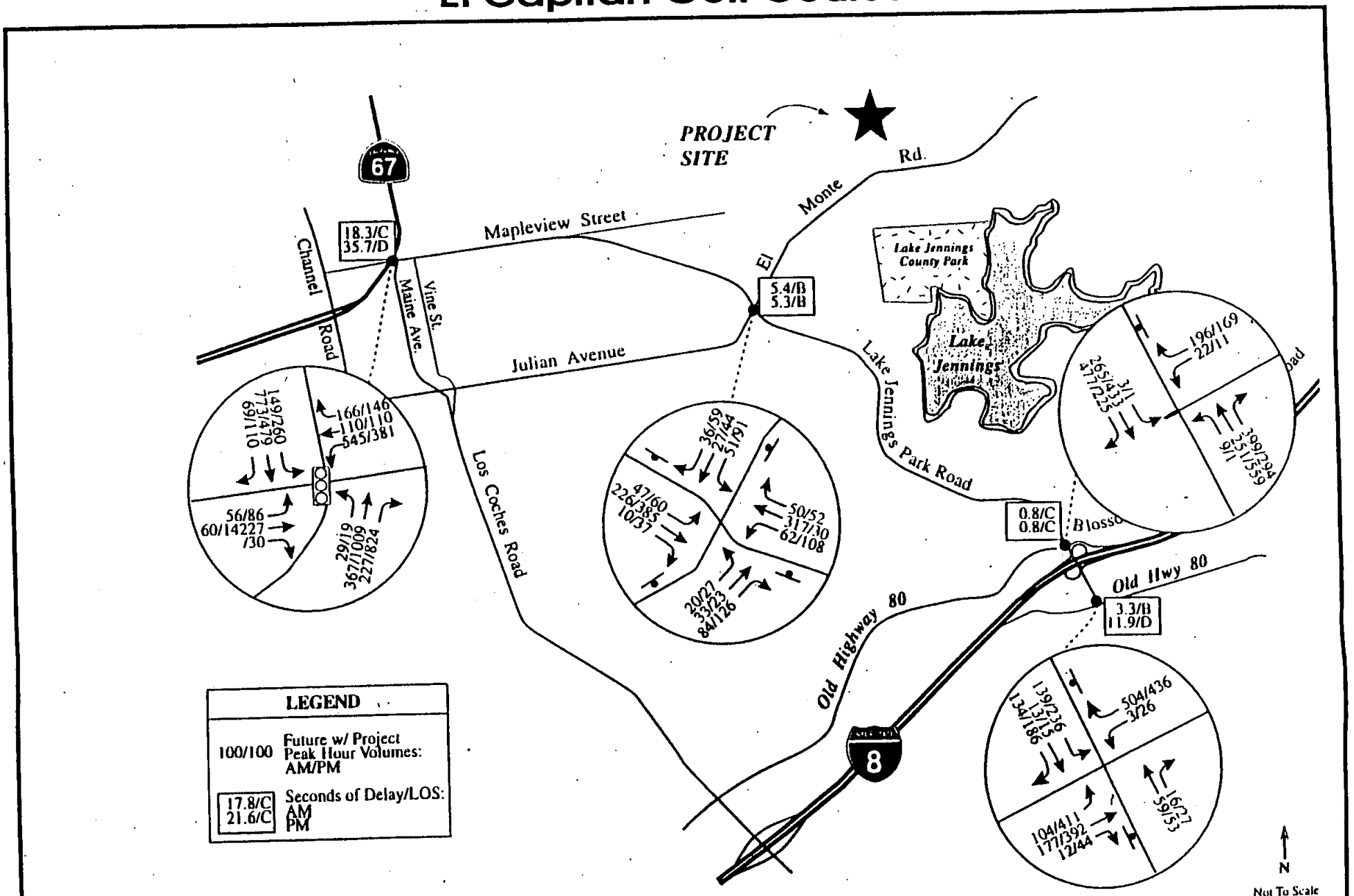


EnviroMINE

Future Roadway Conditions

Figure 2.3-7

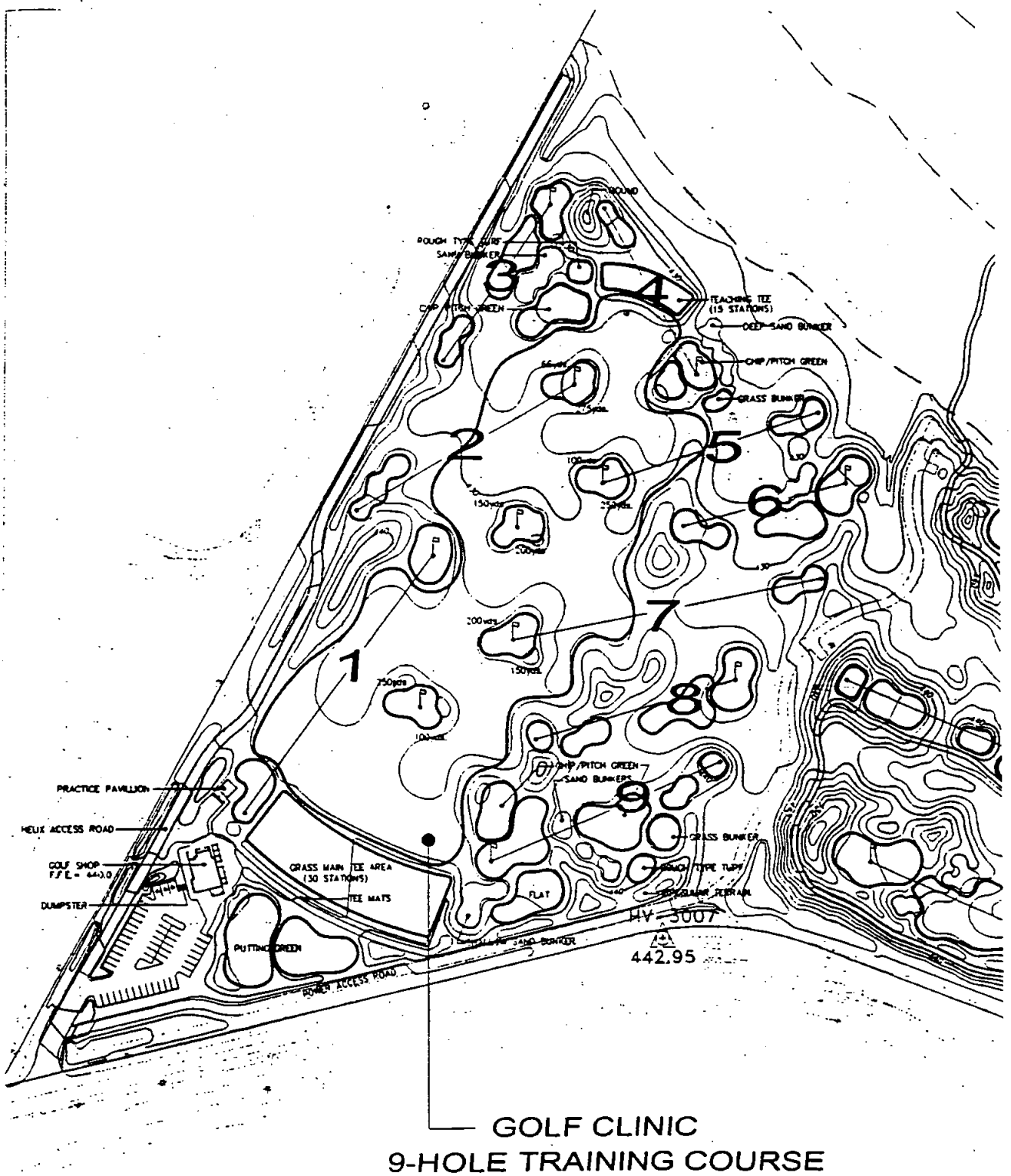
El Capitan Golf Course



Future Intersection Conditions with Project

Figure 2.3-8

El Capitan Golf Course



EnviroMINE | Golf Clinic Site Access Improvements | Figure 2.3-9

El Capitan Golf Course

Roadway Segment	*Classification/ Lanes*	*Maximum Recommended Volume**	*Existing ADT*	*LOS*
Lake Jennings Park Road SA810)				
North of El Monte Road	Major/4	29,600	9,900	A
South of El Monte Road	Collector/3**	20,600	11,150	A
North of Interstate 8	Lt. Collector/2	7,100	11,800	E D
El Monte Road (SC1910)				
East of Lake Jennings Park Road	Lt. Collector/2	7,100	2,300	B
Mapleview Street (SA810)				
East of State Route 67	Collector/4	27,400	20,400	B
Julian Avenue (SC1910)				
West of Lake Jennings Park Road	Lt.Collector/2	7,100	9,000	D

Note: *LOS C capacity
**3-lane Collector capacity estimated based on ¾ of 4-lane Collector capacity.

EnviroMINE

Existing Roadway Segment Conditions

Table 2.3-1

El Capitan Golf Course

	AM Peak		PM Peak	
Signalized Intersection	***Delay (sec.)***	***LOS***	***Delay (sec.)***	***LOS***
SR-67 at Mapleview Street	17.9	C	28.7	D
All-way Stop Controlled Intersection				
Lake Jennings Park Road at El Monte Road/ Julian Avenue	4.1	A	4.2	A
Minor Street Stop Controlled Intersections				
Lake Jennings Park Road at I-8 WB Ramps	0.7	C	0.8	C
Lake Jennings Park Road at I-8 EB Ramps	3.2	B	9.0	C

For unsignalized intersections, average delay is quoted for all vehicles entering the intersection. Level of service is quoted for the worst-case movement.

EnviroMINE

Existing Peak Hours Intersection LOS | **Table 2.3-2**

El Capitan Golf Course

Roadway Segment	Classification/ Lanes	Maximum Recommended Volume*	Existing 1996		Forecast 1998 w/o Project		Forecast 1998 w/ Project	
			ADT	LOS	ADT	LOS	ADT	LOS
Lake Jennings Park Road (SA810)								
North of El Monte Road	Major/4	29,600	9,900	A	10,830	A	11,295	A
South of El Monte Road	Collector/3**	20,600	11,150	A	12,390	A	13,080	B
North of Interstate 8	Light Collector/2	7,100	11,800	E D	13,090	E	13,780	E
El Monte Road (SC1910)								
East of Lake Jennings Park Rd.	Light Collector/2	7,100	2,300	B	2,400	B	3,900	B
Mapleview Street (SA810)								
East of State Route 67	Collector/4	27,400	20,400	B	21,730	B	22,195	B
Julian Avenue (SC1910)								
West of Lake Jennings Park Rd.	Light Collector/2	7,100	9,000	D	9,790	D	10,135	D

Notes: *LOS C capacity.
**3-lane Collector capacity estimated based on ¾ of 4-lane capacity.

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Summary of Future Roadway Segment Conditions

Table 2.3-3

Signalized Intersection	Existing 1996		Future 1998 w/o Project		Future 1998 w/ Project	
	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS
AM Peak Hour						
Signalized Intersection						
SR-67 at Mapleview St.	17.9	C	18.1	C	18.3	C
All-way Stop Controlled Intersection						
Lake Jennings Park Rd. at El Monte Rd./ Julian Ave.	4.1	A	4.4	A	5.4	B
Minor Street Stop Controlled Intersection						
Lake Jennings Park Rd. at I-8 WB Ramps	0.7	C	0.7	C	0.8	C
Lake Jennings Park Rd. at I-8 EB Ramps	3.2	B	3.3	B	3.3	B
PM Peak Hour						
Signalized Intersection						
SR-67 at Mapleview St.	28.7	D	33.4	D	35.7	D
All-way Stop Controlled Intersection						
Lake Jennings Park Rd. at El Monte Rd./ Julian Ave.	4.2	A	4.5	A	5.3	B
Minor Street Stop Controlled Intersection						
Lake Jennings Park Rd. at I-8 WB Ramps	0.8	C	0.8	C	0.8	C
Lake Jennings Park Rd. at I-8 EB Ramps	9.0	C	10.1	C	11.9	D

As shown in this table, all of the study area intersections operate at LOS D or better during peak hours with or without the project traffic. Since the County's minimum standard for peak hour intersections is LOS D, no project impacts are found.

El Capitan Golf Course

Existing Land Use	Land Use Intensity	Daily		AM Peak Hour				PM Peak Hour			
		Rate*	Total Trips	AM %	Total Trips	In-bound	Out-bound	PM %	Total Trips	In-bound	Out-bound
Golf Course	2 Courses	600	1,200	6%	72	58	14	9%	108	32	76
Practice Course	0.5 Course	300	300	6%	18	14	4	9%	28	8	20
Total			1500		100	72	18		136	40	96

Trip Rate is based on number of 18-hole golf courses.

EnviroMINE

Trip Generation

Table 2.3-5

2.4 Biological Resources

2.4 Biology

This biological resources evaluation is based on the *Biological Resources Survey Report for the El Monte Canyon Golf Course Project Site.* (Scheidt 1996), *El Monte Golf Course Preliminary Reconnaissance Biological Report* (Marquez and Associates 1996), *El Monte Golf Course Wetland Delineation Report* (Ogden 1997), and *El Monte Golf Project - Biological Update and Assessment of the March 1998 Proposed Golf Course Design* (Ogden 1998). These complete biological resource reports can be found in Appendix C. This analysis was performed to: 1) assess the local and regional significance of biological resources present on and adjacent to the project site, 2) identify all project-specific direct and indirect impacts to these resources, and 3) propose specific mitigation measures, as required under the provisions of the California Environmental Quality Act (CEQA), the Resource Protection Ordinance (RPO), Endangered Species Acts (Federal ESA, and California ESA), and other applicable environmental regulations.

2.4.1 Existing Conditions

The El Monte valley is located at the eastern fringe of the unincorporated community known as Lakeside, California. The site is located approximately three miles north of Interstate 8, two miles east of State Route 67, and 1-1/2 miles west of El Capitan Reservoir (see Figures 1.1-1 and 1.1-2). The entire study area encompasses approximately 460 acres of land within the San Diego River flood plain between Willow Road and El Monte Road.

The existing conditions discussion for this document is organized according to three basic categories of biological resources found on the project site, including: 1) Plants and Vegetation Communities, 2) Wildlife and Wildlife Habitat, and 3) Wildlife Corridors. These topics are discussed in more detail in the following text. Figures 2.4-1 and 2.4-2 show onsite biological resources.

Plants and Vegetation Communities

Plants

One hundred and fifty-three species of native and non-native plants have been identified during the various project surveys. A complete list is provided in Scheidt (1996). Most of the species detected are locally-common species. No rare, endangered, or otherwise sensitive species have been detected during project surveys other than coast live oak (*Quercus agrifolia*) which is considered sensitive by the County of San Diego. Scheidt (1996) lists 18 sensitive species known to occur in the general vicinity of the project site. In addition, a United States Fish and Wildlife Service (USFWS) project comment letter dated December 11, 1997 indicates the site (i.e., river terraces) may provide suitable habitat for San Diego ambrosia (*Ambrosia pumila*).

The mature tree inventory conducted during the February 1998 surveys outside the river channel revealed there are 34 mature coast live oak trees scattered onsite with diameters at breast height (DBH) ranging from approximately 16 to 44 inches. In addition, there are 17 mature Western sycamore (*Platanus racemosa*) trees scattered onsite with DBH's ranging from approximately 10 to 40 inches. The locations of these trees are depicted on the Existing Biological Resources and

Proposed Development figures (Figures 2.4-1 and 2.4-2). Four of the 30 coast live oak mapped-locations have two trees each (Figure 2.4-2). Other scattered trees outside the river channel onsite include Fremont cottonwood (*Populus fremontii*), blue elderberry (*Sambucus mexicana*), and a wide variety of ornamental species.

Vegetation Communities

Five major plant associations (vegetation communities) occur on the project site including: 1) Agricultural vegetation, 2) Coastal Sage Scrub, 3) Tamarisk Scrub, 4) Disturbed Riparian Scrub, and 5) Riparian Woodland. In addition, defined drainage channels onsite outside the San Diego River are designated as waters of the U.S. Table 1 provides a summary of existing habitat acreages onsite. In addition to the plant association identified above, a number of animal species are also known to occupy the site. Some of these biological resources are considered sensitive and are therefore evaluated in this context. From this baseline, the potential for impacts may then be assessed.

Agricultural Vegetation. The majority of the upland areas onsite outside the river channel are characterized as agricultural vegetation which either support active agricultural activities, crops, or fallow fields. Many of the fields are plowed annually. Scattered within the agricultural land are 34 mature coast live oak and 17 Western sycamore trees, in addition to other scattered native and non-native shrubs and trees. This habitat totals 364.7 acres within the study area (Table 2.4-1).

Coastal Sage Scrub. Regenerating coastal sage scrub habitat occurs in four locations onsite that have not been subject to recent agricultural activities/impacts. Three of these areas occur on the north side of the river, and one area occurs on the south side of the river adjacent to tamarisk scrub habitat (Figures 2.4-1 and 2.4-2). The primary species include flat-top buckwheat (*Eriogonum fasciculatum ssp. fasciculatum*), California sagebrush (*Artemisia californica*), and broom baccharis (*Baccharis sarothroides*). Other species in this habitat include California croton (*Croton californicus*), deerweed (*Lotus scoparius*), brickellbush (*Brickellia californica*) and our lord's candle (*Yucca whipplei*). Native cover in this habitat ranges from approximately 30 to 90 percent, and the habitat is generally in good condition given that it is in a state of regeneration. This habitat totals 1.9 acres within the study area (Table 2.4-1). This habitat is considered sensitive by the County of San Diego and USFWS.

Tamarisk Scrub. Tamarisk scrub occurs in a contiguous area south of the river (Figures 2.4-1 and 2.4-2). Mature and semi-mature tamarisk (*Tamarix gallica*) specimens ranging from approximately 10 to 20 feet high dominate this non-native habitat and account for approximately 95 percent of the overall cover within this vegetation community. Additional mid-story and understory species include mule fat (*Baccharis salicifolia*), blue elderberry, flat-top buckwheat, tree tobacco (*Nicotiana glauca*), stinking gourd (*Cucurbita foetidissima*), and primrose (*Camissonia sp.*). Scheidt (1996) referred to this general area as relict floodplain. This area probably did receive floodwaters periodically before the El Captain Dam/Reservoir was constructed in 1935. This area was examined during the June 1997 wetland delineation surveys and was determined to be non-wetland. This habitat totals 8.4 acres within the study area (Table 2.4-1).

Disturbed Riparian Scrub. The disturbed riparian scrub within the San Diego River channel consists of mid-story plant species and younger tree species that are generally under 20 feet in height. Riparian scrub onsite is a fairly generalized plant community that can be more specifically described as consisting of overlapping

areas of tamarisk scrub, mule fat scrub, and southern willow scrub depending on the nature and species composition of the plant mix. The riparian scrub onsite is described as disturbed because over half of the plant cover is comprised of non-native species, primarily tamarisk and pampas grass (*Cortaderia selloana*) with some castor-bean (*Rincinus communis*), tree tobacco, and giant wild reed (*Arundo donax*).

Based on the wetland delineation surveys (June 1997), all the disturbed riparian scrub habitat onsite is considered wetlands under the jurisdiction of ACOE and California Department of Fish and Game (CDFG). This habitat totals 59.8 acres within the study area (Table 2.4-1). This habitat is considered sensitive by ACOE, CDFG, and the County of San Diego.

Riparian Woodland. The riparian woodland within the San Diego River channel consists of an overstory canopy of willows and Fremont cottonwood with a mixture of mid-story and herbaceous plant species. The willows and cottonwoods are generally over 20 feet high, and in some cases approaching 70 to 80 in height. The primary species in the overstory are shining willow, arroyo willow, black willow and Fremont cottonwood. The majority of the this woodland is found along the outer portions of the river channel (Figures 2.4-1 and 2.4-2), presumably because these areas have been subjected to less historical disturbance (e.g., man-inducted alterations) and collect more available groundwater than the central portions of the channel. Based on the wetland delineation surveys (June 1997), riparian woodland occurring in the main channel that is under ACOE jurisdiction (and CDFG jurisdiction) totals 21.2 acres (Table 2.4-2). Riparian woodland habitat/canopy that extends beyond the limits of ACOE defined wetland soils and hydrology (i.e., beyond the channel bottom) that is only under CDFG jurisdiction totals 4.1 acres (Table 2.4-1). Riparian woodland is considered sensitive by ACOE, CDFG, and the County of San Diego.

Waters of the U.S.

Defined Drainage Channels. Waters of the U.S. consist of unvegetated or sparsely vegetated drainages outside an area of tidal influence. Waters of the U.S. are delineated by the limits of defined drainage patterns such as scoured areas and cut banks. Within the project site, waters of the U.S. are ephemeral and occur in five locations (Figures 2.4-1 and 2.4-2). Depending on the particular drainage segment, the dimensions range from 3 to 12 feet wide and 1 to 7 feet deep. The five locations where waters of the U.S. occur within the study area total 11,730 square feet (sq. ft.) (i.e., approximately 0.3 acre) (Table 2.4-1). Waters of the U.S. are considered a sensitive resource by ACOE, CDFG, and the County of San Diego.

Wildlife and Wildlife Habitat

As indicated by results of the various biological surveys performed on the site (Marquez & Associates 1996, Scheidt 1996, Ogden 1997), wildlife habitats on the site are greatly degraded by past and present land management practices. Few areas of native habitat remain following agricultural conversion, streambed mining, river channelization, upstream impoundment of water flows, and invasion by exotic vegetation. Remnant and recovering coastal sage scrub patches in the river valley are too small and scattered, with too many non-native plants, to currently represent viable habitat for most coastal sage scrub vertebrate species. A fair diversity of wildlife species use these habitats, but at generally lower densities than would be expected under native conditions (Scheidt 1996). Encroachment by tamarisk and other invasive exotic species is continuing to degrade habitat value along the river.

Few sensitive and no listed wildlife species are known to rely on the remaining habitats on the site for survival. Gnatcatchers (*Polioptila californica*), coastal cactus wrens (*Campylorhynchus brunneicapillus sandiegensis*), and other coastal sage scrub species are relatively common on the more expansive coastal sage scrub habitats around Lake Jennings, south of the site. No focused gnatcatcher surveys or other wildlife surveys were conducted for this report.

The least Bell's vireo (*Vireo bellii pusillus*) has been historically observed in riparian habitats immediately downstream from the site (MSCP database) and probably occurred on the site prior to habitat degradation. Southwestern willow flycatcher may also have occurred historically in the riparian woodlands. No least Bell's vireos were observed during focused surveys (8-week protocol) for these species conducted by Vincent Scheidt during 1994 (Scheidt 1996). Although a focused site-specific search was not conducted for the southwestern willow flycatcher, this species was not detected during the numerous site visits for the least Bell's vireo, or during other biological surveys. No further riparian bird surveys were conducted for this report.

Of the 68 animal species observed or detected on site, 14 are considered sensitive. Sensitive animals on site include of 2 reptiles and 12 birds. The reptiles are the orange-throat whiptail and the coastal whiptail. Sensitive birds include Cooper's hawk, prairie falcon, American kestrel, turkey vulture, red-shouldered hawk, great horned owl, barn owl, great blue heron, yellow-breasted chat, western blue bird, Bewick's wren, and greater roadrunner. For the purposes of this analysis, "sensitive animal species" are those listed as rare, endangered, threatened, or otherwise noteworthy by the California Department of Fish and Game (CDFG), the U.S. Fish and Wildlife Service (USFWS), and the National Audubon Society (NAS).

Although not found on the project site during field surveys, the arroyo southwestern toad is known to exist in habitat which is marginally present on site (i.e., gravely alluvial drainages). The arroyo southwestern toad is a federally endangered species (USFWS 1994) and a California species of special concern (CDFG 1993). The toad has historically occurred along the upper areas of the San Diego River. If present on site, the arroyo toad would be found in association with the open riparian scrub habitat adjacent to upland habitat areas.

The project site was surveyed between August 12 and August 28, of 1998 to determine the presence/absence of Stephens' Kangaroo Rat (*Dipodomys stephensi*). The Stephens' Kangaroo Rat was listed in 1988 as endangered under the Federal Endangered Species Act (U.S. Fish and Wildlife Service). The Stephens' Kangaroo Rat is a species that is supported by disturbed habitats, most typically lands that have been heavily grazed, or exhibit a paucity of vegetation. The distribution of the Stephens' Kangaroo Rat has historically been generally limited to western Riverside County and portions of extreme northeastern San Diego County. However, a disjunct population of the species has recently been identified along Santa Maria Creek, near the community of Ramona. The discovery of this Ramona population has led to additional questions as to the potential occurrence of the species in the southern and central portions of San Diego County. It was in response to this discovery that the question as to the occurrence of the Stephens' Kangaroo Rat along the San Diego River was raised. In a general sense, many of the habitats on the proposed El Capitan Golf Course site are consistent with the habitat requirements of the species. For this reason, it was deemed appropriate to conduct a survey of this species (Appendix H).

The results of the survey indicate that no Stephens' Kangaroo Rats were positively identified on the project site. However, a single area in the eastern portion of the site does appear to support a dispersed colony of Kangaroo Rats. Initial signs (e.g., scat) suggest that this colony may not be comprised of the Stephens' Kangaroo Rat, but rather is most likely the Pacific Kangaroo Rat. Because the presence/absence of Stephens' Kangaroo Rat cannot be definitively ascertained from sign alone, a trapping program will be conducted. If the results of the trapping program indicate the presence of the Stephens' Kangaroo Rat, adequate mitigation measures will be imposed upon the project such that any potentially significant impacts to this species are reduced to below a level of significance.

Wildlife Corridors

One existing (east-west) and one potential (north-south) regional wildlife movement corridor cross the site. These corridors have been identified based on topographic and vegetation features on and near the site. However, no focused animal movement studies were performed for this report. Both are important preserve design features under consideration for protection and enhancement as part of the Helix Water District's NCCP Subarea Plan.

The Natural Community Conservation Planning Act of 1991 (NCCP) calls for the preparation of regional habitat plans to coordinate and consolidate endangered species protection by setting aside natural community habitats rather than preserving individual species. Helix Water District's Subarea Plan describes how this agency will make land use decisions and manage its property pursuant to the more comprehensive Subregional Plan. Helix Water District's Subarea Plan describes the specific operations and management, facility siting, land use conservation, and other actions that the District will take to implement the goals, guidelines, and standards of the Subregional Plan. The Subarea Plan will be the subject of an Implementing Agreement between the District, the CDFG, and the USFWS. The agreement will convey "take" authorizations so that the District may self permit their actions based on their Subarea Plan. As stated earlier, these regional wildlife movement corridors are important design features of the District's NCCP Subarea Plan.

The existing river channel and associated vegetation communities provide a regionally important east-west corridor through the site for a wide variety of species. Despite its generally degraded value as habitat, the corridor probably functions as a multi-generational linkage between more suitable habitat areas for these and other species that are more abundant outside the project area.

A regionally important north-south corridor may cross the valley between the large block of wildlife habitat around Lake Jennings, and large blocks of habitat north of the river in the Wildcat Canyon area. Under existing conditions, this potential movement corridor is hampered by the existence of highly disturbed and agricultural habitats in the valley.

These two wildlife corridors are considered regionally important in the Helix Water District's evolving NCCP Subarea Plan. The plan's goals include maintaining the functionality of the river channel as a wildlife movement corridor, and improving the functionality of the north-south corridor by native habitat creation in the agricultural fields. The Plan is intended to create a nearly continuous north-south linkage across the valley through restoration of coastal sage scrub habitat in the existing agricultural areas.

The optimal site for creating a north-south linkage is at a narrow portion of the valley which crosses the project site directly north of Lake Jennings, where coastal sage scrub habitat exists on both of the north and south slopes of the valley. The plan intends to create (i.e., through enhancement and revegetation) a corridor within the El Capitan Golf Course project boundaries that averages at least 500 feet wide, and that increases coastal sage scrub habitat by at least 20 acres onsite. This would then serve as habitat for California gnatcatchers and other species in the valley and facilitate movement across the valley. This is considered a positive attribute of the proposed project because a net improvement in biological resources would result due to project implementation.

2.4.2 Thresholds of Significance

Criteria or thresholds for determining the significance of an impact are presented in this section to clarify and quantify (if possible), to the extent feasible, at what point an impact to a biological resource is considered significant. It is important to note that the significance of an activity may vary with the setting.

CEQA Guidelines section 15065 states that an impact will be "significant" if: "*the project has the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife species to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare and endangered plant or animal...*"

CEQA Guidelines section 15002 (g) defines "significant effect on the environment" as "*a substantial adverse change in the physical conditions which exist in the area affected by the project...*"

In general, the primary criteria for determining significance is "sensitivity." With respect to sensitive biological resources analyzed in this report, determination of significance was made pursuant to County of San Diego Department of Planning and Land Use (DPLU) Guidelines for the Implementation of CEQA, and in accord with sections 15065 and 15002 of the State CEQA Guidelines.

Sensitive biological resources occurring on the project site include Coastal Sage Scrub, Disturbed Riparian Scrub, Riparian Woodland habitats, Waters of the U.S., the 14 sensitive wildlife species found on the project site, and the wildlife corridors.

With respect to the aforementioned criteria, significance thresholds for project-related biological resources include the following:

- Any substantial impact to a sensitive habitat(s) is considered a significant environmental impact unless the habitat is isolated/fragmented, degraded, or very small in size.
- Any substantial impact to sensitive wildlife species is considered a significant environmental impact.
- Any substantial impact to identified onsite wildlife movement corridors is considered significant environmental impact.

2.4.3 Analysis of Project Effects and Determination as to Significance

The proposed golf course would change the biological nature of the project site. Much of the site is either currently or has been historically utilized for agricultural production. This activity has resulted in the near elimination of native vegetation over 80 percent of the project site. Development of a golf course would require grading to establish play area and ponds, planting with turf grasses and landscaping with a variety of species, and construction of a club house, parking area, and maintenance facilities.

The golf course and associated facilities includes all golf turfed areas (i.e., holes and practice areas), entry roads, cart paths (numbered 1 through 4 from east to west for purposes of this analysis), facilities and buildings including the club house and main maintenance building. The created lakes includes all the proposed manufactured ponds and lakes.

The wildlife corridor/preserve involves the proposed creation of coastal sage scrub habitat in an area on either side of the river to provide a functional north-south movement corridor. The natural planting zones include two zones. The first is a pure native coastal sage scrub palette (also used for the wildlife corridor), and the second is a native California shrub palette with species from within and outside this region (refer to Table 1.1-3). This is considered a positive attribute of the proposed project because a net improvement in biological resources would result due to project implementation.

In general, the proposed project can be divided into development impacts (e.g., golf course and roads) and landscape conversion impacts from one habitat type to another. All proposed cart path crossings of the river will be constructed at grade. The permanent width of the cart paths will be 10 feet, with an additional 10-foot-wide temporary construction corridor. The equestrian trail permanent width will be 8 feet, with an additional 10-foot-wide temporary construction corridor.

Many of the proposed habitat conversions are biologically positive. An example of such would be the proposed conversions from agricultural land to coastal sage scrub and open water, and the removal of harmful exotic species such as tamarisk.

2.4.3.a. Impacts to Plants and Vegetation Communities

Plants

Since no rare, endangered, or otherwise sensitive species have been detected during project surveys (other than coast live oak), no impacts to sensitive plants are expected. In regard to the 34 coast live oaks onsite, the project has been designed to retain these oaks in place either within golf course turfed areas or designated planting zones. The project proposes to grade only outside of the "drip line" of these oaks. However, grading adjacent to the dripline may remove or cover surface roots, or cause a change in drainage such that the oaks could be damaged or eventually killed. Therefore, significant indirect impacts to sensitive plants (34 oaks) are projected as a worse-case scenario.

Vegetation Communities

Agricultural Vegetation and Tamarisk Scrub. The proposed project will permanently impact 279 acres of agricultural vegetation and 7.55 acres of tamarisk scrub (Table 2.4-1). Since these habitats are not sensitive, the projected impacted is not significant. The proposed project will actually result in a positive habitat conversion for some of the acreage. A total of 20.7 acres of existing agricultural vegetation and 0.35 acre of tamarisk scrub will be converted to coastal sage scrub habitat as part of the proposed wildlife corridor/preserve (Table 1). An additional 19.2 acres of agricultural vegetation will be converted to natural Zone 1 planting which includes a California native shrub palette.

Coastal Sage Scrub. The proposed project will permanently impact all 1.9 acres of coastal sage scrub habitat (Table 2.4-1). Since this is a sensitive habitat, the projected impact is significant.

Disturbed Riparian Scrub. The proposed project will permanently impact 0.56 acre and temporarily impact 0.74 acre of disturbed riparian scrub within the river channel (Table 2.4-2). These impacts will result from the four cart path crossings, entry bridge and equestrian trail. The proposed project will permanently impact less than 0.1 percent of the disturbed riparian scrub onsite. Since this is a sensitive habitat, the projected permanent and temporary impacts are significant.

Riparian Woodland. Based on a worst-case analysis, the proposed project will permanently impact 4.1 acres and temporarily impact 0.16 acre of riparian woodland within and adjacent to the river channel (Tables 2.4-1 and 2.4-2). Of these totals, the second and third cart path crossings, entry bridge and equestrian trail will permanently impact 0.09 acre and temporarily impact 0.11 acre of riparian woodland in the river channel that is under the jurisdiction of ACOE and CDFG (Table 2.4-2).

For the purposes of this analysis, the 38 foot wide elevated entry bridge will result in permanent impacts from its "shadowing-effect", although vegetation will reestablish under the bridge to some extent after construction. These same river crossing features will permanently impact 0.04 acre and temporarily impact 0.05 acre of riparian woodland that is under the jurisdiction of CDFG only (Table 2.4-2). The remaining permanent impact to approximately 3.9 acres of riparian woodland under the jurisdiction of CDFG would result from the golf course footprint/grading and the edges of associated planting zones. The overlay of the existing habitat and golf course footprint indicate up to 3.9 acres of this edge habitat could be impacted, although the majority or all of this impact could potentially be avoided.

Since this is a sensitive habitat, all the projected permanent and temporary impacts to Riparian Woodland are significant.

Waters of U.S. The proposed project will permanently impact the five waters of the U.S. drainages totaling 0.3 acre. Although the project's proposed turf drainage corridors may reduce erosion and improve water quality as compared to the existing drainages, the worst-case analysis is that 0.3 acre of waters of the U.S. will be permanently impacted. Since this is a sensitive resource, the projected impact is significant.

2.4.3.b. Impacts to Wildlife and Wildlife Habitat

Creation of the golf course is expected to remove about 1.9 acres of existing coastal sage scrub habitat, which is distributed in several small, isolated patches near the river channel. However, as a positive effect, the project also proposes to create over 20 acres of relatively contiguous and strategically located sage scrub habitat in the wildlife movement corridor. Thus, the proposed project will result in a net increase of about 18 acres of coastal sage scrub habitat. This will represent a net increase in habitat value and presumably of coastal sage scrub wildlife species expected to persist on the site.

As discussed above (Vegetation Communities), the project is expected also to adversely affect about 4.0 acres of riparian woodland with selective grading beneath canopies of riparian trees at the top edge of the river channel slope. This may remove some understory that is used as habitat by wildlife, but is not expected to remove or destroy mature trees, which are primarily rooted in the channel bottom.

Arroyo Toad

The arroyo toad has been known to utilize habitat similar to that found in the upper San Diego River valley. However, this species was not detected during the numerous biological surveys on the project site.

According to the *Draft Recovery Plan for the Arroyo Southwestern Toad* (USFWS 1998), arroyo toads were discovered initially in the San Diego River Basin in Lakeside. The Draft Recovery Plan states that arroyo toads are present in the San Diego River above El Capitan Reservoir. However, since its construction, El Capitan Dam/Reservoir has altered the river hydrology in the San Diego River basin below the dam by reducing sediment flow and substantially limiting the amount of surface water flow through the valley. Reservoirs regulate water flows which adversely affects the quality of arroyo toad habitat downstream by altering stream hydrology. The Draft Recover Plan lists EL Capitan Reservoir as a prime example of creating this type of situation.

Although arroyo toads have historically inhabited portions of the upper San Diego River valley, it is unlikely that the project would significantly impact this species for the following reasons: 1) El Capitan Dam has altered the San Diego River valley hydrology such that the habitat may no longer be conducive to long-term viability of the species down stream from the dam, and 2) no arroyo toads were found on the project site during field surveys. For these reasons, the proposed project is not expected to significantly impact arroyo toads.

Least Bell's Vireo

Numerous site specific focused surveys for this species were negative. Habitat which typically supports this species is of marginal quality, fragmented, and generally disturbed in many locations on site. This species is not expected to inhabit the site and was not detected during field observations. Therefore, significant impacts to this species resulting from the project are not anticipated.

Willow Flycatcher

This species was not identified within the project boundaries during numerous focused biological surveys of the site. Habitat which typically supports this species is of marginal quality, fragmented, and generally disturbed in many locations on

site. This species is not expected to inhabit the site and was not detected during field observations. Therefore, significant impacts to this species resulting from the project are not anticipated.

Raptor Foraging Areas

Losses of open raptor foraging areas associated with fallow and active agricultural areas is an anticipated impact of the project. The conversion of approximately 400 acres of open foraging area to a public golf course would displace certain less tolerant raptors from the property, including Cooper's hawk, prairie falcon, and great horned owl. The removal of mature trees, include snags, would result in a loss of numerous roost sites. Any substantial nighttime lighting would be disruptive to nighttime foraging habits (i.e., owls). In addition, early morning or evening overhead spray irrigation could be disruptive to raptors that would otherwise forage during this time on the project site. Displacement of the raptor fauna from the large foraging areas on site due to loss of roost sites, lighting, and irrigation practices would be a significant impact.

2.4.3.c. Impacts to Wildlife Corridors

The existing east-west corridor along the river channel is likely to become further constrained by construction of golf facilities and by the expected increase in human activity on both sides of the river. In particular, the following golf facilities are expected to negatively affect movement by wildlife along the San Diego River channel:

- The four cart crossings, the one entry bridge crossing, and the equestrian trail crossing will collectively and permanently remove about 0.69 acres of natural vegetation in the river channel (Table 2.4-2) and may disrupt natural movement of some species along the river. The bridge, and to a lesser degree the cart and equestrian crossings, may also be perceived as barriers by some species, especially large mammals. Increased human presence in the river channel due to the crossings could further constrain the functionality of the movement corridor. In addition, construction of these crossings will temporarily remove about 0.90 acres of natural vegetation (Table 2.4-2).

- The close proximity of golf holes along either side of the river channel may result in increased noise levels and increased perception of human presence by species using the channel. This may indirectly reduce use of the movement corridor by some species, at least during daylight hours.

On the other hand, removing the existing, unofficial equestrian uses from the river channel should have a positive effect on the movement corridor by allowing recovery of mature vegetation and reducing human intrusion and disturbance in the river channel. This is expected to at least partially offset the project's negative impacts on wildlife use of the river corridor. In total, the net effect of the proposed project is still expected to result in a significant impact to the existing east-west corridor..

The potential north-south movement corridor across the valley will be improved by the proposed golf course design. Current agricultural fields and disturbed areas will be replaced by a contiguous coastal sage scrub habitat area connecting the river channel to existing coastal sage scrub habitats on either side of the valley.

However, the two cart path crossings and one equestrian trail located within the wildlife movement corridor will reduce habitat value in the area somewhat, due to increased human presence within the corridor area.

2.4.4 Mitigation Measures

A number of existing project design features will minimize, enhance and mitigate potential biological impacts. Some of these existing features include a biological buffer averaging 50 feet wide (minimum 25 feet wide) and a 100-foot wide planning buffer that shall be established on either side of the river banks. The biological buffer shall have invasive exotics (e.g., tamarisk, giant wild reed, etc.) removed and shall be revegetated with strictly native, indigenous shrubs and herbs, thereby establishing a vegetation barrier on both sides of the river that will prevent encroachment and habitat degradation. The 100-foot planning buffer will be established at the outer edge of the biological buffer and shall preclude the establishment of structures or other improvements (except bridge and designated paths), but shall permit golf play. Implementation of these buffers will reduce any potential indirect impacts to the riparian habitat (i.e., from noise, light and human intrusion) to below a level of significance. In addition, the project's Environmental Development Plan (Golf Properties Design 1997) has been designed to protect biological values onsite through proper management of, for example, runoff, pesticides, and groundwater.

The following mitigation measures for projected significant impacts should be implemented in addition to those measures which are already part of project design. Implementation of these measures will reduce impacts to below a level of significance.

Mitigation for Impact 2.4.3.a: Plants and Vegetation Communities

A Biological Resource Management Plan shall be prepared, approved and implemented in concert with the preparation of site specific development plans. The intent of this plan shall be to provide specific methodologies to reduce all significant project-related impacts to a level below significance. The implementation of, or mechanism to implement all recommendations contained in the plan, shall be made a condition of project approval. This plan shall contain at a minimum:

- A comprehensive revegetation/habitat enhancement component to compensate for direct losses of wetland habitat associated with river crossing improvements. This plan shall define the specific area and acreage of wetlands to be lost, establish revegetation ratios, define specific areas to be used for revegetation, specify biological monitoring periods, require maintenance, removal of exotics, and construction monitoring. This plan shall be prepared by a County-certified and qualified professional experienced in riparian wetland restoration and enhancement.
- A biological buffer averaging 50-feet wide (minimum of 25 feet wide) area shall be established adjacent to the floodway. This buffer area shall be revegetated with strictly native, indigenous, alluvially-dependent shrubs and herbs.

- A 100-foot "planning buffer" shall be established at the outer edge of the biological buffer. The planning buffer shall preclude the establishment of structures (except bridge crossings, cart paths, and equestrian trail) and shall permit play.

- Mature Coast Live Oak, California sycamores and Western cottonwood trees shall be retained. Where retention cannot be accommodated, like-kind replacement for any trees unavoidably lost shall be required.

- Landscape plans and plant pallets shall be reviewed for wetlands compatibility as a function of the Biological Resource Management Plan.

The plan will be on file at the Helix Water District main office. The golf course project will prepare the biological resource management plan for submission to the District with the project's construction plan. The District will review the plan based on overall guidelines in the Joint Water Agency Subregional Plan, and evaluate the plan for consistency with the County MSCP, Jamul-Lakeside Subunit Plan. The wildlife agencies will be given an opportunity to review and comment on the Management Plan at that time. The golf course project proponents will be responsible for implementation of the Management Plan in concert with its regular maintenance and management operations.

Ongoing equestrian and ORV usage of the sensitive riparian area within the San Diego River floodway shall be discouraged. The project proposes to construct an equestrian trail. This element shall be enhanced by placing vegetation barriers to discourage riding within the floodway, and signage to advise riders to use the trail.

The entire golf course development will be fenced using a variety of fencing types to prevent unauthorized entrance onto the property while also allowing for wildlife movement through the proposed wildlife corridor as well as equestrian use of the equestrian trail. In addition, the golf course operators will actively discourage off-road vehicle activity since it is inherently incompatible with the golf course use.

Natural barriers comprised of thorny shrubs or other appropriate vegetative barriers and signage shall be incorporated along both sides of the cart paths and equestrian path wherever they enter or cross the river channel, wildlife corridor/habitat creation area, or other areas specifically designated as biological open space by the golf course design or the Helix Water District Subarea Plan. These barriers shall be designed to prevent golfers, equestrians, or other humans from casual entry into biological resource areas.

Plants

- For any coast live oak trees with a DBH of 4 inches or greater that are indirectly impacted by proposed grading at adjacent driplines, it is recommended that they be mitigated at a 5:1 replacement ratio utilizing five-gallon container replacement stock. Based on the recommended replacement ratio of 5:1 (utilizing five-gallon container stock), a total of 170 trees should be planted onsite to mitigate for the 34 trees that would be indirectly impacted. It is recommended that most or all of these replacement trees be installed in the biological buffer that is proposed on both sides of the river.

- Although an isolated Western sycamore is not a sensitive species, it is recommended that isolated specimens of this species be protected to the extent feasible. Specimens that may be directly or indirectly impacted should be replaced in-kind.

- In response to the USFWS project comment letter dated December 11, 1997, a focused survey for San Diego ambrosia along the river terraces should be conducted in the spring (i.e., after May). This survey should also be used as an opportunity to re-check for sensitive plant species that are known for the general vicinity, but that have not been detected onsite during past surveys.

The golf course project will conduct protocol surveys in Spring, 1999 for San Diego ambrosia. If this species is found, the project will provide appropriate additional mitigation in banks established by the Helix Subarea Plan as a first choice, or in another approved NCCP bank.

Vegetation Communities

- Coastal Sage Scrub. The impact to 1.9 acres shall be adequately mitigated by the proposed creation of 21.1 acres of coastal sage scrub as part of the wildlife corridor/preserve area. Creation of this habitat onsite will result in over an 11:1 replacement ratio. A detailed coastal sage scrub restoration plan should be prepared by a qualified biologist that details issues such as site preparation, installation specifications, maintenance, monitoring and reporting. To ensure the created habitat is adequately established, maintenance and monitoring typically occurs for three to five years after installation, or until specified success standards are achieved (e.g., cover of desirable native shrubs, and elimination of particular invasive weed species).

- Disturbed Riparian Scrub, Riparian Woodland and Waters of the U.S. Upon project implementation, the projected permanent and temporary impacts to these three wetland resources shall be mitigated by an onsite habitat restoration program including wetland creation and enhancement. It is recommended that permanent impacts to disturbed riparian scrub and riparian woodland be mitigated at a 3:1 ratio, while permanent impacts to waters of the U.S. be mitigated at a 1:1 ratio. To satisfy typical ACOE and CDFG permitting requirements, temporary impacts to vegetated wetlands should be mitigated at a 2:1 ratio. Assuming the projected impact to 4.0 acres of riparian woodland (CDFG jurisdictional habitat) can be avoided (see mitigation measure below), then the combined permanent vegetated wetland impacts would total 0.69 acre and temporary impacts would total 0.9 acre. Recommended mitigation ratios and acreages are listed below:

  - Permanent impacts to disturbed riparian scrub and riparian woodland total 0.69 acre -- multiplied by a 3:1 ratio equals 2.07 acres.

  - Permanent impacts to waters of the U.S. total 0.3 acre -- multiplied by a 1:1 ratio equals 0.3 acre.

  - Temporary impacts to disturbed riparian scrub and riparian woodland total 0.9 acre -- multiplied by a 2:1 ratio equals 1.8 acres.

Therefore, the recommended wetland mitigation restoration program (excluding mitigation for projected impacts to riparian woodland along the river banks) would total 4.17 acres. A detailed wetland restoration plan should be prepared by a qualified biologist that details issues such as site preparation, installation specifications, maintenance, monitoring and reporting. To ensure the created habitat is adequately established, maintenance and monitoring for wetland programs typically occurs for five years after installation, or until specified success standards are achieved (e.g., cover of desirable native overstory and understory plants, and elimination of particular invasive weed species). As a guideline, ACOE and CDFG typically require that at least 1:1 replacement of all impacts be accomplished by wetland habitat creation (i.e., converting upland into wetland). Based on the projected impacts referenced above, approximately 1.9 acres of the recommended 4.17 acres should involve wetland habitat creation. The remaining 2.47 acres of mitigation could be accomplished through wetland enhancement measures.

The project is currently in the process of identifying the most ecologically appropriate onsite location adjacent to the river to accomplish 1.9 acres of wetland creation. The remainder of the mitigation (i.e., 2.27 acres) is proposed to be accomplished by enhancing the existing riparian habitat in the river within and partially upstream and downstream of the proposed wildlife corridor. Since ACOE and CDFG typically provide 1/2 credit for enhancement mitigation, at least 4.5 to 5.0 acres should be included in this enhancement effort. Enhancement in this situation would involve removal and control of particular invasive weed species (e.g., tamarisk, pampas grass etc...) and possible planting of native species where weed species are removed. Because there is a high volume of invasive weed species upstream of this proposed enhancement location, removal of target weed species would need to occur throughout the life of the golf course project to be effective.

- Avoidance of Projected Riparian Woodland Impacts. Necessary cart path crossings and the entry bridge crossing of the river to complete golf course circulation cannot be avoided; although most or all of the projected impacts from the golf course footprint to riparian woodland that overhangs the channel banks on either side of the river can be avoided. The overlay of the existing habitat and golf course footprint indicate up to 4.0 acres of this edge habitat could be impacted. Most of the riparian tree (e.g., willow and cottonwood) stems that provide canopy overhang on the river banks grow out of the river bottom, such that most of the grading that is proposed on the banks will actually impact scattered native and non-native upland understory species without directly impacting the tree stems. To ensure potential impacts to riparian woodland species do not occur, measures such as vegetation barriers to prevent intrusion and erosion, signage, construction monitoring, and/or project redesign could be implemented. If the projected worst-case impacts do occur to 4.0 acres of riparian woodland, then up to 12 acres of additional mitigation would be required based on a 3:1 replacement ratio.

- Recommendations to Shift Proposed Crossings of the River. During the February 24, 1998 survey, the five proposed river crossings (i.e., one entry bridge and four cart paths) were examined. Golf Properties Design indicated in regard to the cart path crossings, that field adjustments could be made

during construction to avoid trees and align the paths between vegetation openings to minimize impacts. These alignment adjustments during construction shall be made. The alignment shifting recommendations are contained in the Biological Resources Technical Report.

Mitigation for Impact 2.4.3.b: Wildlife and Wildlife Habitat

Conduct directed field surveys for the arroyo toad, a federally-listed Endangered Species. If found on site, specific mitigation shall be developed in consultation with the U. S. Army Corps of Engineers and the U.S. Fish & Wildlife Service. Potential impacts resulting from fairway construction would be mitigated through buffers adjacent to riparian areas

Prior to construction in areas adjacent to the floodway, field surveys for the least Bell's vireo, a state and federal listed endangered species, shall be conducted. If this species is determined to be present, specific mitigation shall be developed in consultation with the U. S. Army Corps of Engineers, U.S. Fish & Wildlife Service, and California Department of Fish & Game.

Prior to construction in areas adjacent to the floodway, field surveys for the Willow flycatcher, a state and federally-listed Endangered Species shall be conducted. If found on site, specific mitigation shall be developed in consultation with the U. S. Army Corps of Engineers, U.S. Fish & Wildlife Service, and California Department of Fish & Game. Potential impacts resulting from fairway construction would be mitigated through buffers adjacent to riparian areas

A plan to manage lighting and watering shall be developed to limit the potentially significant impacts to foraging raptors. Elements of this plan may include a prohibition against lighting of the golf course and driving range, and variable irrigation schedules which would be less disruptive to morning and evening foraging by raptors.

The wildlife movement corridor was specifically designed to mitigate for impacts to coastal sage scrub and associated species in the study area, as well as potential impacts to wildlife movement corridors. The approximately 21 acres of coastal sage scrub habitat to be created in the corridor zone should compensate for any adverse effects on these biological resources, subject to the following conditions:

- A habitat restoration plan shall be prepared and implemented for the wildlife corridor/habitat creation area. The goal of the restoration plan shall be to create at least 20 contiguous acres of potential breeding habitat for California gnatcatchers in the river valley. The created habitat shall be configured to accommodate north-south wildlife movement from existing coastal sage scrub habitat, on the north and south valley slopes, to the existing river channel. This corridor area shall have a minimum width of 400 feet and an average width of at least 500 feet across the valley.

- Success of the restoration plan shall be measured by a biological monitoring program to last a minimum of 3 years, or until all success criteria are achieved. The monitoring program will track the success of habitat creation by recording appropriate success criteria for (1) individual plant species (e.g., growth and reproduction by species), (2) appropriate vegetation community characteristics (e.g., species composition, percent canopy closure) and (3) use of the area by gnatcatchers and other wildlife. Specific success criteria shall be defined in the restoration plan.

In addition to habitat creation within the wildlife corridor/habitat creation area, approximately 44 additional acres of the golf course will be landscaped using the Zone 1 (19.2 acres) and Zone 2 (24.9 acres) planting palettes. As discussed above, the Zone 1 palette consists of native coastal sage scrub species and the Zone 2 palette consists of native California shrub species. Areas planted using these palettes are expected to provide some additional habitat value to native wildlife species; however, no specific mitigation credit is expected for these areas, because they are not designed specifically to re-create naturally occurring, native vegetation communities, and because they are primarily small and non-contiguous areas scattered throughout the golf course. However, some of the Zone 1 plantings are positioned adjacent to native coastal sage scrub habitat along the project boundaries, and may enhance or expand habitat values in these areas.

Specific details regarding revegetation/enhancement and restoration within the portions of the river channel that would remove invasive and exotic species is described as follows:

Introduction and Goals

In response to projected direct and indirect impacts to wetland and riparian habitat from the proposed golf course, the resource agencies (i.e., CDFG and USFWS) have recommended that the project: (1) revegetate the channel banks that will be recontoured with appropriate native upland and riparian plants, and (2) perform a 10-acre revegetation/enhancement program within the San Diego River channel with a combination of native wetland and alluvial wash plants. Revegetation of the recontoured channel banks will encompass approximately 28 acres and is intended to enhance the buffer between the golf course and the river channel by providing a physical barrier with native shrubs and trees and creating wildlife habitat. Since this effort is outlined previously in the EIR, and Draft EIR Response to Comments, the following text focuses on the proposed 10-acre revegetation/enhancement program within the river channel.

Various enhancement options within the channel have been discussed with the agencies. Representatives of CDFG and USFWS recommended that a 10-acre pilot revegetation/enhancement program be performed. The Pilot Revegetation/Enhancement Program is shown on Figure 2.4-3. Recommended guidelines for the program include that part of the effort occur within the portion of the river channel that coincides with the proposed north-south wildlife corridor, and that the program be divided between existing wetland and alluvial wash habitats. As indicated in the project's biological technical information, the majority of vegetative cover in the channel is provided by undesirable exotic species (non-native) that degrade wildlife habitat value.

Portions of the channel have water near the surface and support wetland species in the overstory such as willow (Salix sp.) and understory such as rushes (juncas sp.). Although due to a highly variable water table, most of the channel vegetation is characterized as alluvial wash with riparian scrub species comprising the mid-story and upland plants in the understory. Based on discussion with the agencies, the two primary goals of the pilot program will be to: (1) revegetate and enhance existing habitat to improve wildlife habitat values as mitigation for golf course impacts, and (2) determine what methods are most feasible and successful for performing revegetation/enhancement and how long will it take to establish native vegetation.

The following conceptual review discusses proposed revegetation/enhancement locations and implementation methods, and recommended maintenance and monitoring guidelines. Prior to implementation of the proposed golf course, a detailed plan for the channel revegetation/enhancement program will be prepared for final approval by the agencies.

Locations and Implementation Methods

To meet the guidelines and goals listed above, it was determined that the 10-acre program will be divided between two locations: an approximate 5-acre area that corresponds to a wetter portion of the channel adjacent to existing offsite homes, and an approximate 5-acre area that corresponds to the alignment of the proposed north-south wildlife corridor. For ease of discussion, the more easterly, wetter area will be referred to as Area A and the more westerly area within the wildlife corridor will be referred to as Area B. For Area A, it is estimated that approximately 2 to 3 acres can support willow woodland, while the remaining portion will support alluvial wash (i.e., riparian scrub) with scattered trees such as California sycamore (Platanus racemosa). In both locations, the revegetation/enhancement will occur across the entire channel bottom. The eastern limit of Area A will be defined by the proposed entry bridge and cart path, while the eastern limit of Area B will be defined by the proposed equestrian trail and cart path. The western limits of these areas will be defined by permanent markers such as metal t-posts.

The primary implementation steps will include contractor education and delineation of access; initial removal of invasive exotic plants; installation of temporary irrigation; installation of container plants and seed; and follow-up maintenance and monitoring. No grading is proposed in the channel bottom. The proposed implementation steps and methods are reviewed below.

Contractor Education and Access. Prior to the initiation of revegetation/enhancement activities, the project biologist will meet with maintenance personnel to review project guidelines and goals. Native species to be retained and exotic species to be removed will be reviewed at that time. The least impactive access routes for equipment and program personnel will also be determined in the field and marked.

Initial Control/Removal of Exotic Species. The primary exotic species that should be removed include tamarisk/salt cedar (Tamarix sp.), pampas grass (Cortaderia selloana), giant reed (Arundo donax), castor bean (Ricinus communis), eucalyptus (Eucalyptus sp.), tree tobacco (Nicotiana glauca), and fennel (Foeniculum vulgare). This list may be adjusted by the project biologist during the implementation phase. It is recommended that the initial exotic species removal effort begin in the late summer. There are 3 basic methods for initial removal of exotics that can be used depending on the specific conditions within portions of Areas A and B. The 3 methods are: (1) hand-cutting most of the above-ground biomass and then applying herbicide to the stump; (2) applying herbicide without cutting the specimen; and (3) physical removal with motorized equipment. In cases where there is an isolated exotic with a sufficient density of native species around it (such that no follow-up planting will be necessary where the exotic presently occurs), herbicide can be applied without cutting the exotic. In cases where there is a grouping of exotics but motorized equipment could not avoid impacting existing native species, specimens should be hand-cut and herbicide applied so space will be created for

follow-up native planting. In cases where there is a grouping of exotics and motorized equipment could avoid impacting native species, this method can be used.

Since there is a significant amount of weed seed that already exists in the seedbank, physical removal of all the exotic biomass and seedheads out of the channel is not considered necessary. Except for a species such as giant reed, it is considered acceptable to chip this biomass and distribute it as mulch within the channel. It is understood that after the initial control/removal of exotics, follow-up maintenance will be necessary to ensure these species are completely eradicated. In the case of initial control/removal and follow-up maintenance, very small specimens can hand-pulled if the entire root system can be removed.

Installation of Temporary Irrigation System. To ensure survival and establishment of native container plants, some form of temporary irrigation will be necessary at least in the alluvial wash areas. It is expected that more than one method of irrigation may be used. It is likely the primary method will be a drip system (extended from the golf course irrigation system) to deliver water to individual container plants. Another potential method is selective hand-watering or installation of slow-release water products (e.g., DriWater) for more isolated container plants. An overhead irrigation system is not recommended because the spray is likely to be blocked by existing vegetation and it is not a feasible way to promote deep-watering. Particularly within this setting, periodic deep-watering is preferable over more frequent surface watering. The intent of irrigation will be to establishment the container plants by promoting root systems that tap into channel's available water. For most of the planted species it is expected that temporary irrigation will be needed for 2 to 3 years, after which time it can be permanently discontinued. For the wetter areas in Area A, it is expected that little to no temporary irrigation will be needed to establish the plants.

Installation of Container Plants and Seed. The primary method for native plant revegetation will be container plants and promoting establishment of native volunteers, although some limited hand-seeded may be tried in select areas. Generally in openings without native plants larger than 8 by 8 feet, appropriate container plants will be installed. Planting will include a mixture of shrub and tree species. As a guideline, container shrubs can be installed with spacing on center ranging from 6 to 12 feet with an 8 foot average, while trees can be installed from 12 to 25 feet apart with a 15 foot average (this assumes some mortality). Most of the container plants will be 1-gallon, although some 5-gallon trees may be included. For experimental purposes, some vegetative cuttings should be installed in the wetter Area A and possibly in Area B. Also for experimental purposes, some selective hand-seeding should occur in Areas A and B. After the initial control/removal of exotics, native planting should occur with the onset of the rainy season.

In regard to the wetter portions of Area A that will support willow woodland (approximately 2 to 3 acres), recommended container plants include, but are not limited to, arroyo willow (Salix lasiolepis), black willow (Salix gooddingii), shining willow (Salix lucida ssp. lasiandra), and Fremont cottonwood (Populus fremontii). Seeded species could include Mexican rush (Juncus mexicanus), spikerush (Eleocharis sp.), and monkey flower (Mimulus nasutus). In regard to the drier portions of Area A and all of Area B that will support alluvial scrub with scattered trees (approximately 7 to 8 acres), recommended container plants include, but are not limited to, mule fat (Baccharis salicifolia), sandbar willow (Salix exigua),

arroweed (Pluchea sericea), blue elderberry (Sambucus mexicana), and California sycamore. Seeded species could include Douglas mugwort (Artemisia douglasiana), giant wild rye (Leymus condensatus), and evening primrose (Oenothera hookeri). Many of the plants listed here are appropriate for both habitat types, although the final palettes should be "weighted" toward more wet- and alluvial-adapted species, depending on planting locations.

Maintenance and Monitoring

Once installation of the planting palettes is complete, a recommended 5-year maintenance and monitoring program will begin. In addition since invasive exotics from upstream portions of the river channel will continue to re-invade the 2 revegetation/enhancement areas over time, some form of periodic long-term maintenance and monitoring beyond 5 years is considered necessary. The focus of the 5-year maintenance effort will be to eradicate all invasive exotics in the revegetation/enhancement areas and to promote establishment of a self-sustaining native plant community in the portions of Areas A and B that are currently nonnative. The focus of the 5-year monitoring effort will be to provide direction to maintenance personnel, document progress and success of the program, and determine what methods of exotic plant control and native plant revegetation are most beneficial. Ultimately, monitoring will also help determine if the revegetation/enhancement is self-sustaining and whether this approximate 2-mile stretch of the river channel is a good candidate area for other projects to perform revegetation/enhancement mitigation. Maintenance and monitoring are discussed in more detail below.

Maintenance. During the initial 5-year period, the primary maintenance items will include exotic plant control, maintaining the irrigation system, promoting establishment of container plants, promoting establishment of seeded species and native volunteers, trash removal and site protection. After the initial exotic control/removal effort, exotic plant control will focus on treating re-sprouts with herbicide and eradicating new specimens that germinate from the seedbank. After the initial effort is conducted between July and August, it is recommended that herbicide be applied to the re-sprouts (before they get over 4 feet high) between August and October, before the first frost. In the following spring (i.e., between March and May) and late summer/fall of the next year, herbicide should be applied again to the re-sprouts. This follow-up treatment should be conducted each year until the individual specimen is dead. In terms of promoting establishment of container plants, the primary items will include overseeing temporary irrigation, maintaining weed-free basins, and adding fertilizer as necessary. Once some of the faster growing species such willow and cottonwood reach approximately 25 feet in height in 2 to 3 years, temporary irrigation should no longer be necessary. Scattered annual weeds, such as mustard (Brassica sp.) and clover (Melilotus sp.), should only need to be controlled when they occur in dense patches in open areas or in container planting basins. Once the 5-year program is considered successful and complete, long term maintenance may only be necessary twice a year to eradicate any exotics that have re-invaded.

Monitoring. A qualified biologist will oversee the initial 5-year monitoring period. The biologist will meet with maintenance personnel on a regular basis to review the condition of Areas A and B and the highest maintenance priorities. Horticultural and botanical monitoring will be performed. Horticultural monitoring will focus on exotic plant control and the health and growth of container plants. Botanical monitoring can use a combination of techniques, such as transects and

quadrats, to quantify the progress of native plant development in areas previously dominated by nonnative plants. Permanent photographic viewpoints should also be established to document revegetation progress over time. As part of monitoring, a set of success standards will be established to assess revegetation progress. Within the alluvial wash habitat for example, success standards for the end of year 5 could include 90 percent survival of container plants, 65 percent native cover in areas previously dominated by non-native, and no invasive exotics present. Success standards could be similar within the wetter willow woodland area, except for a slightly higher native plant cover goal. Horticultural and botanical monitoring results, including any recommended remedial measures (e.g., replacement plants, fertilizer etc.), will be included in five annual reports to be submitted to the agencies. The annual reports should also review the relative success of the revegetation techniques conducted in Areas A and B, so potential future revegetation/enhancement programs performed by other projects in the channel can benefit from the results of this pilot program.

Once the program has met its 5-year success standards in Areas A and B, that portion of the program will be complete. If portions of Areas A and B have not met their success standards after 5 years, then consultation should occur with the agencies to determine whether sufficiently beneficial revegetation/enhancement can be feasibly performed within this setting. If revegetation/enhancement was successful after 5 years, then some form of long term monitoring and reporting should be coordinated with the long term maintenance effort to ensure invasive exotics do not re-invade and intended wildlife habitat values are retained.

The Pilot Revegetation/Enhancement Program is shown on Figure 2.4-3.

Mitigation for Impact 2.4.3.c: Wildlife Corridors

Any crossing of the San Diego River could result in significant impacts to wildlife corridor movement. Proper design of the proposed bridge crossing, four at grade cart paths, and one at grade equestrian trail will mitigate this impact to less than significant levels. The bridge/crossing shall be of adequate height such that wildlife movement within the riparian corridor is not discouraged.

The wildlife corridor/habitat creation area was specifically designed to mitigate for potential impacts to wildlife movement corridors by the project. The following condition shall be implemented as part of the biological monitoring program:

- Natural barriers comprised of thorny shrubs or other appropriate vegetative barriers and signage shall be incorporated along both sides of the cart paths and equestrian path wherever they enter or cross the river channel, wildlife corridor/habitat creation area, or other areas specifically designated as biological open space by the golf course design or the Helix Water District Subarea Plan. These barriers shall be designed to prevent golfers, equestrians, or other humans from casual entry into biological resource areas.

- Signage shall be erected at appropriate locations along cart paths and equestrian trails to educate users about the biological resources and prohibited uses in the biological open space areas.

The wildlife corridors proposed for the project site have been extensively discussed with the Wildlife Agencies and adequately provide the desired linkages.

A north-south wildlife movement corridor will be created to mitigate for impacts to small scattered patches of coastal sage scrub and associated species as well as potential impacts to wildlife movement. Approximately 21 acres of coastal sage scrub habitat will be created in the corridor zone. The corridor ranges in width from approximately 650 feet to over 1,000 feet wide and is approximately 1,300 feet long. The corridor is located in an area with a low level of human disturbance, especially at night. The wildlife corridor has been redesigned on the north side of the river by changing the footprint of golf hole No. 5 (see Figure 2.4-4). The area north of the fifth hole will be revegetated in a mix of coastal sage scrub and native grassland species. The cart path has been moved so that it wraps around the east end of the fifth green and has limited impact on the wildlife corridor. All trees will be planted on the "golf side" of the cart path. This enhanced wildlife corridor will connect Pre-approved Mitigation Areas that were previously separated by the agricultural land use and will contribute to the preservation of wide-ranging species.

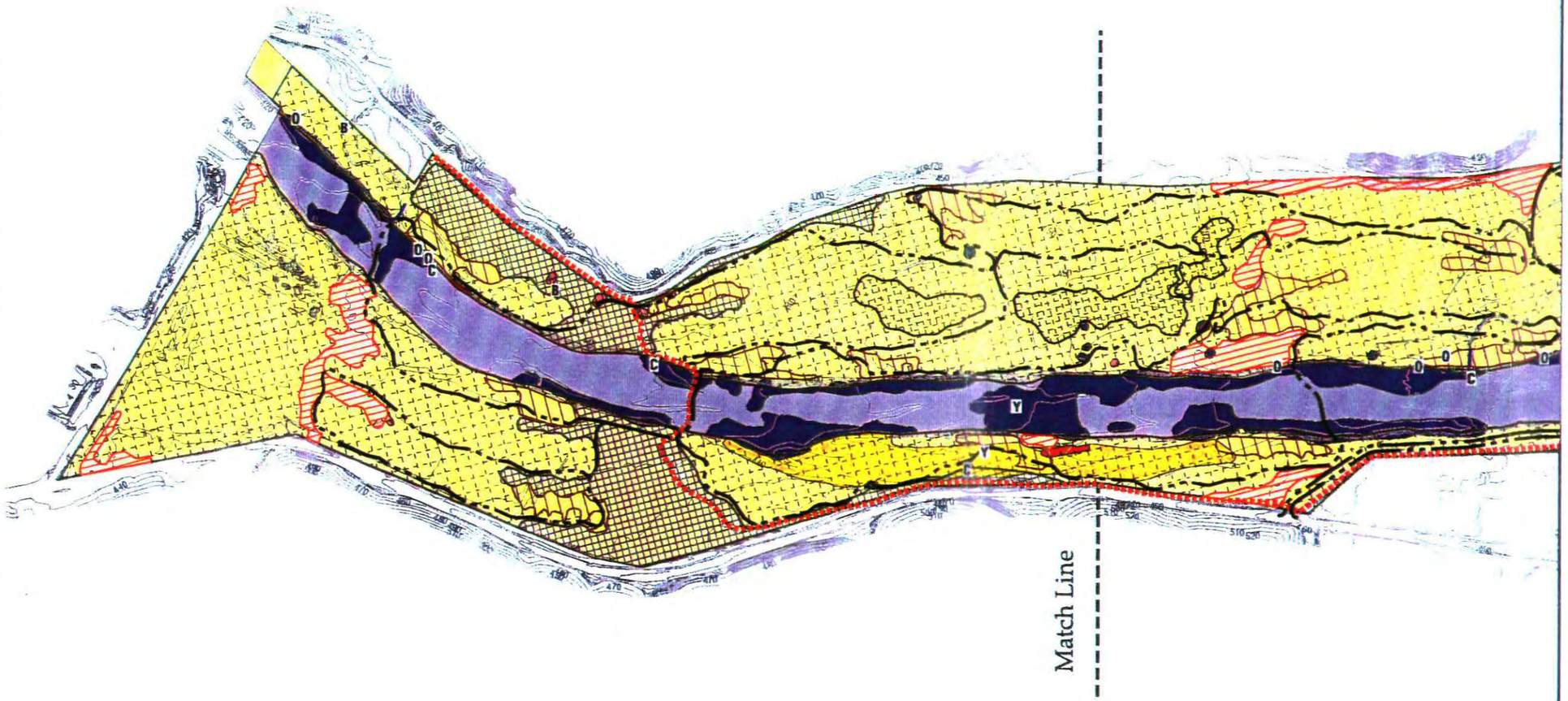
The integrity of the San Diego River channel corridor will be enhanced by the establishment of a biological buffer averaging 50 feet and a 100-foot wide planning buffer on both sides of the channel. The biological buffer will remove exotic invasive plant species and be revegetated with native plant materials. The proposed variable width biological buffer starts at the edge of the Army Corps of Engineers jurisdiction boundary (approximately two feet in elevation above the base of the river channel bank) and varies from a minimum of 25 feet to as much as 200 feet wide in several areas.

The area included within the biological buffer will be re-contoured to accommodate the overall grading concept of the golf course. All of the non-native plant species, including a significant amount of invasive exotic plants, will be removed while protecting and retaining the riparian woodland species rooted in the channel and overhanging the bank of the river channel. The variable biological buffer will be revegetated with native plant species such as toyon, sumac, rhus species, live oak, and western sycamore. The golf operator will irrigate and maintain the buffer area to preclude invasion of non-native species and preserve its function as a biological buffer for current and future revegetation efforts in the river channel.

2.4.5 Conclusions

The project has been designed to minimize biological impacts and to be compatible with the local landscape and environment. The project also provides some positive biological net benefits (e.g., conversion of agricultural land to coastal sage scrub). Unavoidable significant biological impacts resulting from the project can be mitigated to below a level of significance with the proposed measures.

El Capitan Golf Course



LEGEND

Habitats and Tree Locations

- Agriculture
- Coastal Sage Scrub
- Tamarisk Scrub
- Disturbed Riparian Scrub
- Riparian Woodland
- Coast Live Oak [1]
- Western Sycamore [1]
- Waters of the U.S.

Wildlife Species

A	American kestrel
B	Barn owl
C	Coastal whiptail
G	Great horned owl
O	Orange-throated whiptail
P	Prairie falcon
R	Red-shouldered hawk
Y	Yellow-breasted chat
Z	Greater roadrunner

Proposed Impacts

- Golf Course
- Wildlife Corridor [2]
- Zone 1 [2]
- Zone 2 [2]
- Lakes [2]
- Equestrian Trail
- Cart Path

1 Denotes location of individual coast live oak and Western sycamore trees, except for four locations where two oak trees occur together (2).

2 The proposed wildlife corridor, zone 1, zone 2, and lakes are considered positive impact habitat conversions.

- 10 ft. Index Contours
- 2 ft. Intermediate Contours

0 600
FEET

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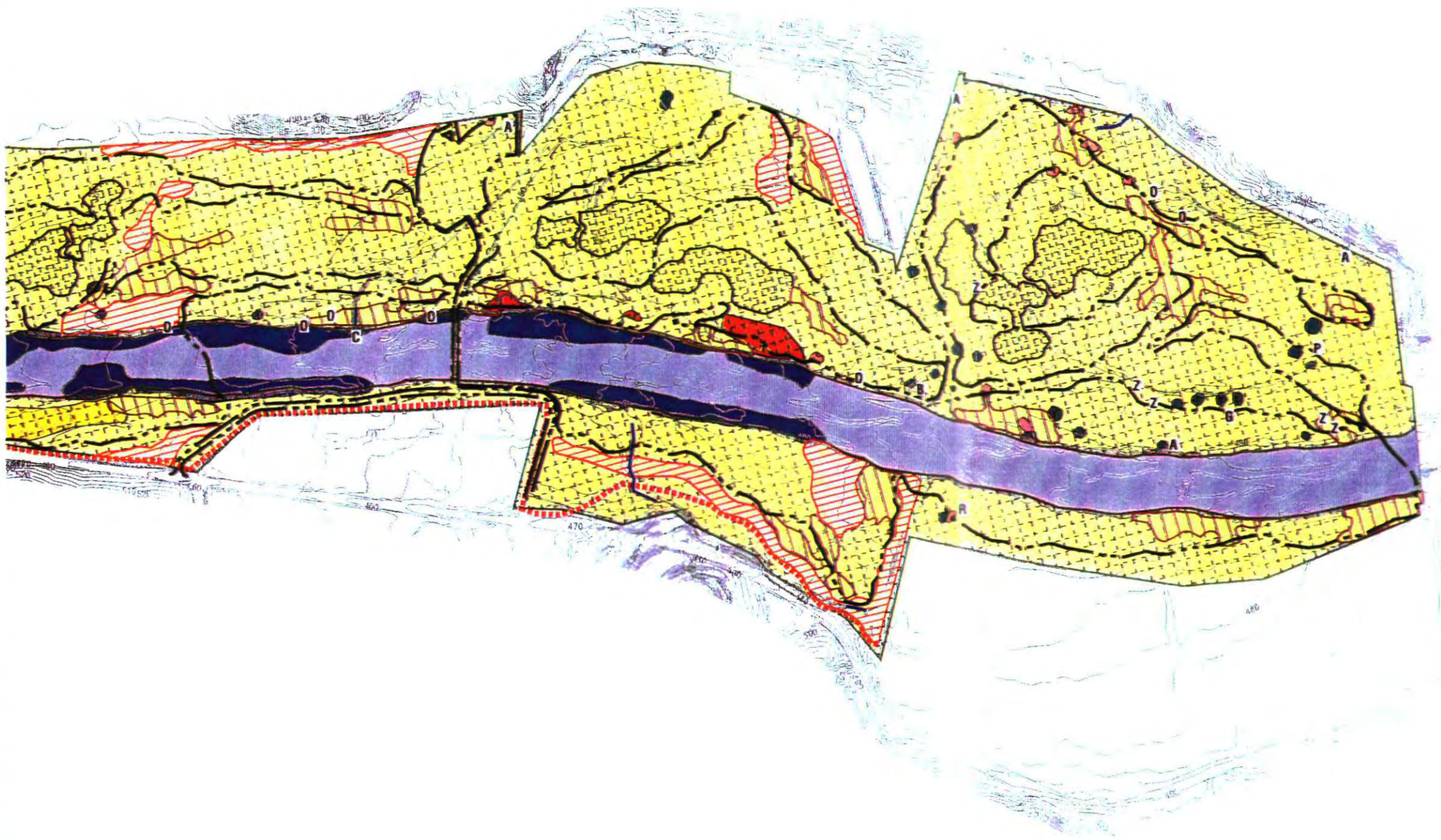
Existing Biological Resources & Proposed Development (West Half)

Figure 2.4-1

El Capitan Golf Course



LEGEND

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1 Denotes location of individual coast live oak and Western sycamore trees, except for four locations where two oak trees occur together (2).

2 The proposed wildlife corridor, zone 1, zone 2, and lakes are considered positive impact habitat conversions.

- 10 ft. Index Contours
- 2 ft. Intermediate Contours

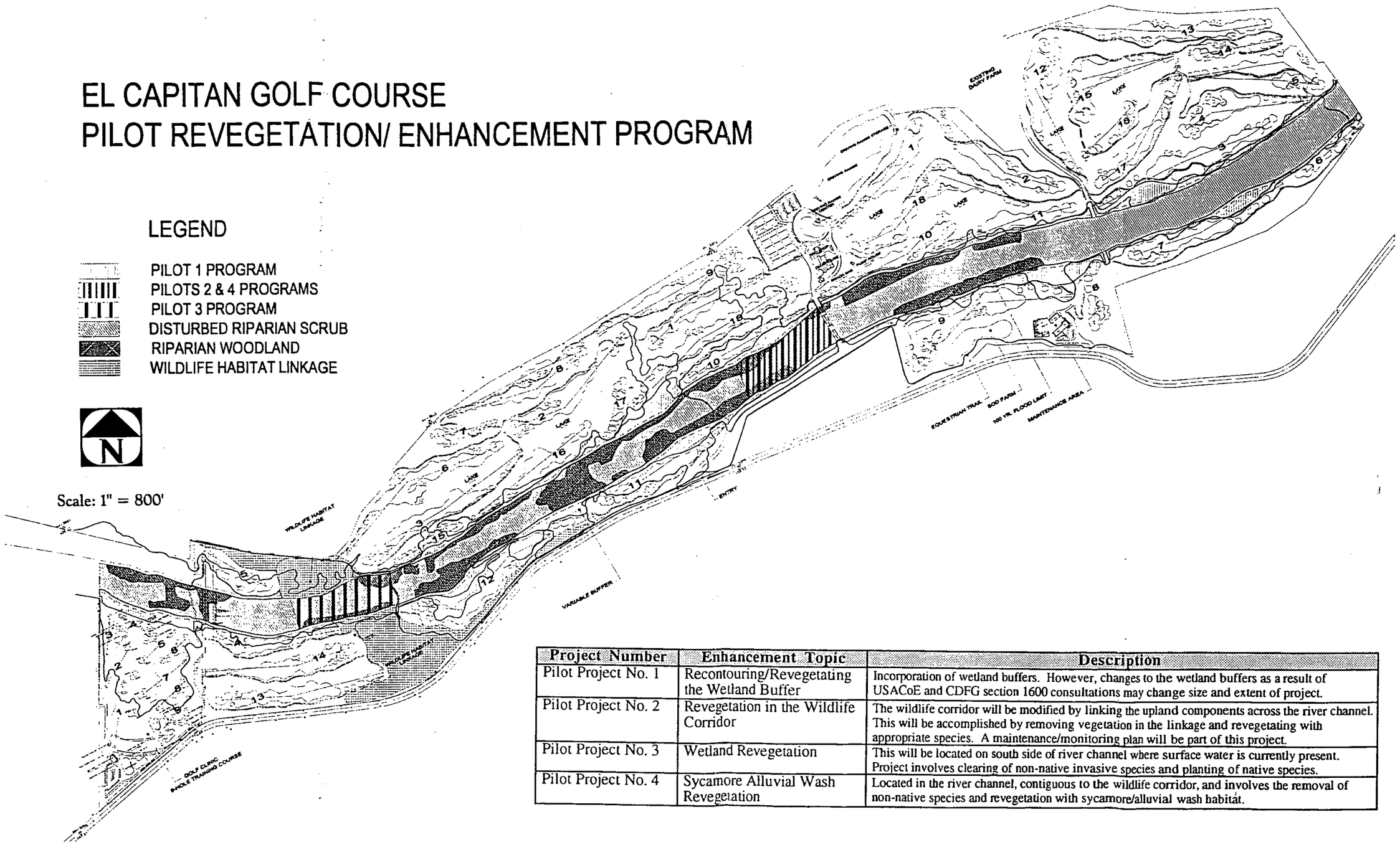
0 600
FEET

EnviroMINE

Existing Biological Resources & Proposed Development (East Half)

Figure 2.4-2

EL CAPITAN GOLF COURSE
PILOT REVEGETATION/ ENHANCEMENT PROGRAM



Project Number	Enhancement Topic	Description
Pilot Project No. 1	Recontouring/Revegetating the Wetland Buffer	Incorporation of wetland buffers. However, changes to the wetland buffers as a result of USACoE and CDFG section 1600 consultations may change size and extent of project.
Pilot Project No. 2	Revegetation in the Wildlife Corridor	The wildlife corridor will be modified by linking the upland components across the river channel. This will be accomplished by removing vegetation in the linkage and revegetating with appropriate species. A maintenance/monitoring plan will be part of this project.
Pilot Project No. 3	Wetland Revegetation	This will be located on south side of river channel where surface water is currently present. Project involves clearing of non-native invasive species and planting of native species.
Pilot Project No. 4	Sycamore Alluvial Wash Revegetation	Located in the river channel, contiguous to the wildlife corridor, and involves the removal of non-native species and revegetation with sycamore/alluvial wash habitat.

Figure 2.4-3

Pilot Revegetation/Enhancement Project

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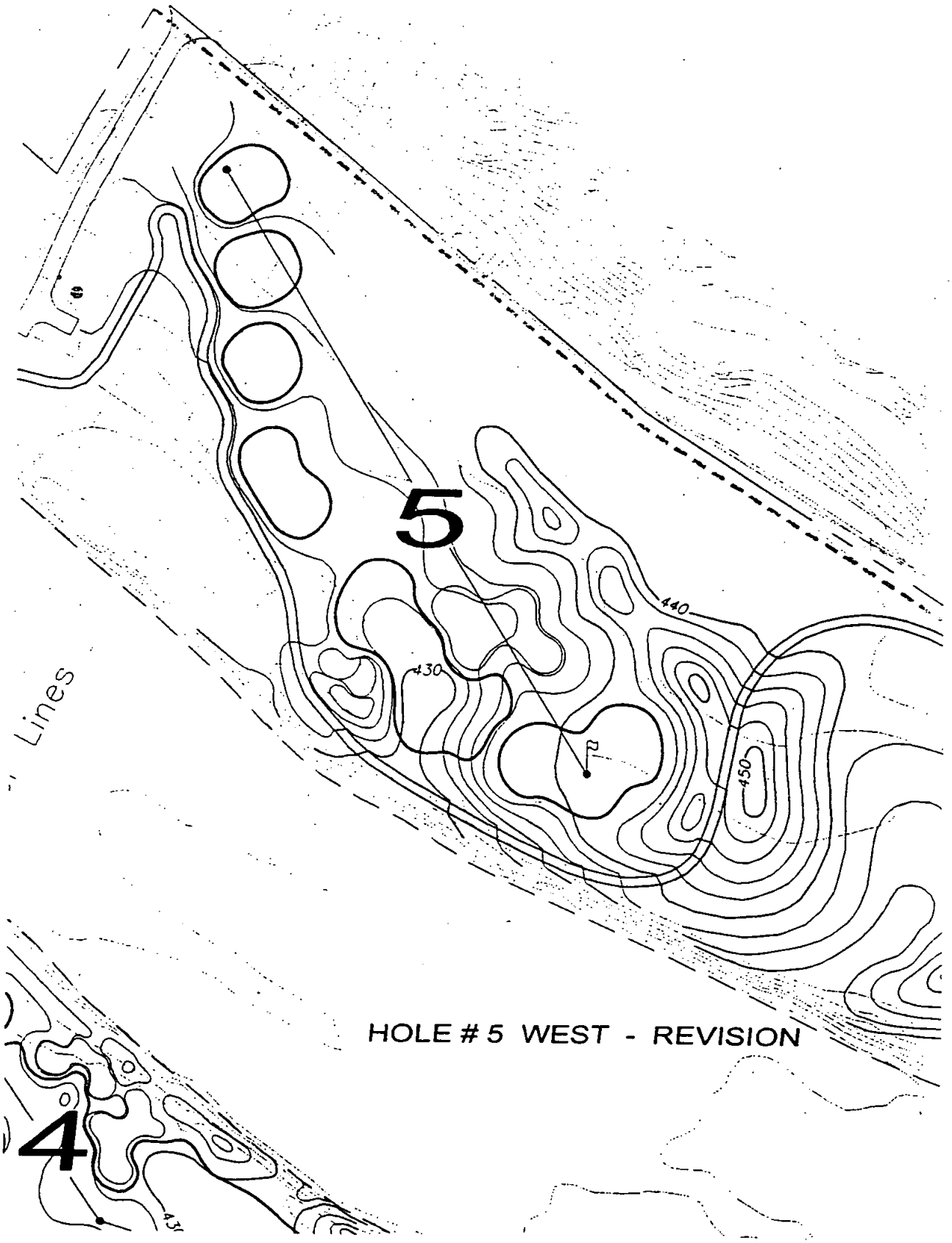
El Capitan Golf Course



EnviroMINE | Hole No. 5 Corridor Improvements | Figure 2.4-4

El Capitan Golf Course

Habitats	Existing	Projected Impacts					Total Impacts	Remaining Open Space
		Golf Course and Facilities[1]	Created Lakes	Wildlife Corridor[2] (CSS)	Natural Plantings Zones[3] 1/2	Equestrian Trail		
Agriculture	364.7	279.0	19.3	20.7	19.2/24.1	1.5	363.8	0.9
Tamarisk Scrub	8.4	7.55	--	0.35	--/0.5	--	8.4	0.0
Coastal Sage Scrub	1.9	1.7	--	--	--/0.2	--	1.9	0.0[4]
Disturbed Riparian Scrub	59.8	0.52	--	--	--/--	0.04	0.56	59.24
Riparian Woodland (ACOE/CDFG)	21.2	0.08	--	--	--/--	0.01	0.09	21.11
Riparian Woodland (CDFG only)	4.1	3.90[5]	--	--	--/0.1[5]	0.004	4.0	0.1
Waters of the U.S.	0.3	0.3	--	--	--/--	--	0.3[6]	0.0
Totals	**460.4**	**293.05**	**19.3**	**21.1**	**19.2/24.9**	**1.55**	**379.1**	**81.4**

[1] Golf course and facilities includes all golf turfed areas (i.e., holes and practice areas), entry roads, cart paths and associated facilities and buildings (e.g., club house and maintenance building).

[2] Wildlife corridor is the coastal sage scrub (CSS) habitat creation/preserve area that is proposed for the north and south sides of the river.

[3] Natural planting Zone 1 includes a pure native coastal sage scrub palette (also used for the wildlife corridor). Zone 1 includes the designated areas outside the wildlife corridor/preserve area. Zone 2 is a native California shrub palette with species from within and outside the region.

[4] The 0.0 acres under Remaining Open Space denotes the existing 1.9 acres will be completely impacted by the project, although the project design proposes the creation of 21.1 acres of coastal sage scrub in the wildlife corridor/preserve (plus an additional 19.2 acres of Zone 1 CSS planting) that will be preserved in open space.

[5] Based on a worst-case analysis, 4.0 acres of riparian woodland (CDFG jurisdictional) may be impacted by the project. Of this total, only 0.04 would be permanently impacted by the river crossings (i.e., cart paths, entry bridge and equestrian trail) listed in Table 2. The remaining impact is projected from the golf course footprint/grading and associated planting zones. Most of the tree stems that provide canopy overhang on the river banks grow out of the river bottom, such that the majority of grading that will occur on these banks will actually impact native and non-native upland understory species under the riparian woodland trees (e.g., willow and cottonwood).

[6] The five waters of the U.S. drainages will be replaced with turfed drainage corridors.

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Habitat Impact Acreage

Table 2.4-1

EL MONTE GOLF COURSE PROJECT
EXISTING WETLAND HABITATS AND PROJECTED PERMANENT AND TEMPORARY MPACTS
FROM CART PATHS, ENTRY BRIDGE AND EQUESTRIAN TRAIL (in square feet and acres)
MARCH 1998

Habitats	Existing	Impacts[1,2]						Total Impacts
Habitats		First Cart Path Perm./Temp.	Second Cart Path Perm./Temp.	Third Cart Path Perm./Temp.	Fourth Cart Path Perm./Temp.	Entry Bridge Perm./Temp.	Equestrian Trail Perm./Temp.	Perm./Temp.
Disturbed Riparian Scrub	59.8 ac.	2,800/2,800 sq. ft./sq. ft.	2,200/2,200 sq. ft./sq. ft.	2,900/2,900 sq. ft./sq. ft.	3,500/3,500 sq. ft./sq. ft.	11,400/18,600 sq. ft./sq. ft.	1,760/2,200 sq. ft./sq. ft.	0.56/0.74 ac./ac.
Riparian Woodland (ACOE/CDFG)	21.2 ac.		600/600 sq. ft./sq. ft.	1,200/1,200 sq. ft./sq. ft.		1,520/2,480 sq. ft./sq. ft.	480/600 sq. ft./sq. ft.	0.09/0.11 ac./ac.
Riparian Woodland (CDFG only)	4.1 ac.		200/200 sq. ft./sq. ft.	600/600 sq. ft./sq. ft.		.760/760 sq. ft./sq. ft.	160/200 sq. ft./sq. ft.	0.04/0.05 ac./ac.
Waters of the U.S.	0.3 ac.							0.0/0.0 ac./ac.
Totals		**2,800/2,800 sq. ft./sq. ft.**	**3,000/3,000 sq.ft./sq. ft.**	**4,700/4,700 sq. ft./sq. ft.**	**3,500/3,500 sq. ft./sq. ft.**	**13,680/22,320 sq. ft./sq. ft.**	**2,400/3,000 sq. ft./sq. ft.**	**30,080/39,320 sq.ft./sq. ft.**
	85.4 ac.	**0.065/0.065 ac./ac.**	**0.07/0.07 ac./ac.**	**0.11/0.11 ac./ac/**	**0.08/0.08 ac./ac/**	**0.31/0.51 ac./ac/**	**0.05/0.07 ac./ac/**	**0.69/0.90 ac./ac/**

1 The first through fourth proposed cart path crossing of the river occur in sequence from west to east.
2 Additional wetland impacts to waters of the U.S. and riparian woodland (CDFG jurisdictional habitat) resulting from the golf course (e.g., turfed areas and associated planting zones) are included in habitat impact summary totals in Table 1.

2.5 Archaeological Resources

This evaluation is based on the *Cultural Resource Survey and Evaluation* prepared by the project archaeologists. The archaeological resources study for the project was performed to determine the presence or absence of potentially significant prehistoric and historic resources associated with the project site. The analysis included a records search at the San Diego Museum of Man and the South Coastal Information Center at San Diego State University. This records search was followed by an intensive field survey of the project site and the immediate area.

2.5.1 Existing Conditions

The project site is located along the San Diego River valley, within the flood plain of the river. Land uses in the general vicinity primarily consist of agriculture, dairy farming, and aggregate (sand/gravel) extraction. Residential use of the surrounding area is generally low-density rural ranch-style housing. All of these activities have greatly modified the original landscape. Natural flood patterns and flood control activities have also disturbed portions of the project area.

Archaeological, ethnographic, and historical information indicate that the San Diego County region has been occupied by Native Americans for nearly 10,000 years. The earliest evidence is that which archaeologists have named the San Dieguito Complex, a generalized hunter-gatherer band level society documented at sites throughout the region. By roughly 8,500 B.P., Early Archaic groups displaced the San Dieguito. These groups intensively occupied the immediate coastal areas of southern California, including San Diego County, where they are referred to as the La Jolla. Evidence of Kumeyaay and Luiseno culture groups, first found in the archaeological record around 1,500 years ago in the southern and northern areas of the county, respectively, represent the final major indigenous culture-historic horizon. Known regionally as the Late Prehistoric, this period ended with the arrival of the first Europeans.

At the time of initial contact with Europeans, the region was occupied by the Kumeyaay Native American group. The Kumeyaay, also known as the Diegueno, inhabited the southern region of San Diego County, west and central Imperial County, and northern Baja California, and are the direct descendants of the early Late Prehistoric hunter-gatherers. Kumeyaay territory encompassed a large and diverse environment that included marine, foothill, mountain, and desert resource zones. A number of Kumeyaay reservations are located near the project area including those of the Barona, Capitan Grande, Viejas, and Sycuan bands of Kumeyaay Indians.

The methods used to determine the existence of cultural resources in the project area included records searches, a field reconnaissance, and a limited testing program on one site. The records searches were conducted for a one-mile radius around the project site. The field examination of the project site involved an on-foot survey using 20 meter transects. In general, ground visibility was sufficient for the detection of archaeological resources.

Site records indicate that no archaeological sites or resources had been recorded within the project area, although a total of 24 sites are recorded within a 1-mile radius of the project site. Many of these are small temporary camp sites situated on the hills to the north and south of the project area. These sites often contain

milling, small scatters of lithics and pottery, groundstone, and other artifacts. Very few sites are recorded in the river bottom and presumably, they have been destroyed by seasonal flooding or modern farming.

Six sites are recorded as being directly adjacent to the project area, and therefore merit brief discussion.

- **CA-SDI-4517**: This site is to the northeast of the project area, upon a south facing knoll. The site consists of a bedrock milling station, and an associated midden above a rock outcrop, including ceramics, lithics, and groundstone.

- **CA-SDI-13,652:** This extensive site is located on the northwest edge of the project area. The site consists of bedrock milling features, a rock shelter, midden, pottery, shell, bone, fire-affected rock, groundstone, and other items. The area is considered a Late Prehistoric habitation site. Most of this site and its features are located to the north of Willow Road, with only a small portion extending into the project property.

- **CA-SDI-13,610:** This site is located south of the project area on the south side of El Monte Road. The site consists of several loci with milling features on large granite boulders and a small number of artifacts including a ceramic shard and a mano.

- **CA-SDI-13,609:** This site is located east of CA-SDI-13,610, on the south side of El Monte Road and south of the project area. The site is a single milling slick on a granite boulder.

- **CA-SDI-13,608/H:** This site is located near El Monte Road, southeast of the project area. The site consists of two components: a prehistoric scatter of artifacts and a historic concrete silo and associated historic debris. The prehistoric and historic artifacts are scattered together in a plowed field. Prehistoric items include a mano fragment and a possible hammerstone, while the historic artifacts include some aqua glass fragments and a piece of embossed purple glass.

- **CA-SDI-13,607:** Situated southeast of the project area on both sides of El Monte Road, this site consists of a scatter of artifacts including groundstone, hammerstones, lithics, and ceramics; however, no features were recorded.

A field survey revealed that the project site is heavily disturbed by agriculture and past sand extraction activities. There has been considerable alteration to the original landscape particularly in areas where flood control work has been conducted.

2.5.2 Thresholds of Significance

The project would have a significant impact to archaeological resources if construction or operation adversely effected important prehistoric or historic resources, or resources having substantial value to Native Americans.

2.5.3 Analysis of Project Effects and Determination as to Significance

2.5.3.a Impacts to Significant Archaeological Sites

The project proposes construction of two 18-hole golf courses and ancillary facilities. Extensive grading consisting of up to 1,300,000 cubic yards of balanced cut and fill would be required to contour the golf course, create roads and parking, and provide for building pads. The project area contains one significant archaeological site: CA-SDI-13,652. With the exception of this previously recorded site, no other sites or artifacts were found in the project area. Grading activities have the potential to impact the buried archaeological resources associated with this site.

CA-SDI-13,652 is situated in a portion of the project area, adjacent to Willow Road. Willow Road bisects this archaeological site in an east-west direction. Most of the site is located outside of the project boundary among bedrock outcrops on the adjacent hillside. The site consists of bedrock milling features, a rock shelter, midden, pottery, shell, bone, fire-affected rock, groundstone, and other items. The portion of the site south of Willow Road is located within the project boundary in an agricultural field. The field is currently fallow but the site has been impacted by extensive plowing.

Originally recorded in 1993 as a large, Late Prehistoric occupation site, CA-SDI-13,652 consists of three loci covering an area 250 by 125 meters. Bedrock milling features (mortars, basins, and slicks), Tizon Brownware ceramics, shell, bone, fire-affected rock, groundstone, debitage, a rockshelter, and a Desert Side Notch projectile point were documented.

During the current study for the proposed golf course project, the presence of cultural materials within the portion of the site south of Willow Road was confirmed by a low density scatter of lithic flakes, ceramics, some groundstone, and fire-affected rock. A testing program was conducted to determine the lateral extent of the site and relative significance. The testing program at CA-SDI-13,652 was limited to the south side of Willow Road, in the portion of the site within the project boundaries. A total of 38 shovel test pits (STPs) and one 1.0 x 0.5 meter unit were excavated to determine the horizontal and vertical extent of the archaeological deposit within that portion of the site. Over 400 artifacts were recovered, including 274 lithic flakes, 128 pieces of ceramics, and two groundstone fragments. Faunal material (burnt and unburnt) including bone and marine shell were also recovered, as was charcoal and fire-affected earth. With the exception of the fire-affected rock, all recovered artifacts were transported to laboratory facilities for further cataloging and analysis. These artifacts will be retained until a permanent repository is available for curation.

The 38 STPs were excavated in 10cm levels to a maximum depth of 85cm. The STPs revealed 15 - 20cm of heavily disturbed plow-zone underlain by gray silt of varying degrees of compactness. The 1.0 x 0.5 meter unit was placed in the area of heaviest artifact concentration as determined by the STPs and excavated in 10cm levels to a depth of 80cm. Based on testing results, the portion of the archaeological site that exists south of Willow Road and within the project boundary has a subsurface cultural deposit to a depth of at least 85cm. The highest density of artifacts appear below 30cm. The tested portion of the site covers an area approximately 220 by 75 meters and revealed prehistoric cultural material consisting of lithics, bone, shell, pottery, and groundstone.

The results of this evaluation indicate the presence of a substantial subsurface deposit that qualifies as significant pursuant to CEQA. Grading activities required for project implementation therefore have the potential to significantly impact buried archaeological resources on-site.

2.5.4 Mitigation Measures

Mitigation for Impact 2.5.3a: Significant Archeological Sites

The mitigation measures proposed should be included into the project permitting process as conditions of project approval. Implementation of the proposed mitigation measures would reduce the potentially significant impacts to on-site cultural resources to a level below significance. The mitigation measures are described below:

1. CA-SDI-13,652 shall be preserved by "capping" the site. This will mitigate any adverse impacts that might result form construction of the proposed project. Capping will involve the placement of 6 inches of clean sand followed by 2 to 4 feet of clean, sterile fill soil over the entire site.

2. The boundaries of CA-SDI-13,652 shall be appropriately delineated on all project maps with prohibitions against future excavation, grading, or other substantial subsurface disturbance. Irrigation, other utilities, and improvements must not penetrate the sand stratum above the site.

3. All archaeological resources mitigation work shall be performed under the direct supervision of a qualified archaeologist.

4. The boundaries of the site area shall be appropriately delineated on project maps with prohibitions against future excavation and/or disturbance. Irrigation, other utilities, and improvements must not penetrate the sand stratum demarcating the top of the site. Additionally, a qualified archaeological monitor shall be present during any extensive grading and subsurface excavation during the construction phase of the project.

5. All archaeological collections resulting from the testing program and subsequent excavations shall be currated.

2.5.5 Conclusions

Implementation of the proposed mitigation measures would reduce impacts to archaeological resources to a level below significance because the resources would be preserved intact onsite. No other significant impacts were identified.

2.6 Hydrology

An analysis of surface hydrology for the project site and surrounding areas was examined by Howard H. Chang Consultants (El Monte Golf Course River Hydrology Study 1996, revised 1998. The results of this study are summarized in the following discussion. Completed copies of the studies have been placed in the Technical Appendices as Appendix E.

2.6.1 Existing Conditions

The El Monte Valley lies within the San Diego River drainage basin. This drainage basin originates east of the site in the Cuyamaca Mountains and flows southwesterly to the Pacific Ocean through Mission Bay. The drainage basin area totals 433 square miles and has an overall length of approximately 41 miles. The basin is roughly pear-shaped elongated in a northeast to southwest direction (Figure 2.6-1), with a width that varies from about 7 miles at the mouth, to about 14 miles in the mountains to the east.

Above the project site, the main channel and tributaries have steep slopes. Below the site, most of the side slopes are gentle with the exception of the reach through Mission Gorge which has a steep local slope within the rocky hill sides. Within the lower portion of the watershed, the dominant streambed constituent is alluvial sand. However, bedrock surfaces through the steep Mission Gorge reach. These durable bedrock materials serve as a base level for channel erosion between the steeply sloping mountainous areas to the east and Mission Gorge. Elevations of the watershed range from 6,512 feet above mean sea level (AMSL) at Cuyamaca Peak to sea level where the river enters the Pacific Ocean.

The climate experienced in the San Diego River drainage basin is typical of southern California. Approximately 70% of annual precipitation falls between December and March. However, due to the vast differences in elevation, precipitation is unevenly distributed. Annual precipitation ranges from approximately 35 inches in mountainous areas, while near coastal areas receive approximately 10 inches. Rainfall in the project vicinity averages 15 inches per year. It should be noted however, precipitation amounts vary significantly from year to year.

Channel Characteristics

The San Diego River channel has undergone a number of changes over the course of human history. These changes have resulted from activities such as sand and gravel extraction, agricultural activities, roadway crossings, flood control works, and water storage reservoirs.

Sand extraction has occurred within the river for an extended period. Past sand extraction activities have resulted in the creation of numerous open water ponds within the river channel. These ponds are located throughout the lower reaches of the river below the project site. Today, only two sand extraction operations remain in the Upper San Diego River. These operations include the Nelson & Sloan El Monte Sand Pit, located immediately to the west of the project site, and the RCP operations in the City of Santee.

Sand extraction operations in El Monte Valley include past operations conducted by Woodward Sand and Materials Company and the on-going operations conducted by the Nelson & Sloan Company. The Woodward Sand operation started in the early 1970's and continued until 1982. This project extracted sand within the floodplain to create the present main channel of the river. This defined floodway is about 300 feet wide, 10 feet deep, and 2.7 miles in length. The defined floodway extends from the eastern boundary through the project site to approximately 0.5 miles west of the site.

On-going sand extraction operations conducted by the Nelson & Sloan Company are located on the south side of the main channel. This operation started in the early 1970s, removing sand deposits well below the water table. As such, the project is expected to result in the creation of a large side-channel pond. In order to avoid impacts of the water pond on the river channel, the operator is required to provide a partition between the river channel and the extraction site.

Other notable changes in the river's hydrology include the construction of a number of water storage reservoirs. These reservoirs include: Lake Cuyamaca Dam and El Capitan Reservoir on the San Diego River (above the project site), and San Vicente Reservoir below the site on San Vicente Creek.

Lake Cuyamaca Dam is located on the headwaters of the San Diego River within the drainage basin of El Capitan Reservoir. Lake Cuyamaca Reservoir has a storage capacity of 8,233 acre-feet.

El Capitan Reservoir is located on the San Diego River approximately seven miles east of Lakeside and has a capacity of 116,449 acre-feet. The total drainage basin area for this reservoir is 190 square miles, including the small basin area for Lake Cuyamaca. El Capitan Reservoir has a storage capacity roughly six times the annual runoff within the basin.

San Vicente Reservoir is located on San Vicente Creek, a tributary to the San Diego River below the project site. This reservoir has a drainage basin area of about 75 square miles and provides a storage capacity of 90,230 acre-feet. San Vicente Reservoir is important to San Diego River hydrology because it influences flood flow characteristics below the site. Any change in downstream channel characteristics will influence upstream conditions until equilibrium is achieved.

El Capitan and San Vicente Reservoirs are owned and operated by the City of San Diego for municipal use and irrigation. Most of the water stored in San Vicinte Reservoir is imported from other areas, while most of the water in El Capitan accumulates from natural runoff. With the exception of high storm flows, water releases from the reservoirs are generally to the water supply system of the region. As such, normal operations do not affect the runoff of the river channel.

Water utilization policy for the reservoirs requires the use of local runoff first before imported water. The City's primary objective for the operation of these reservoirs is to maximize the capture and utilization of local runoff water. For this reason, the San Diego City Council has an established policy which requires El Capitan, San Vicente, and Lake Murray reservoirs to maintain 60% of the annual water requirement as active available storage. This policy sets the lower level of storage in these reservoirs. It is a normal practice to maintain a minimum water storage in these reservoirs each fall just before the winter rainy season. This policy has reduced the chances for water releases and spillage.

Since completion of El Capitan and San Vicente Reservoirs in 1935 and 1943, respectively, the flood flow characteristics of the river have changed dramatically. Since completion of the dams, the greatest flow occurred on February 21, 1980. The inflow to El Capitan Reservoir was estimated to be 40,000 cubic feet per second (cfs) with San Vicente inflow measured at 11,500 cfs. The reservoirs effectively controlled much of this inflow with El Capitan discharging only 1,080 cfs, while San Vicente discharged 6,000 cfs. Except for a minor discharge, El Capitan Reservoir received more than the 100-year inflow without spillage, while San Vicente effectively reduce inflows by half. The 1980 flood was the first spill for El Capitan since 1941. The spill at San Vicente was the largest ever recorded.

Each dam has an uncontrolled spillway and spillage occurs when the water level exceeds the spillway crest. Spillage has occurred infrequently; El Capitan Reservoir spilled in 1938, 1939, 1941, 1980, and 1993; San Vicente Reservoir spilled in 1978, 1980, 1983, and 1993.

Below El Capitan Reservoir, only a small watershed area contributes runoff to the San Diego River above the project site. As such, in most years, this small watershed area does not yield sufficient runoff to cause flow within the river channel through the project site.

Other elements of the man-made environment which have an effect on the flow characteristics of the river channel include a number of river crossings. At present, all river crossings within El Monte Valley are "dip crossings." With one exception, none of these crossings are equipped with low-flow culverts. Ashwood Street (0.5 miles west of the project site) is constructed with low-flow culverts under the roadway. The Helix Water District operates a 36-inch water transmission main which crosses the river just west of the project site. This water main lies less than 6 inches below the channel bottom.

Flood Hydrology for El Monte Valley

A number of river hydrology studies have been completed in the project area. These studies were completed by the County of San Diego (County, 1973), California Department of Water Resources (DWR, 1976), and the U.S. Army Corps of Engineers (ACOE, 1975). Each of these studies were completed using differing methodologies. As such, three different peak flow floods were computed (Table 2.6-1).

In 1975, the Corps of Engineers completed a hydrology study of the river basin. This study identified flood discharges (Table 2.6-2) which are considerably greater than those listed in Table 2.6-1. These discharges were used in the development of flood plain maps for the Federal Emergency Management Agency (FEMA).

If the City of San Diego were to change current policies with regard to storage levels within El Capitan Reservoir to accommodate additional raw water storage, higher flood discharges would likely result. In view of this possibility, the FEMA-adopted discharges were used as a conservative measure for hydrology.

2.6.2 Thresholds of Significance

The project would have a significant impact on surface hydrology if substantial effects resulted to flow hydraulics, erosion, or sedimentation of the river channel.

2.6.3 Analysis of Project Effects and Determination as to Significance

2.6.3.a Impacts on Flood Level due to Grading

The floodplain of the Upper San Diego River at the project site includes the main channel and overbank areas. The main channel of a given cross section is typically 300 feet in width and 10 feet in average depth. Since the overbank areas have very shallow flow depths and very low velocities, most of the flow is conveyed through the main channel.

Under the proposed project, no grading would occur within the main channel. Grading would occur, however, in the overbank areas to create minor topographic variation for golf course features. A very small amount of flood flow would occur on the overbank areas. Except for those sections in the upstream vicinity of the proposed bridge where minimal increases in water level would occur, the project would not cause a substantial rise in water-surface elevation. Therefore, no significant impacts on flood level due to grading would occur.

2.6.3.b Impacts Resulting from River Crossings

The project proposes the construction of four at grade golf cart crossings throughout the site and an automobile/cart bridge to be built near the club house. The cart crossings would span the main channel following the existing channel bed profile. Such cart crossings would have no significant impacts on flood level. Impacts from the bridge are discussed in the following section.

2.6.3.c Impacts on Flood Level due to the Proposed Bridge

The hydraulic design of the proposed bridge must meet the requirements, regulations and policy set by the Federal Emergency Management Agency (FEMA), including:

- conveyance of the base 100-year flood, and,
- backwater caused by the bridge and embankment and all other obstructions to be within one foot above the surface of the base flood.

Water surface profiles and flow velocities for the proposed bridge were computed using the HEC-2 computer program. Final engineering design for the main entry bridge was not available at this stage of analysis. This analysis was based on conceptual bridge design with six sets of piers. A pier width of four feet was used in the HEC-2 modeling. The pier width includes a debris factor of approximately three feet. The computed water-surface elevations indicate that the proposed bridge would result in very small rises in water-surface elevation in the upstream vicinity. However, these rises are within the one-foot limit. Therefore, these impacts are not considered significant.

2.6.3.d Impacts on Floodplain Boundaries

In the majority of cases, flood flows are contained within the main channel. An exception to this would be during periods of high flows. In these cases, flood waters may overtop the main channel and move onto the overbank areas. However, due to the higher flow velocities within the main channel, most water will continue to flow within the floodway.

A large portion of the golf course is proposed within the floodplain boundaries of the river. Building sites/structures will be outside of the floodplain. Grading for the golf course would probably change the ground surface features through cuts and fills of local areas. Some areas would be cut to establish new elevations below the 100-year flood level, while other areas would be filled to establish elevations above the 100-year flood. As such, areas subject to inundation may be changed by grading for golf course construction. Figures 2.6-2 and 2.6-3 illustrate the 100-year flood plain boundary. Any area subject to inundation by the 100-year flood is within the floodplain boundaries.

Grading activities undertaken for course construction may result in changes to the existing flood plain boundaries. This would occur if certain areas are raised above, or lowered below the 100-year flood level. Since grading would occur on areas proposed for the golf course and not on adjacent lands, changes in floodplain boundaries would only be expected to impact the golf course itself and not adjacent properties. Grading activities which would result in changes to on-site floodplain boundaries is not considered to be significant for off-site areas.

2.6.3.e Impacts on Flow Velocities

The main channel is the effective flow area of the upper San Diego River. Overbank areas are the ineffective flow areas. With the exception of minor abuttments for the main bridge, the proposed golf course involves no grading within the main river channel. As long as the effective flow area is not affected by grading, the project would not result in significant impacts on the flow velocities of the river.

Flow velocities in the overbank areas of the main channel would be affected. Grading for the creation of land features for the golf course may change the flow pattern in the overbank areas. Under existing conditions, overbank flow is distributed as overland flow and in small streams, or breakout channels. With the creation of land features, overbank flow would tend to be concentrated in lower areas. Such changes in flow pattern would also change the pattern of erosion and sedimentation in the overbank areas. Because project grading is generally limited to the golf course itself, the associated changes in overbank flow pattern should be limited to the project area unless water is directed toward an adjacent property. This is considered a significant impact. In order to assure that neighboring properties would not be significantly impacted by changes in flow velocities on overbank areas, a 50-foot setback is proposed at the up-stream and down-stream property line within the 100-year floodplain. No grading should occur within this setback. With the setback, the project impacts on adjacent properties would not be significant.

2.6.3.f Impacts on Erosion and Sedimentation

Under the existing conditions, a general trend of erosion occurs along the flood channel. This general trend of erosion is primarily attributed to El Capitan Reservoir. The reservoir detains the bed sediment which would otherwise move through the project site and onto the ocean. Clear waters flowing out of the reservoir are highly erosive and pick up a new load of sediment from the banks and bed of the existing river channel. The source of sediment transport in the river below El Capitan Reservoir is the bed material now present in the valley.

A number of areas are subject to scour (erosion) downstream of El Capitan Reservoir. The 36-inch pipeline crossing is located at a channel reach subject to scour under the existing conditions. If this condition persists, the pipeline is subject to eventual damage during high flow periods. Pipeline damage would result from the erosion of bed materials from the channel bottom, exposing the pipeline to the direct effects of flood flows within the main channel.

Although this is an existing condition, the proposed project could impact the existing pattern of erosion and sedimentation if the sediment source is affected. However, this situation would be unlikely for the following reasons:

1. Separation of lakes in the floodplain: under the proposed plan, several deep-water lakes will be created in the overbank areas along the main channel. If flood waters should enter into the lakes, large quantities of sand would then settle out of the water. For these reasons, these lakes can act as sand traps. Trapping of river sand by a lake would result in sediment deficit for the river channel. This deficit would further aggravate the existing pattern of channel erosion. Under the proposed plan, however, these lakes are separated from the main channel for a distance of at least 200 feet. The ground elevation in the zone of separation is also above the 100-year flood level. The higher elevation in the zone of separation is not considered a dam or embankment. These measures would prevent river flow from entering the lakes.

2. Net import or export of material for golf course construction: The creation of the golf course will involve grading. Although the proponent states that grading quantities would be balanced (i.e., no net import or export of soil), detailed construction plans have not been developed. Generally speaking, a net import of soil tends to increase the sediment supply to the river system and it thus tends to reduce potential downstream erosion. On the other hand, a net export of soil will do the opposite. Of course, the effects also depend on the distribution of the imported or exported soil. For the proposed project, the grading will require no net import or export of material from the site.

3. The grading plan: While the main channel would not be affected by project grading, the overbank areas would be graded to create golf course land features. Major changes in topography in the overbank areas may affect the flow pattern and potential erosion and sedimentation. For example, a large depression created in the overbank area may become a sediment trap and result in sediment deficit for the downstream river channel. In contrast, a large mound extending above the flow level may keep some soil from the river transport system. Under the proposed grading plan for the golf course, grading would create gently rolling land features without major depressions nor prominent mounds.

During later phases of the project involving more detailed engineering design, the project would be required to comply with applicable storm water quality requirements for various permits and plans. These would include, for example: implementation of Best Management Practices through the grading permit process, State Water Pollution Prevention Plan, State Construction Permit, County Municipal Permit, and Storm Water Quality Management Plan. Because these are non-discretionary actions, such plans and permits are not analyzed in this EIR.

Based on the above analysis, the proposed project would have a significant impact on erosion and sedimentation of the river channel.

2.6.3.g Impacts on Erosion at Road Crossings

The proposed project would not impact the velocity of the main channel. For this reason, the project would not result in significant erosion impacts at road crossings. The project would not impact the sediment supply to the river system, and therefore, would not cause greater erosion impacts at road crossings.

2.6.4 Mitigation Measures

The project would not result in significant hydrology impacts if the following mitigation measures are implemented. The following design features would add to the assurance that no significant impacts would occur. Therefore, the following mitigation measures shall be incorporated into the project design.

Mitigation for Impact 2.6.3.e: Impacts on Flow Velocities

1. A 50-foot grading buffer shall be enforced along portions of the up-stream and down-stream golf course property line that are lower than the 100-year flood level. No grading shall occur within the buffer zone. Compliance with this condition mitigates for potential increases in overbank flow velocities and consequent channel erosion off of the project site.

Mitigation for Impact 2.6.3.f: Impacts on Erosion and Sedimentation

1. Proposed water impoundments shall be constructed such that they will not become sediment traps. The following measures shall be implemented:

    a. Where lakes are below the elevation of the 100-year flood level, a berm surrounding each impoundment shall be constructed to prohibit floodwater encroachment. Said berm shall have a top elevation that is at least 2 feet above the 100-year flood level.

    b. Impoundments shall have a clay core, or other impermeable barrier, to prevent seepage of water from the water table into the impoundments.

    c. All impoundments shall respect a minimum setback of 150 feet from the main channel.

2. No export of materials shall occur during development of the golf course. An exception to this measure would include any materials extracted from the lakes.

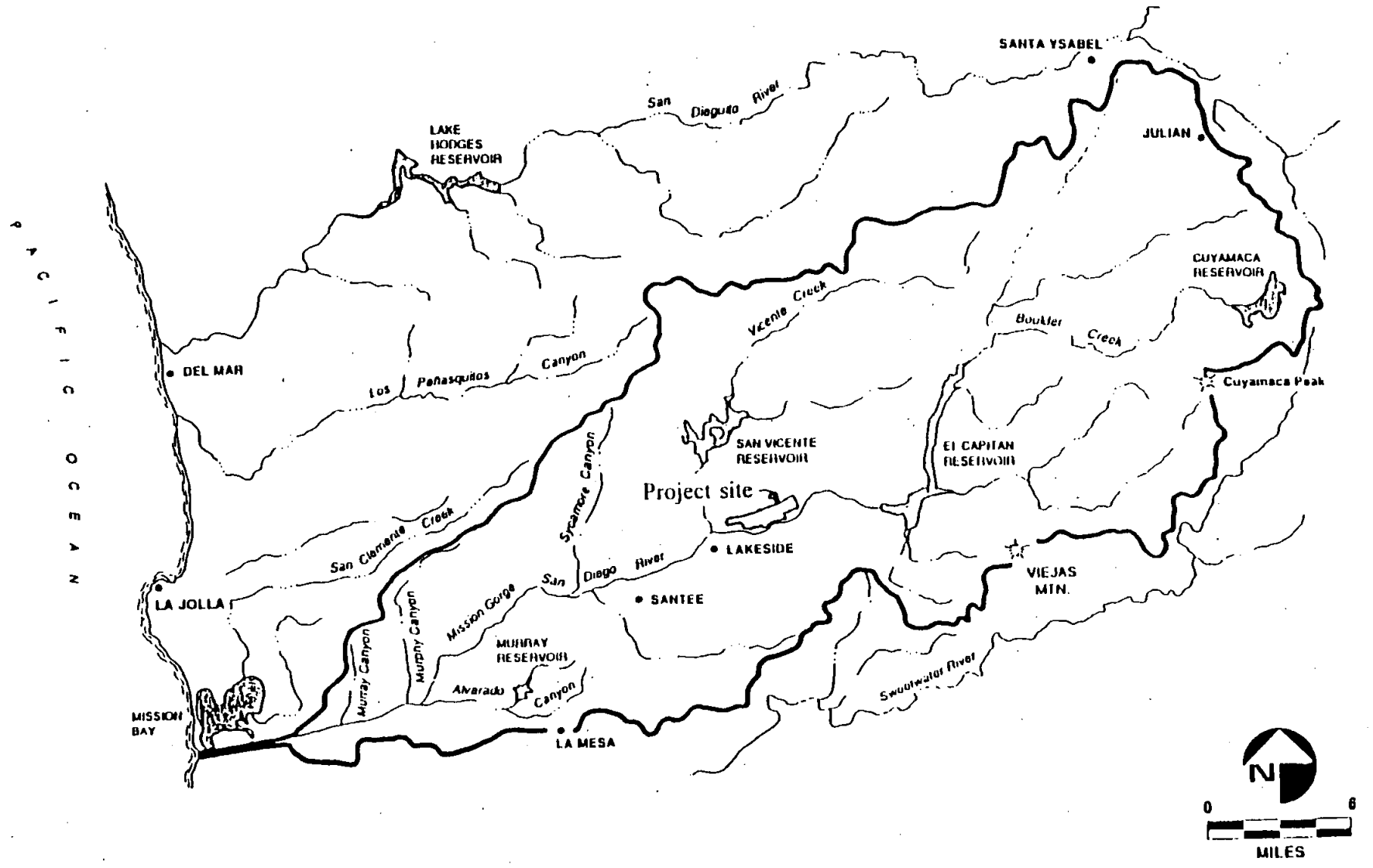
3. The applicant shall submit the grading plan, and the design and plan for the lakes to the County of San Diego for review and approval. The design of berms shall be prepared by a registered civil engineer specializing in geotechnical engineering.

4. The applicant is responsible for the maintenance of the lakes, golf cart crossings, and the bridge.

2.6.5 Conclusions

Implementation of the prescribed mitigation measures will reduce potential impacts to below a level of significance. Although channel erosion continues to be a significant concern along this reach of the river, this condition would not be exacerbated by implementation of the project as recommended.

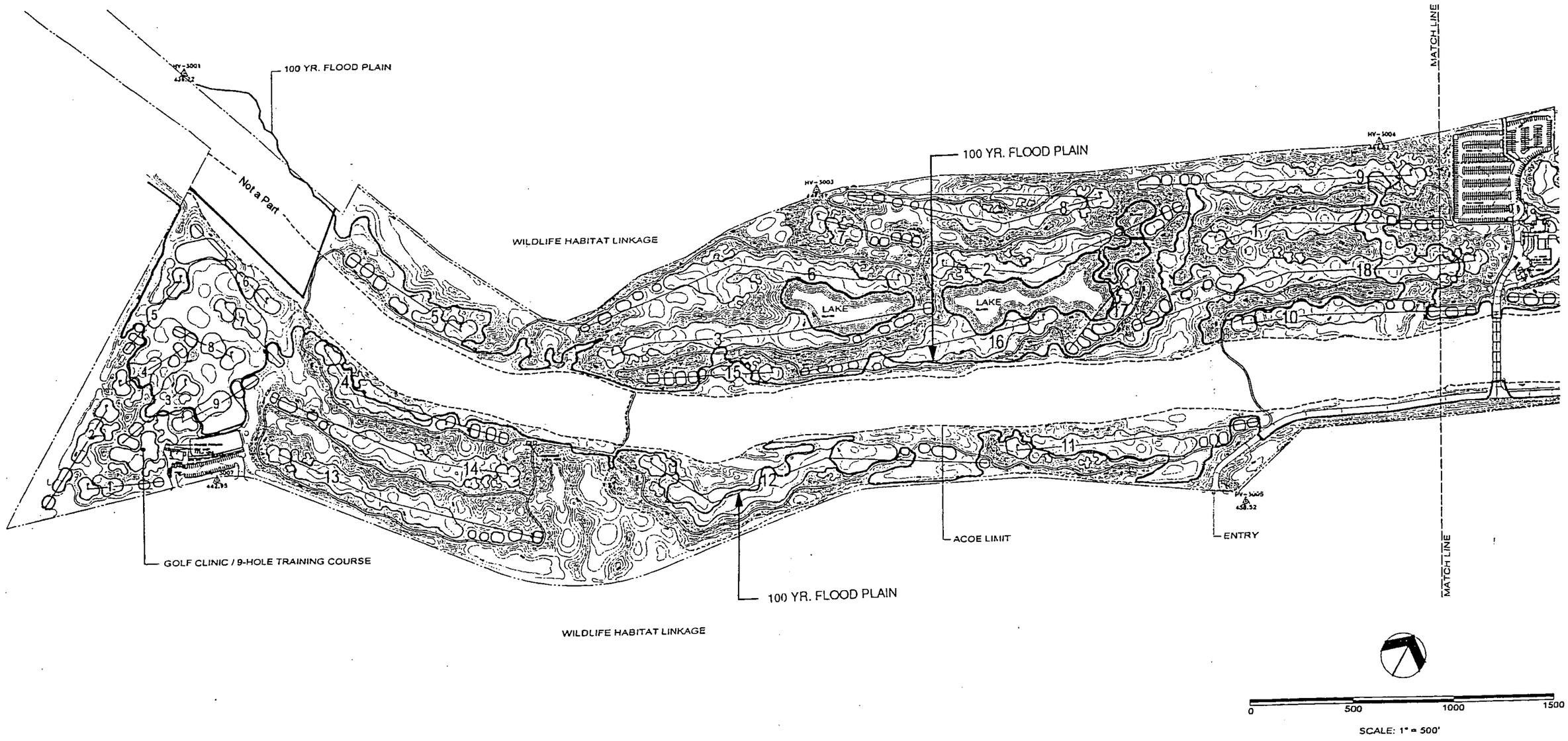
El Capitan Golf Course



EnviroMINE

Drainage Basin of the San Diego River

Figure 2.6-1



The Valley Course (West)

EL CAPITAN GOLF COURSE

LAKESIDE, CALIFORNIA

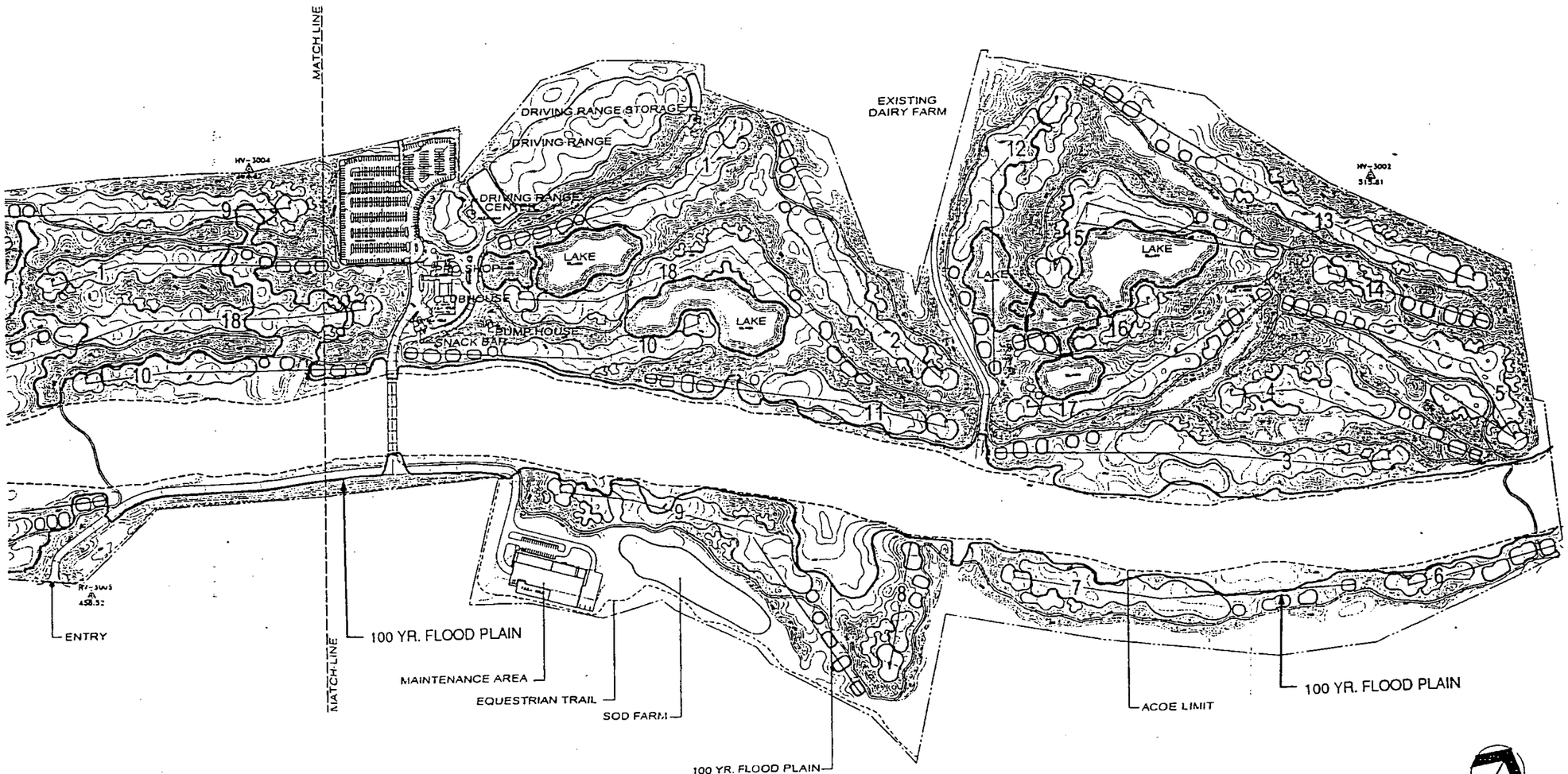
DATE: AUGUST 20, 1998

Golf Properties Design

EnviroMINE

100 Year Flood Plain

Figure 2.6-2



The bluffs Course (East)

EL CAPITAN GOLF COURSE

LAKESIDE, CALIFORNIA

DATE: AUGUST 20, 1998

Golf Properties Design

EnviroMINE

100 Year Flood Plain

Figure 2.6-3

Table 2.6-1 Summary of Peak Flows for 100-yr. Flood in cfs

Location	DWR	County	ACOE	Adopted
San Diego River 2 miles below El Monte Park	14,000	21,000	22,000	19,000

Table 2.6-2 FEMA-adopted Flood Discharges for the Study Area

Location	Discharge, cfs		
	100-yr. flood	50-yr. flood	10-yr. flood
Downstream limit of study (Sec. 300)	31,000	12,500	2,500
Upstream limit of study (Sec. 456)	29,400	11,300	500

2.7 GROUNDWATER

An analysis of groundwater resources for the project site and surrounding areas was performed to determine the project's potential to affect groundwater availability and quality. This analysis was completed by Ninyo & Moore, Inc., and Earth Tech. The results of their investigations are summarized in the following discussion. Technical studies have been placed in the Technical Appendices as Appendix F.

2.7.1 Existing Conditions

Basin Characteristics

The El Monte Valley lies within the east-west trending San Diego River drainage basin. This alluvium-filled drainage basin originates east of the site in the Cuyamaca Mountains and flows southwesterly to the Pacific Ocean. The San Diego River drainage basin area totals 433 square miles and has an overall length of approximately 41 miles.

The El Monte Valley is located at the western fringe of the mountainous areas, which dominate to the east. In this area, Cretaceous-age granitic rocks of the Southern California Batholith are clearly evident at the surface through numerous exposures of bedrock outcroppings and remnant boulders found on steeply sloping lands to the north and south of the river valley. The valley sits astride the San Diego River and is composed of fine to coarse grained alluvial materials that have been deposited to form a narrow, but relatively deep, alluvial plain.

Although the San Diego River drainage basin encompasses a large area above El Monte Valley, the drainage area up gradient of the El Monte Groundwater Basin reflects only a small portion of the overall total. This is due to the placement of the El Capitan Dam approximately 3 miles east of the project site. The modified drainage basin, which contributes water to the groundwater basin, includes an area of approximately 8,400 acres below El Capitan Dam (Figure 2.7-1).

The steeply sloping mountains to the north and south and the nearly level alluvial floor characterize topographic conditions within the watershed. Watershed elevations range from 3,675 feet AMSL (Above Mean Sea Level) at El Cajon Mountain, to an average of 460 feet AMSL within the project site.

Groundwater Characteristics

The most significant groundwater resources on the project site are found within alluvial materials that overlie granitic basement rocks. In this area, groundwater occupies the highly permeable sands that occur as valley fill. The California Department of Mines and Geology reports that the average thickness of suitable aggregate is 155 feet within the upper San Diego River between the upper end of Mission Gorge to within a mile of El Capitan Dam (CDMG, Special Report No. 153, 1983). A well log prepared by Woodward-Clyde Consultants indicates that Helix Water District's Well No. 101 encountered alluvium to a depth of 220 feet bgs. Ninyo & Moore drilled production well (PW-1) in the eastern portion of the site near the centerline of the drainage. That well encountered weathered granitic rock at a depth of 80 feet. Lacking specific information to substantiate greater

alluvial thickness, the alluvium along the centerline of the basin in the project area is thought to be on the order of 100 feet. The alluvial thickness tapers to nothing at the valley margins.

Other important sources of groundwater occurrence would be found within fractures and joints of the underlying granitic rocks that are prominent to the north and south of the project site. Where large joints and fractures are located in these massive rocks, significant quantities of water may be encountered. However, due to the limited storage potential of this water source, granitic aquifers are generally not used to produce significant water supplies for a high-consumptive use. Groundwater use from within granitic rocks has not been considered as a source of groundwater for the golf course.

Alluvial materials receive groundwater recharge from precipitation, streambed infiltration, subsurface inflow (leakage) from El Capitan Reservoir, irrigation return flows, and septic tank infiltration. The most significant source of recharge is thought to be precipitation. Annual precipitation within the El Monte watershed is estimated to range from 15 to 18 inches per year.

The depth of groundwater (from the surface) in the alluvial valley varies considerably depending on the season, climatic trends (i.e., drought cycles), and extraction patterns. Helix Water District has monitored water levels in 15 wells within the El Monte Valley over the past 40 years. This data indicates that groundwater levels have fluctuated from as shallow as 5 feet to as deep as 126 feet below the ground surface (bgs) depending on annual precipitation and basin extraction.

Groundwater Use

Groundwater supplies in the El Monte basin are currently utilized for residential and agricultural purposes. In addition, non-native (phreatophytic) vegetation within the San Diego River floodway contributes to groundwater consumption.

Water supplies for residential and agricultural use in the project vicinity are provided by a combination of private groundwater wells and imported (water agency) supplies. Groundwater use within the basin ranges from wells completed to shallow depths (150 feet or less) into the alluvial and residuum aquifer, to wells completed into the granitic basement rocks with depths ranging to more than 700 feet in depth. This information was gained by surveying surrounding property owners to identify well depths and yields. Water well depths and locations can be found in Appendix F, and Groundwater Resource Evaluation (Appendix C).

Existing groundwater use within the El Monte Basin is estimated at 1,143 acre feet per year (afy). This estimate includes 70 afy for residential, 649 afy for agriculture and livestock, 300 afy of extraction by Helix Water District's well No. 101, and 124 afy for evapotranspiration from phreatophytic species.

A number of groundwater users have been identified in areas lying west of the project site. These users include the Lakeside, Riverview, and Padre Dam water districts. Other water districts withdraw substantial quantities of groundwater from the Santee Basin, which lies west of the El Monte basin and down gradient from the proposed project site. With the exception of Helix Water District, groundwater extraction by these districts will have no significant impact on

groundwater availability within the El Monte Basin since these wells are not only located down gradient of the Basin, but are recharged by additional watershed areas.

Groundwater Rights

The City of San Diego maintains primary groundwater rights within the basin. As such, all water use within the basin is somewhat at the discretion of the City of San Diego. Although land owners within the basin are not precluded from groundwater use under existing conditions, should the City demonstrate a need and ability to extract groundwater, their senior positions could result in restrictions to other users. This relationship was defined in agreements between Helix Water District, as a water purveyor, and the City of San Diego, dating back to 1931 and 1933. These agreements identify that Helix maintains a certain amount of annual storage rights in El Capitan Reservoir. As a land owner, the District may extract water for use on its lands, provided that this use would terminate, as would all other groundwater use (by individuals) within the basin at the direction of the City of San Diego. Before the City of San Diego could require existing users to terminate use, it must demonstrate a need and ability (facilities in place) to utilize the groundwater resources.

Availability Of Water From Other Sources

A number of other water sources are available in the project vicinity. This includes a raw water pipeline within El Monte Road that runs from El Capitan Reservoir to Lake Jennings and the R. M. Levy Treatment Plant. Water transported by this pipeline is from reservoir storage which originates from local runoff. A second raw water pipeline runs between the San Diego County Water Authority's aqueduct at Slaughterhouse Canyon to Lake Jennings and the R. M. Levy Treatment Plant. The latter pipeline crosses the San Diego River just west of the project site. Both of these pipelines could be used to supplement irrigation water supplies for the golf course.

Potable water sources are also present within the El Monte Valley. The Lakeside Water District provides water for residential use immediately southwest of the project site. Padre Dam Municipal Water District provides water for residential users to the north and west of the property and also provides water to a large residential development to the south of the site (Quail Canyon Estates).

Future Groundwater Utilization

Future residential groundwater demand is not expected to increase significantly. This is due to steep, rocky terrain within the watershed that limits accessibility and use of these lands. Land Use designation (18) Multiple Rural Use and (24) Impact Sensitive recognizes these constraints and limits parcel size depending on slope conditions. In addition, three large preserve areas are located within the basin. These areas include the Cleveland National Forest, El Capitan Open Space Preserve, and the Louis A. Stelzer County Park.

Other considerations that will limit future residential groundwater demand include the presence of imported water supplies and poor groundwater quality in the El Monte Valley. Most new residential development would be expected to utilize imported supplies in the future.

Groundwater Investigation

In order to determine actual groundwater conditions on the project site, a study of groundwater characteristics of the alluvial aquifer within the El Monte Groundwater Basin was undertaken. This study included a review of available literature, consideration of potential recharge sources and rates, and evaluation of groundwater yield potential of the alluvial aquifer.

Pump tests were performed on two wells. Data obtained from this effort was compared to other research data to estimate groundwater storage within the El Monte Basin. Total groundwater storage is estimated to be 18,900 acre feet. To comply with the County of San Diego Groundwater Ordinance, this amount was multiplied by one-half to determine the recoverable storage. Therefore, the recoverable groundwater stored within the El Monte Basin is estimated to be approximately 9,450 acre-feet. Pump test data also identified the capability of the alluvial aquifer to yield significant quantities of water from production wells.

In addition to these studies, 6 new monitor wells were installed and an existing (MW-3) well were used to monitor groundwater levels adjacent to the golf course. The location of the monitor wells was determined based on the location of surrounding groundwater users. Groundwater levels were found to range from about 10 feet to 45 feet below the ground surface in May, 1998. These wells will be used as part of the groundwater monitoring and management plan.

Groundwater Quality

A number of existing conditions in the project vicinity contribute to the existing water quality. These conditions include intensive agricultural use of the site and nearby lands (e.g., dairy), evapotranspiration from high water consumptive plants, and residential use. Agricultural uses adjacent to the site include the Van Ommering Dairy which collects cattle droppings and processes this material in a large containment pond north of the project site. Other important agricultural uses which could impact water quality include intensive row crop production on the site. The uncontrolled use of commercial fertilizers and pesticides can result in migration of these chemicals into the groundwater table. In other areas, chemical constituents can be concentrated as a result of evapotranspiration (water loss through vascular plants). Evapotranspiration tends to concentrate undesirable chemical constituents (e.g., dissolved minerals). As such, current use has a net adverse affect on the quality of groundwater within the El Monte Basin.

During the course of the groundwater investigation, available sources of existing groundwater quality data were reviewed. In addition, samples were taken from pump test wells. The results of these analyses are listed on Table 2.7-1.

Based on the general mineral analytical data from the three wells tested, the RWQCB water quality objectives for the El Monte Basin have been exceeded in samples collected from one well for manganese, sodium, iron and total dissolved solids (TDS). The water samples collected from two other wells exceeded the Regional Water Quality Control Board (RWQCB), El Monte Basin water quality objectives for manganese and iron.

The water quality data obtained during this investigation indicates that overall water quality, as reported from all tested wells, meets USEPA water quality requirements for agricultural use.

2.7.2 Thresholds of Significance

Thresholds of significance regarding groundwater have been separated into thresholds for quantity and quality. Groundwater quantity has also been divided into two independent thresholds.

Quantity

- Impacts to groundwater quantity would be considered significant if more than 50% of basin storage (i.e., recoverable storage = 9,450 af) were removed from the basin during an extended drought. If recoverable water in storage were reduced by 50%, to 4,725 af, and golf course pumping were curtailed, the basin would have adequate water to supply other projected users (585 af) for 8 years. Typically drought cycles in San Diego County last 5 to 7 years.

- Impacts to existing nearby groundwater users would be considered significant if groundwater extraction by the project results in the lowering of groundwater levels below the depths required by the nearby users to continue use at historic rates.

Quality

- Impacts to groundwater quality would be considered significant if applied fertilizers, pesticides, and herbicides are detected at levels which exceed 75% of the USEPA's Primary Maximum Contamination Levels.

2.7.3 Analysis of Project Effects and Determination as to Significance

2.7.3.a. Groundwater Quantity Impacts

The project is a proposal to develop two 18-hole golf courses, driving range and a 9-hole practice facility on an approximate 460-acre parcel. Groundwater extracted from the alluvial aquifer would be placed within the ponds proposed as part of the project and later used for irrigation of play areas, driving range, and landscaping. The proponent estimates water requirements for the proposed golf course at approximately 1,172 afy as shown on the following table.

Estimated Consumptive Water Use for Proposed Golf Course

Months	ET by Month	ET Adjusted to Mgt. Factors	Monthly Turf Requirements	Monthly Xeriscape Plantings	Monthly Lakes Requirements	Total Requirements
	Inches/Month	Inches/Month	(Acre Feet)	(Acre Feet)	(Acre Feet)	(Acre Feet)
Jan	2.00	0.38	14.44	0.21	1.64	16
Feb	2.20	0.43	16.09	0.28	1.82	18
Mar	2.90	1.58	38.12	0.91	4.32	42
Apr	4.00	3.27	70.37	1.89	7.97	78
May	5.30	5.14	106.67	3.46	12.08	119
Jun	6.50	6.46	133.40	4.35	15.11	149
Jul	7.60	7.57	156.17	5.51	17.69	183
Aug	7.20	7.13	147.26	5.16	16.68	173
Sept	6.30	6.18	127.87	4.64	14.48	150
Oct	6.90	6.56	136.62	4.03	15.47	160
Nov	3.20	2.57	55.52	2.17	6.29	62
Dec	2.20	0.62	19.22	1.03	2.18	21
Totals	56.30	47.85	1,022.00	33.64	116.00	1,172

Note: Potable water for the club house and other domestic uses would utilize imported water supplies

In addition to groundwater demand from the proposed golf course, other existing and potential groundwater users must also be included in the impact assessment. Helix Water District is expected to continue pumping from Well No. 101 with extraction of approximately 300 afy. Residential development would be expected to increase over time. However, some existing uses would be curtailed with development of the golf course. These uses would include a 69% reduction in irrigated agriculture and livestock demand from the existing rates of 649 afy to 203 afy. Construction of the golf course would also result in the elimination of phreatophytic vegetation from the golf course property saving approximately 124 afy. Existing and future residential use in the El Monte basin could reach 82 afy, however, imported potable water supplies should play a bigger role through the passage of time. As such, groundwater extraction by existing users would be reduced by approximately 49%, from 1,143 afy to 585 afy.

Although future demands are expected to be diminished as a result of golf course construction, golf course irrigation demands would substantially increase overall groundwater use. Groundwater use would be expected to increase from 1,155 afy without the golf course and future residential, to 1,757 afy with the golf course and future residential development. Estimated groundwater demands, with the project, are listed in the following table for clarity:

Estimated Water Demand with Project

Use	Demand (afy)
Agriculture and Livestock	203
Residential(existing + future)	82
Helix Water Dist. Well No. 101	300
Golf Course	1,172
Total Demand	1,757

Note: Livestock demands assume no cattle or dairy and 15 gpd per head of 750 horses

The 460-acre site will include 264 acres of irrigated turf and 19.5 acres of lakes. Additional acreage will be planted in drought-tolerant native plants. After construction and grow-in, annual golf course water demand is estimated at 1,172 afy. Groundwater extraction for golf course irrigation has the potential to lower the water table. However, it is difficult to quantify the amount the water table will be lowered, since there are many factors which influence this process (i.e., precipitation, pumping rates, well density and basin recharge.

As is typical of most places in San Diego County, it is not uncommon to go many years with little to no recharge. During these periods, extracted groundwater must come from storage, resulting in basinwide water level declines. The majority of recharge often occurs during a few very wet years. During these periods, storage is replenished and water levels rise. During some years, available recharge may exceed the basin's capacity to store it. This results in rejected recharge.

Typical fluctuations from the drought of the mid-1970's to the wet period in the early 1980's were on the order of 50 to 65 feet. However, historical records indicate that maximum groundwater fluctuations have been on the order of 115 feet in pumped wells. Since much of the recharge happens during a few very wet years and much of the potential recharge is rejected because the basin may be "full" at those times, increased groundwater production can allow enhanced recharge of this high-quality rainwater.

Groundwater extraction by the golf course at the anticipated annual demand plus withdrawls by other users would result in a net reduction in storage over the long term. Based on the estimate of 9,450 afy of recoverable storage, and no recharge or management, the threshold of significance (extraction of 50% of recoverable storage) would be reached after about 3 years (golf course plus other users). This would leave residual recoverable storage of 4,750 afy if golf course usage were then curtailed. The remaining recoverable storage would be sufficient to support eight additional years of water supply for other users within the watershed.

In addition, the project could have a significant impact on nearby wells if it lowers the groundwater elevation below depth of 75 feet bgs in unpumped wells. This depth is based on existing and historical data of well depths. Individual wells could be impacted at shallower depths depending on the ground surface level from which depth is measured. The proposed project could have a significant impact during extended drought periods, but implementation of an effective groundwater monitoring and management plan should reduce that impact to a level of insignificance.

2.7.3.b. Groundwater Quality Impacts

The current on-site and surrounding agricultural uses (e.g., dairy and row crops), as well as the domestic septic systems, all result in groundwater quality degradation. This occurs because the return flows are concentrated in salts and organic compounds, relative to the background water quality. Animal and human wastes, and fertilizer, herbicide and pesticide usage all contribute to water degradation.

Most of the water used for irrigation is lost to evaporation and evapotranspiration. Since the salts do not evaporate, the water left over which recharges the groundwater system is concentrated with respect to these salts. This results in an increase in total dissolved solids (TDS) in the groundwater. Slow increases in TDS concentrations typically occur concomitant with basin buildout.

The proposed golf course may likewise contribute to basin wide water degradation. However, experience elsewhere in San Diego County indicates the impacts to groundwater from golf course extraction and irrigation can be minimal. Impacts to groundwater quality resulting from intensive irrigation and the uncontrolled application of fertilizers and pesticides may result.

If properly managed, large groundwater extraction can actually increase basin water quality. It is typical in San Diego County, as imported water becomes more easily accessible, that homes switch from groundwater to imported water. This is because of declining groundwater quality and well reliability problems. Basin water levels usually rise in response to decreased pumping and increased irrigation and septic system return flows. Concomitant with rising water levels is a further decline in water quality. Many times the basin will be full, or nearly full, in the winter, causing potential rainfall recharge to be rejected in the form of runoff. When this high quality water is lost, so it the chance to improve groundwater quality. If, on the other hand, groundwater levels are lowered in the fall leading up to the winter rains, there is more storage space for the high quality rainfall recharge. This can improve groundwater quality.

If proper golf course management practices are not utilized, soil and turf amendments can significantly affect the quality of groundwater in the basin. Fertilizers, for instance, can increase the nitrate and TDS concentrations, as well as, alter the pH of the groundwater. Typically, these amendments are fairly water soluble and, therefore, can migrate to shallow groundwater. However, many of the newer pesticides and herbicides are designed to degrade quickly, both on exposure to sunlight and within the soil. Also, many of the modern fertilizers are time-released and are applied in smaller quantities compared to prior techniques.

Although current agricultural practices and use for residential and livestock purposes pose similar hazards, long term management of the site as a golf course has the potential to cause significant water quality impacts.

As a final issue of potential water quality impacts, existing wells could be impacted if golf course septic systems are located too close to these wells. However, where Department of Environmental Health standards for septic system setbacks from wells are observed, significant impacts can be avoided.

2.7.4 Mitigation Measures

Mitigation for Impact 2.7.3.a. Groundwater Quantity Impacts

Measures must be implemented to assure that the significant impacts to groundwater supply do not occur. By placing limits on groundwater withdrawal from individual production wells, stated impacts can be reduced to below a level of significance.

1. Flow meters shall be installed on all production wells on the site. A record of flow meters readings shall be taken twice per month. Monitoring reports shall be provided to the Helix Water District and the County of San Diego Department of Planning and Land Use semi-annually. The reports shall be submitted no later than July 31 and January 31 of each year, for the periods of January 1 through June 30 and July 1 through December 31, respectively. The reports shall summarize the flow meter and water level data. The reports shall be signed by a Certified Hydrogeologist or Registered Engineer with experience in groundwater management.

   Should groundwater levels drop below minimum levels (65' in MW-1, MW-2, MW-4, MW-5, MW-6, MW-7, or 100' in MW-3) in monitor wells, the golf course operator shall begin reporting monitor well groundwater levels on a monthly basis.

2. Permanent monitoring devices (such as pressure transducers) with data loggers will be installed in seven unpumped wells on site. Figure 1 of the Groundwater Technical Report (Appendix F) shows the approximate locations of the proposed production and observation wells. The observation wells are located at least 100 feet from any production wells. The monitoring devices will record depth to water every 12 hours. In the event that water levels decline below the target depths shown on mitigation measure No. 3, the monitoring devices will be capable of contacting the golf course operator and Helix Water District. The type of connection/notification system shall be designed to the satisfaction of Helix Water District.

3. Groundwater production shall be limited in accordance with the following criteria:

   a. A maximum of 1,172 afy shall be extracted from groundwater at a rate reasonably anticipated to reflect the Estimated Consumptive Water Use for Proposed Golf Course described in the table in Section 2.7.3.a. This rate of extraction shall be maintained while groundwater levels measured in the seven monitoring wells remains at 65 feet bgs (100 feet bgs for well MW-3) or higher.

   b. If the groundwater levels measured in any of the seven monitoring wells drop lower than 65 feet bgs (100 feet bgs for well MW-3), groundwater extraction from the nearest production well or wells shall be stopped until the groundwater depth returns to a level of less than 65 feet bgs (100 feet bgs for well MW-3) for at least 7 days. Once groundwater depth remains above 65 feet bgs (100 feet bgs for well MW-3) for seven days, extraction from the nearest production well may resume.

Water level monitoring to determine impacts for individual production wells shall relate to the following table. If water levels in either monitoring well listed in the second row drops below a threshold level, production in the corresponding well shall be reduced or curtailed.

Production Well	Monitor Well(s)
EW-1	MW-7, MW-1
EW-2	MW-1, MW-6
EW-3	MW-2, MW-5
EW-4	MW-3, MW-4

c. If the groundwater levels measured in any of the seven monitoring wells drop lower than 75 feet bgs (110 feet bgs for well MW-3), groundwater extraction shall be stopped on all production wells. ~~Extraction may resume for each production well when groundwater depths in the nearest monitoring well returns to a level of less than 65 feet bgs (100 feet bgs for well MW-3) for at least 7 days.~~ Extraction may resume when groundwater depths in all monitoring wells (MW-1 through MW-7) returns to a level of less than 65 feet bgs (100 feet bgs for well MW-3) for at least 7 days.

d. Groundwater extraction is dependent on the elevation of groundwater (below ground surface) as measured in each of 7 monitor wells identified on Figure 1 of the Groundwater Technnical Report (Appendix F). If groundwater extraction is not sufficient to meet project irrigation demands, the golf course operator shall implement irrigation conservation procedures and/or utilize a supplemental water source. Such supplemental source shall be a non-potable water source provided by Helix Water District or other approved water purveyor.

Helix Water District has storage capacity of 10,000-acre feet of water in El Capitan Reservoir. This water is captured at Lake Cuyamaca, and transferred to El Capitan through Boulder and Conejos Creeks. The stored water is pumped to either Lake Jennings or the R.M. Levy Treatment Plant through a jointly owned Helix/City of San Diego 48-inch diameter pipeline located within El Monte Road via Helix's El Monte Pump Station.

Helix Water District is constructing a new El Monte Pump Station that will be on line in the year 1999. This pump station will allow the District to pump raw water from and to El Capitan through a metered 36-inch diameter pipeline that connects to the existing 48-inch diameter pipeline.

Helix Water District will provide supplemental raw water as necessary for this project through a metered line off of the new 36-inch

diameter pipeline. The new 36-inch diameter line lies along the southerly edge of El Monte Road, directly across from the project's westerly boundary.

4. The golf course irrigation system shall be designated for non-potable water use. All piping shall be color coded purple to denote this requirement.

5. A minimum of four production wells shall be drilled for water supply purposes. Wells shall be separated by a minimum of 500 feet and shall be metered to measure output.

6. The applicant shall replace any well located on properties adjacent to the project site (within 500 feet of the property boundary) that has not been completed to at least 90 feet in depth. Such wells shall be deepened to 100 feet below ground surface. At the option of the applicant, and approval of the affected homeowner, the home may be connected to a potable water source. Any increase in pumping costs or monthly bills for purchasing potable water would be the sole expense of the property owner. Wells W, Y, Z, and DD, shown on Figure 1 in Appendix C, Groundwater Monitoring and Management Plan, of Appendix F, Groundwater Study have been designated for deepening or replacement.

Mitigation for Impact 2.7.3.b. Groundwater Quality Impacts

Groundwater quality degradation may occur with or without the project. However, implementation of the following mitigation measures are designed to lessen the overall impact of golf course operations on groundwater quality.

1. Turf grasses shall be selected from "new varieties" of cultivars. "New varieties" are species of turf grasses that have been developed for reduced nutrient and water requirements.

2. Organic, slow release, microfoliar application fertilizers shall be used.

3. Water soluble fertilizer applications shall be closely monitored to insure that the application rate does not exceed plant assimilation rates.

4. Azospirillum soil bacteria shall be incorporated into soils.

5. Fertilizers shall not be applied within 24 hours of expected precipitation events.

6. Soils and plant tissue analysis shall be conducted on an annual basis. Fertilizer application rates shall be adjusted according to the results of these tests.

7. Prior to initiating planting and grow-in, the applicant shall develop an integrated pest management program (IPM). The IPM shall be submitted to Helix Water District for review and approval prior to initiating planting and grow-in. The IPM shall include the following:

a. Monitoring to detect pest populations.
b. Determination of pest injury levels and establishment of treatment thresholds.
c. Integrated biological, cultural, and chemical control strategies.
d. Education program for personnel involved in biological and chemical control planning and implementation.
e. Identification of guidelines for timing and spot treatment of chemical control agents.
f. Evaluation of test results and modification of practices.
g. Record keeping.

8. County of San Diego Department of Environmental Health standards for septic system setbacks from wells shall be observed.

9. If applied fertilizers, pesticides, and herbicides are detected at levels which exceed 75% of USEPA's Primary Maximum Contamination Levels, use of the detected chemical(s) shall be terminated.

A groundwater quality monitoring and reporting program shall be conducted by a Certified Hydrogeologist, or qualified Registered Civil Engineer, and reported to the Helix Water District on an annual basis. The water quality analysis shall include the following tests:

Analysis	Method	Sample Frequency
Nitrate	SM4500-NO_3	Quarterly
TDS	SM 2540	Quarterly
Acid and base/neutral extractable organics	SW846 8270	Annually
Carbamate pesticides	DW 531	Annually
Chlorinated herbicides	SW 846 8150	Annually
Glyphosate	DW 547	Annually
Organochlorine pesticides	SW846 8080	Annually
Volatile Organics	SW846 8260	Annually

SM - Standard methods for the Examination of Water and Wastewater, 23rd Edition; SW846 - Test Methods for Evaluating Solid Waste; Physical/Chemical Methods, Update III; DW - EPA 500 Series, Methods for the Determination of Organic Compounds in Drinking Water, including Supplements I and II.

2.7.5 Conclusions

Implementation of the proposed mitigation measures will reduce all groundwater supply and quality impacts to below a level of significance. Groundwater supplies for existing users within the valley will be protected through the establishment of a monitoring and management plan to limit golf course groundwater extraction when groundwater levels reach a point where it would adversely affect existing groundwater users. In addition, nearby wells which have not been completed to at least 90 feet bgs in depth will be deepened by the project proponent, or (with agreement of the property owner) connection to imported water supplies provided.

Water quality impacts are reduced to below a level of significance by implementation of Best Management Practices for golf course irrigation and

chemical use. Although continuous use of groundwater for domestic purposes may continue to degrade groundwater quality, implementation of the prescribed mitigation measures will reduce project related impacts to below a level of significance.

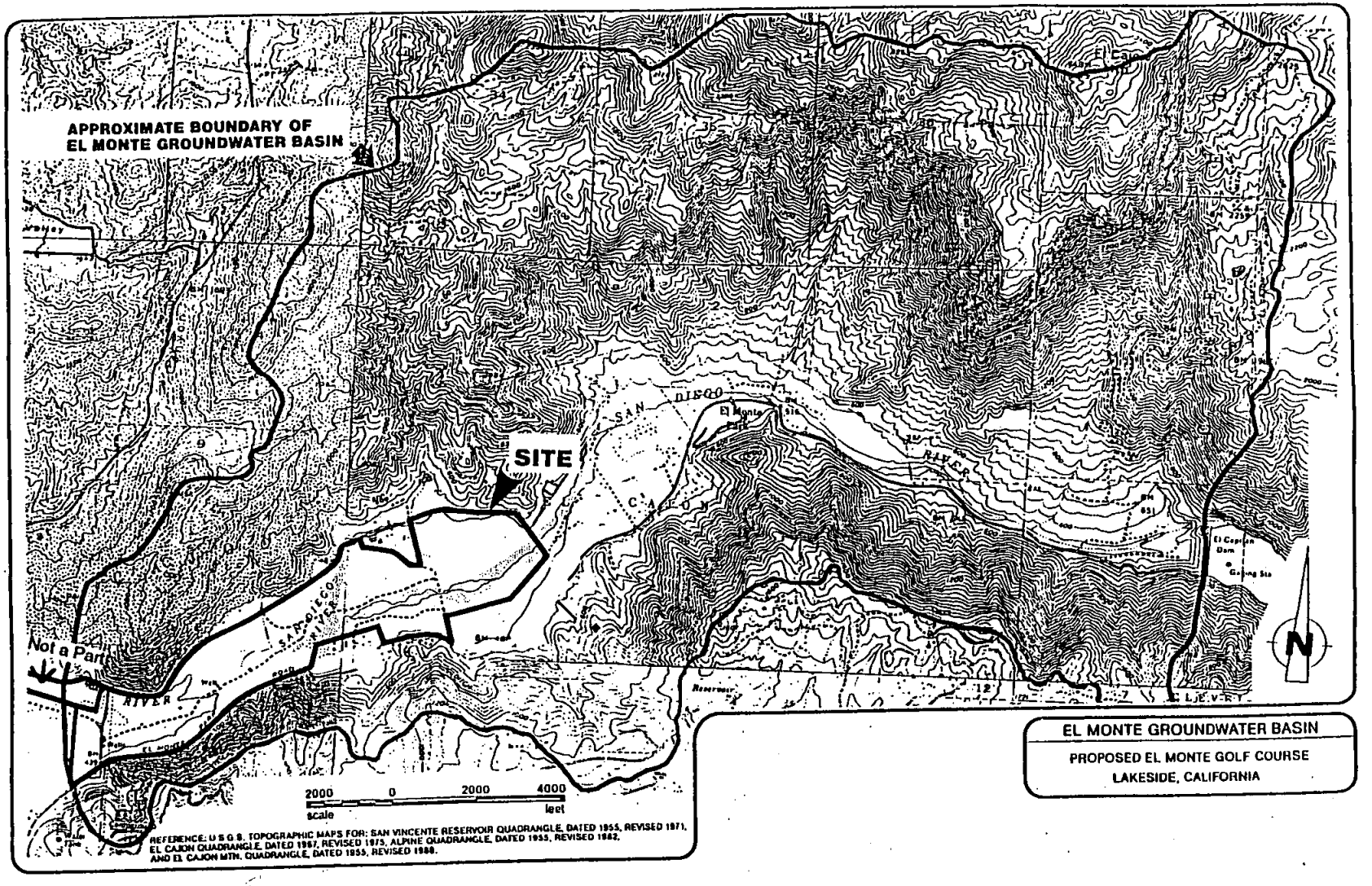
No other significant impacts were identified.

Table 2.7-1
Groundwater Quality for Selected Wells

Analysis	EPA Agricultural Water Quality Goals	RWQCB Basin Plan Water Quality Objectives	PW-1	PW-2	PW-14
MBAS	--	0.05	ND	ND	ND
pH[a]	--	--	7.1	7.3	6.7
Nitrate as N	--	5	1.11	NA	NA
Chloride	106	260	66.0	115	77
Total Dissolved Solids	450	600	310	686	490
Conductivity[b]	--	--	500	990	740
Sulfate	--	250	66	180	105
Total Alkalinity[c]	--	--	130	183	151
Calcium	--	--	37	65	51
Copper	0.2	--	ND	ND	ND
Iron	5	0.3	0.4	2.7	2.0
Magnesium	--	--	17	42	26
Manganese	0.2	0.05	0.10	0.82	0.08
Sodium	--	60	35	65	52
Zinc	2.0	--	0.06	ND	0.10
Total Hardness[c]	--	--	160	340	240

Notes:

RWQCB = Regional Water Quality Control Board
Units are reported in milligrams per liter (mg/l), unless otherwise specified
[a]Reported in pH units
[b]Reported in Micromhos per centimeter
[c]Reported in milligrams of calcium carbonate per liter
MBAS = Methylene blue active substances (surfactants)
ND = Not detected
NA = Not analyzed
-- = No water quality goal



EnviroMINE

El Monte Groundwater Basin

Figure 2.7-1

3.0 CUMULATIVE IMPACTS

The individual impacts of a proposed project may appear to be insignificant when analyzed separately. However, these impacts may be significant if considered on a cumulative basis. An EIR must discuss cumulative impacts when they are significant and explain the rationale for the determination that certain cumulative impacts are not significant.

The California Code of Regulations, Title 14 ("CEQA Guidelines"), defines cumulative impacts as two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts (State CEQA Guidelines, Section 15355).

(a) The individual effects may be changes resulting from a single project or a number of separate projects.

(b) The cumulative impacts from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present and reasonably foreseeable anticipated probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

The proposed golf course would be located in the El Monte Valley, immediately east of the community of Lakeside. The site is within the Lakeside Community Planning Area. The project site is located along the San Diego River flood plain in an area generally disturbed by past and current agricultural operations and aggregate extraction operations. Riparian vegetation associated with the floodway is, however, relatively intact. The general area is characterized as transitional; from an open, rural, and agrarian setting, to suburban/estate residential. However, land use restrictions generally limit development on site to agricultural and/or extractive, or other land uses that would be compatible with these designations.

The project proposes to develop an outdoor participatory sports/recreational facility. The project does not propose current or future residential, industrial, or commercial development. However, existing and future development throughout the project vicinity has regionally cumulative impacts.

The study area selected for an evaluation of local cumulative impacts is the Lakeside Community Planning Area and adjacent areas. In order to assess the potential cumulative impacts of the proposed project in concert with other future projects in the Lakeside Planning area, a detailed inventory was taken of approved, but not constructed, or pending projects proposed in/near the Lakeside Community Planning Area.

3.1 List Of Past, Present, and Reasonably Anticipated Future Projects in the Project Area

This section examines cumulative effects on a regional or local basis depending upon the nature of the impact. For the purposes of this cumulative impact analysis, several scenarios of potential cumulative effects were considered.

East County Square (SP 94-001, TM 5050)

The East County Square Specific Plan area consists of approximately 370 acres, located immediately south of Rancho Canada Road at the I-8/Los Coches Road interchange in Lakeside. The project involves the processing of a Specific Plan, General Plan Amendment, Zone Reclassification, Tentative Subdivision Map and Major Use Permit. The Specific Plan designates approximately 48 acres of commercial, 76 acres of single-family residential (10,000 SF minimum lots) and 246 acres of open space. The project proposes near-term development of commercial uses and future development of residential uses.

The project would impact 89.9 acres of the 257-acre Diegan coastal sage scrub habitat occurring on the project site. Additionally, 4.9 acres of an approximate 10-acre coast live oak woodland would be affected. California gnatcatcher, orange-throated whiptail and San Diego horned lizard also would be significantly affected.

The East County Square project also would affect potentially important cultural resources. Site CA-SDi-13189 is considered an important archaeological resource which would be adversely affected by the East County Square project. Sites CA-SDi-9774, CA-SDi-9775, CA-SDi-13187 and CA-SDi-13188 also are located on the proposed East County Square project site and could be affected by that project.

This project has been approved and is currently under construction.

El Monte Sand Pit (P94-004/RP94-001)

This project involves a Major Use Permit and Reclamation Plan for sand extraction below the water table. The El Monte Sand Pit is located on the northwesterly side of El Monte Road, one-half mile north of Lake Jennings Park Road.. The project would generate approximately 108 average daily truck trips. The project site is composed of 145.6 acres, including an extraction pit, agricultural fields and support buildings. The project would not extend the limits of extraction but would extend the length of operations for 15 additional years. Approximately 36.4 acres of undisturbed Diegan coastal sage scrub occurs on the site. However, because the project does not propose an expansion of extraction areas, impacts to this resource would not occur. Therefore, the County concluded that this project would not create any significant environmental impacts, and a Negative Declaration has been prepared.

Asphalt, Inc. MUP Modification

The 296.4-acre site is located in the east-central portion of San Diego County, northeast of Lakeside, and west of SR 67 at the terminus of Slaughterhouse Canyon Road. The MUP modification would allow for the extraction of additional aggregate materials on unmined portions of the site as approved extraction areas are depleted, replacement of the existing asphalt batch plant with a newer model, and implementation of a new salvaged construction materials recycling plant. The proposed modification would add approximately 108 acres to the extraction operation, allowing for the phased extraction of materials on approximately 157 acres total. The Reclamation Plan for the project provides for revegetation of extracted slopes and reclamation of the land in a manner suitable for the industrial and multiple rural uses sited in the Lakeside Community Plan. This project would

generate about 500 truck trips per day on average, with a maximum ADT of 800 truck trips. Other impacts include visual/landform alteration, loss of biological resources, and surface runoff to off site drainages (San Vicente Creek).

Nelson & Sloan/Baxter MUP Extension

Nelson & Sloan/Baxter proposes to extend existing aggregate extraction on areas described as future reserves. The project site is located east of SR67 and south of San Vicente Reservoir, encompassing approximately 120 acres in size. The proposed Major Use Permit would extend extraction purposes but not result in expanded production capability. On site activities would impact approximately 46 acres of coastal sage scrub habitat. The project would have impacts to sensitive viewsheds along SR 67 due to large cut slopes.

Boulder Valley Pumped Storage

The proposed project would be, at maximum, a 500-megawatt (MW) hydroelectric power generation facility connected to San Vicente Reservoir. Major features of this pumped storage proposal include an upper reservoir with an approximate capacity of 6,000 acre-feet of water, a concrete dam approximately 200 feet high plus two saddle dams, a tunnel and shaft system to connect the upper reservoir to the existing San Vicente Reservoir, and an underground powerhouse containing two or three power-generating pump turbines.

California Sundance Subdivision (TM 49-01-1)

A California Sundance residential subdivision is being developed on the south side of Julian Avenue west of Lakeshore Drive. The project will develop 171 single family detached units. This project is expected to generate approximately 1710 ADT to the existing traffic volume on area roadways. The project is approved and is currently in the first of up to six phases of development.

SA-780 Extension

Scripps Poway Parkway Extension (County SA-780) is an approved extension project, located approximately 3 miles east of the City of Poway. The proposed project would involve the construction and operation of an approximate 3-mile-long, 6-lane roadway between its exiting terminus and SR-67. Construction has recently begun on this project.

SR 67 Widening

Caltrans is proposing to widen existing SR67 in a northerly direction from Mapleview Street in Lakeside to Poway Road. The existing roadway would be widened from 2 lanes to 4 lanes for approximately 9 miles.

Latter Day Saints Church (P93-012)

A Negative Declaration was prepared for this MUP to permit a church with seating of 286 persons in a chapel and 325 persons in a cultural hall and parking for 208 cars on 5.07 acres. ADT for the project is estimated at 208. The site is located at the junction of Lake Jennings Park Road and Mapleview Street. This project has recently been completed. A visual survey was completed for the project.

Navy Housing

This project involves the construction of 290 residential townhouse units on 30 acres of a 41-acre site, located west of SR67, between Willow Road and Santa Maria Avenue. The project is in compliance with the National Environmental Policy Act and has recently begun construction. This project would impact 20 acres of the 30 acres of Diegan coastal sage scrub occurring on-site. Traffic generation of the project was based on 8 trips per unit, which yields approximately 2, 320 ADT.

Francher Development (P93-006)

The Francher Development project was approved in 1993 for the expansion of an existing shopping center to permit a drive-through Rally's hamburger outlet with outdoor dining facilities. Traffic generation for the project would be approximately 530 ADT. A Negative Declaration was prepared focusing on environmental issues and mitigation measures for site plan design review and traffic signal mitigation fees. No biological resources occur on the site.

El Dorado Mobilehome Park (P91-003)

The El Dorado Mobilehome Park project involved the addition of 24 spaces on 7.09 acres adjacent to an existing 51-space mobilehome park. The project was approved in March 1993. The project would impact one archaeological site (SDi-12248); however, it has been determined that this site is not significant. A Negative Declaration was prepared focusing on environmental issues and mitigation measures associated with site plan design review, floodway/biology impacts, archaeology and noise.

McDonald's Corporation (P85f-102W^3)

This approved project involves the modification and improvement of three remaining commercial lots comprising 1.6 acres. Traffic generation for the project would be approximately 384 ADT. A Negative Declaration was prepared addressing environmental issues and mitigation measures associated with access, traffic circulation, noise, landscaping and parking.

High Meadows Ranch (P77-141W^1)

This approved project plans for the development of 76 lots (62 DU's total) on 259 acres and the construction of a 0.5 million gallon reservoir. The Final Maps for Units 1 and 2 have been delayed, pending Section 4(d) Permit approval under the County of San Diego. emergency ordinance for NCCP conformance. Traffic generation for the project would be approximately 2,610 ADT. An EIR was prepared for the original project. Environmental issues and mitigation measures addressed in that report included biology, archaeology, flood control fees and traffic mitigation signal contribution fees to Wildcat Canyon Road/Willow Road intersection.

The High Meadows Ranch project site contains 156.5 acres of chaparral and 47.5 acres of coastal sage scrub. Other on-site habitat includes southern oak woodland, wetlands and non-native grasslands.

Nine archaeological sites and/or features and six isolates were located on the High Meadows Ranch project site. Historic features, including three buildings and a grave site were also documented. Of the archaeological sites encountered, four were determined to have potential importance and were tested. Only HMR-2 was found to be significant.

Alpha Investment Project (P69-073W3)

This project was approved in September 1992 for a 88-space addition to the original 183-space mobilehome park/golf course driving range cage. A total of 271 spaces will be created on 80.8 acres of land. A Negative Declaration was prepared for the project in 1986 with environmental issues and mitigation measures for flood control (fees) and drainage (improvements or fees). This project is located adjacent to I-8 in the southern part of Lakeside. No biological resources occur on the site.

Forror Property (TPM 20160, Log No. 94-14-13)

This project is located just south of the project site and involved the minor subdivision of 36 acres into four home sites ranging from 3.8 acres to 19.8 acres. Traffic generation for the 4-home site project would be approximately 48 ADT. The majority of the property (35 acres) is vegetated in Diegan coastal sage scrub, providing habitat for seven California gnatcatchers. The project would impact approximately seven acres Diegan coastal sage scrub habitat.

3.2 Land Use/Community Character Cumulative Impact Analysis

3.2.1 Existing Conditions

Refer to Section 2.1.1 of this EIR.

3.2.2 Thresholds of Significance

Land use and community character impacts are often the cumulative result of several independent actions which, when examined individually, might not be considered to be significant. For example, a given proposal might have traffic, noise, or growth inducement implications which, taken as a whole, create a significant impact on community character. The effects can incrementally result in adverse changes to the community. Generally, significant public controversy is the best indicator of this type of cumulative impact.

The project would have a significant cumulative land use/community character impact if substantial public controversy might become associated with traffic, air quality/dust, landform modification, compliance with design guidelines, or land use compatibility/conflicts.

3.2.3 Analysis of Project Effects and Determination as to Significance

Other projects proposed in the vicinity of the golf course would have similar land use concerns in terms of onsite physical land use constraints, compatibility with adjacent and surrounding land use types, project consistency with applicable land use policy, and consistency with existing community character.

The proposed golf course project generally would not have physical land use conflicts, is compatible with surrounding land uses, and is consistent with applicable policy. However, from a cumulative perspective, much of San Diego County is changing from rural to urban/suburban land uses. Although general plans and community plans have requirements designed to ensure that adverse impacts are either avoided or mitigated, the cumulative change in rural character could be significant.

Lakeside's rural atmosphere has been very attractive to those seeking escape from the more densely settled areas of urbanized San Diego. Over the past several years, Lakeside has experienced a partial suburbanization. Despite the effects of suburbanization, Lakeside residents possess a strong desire to maintain and preserve a rural lifestyle. Lakeside's rural/ranch-style imagery lends a sense of spaciousness, place, and identity to the area. These characteristics help residents form and retain a viable, unique community identity.

The rural heritage of Lakeside connotes an agrarian, provincial, and somewhat rustic identity, where ranch-style homes and equestrian/agricultural uses are abundant. The proposed golf course, while maintaining open space, would suggest a more urban setting. This would differ from Lakeside's current rural/agricultural identity. The project would therefore contribute to incremental changes in Lakeside's community character.

However, the proposed golf course would preserve and enhance a sense of spaciousness, and provide the public with additional recreational opportunities. Additionally, the green-belt established by the maintenance of large expanses of turf and landscaping is an aesthetically pleasing use of open space. Therefore, the proposed change is not considered adverse in the sense that these changes would be compatible with existing character. The addition of the proposed golf course is considered a compatible attribute to existing community character because it maintains and enhances spaciousness and would preserve it in this condition for an extended period of time.

3.2.4 Mitigation Measures

No significant cumulative impacts were identified. As such, no mitigation is necessary.

3.2.5 Conclusions

No significant cumulative land use impacts were identified.

3.3 Visual Quality

3.3.1 Existing Conditions

Refer to Section 2.2.1 of this EIR.

3.3.2 Thresholds of Significance

Substantial incremental physical changes to permanent landforms or other aesthetic features within the viewshed of the project area would constitute a significant cumulative effect.

3.5.2 Thresholds of Significance

Substantial incrementally effects in a regional context to sensitive habitats or species would be considered a significant cumulative impact.

3.5.3 Analysis of Project Effects and Determination as to Significance

Regional biological recourses are becoming more scarce as growth and development continue within the County. Generally, the loss of vegetation and habitat associated with the proposed project represents a cumulative impact in a regional context, especially given the number of other proposed projects in the area and the sensitivity of many of the region's habitats.

The resource agencies consider all impacts to wetlands to be significant (both locally and cumulatively) because of the sensitivity of the habitat. Therefore, the project's impacts to 0.4 acres of wetlands are considered cumulatively significant. Impacts to coast live oaks are considered cumulatively significant because of their rarity and capability to support declining species. The incremental loss of raptor foraging habitat is also considered cumulatively significant.

The ongoing development of regional, multispecies conservation programs (MSCP and MHCP) is the result of the cumulative reduction of natural habitats within western San Diego County. These are recognized subregional planning programs of California's Natural Community Conservation Planning (NCCP) Act. Cumulative impacts within a region are most effectively mitigated by a comprehensive plan that addresses the impacts of regional growth on wildlife and its habitats. The MSCP/MHCP plans establish a framework to develop a preserve system that provides for the continued existence of sensitive species and the maintenance of natural diversity.

3.5.4 Mitigation Measures

Mitigation of the proposed golf course project's significant direct and indirect impacts would be consistent with the regional conservation plans and would reduce impacts to below a level of significance.

On-going open space and multiple habitat planning at the City of San Diego as part of the MSCP and by the County and SANDAG as part of the Multiple Habitat Conservation Plan area are working toward the identification of a comprehensive open space system to ensure the long-term viability of native plant communities and sensitive wildlife species. In concert with the preservation of regionally important wildlife communities, these efforts also will address the connectiveness of open space areas and the protection of wildlife corridors.

The project would mitigate its contribution to the cumulatively significant loss of sensitive plant and wildlife species and native habitats through the implementation of the proposed native plant species revegetation plan. Mitigation for regional losses of sensitive habitats would occur as a result of the multiple species habitat planning programs.

3.5.5 Conclusions

Implementation of mitigation measures would reduce cumulative impacts to biological resources to below significance.

It is estimated that the proposed golf course would have a trip generation rate of 1,500 daily trips. Of these, there would be approximately 100 a.m. peak hour, and 136 p.m. peak hour trips. This estimated traffic volume was assigned to the surrounding circulation network. It is assumed that all project-related trips would enter and leave the site via the Lake Jennings Park Road (SA810)/El Monte Road (SC1910) intersection.

The addition of project-related trips slightly increases daily traffic demand on study area roadways, but it does not change the overall level of service at any roadway segment. However, under existing and future conditions (with and without out any additional traffic demands associated with the project), the following roadway segments would operate at less than desirable levels:

- Lake Jennings Park Road (SA810), north of I-8 (LOS E for existing, future without project, and future with project conditions). Existing ADT is 11,800. Future increases (1998) over existing conditions without the project will be approximately 1,290 ADT (13,090). Future increases (1998) with the project will be approximately 1,980 ADT (13,780). Future with project increases (1998) over future without project increases would therefore be an additional 690 ADT. The project represents only a 6 percent increase to the existing traffic on this road segment.

- Julian Avenue (SC1910), west of Lake Jennings Park Road (LOS D for existing, future without project, and future with project conditions). Existing ADT is 9,000. Future increases (1998) over existing conditions without the project will be approximately 790 ADT (9,790). Future increases (1998) with the project will be approximately 1,135 ADT (10,135). Future with project increases (1998) over future without project increases would therefore be an additional 345 ADT.

Although the project would have only a minor and incremental increase of traffic on these roadway segments, two roadway segments would be effected by the project. Levels of service would remain unchanged. Therefore, the project would not have significant traffic impacts.

The golf course project itself would result in minor, but incremental reductions in levels of service on certain roadways in the project area. This effect would contribute cumulatively to reduced levels of service caused by other projects occurring simultaneously or subsequently to the proposed project.

3.4.4 Mitigation Measures

No mitigation measures are required for cumulative impacts.

3.4.5 Conclusions

The project would not have significant cumulative traffic impacts.

3.5 Biological Resources

3.5.1 Existing Conditions

Refer to Section 2.4.1.

3.3.3 Analysis of Project Effects and Determination as to Significance

The visual character of open space and undeveloped areas of San Diego County will continue to change as a result of growth and development. As urban areas expand, large areas of open space are permanently lost because of development. As the level of residential, commercial, industrial, and other related urban land uses increases, there will be incremental changes resulting in alterations of visual aspects of community character, loss of open space, natural vegetation, and scenic landforms.

The proposed project, combined with others in the area, will result in cumulative loss of rural/agricultural settings. To a lesser degree, existing topography and natural landscapes would be lost. Planning agencies typically attempt to require development projects to be visually compatible with the existing general setting. However, cumulative effects of the project would alter the general visual character of the landscape. The traditionally rural atmosphere in the community would undergo further incremental transformation to an urban/suburban landscape.

However, the project would maintain open space and preserve the existing sense of spaciousness in the area. Agricultural-related vegetation would be removed, but replaced by managed turf in "playable" areas, and a mix of native plant species in "non-playable" areas. Therefore, while the project would incrementally contribute to the change of visual character in the Lakeside area, these changes are compatible with the existing visual setting.

3.3.4 Mitigation Measures

No significant cumulative impacts were identified. As such, no mitigation is necessary.

3.3.5 Conclusions

No significant cumulative visual quality impacts were identified.

3.4 Traffic

3.4.1 Existing Conditions

Refer to Section 2.3.1 of this EIR.

3.4.2 Thresholds of Significance

Significant project-related cumulative traffic impacts would result if current or future levels of service drop below LOS D because roadway improvements planned to accommodate current or additional future traffic volume in the project vicinity were inadequate.

3.4.3 Analysis of Project Effects and Determination as to Significance

Increases in traffic are anticipated as a result of growth and other planned projects in the County. Traffic volume increases are essentially those incorporated and projected in SANDAG's growth management plan. While forecasted traffic increases in San Diego County are substantial, planned roadway improvements are expected to accommodate the additional volume.

3.6 Archaeology

3.6.1 Existing Conditions

Refer to Section 2.5.1 of this EIR.

3.6.2 Thresholds of Significance

Substantial incremental effects to cultural resources adversely affecting the regional resource base would be considered cumulatively significant.

3.6.3 Analysis of Project Effects and Determination as to Significance

The disturbance and degradation of cultural resources is a consequence of extensive development. However, under NEPA, CEQA, and RPO, each individual project is required to identify appropriate mitigation measures addressing significant impacts to cultural resources. It is possible to mitigate for cumulative impacts to cultural resources through testing, data recovery and artifact curation, avoidance and preservation, and other measures.

A number of cultural resource sites occur within the Lakeside area; some of these sites have been impacted by development. After mitigation however, the proposed project would not adversely affect any known cultural resources on the project site. Therefore, it is not anticipated that the proposed project would incrementally contribute to the loss or degradation of cultural resource sites. In the event, however, that undetected resources become detected on site, and follow-up surveys determine that such resources could be adversely affected by the project, any subsequent loss of cultural resources would add to the regional cumulative loss.

3.6.4 Mitigation Measures

Direct significant potential impacts were identified and mitigated to below significance. No significant cumulative impacts were identified. Therefore, no mitigation measures for cumulative impacts are necessary.

3.6.5 Conclusions

No significant cumulative impacts were identified.

3.7 Surface Hydrology

3.7.1 Existing Conditions

Refer to Section 2.6.1 of this EIR.

3.7.2 Thresholds of Significance

Incremental impacts to hydrology would be cumulatively significant if the project contributed to increases in the potential for flooding, erosion, or sedimentation downstream.

3.7.3 Analysis of Project Effects and Determination as to Significance

Basin-wide cumulative impacts can occur as a result of changes in erosion and sedimentation rates, and degradation of water quality in runoff waters. River systems must be in balance with their environment. Any change in conditions within the watershed will impact erosion and sedimentation rates. The proposed project could change the erosion and sedimentation rates in the Upper San Diego River by exposing the surface to increased erosion and subsequent sedimentation, or by reducing the amount of sedimentation that is currently produced from this project site. Any change in the existing conditions would result in increased sedimentation or erosion downstream of the site.

Other areas of potential impact include the effects of increased "urban-related" runoff, such as "first flush" storm runoff, irrigation runoff, and direct discharge of deleterious materials into drainage channels. These impacts could occur as a result of accidental spills, vehicle collisions, illegal dumping, and other related events that can act cumulatively to degrade downstream water quality.

Existing drainage patterns, flow characteristics, and water quality could be adversely affected by the proposed project. Large scale grading and the introduction of manufactured slopes and impervious surfaces have the potential to incrementally affect surface hydrology. The project proposes the construction of a relatively large parking lot, club house, and maintenance facilities. Runoff from these impervious surfaces will yield a variety of urban pollutants (i.e., fuel, oil, pesticides, fertilizers, etc.). In addition, runoff from excessive irrigation could contain fertilizers and pesticides, which in turn would affect surface and subsurface waters.

While these changes would not be significant with regard to the project as an independent action, the project would incrementally contribute to changes in the hydrologic conditions within El Monte Valley and the San Diego River basin as a whole. Therefore, cumulative impacts to existing surface drainage and water quality resulting from changes in the runoff characteristics of the project site should be anticipated. Additionally, incremental water quality impacts resulting from increased intensity of an urban-related land use should be expected. With project-specific mitigation, these changes would be minor on a cumulative basis, and would not be considered cumulatively significant.

Mitigation measures identified in Section 2.6.3 have been designed to eliminate changes in the existing runoff characteristics of the project site. These measures include grading limitations, restrictions on exporting materials from the site, and maintenance of existing surface conditions adjacent to surrounding properties within the floodplain. Incorporation of the prescribed mitigation measures eliminates the potential for significant impacts on a project and cumulative level.

3.7.4 Mitigation Measures

The project mitigates for direct project-related hydrology impacts. Such impacts would be reduced to a level below significance with implementation of proposed mitigation measures. Since no significant cumulative hydrology impacts were identified, no mitigation is necessary.

3.7.5 Conclusions

No significant cumulative impacts to hydrology were identified.

3.8 Groundwater

3.8.1 Existing Conditions

Refer to Section 2.7.1.

3.8.2 Thresholds of Significance

Groundwater impacts would be considered cumulatively significant if the project, in combination with other groundwater users in the valley, substantially deplete common groundwater resources.

3.8.3 Analysis of Project Effects and Determination as to Significance

The project has been evaluated with respect to groundwater use within the 8,400-acre El Monte Groundwater basin. This evaluation analyzed groundwater dynamics within the basin, identified current and potential groundwater use, and determined impacts which could be expected, should the project be implemented. The project proposes a groundwater monitoring program that will regulate the amount of groundwater use by the project so that aquifer levels may be maintained at an acceptable level.

The impacts identified as potentially impacting groundwater are relative to the El Monte Groundwater Basin only. Water users surrounding the project site are primarily dependent on imported water supplies and would not be influenced by groundwater extraction within the El Monte Groundwater basin. Lakeside and Riverview Water Districts have developed groundwater supply wells within the San Diego River alluvial aquifer. These wells are located approximately one and three miles west of the projects site, respectively. These wells enjoy a significantly larger groundwater recharge basin with inflows from several natural and manmade features. As such, groundwater use on the project site would not be expected to have an impact on water extraction outside of the El Monte Groundwater basin.

3.8.4 Mitigation Measures

The project mitigates for direct project-related groundwater impacts. Such impacts would be reduced to a level below significance with implementation of proposed mitigation measures. Since no significant cumulative groundwater impacts were identified, no mitigation is necessary.

3.8.5 Conclusions

No significant cumulative impacts to groundwater were identified.

4.0 ALTERNATIVES TO THE PROPOSED ACTION

Since a principal objective of the EIR process is to substantially reduce or avoid significant environmental damage where feasible, the information and level of analysis in such a disclosure document must be sufficient to permit a reasonable choice of alternatives regarding the environmental aspects of the proposal. A reasonable range of alternatives to the proposed project, or to its location, that could feasibly attain the project's basic objectives must be described, and the comparative merits of each must be evaluated (State CEQA Guidelines Section 15126 (d)). The comparative merits of the alternatives must be evaluated in accordance with certain criteria to include the following:

1) If there is a specific proposed project or a preferred alternative, the rationale for rejecting the other alternatives must be discussed if those alternatives were considered in developing the proposal.

2) The specific alternative of "No Project" must be evaluated along with any associated impacts resulting from implementation of the "No Project" alternative.

3) The discussion must focus on alternatives capable of eliminating any significant adverse environmental effects or reducing them to a level of insignificance, even if they impede the objectives of the project and are more costly.

4) Any significant effects of alternatives in addition to those that would be caused by the project as proposed must be briefly discussed.

5) Only those alternatives necessary to permit a reasoned choice, such that the selection of alternatives is predicated on informed decision-making and public participation are required to be discussed. An alternative characterized by effects that cannot be reasonably ascertained, and the implementation of which is speculative need not be discussed.

This section discusses a range of alternatives to the proposed project, including changes in the design or scale of the project. In so doing, it is possible to acquire an increased perception of the comparative advantages or disadvantages of the alternatives relative to the proposed project.

The following alternatives are described in this section. These alternatives are reasonable possibilities and follow the above criteria.

- No Project - Site Used for Agricultural/Extractive Uses
- "Reduced Intensity Golf Development" (One Championship 18-hole and One Executive Golf Course)
- "Commercial Nursery"
- "Extractive/Mineral Resources Use"

- "Relocated Bridge/Maintenance Facility"
- Alternative Project Location

4.1 Rationale for Alternatives Selection

This EIR focuses on alternatives to the project, or to the location of the project, that attain the basic objectives of the project and are capable of eliminating or reducing any significant adverse environmental effects. With the exception of the "No Project Alternative," alternatives that were not reasonably feasible or which did not reduce at least one of the significant effects of the proposed project were not considered.

4.2 Analysis of the No Project Alternative

4.2.1 No Project Alternative Description and Setting

The No Project Alternative would result in the continued use of the project site within current limitations. Neither the whole of the project, nor any of its components would be implemented.

The predominant use of the project site has been for agricultural production. This has included row crops on the south side of the river and grain crops and cattle pasture on the north. Although the land owner has recently canceled all leases for use of the property, continued use of these lands for agricultural purposes would likely be reinstated should the proposed project not be developed as planned.

In addition, the San Diego County General Plan and Zoning Ordinance have designated the approximately 380 acres of the project site for extractive uses. This designation was applied to the site due to the high quality sand resource that exists within the alluvial valley. Because of the value of the underlying mineral resource found on the project site, and the presence of active extractive operations located immediately adjacent to the site on the west, it is reasonable to assume that sand extraction could expand onto the project site.

Other uses which would be possible would include limited residential use and other uses allowed within this land use category. Equestrian and ORV use of the San Diego River floodway with its sensitive riparian vegetation associations would likely continue.

With regard to the various impacts discussed in Section 2.0 of this document, the anticipated differences in the analysis are discussed in the following text.

4.2.2 Comparison of the Effects of the No Project Alternative to the Proposed Project

Land Use/Community Character

The No Project Alternative would continue to respect the existing land use designations and zoning for the properties in question. Current designations/zoning allows continued use of the property for agricultural development, and also allows mineral extraction as a primary use. Although mineral resource development requires the issuance of a Major Use Permit and

approval of a Reclamation Plan, the property is designated as a regionally significant mineral resource. San Diego County is experiencing an overall shortfall of aggregate materials. While there are extensive aggregate resources within the county, in many cases, urban development has eliminated these lands from development. Therefore, lands which hold economically recoverable mineral (aggregate) resources are important to the county's economic well being.

The No Project alternative would not restrict future development of the project site for aggregate recovery, and/or continued agricultural use. Implementation of the project, however, would not eliminate these uses from future consideration. With limited exceptions (i.e., club house, parking lot, maintenance facilities), the project would not restrict reversion of the site to these activities. If future economic conditions resulted in a greater need for agricultural and mineral resource recovery, such as found on the project site, the property could be reverted to these uses over all or part of the site.

The No Project Alternative would continue to reflect the existing conditions found in the project vicinity. Current conditions find the project site and surrounding area involved in agricultural, mineral extraction, rural residential, and open space uses. This pastoral ambiance would continue until another intensive use were to be developed in the project vicinity. These uses could include mineral resource recovery, and/or limited residential development.

The No Project Alternative would result in a continuation of existing conditions. The property would continue to be used for agricultural purposes unless other more intensive uses allowed within the existing planning and zoning designations were put forward. The Prime Farm land would not be changed, and soils of prime importance would not be disturbed. However, mitigation measures identified in Section 2.1.3 effectively eliminate the potential for loss of these highly productive soils. As such, no change in the impact scenario has been identified.

The project would result in an increase in traffic along area roadways. However, adequate roadway capacity is available to accommodate project proposed traffic. However, the "No Project" Alternative would prohibit generation of any/all new equestrian trails proposed on-site (adjacent to El Monte Road). Although the No Project alternative would eliminate these concerns, the analysis of the proposed project indicates that no significant impacts would occur after mitigation.

Visual Quality

The No Project Alternative would allow for a continuation of the existing view scapes and visual character of the project site and surrounding area. Open spaces and the provincial imagery associated with the El Monte valley would not experience changes to a more urbanized setting should current land uses continue. However, should the highest and best use of the land become a more intensive use (e.g., sand extraction, residential development, etc.), the visual character of the valley would be changed.

Traffic

The No Project Alternative would result in the continuation of existing traffic conditions over area roadways. These conditions find relatively free flowing circulation at most intersections and roadways. The project would add approximately 1,500 ADT to the existing circulation system. However, the traffic

analysis described in Section 2.3 found that no significant impacts would result. Area roadways and intersections have adequate capacity for the additional traffic which would result from the project.

Archaeology

The No Project Alternative would likely result in continued use of the project site for agricultural purposes. This activity typically includes tillage of the soil and pasture use by livestock. These activities would continue to disturb on site archeological resources. Mitigation measures described in Section 2.5.3 for the proposed project require that the site be capped by a minimum of 3 feet of fill, thereby retaining the site intact

Biology

The No Project alternative would result in a continuation of the existing conditions on the project site. This condition maintains the upland areas of the site in a continuous state of disturbance. Agricultural uses include row crops, landscape nurseries, cereal grains, and livestock pasture. While these uses are primarily confined to areas outside of the active river channel, livestock are free to roam over all areas of the property. This activity will continue to have a long term deleterious effect to the riparian habitat found within the floodway.

With the exception of approximately 0.4 acres of wetland habitat, the project would not result in direct impacts to the riparian habitat found within the floodway. Section 2.4.3 proposes mitigation measures that would reduce all impacts to biological resources to a level below significance. Almost all disturbance would be limited to upland areas adjacent to the channel. Livestock pasturing would be eliminated and continuous disturbance of riparian habitats would no longer occur. In this manner, the project would be environmentally superior to continued use of the site for agricultural purposes.

Should the site be developed for mineral extraction at some point in the future, these activities could dramatically change the biological conditions in the project vicinity. These activities would impact on site vegetation, and eliminate native surficial soils while exposing the water table.

Hydrology

The No Project alternative would not change the impact assessment with regard to river hydrology. The existing dynamics of erosion and deposition would be expected to continue. The project does not affect these conditions provided that the mitigation measures identified in Section 2.6.3 are incorporated into the project design.

Groundwater

The No Project alternative would see a continuation of the existing groundwater use conditions in the project vicinity over the near term. Current uses within El Monte valley include limited residential use and agricultural irrigation. In addition, Helix Water District owns a production well west of the project site and extracts groundwater for use in its potable water distribution system.

Although near term use would not be expected to increase substantially, future proposals could significantly change this condition. These proposals could include intensified agricultural production, mineral resource development, other golfing development alternatives, and water resource development.

4.2.3 Applicant's Rationale for Rejecting the No Project Alternative

Adoption of the No Project alternative would result in a continuation of the existing conditions in the project vicinity. Significant impacts identified as a result of the proposed project would not occur. However, under the No Project Alternative, the potential would exist for a more intensive, and therefore more impactive land use on site in lieu of the proposed golf course. The No Project Alternative would not achieve the project objectives.

4.3 Analysis of the "Reduced Intensity Golf Development" Alternative (Environmentally Preferable)

4.3.1 "Reduced Intensity Golf Development" Alternative Description and Setting

This alternative evaluates the development of one full sized Championship 18-hole, one Executive 18-hole Golf Course, the omission of one of the full sized 18-hole courses (i.e., the west course), and the omission of the 9-hole practice facility (Figure 4.3-1) The Championship course would be developed on the eastern portion of the site as under the proposed project; however, an Executive course would be constructed on the western portion of the site in lieu of the proposed full sized course on the western portion of the site, as shown on Figures 1.1-3 and 1.1-4. Executive golf courses are typically much smaller than Championship golf courses. The Championship course would be developed in accordance with the concept development plan set forth for the East Course. The club house, parking lot, roads, water impoundment features, water wells, driving range, maintenance compound, and other facilities would remain unchanged from this design. The existing course layout for the East Course would remain unchanged. The executive course in the western portion of the site require only 60 to 85 acres of land for development. The land developed would be to the north of the floodway and would abut the club house area. Cart path river crossings would not be built for the Executive course. Therefore, approximately 175 to 190 acres of the western portion of the site would not be developed for golf activities under this alternative, and would remain unchanged by this project alternative.

4.3.2 Comparison of the Effects of the "Reduced Intensity Golf Development" Alternative to the Proposed Project

Land Use/Community Character

Similar to the proposed 45-hole golf course, this alternative would be in compliance with applicable general plan land use and zoning designations upon issuance of a Major Use Permit from the County DPLU. Since intensive development of permanent structures would not occur, development of this alternative would not preclude future reversion to agricultural or extractive uses at the eastern portion of the project site. Under this alternative however, agricultural activities and open space currently existing in the western portion of the site would remain unchanged in the areas not developed for golfing activities. This alternative would involve the development of one Championship 18-hole golf course in the eastern portion of the project site and one Executive golf course on the

western portion of the site. The Championship course would be developed in accordance with current design specifications set forth for the East Course. The club house, parking lot, roads, water impoundment features, water wells, driving range, maintenance compound, and other facilities would remain unchanged.

The approximate 175 to 190 acres of undeveloped land in the western portion of the site could be developed under a separate proposal in the future for a more intensive type of land use than currently exists. Depending on the nature of any future development, these future land uses in the western portion of the site may, or may not be compatible with the surrounding community character. Development of golf facilities would however, represent a change from the rural, pastoral character of the community, but would be a compatible land use.

Visual Quality

This alternative would allow for the existing view scapes and visual character of the southwestern portion of site and surrounding area to remain unchanged. Open spaces and the provincial imagery associated with the El Monte valley would not experience changes to a more urbanized setting in this area should current land uses continue. However, should the highest and best use of the land become a more intensive use (e.g., sand extraction, expanded agricultural activity, residential development, etc.), the visual character of the southwestern portion of the site would be changed.

Under this alternative, changes to visual character in the eastern portion of the site, and in the area of the Executive Course would be the same as under the proposed project. Generally, this would entail changing the existing agrarian setting to a more urbanized/recreational setting. However, the resultant "green-belt" would be compatible with the existing visual setting.

Traffic

Existing traffic conditions over area roadways are characterized by relatively free flowing circulation at most intersections and roadways. However, under existing and future conditions (with and without any additional traffic demands associated with the project), the following roadway segments would continue to operate at less than desirable levels:

- Julian Avenue (SC1910), west of Lake Jennings Park Road (LOS D for existing and near-term future conditions).
- Lake Jennings Park Road (SA810), north of I-8 for existing and near-term future conditions

Because the capacity of the golf course would be reduced by about 20 percent, traffic generation under this alternative would be reduced by approximately one fifth of the amount (i.e., about 300 ADT) that would otherwise result from the proposed project. Total project-related traffic generation would therefore be about 1,200 ADT under this alternative. However the traffic analysis described in Section 2.3-2 found that no significant impacts would result. Area roadways and intersections have adequate capacity for the additional traffic which would result from the project.

Archaeology

The archaeological resources evaluation in Section 2.4.1 identified a significant archaeological site in the western portion of the project area. This alternative, would likely result in continued use of the northwestern portion of the project site for agricultural purposes. This activity typically includes tillage of the soil and pasture use by livestock. These activities would continue to disturb on site archeological resources. While the Executive Course would be developed to the north of the floodway, it would not extend far enough to the west to affect the existing archaeological site. Therefore, direct impacts to the archaeological site would not occur under this alternative since development of the Executive course would not occur in this area.

Biology

This alternative would result in a continuation of the existing conditions in the southwestern and far-western portions of the project site. This condition maintains the upland areas of the site in a continuous state of disturbance. Agricultural activity would continue to have an undesirable effect on the riparian habitat found within the floodway.

The proposed wildlife movement corridor could be expanded in width. Edge effects along the corridor would be reduced by this alternative since development of the golf coursed would be not exist near the corridor.

Project-related impacts to wetland habitat under this alternative, would be reduced since four of the river crossings/bridges would not be constructed. Project-related impacts to Arroyo toad, oak trees, and raptor foraging areas would not occur in the southwestern and far-western portions of the site. However, should the site be developed for mineral extraction at some point in the future, these activities would change the biological conditions in the project vicinity. These activities would impact on site vegetation and could eliminate native soils.

Significant impacts to biological resources in the north-central and eastern portions of the project site would still occur under this alternative. Almost all project-related disturbance would be limited to upland areas adjacent to the channel. However, Section 2.4.3 proposes mitigation measures that would reduce all impacts to biological resources to a level below significance.

Hydrology

This alternative would not change the impact assessment with regard to river hydrology in the southwestern and far-western portions of the site. The existing dynamics of erosion and deposition would be expected to continue. Development of the eastern portion of the site for golfing would not affect existing conditions provided that the mitigation measures identified in Section 2.6.3 are incorporated into the project design.

Groundwater

Development to this alternative would result in an overall reduction of irrigation requirements for the golf courses. Estimated irrigation requirements for the project are 1,172 afy. This total would be reduced to approximately 948 afy through adoption of this alternative. Primary savings would be the result of reduced fairway and landscape areas. Areas developed for tees and greens would remain relatively consistent.

However, agricultural crop production would likely continue to occur in areas located south of the river. channel. This would result in an increase in water demands within the groundwater basin. As such, the alternative project would need to be constrained similar to that recommended for the project. This would result in lower groundwater availability for golf course irrigation and a subsequent increased demand on imported water.

4.3.3 Applicant's Rationale for Rejecting the "Reduced Intensity Golf Development" Alternative

The East Course under this alternative would be developed in accordance with current design specifications set forth for the proposed East Course. A small executive course would be developed on approximately 60 to 85 acres of land in the western portion of the site. The club house, parking lot, roads, water impoundment features, driving range, maintenance compound, and other facilities would remain unchanged. The existing course layout for the East Course would remain unchanged. However, the full sized West course and 9-hole practice facility would not be built. The river crossings otherwise associated with the full sized West Course would not be built.

Significant impacts occurring as a result of the East and Executive Courses only would occur upon project implementation, although mitigation measures have been proposed that would reduce these impacts to a level below significance. Adoption of this alternative would reduce significant environmental impacts relative to the proposed 45-hole course, thereby rendering this alternative to be environmentally preferable. However, unless groundwater demand were restricted for agricultural and/or residential use, the golf course would rely heavily on imported water for course irrigation. This would increase operating costs and could have a negative effect on the profitability of the proposed action. With this exception, the alternative would accomplish many of the project's objectives, but would substantially reduce the overall scope of the project such that its long-term viability may become compromised. Therefore, this alternative has been rejected.

4.4 Analysis of the "Commercial Nursery" Alternative

4.4.1 "Commercial Nursery" Alternative Description and Setting

A commercial nursery has contacted the Helix Water District about the possibility of utilizing the District's El Monte parcel for commercial plant propagation purposes. The relatively flat contour of the site, availability of groundwater, and rural setting, all promote this site as compatible to a nursery use, additionally, the County General Plan designates part of the site for agricultural use that would be consistent with large-scale horticultural operations.

Development to meet facility demands would require approximately 300 acres of land graded into relatively flat pad areas. These pads would be used for both plant propagation and plant transplanting procedures. The project would utilize approximately 30 acres for green houses and shaded plant-growing facilities. All structures on-site would be temporary and portable (i.e., greenhouses, offices, storage trailers, etc.).

The project would demand about 1,000 acre-feet of water per year. This water would either be extracted from local ground water sources, or it would be imported. Since all potted plants would be sprinkler-irrigated, each pad would be graded to allow water drainage from the plant storage areas. Runoff would be collected in a storage/settling pond where it would be clarified and then recycled.

Daily nursery operations would consist of watering and fertilizing plant materials, rotation of plants from one area to another, and retail and wholesale selling of plants on-site. The nursery would receive several deliveries of plants, fertilizers, and assorted miscellaneous garden-related merchandise each day. High volume growing would take place on the site and would require approximately 50 employees.

4.4.2 Comparison of the Effects of the "Commercial Nursery Alternative"

Impacts which could be expected by the development of the Commercial Nursery Alternative are as follows:

Land Use

Historically, this segment of the El Monte valley has been used for various forms of agriculture and much of the surrounding area currently retains an agricultural aspect. As a large-scale horticultural use, a nursery use can be considered a form of agriculture, and therefore, would retain the related characteristics of the surrounding land uses. As such, nursery operations would be a compatible land use for the site.

Visual Quality

The use of this site as a nursery would result in moderate landform alteration for the construction of commercial pads and would be developed using general grading practices.

Visual impacts would be noticeable from El Monte Road to the south as well as from many of the residential parcels located adjacent to the perimeter of the project site. However, a nursery use can be considered a form of agriculture and therefore would retain the essential characteristics of the surrounding land uses. Commercial development would be required to undergo review for compliance with the Lakeside Design Guidelines and would result in the requirement for structures and landscaping to follow these guidelines.

Much of the aesthetic value of this site would be diminished through implementation of a commercial use alternative of this type. Although many of the expected visual impacts could be mitigated with careful planning and rigorous mitigation measures, unless organized development plans were devised, changes in the existing vegetation and topographic conditions of the site may be substantial.

Traffic

The generation of heavy truck traffic is coincidental to this type of commercial use. The nursery would expect approximately 50 deliveries per day to the site. This operation would have the capability of generating a large number of vehicular trips, as heavy delivery vehicles arrive carrying plants and associated materials for sale on the site. In addition to deliveries, adjacent roadway infrastructure would need to support the employee and customer traffic generated by this use.

A commercial use such as this would create vehicular trips less than what the proposed golf course would generate.

Noise

As with many commercial uses, this alternative has the potential to result in increased ambient noise levels throughout this segment of the El Monte valley corridor. As the applicant begins transporting commercial materials to the site for growing and sales, noise generators such as customer traffic, fork lifts, and delivery trucks would create a change in noise levels. These impacts have the potential to become disruptive due to the project's proximity to adjacent residential uses and wildlife habitat.

Noise levels may impact surrounding uses more than a golf course, but probably not to the point of becoming excessive.

Air/Dust Quality

Development of a nursery project would result in a reduction in air quality and an expansion of the percentage of particulate matter in the air. Initially, these impacts would result from construction of pad areas and general operations. Impacts resulting from a nursery use (i.e., trucks and equipment usage) would be expected to be similar to those currently experienced at other facilities of similar scope.

Biological Resources

Impacts to biological resources on the Helix Water District property would result from the removal of vegetation and undisturbed natural habitat ahead of nursery activities. Pad area construction would require removal of mature Oak and Sycamore trees along with several other indigenous and non-native plant communities. The San Diego River floodplain dominates the medial segment of the project site. Within this floodplain area, three major plant associations occur including Riparian Scrub, Agricultural Vegetation, and Relict Riparian Flood Plain Vegetation. A narrow corridor of Riparian Scrub vegetation is present within the immediate floodway of the San Diego River. This community is comprised of Southern Willow Scrub, Tamarisk Scrub, Mule Fat Scrub, and small patches of Freshwater Marsh. A nursery use would necessitate clearing most of the native and non-native plant communities out of the project site as pad formation proceeds. These habitat disturbances would occur coincident with pad construction. As this natural habitat is removed, any animal species occurring within the habitat would be displaced.

In addition to the plant associations listed above, a total of 68 vertebrate species were observed or detected as occurring on the project site. Any contiguous wildlife corridors may become fragmented or wholly displaced upon implementation of a nursery use.

Biological impacts to surrounding plant/animal communities from implementation of this type of project would not increase in comparison to the proposed golf course project. In general, this alternative is equally as impactive to biological resources as the proposed golf course.

Archaeology

One section of the project site contains archaeological resources. In order to avoid significant impacts to these resources, grading activities would have to avoid the area and capping of the site would be required to protect it from any project related intrusion. If the area could not be avoided, the site would require appropriate removal and curation of cultural resources. Upon implementation of mitigation measures, no significant impacts to archaeology would occur.

Erosion, Sedimentation, and Water Quality

This alternative project would effect runoff in various ways. Development of the site has the potential to result in short-term surface hydrology impacts as pads are constructed and the site is assembled. During the pad forming process, several impermeable surfaces would be created. These surfaces, in combination with typical nursery operations (i.e., daily watering activities), would create an increase in surface runoff. However, much of the water is collected and re-used, therefore, net runoff is diminished.

Water quality degradation is a possible impact of a nursery use alternative. Considering the proximity of this property to the San Diego River system, the introduction of various forms of foreign matter including pesticides, fertilizers, and many other types of general chemicals and sediment into the river and its surrounding structure is possible.

Groundwater

The project would demand about 1,000 acre-feet of water per year. This water would either be extracted from local ground water sources, or it would be imported. Much of the water used on-site would be recycled and reused. Daily water usage for this alternative project would be equal to that of the proposed golf course.

4.4.3 Applicant's Rationale for Rejecting the "Commercial Nursery" Alternative

While the site is well suited for a golf facility, sales/production of plant materials could become a desirable land use for the site. However, the Commercial Nursery Alternative would not allow achievement of project objectives as identified in the Project Description (Section 2.0) and may increase impacts to water use, water quality, visual quality, and noise. This project would be about as impactive as the proposed project in terms of biology, erosion, sedimentation, traffic, and air quality effects.

In conclusion, the objective of the current project applicant is to develop a golf facility. Therefore, utilization of the site for a large-scale nursery facility would not achieve the applicant's project objectives.

4.5 Analysis of the "Extractive/Mineral Resources Use" Alternative

4.5.1 "Extractive/Mineral Resources Use" Alternative Description and Setting

A potential alternative for the golf course/recreation use of the site would be the development of an extractive/mineral resource facility. The California Department of Conservation, Division of Mines and Geology in its Special Report No. 153 classified the majority of the project site as containing a regionally significant sand resource. Expansive sand resources are found within the river laid sediments upon the flood plain of the San Diego Riverbed. The location of these resources have compelled the County of San Diego to apply an S82 zoning designation to this project site since the S82 designation provides for mining, quarrying and oil extracting uses. Approximately 440 acres of the project site would fall under the provisions of the S82 zoning designation.

The Lakeside Community plan designates the site as having a (25) Extractive Overlay. This designation promotes extraction as the principal and dominant use on the site, but does allow for uses which would not preclude extraction procedures in the future. The Extractive overlay designation is applied only to areas containing economically or potentially extractable mineral resources. Note that high quality sand is an important local resource. However, permitted aggregate resource extraction operations may not meet future demand. Therefore, development of such sites for mineral extraction may become a higher and better land use in the future, relative to recreational land use.

Upon consideration of all aspects of this project site, its inherent material content, and its relatively rural location, this site reflects many desirable qualities sought after by mineral extraction operators.

A typical extraction operation might consist of several open pits, some as deep as 50 feet, settling ponds, multiple dredge lines operating simultaneously, as well as operation of loading machinery. In addition, empty and fully loaded haulers would continuously run onto and off of the property site and various conveyor belts and assorted industrial machinery would be scattered throughout the mine. It can be expected that the site will contain several stockpiles of excavated material. Many of these piles will reach as high as 50 feet. In the event that a batch plant is constructed, the number of all related machinery types would increase.

4.5.2 Comparison of the Effects of the "Extractive/Mineral Resources Use" Alternative to the Proposed Project

Land Use

Historically, this segment of the El Monte valley has been used for various forms of agriculture and much of the surrounding area retains a residential/agricultural aspect. The property adjacent to the south is currently used as a mining facility. An extractive/mineral resource use would be incompatible with most of the surrounding land uses, however, the County's General Plan allows for this type of land use on this site, therefore, there is no policy incompatibility.

Visual Quality

The use of this site for an extraction/mineral resource project would result in landform alteration for the construction of industrial pads, pits, haul roads, etc. These areas would be developed using general grading and extraction practices and could result in relatively large cut and fill slopes and/or pits and stockpiles as deep/high as 50 feet. This portion of the El Monte valley corridor still retains much of the valley's original visual components and natural characteristics. These components would assuredly be changed through implementation of a project alternative of this type.

Visual impacts would be noticeable from El Monte Road to the south as well as from many of the residential parcels located adjacent to the perimeter of the project site. Industrial development would be required to undergo review for compliance with the Lakeside Design Guidelines and would result in the requirement for structures and landscaping to follow these guidelines.

Many of the visual aspects of this site would be diminished through implementation of an industrial use such as this alternative proposes. Unless organized development plans were devised, changes in the topographic conditions of the site may be substantial. Although many of the expected visual impacts could be mitigated with careful planning and rigorous mitigation measures, many visual aspects of the newly disturbed site would result in significant impacts to the El Monte valley area. Although mitigation measures would be assigned to this type of project, significant visual quality impacts could remain.

Traffic

The generation of heavy truck traffic is coincidental to most industrial uses. This operation would have the capability of generating intense usage of surrounding roadway infrastructure as heavy equipment arrives at the site carrying raw aggregate materials and as finished materials are transported away from the project site. In the event that a batching plant becomes a component of the operation, truck traffic, including dump trucks and sand haulers, would increase usage of the site due to the intense nature of the batching process.

Air/Dust Quality

Development of an extraction/mineral resource project would result in a reduction in air quality and an expansion of the percentage of particulate matter in the air. Initially, these impacts would result from construction of pad areas and general operations required by this type of use. Impacts resulting from an extraction/mineral resource use would be expected to be similar to those currently experienced at other facilities of similar scope.

If this alternative project included construction and operation of a batch plant facility, preparation of the finished product would require mixing of various components on-site. Resulting air quality impacts would be expected to increase, inevitably affecting the local air basin. Operations of some industrial facilities may be required to obtain air quality permits and appropriate mitigation measures would be required to address the proposed uses. Although mitigation measures would be assigned including the use of bag houses, chemical dust surfactant, and water, compared to the proposed golf course project, substantial air quality impacts may remain.

Noise

As with many industrial uses, this alternative would have the potential to create excessive noise levels throughout this segment of the El Monte valley corridor (e.g., dredges, loaders, and trucks). If the applicant began transporting raw aggregate materials to the site for processing, additional noise generators such as increased roadway traffic, bulldozers, and loaders would create a significant change in noise levels. These impacts have the potential to become excessive due to the project's proximity to adjacent residential uses and wildlife habitat.

Biological Resources

The San Diego River floodplain dominates the medial segment of the project site. Within this floodplain area, three major plant associations occur including Riparian Scrub, Agricultural Vegetation, and Relict Riparian Flood Plain Vegetation. A narrow corridor of Riparian Scrub vegetation is present within the immediate floodway of the San Diego River. This community is comprised of Southern Willow Scrub, Tamarisk Scrub, Mule Fat Scrub, and small patches of Freshwater Marsh. An extractive/mineral resource use would necessitate clearing most of the native and non-native plant communities out of the project site (i.e., over the 440 (+) acres containing high quality deposits plus staging areas and haul roads). These habitat disturbances would occur coincident with the extraction phases. As this natural habitat is extracted, any animal species occurring within the habitat would be displaced.

In addition to the plant associations listed above, a total of 68 vertebrate species were observed or detected as occurring on the project site. Any contiguous wildlife corridors may become fragmented or wholly displaced upon implementation of an extractive/mineral resource use. After mitigation, compared to the proposed golf course project, substantial biological resource impacts could remain.

Archaeology

One section of the project site contains archaeological resources. Mitigation would require capping of the site to protect it from any project related intrusion. Upon implementation of mitigation measures, no significant impacts to archaeology would occur.

Erosion, Sedimentation, and Water Quality

Development of the site has the potential to result in short-term surface hydrology impacts. This alternative project would effect runoff in various ways. As the site is built, several impermeable surfaces are created. These surfaces in combination with the coincident loss of vegetation and on-site dredging operations would cause an increase in surface runoff and soil loss. Through implementation of this alternative, the alluvium source would be greatly diminished, effectively reducing capacity for holding groundwater.

Water quality degradation is a possible impact of many types of extraction/mineral resource uses. As batching occurs, runoff potential increases. Such runoff could contain chemical substances related to industrial-type land uses (e.g., petroleum, oils, and lime). Considering the proximity of this alternative project to the San Diego River system, the introduction of various forms of deleterious foreign matter into the river and its surrounding structure is possible.

These impacts would be mitigated through the use of drainage and detention structures designed to control runoff from the site. Upon compliance with assigned mitigation measures, significant impacts would not be expected.

4.5.3 Applicant's Rationale for Rejecting the "Extractive/Mineral Resources Use" Alternative

The Extractive/Mineral Resource alternative would not allow achievement of project objectives as identified in the Project Description (Section 2.0) and may increase impacts to biology, air quality, visual quality, noise, and traffic. This project would be about as impactive as the proposed project in terms of erosion, sedimentation, and water quality effects. However, over the long term, recovery of the regionally significant aggregate resources that occur on the project site may be necessary to meet demands in the market area.

4.6 Analysis of the "Relocated Bridge (Easterly) and Maintenance Facility" Alternative

4.6.1 "Relocated Bridge (Easterly) and Maintenance Facility" Alternative Description and Setting

This alternative evaluates the development of two full sized Championship 18-hole golf courses and one 9-hole practice course. The golf courses would be developed similar to the proposed project except the main entry bridge and maintenance facility would be relocated as shown on Figure 4.6-1. In summary, the bridge would be located slightly farther to the east and its access road would take direct ingress/egress from El Monte Park Road, rather than looping around to the north of the existing residences which front on El Monte Park Road. The maintenance facility would be relocated to the western end of the project site, on the north side of the river channel.

4.6.2 Comparison of the Effects of the "Relocated Bridge (Easterly) and Maintenance Facility" Alternative to the Proposed Project

Land Use/Community Character

Similar to the proposed 45-hole golf course, this alternative would be in compliance with applicable general plan land use and zoning designations upon issuance of a Major Use Permit from the County DPLU. Since intensive development of permanent structures would not occur, development of this alternative would not preclude future reversion to agricultural or extractive uses at the eastern portion of the project site.

Land use compatibility would be about the same as the proposed facility with the following two notable exceptions: 1) traffic and traffic-related noise/dust would not occur immediately north of the existing residences since this entry road would be relocated to the east of these homes; and 2) land use incompatibility between the residences and maintenance facility (e.g., noise, light/glare, potential odors, visual/aesthetics) would be reduced since this facility would be relocated to a less impactive location on site.

Visual Quality

Visual effects of this alternative would be about the same as the proposed facility except that visual/aesthetic impacts would be reduced because the maintenance facility would be relocated to a less impactive location on site.

Traffic

Traffic impacts of this alternative would be about the same as the proposed facility except that vehicular traffic and traffic-related noise/dust would not occur immediately north of the existing residences since this entry road would be relocated to the east of these homes, providing direct access to the relocated bridge. Traffic would instead occur in front off the residences on El Monte Road. Since the District does not have access to El Monte Road at this point, the project proponent would be required to acquire an easement.

Biology

Biology impacts of this alternative would be about the same as the proposed facility.

Archaeology

The archaeological resources evaluation in Section 2.4.1 identified a significant archaeological site in the western portion of the project area. Impacts to archaeological resources from this alternative would be about the same as the proposed golf facility since no changes in project design would occur in the vicinity of the buried artifacts.

Hydrology

This alternative would not change the impact assessment with regard to river hydrology. Project design would not change substantially with regard to hydrological attributes onsite. Bridge design, support pillars, embankments, etc., would be remain unchanged from a design perspective. The location of the bridge under this alternative is assumed to have similar hydrologic characteristics as the location proposed for the project.

Groundwater

This alternative would not change the impact assessment with regard to river groundwater.

4.6.3 Applicant's Rationale for Rejecting the "Relocated Bridge (Easterly) and Maintenance Facility" Alternative

This alternative would reduce impacts resulting from traffic, and traffic related noise/dust, impacts to riparian woodland, and land use compatibility resulting from the proximity of the maintenance facility to residences. Relocating the bridge would still result in impacts to riparian woodland. The functionality of the maintenance facility would be substantially compromised if it were not centrally located within the project site. Therefore, this alternative is rejected.

4.7 Analysis of the "Relocated Bridge (Westerly) Alternative

4.7.1 "Relocated Bridge (Westerly) Alternative Description and Setting

This alternative evaluates the development of two full sized Championship 18-hole golf courses and one 9-hole practice course. The golf courses would be developed similar to the proposed project except the main entry bridge would be relocated approximately 200 feet to the west of its currently proposed location. This alternative would reduce biological impacts. The existing alignment will traverse through disturbed riparian scrub with approximately 40 percent cover (i.e., evenly distributed between native and non-native species) and riparian woodland along the north side of the channel. Shifting this alignment approximately 200 feet to the west could substantially avoid these impacts to riparian woodland and would result in impacts to lower quality riparian scrub (i.e., dominated by non-native species such as pampas grass).

4.7.2 Comparison of the Effects of the "Relocated Bridge (Westerly) Alternative to the Proposed Project

Land Use/Community Character

Similar to the proposed 45-hole golf course, this alternative would be in compliance with applicable general plan land use and zoning designations upon issuance of a Major Use Permit from the County DPLU. Since intensive development of permanent structures would not occur, development of this alternative would not preclude future reversion to agricultural or extractive uses at the eastern portion of the project site.

Land use compatibility would be about the same as the proposed facility with the following exception: 1) this alternative would slightly reduce traffic related dust and noise impacts to the houses located east of the bridge since the bridge would be located 200 feet to the west and closer to the access road entrance.

Visual Quality

Visual effects of this alternative would be about the same as the proposed facility except that the proposed access road would be approximately 200 feet shorter in overall length.

Traffic

Traffic impacts of this alternative would be about the same as the proposed facility except that traffic related noise and dust would be reduced since the overall length of the access road would be 200 feet less than the proposed facility.

Biology

This alternative would reduce impacts to biology by realigning the access road approximately 200 feet to the west. The current alignment will traverse through disturbed riparian scrub with approximately 40 percent cover (i.e., evenly distributed between native and non-native species) and riparian woodland along the north side of the channel. Shifting this alignment approximately 200 feet to the west could substantially avoid these impacts to riparian woodland and redirect these impacts to lower quality riparian scrub (i.e., dominated by non-native species

such as pampas grass). However, the golf course circulation and proper design of existing play areas on hole numbers 10 and 18 on the East Course would be substantially compromised if the main entry bridge were relocated approximately 200 feet to the west. Therefore, this alternative is considered but rejected.

Archaeology

The archaeological resources evaluation in Section 2.4.1 identified a significant archaeological site in the western portion of the project area. Impacts to archaeological resources from this alternative would be about the same as the proposed golf facility since no changes in project design would occur in the vicinity of the buried artifacts.

Erosion/Sedimentation

This alternative would not change the impact assessment with regard to river hydrology. Project design would not change substantially with regard to hydrological attributes on-site. Bridge design, support pillars, embankments, etc., would remain unchanged from a design perspective. The location of the bridge under this alternative is assumed to have similar hydrologic characteristics as the location proposed for the projects.

4.7.3 Applicant's Rationale for Rejecting the "Relocated Bridge (Easterly) and Maintenance Facility" Alternative

This alternative would reduce impacts to sensitive biological habitat. However, the golf course circulation and proper sound design of existing play areas on hole numbers 10 and 18 on the East Course would be substantially compromised if the main entry bridge were be relocated approximately 200 feet to the west. Therefore, this alternative is considered but rejected.

4.8 Analysis of the Alternative Site Location

4.8.1 Alternative Site Location Description and Setting

This alternative involves re-locating the proposed 45-hole golf course to an off site location. The off site location chosen for this analysis is a 356-acre development currently proposed for a combination residential/golf community. The development is referred to as the Stagecoach Ranch Specific Plan. The Stagecoach Ranch Specific Plan provides residential and recreational opportunities including 131 single-family lots, an 18-hole golf course, and a waste water reclamation facility within the planned development. This alternatives analysis considers the replacement of development proposed under the Stagecoach Ranch Specific Plan with a full-sized 36-hole golf facility and ancillary structures. Therefore, under the Alternative Project Location scenario, conditions would remain unchanged at the El Monte valley site (as described in the No Project Alternative), but would reflect changes associated with development of a 45-hole golf facility at the Stagecoach Ranch Specific Plan site.

The site is located approximately 35 miles east of downtown San Diego in the unincorporated community of Alpine. The site is within the 108 square-mile Alpine Community Planning Area, south of Interstate 8, east of Tavern Road and north of South Grade Road. The site is approximately 5 miles to the southeast of the proposed golf course project in El Monte valley.

The project site is currently vacant and undeveloped except for one occupied residence. Remnants of earlier occupation and past agricultural uses can also be found. The site shows substantial evidence of off-road vehicle activity and unauthorized dumping of refuse as well as disturbance of existing vegetation.

Within the flat southern portion of the property, native and non-native grassland is the predominate vegetation habitat. Pockets of Coastal sage scrub, both successional and disturbed occur on site. In the more topographically diverse northern portion of the site, Coastal sage scrub, chaparral, riparian scrub, and Engelmann oaks occur.

There is considerable variance in topography between the southern and northern portions of the project site, ranging from 1,825 feet above mean sea level to over 2,275 feet above mean sea level. A dominant ridgeline crosses the northeastern portion of the property. A major drainage corridor flows along a portion of this ridgeline and descends in a northwesterly direction towards the off site Alpine Creek.

4.8.2 Comparison of the Effects of the Alternative Site Location to the Proposed Project

Land Use/Community Character

The alternative site is currently designated as County Residential Development Area (1 dwelling unit/acre) and 1 Residential (1 dwelling unit/1, 2, and 4 acres, depending on slope classification) and is zoned A-70.

The Stagecoach Ranch Specific Plan proposes development of an 18-hole golf course on site. Because it would be a similar land use type, it is anticipated that development of 45-hole golf course would be in compliance with applicable land use designations and zoning. However, similar to the Stagecoach Ranch project, the 45-hole golf course would likely be in conflict with the Resource Protection Ordinance. Even after on-site mitigation, significant impacts to southern California grassland, Engelmann Oak woodland, and Diegan sage scrub would likely occur. In order to fully mitigate for this impact, off site in-kind mitigation would probably be necessary.

Off site land uses consist of estate residential and open space, similar to the El Monte valley site. Therefore, the project would not be incompatible with surrounding land uses.

No known extractive or prime agricultural resources are known to exist on site. Therefore, development of the 45-hole golf course at the alternative site would not result in physical land use impacts to these resources. Physical land use impacts could occur to the on site residence if project implementation required displacement of this structure.

Visual Quality

Much of the alternative site includes slopes between 15 and 50 percent grade. The Stagecoach Ranch project would involve an estimated 900,000 cubic yards of cut/fill. It is therefore anticipated that development of a 36-hole golf course on this site would likewise require substantial grading. Grading required at the El Monte valley site would be approximately 1,300,000 cubic yards of balanced cut/fill. Therefore, land form alteration would be an issue at the alternative site.

Development of the 45-hole golf course at the alternative site would involve conversion of the property from undeveloped open space to a more urban/recreational setting. The resultant "green-belt" would represent a change from the existing visual setting, and change the visual character of the vicinity.

Traffic

The County's travel forecast for the Alpine Community Plan Area had assumed that the Stagecoach Ranch proposal would generate approximately 3,364 ADT. The 45-hole golf course would generate about 1,500 ADT, or 1,864 fewer ADT than was forecasted. The result would be less traffic than was planned. It is therefore anticipated that the 36-hole golf course would not significantly reduce levels of service at area intersections or roadway segments. However, localized road widening and turn lanes would probably be necessary at the main entrance into the project from Tavern Road.

Biology

Implementation of the Stagecoach Ranch project would result in the loss of up to 84 percent of the vegetation present on the project site. It is anticipated that development of a 36-hole golf course would have similar impacts, although these impacts might be reduced through careful design of open space and "rough" areas. Significant and direct and cumulative impacts would occur to Southern California grassland, Engelmann Oak, Diegan coastal sage scrub, and riparian scrub. One sensitive animal species, the Grasshopper Sparrow, would be significantly impacted due to the loss of the grasslands.

Archaeology

An archaeological resources survey of the alternative project site identified a significant prehistoric site. This site consists of large milling areas with subsurface deposits. If, prior to issuance of grading permits, the project were to dedicate an open space easement which surrounds the limits of the site, impacts to archaeological resources would be mitigated to below a level of significance.

Hydrology/Groundwater

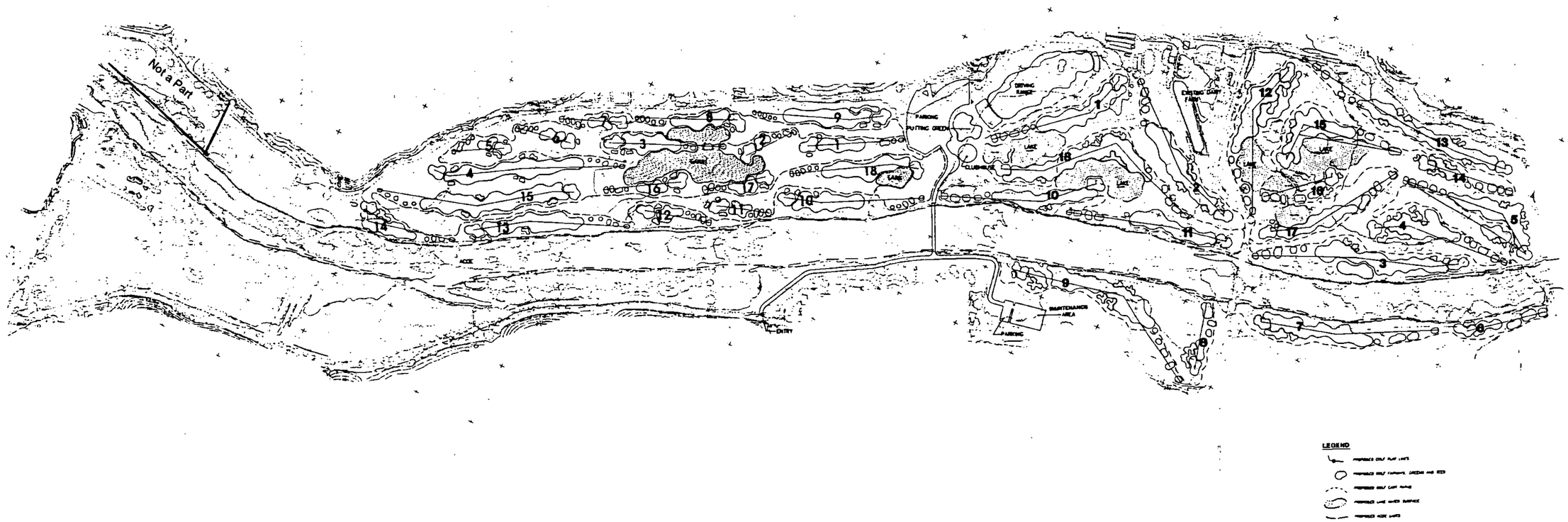
Under the alternative location scenario, the golf course would not be expected to have a significant impact on surface water runoff or groundwater supplies. This site occupies an upland location with only minor surface drainage features evident. Development of a golfing facility would not be expected to adversely impact runoff conditions in these ephemeral water courses.

Impacts to groundwater supplies would not be expected. Water for golf course irrigation would be totally dependent on imported sources.

4.8.3 Applicant's Rationale for Rejecting the Alternative Site Location

This alternative involves re-locating the proposed golf course to a 356-acre off site location. This alternative would involve replacement of the residential/golf development with a golf facility and ancillary structures. Therefore, under the Alternative Project Location scenario, conditions would remain unchanged at the El Monte valley site (as described in the No Project Alternative), but would reflect changes associated with development of a golf facility at the alternative site. Potential impacts at the alternative site would include non-compliance with the Resource Protection Ordinance, landform alteration, traffic, archaeological resource, and biological resources. Because development of the golf course at the alternative site location would likely result in above referenced environmental impacts, it cannot be considered environmentally preferable to the proposed project location.

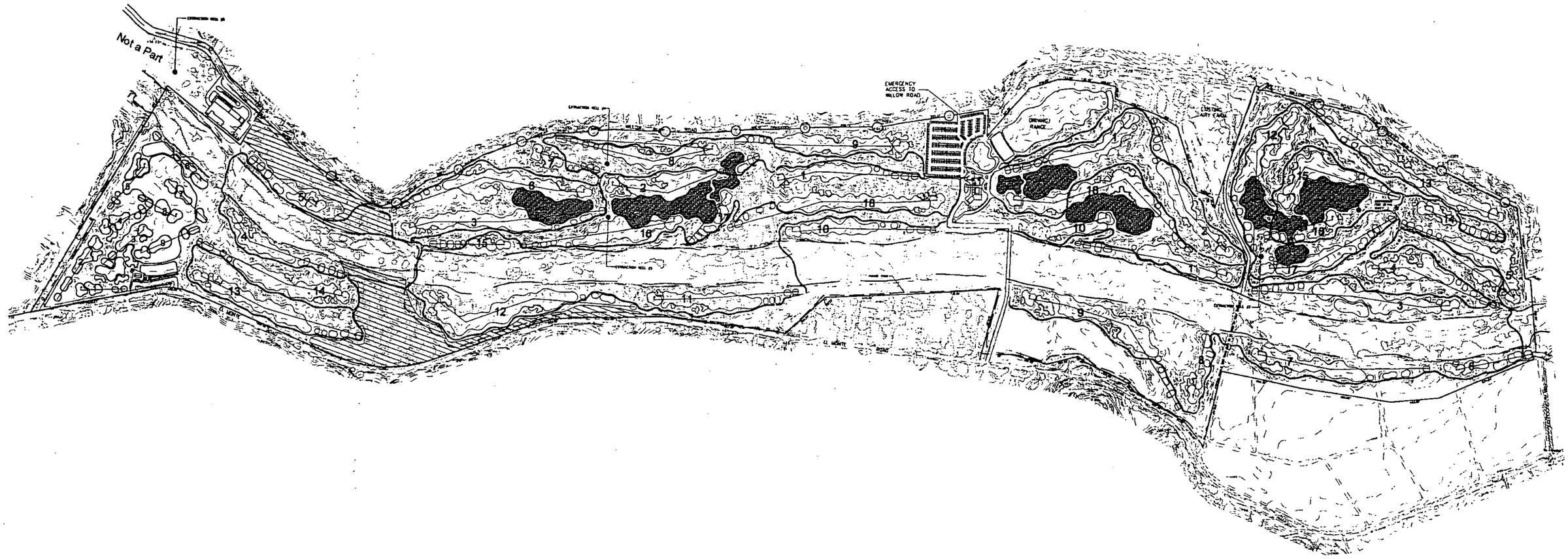
El Capitan Golf Course



Reduced Intensity Alternative

Figure 4.3-1

El Capitan Golf Course



LEGEND

- PROPOSED GOLF PLAY LINES
- PROPOSED GOLF CART PATHS
- PROPOSED LAKE WATER SURFACE
- ACOE WETLANDS BOUNDARY
- NO ACCESS TO WILLOW ROAD– PRIVATE ROAD EASEMENT
- HORSE TRAIL

0 400 800 1200

EnviroMINE

Relocated Entry Road, Bridge & Maintenance Facility Alternative

Figure 4.6-1

5.0 LONG-TERM ENVIRONMENTAL EFFECTS

5.1 Growth-Inducing Impacts of the Proposed Action

Section 15126(g) of CEQA Guidelines requires a discussion of how the potential growth-inducing impacts of a proposed project could foster economic, population, or housing stock increases. Growth inducement therefore refers to accelerated economic or population growth, or the construction of additional housing, that could either directly or indirectly result from the development of a given project. Growth inducement may place increased demands on existing community facilities. Certain growth inducing aspects of a project may facilitate or exacerbate the effects of other activities, either individually or cumulatively. The result can be a significant effect on the environment. Attributes of a project that remove obstacles to population growth are also considered to be growth inducing. The discussion of growth inducement pertaining to the proposed golf course is framed within this context.

Although the requirement to address growth-inducing impacts is a clear legislative mandate in environmental law, the methodology of how to measure these impacts and evaluate their relative significance is not. To ensure comprehensive treatment of this issue, this analysis uses three different approaches. The first approach would be to determine if a particular project were a basic industry, deriving its value from a high valued mineral development (e.g., precious metals), agriculture, or long term industrial activity. These industries cause growth because they attract other types of industry, thus causing existing regional growth projections to be exceeded. The second approach uses a "limiting factor analysis" which evaluates how the infrastructure provided by a particular project (e.g., water supply, transportation, sewerage, energy facilities, etc.) either provides, or fails to provide an incremental path of sequentially implemented infrastructure improvements that is critical to growth. The final element of this evaluation is to determine if a particular project adds an amenity that could accelerate growth regionally, or in the project vicinity. The growth-inducing potential of the proposed golf course facilities is evaluated in the following text using these three general methodologies.

Addition of an Essential Resource

Normally, for an essential resource to accommodate regional growth, its production, use, distribution, and/or management must provide necessary economic benefits as a basic element of economic development. In-migration to an area is typically very closely related to the viability of the regional economy (i.e., people generally migrate towards improved employment potential).

In this context then, economic activity is most often manifested as direct economic benefits resulting from the production and distribution of an essential resource. Other economic activity takes the form of secondary and indirect affects. For example, development of an essential industrial activity (e.g., steel production) would generate direct economic activity through revenues from the sale and distribution of finished products and subsequent taxation. This would provide a stimulus to the regional economy. Typically, benefits would accrue in the manufacturing and new construction sectors of the economy. These industries typically provide a high return on investment and high per capita wages. Secondary economic affects would occur through a multiplier effect. The multiplier effect is closely related to the infusion of wage earnings, interest income, and tax revenues into the regional economy in successive cycles of earning

and spending. Increased employment opportunity, especially in the service sector, is the result of an active multiplier effect. Indirect effects would occur when related and supporting industries interact with each other in the production/consumption process as a result of the essential products being introduced into the economy. In the case of steel production, this would occur as, for example, stimulated rail deliveries, intensified maintenance and repair of plant equipment, and increased sales in construction supplies/materials.

The project proposes to develop a 45-hole golf course and associated facilities. As a public golf course, essential resources (e.g., water production, mineral resources, petroleum, timber, etc.) normally associated with growth, would not be directly or indirectly produced by the proposed project. Further, the construction and operations phases of the golf course are not expected to use substantial amounts of essential resources that would otherwise stimulate resource-based economic activity.

Extension of Critical Infrastructure

SANDAG's regional growth management strategy lists several environmental and economic factors important to maintaining and improving quality of life as the San Diego region continues to grow. Among these factors are reliable water sources, transportation systems, sewage treatment, solid waste, and housing. The growth management report notes that economic prosperity provides the foundation for accomplishing many of the goals and objectives in regional plans. Providing regional infrastructure necessary to encourage the expansion and retention of local businesses is one of several objectives listed to achieving economic prosperity. The project is a proposal to construct and operate a public golfing facility which would serve area-wide recreational needs. However, as a golf course, the project would not directly, or indirectly result in a need for, or require the extension of, critical regional infrastructure.

On a local scale, extending infrastructure to areas previously unserviced can be considered growth inducing. Agricultural uses in El Monte valley are generally serviced by well water which generally do not meet federal drinking water standards. Although imported water is available in the project vicinity, the project would require the extension of water lines to service the club house and other facilities on site. Because water service is available in the project vicinity, and increased capacity would not be necessary to service the site, no increased capability for service in the project vicinity would be expected. Therefore, since the project would not improve water delivery services in the area, the extension of water lines is not considered growth inducing.

Providing a New Amenity

From a regional perspective, any acceleration of growth in a particular area due to a recreational amenity would be relatively minor and insignificant in comparison to other factors driving regional growth such as employment and the economy. Other factors that affect the amount, location, and rate of regional growth include market demand for housing, availability of commercial services, desirability of climate and living/working environment, and land use policies.

However, to a minor degree, the proposed project could affect local growth patterns. The project is a proposal to construct a 45-hole golfing complex complete with club house, driving range, and maintenance facilities. Residential

development is not part of this proposal. However, the project will provide the existing population with needed recreational and employment opportunities. No direct or indirect population growth would be expected as no housing is proposed and employment opportunities would be limited. However, golfing projects are known to increase area property value and therefore could induce limited growth in the immediate vicinity. Any growth which could result from the development of the golfing facility would be required to comply with development policies and zoning established for the project vicinity. Therefore, growth would not be anticipated beyond that which is allowed for in applicable land use planning goals and policies.

5.2 Significant Irreversible Environmental Changes Resultant from Project Implementation

Not Applicable.

6.0 ENVIRONMENTAL EFFECTS FOUND NOT TO BE SIGNIFICANT

Following the completion of an Environmental Initial Study, several issues were found not to be significant. These issues include: population and housing, geology, air quality, health hazards, noise, public services/utilities and are discussed below. For a more detailed discussion of these issues, refer to Appendix A, Environmental Initial Study.

Population and Housing

The project is a proposal to construct a 45-hole golfing complex, complete with club house, driving range, and maintenance facilities. Residential development is not part of this proposal. However, the project will provide the existing population with needed recreational and employment opportunities. No direct or indirect population growth would be expected as no housing is proposed and employment opportunities would be limited. However, golfing projects are known to increase area property value and therefore could induce growth in the immediate vicinity. However, any growth which could result from the development of the golfing facility would be required to respect development policies and zoning established for the project vicinity. Therefore, growth would not be anticipated beyond that which is allowed in the applicable land use planning regulations.

Geologic Hazards

The project site lies within the Foothills Physiographic province of San Diego County. This is a transitional area between the mountainous areas to the east and the coastal plain. The geologic setting is dominated by the granitic rocks of the Southern California Batholith. This formation is expressed in rock outcroppings and low hills that become more prominent to the east. The San Diego River cuts through the foothills in this area as it descends toward the Pacific Ocean. In this stretch of the river, the channel gradient has been reduced resulting in the deposition of sand sized particles across the historic flood plain. This process has resulted in the formation of a broad, nearly level, alluvial plain overlying the granitic basement rocks.

The El Capitan Golf Course is proposed within an area of relative seismic safety. No faults are known to traverse the project site. The Rose Canyon Fault zone is located approximately 18 miles west of the site. Although this fault zone is currently classified as potentially active, recent earthquake activity along faults in the southern extension of the Rose Canyon Fault zone indicates that this zone could be reclassified as active. Other active fault zones in the region that could possibly affect the project site include; the Coronado Banks and San Clemente Fault zones to the west, the Elsinore and San Jacinto Fault zones to the northeast, and the Agua Blanca and San Miguel Fault zones to the south.

The most likely geologic hazard to affect the site is ground shaking as a result of movement along one of the major active fault zones mentioned above. The following table shows the relative distance of active fault zones from the project site along with the expected maximum probable earthquake.

Fault Zone	Distance	Maximum Probable Earthquake
Rose Canyon	18 miles	6.5 magnitude
Elsinore	25 miles	7.3 magnitude
Coronado Banks	29 miles	6.5 magnitude
San Jacinto	49 miles	7.8 magnitude
San Clemente	57 miles	7.3 magnitude

Major seismic events are likely to be the result of movement along the Elsinore or San Jacinto Fault zone. Recently there have been several earthquakes of magnitude as high as 4.0 on the Rose Canyon Fault zone and earthquakes of this magnitude or less are common along the Coronado Banks fault zone.

The City of San Diego Water Utilities Department operates and maintains the El Capitan Reservoir and dam. This dam is monitored regularly by the City and California Department of Safety of Dams. In addition, seismic safety studies have been performed to determine the structures stability against the maximum expected seismic event. This study found the dam to be safe for maximum water storage capabilities.

The U. S. Department of Agriculture Soil Conservation Service, San Diego County Soil Survey (Bowman, 1973) identifies that the Tujunga Sand and Visalia sandy loam soil series are represented on the project site. In addition, areas within the San Diego River floodway are distinguished as Riverwash. Tujunga Sand is a recently formed soil derived from granitic alluvium found on alluvial fans and flood plains with slopes of less than 5 percent. Tujunga Sand exhibits a poorly differentiated horizonation, are low in fertility, and are highly permeable. Typical uses for Tujunga Sands is for avocados, flowers, and truck crops. Other uses common to this soils would include rangelands and golf courses. The Visalia series consists of moderately well drained, very deep sandy loams derived from granitic alluvium. These soils are on alluvial fans and flood plains and have slopes of 0 to 15 percent. Visalia series may be used for a variety of agricultural uses. Due to the high permeability of these soils, the erosion hazard is slight. The proposed improvements would result in short term disturbance of the site for grading to build the golfing facilities, however, no significant increases in surface runoff and/or soil erosion should be expected due to the non-intensive nature of the improvements and low soil erosion hazard endemic to the soils.

Air Quality

The project is a proposal to build and operate a 45-hole golf course and associated facilities. During construction operations, fugitive dust emissions should be expected. However, these activities are controlled by adherence to the County Grading Ordinance and their short term nature. The project will result in an increase in vehicular traffic (max. 1,500 ADT) which will result in increased vehicle emissions. Emissions factors were calculated to determine if significant increases could be expected by implementation of this project. These calculations assumed that 25% of total vehicle trips originated within 7 miles of the site, 60% originated within 15 miles of the site, with the remaining 15% originating within 20 miles of the site. The following is a listing of expected emissions increases:

	CO	TOG	ROG	NOx	Particulates Tire Wear	Particulates Exhaust
Pounds/Day	270.37	25.22	22.41	80.55	15.2	4.27

These increases would occur over a broad regional area and are not considered to be significant. Emissions from operations equipment (e.g., lawn mowers, service vehicles, etc.) are expected to be minimal.

Construction and/or operations of the golfing facility would not be expected to introduce significant air pollutants into the project vicinity. Operation of the facility will likely reduce overall particulate emissions through the elimination of agricultural uses on the project site.

No significant changes in air movements, or significant changes in climatic conditions would be expected. No barriers to air movement would result.

The creation of objectionable orders would not be expected. However, the location of the golfing facility directly adjacent to an operating dairy would introduce site visitors to livestock odors. This is not seen as a significant adverse impact. The dairy is an existing condition of the environmental setting.

Health Hazards

Although the project is currently in the early stages of plan development, it should be assumed that daily operations would result in the use of fertilizers, pesticides, and fuel for power equipment. Storage of these materials on the project site would likely be necessary. However, storage and use of fertilizers, pesticides and fuels would be required to follow storage protocol for public facilities (including primary and secondary containment measures) as required by environmental health regulations. Compliance with these regulations would eliminate the potential for significant impacts.

The project does not interfere with the emergency response plan for the Lakeside area.

The proposed golf course project is planned adjacent to the San Diego River floodway. High volume flood flows have been known to occur on the river in periods of high precipitation. However, the 100-year magnitude flood would be contained almost entirely within the existing floodway. Because flood flows are infrequent and generally contained by the existing floodway, no significant public safety impacts would be expected.

Other public safety impacts to consider would be the location of El Capitan Reservoir up stream of the project site. Should a dam break occur, large quantities of water could flood the project site. However, the City of San Diego Water Utilities Department reports that Dam Safety Surveys are conducted annually to certify the safety of these structures against the maximum probable seismic event. As such, the potential for dam rupture is not considered to be a significant public safety concern of the project.

No increase in fire hazard would be expected. No structures are planned within areas of known fire hazard. Proposed development of an irrigated landscape will limit the potential for wildland fires.

Noise

Existing conditions on El Monte Road exhibit roadway traffic at approximately 2,300 ADT. This traffic level produces noise levels of 57.9 dBA at 50 feet from the center of the roadway. Project induced traffic would increase ADT to 3,500. This increase would result in a 2.3 dBA increase. Increases of less than 3 dBA are not generally perceptible. Therefore, the calculated increase of 2.3 dBA would not be noticeable. Existing plus project noise levels would be below County standards. Therefore, no significant impacts would result.

During construction operations, heavy equipment noise will be evident. Heavy equipment noise can be severe. However, required compliance with the County Noise Ordinance limits the duration of construction equipment operations on a daily basis. In addition, these noise sources will not persist beyond the period of construction.

Public Services/Utilities

Lease agreements call for a private contractor to develop and operate a public golf facility. Extension and/or expansion of public infrastructure would not be required to operate and maintain this facility. Increases in the need for fire and police protection should be expected, however, the increased demands on these services should not be considered significant. Only minimal demands on utilities and service systems would be expected for the project. Adequate capacity is available within the existing operating capabilities of these systems. Septic systems would be used for liquid waste disposal. Groundwater would be used for irrigation water supplies. Domestic water (i.e., potable) and fire flows would be supplied by the local water purveyor (Lakeside Irrigation).

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LIST OF EIR PREPARORS AND PERSONS AND ORGANIZATIONS CONTACTED

Persons and Agencies Consulted

County of San Diego

Eric Gibson
Tracy Cline
John Peterson
Tom Oberbauer

City of San Diego

Mark Stone, Water Utilities Division

State Agencies

David Lawhead, Department of Fish & Game
Terry Stuart, Department of Fish & Game
Greg Peters, Regional Water Quality Control Board

Federal Agencies

Nancy Gilbert, U.S. Fish & Wildlife Service
Eric Heinz, U.S. Fish & Wildlife Service
Gina Schultz, U. S. Fish & Wildlife Service
Terry Dean, U. S. Army Corps of Engineers

Padre Dam Municipal Water District

Rolland Rossmiller, Manager of Planning and Engineering

Lakeside Irrigation District

Bob Cook, Manager

Private Citizens

Robert VanOmmerring, Van Ommerring Dairy
David Flemming, Golf Properties Design
Don Hunsaker, Ph.D., Environmental Trust
Hal Story
Lakeside Planning Group

LIST OF MITIGATION MEASURES AND ENVIRONMENTAL DESIGN CONSIDERATIONS

Mitigation for Impact 2.1.3.b: Current Land Use Compatibility - Operational Impacts

1. Other than lighting required for security and safety, there shall be no outdoor nighttime lighting of the project site.

2. Berming/mounding and landscaping shall be installed between the maintenance facility and residences west and southeast of the facility to provide an intervening buffer for noise, visual, and light/glare effects.

3. All vehicles/equipment powered by internal combustion engines shall be equipped with mufflers in accordance with manufacturer's specifications.

4. The maintenance facility shall be redesigned to eliminate entry gates on the ~~east, south and west sides~~ west side of the perimeter wall, as shown in Figure 2.1-4. (Note: Figure 2.1-4 has been revised from the Draft EIR for the Final EIR to reflect additional mitigation brought about by Mitigation No. 5 below.) This measure is necessary to reduce the potential for significant impacts which could result from maintenance facility operations.

5. The design of the maintenance facility shall be changed to include relocating the compound approximately 900 feet to the east as shown in the revised Figure 2.1-4 and Figure 2.1-5. The relocated maintenance compound shall be approximately 100 feet north of and 20 feet lower in elevation than El Monte Road compared to the previous location. Access to the maintenance compound shall be taken from El Monte Road approximately 100 feet to the east of the structure. This new access shall eliminate maintenance employee vehicle and delivery access from behind existing residences.

Mitigation for Impact 2.2.3.c, Degree of Visual Contrast and 2.2.3.d, Scenic Highways:

In conformance with the Lakeside Community Plan and Design Guidelines, the project should adopt the following mitigation measures to lessen the potential changes in visual contrast and significant impacts to scenic roadways.

1. Landscaping and proposed structures shall be designed in conformance with the Lakeside Design Guidelines. At a minimum, the following shall be required:

   a. Existing significant trees shall be preserved.

   b. If fences or walls (other than security fencing at specific golf course facilities) are proposed, low walls of native stone, wooden rail fences, wire fences, boulders and native rocks building materials shall be used.

   c. All utilities shall be placed underground in an effort to reduce visual clutter.

2. The landscaping plan shall provide for liberal use of trees along El Monte Road. Eighty percent of tree species shall be naturally occurring species typical of the valley (e.g. Oak, Sycamore, Willow, Cottonwood, etc.).

3. Landscaping along Willow Road shall respect the current open view corridors to the south of the site, with the exception of planting trees to screen off site areas from errant golf shots. Landscaping shall either be below three feet in height, or, in the case of trees, widely spaced clusters with branching patterns above eight feet in height.

4. The parking lot proposed for location adjacent to Willow Road shall be set back from the roadway a minimum of 30 feet with liberal use of landscaping planted within the buffer area and throughout the parking lot.

5. No buildings shall be placed within 50 feet of the edge of the pavement along El Monte Road.

6. The proposed maintenance facilities shall be constructed with materials typical of residential development in the Lakeside community. Building materials shall be consistent with the Lakeside Design Review Guidelines. Landscaping shall be used to screen and buffer views from adjacent residential development.

7. Adherence to Section 2.1.3.c Mitigation for Land Use Impacts shall be a requirement of the building and grading permit.

Mitigation for Impact 2.3.3.b: Project Site Access

1. Design project access driveways and channelization to the satisfaction of the Director of Public Works.

Mitigation for Impact 2.4.3.a: Plants and Vegetation Communities

A Biological Resource Management Plan shall be prepared, approved and implemented in concert with the preparation of site specific development plans. The intent of this plan shall be to provide specific methodologies to reduce all significant project-related impacts to a level below significance. The implementation of, or mechanism to implement all recommendations contained in the plan, shall be made a condition of project approval. This plan shall contain at a minimum:

- A comprehensive revegetation/habitat enhancement component to compensate for direct losses of wetland habitat associated with river crossing improvements. This plan shall define the specific area and acreage of wetlands to be lost, establish revegetation ratios, define specific areas to be used for revegetation, specify biological monitoring periods, require maintenance, removal of exotics, and construction monitoring. This plan shall be prepared by a County-certified and qualified professional experienced in riparian wetland restoration and enhancement.

- A biological buffer averaging 50-feet wide (minimum of 25 feet wide) area shall be established adjacent to the floodway. This buffer area shall be revegetated with strictly native, indigenous, alluvially-dependent shrubs and herbs.

- A 100-foot "planning buffer" shall be established at the outer edge of the biological buffer. The planning buffer shall preclude the establishment of structures (except bridge crossings, cart paths, and equestrian trail) and shall permit play.

- Mature Coast Live Oak, California sycamores and Western cottonwood trees shall be retained. Where retention cannot be accommodated, like-kind replacement for any trees unavoidably lost shall be required.

- Landscape plans and plant pallets shall be reviewed for wetlands compatibility as a function of the Biological Resource Management Plan.

The plan will be on file at the Helix Water District main office. The golf course project will prepare the biological resource management plan for submission to the District with the project's construction plan. The District will review the plan based on overall guidelines in the Joint Water Agency Subregional Plan, and evaluate the plan for consistency with the County MSCP, Jamul-Lakeside Subunit Plan. The wildlife agencies will be given an opportunity to review and comment on the Management Plan at that time. The golf course project proponents will be responsible for implementation of the Management Plan in concert with its regular maintenance and management operations.

Ongoing equestrian and ORV usage of the sensitive riparian area within the San Diego River floodway shall be discouraged. The project proposes to construct an equestrian trail. This element shall be enhanced by placing vegetation barriers to discourage riding within the floodway, and signage to advise riders to use the trail.

The entire golf course development will be fenced using a variety of fencing types to prevent unauthorized entrance onto the property while also allowing for wildlife movement through the proposed wildlife corridor as well as equestrian use of the equestrian trail. In addition, the golf course operators will actively discourage off-road vehicle activity since it is inherently incompatible with the golf course use.

Natural barriers comprised of thorny shrubs or other appropriate vegetative barriers and signage shall be incorporated along both sides of the cart paths and equestrian path wherever they enter or cross the river channel, wildlife corridor/habitat creation area, or other areas specifically designated as biological open space by the golf course design or the Helix Water District Subarea Plan. These barriers shall be designed to prevent golfers, equestrians, or other humans from casual entry into biological resource areas.

Plants

- For any coast live oak trees with a DBH of 4 inches or greater that are indirectly impacted by proposed grading at adjacent driplines, it is recommended that they be mitigated at a 5:1 replacement ratio utilizing five-gallon container replacement stock. Based on the recommended replacement ratio of 5:1 (utilizing five-gallon container stock), a total of 170 trees should be planted onsite to mitigate for the 34 trees that would be indirectly impacted. It is recommended that most or all of these replacement trees be installed in the biological buffer that is proposed on both sides of the river.

- Although an isolated Western sycamore is not a sensitive species, it is recommended that isolated specimens of this species be protected to the extent feasible. Specimens that may be directly or indirectly impacted should be replaced in-kind.

- In response to the USFWS project comment letter dated December 11, 1997, a focused survey for San Diego ambrosia along the river terraces should be conducted in the spring (i.e., after May). This survey should also be used as an opportunity to re-check for sensitive plant species that are known for the general vicinity, but that have not been detected onsite during past surveys.

The golf course project will conduct protocol surveys in Spring, 1999 for San Diego ambrosia. If any of these species are found, the project will provide appropriate additional mitigation in banks established by the Helix Subarea Plan as a first choice, or in another approved NCCP bank.

Vegetation Communities

- Coastal Sage Scrub. The impact to 1.9 acres shall be adequately mitigated by the proposed creation of 21.1 acres of coastal sage scrub as part of the wildlife corridor/preserve area. Creation of this habitat onsite will result in over an 11:1 replacement ratio. A detailed coastal sage scrub restoration plan should be prepared by a qualified biologist that details issues such as site preparation, installation specifications, maintenance, monitoring and reporting. To ensure the created habitat is adequately established, maintenance and monitoring typically occurs for three to five years after installation, or until specified success standards are achieved (e.g., cover of desirable native shrubs, and elimination of particular invasive weed species).

- Disturbed Riparian Scrub, Riparian Woodland and Waters of the U.S. Upon project implementation, the projected permanent and temporary impacts to these three wetland resources shall be mitigated by an onsite habitat restoration program including wetland creation and enhancement. It is recommended that permanent impacts to disturbed riparian scrub and riparian woodland be mitigated at a 3:1 ratio, while permanent impacts to waters of the U.S. be mitigated at a 1:1 ratio. To satisfy typical ACOE and CDFG permitting requirements, temporary impacts to vegetated wetlands should be mitigated at a 2:1 ratio. Assuming the projected impact to 4.0 acres of riparian woodland (CDFG jurisdictional habitat) can be avoided (see mitigation measure below), then the combined permanent vegetated wetland impacts would total 0.69 acre and temporary impacts would total 0.9 acre. Recommended mitigation ratios and acreages are listed below:

  - Permanent impacts to disturbed riparian scrub and riparian woodland total 0.69 acre -- multiplied by a 3:1 ratio equals 2.07 acres.

  - Permanent impacts to waters of the U.S. total 0.3 acre -- multiplied by a 1:1 ratio equals 0.3 acre.

  - Temporary impacts to disturbed riparian scrub and riparian woodland total 0.9 acre -- multiplied by a 2:1 ratio equals 1.8 acres.

Therefore, the recommended wetland mitigation restoration program (excluding mitigation for projected impacts to riparian woodland along the river banks) would total 4.17 acres. A detailed wetland restoration plan should be prepared by a qualified biologist that details issues such as site preparation, installation specifications, maintenance, monitoring and reporting. To ensure the created habitat is adequately established, maintenance and monitoring for wetland programs typically occurs for five years after installation, or until specified success standards are achieved (e.g., cover of desirable native overstory and understory plants, and elimination of particular invasive weed species). As a guideline, ACOE and CDFG typically require that at least 1:1 replacement of all impacts be accomplished by wetland habitat creation (i.e., converting upland into wetland). Based on the projected impacts referenced above, approximately 1.9 acres of the recommended 4.17 acres should involve wetland habitat creation. The remaining 2.47 acres of mitigation could be accomplished through wetland enhancement measures.

The project is currently in the process of identifying the most ecologically appropriate onsite location adjacent to the river to accomplish 1.9 acres of wetland creation. The remainder of the mitigation (i.e., 2.27 acres) is proposed to be accomplished by enhancing the existing riparian habitat in the river within and partially upstream and downstream of the proposed wildlife corridor. Since ACOE and CDFG typically provide 1/2 credit for enhancement mitigation, at least 4.5 to 5.0 acres should be included in this enhancement effort. Enhancement in this situation would involve removal and control of particular invasive weed species (e.g., tamarisk, pampas grass etc...) and possible planting of native species where weed species are removed. Because there is a high volume of invasive weed species upstream of this proposed enhancement location, removal of target weed species would need to occur throughout the life of the golf course project to be effective.

- Avoidance of Projected Riparian Woodland Impacts. Necessary cart path crossings and the entry bridge crossing of the river to complete golf course circulation cannot be avoided, although most or all of the projected impacts from the golf course footprint to riparian woodland that overhangs the channel banks on either side of the river can be avoided. The overlay of the existing habitat and golf course footprint indicate up to 4.0 acres of this edge habitat could be impacted. Most of the riparian tree (e.g., willow and cottonwood) stems that provide canopy overhang on the river banks grow out of the river bottom, such that most of the grading that is proposed on the banks will actually impact scattered native and non-native upland understory species without directly impacting the tree stems. To ensure potential impacts to riparian woodland species do not occur, measures such as vegetation barriers to prevent intrusion and erosion, signage, construction monitoring, and/or project redesign could be implemented. If the projected worst-case impacts do occur to 4.0 acres of riparian woodland, then up to 12 acres of additional mitigation would be required based on a 3:1 replacement ratio.

- Recommendations to Shift Proposed Crossings of the River. During the February 24, 1998 survey, the five proposed river crossings (i.e., one entry bridge and four cart paths) were examined. Golf Properties Design indicated in regard to the cart path crossings, that field adjustments could be made during construction to avoid trees and align the paths between vegetation openings to minimize impacts. These alignment adjustments during

construction shall be made. The alignment shifting recommendations are contained in the Biological Resources Technical Report.

Mitigation for Impact 2.4.3.b: Wildlife and Wildlife Habitat

Conduct directed field surveys for the arroyo toad, a federally-listed Endangered Species. If found on site, specific mitigation shall be developed in consultation with the U. S. Army Corps of Engineers and the U.S. Fish & Wildlife Service. Potential impacts resulting from fairway construction would be mitigated through buffers adjacent to riparian areas

Prior to construction in areas adjacent to the floodway, field surveys for the least Bell's vireo, a state and federal listed endangered species, shall be conducted. If this species is determined to be present, specific mitigation shall be developed in consultation with the U. S. Army Corps of Engineers, U.S. Fish & Wildlife Service, and California Department of Fish & Game.

Prior to construction in areas adjacent to the floodway, field surveys for the Willow flycatcher, a state and federally-listed Endangered Species shall be conducted. If found on site, specific mitigation shall be developed in consultation with the U. S. Army Corps of Engineers, U.S. Fish & Wildlife Service, and California Department of Fish & Game. Potential impacts resulting from fairway construction would be mitigated through buffers adjacent to riparian areas

A plan to manage lighting and watering shall be developed to limit the potentially significant impacts to foraging raptors. Elements of this plan may include a prohibition against lighting of the golf course and driving range, and variable irrigation schedules which would be less disruptive to morning and evening foraging by raptors.

The wildlife movement corridor was specifically designed to mitigate for impacts to coastal sage scrub and associated species in the study area, as well as potential impacts to wildlife movement corridors. The approximately 21 acres of coastal sage scrub habitat to be created in the corridor zone should compensate for any adverse effects on these biological resources, subject to the following conditions:

- A habitat restoration plan shall be prepared and implemented for the wildlife corridor/habitat creation area. The goal of the restoration plan shall be to create at least 20 contiguous acres of potential breeding habitat for California gnatcatchers in the river valley. The created habitat shall be configured to accommodate north-south wildlife movement from existing coastal sage scrub habitat, on the north and south valley slopes, to the existing river channel. This corridor area shall have a minimum width of 400 feet and an average width of at least 500 feet across the valley.
- Success of the restoration plan shall be measured by a biological monitoring program to last a minimum of 3 years, or until all success criteria are achieved. The monitoring program will track the success of habitat creation by recording appropriate success criteria for (1) individual plant species (e.g., growth and reproduction by species), (2) appropriate vegetation community characteristics (e.g., species composition, percent canopy closure) and (3) use of the area by gnatcatchers and other wildlife. Specific success criteria shall be defined in the restoration plan.

In addition to habitat creation within the wildlife corridor/habitat creation area, approximately 44 additional acres of the golf course will be landscaped using the

Zone 1 (19.2 acres) and Zone 2 (24.9 acres) planting palettes. As discussed above, the Zone 1 palette consists of native coastal sage scrub species and the Zone 2 palette consists of native California shrub species. Areas planted using these palettes are expected to provide some additional habitat value to native wildlife species; however, no specific mitigation credit is expected for these areas, because they are not designed specifically to re-create naturally occurring, native vegetation communities, and because they are primarily small and non-contiguous areas scattered throughout the golf course. However, some of the Zone 1 plantings are positioned adjacent to native coastal sage scrub habitat along the project boundaries, and may enhance or expand habitat values in these areas.

Specific details regarding revegetation/enhancement and restoration within the portions of the river channel that would remove invasive and exotic species is described as follows:

Introduction and Goals

In response to projected direct and indirect impacts to wetland and riparian habitat from the proposed golf course, the resource agencies (i.e., CDFG and USFWS) have recommended that the project: (1) revegetate the channel banks that will be recontoured with appropriate native upland and riparian plants, and (2) perform a 10-acre revegetation/enhancement program within the San Diego River channel with a combination of native wetland and alluvial wash plants. Revegetation of the recontoured channel banks will encompass approximately 28 acres and is intended to enhance the buffer between the golf course and the river channel by providing a physical barrier with native shrubs and trees and creating wildlife habitat. Since this effort is outlined previously in the EIR, and Draft EIR Response to Comments, the following text focuses on the proposed 10-acre revegetation/enhancement program within the river channel.

Various enhancement options within the channel have been discussed with the agencies. Representatives of CDFG and USFWS recommended that a 10-acre pilot revegetation/enhancement program be performed. The Pilot Revegetation/Enhancement Program is shown on Figure 2.4-3. Recommended guidelines for the program include that part of the effort occur within the portion of the river channel that coincides with the proposed north-south wildlife corridor, and that the program be divided between existing wetland and alluvial wash habitats. As indicated in the project's biological technical information, the majority of vegetative cover in the channel is provided by undesirable exotic species (non-native) that degrade wildlife habitat value.

Portions of the channel have water near the surface and support wetland species in the overstory such as willow (Salix sp.) and understory such as rushes (Juncus sp.). Although due to a highly variable water table, most of the channel vegetation is characterized as alluvial wash with riparian scrub species comprising the mid-story and upland plants in the understory. Based on discussion with the agencies, the two primary goals of the pilot program will be to: (1) revegetate and enhance existing habitat to improve wildlife habitat values as mitigation for golf course impacts, and (2) determine what methods are most feasible and successful for performing revegetation/enhancement and how long will it take to establish native vegetation.

The following conceptual review discusses proposed revegetation/enhancement locations and implementation methods, and recommended maintenance and

monitoring guidelines. Prior to implementation of the proposed golf course, a detailed plan for the channel revegetation/enhancement program will be prepared for final approval by the agencies.

Locations and Implementation Methods

To meet the guidelines and goals listed above, it was determined that the 10-acre program will be divided between two locations: an approximate 5-acre area that corresponds to a wetter portion of the channel adjacent to existing offsite homes, and an approximate 5-acre area that corresponds to the alignment of the proposed north-south wildlife corridor. For ease of discussion, the more easterly, wetter area will be referred to as Area A and the more westerly area within the wildlife corridor will be referred to as Area B. For Area A, it is estimated that approximately 2 to 3 acres can support willow woodland, while the remaining portion will support alluvial wash (i.e., riparian scrub) with scattered trees such as California sycamore (Platanus racemosa). In both locations, the revegetation/enhancement will occur across the entire channel bottom. The eastern limit of Area A will be defined by the proposed entry bridge and cart path, while the eastern limit of Area B will be defined by the proposed equestrian trail and cart path. The western limits of these areas will be defined by permanent markers such as metal t-posts.

The primary implementation steps will include contractor education and delineation of access; initial removal of invasive exotic plants; installation of temporary irrigation; installation of container plants and seed; and follow-up maintenance and monitoring. No grading is proposed in the channel bottom. The proposed implementation steps and methods are reviewed below.

Contractor Education and Access. Prior to the initiation of revegetation/enhancement activities, the project biologist will meet with maintenance personnel to review project guidelines and goals. Native species to be retained and exotic species to be removed will be reviewed at that time. The least impactive access routes for equipment and program personnel will also be determined in the field and marked.

Initial Control/Removal of Exotic Species. The primary exotic species that should be removed include tamarisk/salt cedar (Tamarix sp.), pampas grass (Cortaderia selloana), giant reed (Arundo donax), castor bean (Ricinus communis), eucalyptus (Eucalyptus sp.), tree tobacco (Nicotiana glauca), and fennel (Foeniculum vulgare). This list may be adjusted by the project biologist during the implementation phase. It is recommended that the initial exotic species removal effort begin in the late summer. There are 3 basic methods for initial removal of exotics that can be used depending on the specific conditions within portions of Areas A and B. The 3 methods are: (1) hand-cutting most of the above-ground biomass and then applying herbicide to the stump; (2) applying herbicide without cutting the specimen; and (3) physical removal with motorized equipment. In cases where there is an isolated exotic with a sufficient density of native species around it (such that no follow-up planting will be necessary where the exotic presently occurs), herbicide can be applied without cutting the exotic. In cases where there is a grouping of exotics but motorized equipment could not avoid impacting existing native species, specimens should be hand-cut and herbicide applied so space will be created for follow-up native planting. In cases where there is a grouping of exotics and motorized equipment could avoid impacting native species, this method can be used.

Since there is a significant amount of weed seed that already exists in the seedbank, physical removal of all the exotic biomass and seedheads out of the channel is not considered necessary. Except for a species such as giant reed, it is considered acceptable to chip this biomass and distribute it as mulch within the channel. It is understood that after the initial control/removal of exotics, follow-up maintenance will be necessary to ensure these species are completely eradicated. In the case of initial control/removal and follow-up maintenance, very small specimens can hand-pulled if the entire root system can be removed.

Installation of Temporary Irrigation System. To ensure survival and establishment of native container plants, some form of temporary irrigation will be necessary at least in the alluvial wash areas. It is expected that more than one method of irrigation may be used. It is likely the primary method will be a drip system (extended from the golf course irrigation system) to deliver water to individual container plants. Another potential method is selective hand-watering or installation of slow-release water products (e.g., DriWater) for more isolated container plants. An overhead irrigation system is not recommended because the spray is likely to be blocked by existing vegetation and it is not a feasible way to promote deep-watering. Particularly within this setting, periodic deep-watering is preferable over more frequent surface watering. The intent of irrigation will be to establishment the container plants by promoting root systems that tap into channel's available water. For most of the planted species it is expected that temporary irrigation will be needed for 2 to 3 years, after which time it can be permanently discontinued. For the wetter areas in Area A, it is expected that little to no temporary irrigation will be needed to establish the plants.

Installation of Container Plants and Seed. The primary method for native plant revegetation will be container plants and promoting establishment of native volunteers, although some limited hand-seeded may be tried in select areas. Generally in openings without native plants larger than 8 by 8 feet, appropriate container plants will be installed. Planting will include a mixture of shrub and tree species. As a guideline, container shrubs can be installed with spacing on center ranging from 6 to 12 feet with an 8 foot average, while trees can be installed from 12 to 25 feet apart with a 15 foot average (this assumes some mortality). Most of the container plants will be 1-gallon, although some 5-gallon trees may be included. For experimental purposes, some vegetative cuttings should be installed in the wetter Area A and possibly in Area B. Also for experimental purposes, some selective hand-seeding should occur in Areas A and B. After the initial control/removal of exotics, native planting should occur with the onset of the rainy season.

In regard to the wetter portions of Area A that will support willow woodland (approximately 2 to 3 acres), recommended container plants include, but are not limited to, arroyo willow (Salix lasiolepis), black willow (Salix gooddingii), shining willow (Salix lucida ssp. lasiandra), and Fremont cottonwood (Populus fremontii). Seeded species could include Mexican rush (Juncus mexicanus), spikerush (Eleocharis sp.), and monkey flower (Mimulus nasutus). In regard to the drier portions of Area A and all of Area B that will support alluvial scrub with scattered trees (approximately 7 to 8 acres), recommended container plants include, but are not limited to, mule fat (Baccharis salicifolia), sandbar willow (Salix exigua), arroweed (Pluchea sericea), blue elderberry (Sambucus mexicana), and California sycamore. Seeded species could include Douglas mugwort (Artemisia douglasiana), giant wild rye (Leymus condensatus), and evening primrose (Oenothera hookeri).

Many of the plants listed here are appropriate for both habitat types, although the final palettes should be "weighted" toward more wet- and alluvial-adapted species, depending on planting locations.

Maintenance and Monitoring

Once installation of the planting palettes is complete, a recommended 5-year maintenance and monitoring program will begin. In addition since invasive exotics from upstream portions of the river channel will continue to re-invade the 2 revegetation/enhancement areas over time, some form of periodic long-term maintenance and monitoring beyond 5 years is considered necessary. The focus of the 5-year maintenance effort will be to eradicate all invasive exotics in the revegetation/enhancement areas and to promote establishment of a self-sustaining native plant community in the portions of Areas A and B that are currently nonnative. The focus of the 5-year monitoring effort will be to provide direction to maintenance personnel, document progress and success of the program, and determine what methods of exotic plant control and native plant revegetation are most beneficial. Ultimately, monitoring will also help determine if the revegetation/enhancement is self-sustaining and whether this approximate 2-mile stretch of the river channel is a good candidate area for other projects to perform revegetation/enhancement mitigation. Maintenance and monitoring are discussed in more detail below.

Maintenance. During the initial 5-year period, the primary maintenance items will include exotic plant control, maintaining the irrigation system, promoting establishment of container plants, promoting establishment of seeded species and native volunteers, trash removal and site protection. After the initial exotic control/removal effort, exotic plant control will focus on treating re-sprouts with herbicide and eradicating new specimens that germinate from the seedbank. After the initial effort is conducted between July and August, it is recommended that herbicide be applied to the re-sprouts (before they get over 4 feet high) between August and October, before the first frost. In the following spring (i.e., between March and May) and late summer/fall of the next year, herbicide should be applied again to the re-sprouts. This follow-up treatment should be conducted each year until the individual specimen is dead. In terms of promoting establishment of container plants, the primary items will include overseeing temporary irrigation, maintaining weed-free basins, and adding fertilizer as necessary. Once some of the faster growing species such willow and cottonwood reach approximately 25 feet in height in 2 to 3 years, temporary irrigation should no longer be necessary. Scattered annual weeds, such as mustard (Brassica sp.) and clover (Melilotus sp.), should only need to be controlled when they occur in dense patches in open areas or in container planting basins. Once the 5-year program is considered successful and complete, long term maintenance may only be necessary twice a year to eradicate any exotics that have re-invaded.

Monitoring. A qualified biologist will oversee the initial 5-year monitoring period. The biologist will meet with maintenance personnel on a regular basis to review the condition of Areas A and B and the highest maintenance priorities. Horticultural and botanical monitoring will be performed. Horticultural monitoring will focus on exotic plant control and the health and growth of container plants. Botanical monitoring can use a combination of techniques, such as transects and quadrats, to quantify the progress of native plant development in areas previously dominated by nonnative plants. Permanent photographic viewpoints should also be established to document revegetation progress over time. As part of monitoring, a

set of success standards will be established to assess revegetation progress. Within the alluvial wash habitat for example, success standards for the end of year 5 could include 90 percent survival of container plants, 65 percent native cover in areas previously dominated by non-native, and no invasive exotics present. Success standards could be similar within the wetter willow woodland area, except for a slightly higher native plant cover goal. Horticultural and botanical monitoring results, including any recommended remedial measures (e.g., replacement plants, fertilizer etc.), will be included in five annual reports to be submitted to the agencies. The annual reports should also review the relative success of the revegetation techniques conducted in Areas A and B, so potential future revegetation/enhancement programs performed by other projects in the channel can benefit from the results of this pilot program.

Once the program has met its 5-year success standards in Areas A and B, that portion of the program will be complete. If portions of Areas A and B have not met their success standards after 5 years, then consultation should occur with the agencies to determine whether sufficiently beneficial revegetation/enhancement can be feasibly performed within this setting. If revegetation/enhancement was successful after 5 years, then some form of long term monitoring and reporting should be coordinated with the long term maintenance effort to ensure invasive exotics do not re-invade and intended wildlife habitat values are retained.

The Pilot Revegetation/Enhancement Program is shown on Figure 2.4-3.

Mitigation for Impact 2.5.3a: Significant Archeological Sites

The mitigation measures proposed should be included into the project permitting process as conditions of project approval. Implementation of the proposed mitigation measures would reduce the potentially significant impacts to on-site cultural resources to a level below significance. The mitigation measures are described below:

1. CA-SDI-13,652 shall be preserved by "capping" the site. This will mitigate any adverse impacts that might result form construction of the proposed project. Capping will involve the placement of 6 inches of clean sand followed by 2 to 4 feet of clean, sterile fill soil over the entire site.

2. The boundaries of CA-SDI-13,652 shall be appropriately delineated on all project maps with prohibitions against future excavation, grading, or other substantial subsurface disturbance. Irrigation, other utilities, and improvements must not penetrate the sand stratum above the site.

3. All archaeological resources mitigation work shall be performed under the direct supervision of a qualified archaeologist.

4. The boundaries of the site area shall be appropriately delineated on project maps with prohibitions against future excavation and/or disturbance. Irrigation, other utilities, and improvements must not penetrate the sand stratum demarcating the top of the site. Additionally, a qualified archaeological monitor shall be present during any extensive grading and subsurface excavation during the construction phase of the project.

5. All archaeological collections resulting from the testing program and subsequent excavations shall be currated.

Mitigation for Impact 2.6.3,e Impacts on Flow Velocities

1. A 50-foot grading buffer at the up-stream and down-stream property line shall be enforced along portions of the golf course boundaries that are lower than the 100-year flood level. No grading shall occur within the buffer zone. Compliance with this condition mitigates for potential increases in overbank flow velocities and consequent channel erosion off of the project site.

Mitigation for Impact 2.6.3.f Impacts on Erosion and Sedimentation

1. Proposed water impoundments shall be constructed such that they will not become sediment traps. The following measures shall be implemented:

   a. Where ponds are within the 100-year flood level, a berm surrounding each impoundment shall be constructed to prohibit floodwater encroachment. Said berm shall have a top elevation that is at least 2 feet above the 100-year flood level.

   b. Impoundments shall have a clay core, or other impermeable barrier, to prevent seepage of water from the water table into the impoundments.

   c. All impoundments shall respect a minimum setback of 150 feet from the main channel.

2. No export of materials shall occur during development of the golf course. An exception to this measure would include any materials extracted from the lakes.

3. The applicant shall submit the grading plan, and the design and plan for the lakes to the County of San Diego for review and approval. The design of berms shall be prepared by a registered civil engineer specializing in geotechnical engineering.

4. The applicant is responsible for the maintenance of the lakes, golf cart crossings, and the bridge.

Mitigation for Impact 2.7.3.a. Groundwater Quantity Impacts

Measures must be implemented to assure that the significant impacts to groundwater supply do not occur. By placing limits on groundwater withdrawal from individual production wells, stated impacts can be reduced to below a level of significance.

1. Flow meters shall be installed on all production wells on the site. A record of flow meters readings shall be taken twice per month. Monitoring reports shall be provided to the Helix Water District and the County of San Diego Department of Planning and Land Use semi-annually. The reports shall be submitted no later than July 31 and January 31 of each year, for the periods of January 1 through June 30 and July 1 through December 31, respectively. The reports shall summarize the flow meter and water level data. The reports shall be signed by a Certified Hydrogeologist or Registered Engineer with experience in groundwater management.

Should groundwater levels drop below minimum levels (65' in MW-1, MW-2, MW-4, MW-5, MW-6, MW-7, or 100' in MW-3) in monitor wells, the golf course operator shall begin reporting monitor well groundwater levels on a monthly basis.

2. Permanent monitoring devices (such as pressure transducers) with data loggers will be installed in seven unpumped wells on site. Figure 1 of the Groundwater Technnical Report (Appendix F) shows the approximate locations of the proposed production and observation wells. The observation wells are located at least 100 feet from any production wells. The monitoring devices will record depth to water every 12 hours. In the event that water levels decline below the target depths shown on mitigation measure No. 3, the monitoring devices will be capable of contacting the golf course operator and Helix Water District. The type of connection/notification system shall be designed to the satisfaction of Helix Water District.

3. Groundwater production shall be limited in accordance with the following criteria:

   a. A maximum of 1,172 afy shall be extracted from groundwater at a rate reasonably anticipated to reflect the Estimated Consumptive Water Use for Proposed Golf Course described in the table in Section 2.7.3.a. This rate of extraction shall be maintained while groundwater levels measured in the seven monitoring wells remains at 65 feet bgs (100 feet bgs for well MW-3) or higher.

   b. If the groundwater levels measured in any of the seven monitoring wells drop lower than 65 feet bgs (100 feet bgs for well MW-3), groundwater extraction from the nearest production well or wells shall be stopped until the groundwater depth returns to a level of less than 65 feet bgs (100 feet bgs for well MW-3) for at least 7 days. Once groundwater depth remains above 65 feet bgs (100 feet bgs for well MW-3) for seven days, extraction from the nearest production well may resume.

      Water level monitoring to determine impacts for individual production wells shall relate to the following table. If water levels in either monitoring well listed in the second row drops below a threshold level, production in the corresponding well shall be reduced or curtailed.

Production Well	Monitor Well(s)
EW-1	MW-7, MW-1
EW-2	MW-1, MW-6
EW-3	MW-2, MW-5
EW-4	MW-3, MW-4

c. If the groundwater levels measured in any of the seven monitoring wells drop lower than 75 feet bgs (110 feet bgs for well MW-3), groundwater extraction shall be stopped on all production wells. ~~Extraction may resume for each production well when groundwater depths in the nearest monitoring well returns to a level of less than 65 feet bgs (100 feet bgs for well MW-3) for at least 7 days.~~ Extraction may resume when groundwater depths in all monitoring wells (MW-1 through MW-7) returns to a level of less than 65 feet bgs (100 feet bgs for well MW-3) for at least 7 days.

d. Groundwater extraction is dependent on the elevation of groundwater (below ground surface) as measured in each of 7 monitor wells identified on Figure 1 of the Groundwater Technnical Report (Appendix F). If groundwater extraction is not sufficient to meet project irrigation demands, the golf course operator shall implement irrigation conservation procedures and/or utilize a supplemental water source. Such supplemental source shall be a non-potable water source provided by Helix Water District or other approved water purveyor.

Helix Water District has storage capacity of 10,000-acre feet of water in El Capitan Reservoir. This water is captured at Lake Cuyamaca, and transferred to El Capitan through Boulder and Conejos Creeks. The stored water is pumped to either Lake Jennings or the R.M. Levy Treatment Plant through a jointly owned Helix/City of San Diego 48-inch diameter pipeline located within El Monte Road via Helix's El Monte Pump Station.

Helix Water District is constructing a new El Monte Pump Station that will be on line in the year 1999. This pump station will allow the District to pump raw water from and to El Capitan through a metered 36-inch diameter pipeline that connects to the existing 48-inch diameter pipeline.

Helix Water District will provide supplemental raw water as necessary for this project through a metered line off of the new 36-inch diameter pipeline. The new 36-inch diameter line lies along the southerly edge of El Monte Road, directly across from the project's westerly boundary.

4. The golf course irrigation system shall be designated for non-potable water use. All piping shall be color coded purple to denote this requirement.

5. A minimum of four production wells shall be drilled for water supply purposes. Wells shall be separated by a minimum of 500 feet and shall be metered to measure output.

6. The applicant shall replace any well located on properties adjacent to the project site (within 500 feet of the property boundary) that has not been completed to at least 90 feet in depth. Such wells shall be deepened to 100 feet below ground surface. At the option of the applicant, and approval of the affected homeowner, the home may be connected to a potable water source. Any increase in pumping costs or monthly bills for purchasing potable water would be the sole expense of the property owner. Wells W, Y, Z, and DD, shown on Figure 1 in Appendix C, Groundwater Monitoring and Management

Plan, of Appendix F, Groundwater Study have been designated for deepening or replacement.

Mitigation for Impact 2.7.3.b. Groundwater Quality Impacts

Groundwater quality degradation will occur with or without the project. However, implementation of the following mitigation measures are designed to lessen the overall impact of golf course operations on groundwater quality.

1. Turf grasses shall be selected from "new varieties" of cultivars. "New varieties" are species of turf grasses that have been developed for reduced nutrient and water requirements.

2. Organic, slow release, microfoliar application fertilizers shall be used.

3. Water soluble fertilizer applications shall be closely monitored to insure that the application rate does not exceed plant assimilation rates.

4. Azospirillum soil bacteria shall be incorporated into soils.

5. Fertilizers shall not be applied within 24 hours of expected precipitation events.

6. Soils and plant tissue analysis shall be conducted on an annual basis. Fertilizer application rates shall be adjusted according to the results of these tests.

7. Prior to initiating planting and grow-in, the applicant shall develop an integrated pest management program (IPM). The IPM shall be submitted to Helix Water District for review and approval prior to initiating planting and grow-in. The IPM shall include the following:

   a. Monitoring to detect pest populations.
   b. Determination of pest injury levels and establishment of treatment thresholds.
   c. Integrated biological, cultural, and chemical control strategies.
   d. Education program for personnel involved in biological and chemical control planning and implementation.
   e. Identification of guidelines for timing and spot treatment of chemical control agents.
   f. Evaluation of test results and modification of practices.
   g. Record keeping.

8. County of San Diego Department of Environmental Health standards for septic system setbacks from wells shall be observed.

9. If applied fertilizers, pesticides, and herbicides are detected at levels which exceed 75% of USEPA's Primary Maximum Contamination Levels, use of the detected chemical(s) shall be terminated.

   A groundwater quality monitoring and reporting program shall be conducted by a Certified Hydrogeologist, or qualified Registered Civil Engineer, and reported to the Helix Water District on an annual basis. The water quality analysis shall include the following tests:

Analysis	Method	Sample Frequency
Nitrate	SM4500-NO_3	Quarterly
TDS	SM 2540	Quarterly
Acid and base/neutral extractable organics	SW846 8270	Annually
Carbamate pesticides	DW 531	Annually
Chlorinated herbicides	SW 846 8150	Annually
Glyphosate	DW 547	Annually
Organochlorine pesticides	SW846 8080	Annually
Volatile Organics	SW846 8260	Annually

SM - Standard methods for the Examination of Water and Wastewater, 23rd Edition; SW846 - Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, Update III; DW - EPA 500 Series, Methods for the Determination of Organic Compounds in Drinking Water, including Supplements I and II.

Certification Statement

This Environmental Impact Report was prepared under the direction of the Helix Water District, 7811 University Avenue, La Mesa, CA 91941-4927. The following professional staff assisted the Helix Water District in the preparation of this Environmental Impact Report.

Helix Water District

Don Kaiser, Assistant General Manager/Chief Engineer
Mike Brown, Engineering Supervisor
Larry Campbell, SR/WA, Senior Right of Way Agent

EnviroMINE

Warren R. Coalson, President
Rick Carpenter, Project Manager
Keith Barr, Environmental Analyst
Janet Huang, Graphics

Katz, Okitsu, & Associates, Inc.

Arnold Torma, Traffic Engineer
Pamela Barnhardt, Transportation Planner

Vincent N. Scheidt, Consulting Biologist

Ogden Environmental & Energy Services, Inc.

Jim Prine
Wayne Spencer, PhD.

Howard H. Chang, Ph.D., P.E.

EarthTech, Inc.

Doug Roff, CEG, RGH,

Ninyo & Moore, Inc.

York Gorzolla, RG
Steve Beck, RG, CEG

ASM Affiliates, Inc.

John Cook, SOPA

I confirm that, to the best of our knowledge, the statements and information contained in this report are correct and true, and that all known information concerning the potentially significant environmental effects of the proposed project has been included and addressed in this Supplemental Environmental Impact Report.

Date: 5/26/99

Rick R. Carpenter
Project Manager