

City of San Diego
Development
Services
Department



Environmental Impact Report

Land Development
Review Division
(619) 236-6460

DEP No. 94-0576
SCH No. 96-121073

SUBJECT: Del Mar Highlands Estates: PLANNED RESIDENTIAL DEVELOPMENT PERMIT, RESOURCE PROTECTION ORDINANCE PERMIT, VESTING TENTATIVE MAP, and, AMENDMENT TO THE NORTH CITY FUTURE URBANIZING AREA FRAMEWORK PLAN (DEP NO. 94-0576) for the construction of 148 single family dwelling units and 24 affordable housing units on 398 acre parcel in Subarea III of the North City Future Urbanizing Area (NCFUA). The affordable housing will be located on a 5.35 acre parcel with access from Old El Camino Real. The proposed 148 single family market rate lots would be irregularly shaped and would vary in size from approximately 13,000 square feet to 100,800 square feet. Access to the development would be from San Dieguito Road along the northern site boundary. A security gate is proposed to be installed at the main entrance into the project. The total 172 units includes a proposed 21 unit density transfer from the Shell parcel (in Subarea III), and a 0.46% density bonus for the construction of the affordable units. The project is located south of San Dieguito Road, west of the Senterra residential development and the remaining undeveloped portion of Subarea III of the North City FUA, north of the Carmel Valley Community Planning area, and east of Old El Camino Real. Applicant: Pardee Construction Company.

CONCLUSIONS:

The proposed Del Mar Highlands Estates (DMHE) project consists of 389 vacant acres located in the North City Future Urbanizing Area (NCFUA). The project proposes a 148 single family lot subdivision and 24 affordable housing units. To achieve this density 21 dwelling units are being transferred from the Shell Parcel located in the southern area of Subarea III. A density bonus of 46% for the construction of the affordable housing units also applies. The project will dedicate a total of 222 acres (57% of the total DMHE site) and the entire 84 acre Shell parcel as Open Space to the City of San Diego.

Natural Communities Conservation Program (NCCP)

On March 25, 1993, the U.S. Fish and Wildlife Service listed the California gnatcatcher as a threatened species under the Federal Endangered Species Act (ESA). On December 10, 1993, the Federal Endangered Species Act Section 4(d) rule became effective, affecting projects in all stages of the development process. The City is enrolled as a participating agency in the State's NCCP, which requires tracking of impacts to coastal sage scrub habitat. The City's

Multiple Species Conservation Program has been approved by the State as an equivalent to the NCCP. The NCCP allows the City to approve the loss of up to five percent of existing Coastal sage scrub habitat. Approvals must also comply with the State NCCP Process Guidelines, which require findings relative to the affect on regional preserve planning, and require that mitigation be adopted. The NCCP Conservation Guidelines have indicated that a five percent loss of Coastal sage scrub habitat is acceptable within any individual subregion during the preparation of a subregional NCCP or it's equivalent (i.e. MSCP Subarea Plan). Within the City of San Diego the five percent cumulative loss allowed is 1,186 acres of coastal sage scrub.

Total allowed loss:	1,186.00 acres
Cumulative actual loss to date:	493.35 acres
Loss due to this project:	33.88 acres
Total cumulative loss:	527.23 acres
Remaining loss allowed:	658.77 acres

This project will mitigate all impacts to Coastal sage scrub through on-site preservation, and on-site revegetation of Coastal sage scrub habitat. An Interim Habitat Loss Permit under Section 4(d) of the ESA through the City is currently being pursued through a separate application. It is anticipated that implementation of the project will not have an adverse affect on MSCP preserve planning and that the appropriate Findings could be made.

Multiple Species Conservation Program (MSCP)

The proposed project has been redesigned in concert with the draft MSCP and would therefore implement the strategies outlined in the draft MSCP document. The entire 84 acre Shell parcel is located within the MSCP Preserve Area. The dedication of this property to the City of San Diego as Open Space is consistent with MSCP recommendations.

The draft Biological Standards and Guidelines for Multiple Species Preserve Design have indicated the need to preserve Coastal sage scrub based on the species dependent upon it, and to preserve the long-term viability of the breeding population of the California gnatcatcher by maintaining core populations of gnatcatcher constituting viable metapopulations. The subject property contains nine pairs of gnatcatchers of which three pairs would be impacted by this project. This impact will be mitigated by revegetating existing agricultural land located on site within the MSCP Preserve in Gonzales Canyon.

The project would result in the following significant, unmitigated impacts:

Landform Alteration (direct): Impacts from the DMHE project would result in significant unmitigated impacts as a result of the grading proposed on the site, (9,620 cubic yards per graded acre) the height and length of manufactured slopes on-site, and excess RPO steep slope encroachment criteria.

Visual Quality (cumulative): This project, along with other projects proposed in the area, would have a cumulative impact on landforms and visual quality in the region because of the widespread changes from undeveloped open space to urban and suburban environments which would occur if all proposed projects in the area were built out.

Biological Resources (cumulative): Although the DMHE project will (1); mitigate the impacts to Coastal sage scrub and southern maritime chaparral by implementation of an on-site revegetation program and (2); the project has been designed to be consistent with the draft MSCP regarding biological core areas and wildlife corridors, the potential for significant cumulative biological impacts has not been eliminated. DMHE, along with other projects in the NCFUA area, would contribute to a significant cumulative loss of biological resources.

Traffic Circulation (cumulative): Although the proposed project is consistent with adopted traffic master plans and phasing plans applicable to the subregion, the potential cumulative traffic impacts to area roadways are considered regionally significant and unmitigable.

Air Quality (cumulative): Along with other projects in the vicinity, the project would contribute to the non-attainment of clean air standards in the region.

Natural Resources/Agricultural (cumulative): Considered with other developments in the area, the loss of 200 acres of agricultural land in the DMHE project, is cumulatively significant.

RECOMMENDED MITIGATION OR ALTERNATIVES FOR SIGNIFICANT UNMITIGATED IMPACTS:

The alternative section of the EIR analyzes two alternative development scenarios and the No Project Alternative for the DMHE project. The two alternatives to the proposed project analyzed would not eliminate all identified environmental impacts. The A-1-10 Rural Cluster Alternative would cluster 37 units in the eastern portion of the site. This alternative would have similar impacts to the proposed impact, although to a lesser degree, however, impacts would not be below a level of significance. For example, the project would have significant impacts if mitigation is not incorporated into the project, to the NCFUA Framework Plan regarding the Environmental Tier; loss of Diegan coastal sage scrub; landform alterations; and impacts to local schools and parks. Agricultural uses could continue on-site and the undeveloped portions of the site could be developed in the future if a phase shift from Future Urbanizing to Planned Urbanizing is approved by the electorate. Because of the future development potential on the site, additional significant unmitigated impacts over those identified with the project could result.

A second alternative that was reviewed, but rejected, analyzed the benefits of removing the southern most tier of lots adjacent to Gonzales Canyon to reduce visual impacts. This would affect approximately 24 lots located on the rim of Gonzales Canyon. This alternative was rejected after analyzing the proposed project's Design Guidelines in relationship to proposed setbacks, height restriction and landscaping/fencing requirements. The proposed project has mitigated visual impacts from open space areas to a below a level of significance. Due to the gradual slope up from the bottom of the canyon to the ridge near the northern property line, the removal of the 24 lots adjacent to Gonzales Canyon would not substantially reduce the visual impact.

Unless mitigation measures or project alternatives are adopted, project approval will require the decision-maker to make Findings, substantiated in the record, which state that: a) individual mitigation measures or project alternatives are infeasible, and b) the overall project is acceptable despite significant impacts because of specific overriding considerations.

MITIGATION, MONITORING AND REPORTING PROGRAM INCORPORATED INTO THE PROJECT:
(See attached EIR for more detailed information on mitigation)

Hydrology/Water Quality: The project would mitigate its incremental contribution of Water Quality impacts through the implementation of erosion control measures as required by the City's Grading Ordinance and would re-landscape disturbed areas after the completion of grading. Conditions have been included that would minimize sediment transport, especially during the rainy season. To minimize potential effects of urban runoff, the project would comply with the Best Management Practices Program for Storm Water Pollution Control created by the City.

Landform Alteration/Visual Quality: The project has incorporated several design features into the plan that will mitigate the visual quality resulting from the grading activity. 57% of the site (222 acres) will be left in open space. The developable portion of the site has been clustered into the less constrained areas of the property resulting in wide open space corridors. The Design Guidelines have established development regulations that will soften the aesthetic appearance of manufactured slopes and structures that would be visible from public areas. In particular, those lots located upon the rim of Gonzales Canyon have expanded setback and height/bulk requirements. No two-story elements will be permitted within the rear 50 feet of those lots in order to encourage a variety of building facades that would be visible from Gonzales Canyon.

Geology and Soils: The proposed grading concept plan and the DMHE Guidelines provide a number of specific standards related to erosion control including general landscaping and specific planting criteria for disturbed or manufactured slopes. These include the use of deep-rooted vegetation, use of native drought-tolerant vegetation, use of erosion-controlling measures such as mulch or jute netting. A project specific soils and geological investigation will be prepared and approved by the City prior to the issuance of the grading permit. The implementation of the recommendations shall be

required to the satisfaction of the City Engineer to mitigate the potential for significant geologic hazards.

Biology: The proposed project includes preservation of on-site biological open space consisting of 91.5 acres of gnatcatcher-occupied Coastal sage scrub and, 35.7 acres of southern maritime chaparral. The project will impact 33.88 acres of Coastal sage scrub and 6.65 acres of southern maritime chaparral. Mitigation for habitat impacts includes revegetation of 36.7 acres of coastal sage scrub. A revegetation plan has been developed which includes success criteria, a monitoring program, and a surety bond to ensure the creation of Coastal sage scrub. Lighting adjacent to native areas shall be directed away from the habitat and appropriately shielded.

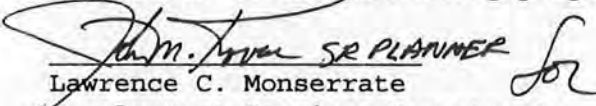
Cultural Resources: The applicant has agreed to implement a testing program for sites which have not been tested to date. A data recovery program for sites which are determined to be significant shall be incorporated into the project and would be required prior to the issuance of a grading permit. The testing shall be accomplished to the satisfaction of the Director of Development Services.

Paleontological Resources: Implementation of a paleontological monitoring and salvaging program would mitigate potential impacts to paleontological resources to below a level of significance. Prior to the issuance of grading permits, grading plans shall be reviewed by the Environmental Analysis Section to ensure that notes which require monitoring are on the plans.

Traffic Circulation: The intersection of San Dieguito Road and the primary access road shall be modified to provide both westbound to southbound left turn and eastbound to southbound right turn lanes. Fair share contributions shall be made for a signal at El Camino Real and Derby Farms Road intersection as well as contributions for widening El Camino Real and Via de la Valle.

Public Services: Participation in the Mello-Roos and Community Facilities District #1 and the implementation of a School Impact Agreement would mitigate to below a level of insignificance the project's contribution to cumulative impacts on school facilities. Response times for law enforcement and fire protection services would be mitigated to below a level of significance by providing a 24-hour guard at the proposed gate or by providing the fire and police departments with a security code for immediate access to the development.

The above Mitigation Monitoring and Reporting Program will require additional fees and/or deposits to be collected prior to the issuance of building permits, certificates of occupancy and/or final maps to ensure the successful completion of the monitoring program.


Lawrence C. Monserrate
Development Services Department

Analyst: Gentles

January 31, 1997
Date of Draft Report

March 26, 1997
Date of Final Report

Distribution

PUBLIC REVIEW

The following individuals, organizations, and agencies received a copy or notice of the draft EIR and were invited to comment on its accuracy and sufficiency:

Federal Government

Naval Air Station at Miramar
U.S. Fish & Wildlife Service
Federal Highway Administration
USDA Soils Conservation Service
U.S. Army Corps of Engineers

State of California

CALTRANS, District 11
Department of Fish and Game
Intergrated Waste Management Board
Regional Water Quality Control Board, Region 9
Department of Water Resources
Food and Agricultural Department
California Coastal Commission
Air Resources Board
Division of Mines & Geology
State Clearinghouse

County of San Diego

Air Pollution Control Board
Department of Planning & Land Use

City of Del Mar

City Attorney
Planning Department

City of San Diego

Councilmember Mathis
Park and Recreation Department
Fire Marshall
Engineering Department (Bob Cain)
San Diego Housing Commission

Other interested groups, agencies and individuals

Carmel Valley Community Board
City of Solana Beach
Del Mar Union School District
Solana Beach School District
San Diego City Schools
San Dieguito Union High School District
SANDAG
San Diego Gas & Electric
Metropolitan Transit Development Board
Sierra Club
San Dieguito River Park JPA
San Diego Natural History Museum
San Diego Audubon Society
California Native Plant Society

Wetland Advisory Board
San Diego Regulatory Alert
Southwest Center for Biological Diversity
Citizens Coordinate for Century III
South Coastal Information Center, SDSU
San Diego Museum of Man
Kumeyaay Cultural History Committee
San Diego County Archaeological Society
San Dieguito Lagoon Committee
Rancho Santa Fe Association
Arroyo Sorrento Homeowners Association
Arroyo Sorrento Property Owners
Senterra Homeowners Association
Del Mar Heights & Portofino Homeowners Association
Los Penasquitos Canyon Preserve
Mike Wells, State Parks
Rancho Penasquitos Planning Board
San Dieguito River Park CAC
Rancho Santa Fe Association
Torrey Pines Community Planning Group
University of California, San Diego
22nd District Agricultural Association
Sun Valley Association
Rancho Del Mar Homeowners Association
Friends of San Dieguito River Valley
San Dieguito River Valley Conservancy
Fairbanks Ranch Association
Fairbanks-Stratford Home Owners Association
John Northrup
Craig Sherman/Allison Rolfe
Jay Shrake
Endangered Habitats League
Statford Homeowners Association
Pardee Construction Company
Project Design Consultants
Tom Steinke

DEL MAR HIGHLANDS ESTATES EIR LETTERS OF COMMENT AND RESPONSES

Letters of comment to the draft EIR were received from the following agencies, groups, and individuals. The letters of comment and responses follow.

<u>Letter from:</u>	<u>Page</u>
United States Marine Corps	PR-1
Carmel Valley Community Planning Board	PR-2
Fairbanks Ranch Association	PR-9
San Diego County Archaeological Society	PR-12
SDG&E	PR-14
City of San Diego Water Utilities Section	PR-15
T&B Planning Consultants	PR-17
Solana Beach Elementary School District	PR-20

ERRATA

Several comment letters received during the EIR public review period contained accepted revisions which resulted in changes to the Final EIR text. These changes include minor editorial changes to the text which are indicated by strike-out (deleted) and underline (inserted) markings. The more substantive changes are also noted here for the reader's information and convenience in the following Errata to the Final EIR.

Minor Modifications to the PRD Site Plan and VTM

Subsequent to the release of the DEIR for public review, minor modifications to the project design were made by the project applicant and a revised PRD site plan and VTM were submitted. These changes were made to accommodate internal design changes to the project (e.g., reconfiguration streets and lot layouts), and modifications to the Design Guidelines. The revised PRD site plan and VTM have been included in the Project Description of the Final EIR.

Schools

The Final EIR has been revised to indicate that the participation in a Mello-Roos Community Facilities District would only apply for grades 7-12 in the San Dieguito Union School High School District, and that a Schools Agreement between the applicant and Solana Beach Elementary School District would be required for grades K-6.

Interim Habitat Loss (4d) Permit Findings

The Draft EIR for Del Mar Highlands Estates indicated that a multiple project Interim Habitat Loss (4d) Permit may be processed by the project applicant with additional related projects. During the public review period for the Draft EIR, the City of San Diego issued a multiple project Interim Habitat Loss (4d) Permit Findings which included the Del Mar Highlands Estates project and three other related projects. These projects include the Neighborhood 10 Precise Plan Amendment, the Neighborhood 10 School Site/Sewer Line, and the Neighborhood 8C Precise Plan. The findings were distributed to the public and wildlife agencies on February 28, 1997 for a 45-day review period ending on April 14, 1997.

Cultural Resources

Site CA-SDI-5371 has been determined to be outside the boundaries of the proposed Del Mar Highlands Estates Vesting Tentative Map (VTM), and therefore, would not require testing for the project as described in the DEIR. Documentation from previous technical reports, which clearly describe the site's location relative to the project boundary, indicate the site CA-SDI-5371 is mapped on the terminus of a ridge that is clearly outside the project boundary. There are no indications from completed field studies that the site

boundary was changed or that the site was incorrectly mapped. Therefore, there is no basis for completing sampling at this location as described in the DEIR.

A second site, CA-SDI-5372H, is located within the VTM in an area that will be deeded to the City of San Diego as part of a natural open space corridor related to the Draft MSCP. There are no direct impacts identified within or adjacent to the recorded limits of this site. This resource area is identified as a light scatter of flaked lithic debris and the remnants of an historic-era cobble foundation. This site was not tested during previously completed work; however, survey level observations of the site indicate limited resource potential. The revised recommendation for this site is the completion of a sampling/indexing program which would provide sufficient information to place the historic and prehistoric portions of this site in context with the region prior to preservation in the open space area. The recommended sampling/indexing program is included in the text of the Final EIR on pages 150-151.



UNITED STATES MARINE CORPS
MARINE CORPS AIR BASES WESTERN AREA EL TORO
PO BOX 96081
SANTA ANA CA 92706-9601

IN REPLY REFER TO:
11103.79
AQ/DMESTAT
7 Mar 1997

RESPONSES

CITY OF SAN DIEGO
DEVELOPMENT SERVICES DEPARTMENT
ATTN MR LARRY MONSERRATE
202 C STREET MS 4A
SAN DIEGO CA 92101

CARMEL VALLEY; DEL MAR HIGHLAND ESTATES DRAFT ENVIRONMENTAL
IMPACT REPORT

Dear Mr. Monserrate:

This is in response to the Draft Environmental Impact Report for the Del Mar Highlands Estates
DEP No. 94-0576 for the construction of residential housing within the North City Future
Urbanizing Area. Pursuant to the Base Closure and Realignment Act of 1993 Marine Corps Air
Stations El Toro and Tustin will close by 1999 and aviation units will transition to Miramar.

- 1 The proposed project will be affected by operations of military aircraft transiting to and from
Marine Corps Air Station (MCAS) Miramar. Occupants will both see and hear military aircraft
and will experience varying degrees of noise and vibration. It is important to realize that while
this project is a compatible land use, residents may experience concern over single event noise.
Information can be obtained within the Final Environmental Impact Statement for MCAS
Miramar. A copy of this document can be acquired by contacting Ms. Timarie Seneca at (619)
532-3780.

If I may be of any further assistance, please contact me at (714) 726-3702.

Sincerely,

D. P. PENDER
Colonel, U.S. Marine Corps
Community Plans and Liaison Officer
By direction of the Commander

Encl:

(1) COMCABWEST ltr 11103.72 AQ/NCFUA of 7 Jan 1997

- 1 Review of the Final EIS for the aircraft operations at the Marine Corps Air Station
(pages 4.11-12 to 4.11-41) indicates that the Del Mar Highlands Estates Project
residential development would be outside the 65 CNEL contour from aircraft
operations and significant noise impacts would not occur.

CARMEL VALLEY COMMUNITY PLANNING BOARD
12760 High Bluff Drive, Suite 160
San Diego, CA 92130
PH: (619) 794-2500/FAX: 259-8173

March 11, 1997

Lawrence C. Monserrate, Principal Planner
City of San Diego
Land Development Review Division
Development Services Department
1222 First Ave., M.S. 501
San Diego, CA 92101

SUBJECT: COMMENTS ON DRAFT EIR DEP NO. 94-0576:

"DEL MAR HIGHLANDS ESTATES (NCFUA SUBAREA III)

Dear Mr. Monserrate:

The proposed planned residential development (PRD) lies directly north of Carmel Valley and would impact our community facilities and services. In addition, it amends the Framework Plan for the North City Future Urbanizing Area (NCFUA), which surrounds our community and whose future land uses concern us regarding sensitive development of existing open spaces, adequate roadways for increased development, and the overall impacts of urbanizing in the City's last remaining natural areas.

We request the following questions and issues be addressed in the final EIR. Our major points address

I Preservation of Gonzales Canyon

Project Alternatives: Concerns about omitting an environmentally preferable alternative proposed in 1995 as part of the N 8A/DMHE final EIR (DEP Nos. 87-0211,91-0899, 94-0576)

Biology/Land Use/Landform Alteration: Concerns about the adequacy of the 1,000-ft. of Gonzales Canyon to be "preserved"

II Land Use: Concerns about the inconsistency with NCFUA Framework Plan-recommended number of dwelling units and the methods of transferring units from the "Shell Parcel."

PRESERVATION OF GONZALES CANYON WILDLIFE CORRIDOR

Biology, land use and landform alteration— impacts on Gonzales Canyon wildlife corridor and consideration of a reduced development alternative

Direct significant and unmitigated impacts to landform would result from manufacturing twenty-two slopes an average of forty feet high. This exceeds the resource protection ordinance encroachment allowance and would disturb slopes along the Gonzales Canyon wildlife corridor. [4]

- 2 The DEIR substantiates this conclusion; however, then it determines that impacts to biological resources are fully mitigated because the project (1) will mitigate the impacts to coastal sage scrub and southern maritime chaparral by revegetating 70 acres on site and (2) will preserve a 1,000-ft corridor in Gonzales Canyon.

Gonzales Canyon is a primary MSCP/NCFUA environmental tier concern because it is the only remaining viable corridor to the San Dieguito River Valley whose preservation is a goal of every City land use document and policy. As the DEIR states [133], "It ultimately connects with McGonigle and Deer Canyons and Del Mar Mesa to the south...."—the heart of City MSCP efforts is the western San Dieguito River Valley connecting to the Del Mar Mesa. Is the DEIR saying that the project would result in significant, unmitigated impacts to landform alteration but that this would have no effect on biology?

- 3 In the previous final EIR for N 8A/Del Mar Highlands Estates (DMHE), the proposal (then 148 du) "would not implement the recommendations for development adjacent to the natural areas which includes Gonzales Canyon and the San Dieguito River Valley." [S-17] This finding was due to two impacts: (1) "the extent of earthwork, the anticipated level of disturbance to 25 percent or greater slopes, and the construction and length of 15 manufactured slopes up to 100 feet in height." [S-16] and (2) "noticeable changes" in visual quality of the site. The landform alteration impacts were deemed significant and unmitigated. The visual quality impacts would be mitigated by adoption of the "environmentally preferred alternative" which "would move or eliminate lots which are visible from the river park." [S-19]

The board's response to that issue was:

"(4) 'The 'Reduced Project Alternative'...removes 21 development pads from the map area overlooking the riparian area of Gonzales Canyon. The DEIR finds net significant impacts to landform alteration and visual quality. We believe this alternative also reduces impacts on biological resources because the Gonzales wildlife corridor would be protected from edge effects, through this alternative's single-loaded streets and widening of the corridor."

- 5 We believe this view is equally valid with the resubmitted project. Because of development approved east of and adjacent to Gonzales Canyon, wildlife depend solely on the remaining corridor through the DMHE parcel. No viable habitat or linkage remains as Gonzales Canyon to the east is cut off by grading and existing development, in Subarea III and the remainder of the NCFUA, as well as "Rancho

RESPONSES

- 2 These comments concur with the Conclusions in the DEIR. However, only 36.7 acres of the 77 acres of revegetation are being credited to the Del Mar Highlands Estates Project for mitigation.
- 3 The landform alteration impacts are considered significant and unmitigated because the grading quantities exceed the City of San Diego significance thresholds in terms of cubic yards of grading per graded acre and the height of the manufactured slopes to develop the site. The DEIR acknowledges that this proposed grading will impact biological resources, but the impacted acreage consists primarily of non-native vegetation communities (approximately 138 acres). The impacts to sensitive vegetation types including coastal sage scrub (33.88 acres) and southern maritime chaparral (6.64) would be fully mitigated by the on-site preservation of habitat.
- 4 The Carmel Valley Community Planning Board's comment on the 1995 EIR addressing Del Mar Highlands Estates is acknowledged. However, the Design Guidelines submitted with the current project include additional setbacks, perimeter fencing, and building height restrictions which were not part of the original project. These additional measures have reduced the visual quality impacts to below a level of significance.
- 5-6 The Reduced Project alternative was included in the 1995 EIR (City of San Diego 1995: 502-504) for the purposes of reducing the visual quality impacts. Although it is recognized that the impacts to biological resources would be incrementally lessened under such an alternative, the 1995 EIR did not conclude that the impacts to biological resources and the Gonzales Canyon wildlife corridor would be substantially lessened under this alternative. The currently proposed wildlife corridors are consistent with the Draft MSCP recommendations for wildlife corridor widths and the proposed project was designed with the need to accommodate wildlife movement from east to west and northerly to the San Dieguito River Valley. These on-site corridors were specifically designed to reflect the Draft MSCP corridor width recommendations.

RESPONSES

6 Lakes* and other county of San Diego development. The necessity of grading, for example, an 800-ft. long section into an 85-ft. high slope to get buildable pads does impact the biology of the project area. It reduces the essential wildlife corridor to the western San Dieguito River Valley to the minimum standard for corridor design recommended by Ogden (1992) for the City's natural areas (environmental tier and MSCP.)

7 Assuming our belief that landform impacts also reduce the corridor width and bring development too far down into Gonzales Canyon, the 1995 final EIR alluded to the preference of the reduced development area alternative for biological (corridor) reasons. Although biological impacts are considered fully mitigated by the preservation of the off-site "Shell Parcel" this alternative "would reduce the amount of fill proposed for pad development..." [503] and "It is accurate...that impacts to biological resources would be further reduced by this alternative." [Response 4]

8 The "Reduced Project Alternative" removing the southernmost tier of lots is rejected in the current DEIR "after analyzing the proposed project's Design Guidelines in relationship to proposed setbacks, height restriction and landscaping/fencing requirements." Home setbacks from Gonzales Canyon slopes are considered to be sufficient.

This rationale completely ignores the potential edge effects and minimal size of the wildlife corridor. Why doesn't the DEIR at least consider an alternative which would reduce landform and biological impacts and which would offer more than the minimal corridor design? The success in preserving a major environmental tier/MSCP corridor to the region's last struggling river valleys depends on prudence, not roof pitches or fencing design.

9 We strongly urge reconsideration of an alternative which removes development on lots 47-53, 68-76, and 109-111 to reduce landform alteration impacts and preserve the viability of the Gonzales Canyon wildlife corridor. If the proposed design is driven by City guidelines, these should be fully explained as to why the southern perimeter lots were allowed and a vastly disturbed area was proposed for wildlife crossing onto San Dieguito Road.

Overall Wildlife Corridor Design: The DEIR appears to justify the corridor design as follows:

"The project, as proposed, would conform to the Framework Plan and MSCP preserve design indicating conservation of Gonzales Canyon in open space....Wildlife access through the site east-west would be maintained and access to the north (San Dieguito Valley) would be retained through the provision of four large breaks between lots (ranging from approximately 200 feet to approximately 600 feet) between the clustered housing and the six more isolated lots in the western portion of the project area." [133]

There are two flaws in this argument: (1) existing wildlife movement is east-west and back, from the canyons in the Del Mar Mesa area to the water and food supply in the western San Dieguito River Valley. The "four large breaks" between lots not only are in

7 See response 5-6 above.

8 The draft EIR includes a project alternative, the A-1-10 Rural Cluster alternative, which substantially lessens the impact to biological resources and landform alteration. This alternative also provides wildlife corridors well in excess of the MSCP recommended standards. The A-1-10 Rural Cluster Alternative limits development to the northern eastern portion of the site, and development of the remainder of the site could not occur unless a phase shift vote was approved.

9 Comment noted. However, the proposed design of the project with respect to the wildlife corridor configuration is consistent with adopted city plans and policies which include the Draft MSCP and NCFUA Framework Environmental Tier. As described on pages 132-134 in the DEIR, the lots along the southern perimeter of the development area and the use of disturbed lands (on- and off-site) to accommodate wildlife movement are not considered a significant impediment to the functionality of these wildlife corridors.

10 disturbed agricultural land—they would be in the middle of development. How can the DEIR consider "large breaks (200-600') between lots" a wildlife corridor? (2) Wildlife is supposed to then travel north across these breaks between homes and cross San Dieguito Road, currently bringing half of the traffic from east and north of Carmel Valley to El Camino Real and I-5. The DEIR concludes "Although they would have to cross a paved road, this is not considered a significant barrier." [133]

11 We strongly disagree with this corridor design. The final EIR should establish scientifically how wildlife in the City's key MSCP preserve area will function if it (1) is channeled into the minimum 1,000-ft. wide corridor because that is the only outlet; (2) then forage, migrate, or establish nests in "four large breaks" from development only 200-600-ft. wide and surrounded by roads and development; and (3) then survive crossing San Dieguito Road, after which they will then have to cross El Camino Real to access the wetlands and habitat of the western San Dieguito River Valley.

12 **Wildlife Undercrossing:** The project proposes a \$50,000 contribution toward construction of a wildlife underpass beneath a future, widened El Camino Real. We believe that this underpass is essential to the viability of the environmental tier and that it should occur at the western end of the plan area, the most direct route along the existing riparian corridor emptying out at the floodplain and future restored lagoon. (Southern California Edison mitigation project) The DEIR acknowledges that without this projected wildlife undercrossing, the Gonzales Canyon corridor does not work. This project would introduce development onto lands which currently work as both wildlife habitat and corridor, increasing and making even more critical the need for a viable corridor.

The sum of \$50,000, apparently, is the applicant's offer. We understand, based on discussions of the failed "Stallion's Crossing" projects, that a wildlife crossing bridge will cost at least \$2 million. That applicant was asked to pay \$1 million. What is the actual projected cost of this bridge? Would \$50,000 actually be the applicant's fair share cost? How is this determined? If this project's unit count is in excess of that anticipated by the Framework Plan, has the applicant's fair share been adjusted to reflect that increase? If \$50,000 is not the applicant's fair share, will other area property owners or public funds—such as MSCP funds—be required to make up the difference?

Given lack of voter approval of development proposals in Subareas II and III, and general property owner dissatisfaction with Framework Plan requirements, it appears it will years before El Camino Real is actually widened or before development has generated enough funds for wildlife bridge undercrossing. Since this project is creating a critical need for this undercrossing, it makes sense that this applicant should front the funding for or construct the undercrossing, with other property owners reimbursing the applicant for their fair share costs as their projects come on line. It should be noted that this applicant is the majority property owner in Subarea III, whose agricultural replacement of habitat and development proposals are creating the need for a viable corridor and wildlife undercrossing.

Impacts to Biological Resources and Mitigation Requirements:

13 (1) These impacts and mitigation measures are discussed and identified, but no explanation is given on the relationship between the two. What impact/mitigation ratio

RESPONSES

10 See responses 5-9 above. In addition, the on-site north/south wildlife corridor leading from Gonzales Canyon to the San Dieguito River Valley is in the western portion of the site. This corridor is west of the main area of development in the central portion of the property and traverses the very low density estate residential area of the project which contains six lots (Lots 143-148) on approximately 65 acres.

11 See responses 5-10 above.

12 The \$50,000 contribution to the City of San Diego by Pardee Construction Company is earmarked for the construction of a wildlife corridor across San Dieguito Road or for any other purpose deemed necessary by the City. Although the money could be utilized for construction of a wildlife underpass at El Camino Real, such an undercrossing has not been discussed in the context of this project. The \$50,000 has not been identified as satisfying public facility financing obligations attributable to the development of this project. In addition, this project does not create the need for an undercrossing. If a need for an undercrossing exists, it would exist whether this project were approved or did not proceed.

13 The biology section in the Final EIR has been revised to clarify that the on-site preservation of coastal sage scrub and southern maritime chaparral would represent mitigation for the impacts associated with the proposed project. This on-site preservation is consistent with the mitigation described in the 1995 EIR for the original project. The on-site preservation and revegetation would represent mitigation for the impacts to sensitive habitats (coastal sage scrub and southern maritime chaparral) at a ratio of approximately 3:1.

was used? The DEIR determines that 36.7 acres out of 77 would need to be revegetated to mitigate this project, and that the remainder could be used as mitigation credit toward some future project. This indicates a careful calculation was used. Please provide an account of that calculation.

RESPONSES

- 14 (2) Under the discussion of "Geology and Soils", the DEIR states:
- "A number of potentially significant on-site geologic conditions exist...these include seismically induced ground shaking and landsliding, unstable manufactured slopes, and unsuitable surficial deposits (e.g., expansive or unconsolidated soils). Mitigation of potential landslides could result in temporary removal of vegetation and grading/recompaction of soils beyond the proposed limits of disturbance under RPO." [107] (emphasis added)

If grading of soils beyond RPO limits needs to occur, resulting in encroachment of natural vegetation, then mitigation for this encroachment also needs to occur. It is possible that the need for such grading may be identified only after grading actually begins, after this project, complete with its mitigation requirements, already has been approved. How would such an eventuality be handled? Which City department will be responsible for keeping track of this project even after grading begins, in order to ensure that the need for additional mitigation will be noticed and implemented?

- 15 (3) The draft precise plan for the 1995 submittal stated that "substantial conformance" would include up to a 10 percent increase in the development footprint. We believe that the DEIR should state that a 10 percent increase would not be in "substantial conformance" but, rather, would constitute an entirely different project. Any increase in the footprint, particularly any increase which encroached into natural vegetation or into the wildlife corridor should trigger environmental re-evaluation, resulting in possible increased mitigation. Alternatively, of course, the applicant and the EIR could agree that if this project required an increase in the approved RPO development footprint in order to mitigate against seismic catastrophe, the project would need to be redesigned to stay within its original approved footprint.
- 16 Given the potential need for seismic mitigation on this property, we question the wisdom of designing a project so squeezed into its site that the DEIR has to caution that the RPO development footprint may need to be exceeded. In order to fit all applicant's desired units on the site, this project requires extraordinary cuts and fills and manufactured slopes—e.g., a cut slope 800-ft. long and 85-ft. high, and a manufactured slope 110-ft. high. This results in unmitigated impacts to landform alteration.

Surely it makes more sense to "relax" project intensity, to reduce its landform impacts, to reduce edge effects on Gonzales Canyon, and to avoid the need to expand the development footprint to avert landslides.

- 14 Based on the updated geotechnical investigation prepared for the project (GEOCON 1997), grading is not anticipated to encroach into the four mapped landslide areas within the Baypoint Formation north of Gonzales Canyon. The geotechnical investigation recommends that the grading operations be observed by a qualified geologist. In addition, revegetation of any temporary grading impacts associated with any remediation of landslide deposits in the open space areas would be a noted requirement on the final grading plans for the project. The Final EIR and the Mitigation Monitoring and Reporting Program have been revised to ensure that field monitoring by a qualified geologist and additional revegetation would be implemented, if necessary. Should additional resource impacts be identified during plan check or field monitoring, additional environmental review will be required to determine whether or not additional mitigation and revegetation is necessary.
- 15 Comment noted. However, processing of a "precise plan" is not required for the Del Mar Highlands Estates project as it is located in the NCFUA. Any substantial conformance determination required as part of the final mapping process would be made by the City of San Diego. See also response 14 above.
- 16 Comment noted. This comment concurs with the assessment of impacts in the DEIR regarding landform alteration.

LAND USE

Concerns About Inconsistency With Framework Plan Recommendations for the Number of Dwelling Units; Method of Transferring Units From the Shell Parcel

- 17 **Shell Parcel:** In order to fully inform decision makers as to the appropriateness of the transfer of 21 units from the Shell Parcel, at a rate of 1:4 acres, the EIR should assess the development potential of that parcel, especially with regard to sensitive biological and topographical resources on site and alluvial soils.

There are constraints on development of the Shell Parcel. Factors potentially making inappropriate 1:4 development include: (1) alluvial soils, which would require extensive removal and recompaction, possibly requiring grading extending well beyond any footprint grading for the units. This would require additional mitigation; (2) the Central Alignment of SR 56, particularly given alluvial soils which might require extensive grading beyond the footprint grading for the six-lane freeway; (3) access to the site, which is isolated from the planned circulation system; (4) development of the Shell Parcel would have required changes or upgrades to the infrastructure proposed for Subarea V and the Bougainvillea project, including utilities infrastructure and Shaw Ridge Road.

If development of the Shell Parcel at 1:4 would have required mitigation, either on- or off-site—as seems likely—how is this mitigation reflected in the current proposal? Pardee is, in effect, asking for the benefits of a discretionary PRD approval, the increased number of housing units, without providing for the mitigation which would likely have been required to offset those units' impacts to the environment. If the answer to this question is that Pardee is dedicating the entire parcel to the City, and has thereby mitigated for the hypothetical 1:4 development, then some portion of the Shell Parcel must be acknowledged and identified in the EIR mitigation for the project. In order to assert that some portion is adequate mitigation for a 1:4 PRD, the City needs to assure that that portion of the Shell Parcel will not adversely be affected the Central Alignment of SR 56.

The DEIR highlights this issue by saying "Potential future development associated with this parcel would be restricted to possible rights-of-way and construction associated with future Camino Santa Fe and State Route 56, respectively." [S-3]

Despite these constraints, the Shell Parcel's 21 dwelling units "which could be developed per the underlying zone would be transferred to the Del Mar Highlands Estates project..." A lot of value is being given for this transfer. Would there have been mitigation required for 1:4 on the Shell Parcel? If so, and if the mitigation would have been on-site, how does this square with the possible use of the Shell Parcel for the Central Alignment for SR 56? Would it have been possible to develop the parcel at 1:4 and mitigate development impacts on site and leave room for SR 56 also?

RESPONSES

- 17 The discussion relating to development constraints on the Shell parcel are speculative because no testing of the site has occurred and no proposal currently exists to proceed with development of the Shell parcel. The 21 single-family dwelling units which could be developed on the site at 1 du/4 acres would likely be clustered on the more developable portions of the Shell parcel should such a development proposal be submitted to the City by the applicant. The City was desirous of maintaining the undeveloped status of the 84-acre Shell parcel and that has been accomplished by incorporating the 21 single-family dwelling units for the parcel into the project. Additionally, by locating the 21 units within the development footprint of the Del Mar Highlands Estates project site, disturbance of lands within the Shell parcel or other areas within the project has been minimized.

When development rights are transferred, no development impacts occur on the property the density is transferred from; therefore, no mitigation is required. The impacts of the development of these 21 units on the Del Mar Highlands Estates property are being mitigated on the project site. No mitigation credit to the project is being provided by virtue of the open space dedication of the Shell parcel. Many lands designated as open space in the City contain reservations, easements, or right-of-way for future road development. Should that road development be proposed, and impacts analyzed, appropriate mitigation measures would be required in the environmental analysis for that road project.

Framework Plan Inconsistency

- 18 This project conflicts with the Framework Plan, yet the DEIR has limited its discussion of compatibility with existing and future land use plans to issues of development footprint and the MSCP/environmental tier. In order to be adequate and complete, the EIR should discuss the extent and possible consequences of this conflict under Land Use. Given their displeasure with the Framework Plan, will other property owners demand similar upgrades in unit count? If similar upgrades are granted, what will this do to public facilities planning throughout the NCFUA?

The Framework Plan for Subarea III "envisions estate residential development for the Del Mar Highlands Estates project site at 0.2 dwelling unit per gross acre. This density would allow the development of 77 units on the 389-acre project site." [32] This proposal increases the density to .45 du/gross acre, for 172 units overall, more than double. In absence of a phase shift vote to planned urbanizing, the base zone is A-1-10, or up to 1 du per 4 acres with a discretionary approval of clustering.

- 19 Another determinant of development is the allowable encroachment of the RPO. The DEIR states that approximately 180 acres are defined by RPO as either steep slopes or biologically sensitive land [27]. Also, the property is in the floodway or floodplain fringe zones. According to RPO, 180 acres could be developed. The EIR should explain why the RPO encroachment allowance is exceeded and alternative compliance would be approved. Which rule for allowing alternative compliance would be invoked? Strict application to RPO "would result in unnecessary hardship to the applicant? Or strict compliance would preclude provisions of extraordinary benefit to the general public?"

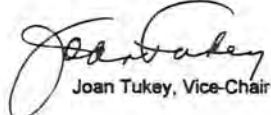
- 20 This discussion should reflect the City's 1995 rejection of "Findings" for the project. This rejection stated "specifically, four alternatives that are presented in the alternatives section...have not, in staff's opinion, been adequately determined to be infeasible by the applicant." [City of San Diego Memorandum, September 27, 1995, to Planning Commission from Ann B. Hix, Principal Planner, Development Services Department.]

The "finding" by applicant for why the "Reduced Project Alternative" was infeasible was:

"This alternative, by eliminating 21 units or shrinking the development area, would not be consistent with the draft MSCP preserve design. The elimination of the 21-unit transfer from the Shell Parcel would remove the Shell Parcel as a project component, allowing the potential for development of the site pursuant to the existing zoning. Development of the Shell Parcel would not be consistent with the regional conservation planning efforts of the MSCP...."

The proposed project has been determined to be consistent with the housing goals and objectives of the General Plan/Framework Plan. Thus, the reduction in units under this alternative would not fully implement the General Plan goals in terms of the provision of housing per the Framework Plan." [52]


Jan Fuchs, Chair


Joan Tukey, Vice-Chair

RESPONSES

- 18 The Land Use section of the DEIR concludes that the proposed project is consistent with the NCFUA Framework Plan and Environmental Tier (see pages 46-48) and no mitigation measures are required. See also response 17 above.

- 19 As described on pages 52-53 of the DEIR, the project would exceed the overall allowable encroachment into RPO-sensitive resources. However, the measures incorporated into the project design (i.e., proposed on-site preservation of open space/regional wildlife corridors and revegetation of disturbed agricultural land) would allow for RPO alternative compliance findings to be made by the decisionmaker.

- 20 The 1995 "Findings" discussed in this comment refer to the EIR Findings required pursuant to the California Environmental Quality Act (CEQA) which were prepared in conjunction with the previous EIR for Del Mar Highlands Estates. The CEQA EIR Findings are not directly related to the RPO alternative compliance findings discussed above. In addition, subsequent to the September 27, 1995 letter to the Planning Commission from Ann B. Hix, Principal Planner, Development Services Department, City staff prepared revised Draft CEQA Findings regarding the project alternatives. The revised Findings recommended to the decisionmaker that the draft Findings were adequate and that the project alternatives could be found to be infeasible by the decisionmaker.



March 13, 1997

Mr. Bob Gentles, Associate Planner
City of San Diego
Development Services Department
Development and Environmental Planning Division
1222 First Avenue, Mail Station 501
San Diego, CA 92101

Re: DEP No. 94-0576 - Del Mar Highlands Estates
Draft Environmental Impact Report

Dear Mr. Gentles:

On behalf of the Fairbanks Ranch Association, thank you for sending us a copy of the Draft EIR on the proposed Del Mar Highlands Estates Tentative Map and Planned Residential Development project. Since the subject property is in the vicinity of Fairbanks ranch and will utilize our main access corridor, we have definite concern about this project and its potential impacts.

We are particularly interested in the analysis in the Draft EIR pertaining to Traffic Circulation. We note that the Draft EIR identifies potentially significant impacts to traffic movement at or near the intersection of San Dieguito Road and the project main access. The Draft EIR also anticipates that at project buildout the Level of Service (LOS) for San Dieguito Road from El Camino Real to points east of Derby Farms Road will be LOS D. The only mitigation measure proposed as a response to the stated potentially significant traffic impacts to San Dieguito Road, is a proposed condition for the tentative map requiring that improvements for turn lanes be provided on San Dieguito Road at the main entrance.

- 21 The Draft EIR lists in Table 4H-3, the Peak Hour Intersection Analysis, that the AM and PM levels of service for the El Camino Real @ San Dieguito Road will be LOS B

RESPONSES

- 21 The DEIR and the accompanying traffic analysis (Appendix G, page 10) describes the existing level of service for the segment of El Camino Real between Via de la Valle and Half Mile Drive. Although not required as part of the traffic analysis for the project, the 1996 level of service for the intersection of El Camino Real and San Dieguito Road was LOS B in the AM peak hour and LOS C in the PM peak hour (Kimley-Horn 1996). In addition, the project is required to make fair share contributions to the widening of El Camino Real between Half Mile Drive and Via de la Valle. The widening project includes improvements to the intersection of El Camino Real and San Dieguito Road. The City of San Diego has an approved CIP project to improve this intersection and design studies are currently being initiated.

Mr. Bob Gentles
City of San Diego
March 13, 1997
Page Two

RESPONSES

at buildout conditions. The present levels of service at this intersection are not stated in the document, nor is the timing or financing program established for the necessary improvement of that intersection described. The Final EIR should include the missing information and justify why this project is not being required to contribute to the El Camino Real/San Dieguito Road intersection improvements, as appropriate mitigation.

22 Similarly, while the report acknowledges that the Del Mar Highlands Estates project will add a substantial number of vehicle trips to San Dieguito Road, the Draft EIR does not analyze the traffic impact to the nearest easterly intersection of Derby Farms Road. The San Dieguito Road/Derby Farms Road intersection is currently a severe traffic hazard, particularly to east bound traffic. Construction of a right turn lane is an identified capital improvement project on the City's list, but is unfunded. The Final EIR should analyze the San Dieguito @ Derby Farms Road intersection under existing condition and at project buildout, and include a mitigation requirement to either construct or at least contribute to an east bound right turn lane.

23 Finally, pertaining to traffic circulation, we have noted that the Vesting Tentative Map for the project (Figure 3-1) indicates an internal street that extends to the southern portion of the eastern boundary of the project, and appears to extend into the adjacent property. We have been told by City staff that this road may ultimately provide vehicular access to this other property, and could therefore funnel this additional traffic to the main northern access to Del Mar Highlands Estates at San Dieguito Road.

The Draft EIR Traffic Circulation section makes no mention of this road connection and its potential for additional traffic impacts, nor does any of the traffic analysis or projections reflect this potential. The Final EIR should discuss this traffic circulation linkage to the adjacent parcel, and analyze the possibilities for further traffic impacts to San Dieguito Road and other area streets such as Derby Farms Road.

24 In regard to the Draft EIR's analysis of Land Use impacts, more information is necessary to explain how property within the North City Future Urbanizing Area with base zoning that allows for a maximum of 38 dwelling units, can accommodate a project proposing a total of 172 units, without a "phase shift" vote of the citizens. The Draft EIR notes that the unit count is partially achieved by applying a "46 percent density bonus" for affordable housing. The Final EIR should state by what specific authority

22 The DEIR (see Figure 4H-3) and traffic analysis (Appendix G, Figure 6) shows the distribution of the project-generated traffic. As these figures indicate, Derby Farms Road would be used for emergency access only, and 404 daily trips and 40 peak hour trips are projected to use San Dieguito Road easterly of the project's northern access point. Therefore, a separate right-turn lane is not needed for project traffic at the intersection of Derby Farms Road and San Dieguito Road.

23 The project does not propose any development on the adjacent parcel. If development is proposed on an adjacent property, a separate traffic report would be required based on City of San Diego requirements to determine potential traffic circulation impacts.

24 As described on pages 11, 30-36, and 47 of the DEIR, development in the NCFUA can proceed pursuant to Council Policy 600-29 and the PRD Ordinance without approval of a phase shift by the citizens. The 46-percent density bonus for the creation of affordable housing (24 units) on the project site is based on the City Municipal Code Section 101.0307.6(B)(2) as noted on page 11 of the DEIR. Application of this code section allows for a density bonus if 10 percent of the units are for affordable housing. There is no requirement that all the bonus units be affordable units.

Mr. Bob Gentles
City of San Diego
March 13, 1997
Page Three

this bonus is being granted. It should also indicate how it was determined that only 24 of the total 54 bonus dwelling units were to be in the affordable range while 30 units could be market rate.

- 25 We think it should also be noted that the concept of transferring off-site development density as proposed for Del Mar Highlands Estates, was rejected by the City Council in the recent case of the Stallions Crossing - Ranch project. The Land Use section of the Draft EIR does not provide full explanation as how the policies for the Future Urbanizing Area intended to preserve rural character prior to a phase-shift vote, may be overridden in the manner proposed by this project.

Thank you again for the opportunity to respond to the Draft EIR for the Del Mar Highlands Estates project. Please include the Fairbanks Ranch Association on subsequent mailings, distributions and notifications regarding any aspect of this project.

Sincerely,



David J. Abrams, AICP
General Manager
FAIRBANKS RANCH ASSOCIATION

cc: Councilman Harry Mathis

RESPONSES

- 25 Comment noted. However, the application of the PRD Ordinance to the project site and incorporation of the Shell parcel as part of the total PRD acreage is consistent with adopted NCFUA Framework Plan provisions and adopted City ordinances and Council policy.



San Diego County Archaeological Society
Environmental Review Committee

February 17, 1997

To: Mr. Bob Gentles
Land Development Review Division
Development Services Department
City of San Diego
1222 First Avenue, Mail Station 501
San Diego, California 92101

Subject: Draft Environmental Impact Report
Del Mar Highlands Estates
DEP No. 94-0576

Dear Mr. Gentles:

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 F, we have the following comments:

- 26 (1) Archaeological sites SDI-5371 and SDI-5372/H are required to be tested as part of the mitigation program. We believe this is improper and a violation of CEQA. Testing, even though these sites are within portions of the parcel presently identified as open space, is necessary to provide the City and the public an adequate definition of the resources. Without it, there can be no full disclosure of the project's impacts prior to approval of the project, and therefore no assurance that the impacts will be properly mitigated. What if it proves necessary to take some positive action, such as capping, to adequately mitigate indirect impacts? Or if some aspect of the project as it is actually implemented turns out to directly impact one or both of the sites? The decision on mitigation will have been made "behind closed doors", between the City and the applicant and out of public view, exactly the situation CEQA is intended to avoid. Furthermore, the City's bargaining power to require adequate mitigation may also have been impaired by the prior approval of the project.
- 27 (2) Page 4-5 of Appendix F notes that curation of the archaeological collections from the project "is the responsibility of the developer." This notation does not appear in the DEIR. Please confirm that the developer is, in fact, to be responsible for the ultimate curation costs for the collections from this project.

RESPONSES

- 26 The history of CA-SDI-5371 provides substantial verification that this cultural resource site is not on the subject property and is not part of this EIR. The relationship of this cultural resource site to the project is as a resource area within a mile radius of the property. This site is located adjacent to a portion of the project that has been slated for open space which should provide protection from potential impacts. This site was not tested because it is on property that does not belong to the project applicant. The Final EIR has been revised to reflect this fact.

CA-SDI-5372/H is located within the project area and is situated within an area identified as an open space corridor (a portion of the Draft MSCP preserve). This site was initially identified in 1978 and referred to as not significant. Subsequent visits to this site in recent years have not produced surface indications that this site is substantively different than the 1978 findings. The recommendations for this site are the completion of a sampling/indexing program to collect archival information concerning the foundation/historic elements and to recover surface artifacts and complete no more than 10 shovel test pits and 3 one-meter sample units. Sampling will be focused on determining the extent, content, variability, and nature of the prehistoric-era materials at this site prior to preservation of the area as part of the habitat conservation area that will be deeded to the City of San Diego. One radio-carbon sample will be submitted for analysis if appropriate materials are recovered and a report which includes appropriate mitigation measures will be completed providing the results and interpretations of the field and archival efforts.

The applicant has agreed to implement mitigation measures recommended by the sampling/indexing report as reviewed and approved by the Manager of Development Services prior to the issuance of the final map.


- 27 The artifacts from this project are in the possession of Gallegos and Associates.

- 28 (3) Also on the subject of curation, we believe that, since the mitigation work performed in 1980 is being accepted as satisfying the mitigation requirements of the present project, that curation of those collections is also part of that mitigation. Please confirm the present location (presumably RECON) of the 1980 collections, and their condition. As part of the current project, did the project archaeologists inspect the 1980 collections? We believe that, as part of the mitigation for this project, they should be examined and, as necessary, rehabilitated to condition adequate for delivery to an archaeological repository. It seems unlikely that, after 16 or 17 years, that the collections are up to contemporary standards.

Other than the above issues, we concur with the impact analysis and mitigation recommendations proposed.

Thank you for affording us this opportunity to participate in this project's environmental review process.

Sincerely,


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

cc: Gallegos & Associates
SDCAS President
file

RESPONSES

- 28 The collections made for this project in 1978 are presently located at the South Coastal Information Center at San Diego State University and have been since circa 1985. The condition of these collections is unknown; however, it is likely that they have been revitalized as part of an ongoing effort to elevate collections to curation standards of today.



P.O. BOX 1831 • SAN DIEGO, CA 92112-4150 • 619 / 496-2000

March 17, 1997

FILE NO.

Lawrence C. Monserrate, Principal Planner
City of San Diego
Development Services Department
1222 First Avenue, MS 501
San Diego, CA 92101

RE: DEL MAR HIGHLANDS ESTATES DRAFT EIR (DEP No. 94-0576)

Dear Mr. Monserrate:

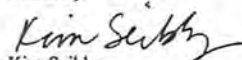
San Diego Gas & Electric (SDG&E) appreciates the opportunity to review the above referenced Draft EIR. As stated in the Draft EIR, SDG&E has several facilities within the proposed project area. The subject of this response letter is Section 4.K, Public Facilities and Services.

29 The Significance of Impacts of Land Use in the Environmental Analysis section, page 49, refers to encroachments into SDG&E's easement being addressed in Section 4.K, Public Facilities and Services. However, there is no discussion of encroachments in Section 4.K. Since there is a mention of fencing being located within SDG&E's easement, it is important that this is addressed. Please address encroachments in SDG&E's easement in the Final EIR.

30 SDG&E's Property Management section is coordinating with the developer of the subject proposed project. Due to the number of overhead and underground SDG&E facilities within this area, SDG&E would like future homeowners to be aware of these facilities. In particular, the underground high pressure gas and fuel lines, since these are not visible. SDG&E would appreciate the City of San Diego's support of the developer coordinating with SDG&E to develop the appropriate disclosure language to inform future homebuyers of these facilities.

Again, thank you for the opportunity to comment on the subject Draft EIR. If you have any questions, please contact me at (619) 696-2415.

Sincerely,


Kim Seibly
Associate Land Planner

RESPONSES

29 Comment noted. The Final EIR has been revised to correct this reference to Section 4.L. where the discussion of encroachments into the SDG&E easement is discussed.

30 Comment noted.

CITY OF SAN DIEGO
MEMORANDUM

RESPONSES

DATE: March 18, 1997
TO: Robert Gentles, Associate Planner, Environmental Analysis Section
FROM: Shahin Moshref, Associate Engineer-Civil via Leonard Wilson, Senior Civil Engineer, Water Utilities Section
SUBJECT: **Draft Environmental Impact Report - Del Mar Highlands Estates, DEP No. 94-0576**

We have completed our review of the subject Draft Environmental Impact Report dated February 3, 1997. The project is located south of San Dieguito Road, west of Subarea III of the North City Future Urbanizing Area, north of the Carmel Valley Community Planning area and east of Old El Camino Real. We have the following comments:

- 31 • Any construction of water and sewer facilities not addressed in this Environmental Impact Report will require additional environmental review.
- 32 • The locations and alignments of required water and sewer facilities cannot be ascertained until completion and acceptance of the water and sewer studies.
- 33 • The proposed Environmental Impact Report must address the construction of the proposed water and sewer facilities to be located within easements and open space.
- 34 • On page 191 in the "Water" section, delete the paragraph beginning "A Water Master Plan for the City..."
- 35 • In the fourth paragraph on page 192, delete the second sentence which begins "The City, through the Greater San Diego Clean Water Program,..."
- 36 • On page 192 delete the last paragraph on the page beginning "Existing water consumption due to..."

- 31 Comment noted.
- 32 Comment noted. However, the proposed Vesting Tentative Map includes alignments based on water and sewer studies conducted to date. Should the location of these alignments change, then additional environmental review would be required.
- 33 The impact analyses provided in the DEIR have addressed the water and sewer easements shown on the VTM (see Figure 3-1).
- 34-36 The Final EIR has been revised to reflect these comments.

Robert Gentles
Page 2
March 18, 1997

Thank you for the opportunity to review this draft environmental impact report. We look forward to reviewing the subsequent draft environmental impact report. If you have any questions or require additional information, please call me at 533-5150.

for Alice Vaughan
for SHAHIN MOSHREF, P.E.

AV

cc: Afshin Oskoui, Deputy Director, Water and Wastewater Facilities Division
Deborah Johnson, Development Project Manager, Process 2000



T & B Planning Consultants
San Diego • Santa Ana

1000 JAVIER DRIVE, SUITE 500 SAN DIEGO, CALIFORNIA 92161-4308

JN 161-008

March 18, 1997

Mr. Lawrence C. Monserrate
Principal Planner
City of San Diego Development Services Department
Land Development Review Division
1222 First Avenue, MS 501
San Diego, CA 92101

RE: DRAFT ENVIRONMENTAL IMPACT REPORT FOR DEL MAR HIGHLANDS ESTATES (DEP NO. 94-0576)

Dear Mr. Monserrate:

As part of public review required under the California Environmental Quality Act (CEQA), T&B Planning Consultants, Inc. (T&B) has reviewed the Draft EIR for the proposed project. T&B prepared the Del Mar Highlands Estates Design Guidelines and Development Standards for the proposed Planned Residential Development Permit (PRD) that is evaluated as part of the Draft EIR. Based on our knowledge of the proposed project, the following comments are provided for inclusion in the Final EIR:

- 37 1. Cover page: The first sentence states that the total project area is 398 acres. The total project area is actually 389 acres. The incorrect total acreage also appears on page 1.
- 38 2. Cover page: The third sentence states that the single-family market rate lots would range in size from approximately 9,000 square feet to approximately 63,000 square feet. Based on the PRD site plan, these lots will vary from approximately 13,000 square feet to approximately 100,800 square feet.
- 39 3. Page 4: To clarify the last sentence on page four under the heading "Landform Alteration/Visual Quality," no two-story elements will be permitted in the 50-foot setback area only for those lots that directly abut Gonzales Canyon. These lots include lot numbers 55-60, 68, 69, 80-83, 129, 130, and 137-142.
- 40 4. Page 5: The Del Mar Highlands Estates Design Guidelines and Development Standards call for low levels of lighting in keeping with the rural character of the community. The last sentence under the heading "Biology" states that "lighting adjacent to native areas shall be directed away from the habitat and appropriately shielded." This statement is true for the project's signage and entry illumination and lighting bollards that may be located on private driveways to ensure pedestrian safety. The Design Guidelines do not dictate, however, what type of lighting can be installed by private homeowners in their backyards, which in some instances, occur adjacent to native areas.
- 41 5. Page S-2: The size of the affordable housing lot referenced in the first sentence of the second paragraph should be changed from 5.25 acres to 5.35 acres.
- 42 6. Page S-11: Refer to comment no. 5 above regarding lighting at perimeter lots.

RESPONSES

37-39 The Final EIR has been revised to reflect these comments.

40 Comment noted. However, these lighting requirements have been included in the Draft EIR in order to minimize indirect impacts on adjacent habitat from lighting, and would be a condition of the PRD approval.

41 The Final EIR has been revised to reflect these comments.

42 See response 40 above.

RESPONSES

- 43 7. Page S-19: Item 5c on this page indicates that results of coordination with the Fire Department “shall be included within the Del Mar Highlands Estates Design Guidelines.” For clarification, it should be noted that as a part of standard project review by the City of San Diego, each relevant City Department, including the Fire Department, has an opportunity to review project design and provide comments. Comments received from City Departments on the Del Mar Highlands Estates Design Guidelines were incorporated into the project design, as appropriate. Outside of the standard City review process, separate coordination with the Fire Department was not required nor requested of the applicant during preparation of the project’s Design Guidelines.
- 44 8. Page S-21: The Del Mar Highlands Estates Design Guidelines are intended to address the architectural, landscape architectural and site development requirements of the project. It is therefore not appropriate to include items f and g listed on page S-21 of the Draft EIR in the Design Guidelines document. These two items would be more appropriately placed in the project’s conditions of approval, if deemed necessary by the City.
- 45 9. Page 11: The range of residential lot sizes is approximately 13,000 square feet to 100,800 square feet. The text indicates an incorrect range of approximately 9,000 to 63,500 square feet. Also, the size of the affordable housing lot should be changed from 5.25 acres to 5.35 acres.
- 46 10. Page 20: All brush management would not be accommodated within zone 1 as implied in the Draft EIR. The intent of the project’s brush management plan is to accommodate the majority of brush management in zone 1. All brush management would be accommodated in within zone 1 for those lots adjacent to Gonzolas Canyon. In other areas, small amounts of zones 2 and 3 would be cleared on graded manufactured slopes as shown on the brush management plan in the Del Mar Highlands Estates Design Guidelines and Development Standards. These slopes are proposed to be planted with native vegetation to simulate the adjacent native vegetation and would be planted to achieve the selective thinning requirement of zones 2 and 3.
- 47 11. Page 89: The following provides clarification regarding the proposed lot areas and floor areas for Del Mar Highlands Estates:

Lot Type/Numbers	Average Lot Size	Minimum Floor Area
Estate/143-148	1.55 acres	4,000 square feet
Small/96-142	17,800 square feet	3,000 square feet
Medium/42-95	29,000 square feet	3,000 square feet
Large/1-41	48,600 square feet	3,500 square feet

Regarding building heights, the standard is 30 feet on lots with rear yard setbacks of less than 50 feet, with the ability to vary the height to up to 35 feet for architectural features such as chimneys, entry features, etc. Building heights up to 35 feet are permitted on all dwelling units that have a rear yard setback of 50 feet or greater. For the estate lots (nos. 143-148), building heights are permitted up to 35 feet, regardless of the rear yard setback. For those lots that directly abut Gonzolas Canyon (including lot numbers 55-60, 68, 69, 80-83, 129, 130, and 137-142), no two-story elements are permitted in the 50-foot building setback area.

- 48 12. Page 95: See comment no. 10 above regarding brush management.

- 43 Comment noted.
- 44 Comment noted. These water conservation measures will be included in the vesting tentative map conditions of approval.
- 45 The Final EIR has been revised to reflect these comments.
- 46 This comment is generally consistent with the discussion of brush management provided on page 20 of the DEIR.
- 47 These comments are noted, and the EIR has been revised to be consistent with the cited table.
- 48 See response 46 above.

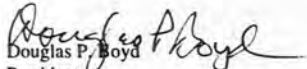


- 49 13. Page 131: See comment no. 10 above regarding brush management.
- 50 14. Page 223: First bullet - add "continuous" to the first sentence so that it reads ". . . without continuous supplemental water. . . ." With the addition of this word, the first bullet will be a direct quote from the Del Mar Highlands Estates Design Guidelines and Development Standards.
- 51 15. Page 223: Third bullet - replace the third bullet with the following, which is excerpted from the Del Mar Highlands Estates Design Guidelines and Development Standards: "Turf shall be accepted as ground cover within parkways only in areas where it relates to turf plantings in the front yard areas of individual residences, at project entries, and at the enhanced circulation nodes."
- 52 16. Page 223: Fourth bullet - replace the first sentence with the following, which is excerpted from the Del Mar Highlands Estates Design Guidelines and Development Standards: "Trees, shrubs, ground covers, and lawn areas at project entries and enhanced circulation nodes, along streetscapes, on private residential lots, and on interior landscaped slopes shall be permanently irrigated."
- 53 17. Page 225: See comment no. 8 above regarding items 6 and 7 listed on page 225 of the Draft EIR.

Thank you for the opportunity to participate in the City's environmental review process and for your consideration of these comments.

Sincerely,

T&B PLANNING CONSULTANTS, INC.


Douglas P. Boyd
President

DPB/tz:001

RESPONSES

- 49 See response 46 above.
- 50-52 The Final EIR has been revised to reflect this comment.
- 53 See response 44 above.



March 19, 1997

solana beach school district

BOARD OF EDUCATION
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ELLIE TOPOLOVAC, District Superintendent

RESPONSES

Mr. Bob Gentles
Land Development Review
City of San Diego
1222 First Avenue, Mail Station 501
San Diego, California 92101

Re: Del Mar Highlands Estates Draft Environmental Impact Report

Dear Mr. Gentles:

The Solana Beach School District (District) appreciates the opportunity to comment on the above referenced Draft EIR. Representatives of the District and Pardee Development Company have met numerous times over the last year and a half attempting to develop a Mitigation Agreement for this project. The parties are close to finalizing this agreement which, if approved, will provide the necessary mitigation. It is anticipated that the final document will be executed prior to April 15, 1997, when the project is scheduled for review. However, the District continues to maintain its position that the City Council should not approve the project absent a fully-executed Mitigation Agreement.

For your information, the District expects the 172 units in the Del Mar Highlands Estates Project to generate 75 K-6 students. Using the costs of Carmel Creek Elementary School, which excludes class size reduction, the District will need approximately \$1,380,000 to house these students. This impact does not include portable classroom facility costs or central administrative facility costs.

54 The District also wishes to correct inaccuracies within the Draft EIR. The discussion of the project's impacts upon schools (commencing on page 199) states at page 205 that the project is - -

within the Mello-Roos and Community Facilities District No. 1 and, therefore, would pay an appropriate share of school fees. Participation in the Mello-Roos and Community Facilities District No. 1 would mitigate cumulative impacts as adequate facilities are constructed. Direct impacts would also be mitigated with contribution of Mello-Roos fees and when adequate facilities are constructed.

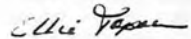
54 Comment noted and the Final EIR has been revised to reflect this comment.

While this is true that the project is within Community Facilities District ("CFD") No. 1, that CFD provides funding only for grades 7 through 12, and funding for elementary school facilities is not included; therefore, a mitigation agreement is imperative.

- 55 The final EIR should note that the project's impact upon the District is not mitigated, and that the project proponent is required to enter into an agreement with the District to provide the necessary funding for new school facilities.

Please feel free to contact me if you have any questions or need further information.

Sincerely,



Ms. Ellie Topolovac
Superintendent

ET/lb

RESPONSES

- 55 Comment noted. The Final EIR has been revised to indicate the mitigation of school impacts would be assured through an agreement between the project applicant and the District.

**ENVIRONMENTAL IMPACT REPORT
FOR THE
DEL MAR HIGHLANDS ESTATES
PLANNED RESIDENTIAL DEVELOPMENT
DEP No. 940576
SCH No. 96-121073**

MARCH 27, 1997

Executive Summary

Del Mar Highlands Estates Project Background

The Del Mar Highlands Estates project site, containing 389 acres, is located in the western portion of the 12,000-acre North City Future Urbanizing Area (FUA). A single project applicant owns the site. In the late 1970s the applicant received approval from the City of San Diego for the Derby Farms project, including certification of a final environmental impact report (EIR). This was a 39-unit tentative tract map to develop the Del Mar Highlands Estates project site, but the project was not implemented. In 1994, a vesting tentative map (VTM) was filed with the City which would have allowed development of 38 estate residential lots on minimum 10-acre parcels. In 1995 a planned residential development (PRD) for Del Mar Highlands Estates was one of several components of the City Manager's Neighborhood 8A Compromise Plan (DEP No. 87-0211, 91-0899, and 94-0576). A final EIR was prepared for the Neighborhood 8A Compromise Plan that included Del Mar Highlands Estates, and a noticed public hearing was held on the project on October 31, 1995. No action was taken on any of the Compromise Plan project components. The current proposal is a 172-unit clustered PRD. The Shell property (described below) would continue to be a component of the PRD and would be preserved as open space.

In 1989, the City granted an agricultural permit to a lessee of the project site and adjoining parcels to the east. The City used a Mitigated Negative Declaration (EQD No. 86-0618) in conjunction with this permit. The project site has been in agricultural use since 1989.

Project Goals and Objectives

The goals and objectives of Del Mar Highlands Estates are as follows: (1) to establish an estate residential community in a rural setting with 148 residential view lots for custom home development, with accompanying uses as permitted by the A-1-10 zone and the design guidelines for the proposed project, and to place a wildlife corridor (Gonzales Canyon) into permanent open space; (2) to provide 24 affordable housing units pursuant to City requirements; and (3) to create a development which conforms to City plans regarding Environmental Tier and open space goals in compliance with Multiple Species Conservation Program (MSCP) efforts.

Project Characteristics

The proposed project would involve the creation of 172 residential units (124 at 1 dwelling unit per 4 acres including 21 units transferred from the Shell parcel using a 0.46 density bonus for 24 constructed affordable housing units) and the extension of roadways and utilities into the project site to serve the new lots. This proposed density is based on the allowable PRD development for the project site (97 units) and 21 units transferred from the 84-acre Shell parcel, plus a 46 percent density bonus for constructing 24 affordable housing units. The 46 percent density bonus for affordable housing includes a 25 percent density bonus (30 units) and an additional 21 percent density bonus (24 units) per the City Municipal Code Section 101.0307.6(B)(2). The proposed lots would be irregularly shaped and would vary in size from approximately 0.25 acre to 2.62 acres.

An area of ~~5.355~~²⁵ acres at the western project boundary would be provided to accommodate the affordable housing units. This acreage meets the required criteria of the Housing Commission. The affordable units would be constructed by the project applicant. The San Diego Housing Commission, at a public hearing held on March 25, 1996, approved the 172-unit program for Del Mar Highlands Estates that includes 24 two-bedroom affordable housing units in three 8-plex buildings with parking.

The primary entrance road to the development (Private Driveway A) would be from San Dieguito Road along the northern site boundary. This would connect with a roadway (Private Driveway B) stretching across the site from west to east, terminating in a cul-de-sac in the southeast corner of the site. The sewer line and water line easements would be approximately 20 feet in width. The VTM also shows one detention/desiltation basin located on the north side of Gonzales Canyon in the central portion of the project site.

Approximately 223 acres of the 389-acre project site would remain as natural open space on the slopes above Gonzales Canyon. The project applicant is proposing to revegetate 36.7 acres of the approximately 77 acres of available disturbed agricultural land within this open space area with native coastal sage scrub vegetation. This revegetation will contribute to the value of Gonzales Canyon as a wildlife corridor as part of the MSCP. The remaining 40.3 acres of revegetation would be available to the applicant as mitigation for future development. Manufactured slopes, which vary in height, are shown on the site plan which are adjacent to the preserved open space. These slopes will be planted with native plant materials which are noninvasive.

Design guidelines have been proposed for Del Mar Highlands Estates in accordance with PRD regulations. The design guidelines include landscaping concepts, signage, lighting, architectural guidelines, development standards for the market and affordable housing, allowable uses, and a brush management plan. The project design guidelines and development standards vary to some extent between the 6 estate lots, 142 residential pads

in the central portion of the site, and 24 affordable housing units on a 5.8-acre lot at the western boundary. The Del Mar Highlands Estates Design Guidelines are included as Appendix B of this EIR.

The discretionary approvals necessary for the project include the proposed PRD permit, Framework Plan Amendment, VTM, and Resource Protection Ordinance (RPO) permit also must be approved by the City Council. The applicant would obtain a grading permit including an interim 4(d) habitat loss permit to grade the project pads, construct the proposed private roadways, and extend utilities into the project site. The coastal California gnatcatcher is on the federal list of threatened species. The successful continuance of this species is directly tied to continuation of its habitat (Diegan coastal sage scrub).

Approximately 33.88 acres of occupied habitat would be impacted by the proposed Del Mar Highlands project. This will require the issuance of a permit for the incidental taking of a federally listed threatened species prior to site grading. Thus, either approval of a project-level habitat conservation plan through Section 10(a) of the federal Endangered Species Act, approval of an interim take permit in accordance with the adopted 4(d) rule, or participation in the City's MSCP would be required to gain federal approval. It is the applicant's intent to process a multiple-projects 4(d) permit which includes Del Mar Highlands Estates and other related projects. During the public review period for the Draft EIR, the City of San Diego issued a multiple project Interim Habitat Loss (4d) Permit Findings which included the Del Mar Highlands Estates project and three other related projects. These projects include the Neighborhood 10 Precise Plan Amendment, the Neighborhood 10 School Site/Sewer Line, and the Neighborhood 8C Precise Plan. The findings were distributed to the public and wildlife agencies on February 28, 1997 for a 45-day review period ending on April 14, 1997. It is possible that Section 7 of the federal Endangered Species Act may also be used as a permitting option if it can be shown that a nexus exists between any federal action (in this case, the issuance of a 404 permit) and the taking of the gnatcatcher.

Shell Parcel

The Shell parcel is located in the southern portion of Subarea III, on the south edge of Carmel Valley. The Framework Plan identifies approximately five acres as peripheral residential, which allows 7 dwelling units per gross acre, or a total of 35 units. The remainder of the 84-acre parcel is shown as Environmental Tier.

The primary project goal for the Shell parcel is to remove development rights from the parcel and preserve the parcel as part of the MSCP preserve system in perpetuity. Potential future development associated with this parcel would be restricted to possible

rights-of-way and construction associated with future Camino Santa Fe and State Route 56, respectively.

The 21 dwelling units which could be developed on the Shell parcel per the underlying zoning would be transferred to the Del Mar Highlands Estates project as part of the PRD approval and final map recordation process. The Shell parcel would be preserved as open space consistent with the City of San Diego Multiple Species Conservation Program. The intent would be for the City to hold the Shell parcel in open space with the possible exception of rights-of-way required by the City for future potential development of the Camino Santa Fe or State Route 56 roadways and associated construction.

Significant Impacts and Proposed Mitigation Measures

A. Land Use

Significant Impacts

1. Consistency with Existing Plans and Policies

The proposed Del Mar Highlands Estates project would be consistent with PRD regulations and would generally comply with the City's land use goals, objectives, and recommendations. Furthermore, the proposed project would cluster development and dedicate open space land consistent with the Framework Plan Environmental Tier. No significant adverse impacts are anticipated.

2. Consistency with the Local Coastal Program

Neither project site is within the Coastal Zone and neither would affect the North City Local Coastal Plan.

3. Open Space

The Del Mar Highlands Estates project is compatible with the City's equestrian plan. The project's design guidelines would implement the principles for development adjacent to significant natural areas as described in the Framework Plan and San Dieguito River Park Concept Plan. No significant impacts are anticipated.

4. Resource Protection Ordinance and Council Policy 600-40

The proposed project would exceed the encroachment allowance for RPO but would provide adequate on-site mitigation to reduce impacts to a level below significance.

Mitigation, Monitoring, and Reporting

1. Consistency with Existing Plans and Policies

No mitigation is required for the Del Mar Highlands Estates PRD.

2. Consistency with the Local Coastal Program

Mitigation measures are not necessary.

3. RPO and 600-40

Mitigation measures are not necessary.

B. Hydrology/Water Quality

Significant Impacts

1. Natural Drainage Modification

The alteration of existing drainage patterns associated with proposed roadway and lot development could result in significant local change to the direction and velocity of on-site flows. Specifically, locally altered drainage patterns could result in erosion and/or undermining of stream channels and banks, potentially threatening adjacent vegetation. Such effects would only be expected on the higher reaches of the drainages, however. By the time flows reach Gonzales Canyon, they would be within established floodways. This would be aided by the presence of a detention basin located in the central portion of the site on the north side of Gonzales Canyon downslope from the proposed development.

Any increase in on-site runoff volumes associated with the proposed project is not considered significant on a direct, indirect, or cumulative basis due to its incremental nature. This conclusion is based on a detailed hydrologic analysis of the proposed project. Implementation of the detention basin will avoid or reduce all impacts related to drainage alteration below a level of significance.

Short-term construction impacts resulting in local erosion and sedimentation associated with on-site runoff are considered potentially significant, due to the amount of cut and fill associated with the proposed roadway and the potential for disturbance of up to approximately 166 acres, which represents the developable area of the site (lots plus roadways and internal slopes). Manufactured slopes and development would occur within and adjacent to on-site local drainages. These temporary impacts would be mitigated to below a level of significance by the following construction-related mitigation. Over the long term, however, downstream effects of the project are expected

to be an improvement over current conditions as routine and repeated grading associated with agriculture will cease.

2. Downstream Water Quality

The proposed development of the project site has the potential to significantly impact water quality (both directly and cumulatively) in Gonzales Canyon and the San Dieguito River and Lagoon. The runoff of urban-generated pollutants is not considered significant (on a direct basis) due to the presence of existing regulatory controls and the anticipated incremental nature and extent of such pollutants.

3. Alteration to Floodwaters

Potential direct and indirect project-related impacts from the alteration of floodwater directions, velocities, or volume would be reduced below a level of significance through the implementation of proposed design measures (i.e., detention basin).

Mitigation, Monitoring, and Reporting

1. Natural Drainage Modification

Several short-term construction practices and project design components are required to mitigate the potentially significant hydrologic impacts associated with the project. These measures are described in detail in the EIR. Examples include requiring grading and other surface-disturbing activities planned to avoid the rainy season (i.e., November through March), use of erosion control measures (e.g., sandbags, matting, mulch, berms, hay bales, or similar devices) along all graded areas to minimize sediment transport, use of temporary desilting basins at all discharge points, hydroseeding and landscaping of graded and common areas with appropriate ground cover vegetation, postconstruction erosion control measures, use of applicable best management practices contained in the City and State *Best Management Practices to be Considered in the Development of Urban Stormwater Management Plan*, and long term maintenance of the detention basin.

2. Downstream Water Quality

Potential water quality impacts related to erosion and siltation and discharge of construction-related contaminants would be mitigated below a level of significance by incorporating the anticipated design measures to be identified as part of the ongoing project hydrologic study (see Issue 1 above).

3. Alteration to Floodwaters

The mitigation measures identified above for Issue 1 would reduce identified adverse (but not significant) impacts related to floodwaters.

C. Landform Alteration/Visual Quality

Significant Impacts

1. Topographic Change

Project-related landform alteration impacts for Del Mar Highlands Estates would be significant due to the extent of earthwork, the anticipated level of disturbance to 25 percent or greater slopes, and the maximum height and length of the manufactured slopes.

2. Visual Quality

The Del Mar Highlands Estates project would result in noticeable changes in views from many public vantage points and would represent a continuation of the suburban development in the vicinity of the San Dieguito River valley. The proposed development would change the rural character of the site to a suburban atmosphere similar to that of the existing development to the north and east. However, the project's design guidelines would implement the principles for development adjacent to significant natural areas which include Gonzales Canyon and the San Dieguito River valley. The impact to visual quality would therefore not be significant.

The loss of mature eucalyptus trees would be considered a significant but temporary visual impact, due to the large size and high local visibility of these trees. These potential impacts would be reduced below a level of significance through the measure identified below.

3. Brush Management

The selective thinning of native vegetation caused by implementation of a brush management program would alter the appearance of natural slopes adjacent to development, and the direct and cumulative effect of brush management would represent a potentially significant visual impact.

Mitigation, Monitoring, and Reporting

1. Topographic Change

Mitigation of significant landform impacts would require the modification of the proposed project design to (1) reduce grading requirements to 2,000 cubic yards or less per acre; (2) conform with RPO steep slope encroachment criteria; and (3) eliminate the major manufactured slopes. Incorporation of these measures into the project design would require substantial revision to the proposed project. These adverse effects comprise significant and unmitigable impacts of the Del Mar Highlands Estates project.

2. Visual Quality

No mitigation measures are required for changes in views to roadways, Torrey Highlands Park, or the San Dieguito River Park.

Mature eucalyptus removed as a result of proposed project development shall be replaced with saplings at an approximate ratio of 1:1. Replacement trees may consist of any ornamental or native tree species approved by the City of San Diego, Development Services Department Director, which will grow to match the height and breadth of lost trees. The designated project mitigation monitor shall verify that the above-described replacement trees are included in the project landscaping plan and shall verify and document the planting of these trees to the Development Services Department Director as part of the site development.

3. Brush Management

Hand thinning brush in zones 2 and 3, which has already been incorporated into the project, would mitigate visual impacts to below a level of significance.

D. Geology and Soils

Significant Impacts

1. Development Constraints

There are no soil or geologic conditions observed or known to exist on the project site which would preclude development of the property. A number of potentially significant on-site geologic conditions exist, however, which will require mitigation. Specifically, these include seismically induced ground shaking and landsliding, unstable manufactured slopes, and unsuitable surficial deposits (e.g., expansive or unconsolidated soils). Mitigation of potential landslides could result in temporary removal of vegetation and grading/recompaction of soils beyond the proposed limits of disturbance under RPO.

2. Erosion Potential

Future grading activities for Del Mar Highlands Estates for roadways and development pad "terraces" could result in potentially significant soil erosion and transport.

Mitigation, Monitoring, and Reporting

1. Development Constraints

The following mitigation measures would be required for Del Mar Highlands Estates. These measures would reduce geology impacts associated with unstable geologic formations, soils, and geologic hazards to below a level of significance:

- a. Prior to grading permit issuance for any development on the project site (including proposed roadways), a project-specific soils and geological investigation shall be submitted to and approved by the City Engineering Department. The evaluation shall include, but not be limited to, an analysis of the following conditions in areas to be graded and developed: seismic loading, gross and surficial slope stability, landslide and mudflow potential, hydrostatic pressure potential, foundation suitability of soils, and soil expansion. The evaluation shall provide remedial grading and foundation design measures to mitigate any significant impact associated with the foregoing conditions including unstable soil, bedrock, groundwater, or seismic conditions.
- b. Grading and development plans shall be reviewed and approved by the Environmental Analysis Section (EAS) and the City Engineering Department to determine compliance with the remedial grading measures identified in the development-specific geotechnical reports. Geotechnical specifications shall be identified as mitigation measures on grading plans. Field monitoring by a qualified geologist would be required. Should additional resource impacts be identified during plan check or field monitoring, additional environmental review will be required to determine whether or not additional mitigation or revegetation is necessary.

2. Erosion Potential

The proposed project design guidelines described above, as well as mitigation measures identified in Section 4.B, Hydrology/Water Quality, and below, would reduce impacts associated with on-site erosion potential to below a level of significance for Del Mar Highlands Estates.

Prior to grading permit issuance for proposed on-site roadways and lot development, a site-specific erosion control and landscaping plan shall be submitted to and approved by the City Development Services Department, Development and Environmental Planning Division. This plan will include measures to mitigate erosion and transport both during and immediately after construction (e.g., sediment traps or detention facilities), as well as the provision of landscaping to provide short- and long-term erosion control. Specifically, the landscaping plan shall include long-term landscaping to control erosion from manufactured slopes, and a phased plan of erosion-resistant ground cover planting shall be prepared for graded areas which require installation within 30 days of completion of grading.

E. Biology

Significant Impacts

1. Sensitive Species and Associated Habitats

Sensitive Habitats

The direct impacts to 33.88 acres of Diegan coastal sage scrub habitat would be considered significant. Project impacts to this coastal sage scrub (which supports approximately three pairs of coastal California gnatcatchers) would therefore be considered significant on both the local and regional level. Impacts to coastal sage scrub that is not currently occupied by the gnatcatcher are also considered significant.

Approximately 18 percent (6.656.5 acres) of the southern maritime chaparral on-site would be impacted, which is considered a significant impact.

Similarly, impacts to mule fat scrub (0.17 acre) would be considered significant based on the wildlife value.

Sensitive Species

Two out of the eight (25 percent) populations of Palmer's grappling hook would be either partially or totally impacted by the proposed project. Approximately 126 individuals out of the estimated 173 on-site (73 percent) would be directly impacted. The large amount of impact would be a significant cumulative impact.

Impacts to 33.88 acres of Diegan coastal sage scrub that is considered occupied by the coastal California gnatcatcher is considered significant.

2. Brush Management

The project's impacts to biological resources (approximately 0.3 acre of coastal sage scrub) as a result of brush management for zone 3 would be considered significant.

3. Long-term Conservation

Development of the proposed Del Mar Highlands Estates project would not result in significant impacts to the MSCP covered plant species. Impacts to the California gnatcatcher and its associated Diegan coastal sage scrub habitat would be significant under federal criteria, as described above. No other MSCP covered species would be significantly impacted.

The proposed project (and draft MSCP) has set aside Gonzales Canyon as permanent open space and a linkage area or corridor for wildlife. It is the most logical connection

alternative between habitat to the south and east (McGonigle and Deer Canyons and Del Mar Mesa) with the San Dieguito Valley and Lagoon to the north and west.

Regarding the project as a whole, adverse impacts to wildlife movement and implementation of the draft MSCP preserve design would not be considered significant. The project as proposed sets aside a wildlife corridor and complies with the draft MSCP. It will provide approximately 220 acres overall toward preserve assembly and save representative examples of 20 MSCP covered species.

4. Migratory Wildlife Species

No significant adverse effects would result from project implementation.

Mitigation, Monitoring, and Reporting

1. Sensitive Species and Associated Habitats

The proposed site design for Del Mar Highlands Estates includes on-site open space consisting of 81.19 acres of gnatcatcher-occupied coastal sage scrub (nearly a 3:1 ratio of area preserved to area impacted). Additionally, 35.7 acres of southern maritime chaparral would be preserved on-site. Mitigation for the habitat impacts includes revegetation of 36.7 acres of the 77 acres of disturbed agricultural land with coastal sage scrub on the Del Mar Highlands Estates property. Areas previously used for agriculture on the western slopes of the property and in the bottom of Gonzales Canyon will be revegetated and preserved in open space. The remaining 40.3 acres would be available as mitigation for future projects. A revegetation plan has been developed which includes success criteria, a monitoring program, and a surety bond to ensure the creation of coastal sage scrub. Impacts to biological resources are considered to be mitigated below a level of significance.

The project design guidelines also include development standards for open space which include the following:

- Trails, although not included in the current project design, can be accommodated in the future in the open space area. Any trail located in the open space area shall not in the future be located to adversely affect areas supporting sensitive biological resources.
- The Design Guidelines shall reflect that the development of the individual lots abutting conserved habitat shall not permit large spotlight-type lighting directed into the conserved habitat. This shall not prohibit appropriate lighting for tennis courts, swimming pools, etc. so long as the lighting is directed toward the tennis court, swimming pool, etc. In addition, lighting from homes abutting conserved habitat shall be screened with vegetation to the extent appropriate that does not significantly

~~reduce the purpose of the lighting. Lighting at perimeter lots adjacent to the open space shall be selectively placed, shielded, and directed away from that habitat.~~

- Rear-yard fencing guidelines and wall standards for perimeter lots have been ~~shall be~~ developed and are included in the Design Guidelines.

2. Brush Management

The significant effects of brush management have been reduced by the proposed coastal sage scrub revegetation plan.

3. Long-term Conservation

As no significant adverse impacts are identified, no mitigation measures are required.

4. Migratory Wildlife Species

No mitigation measures are required.

F. Cultural Resources

Significant Impacts

1. Archaeological or Historical Impacts

Significance Testing

Eight cultural resource sites (CA-SDI-194, CA-SDI-293, CA-SDI-322, CA-SDI-685, CA-SDI-5369, CA-SDI-5370, CA-SDI-5373, and CA-SDI-5612) were previously tested for significance. Site CA-SDI-5370 was tested by Peter and Whitney-Desautels (1986) and determined to be not significant. The remaining seven sites (CA-SDI-194, CA-SDI-293, CA-SDI-322, CA-SDI-685, CA-SDI-5369, CA-SDI-5373, and CA-SDI-5612) also had data recovery programs completed to mitigate potential impacts of development. For sites mitigated of impacts through previous data recovery, no additional work is recommended. One newly recorded site, CA-SDI-13,094/H, was also tested and one locus (Locus B) was found to be significant.

Site CA-SDI-5371 has been determined to be outside the boundaries of the proposed Del Mar Highlands Estates VTM and, therefore, would not require testing for the project.

One ~~Two~~ previously-recorded sites (CA-SDI-5371 and 5372/H) has ~~have~~ not been tested for significance. ~~Sites not previously tested/excavated to determine significance under City of San Diego CEQA and RPO guidelines will need to be tested.~~

Conclusion

Potentially significant impacts are ~~currently being assessed to two~~three sites (CA-SDI-5371, -5372H, and -13,094/H Locus B) within the Del Mar Highlands Estates project component. However, Site CA-SDI-5372 is within a designated open space area. Sites CA-SDI-5371 and CA-SDI-5372H will be tested and evaluated for significance prior to the issuance of a grading permit. ~~Both~~All three sites are considered potentially significant and unmitigated at this time. The implementation of the proposed mitigation will achieve a lowering of impact to below a level of significance.

Mitigation, Monitoring, and Reporting

1. Archaeological or Historical Impacts

Prior to the issuance of a grading permit, the following mitigation monitoring and reporting procedures shall be completed. For site CA-SDI-13,094/H, only the habitation area (420 m² of Locus B) is identified as important under CEQA. Impacts to this localized habitation area can be mitigated to below a level of significance through (1) avoidance, capping, and placement of the 420 m² portion of CA-SDI-13,094/H Locus B within permanent open space deeded to the City; (2) completion of a data recovery program prior to construction grading; or (3) in concurrence with the City, a combination of capping, indexing the site through a sample excavation, and placement of deed restrictions to avoid direct or indirect impacts. Mitigation measure 3 assumes that the site will not be built on, that capping will not exceed a depth of six feet, and that utility lines or deep-rooted plants will not be placed within the primary site area. The exact location of this deposit needs to be professionally mapped prior to completion of mitigation measures. Mitigation of impacts through data recovery will follow the City of San Diego's 15 percent sample excavation requirement and will be conducted in approximately five percent phases. The excavation program will be structured to provide information to address the research questions of chronology, subsistence, trade and travel, environmental setting, and lithic reduction strategy. Additional specifics on the research questions are provided in Appendix F of the EIR.

CA-SDI-5372H is located within the Tentative Map area in an area that will be deeded to the City of San Diego as part of a natural open space corridor related to the Draft MSCP. There are no direct impacts identified within or adjacent to the recorded limits of this site. This resource area is identified as a light scatter of flaked lithic debris and the remnants of an historic-era cobble foundation. This site was not tested during previously completed work; however, survey level observations of the site indicate limited resource potential. The recommendation for this site is the completion of a sampling/indexing program which would provide sufficient information to place the historic and prehistoric portions of this site in context with the region prior to preservation in the open space area.

G. Paleontology

Significant Impacts

1. Loss of Paleontological Resources

Grading for roadway construction and future development on the project site would have the potential for significant impacts to paleontological resources. These impacts could be mitigated below a level of significance as described below.

Mitigation, Monitoring, and Reporting

1. Loss of Paleontological Resources

The following mitigation measures shall be a condition of approval of grading permits within the Del Mar Highlands Estates area and shall mitigate impacts to below a level of significance.

A program for the recovery of paleontological resources during grading and earthwork shall be implemented. This program will include the following steps:

- a. A qualified paleontologist and/or paleontological monitor shall be retained to implement the monitoring program. A qualified paleontologist is defined as an individual with a Ph.D. or master's degree in paleontology or geology who is a recognized expert in the application of paleontological procedures and techniques such as screen washing of materials and identification of fossil deposits. A paleontological monitor is defined as an individual who has experience in the collection and salvage of fossil materials and who is working under the direction of a qualified paleontologist.
- b. The qualified paleontologist shall attend any preconstruction meetings to consult with the excavation contractor. The requirement for paleontological monitoring shall be noted on the construction plans. The paleontologist's duties shall include monitoring, salvaging, preparing materials for deposit at a scientific institution that houses paleontological collections, and preparing a results report. These duties are defined as follows:
 - 1) Monitoring. The paleontologist or paleontological monitor shall be on-site during the original cutting of previously undisturbed areas of the sensitive formation to inspect for well-preserved fossils. The paleontologist shall work with the contractor to determine the monitoring locations and the amount of time necessary to ensure adequate monitoring of the project.

- 2) Salvaging. In the event that well-preserved fossils are found, the paleontologist shall have the authority to divert, direct, or temporarily halt construction activities in the area of discovery to allow recovery of fossil remains in a timely manner. Recovery is anticipated to take from one hour to a maximum of two days. At the time of discovery, the paleontologist shall contact the Environmental Analysis Section of the City of San Diego Development Services Department. EAS must concur with the salvaging methods before construction is allowed to resume.
 - 3) Preparation. Fossil remains shall be cleaned, sorted, cataloged, and then deposited in a scientific institution that houses paleontological collections (such as the San Diego Natural History Museum).
 - 4) Monitoring Results Report. A monitoring results report, with appropriate graphics, summarizing the results (even if negative), analysis, and conclusions of the above program shall be prepared and submitted to EAS within three months following the termination of the paleontological monitoring program.
- c. The project manager shall notify EAS staff of any preconstruction meeting dates and of the start and end of construction.
 - d. A report of findings, even if negative, shall be filed with EAS and the San Diego Natural History Museum prior to issuance of building permits.

It shall be a requirement of the project that the above mitigation measures be conditions the Del Mar Estate Highlands project. EAS shall verify this is a condition of the precise plan approval.

H. Traffic Circulation

Significant Impacts

1. Regional Traffic Patterns

Buildout of the proposed Del Mar Highlands Estates would result in potentially significant impacts to traffic movements at or near the intersection of San Dieguito Road and the project main access. In addition, Del Mar Highlands Estates may contribute to a cumulatively significant regional traffic impact at the El Camino Real/Derby Downs Road intersection. Finally, Del Mar Highlands Estates traffic would contribute to existing significant impacts to traffic flow on El Camino Real between Half Mile Drive and Via de la Valle and on Via de la Valle between El Camino Real (north of Via de la Valle) and San Andres Drive. Both project-specific direct and cumulative impacts would be reduced below a level of significance through the mitigation measures identified below.

Mitigation, Monitoring, and Reporting

1. Regional Traffic Patterns

The following mitigation measures shall be included as a condition of the tentative map and in the final project design specifications submitted to the City of San Diego Engineering Department. The project Mitigation Monitoring and Reporting Program shall require verification and documentation that these measures have been incorporated into the final design prior to approval of the proposed Del Mar Highlands Estates tentative map.

- a. At the intersection of San Dieguito Road and the northern main access point, San Dieguito Road shall be modified to provide both westbound-to-southbound left-turn and eastbound-to-southbound right-turn lanes.
- b. The project applicant shall provide fair share contributions for a signal to mitigate traffic impacts at the El Camino Real/Derby Downs Road intersection.
- c. The project applicant shall provide fair share contributions to widen El Camino Real to four lanes between Half Mile Drive and Via de la Valle.
- d. The project applicant shall provide fair share contributions to widen Via de la Valle to four lanes between San Andres Drive and El Camino Real (north of Via de la Valle).

Implementation of the mitigation measures indicated above will reduce potential traffic impacts associated with buildout of the proposed Del Mar Highlands Estates project to below a level of significance.

I. Air Quality

Significant Impacts

1. Conformance with Regional Air Quality Strategies

Because dust control during grading operations would be regulated in accordance with the rules of the San Diego Air Pollution Control District and the regulations of the City of San Diego Land Development Ordinance, and since construction would be a one-time, short-term activity, air quality impacts due to construction of the proposed project would not be significant.

In accordance with the City's significance thresholds described previously, there would be no significant air quality impacts since the proposed project would not create level of service E or F conditions at intersections.

The proposed project would be consistent with the Regional Air Quality Strategies and would not create direct traffic impacts to the surrounding street system provided that the recommended road improvements are constructed. Therefore, direct air quality impacts would not occur if the proposed project were implemented.

Mitigation, Monitoring, and Reporting

1. Conformance with Regional Air Quality Strategies

No mitigation is required.

J. Noise

Significant Impacts

1. Incompatible Noise Levels

The proposed project would not result in significant long-term noise impacts on the project site or adjacent development.

Mitigation, Monitoring, and Reporting

1. Incompatible Noise Levels

No mitigation measures are necessary.

K. Public Facilities and Services

Significant Impacts

1. Schools

The proposed project will add an estimated 74 students to the elementary school serving the project site. Given the crowded nature of the schools expected within the project development time frame, significant adverse impacts are anticipated until a new elementary school is constructed. The additional 63 students anticipated to join the junior and senior high school system as a result of the project also comprise a significant impact to an already overburdened district. Mitigation for these significant impacts is identified below.

2. Water

The proposed project would decrease on-site water consumption by replacing the current agricultural operations with residential development. This is not an adverse impact.

3. Sewer

The City currently has no plans to construct new water facilities or modify existing facilities in the area. The applicant would be responsible for extending utility lines, the financial burden of which would therefore not fall on the City. Additional sewage flow generated by the small number of units would be incremental and is expected to be a less than significant burden to the system on a project-specific level.

4. Parks and Recreation

Project residents would be between 0.5 and 6 miles from neighborhood and community parks. Available (e.g., Torrey Pines and Los Peñasquitos Canyon Preserve) and planned (i.e., San Dieguito River Park) resource-based parks are considered sufficient to meet or exceed the needs of proposed project residents. Existing neighborhood and community parks in the area are not adequate to serve new development. This is a potentially significant impact.

5. Law Enforcement

Development of the proposed project would not significantly impact the ability of the San Diego Police Department to provide adequate law enforcement services (with response times of seven to eight minutes). However, there is a potential for significant adverse impacts on emergency access due to the controlled (gated) entrances/exits. As indicated previously, the north access gate is proposed to be staffed 24 hours a day while the east access is proposed to be operated by emergency personnel using a master code, key, or card system.

6. Fire Protection

Fire Department response time to the project would be acceptable for the majority of the project site (under six minutes), except for the westernmost lots (Lots 143 to 148) where response time is projected to be approximately 6.8 minutes. Additionally, access to Lots 143 to 148 is via a dead-end roadway which exceeds 750 feet. These are potentially significant impacts.

It is currently unknown whether adequate water supplies would be available to fire fighters. Again, this issue relates particularly to the isolated lots (143 through 148), as there is a greater potential for distance from hydrant hookups along the street.

Although response time to the project is generally projected to be within acceptable limits, there is a potential for significant adverse impacts on emergency access due to the controlled (gated) entrances/exits. As indicated previously, the north access gate is proposed to be staffed 24 hours a day while the east access is proposed to be operated by emergency personnel using a master code, key, or card system.

7. Solid Waste

Although project construction would result in the generation of recyclable construction wastes, this waste generation would be in regionally less than significant quantities. Over the long term, the project would have ongoing significant direct and cumulative impacts on solid waste disposal due to the limited landfill capacity in the region.

Mitigation, Monitoring, and Reporting

1. Schools

Prior to the issuance of any building permit for any residential dwelling unit, the applicant shall participate in mitigation through implementation of School Agreement (grades K-6) and the participation in a Mello-Roos Community Facilities District (Mello-Roos) (grades 7-12). Prior to the issuance of any building permit for any residential unit, these fees shall be established through a School Agreement with the Solana Beach Elementary School District and the participation in a Mello-Roos with the San Dieguito Union High School District. ~~The Del Mar Highlands Estates project is within Mello-Roos and Community Facilities District #1 and, therefore, would pay an appropriate share of school fees. Participation in Mello-Roos and Community Facilities District #1 would mitigate cumulative impacts as adequate facilities are constructed. Direct impacts would also be mitigated with contribution of Mello-Roos fees and when adequate facilities are constructed.~~

2. Water

Mitigation measures beyond the required development and phasing of water facilities would not be required.

3. Sewer

Mitigation measures beyond the required development and phasing of sewer facilities would not be required.

4. Parks and Recreation

The developer shall pay to the City the development's fair share costs in providing population-based parks to serve future residents (i.e., park fees).

5. Law Enforcement and Fire Protection

In order to mitigate potentially significant impacts to public services (police/fire) and minimize emergency response times to future on-site residences, the following requirements will be incorporated into the design guidelines for Del Mar Highlands Estates:

- a. Large, clearly legible address numbers will be provided at the street.
- b. Security entrances will either be staffed 24 hours a day or a security gate code, key, or card will be provided to the Police and Fire Departments. Emergency access shall be reviewed and approved by the Fire Department prior to project approval.
- c. The developer shall coordinate with the Fire Department to ensure that road widths and turning radii are adequate for all roads and that project fire hydrants are optimally located and meet all City and Fire Department standards. The results of this coordination shall be included within the Del Mar Highlands Estates Design Guidelines and tentative map.
- d. Residential fire sprinklers will be required for any structure built on Lots 143, 144, 145, 146, 147, and 148.

6. Solid Waste

No mitigation is required for the proposed project; however, it should be noted that all City projects must comply with the City's recycling program.

L. Public Safety

Significant Impacts

1. Electromagnetic Health Hazards

Any project-related activities conducted within the described on-site SDG&E easement could potentially result in safety impacts related to the noted pipelines. However, SDG&E has strict encroachment requirements for SDG&E easements. Therefore, no impacts to gas or fuel pipelines are anticipated from implementation of the proposed project.

2. Hazardous Materials

No significant impacts are anticipated.

3. Emergency Vehicle Access

The potential slowing of access for emergency vehicles entering from Derby Farms Road would be a significant but mitigable impact of constructing a gated community.

Mitigation, Monitoring, and Reporting

1. Electromagnetic Health Hazards

No mitigation is required provided that all project-related activities comply with existing SDG&E standards regarding easement encroachment.

2. Hazardous Materials

No mitigation is required.

3. Emergency Vehicle Access

It shall be a condition of the PRD that Police and Fire Department personnel shall be given the means to access the community rapidly (key, code, card) so that no significant delay is incurred should they require entry through the Derby Farms gate.

M. Water Conservation

Significant Impacts

1. Water Use

Because water usage would be decreased by up to an anticipated 74 percent (to 77,700 gallons per day), implementation of the proposed Del Mar Highlands Estates project would not have a significant adverse impact on city water supplies.

Mitigation, Monitoring, and Reporting

1. Water Use

Although significant project-level effects were not assessed based on anticipated water use rates for Del Mar Highlands Estates development, the following mitigation measures shall be incorporated as noted below ~~into project design guidelines to address cumulative water usage concerns.~~

- a. Limit grading in areas where no construction is proposed; thereby reducing the need for planting and irrigation of graded areas. (landscaping plans)
- b. Provide integrated soil amendments in lifts of low clay content soil in landscaped areas to improve infiltration. (landscaping plans)
- c. Reduce runoff potential from landscaped areas by utilizing berming, raised planters, and drip irrigation systems. (landscaping plans)

- d. Install soil moisture override systems in all common irrigation areas to avoid sprinkling when the ground is already saturated. (landscaping plans)
- e. Identify in the plant materials list in the project design guidelines whether or not plants are native or naturalize easily and incorporate a list of local California sources for native plants. (landscaping plans)
- f. Incorporate low-flush toilets, low-flow faucets, and timers on sprinklers (including nighttime watering) into project design. (building permits)
- g. Provide information regarding water conservation measures to new residents at the time of lot purchase. (certificate of occupancy)

N. Natural Resources/Agriculture

Significant Impacts

1. Conversion of Agricultural Land

No significant direct impacts to agricultural use or potential are anticipated as a result of proposed project implementation. This conclusion is based on a number of factors, including the lack of prime farmland on Del Mar Highlands Estates, very limited areas of prime farmlands on the Shell parcel, lack of agricultural preserves, the fact that local agriculture is not regionally significant, and the presence of numerous limiting factors for agricultural production (e.g., topography and sensitive habitats).

2. Mineral Resources

The project site has unknown potential for aggregate mineral deposits. The most likely location for occurrence of such deposits is the alluvium in Gonzales Canyon. Any potential value associated with on-site mineral resources would be lost due to the proposed project, which places these areas into open space in perpetuity. This is not considered significant, however, due to the generally low potential assigned to on-site aggregate mineral development. This conclusion is based on the relatively small extent of on-site alluvial materials, the low unit value of aggregate minerals, and the presence of sensitive habitats (as described above).

Mitigation, Monitoring, and Reporting

1. Conversion of Agricultural Land

No mitigation is required for direct impacts to agricultural use or potential from the Del Mar Highlands Estates project.

2. Mineral Resources

Because no significant impacts to mineral resources were identified, no mitigation is required for Del Mar Highlands Estates.

Project Alternatives

A. No Project Alternative

The project site would remain essentially in its existing condition, utilized primarily for agricultural production. The significant impacts associated with project implementation and the potentially significant cumulative impacts of proposed and approved developments in the area would not occur under this scenario. These impacts include potential direct and indirect impacts to sensitive biological habitat, landform alteration, loss of mature trees, paleontological resources, cultural resources, runoff and erosion patterns, traffic circulation, public facilities and services (schools, parks, fire, and police services), cumulative water supply (conservation), and public safety.

On the other hand, this scenario would result in the continued agricultural use of over half of the project site, including portions of Gonzales Canyon. This existing land use is dusty and noisy, consumes large amounts of water, and prevents the reestablishment of wildlife habitat and wildlife movement. It results in erosion, sedimentation, use of pesticides and herbicides, and related water quality impacts. This scenario would not facilitate the establishment and enhancement of the Environmental Tier and the MSCP wildlife habitat and corridor in Gonzales Canyon and the connection of Gonzales Canyon to San Dieguito River valley, which would occur with the proposed project. The affordable housing units provided by the proposed project would also not be available to the market.

B. A-1-10 Rural Cluster Alternative

One of the development alternatives allowed on the project site under the adopted Framework Plan, its current Future Urbanizing Area land use designation, and existing A-1-10 zoning is to develop the property under the City's Rural Cluster Development guidelines. This would allow development of the site according to the density of the applicable zone, but clustered to promote more efficient land utilization. This alternative would develop 37 lots clustered in the northeastern corner of the property, with the remainder of the project (Lot 38) undevelopable unless a phase shift occurs, changing its land use status from a future urbanizing area to a planned urbanizing area. Agricultural use would most likely continue in the agricultural permit areas within Lot 38. Access to the site would be provided from the east via Derby Farms Road.

Significant landform alteration would be substantially reduced with the implementation of this alternative. Development would be primarily located on the previously farmed mesa tops which would avoid nearly all of the impacts to biological resources. Although impacts to landform alteration/grading and biological resources would be reduced, the impacts would remain significant. Other mitigated impacts of the proposed project would be further reduced by implementation of this alternative. Cumulative impacts related to the addition of project traffic to existing queues occurring at the intersections of El Camino Real/San Dieguito Road and San Dieguito Road/Derby Farms Road, increased traffic through the intersection of El Camino Real/Derby Downs Road, solid waste disposal, and water conservation could also occur.

Cumulative Impacts

A. Significant Impacts

Although the proposed Del Mar Highlands Estates project is consistent with the adopted traffic master plans and phasing plans applicable to the subregion, the cumulative traffic impacts to Interstate 5 are considered regionally significant and unmitigable. Cumulative hydrology and water quality impacts are not significant because all of the project components would be required to comply with all National Pollutant Discharge Elimination System requirements. Cumulative impacts concerning air quality, landform alteration, biology, and natural resources/agriculture are considered significant and unmitigated.

B. Mitigation, Monitoring, and Reporting

No other mitigation is possible within the currently proposed project design. However, alternatives to the proposed project that would reduce the project's contribution to these cumulative impacts are discussed in Chapter 7 of the EIR.

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Chapter One

Introduction

A. Project Components

This draft environmental impact report (EIR) has been prepared according to the requirements of the City of San Diego and the California Environmental Quality Act (CEQA) of 1970, as amended. It is an informational document intended for both the decision maker and the public and, as such, represents relevant information concerning the Del Mar Highlands Estates project. This EIR will address the Del Mar Highlands Estates Planned Residential Development (PRD) and Vesting Tentative Map (VTM) in Subarea III of the North City Future Urbanizing Area (FUA). The PRD also includes the open space preservation and transfer of development rights from the 84-acre Shell parcel, which is zoned A-1-10 and also located within Subarea III. Development of the Del Mar Highlands Estates property with clustering per Council Policy 600-29 (with a Planned Residential Development), could accommodate development based on one dwelling unit per four acres. The project addressed in this EIR would transfer all future development rights from the Shell parcel to Del Mar Highlands Estates. Twenty-one (21) dwelling units from the Shell parcel would be transferred to Del Mar Highlands Estates with the parcel being preserved as open space. This open space area could be utilized by Caltrans for State Route 56 should the alignment occur within the Shell parcel.

This EIR has been prepared to analyze the specific environmental issues related to the proposed project components that were identified by the Environmental Analysis Section (EAS) of the City of San Diego.

B. User Guide to the EIR

The following potentially significant issues should be addressed in the EIR: land use, hydrology/water quality, landform alteration/visual quality, geology and soils, biology, cultural resources, paleontology, traffic circulation, air quality, noise, public facilities and services, public safety, natural resources/agriculture, water conservation, and cumulative effects. The Notice of Preparation, including associated responses, is included in

Appendix A of this document. For the reasons described in Section 5.C, not all of these issues will be discussed at the same level of detail.

The requirements described in the State CEQA Guidelines, Title 14, Article 9, of the California Administrative Code, were followed in the preparation of this EIR. A summary of the proposed action is provided in the Project Description section. In accordance with Section 15125, general descriptions of the existing environmental setting for the project site locales are provided in Chapter 2 of this EIR. Chapter 3 provides a detailed description of the proposed project. Each of the project's potentially significant environmental impacts are presented in Chapter 4. For each major topic under analysis, a discussion is presented of the existing physical and regulatory conditions; followed by issue identification, potential impacts, identification of the significance of the impacts, and mitigation measures when necessary. Significant environmental effects which cannot be avoided if the project is implemented are identified in Chapter 5, as are growth-inducing effects and effects found not to be significant. Cumulative impacts are analyzed in Chapter 6. A description of project alternatives is presented in Chapter 7. The EIR preparation staff, contacts made during the EIR preparation process, and references cited are listed in Chapters 8, 9, and 10, respectively. Technical and supporting materials are included as appendixes, as outlined in the Table of Contents.

Section 21081.6 of the Public Resources Code requires a public agency to "adopt a reporting and monitoring program for the changes to the project which it has adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment." The purpose of this program is to ensure compliance during project implementation. Mitigation monitoring programs should, at minimum, identify the following: the entity responsible for monitoring the program, what exactly is being monitored and how, what schedule is required to provide adequate monitoring, and what identifies the monitoring as complete.

Mitigation measures recommended in this EIR have been prepared to ensure ease of monitoring as well as feasibility of monitoring. The mitigation monitoring program is detailed in each issue section.

Chapter Two

Environmental Setting

A. Del Mar Highlands Estates

The Del Mar Highlands Estates project site is located on 389 acres in the city of San Diego (Figures 2-1 and 2-2). It is south of the San Dieguito River valley, west of the Senterra residential development and the remaining undeveloped portion of Subarea III of the North City FUA, north of the Carmel Valley community planning area, and east of El Camino Real (Figure 2-3).

Regional access to the site is provided by Interstate 5 (I-5), approximately 0.75 mile to the west. Access to the site from I-5 is obtained by following Via de la Valle east to Old El Camino Real south. In addition to this approach, the site may be accessed via San Dieguito Road to Derby Farms Road.

The topography of the project site ranges from approximately 40 feet above mean sea level (MSL) at the northwestern corner to approximately 322 feet above MSL in the northeastern corner of the site (Photograph 2-1). A mesa traverses the northern portion of the site and Gonzales Canyon traverses the southern portion of the project site in an east-west direction. Approximately 4.0 miles northeast of the project site, Black Mountain reaches an approximate elevation of 1,550 feet above MSL and can be seen for miles in all directions. The Pacific Ocean is located 2.3 miles to the west and can also be seen from the project site. The project site is located within the San Dieguito hydrographic unit. Runoff from the northern edges of the project site drains directly into the San Dieguito River. The remaining majority of the project site drains through Gonzales Canyon to the San Dieguito River.

The majority of the project site (approximately 195 acres) is highly disturbed and in agricultural use (truck crops). The remaining acreage includes disturbed and undisturbed native habitat (see Photograph 2-1). Several dirt roads traverse the site. San Diego Gas & Electric (SDG&E) has a 150-foot-wide easement and two 12-kilovolt rights-of-way which cross the western portion of the site. The 150-foot easement contains high-power overhead transmission lines, a high-pressure gas line, and buried fuel pipelines. A trunk

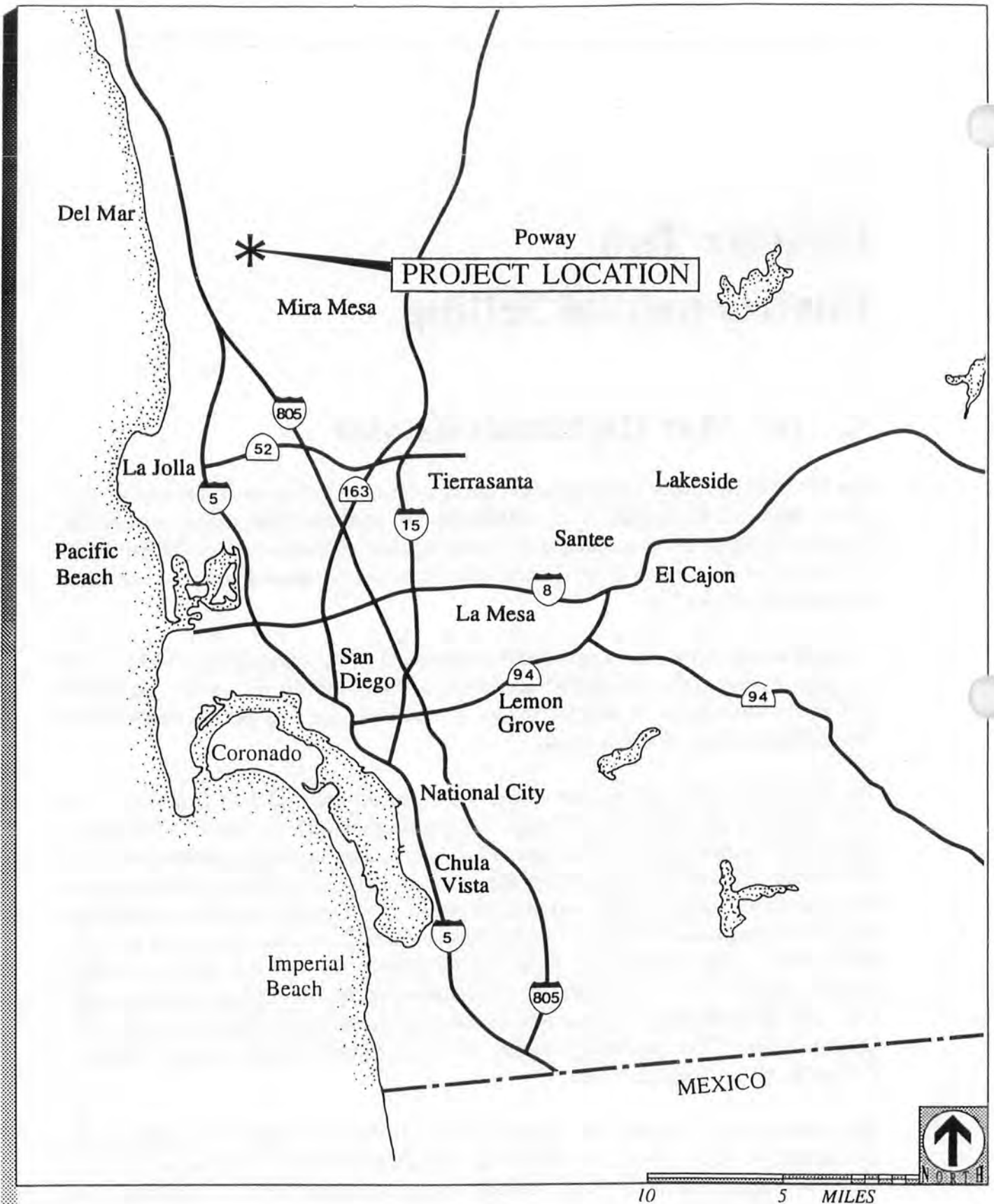


FIGURE 2-1

Regional Location of the Project



sewer line easement also traverses the site within Gonzales Canyon. Water lines have been extended on-site to serve the existing agricultural use of the property.

Approximately 195.9 acres of the site have been disturbed by agriculture, primarily tomato cropping, and another 12.8 acres support ruderal vegetation. Other non-native plant associations include eucalyptus woodland (4.1 acres) and non-native grassland (1.0 acre). On steep slopes and drainages, native vegetation persists, although disturbed by dirt roads in some areas. Diegan coastal sage scrub covers about 119.9 acres, with southern cactus scrub (3.6 acres), southern maritime chaparral (38.9 acres), scrub oak chaparral (2.0 acres), southern sycamore riparian woodland (6.6 acres), and mule fat scrub (4.2 acres) also present.

Surrounding land uses include undeveloped land, agriculture, large-lot single-family residences, and equestrian activities. Additional tomato farming is conducted on the uplands north of Gonzales Canyon and east of the project site. Horse ranches are located in Gonzales Canyon east and west of El Camino Real, north of the site, and southeast of the site. Some single-family residences and mobile homes are located south of the project site and just east of Old El Camino Real. Single-family residential developments in the Carmel Valley community planning area (Neighborhoods 7 and 4A) are located on the southern slopes of Gonzales Canyon south of the project site. Two country clubs are to the north of the site. The Senterra residential development is adjacent to the site on the east, extending northeast. A church, Torrey Highlands park, and Torrey Pines High School are to the south.

B. Shell Parcel

The Shell parcel includes approximately 84 acres located in the south-central portion of Subarea III of the North City FUA. The northern edge of the site abuts the area where Carmel Valley divides into McGonigle Canyon and Deer Canyon. The western two-thirds of the site is south of Carmel Valley, while the remaining one-third is south of Deer Canyon. The southern boundary of the site is located approximately one-half mile north of Shaw Valley, and Del Mar Mesa is located approximately one-third mile to the east of the site.

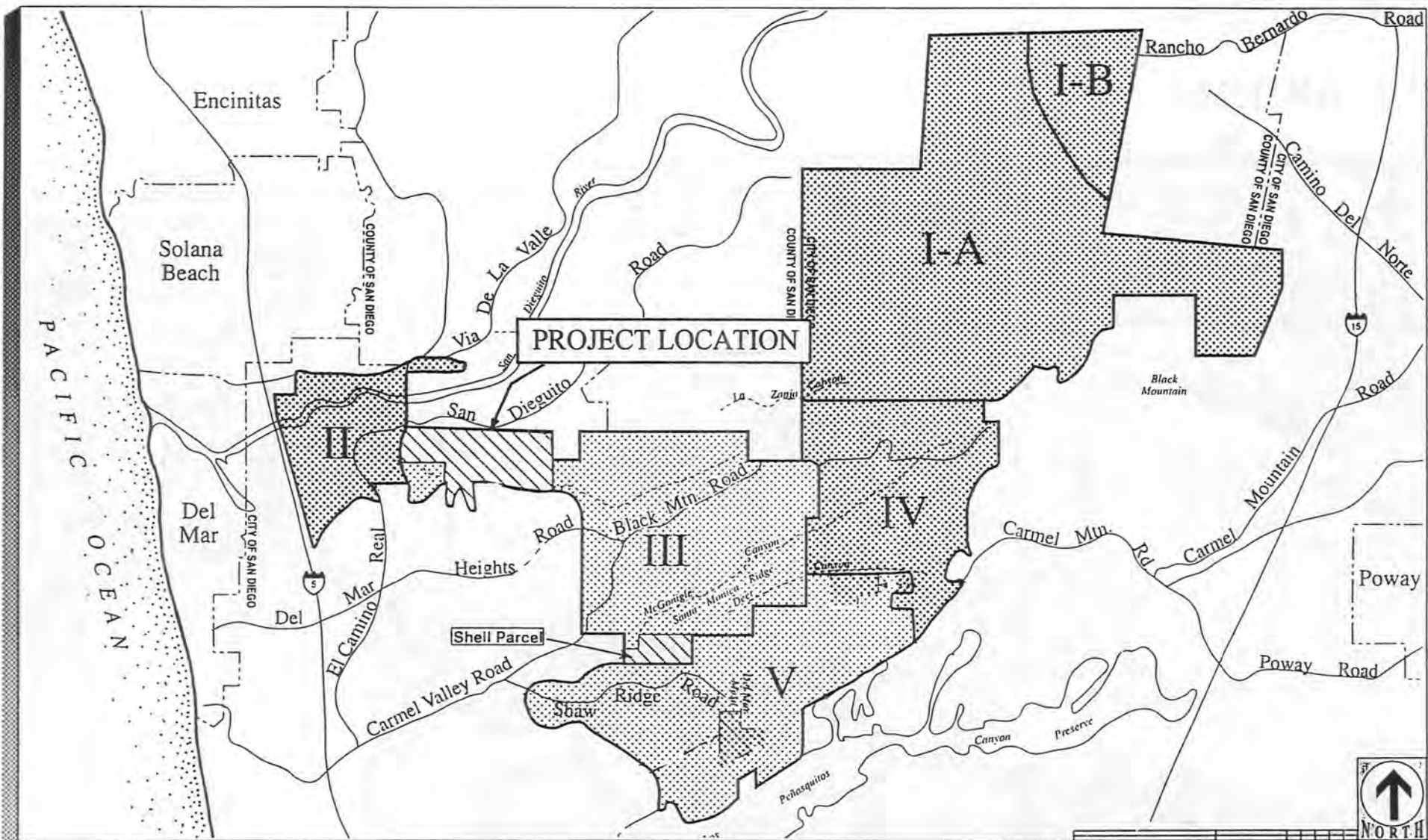
I-5, approximately 2.5 miles to the west, provides regional access to the site. Access to the parcel site from I-5 is obtained by following State Route 56 (SR-56) to Carmel Valley Road east.

On-site elevations for the Shell parcel vary between 140 feet above MSL in the north-central portion of the parcel to 320 feet above MSL in the southern sector of the parcel. This open space parcel abuts agricultural fields within Carmel Valley and contains southeasterly trending finger canyons which contain agriculture along the drainage floor.

The primarily natural southerly slopes show trails and dirt roads to some extent. The remaining western section of the parcel site lies within undisturbed open space area. The site drains into Carmel Valley and from there into Los Peñasquitos Lagoon.

Twelve vegetation types occur on-site; 10 of these are native and 2 are non-native habitats. Primary habitats located within the parcel consist of southern mixed chaparral, chamise chaparral, Diegan coastal sage scrub, and agriculture. Four of the habitats are considered sensitive by responsible state and federal agencies; including mule fat scrub and three varieties of Diegan coastal sage scrub.

The Shell parcel has a small amount of agriculture intruding from the north associated with fields within the alluvial floodplain of Carmel Creek. A farmhouse and ancillary farm structures and amenities (e.g., a well, a pond) are located immediately north and northeast of the site. Just northwest of the site is the 427-unit single-family residential development of Vintage at Palacio del Mar. These detached homes stretch along the southern bank of Carmel Valley.



Source: Helix Environmental 1995

14000 7000 FEET 0


 Future Urbanizing Area

FIGURE 2-3

North City Future Urbanizing Area and Jurisdictional Map

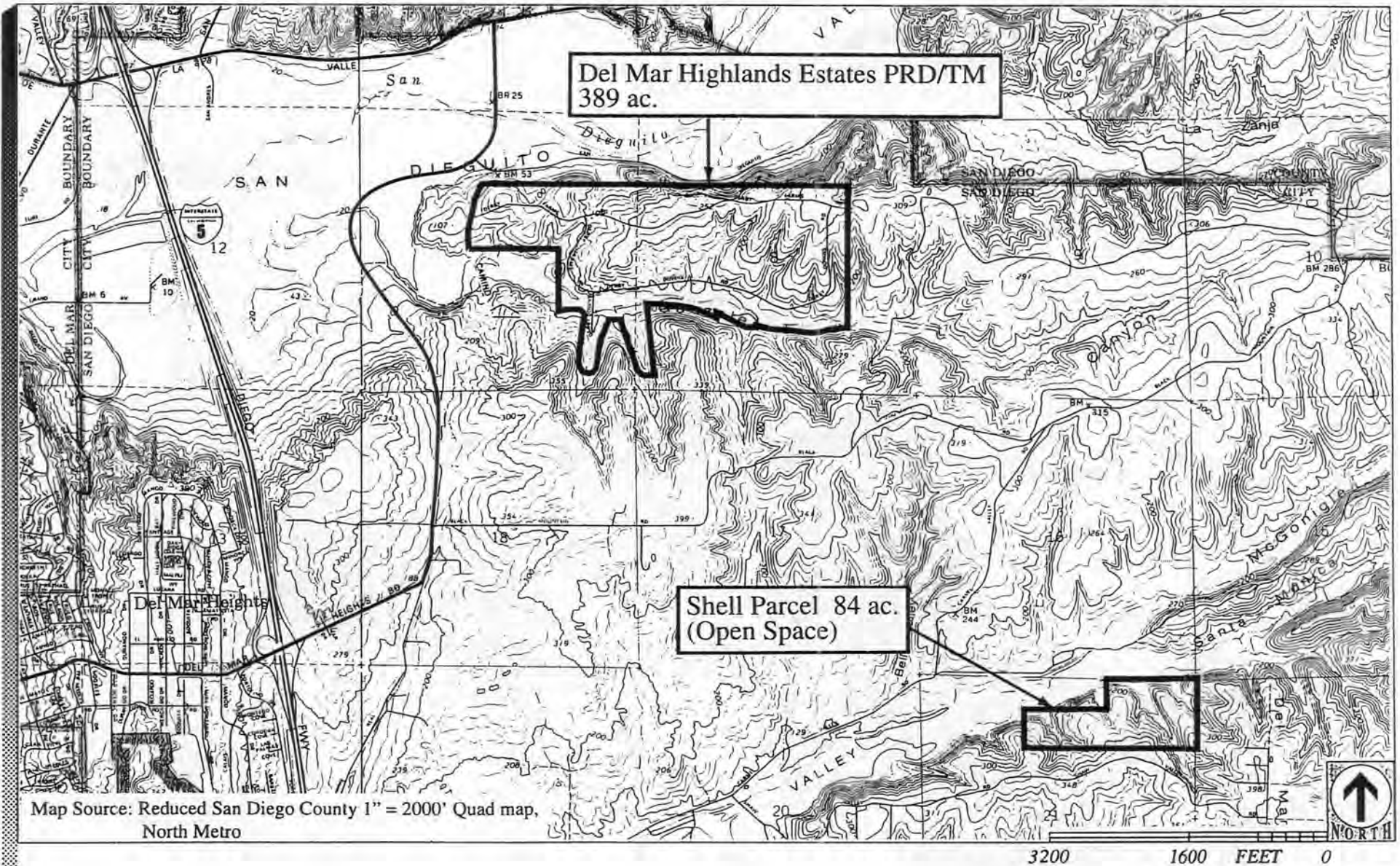
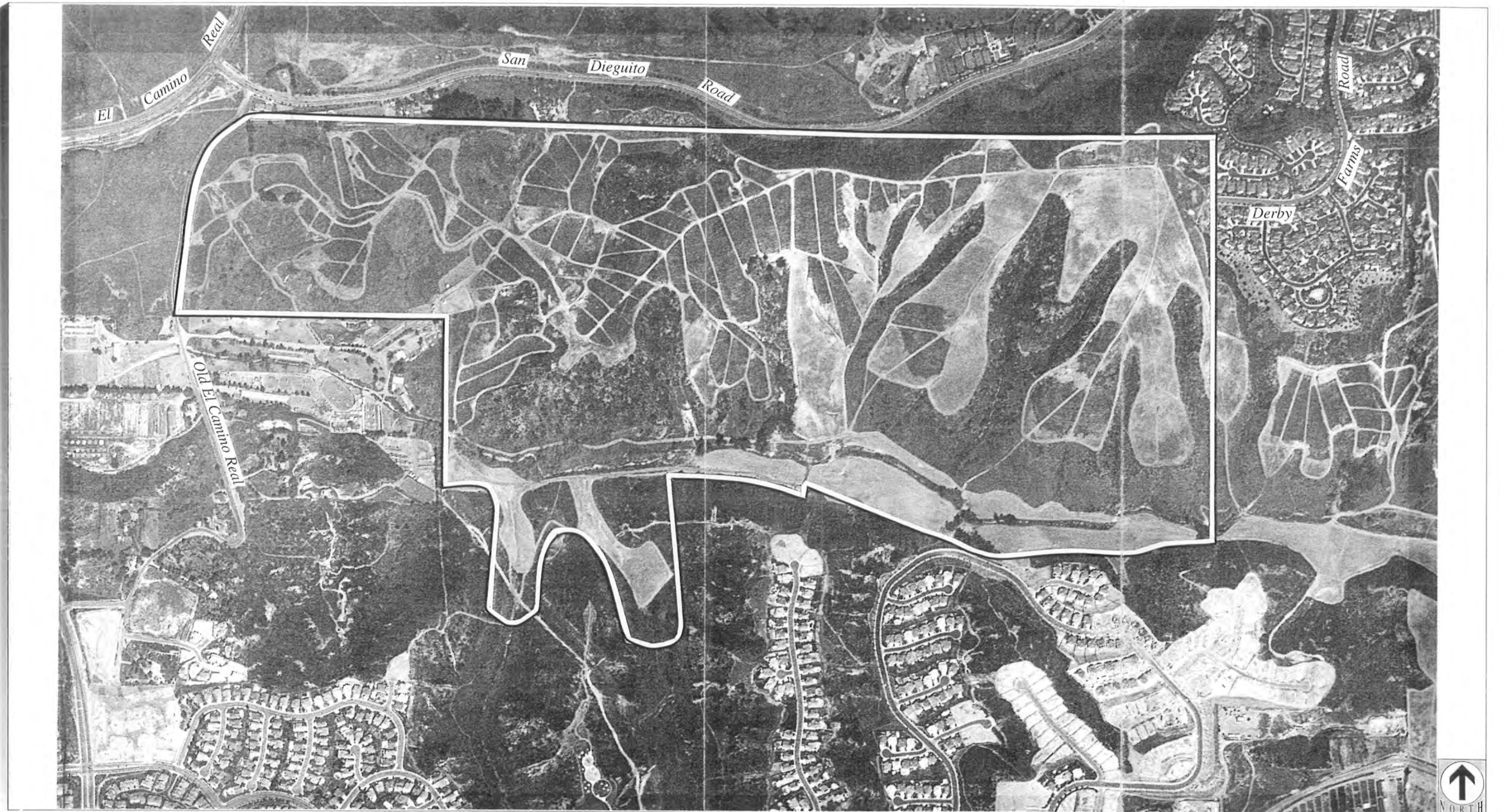


FIGURE 2-2

Project Vicinity



Source: Helix Environmental 1995

PHOTOGRAPH 2-1

Del Mar Highlands Estates
Aerial Photograph

Chapter Three

Project Description

1) Del Mar Highlands Estates Vesting Tentative Map

a) Background

The Del Mar Highlands Estates project site, containing 389 acres, is located in the western portion of the 12,000-acre North City FUA. A single project applicant owns the site. In the late 1970s the applicant received approval from the City of San Diego for the Derby Farms project, including certification of a final EIR. This was a 39-unit tentative tract map to develop the Del Mar Highlands Estates project site, but the project was not implemented. In 1994, a vesting tentative map was filed with the City which would have allowed development of 38 estate residential lots on minimum 10-acre parcels (see discussion of the A-1-10 alternative PRD development in Chapter 7, Project Alternatives). In 1995 a PRD for Del Mar Highlands Estates was one of several components of the City Manager's Neighborhood 8A Compromise Plan (DEP No. 87-0211, 91-0899, and 94-0576). A final EIR was prepared for the Neighborhood 8A Compromise Plan that included Del Mar Highlands Estates, and a noticed public hearing was held on the project on October 31, 1995. No action was taken on any of the Compromise Plan project components. The current proposal is a 172-unit clustered PRD. The Shell property (described below) would continue to be a component of the PRD and would be preserved as open space.

In 1989, the City granted an agricultural permit to a lessee of the project site and adjoining parcels to the east. The City used a Mitigated Negative Declaration (EQD No. 86-0618) in conjunction with this permit. The project site has been in agricultural use since 1989.

The City adopted the Framework Plan for the North City FUA and certified the accompanying final EIR in October 1992. The Framework Plan sets forth some general plans and guidelines for the development of the FUA. The Framework Plan identifies two land uses for the 389-acre Del Mar Highlands Estates project site: Environmental Tier and estate residential (0.2 du per gross acre). Development of the project site is

permitted at 1 unit per 10 acres (38 total units) under the existing A-1-10 zoning or 1 unit per 4 acres (97 total units, clustered) with a PRD permit.

b) Goals and Objectives

The goals and objectives of Del Mar Highlands Estates are as follows: (1) to establish an estate residential community in a rural setting with 148 residential view lots for custom home development, with accompanying uses as permitted by the A-1-10 zone and the design guidelines for the proposed project, and to place a wildlife corridor (Gonzales Canyon) into permanent open space; (2) to provide 24 affordable housing units pursuant to City requirements; and (3) to create a development which conforms to City plans regarding Environmental Tier and open space goals in compliance with Multiple Species Conservation Program (MSCP) efforts.

c) Proposed Residential and Open Space Features

The proposed project would involve the creation of 172 residential units (124 at 1 du per 4 acres including 21 units transferred from the Shell parcel using a 0.46 density bonus for 24 constructed affordable housing units) and the extension of roadways and utilities into the project site to serve the new lots. This proposed density is based on the allowable PRD development for the project site (97 units) and 21 units transferred from the 84-acre Shell parcel, plus a 46 percent density bonus for constructing 24 affordable housing units. The 46 percent density bonus for affordable housing includes a 25 percent density bonus (30 units) and an additional 21 percent density bonus (24 units) per the City Municipal Code Section 101.0307.6(B)(2). The proposed lots would be irregularly shaped and would vary in size from approximately ~~13,0009,000~~ to ~~100,80063,500~~ square feet. The proposed VTM is shown in Figure 3-1 and the PRD site plan is included as Figure 3-2.

An area of ~~5,355.25~~ acres at the western project boundary (see Figure 3-1) would be provided to accommodate the affordable housing units. This acreage meets the required criteria of the Housing Commission. The affordable units would be constructed by the project applicant. The San Diego Housing Commission, at a public hearing held on March 25, 1996, approved the 172-unit program for Del Mar Highlands Estates that includes 24 two-bedroom affordable housing units in three 8-plex buildings with parking. The proposed PRD site plan is provided in Figure 3-2. The site plan for the affordable housing units is included as Figure 3-3, with the architectural elevations and landscaping plan shown in Figures 3-4 and 3-5, respectively. No development is currently proposed in the eastern portion of the affordable housing site. Any development of this area would require an amendment to the PRD permit.

All lots would be graded and private streets and utilities would be extended to each site, including water, sewer, electrical, telephone, cable television, and natural gas. Street construction is expected to impact 14.71 acres due to required grading of roadbeds and

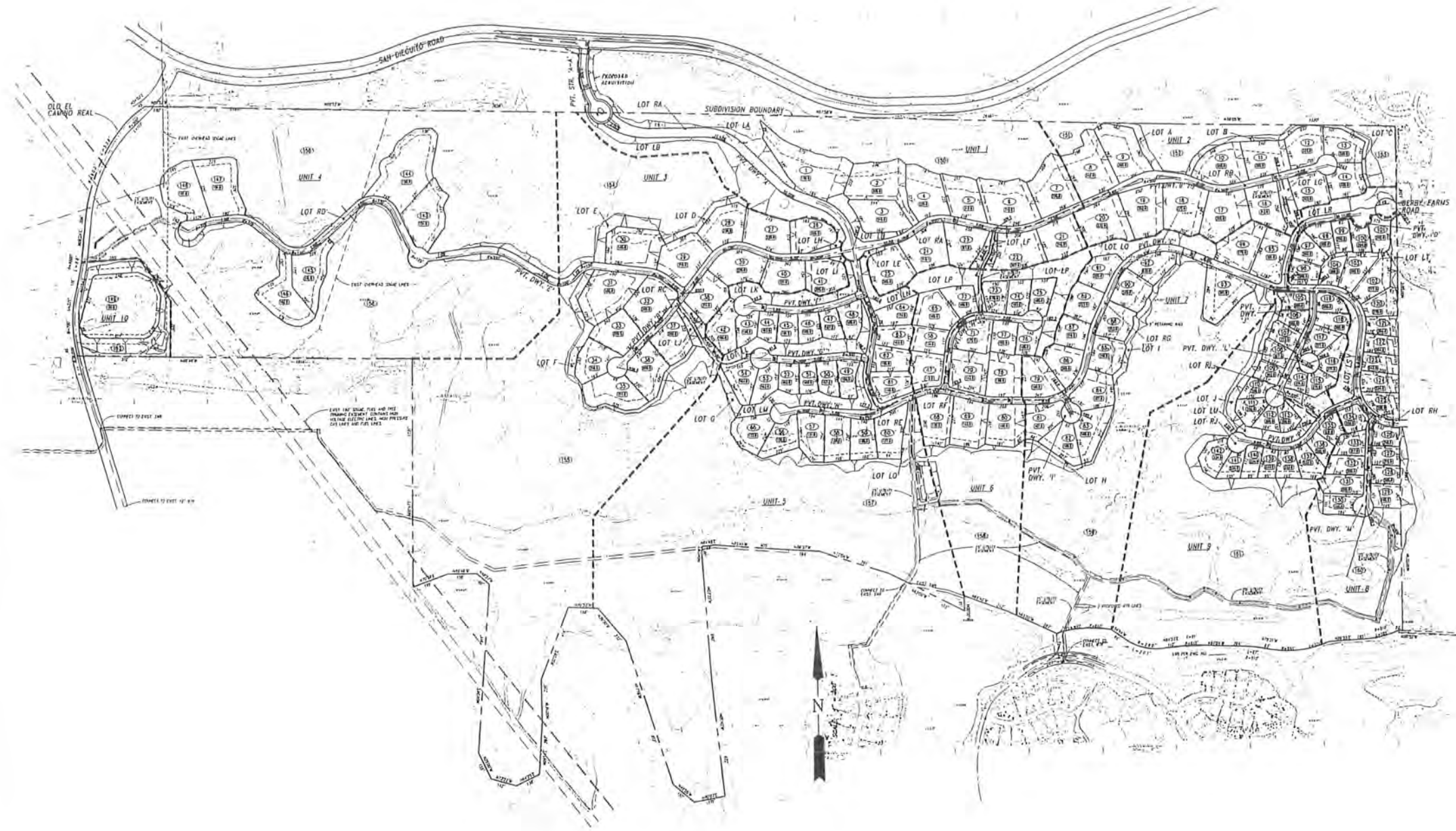
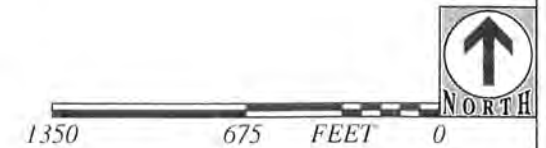


FIGURE 3-1
 Del Mar
 Highlands Estates
 Vesting Tentative Map

Source: Project Design Consultants 1997



necessary slopes. Total cut is expected to be approximately 1.61 million cubic yards and total fill would be 1.61 million cubic yards over 166 acres, with the soil being balanced on-site. This total includes small areas of off-site grading along the eastern boundary and would result in approximately 9,620 cubic yards of grading per graded acre.

The primary entrance road to the development (Private Driveway A) would be from San Dieguito Road along the northern site boundary. This would connect with a roadway (Private Driveway B) stretching across the site from west to east, terminating in a cul-de-sac in the southeast corner of the site. This road narrows and becomes Private Roadway M, where it extends westerly from Lots 30 and 31 to its terminus near Lot 151 in the western portion of the site at another cul-de-sac. The secondary emergency-only access to the site (Private Driveway D) would be provided as an extension of Derby Farms Road from its present terminus in the existing Senterra residential development east of the site westerly to meet the above-described street (B). Multiple additional cul-de-sac roadways would extend north and south of the main east-west street to ensure access to all lots (Private Driveways C and E through L). Security gates are proposed at both the primary and emergency secondary access points to the project site and would have security personnel or be electronically operated, respectively. All on-site roadways would be privately maintained. Street lighting would be used for signage illumination, driver and pedestrian safety, and aesthetics (e.g., at project entries).

Water service would be provided in all project roadways and are proposed to connect to the city water supply system along Old El Camino Real and to existing lines in Sword Way. Sewer lines would connect to the existing trunk sewer in Gonzales Canyon via two routes (see Figure 3-1). The sewer line and water line easements would be approximately 20 feet in width. The VTM also shows one detention/desiltation basin located on the north side of Gonzales Canyon in the central portion of the project site. This basin has been designed to accommodate storm flows from the developed site.

Approximately 223 acres of the 389-acre project site would remain as natural open space on the slopes above Gonzales Canyon and slopes above San Dieguito Road. The project applicant is proposing to revegetate approximately 77 acres of the disturbed agricultural land within this open space area with native coastal sage scrub vegetation. Approximately 36.1 acres of the revegetation will be used as biology mitigation for the Del Mar Highlands Estates project. The remaining 40.9 acres can be used by the applicant as mitigation for future development. This revegetation will contribute to the value of Gonzales Canyon as a wildlife corridor as part of the MSCP. Manufactured slopes, which vary in height, are shown on the site plan which are adjacent to the preserved open space. These slopes will be planted with native plant materials which are noninvasive.

d) Proposed Design Guidelines

Design guidelines have been proposed for Del Mar Highlands Estates in accordance with PRD regulations. The design guidelines include landscaping concepts, signage, lighting, architectural guidelines, development standards for the market and affordable housing, allowable uses, and a brush management plan. The project design guidelines and development standards vary to some extent between the 6 estate lots, 142 residential pads in the central portion of the site, and 24 affordable housing units on a 5.8-acre lot at the western boundary. The design guidelines describe specific development standards for the five residential products and densities. These include large lots (Lots 1-41), medium lots (Lots 42-95), small lots (Lots 96-142), estate lots (Lots 143-148), and the affordable housing lot (Lot 149). The Del Mar Highlands Estates Design Guidelines are included as Appendix B of this EIR.

e) Proposed Landscaping

The proposed landscape concept plan is presented graphically in Figure 3-6 and is described in the design guidelines for the proposed Del Mar Highlands Estates project. The plan addresses landscaping for the gated community entries, community streetscapes, natural vegetation areas, and enhanced circulation nodes.

Parkways along the main circulation routes and adjacent to the community entry streets would incorporate a single row of trees with multiple drought-tolerant, low-maintenance ground covers beneath the trees. A 24-foot-wide private drive (Private Drive M) is planned to extend from the western terminus of Street B to Lots 143-148. This private drive will extend for a distance of approximately one-half mile and will not contain any ornamental landscaping.

Slopes steeper than 6:1 with more than 5 feet in vertical height would be planted with herbaceous or prostrate shrubby ground covers. Slopes greater than 15 feet in vertical height would include planting of an average of one tree, shrub, and ground cover per 100 square feet of slope area. At least 50 percent of the shrubs and ground cover would be a deep-root variety. Recommended plant species are listed in the design guidelines.

All shrubs, ground cover, manufactured and disturbed slope plantings, and lawn areas would be permanently irrigated with fully automatic, water-conserving systems. Irrigation system designs would conform with the requirements set forth in the City's Landscape Technical Manual and would be installed in accordance with San Diego Area Regional Standard Drawings. Landscaping along streets and at project entries would be maintained by a master homeowners association or a landscape maintenance district. Slopes and private yard landscape maintenance would be the responsibility of the future lot owners.

f) Proposed Brush Management

As required by the City of San Diego, a brush management plan has been incorporated into the design guidelines for the proposed project in order to reduce the availability of flammable materials adjacent to future on-site structures.

The vast majority of brush management proposed for Del Mar Highlands Estates would take place within the 166 acres total already proposed for grading to create the lots as indicated on the brush management plan in Figure 3-7. The areas of disturbance for brush management are minor in extent as they are small in area and consist only of zone 3 management efforts—selective pruning and thinning of native vegetation while preserving natural appearance. The intent of the design guidelines is to accommodate all brush management within zone 1 and limit the need for selective thinning of native habitat beyond the development pads.

The design guidelines for the proposed project provide a list of recommended plant materials for brush management and identify those plant materials that are fire retardant. Notes on the map address future building materials, prohibited plants, and the requirement that maintenance of brush management areas be carried out in accordance with specifications in the City of San Diego Landscape Technical Manual (1989a).

g) Discretionary Actions and Permits Required

This EIR must be certified in final form by the San Diego City Council. Subsequently, the proposed PRD permit, Framework Plan Amendment, VTM, and Resource Protection Ordinance (RPO) permit also must be approved by the City Council. The applicant would obtain a grading permit including an interim 4(d) habitat loss permit to grade the project pads, construct the proposed private roadways, and extend utilities into the project site.

California Department of Fish and Game

A 1603 Streambed Alteration Agreement would have to be issued by the California Department of Fish and Game prior to commencement of any work which would alter a streambed, including grading of the proposed sewer and water lines through Gonzales Canyon.

U.S. Army Corps of Engineers

Construction of the utilities rights-of-way might require the placement of fill within delineated wetland areas if wetland determinations (to be completed in the year preceding construction) are positive. In that case, a permit from the U.S. Army Corps of Engineers would be required, pursuant to Section 404 of the Clean Water Act.

U.S. Fish and Wildlife Service

The coastal California gnatcatcher is on the federal list of threatened species. The successful continuance of this species is directly tied to continuation of its habitat (Diegan coastal sage scrub). Therefore, authorization by the U.S. Fish and Wildlife Service is required prior to any "take" of coastal sage scrub habitat occupied by the California gnatcatcher.

Approximately 33.8 acres of occupied habitat would be impacted by the proposed Del Mar Highlands project. This will require the issuance of a permit for the incidental taking of a federally listed threatened species prior to site grading. Thus, either approval of a project-level habitat conservation plan through Section 10(a) of the federal Endangered Species Act, approval of an interim take permit in accordance with the adopted 4(d) rule, or participation in the City's MSCP would be required to gain federal approval. ~~It is possible that Section 7 of the federal Endangered Species Act may also be used as a permitting option if it can be shown that a nexus exists between any federal action (in this case, the issuance of a 404 permit) and the taking of the gnatcatcher.~~ It is the applicant's intent to process a multiple-projects interim habitat loss 4(d) permit that will include Del Mar Highlands Estates with additional related projects. During the public review period for the Draft EIR, the City of San Diego issued a multiple project Interim Habitat Loss (4d) Permit Findings which included the Del Mar Highlands Estates project and three other related projects. These projects include the Neighborhood 10 Precise Plan Amendment, the Neighborhood 10 School Site/Sewer Line, and the Neighborhood 8C Precise Plan. The findings were distributed to the public and wildlife agencies on February 28, 1997 for a 45-day review period ending on April 14, 1997.

2) Shell Parcel

a) Background

The Shell parcel is located in the southern portion of Subarea III, on the south edge of Carmel Valley (see Figure 2-2). The Framework Plan identifies approximately five (5) acres as peripheral residential, which allows 7 dwelling units per gross acre, or a total of 35 units. The remainder of the 84-acre parcel is shown as Environmental Tier.

b) Goals and Objectives

The primary project goal for the Shell parcel is to remove development rights from the parcel and preserve the parcel as part of the MSCP preserve system in perpetuity. Potential future development associated with this parcel would be restricted to possible rights-of-way and construction associated with future Camino Santa Fe and SR-56, respectively.

c) Project Characteristics

The 21 dwelling units which could be developed on the Shell parcel per the underlying zoning would be transferred to Del Mar Highlands Estates project as part of the PRD approval and final map recordation process. The Shell parcel (see Figure 2-2) would be preserved as open space consistent with the City of San Diego Multiple Species Conservation Program. The intent would be for the City to hold the Shell parcel in open space with the possible exception of rights-of-way required by the City for future potential development of the Camino Santa Fe or SR-56 roadways and associated construction.

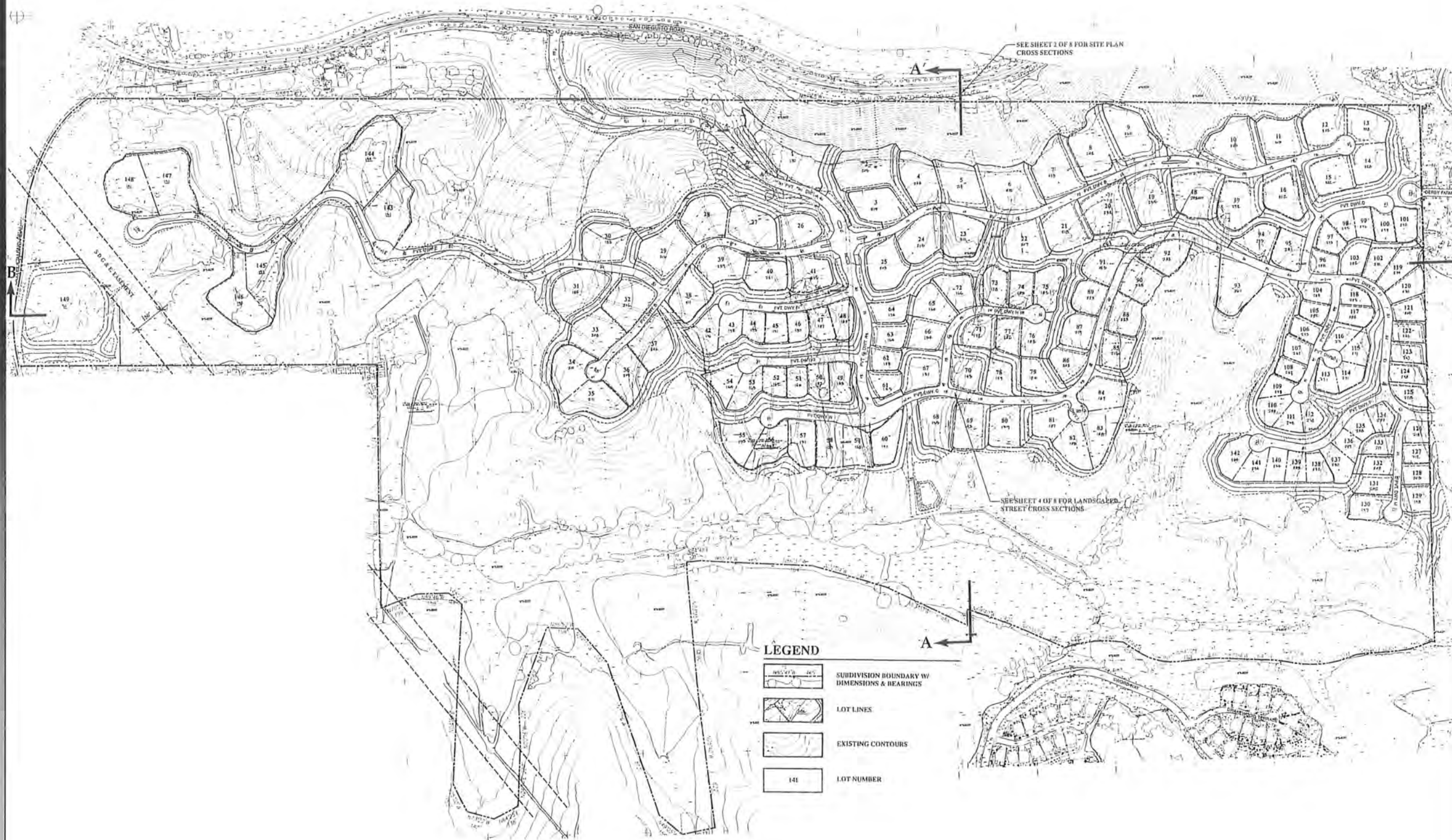
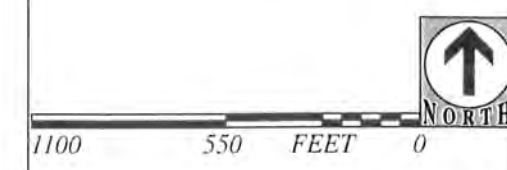


FIGURE 3-2
Proposed
P.R.D. Site Plan



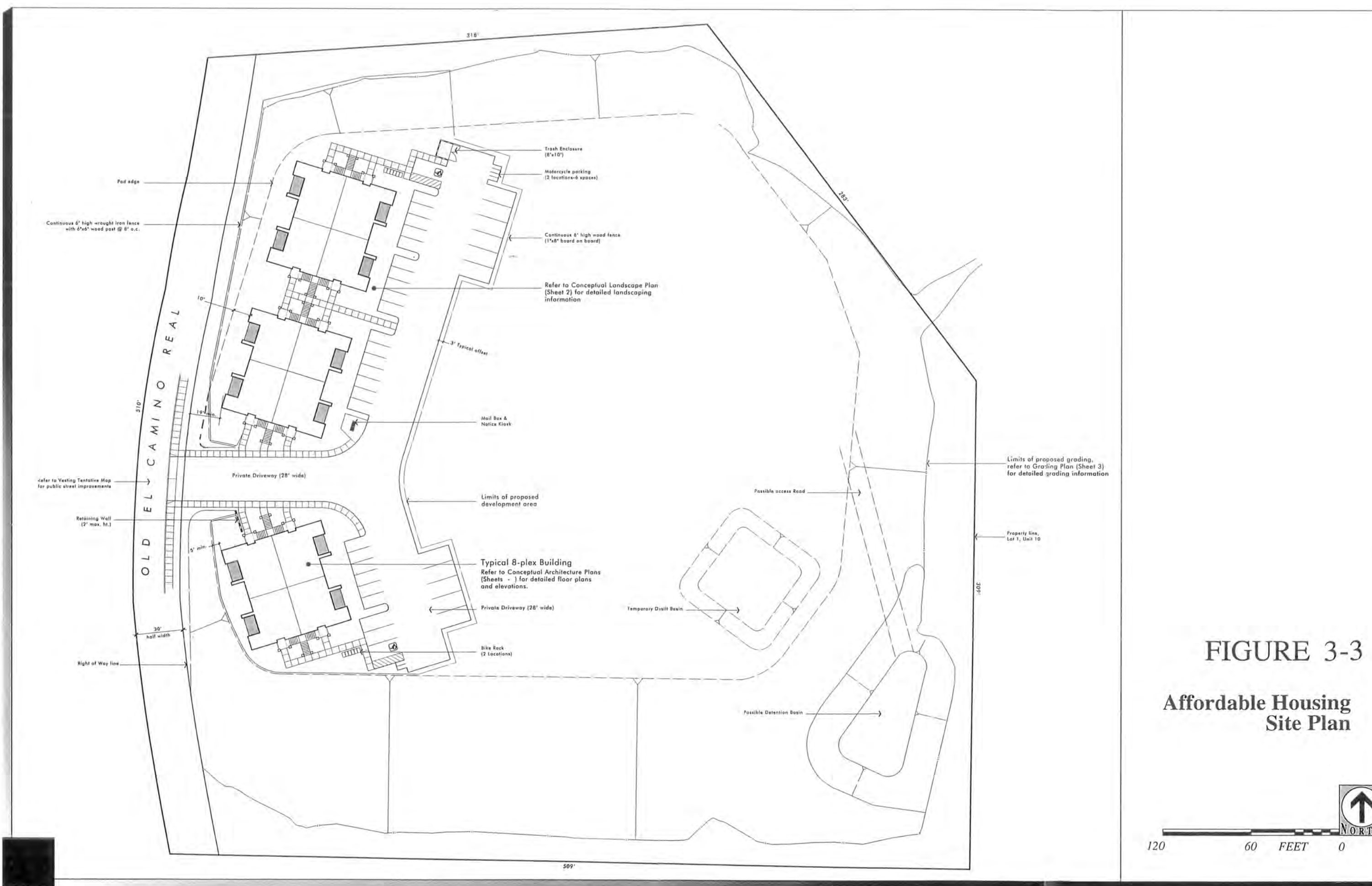
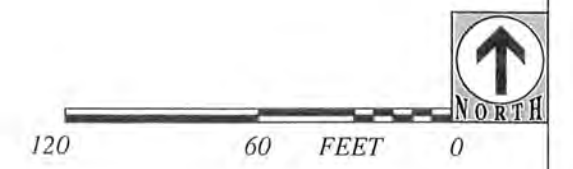
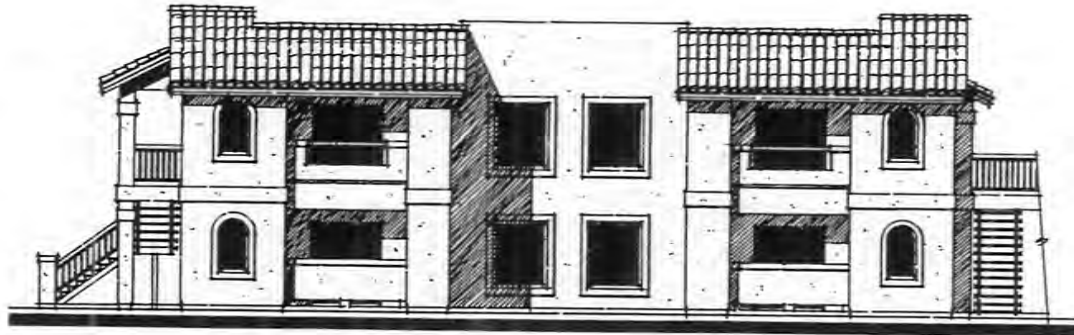


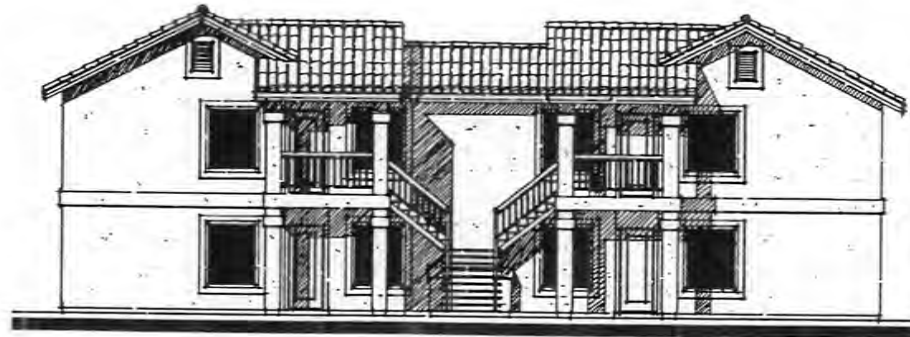
FIGURE 3-3

Affordable Housing
Site Plan





FRONT / REAR ELEVATION

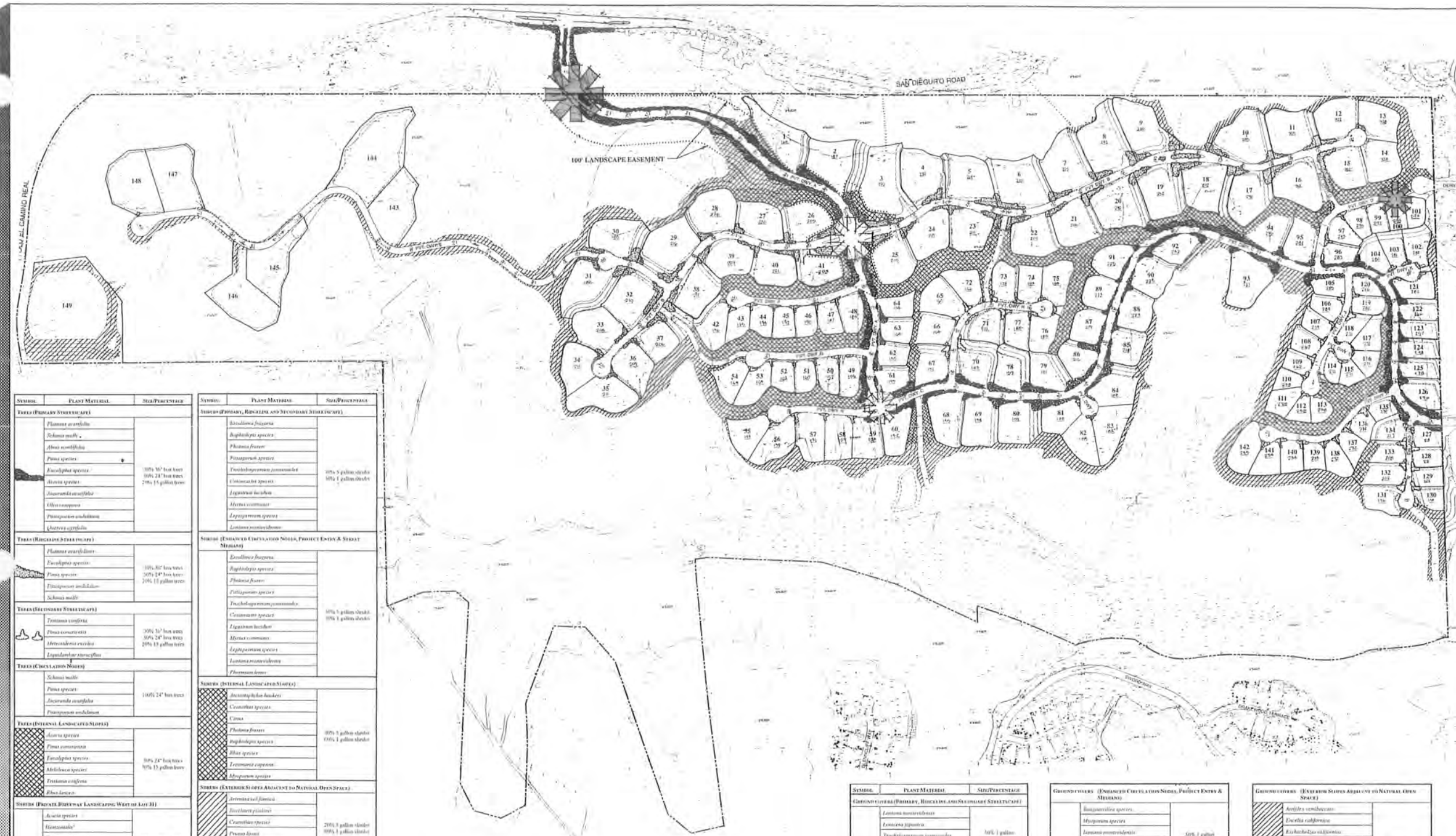


LEFT / RIGHT ELEVATION

Source: Bassenian Lagoni 1997

FIGURE 3-4

Affordable Housing Site
Architectural Elevations



LEGEND

- PRIMARY STREETSCAPE (INFORMAL)
- RIDGE LINE STREETSCAPE (INFORMAL)
- SECONDARY STREETSCAPE (INFORMAL)
- CONTROLLED ACCESS COMMUNITY ENTRY
- EMERGENCY CONTROLLED ACCESS LOCATION
- ENHANCED CIRCULATION NODE (LARGER-PRIMARY, SMALLER-SECONDARY)
- NATURALIZED MANUFACTURED SLOPES
- INTERNAL LANDSCAPED SLOPES (NOT PART OF INDIVIDUAL LOTS)

SYMBOL	PLANT MATERIAL	SIZE/PERCENTAGE
TREES (PRIMARY STREETSCAPE)		
	<i>Platanus occidentalis</i>	30% 10' tree 30% 24' tree 20% 15' palm tree
	<i>Schinus molle</i>	
	<i>Alnus umbellata</i>	
	<i>Pinus sp.</i>	
	<i>Encalypta sp.</i>	
	<i>Abies sp.</i>	
	<i>Jacuaranda umbellata</i>	
	<i>Alnus sp.</i>	
	<i>Pinus contorta</i>	
	<i>Quercus agrifolia</i>	
TREES (RIDGE LINE STREETSCAPE)		
	<i>Platanus occidentalis</i>	30% 10' tree 30% 24' tree 20% 15' palm tree
	<i>Encalypta sp.</i>	
	<i>Pinus sp.</i>	
	<i>Pinus contorta</i>	
	<i>Schinus molle</i>	
TREES (SECONDARY STREETSCAPE)		
	<i>Pinus contorta</i>	30% 10' tree 30% 24' tree 20% 15' palm tree
	<i>Pinus contorta</i>	
	<i>Abies sp.</i>	
	<i>Encalypta sp.</i>	
TREES (CIRCULATION NODES)		
	<i>Schinus molle</i>	100% 24' tree
	<i>Pinus sp.</i>	
	<i>Jacuaranda umbellata</i>	
TREES (INTERNAL LANDSCAPED SLOPES)		
	<i>Alnus sp.</i>	30% 24' tree 50% 15' palm tree
	<i>Pinus contorta</i>	
	<i>Encalypta sp.</i>	
	<i>Abies sp.</i>	
	<i>Pinus contorta</i>	
	<i>Alnus sp.</i>	
SHRUBS (PRIVATE DRIVEWAY LANDSCAPING - WEST OF LOT 31)		
	<i>Artemisia californica</i>	50% 1 gallon shrub 50% 1 gallon shrub
	<i>Artemisia sp.</i>	
	<i>Hesperaloe sp.</i>	
	<i>Croton sp.</i>	
	<i>Yucca sp.</i>	
	<i>Veronica sp.</i>	

SYMBOL	PLANT MATERIAL	SIZE/PERCENTAGE
SHRUBS (PRIMARY, RIDGE LINE AND SECONDARY STREETSCAPE)		
	<i>Encalypta sp.</i>	50% 1 gallon shrub 50% 1 gallon shrub
	<i>Argemone sp.</i>	
	<i>Phacelia sp.</i>	
	<i>Penstemon sp.</i>	
	<i>Penstemon parviflorus</i>	
	<i>Chamaecrista sp.</i>	
	<i>Ligustrum lucidum</i>	
	<i>Morus sp.</i>	
	<i>Lagotis sp.</i>	
	<i>Lonicera sp.</i>	
SHRUBS (ENHANCED CIRCULATION NODES, PROJECT ENTRY & STREET MEDIAN)		
	<i>Encalypta sp.</i>	50% 1 gallon shrub 50% 1 gallon shrub
	<i>Argemone sp.</i>	
	<i>Phacelia sp.</i>	
	<i>Penstemon sp.</i>	
	<i>Penstemon parviflorus</i>	
	<i>Chamaecrista sp.</i>	
	<i>Ligustrum lucidum</i>	
	<i>Morus sp.</i>	
	<i>Lagotis sp.</i>	
	<i>Lonicera sp.</i>	
SHRUBS (INTERNAL LANDSCAPED SLOPES)		
	<i>Artemisia californica</i>	50% 1 gallon shrub 50% 1 gallon shrub
	<i>Artemisia sp.</i>	
	<i>Croton sp.</i>	
	<i>Phacelia sp.</i>	
	<i>Argemone sp.</i>	
	<i>Abies sp.</i>	
	<i>Yucca sp.</i>	
	<i>Morus sp.</i>	
	<i>Veronica sp.</i>	
	<i>Artemisia californica</i>	
SHRUBS (EXTERNAL SLOPES ADJACENT TO NATURAL OPEN SPACE)		
	<i>Artemisia californica</i>	20% 1 gallon shrub 50% 1 gallon shrub
	<i>Artemisia sp.</i>	
	<i>Croton sp.</i>	
	<i>Phacelia sp.</i>	
	<i>Argemone sp.</i>	
	<i>Yucca sp.</i>	

SYMBOL	PLANT MATERIAL	SIZE/PERCENTAGE
GROUND COVERS (PRIMARY, RIDGE LINE AND SECONDARY STREETSCAPE)		
	<i>Lonicera monticola</i>	50% 1 gallon 50% 1 gallon
	<i>Erigeron sp.</i>	
	<i>Thymus sp.</i>	
	<i>Penstemon sp.</i>	
	<i>Veronica sp.</i>	
	<i>Verbena sp.</i>	
GROUND COVERS (PRIVATE DRIVEWAY LANDSCAPING - WEST OF LOT 31)		
	<i>Clusia sp.</i>	50% 1 gallon 50% 1 gallon
	<i>Lonicera monticola</i>	
	<i>Argemone sp.</i>	
	<i>Veronica sp.</i>	

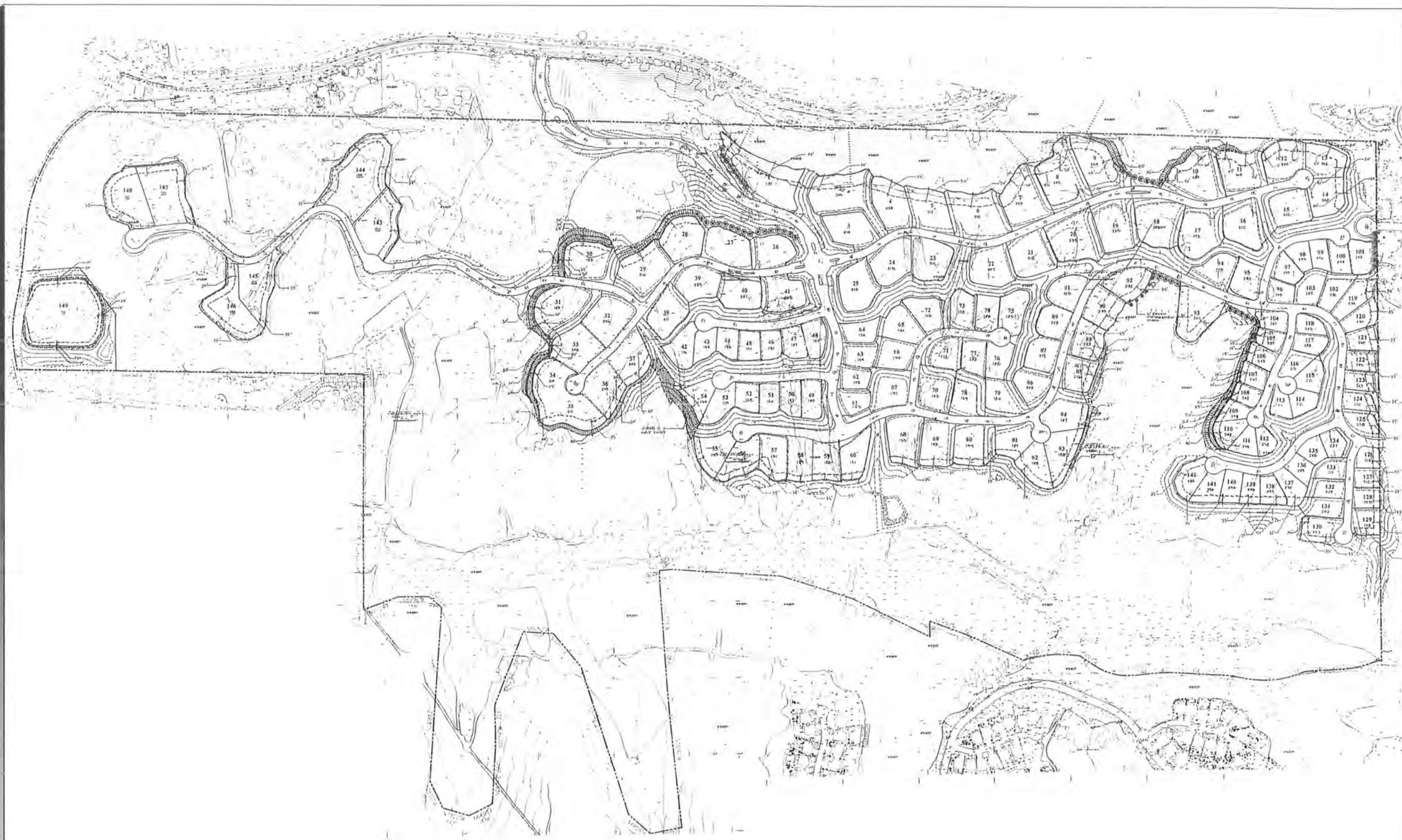
SYMBOL	PLANT MATERIAL	SIZE/PERCENTAGE
GROUND COVERS (ENHANCED CIRCULATION NODES, PROJECT ENTRY & MEDIAN)		
	<i>Bougainvillea sp.</i>	50% 1 gallon 50% 1 gallon
	<i>Myoporum sp.</i>	
	<i>Lonicera monticola</i>	
	<i>Rosa sp.</i>	
	<i>Penstemon sp.</i>	
	<i>Turf</i>	
GROUND COVERS (INTERNAL LANDSCAPED SLOPES)		
	<i>Baccharis pallidula</i>	50% 1 gallon 50% 1 gallon
	<i>Stemmadium floribundum</i>	
	<i>Turkey sp.</i>	
	<i>Myoporum sp.</i>	
	<i>Turf</i>	

SYMBOL	PLANT MATERIAL	SIZE/PERCENTAGE
GROUND COVERS (EXTERNAL SLOPES ADJACENT TO NATURAL OPEN SPACE)		
	<i>Artemisia californica</i>	100% 1 gallon
	<i>Erigeron sp.</i>	
	<i>Chamaecrista sp.</i>	
	<i>Lagotis sp.</i>	
	<i>Mimulus sp.</i>	
	<i>Trifolium sp.</i>	




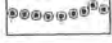
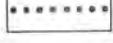
FIGURE 3-6
Landscape
Concept Plan

1100 550 FEET 0





BRUSH MANAGEMENT LEGEND

-  ZONE ONE (DISTANCE MAY VARY)
-  ZONE TWO (DISTANCE MAY VARY)
-  ZONE THREE (DISTANCE MAY VARY)
-  NO BRUSH MANAGEMENT REQUIRED
-  BRUSH MANAGEMENT WALL

LEGEND

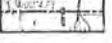


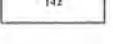
-  SUBDIVISION BOUNDARY W/ DIMENSIONS & BEARINGS
-  LOT LINES
-  EXISTING CONTOURS
-  LOT NUMBER

FIGURE 3-7
Brush Management Plan



Chapter Four

Environmental Analysis

The following environmental analysis addresses existing conditions, potential impacts resulting from project implementation, and suggested mitigation measures. The existing conditions discussions address the two project areas (Del Mar Highlands Estates and Shell parcel). The impact discussions only addresses Del Mar Highlands Estates. Any potential effects resulting from maintaining the Shell parcel in permanent open space are expected to be beneficial and are not addressed in this section.

A. Land Use

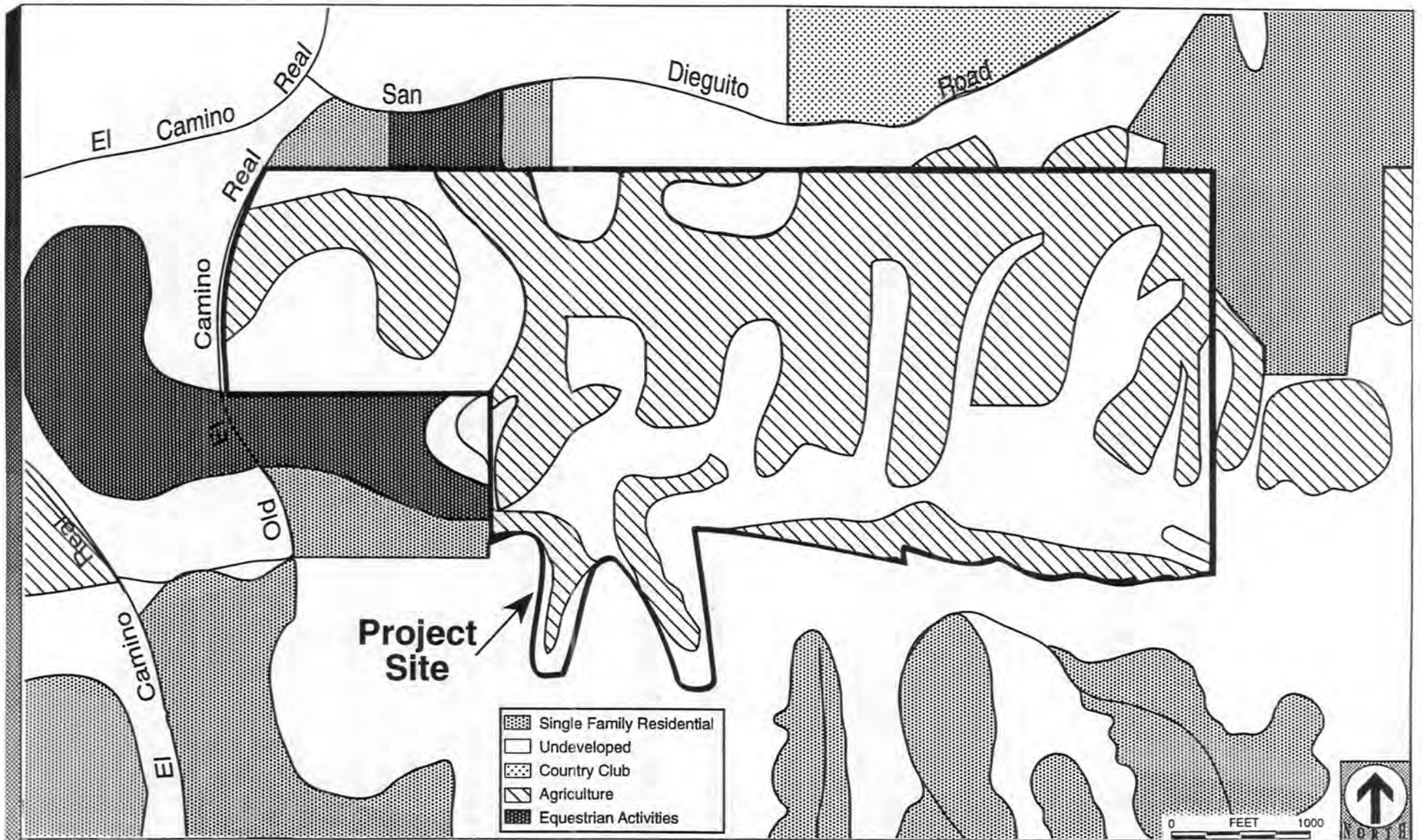
Existing Conditions

a) Del Mar Highlands Estates

Existing Land Uses

Approximately 195 acres of the project site are being used for agriculture (truck crops; Figure 4A-1). The City of San Diego granted an agricultural permit to a local farmer for the clearance of specified areas of the project site and adjacent land to the east in March 1989. The permittee is leasing the land from the property owner on a month-to-month basis. The permit allowed specific areas of the site to be cleared for agricultural activities, preserving steep slopes and the Gonzales Canyon drainage course. The remainder of the project site, which is not in agricultural production (approximately 194 acres), is undeveloped land with disturbed and undisturbed native habitat.

Surrounding land uses include nursery operations, commercial agriculture, large-lot single-family residences, and equestrian activities. The nursery operations are mainly located along Black Mountain Road and grow flowers, palms, and other plants for landscaping purposes. Additional tomato farming takes place on the upland mesas north of Gonzales Canyon and east of the project site. Equestrian activities take place on four horse ranches located in Gonzales Canyon east and west of Old El Camino Real, north of the project site and southeast of the project site. There are several existing single-family



Source: Helix Environmental 1995

FIGURE 4A-1

Del Mar Highlands Estates
Existing Land Use Map

residences and trailers for worker housing, located south of the project site and east of Old El Camino Real. Two country clubs are located north and northeast of the site. The Senterra residential development is adjacent to the site on the east and extends northeast of the site. A residential development, a church, Torrey Highlands park, and Torrey Pines High School are located south of the project site. As shown in Figure 4A-1, a substantial amount of undeveloped land also surrounds the site.

Zoning Designations

The project site, like the rest of the North City FUA, is zoned A-1-10. According to the Municipal Code, the purpose of the A-1 (Agricultural) zones is to provide “appropriate zoning for areas that are presently in agricultural or open space use or which are undeveloped and either are awaiting development or are premature for development at urban intensities.”

Permitted uses include single-family dwellings (one residential unit per 10 acres), churches, stables, all agricultural uses (with the exception of pig farming), stands for the sale of crops produced on the premises, living quarters for up to five farm employees, public utility substations, and some signs.

Floodway (FW) and Floodplain Fringe (FPF) Overlay Zones are located within Gonzales Canyon on-site. Development of permanent structures in the FW Overlay Zone is generally restricted. Within the FPF Overlay Zone, development is generally permitted in accordance with the underlying zoning, provided that the design of such development mitigates potential flood hazards.

In addition, the Hillside Review Overlay Zone applies to all areas of the site having slopes with a natural gradient in excess of 25 percent and a minimum elevation differential of 50 feet. The purpose of this zone is to ensure that development occurs in a manner that protects the natural and topographic character and identity, environmental resources, and aesthetic qualities of hillside areas. The requirements of the Hillside Review (HR) Overlay Zone have also been incorporated into the City’s Resource Protection Ordinance, which is discussed below. All grading, construction, and demolition activities within the HR zone require an HR permit or a RPO permit from the City.

This site is subject to the regulations of the City of San Diego’s Resource Protection Ordinance. The purpose and intent of this ordinance is “to protect, preserve, and, where damaged, to restore the environmentally sensitive lands of San Diego, which includes wetlands, wetland buffers, floodplains, hillsides, biologically sensitive lands, and significant prehistoric and historic resources.” The provisions of the ordinance are applicable to floodways and 100-year floodplain fringe areas, all wetland and wetland buffer areas, all hillside areas of 25 percent or greater slope in excess of 50 feet in height,

all biologically sensitive lands, and all significant prehistoric and historic sites and resources. RPO requirements for the applicable resources on the project site are as follows.

Hillsides encompassing slopes of 25 percent gradient or more and with an elevation differential of 50 feet or more are considered sensitive under the ordinance. Native biological communities or any vegetative community supporting state or federally listed or candidate species are considered sensitive, along with designated plant or wildlife species. On Del Mar Highlands Estates, there are approximately 180.1 acres of RPO-defined steep slopes and biologically sensitive lands (coastal sage scrub, southern maritime chaparral, mule fat scrub, and southern mixed chaparral) on the property. There are no mapped wetlands or wetland buffers for the project site, but a portion of the project site is located in a floodway or floodplain fringe. Significant prehistoric resources do occur on the property.

A minimal encroachment is allowed into hillsides and biologically sensitive lands, per formulas provided in the ordinance. The encroachment allowance is not applicable to sensitive biological lands with state or federally listed rare, threatened, or endangered species or wetlands. RPO combines the allowed encroachment for hillsides and biological resources, based on the proportion of each resource, to set the encroachment allowance. A separate HR permit is not required; however, the project must conform to the hillside development guidelines of the Hillside Review Overlay Zone. The development guidelines for hillside review are discussed in Section 4.C, Landform Alteration. Development beyond the encroachment allowance for biologically sensitive lands shall not be permitted unless all feasible mitigation to protect and preserve these lands is required as a condition of approval.

RPO allows for plan approval through alternative compliance where a development plan does not conform with the ordinance, but only when the project complies with the ordinance to the maximum extent feasible. This applies to cases where strict application would result in unnecessary hardship to the applicant; create results in conflict with City Council policy, the Progress Guide and General Plan, or any adopted community plan; or preclude provisions of extraordinary benefit to the general public. Findings must be made for the situation which applies to the proposed project.

City of San Diego Progress Guide and General Plan

Land Use Designations. The City's 1989 *Progress Guide and General Plan* designates most of the Del Mar Highlands Estates project site as "Area for Future Growth," except for Gonzales Canyon, which was designated as "Open Space." These designations have been superseded by the FUA Framework Plan.

Land Use Goals and Objectives. In June 1989, the City published an updated and reprinted version of the Progress Guide and General Plan. On October 1, 1990, the City adopted a revised version of the "Guidelines for Future Development" section of the Progress Guide and General Plan, which describes the City's objectives in the Future Urbanizing Area as follows:

To avoid premature urbanization, to conserve open space and natural environmental features, and to protect the fiscal resources of the City by precluding costly sprawl and/or leapfrog urban development.

In addition, the Guidelines for Future Development section states that the delineation of the Future Urbanizing Area is not intended to be permanent; rather, it is an interim designation designed, as part of the overall growth management program, to prevent premature urban development and, therefore, to guide urbanization into more appropriate areas in accordance with a balanced and efficient growth pattern.

Additional applicable development policies from the Guidelines for Future Development section are as follows:

- The existing non-urban land use pattern and character of the area should be retained until such time as the City Council and the electorate approve a phase shift reclassifying the land to the Planned Urbanizing designation and a land use plan for the area is adopted.
- Rural, resource-based, and open space uses should be retained on a permanent basis, where appropriate and feasible.
- Development should be permitted consistent with the A-1 (Agricultural) zone applied, and conditional uses should be allowed provided they are natural resources-dependent, non-urban in character and scale, or of an interim nature which would not result in an irrevocable commitment of the land precluding future uses.
- Public facility improvements should be permitted only to meet regional needs or to serve primarily the Urbanized and Planned Urbanizing communities, provided the impacts of those facilities upon identified resources can be avoided or fully mitigated.
- Lands that should be categorized as environmentally sensitive or which are appropriate for permanent retention as rural, resource-based, or open space uses should be identified and mapped.
- Following the identification and mapping of these resources, transportation corridors and other needed public facility improvements should be identified and mapped, provided such facilities avoid or fully mitigate impacts to the area's resources.

Environmental Goals and Objectives. The following relevant general environmental quality goals are stated in the revised Guidelines for Future Development section of the Progress Guide and General Plan, adopted on October 1, 1990:

- Preserve and protect environmentally sensitive lands which include but are not limited to shorelines, floodplains, hillsides, canyons, wetlands, riparian habitat, endangered species and habitats, and prehistoric and historic sites.
- Obtain, preserve, and maintain interconnected and functional open space systems to meet the current city needs and the needs of future growth as outlined in the Open Space Element of the Progress Guide and General Plan.

The Guidelines for Future Development section goes on to state the following guidelines and standards for implementation of the preceding environmental quality goals:

- The current three-tier program shall be amended by creation of a fourth geographic area within the city: the Environmental Tier.
- All areas within the city which are currently and formerly designated as Open Space, those areas defined as environmentally sensitive lands, and those areas defined as open space in the Open Space Element of the Progress Guide and General Plan shall be mapped. This mapped area will be analyzed for inclusion in the Environmental Tier, and based upon such mapping, the City shall adopt the Environmental Tier.
- Before development can proceed on any site within the Environmental Tier, the City Council shall be required to find that all possible methods of preservation to eliminate development of land within this tier, and/or to minimize development and the impacts of development to land within this tier through the use of mitigation measures, have been exhausted.
- On lands within portions of the Environmental Tier which are already developed or that have development imminent, all feasible measures shall be taken to protect and preserve environmentally sensitive lands and to provide interconnected and functional open space systems.
- Continued maintenance of sensitive lands and interconnected open space systems preserved within the Environmental Tier shall be provided.

City of San Diego Council Policies

City Council Policies 600-29 and 600-30, which were amended by the City Council on October 1, 1992, are applicable to development within the Future Urbanizing Area, in which the project site is located. These policies are summarized below.

City Council Policy 600-29, "Maintenance of Future Urbanizing Area as an Urban Reserve." This council policy states that the City's objectives in land use decision making in the Future Urbanizing Area are "to avoid premature urbanization, to conserve open space and natural environmental features, and to protect the fiscal resources of the City by precluding costly sprawl and/or leapfrog development."

Policy 600-29 presents four options for limited development in the Future Urbanizing Area, without distinguishing any of them as preferable to the others. They are:

- Development pursuant to the A-1 zoning regulations, at the density and minimum lot size permitted in the applicable zone.
- Development pursuant to the Rural Cluster Development regulations, at the density permitted in the applicable zone, but clustered in order to promote more efficient land utilization and land conservation; to allow development in patterns more consistent with that occurring in adjacent areas; to avoid fragmentation of land ownership patterns which would mitigate against future development opportunities; to allow for reasonable development opportunities during the planning period without foreclosing future development choices; and to make annexation of unincorporated land more attractive where such lands will be brought into the Future Urbanizing Area. Clustering will allow the owner a reasonable present development opportunity, while retaining the undeveloped portions of the property for future development at higher densities, if appropriate, when the property is shifted from the Future Urbanizing Area to the Planned Urbanizing Area in accordance with Council Policy No. 600-30, "General Plan Amendments to Shift Land From Future Urbanizing to Planned Urbanizing Area."
- Development pursuant to the Planned Residential Development regulations, at a density not to exceed one dwelling unit per four acres, in order to promote the permanent preservation of lands designated in the General Plan as part of the Environmental Tier through the provision of public and private open space easements and/or dedications; provided, however, that in return for the density increase granted by the City Council, no future development rights shall remain on the property. As a condition for obtaining the increased density, the property owner shall also be required to locate public facilities in the vicinity and roads necessary to access them and to provide a financing mechanism for these facilities pursuant to the Progress Guide and General Plan. This development option may not be appropriate in areas where the lot pattern precludes clustering of development outside of the Environmental Tier.
- Development pursuant to the Conditional Use Permit regulations, provided that the conditional uses are natural resource-dependent, non-urban in character and scale, or

of an interim nature which would not result in an irrevocable commitment of the land precluding future uses.

City Council Policy 600-30, "General Plan Amendments to Shift Land from Future Urbanizing to Planned Urbanizing Area." This council policy was amended following the passage of Proposition A by voters in 1985. Proposition A requires that projects located in the Future Urbanizing Area which propose a shift to the Planned Urbanizing Area attain a majority approval vote of the people at a city-wide election. The council policy applies to all shifts of land from Future Urbanizing to Planned Urbanizing prior to a General Plan Amendment. The policy now states that no land shall be shifted from Future Urbanizing to Planned Urbanizing except by a General Plan Amendment approved by the City Council and a majority approval vote at a city-wide election. Once land is shifted, a rezone or subsequent development approval shall be in accordance with applicable requirements. Finally, a General Plan Amendment to shift land may be initiated by the City on its own motion or by a property owner.

Pursuant to this council policy, a phase shift vote was entered on the ballot in June 1994 to shift the North City FUA from a Future Urbanizing Area to a Planned Urbanizing Area. The measure did not pass.

City Council Policy 600-10, "Adequacy of Public Facilities in Connection with Development Proposals." This policy addresses the timing of public services for new developments to ensure availability commensurate with need. It requires that:

- New development be consistent with a master development plan for the general area which has been reviewed by the Planning Commission and adopted by the council;
- The development include an implementation section which sets forth in detail measures to be taken to ensure that needed public services are provided concurrent with need in the development; and
- The proponent present evidence satisfactory to the appropriate body or agency that the required public services will in fact be provided concurrent with need.

North City Future Urbanizing Area Framework Plan

General Background. The Framework Plan for the North City FUA was adopted in October 1992 as the culmination of a two-year-long planning effort by the City of San Diego and the Citizens Advisory Committee for the FUA. The Framework Plan is intended to serve as a guide for development of the FUA. It identifies land uses and tentative development intensities at a General Plan level of detail. The Framework Plan amended the City's Progress Guide and General Plan. Where Framework Plan policies

are more detailed than policies in the Progress Guide and General Plan, the Framework Plan policies govern.

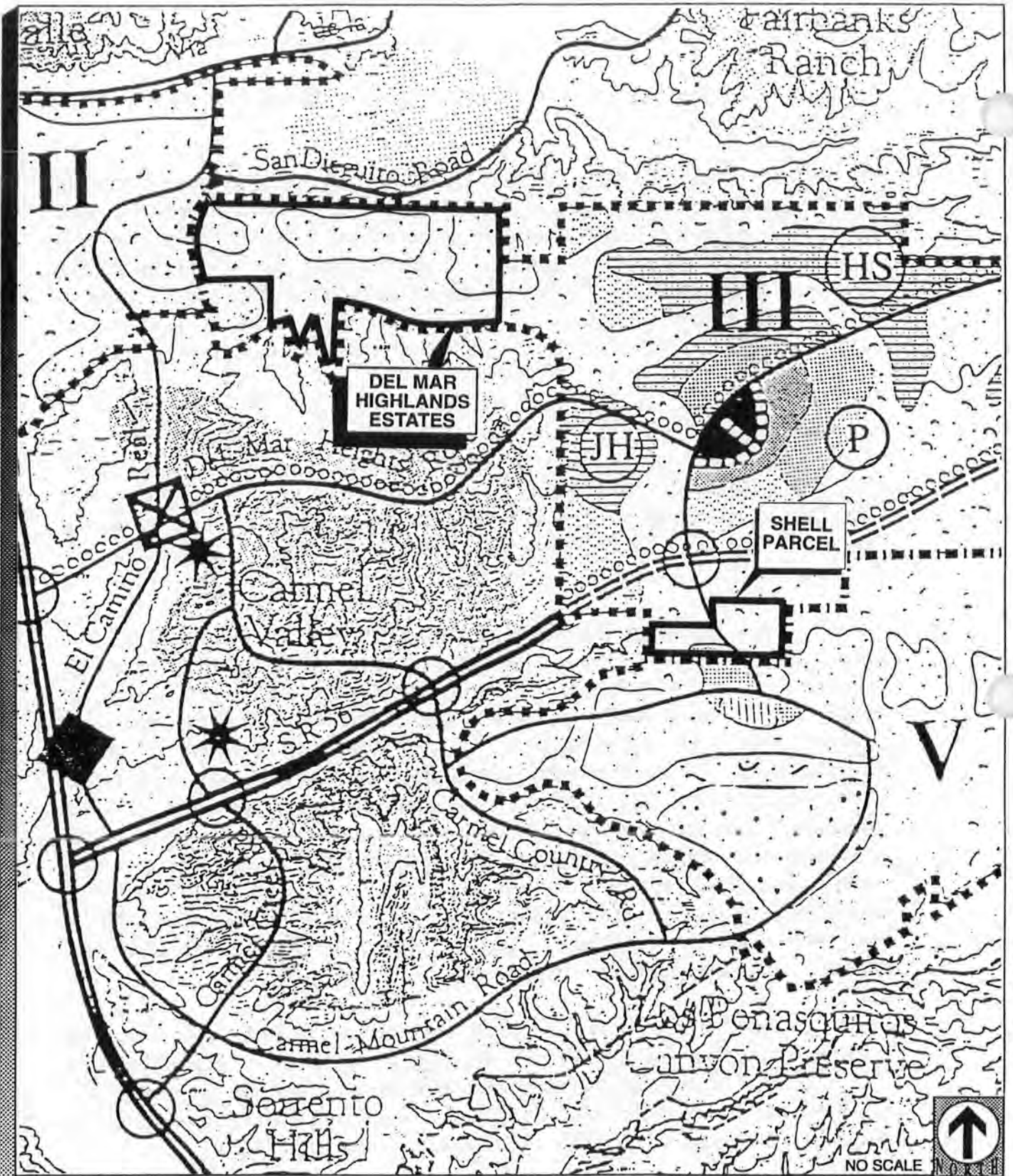
The Framework Plan would concentrate residential development in specific areas to create compact neighborhoods that have an urban character and that include varied types of housing and a range of affordability supported by a mix of shops, services, employment, and public activities that can be reached by foot, bicycle, and transit. The Framework Plan also identifies an Environmental Tier of open space lands to serve as natural habitat, form connections for wildlife movement within the FUA and to surrounding open spaces, and provide visual relief to surrounding built areas.

The Framework Plan divides the FUA into five subareas. Prior to approval of development in a subarea of the FUA at a density greater than 1 du/10 ac (A-1-10 zone) or 1 du/4 ac (PRD), a subarea plan must be prepared and adopted. The proposed project is located in Subarea III as identified in the Framework Plan. A subarea plan has not yet been adopted for this area. General information on planned uses in the subarea is presented in the following two paragraphs. Specific information regarding proposed residential uses on project parcels follow.

The Framework Plan Land Use Map shown in Figure 4A-2 is intended to serve as a conceptual land use plan, subject to refinement through the subarea planning process. In the EIR for the Framework Plan, the City estimated buildout of the FUA. In general, for Subarea III, the Framework Plan shows a compact, mixed-use community core located southeast of the T intersection of Del Mar Heights Road and what is currently Black Mountain Road. The community core would include a variety of commercial, office, public, and residential uses, with an average residential density of 11 to 40 du/ac, assuming a density bonus for affordable housing. Around the immediate periphery of the community core would be residential uses and a community park. The remaining outlying areas would consist of the Environmental Tier with pockets of residential development, averaging 0.2 to 5.2 du/ac but going as high as 7.0 du/ac in the Carmel Valley area. High school and junior high school sites are also tentatively identified in the northeast and southwest portions of Subarea III.

The Open Space section of the Framework Plan provides an open space composite diagram, reproduced as Figure 4A-3 in this EIR, which shows the Framework Plan Environmental Tier and additional open space information (natural and man-made). The Environmental Tier includes a wildlife corridor between the San Dieguito River valley, through the Gonzales Canyon portion of the project site to Carmel Valley.

Del Mar Highlands Estates. As shown in Figure 4A-2, the Framework Plan envisions estate residential development for the Del Mar Highlands Estates project site at 0.2 dwelling unit per gross acre. This density would allow the development of 77 units on the 389-acre project site. As mentioned previously, however, in the absence of a phase





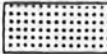


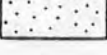
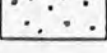



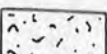
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










FIGURE 4A-2

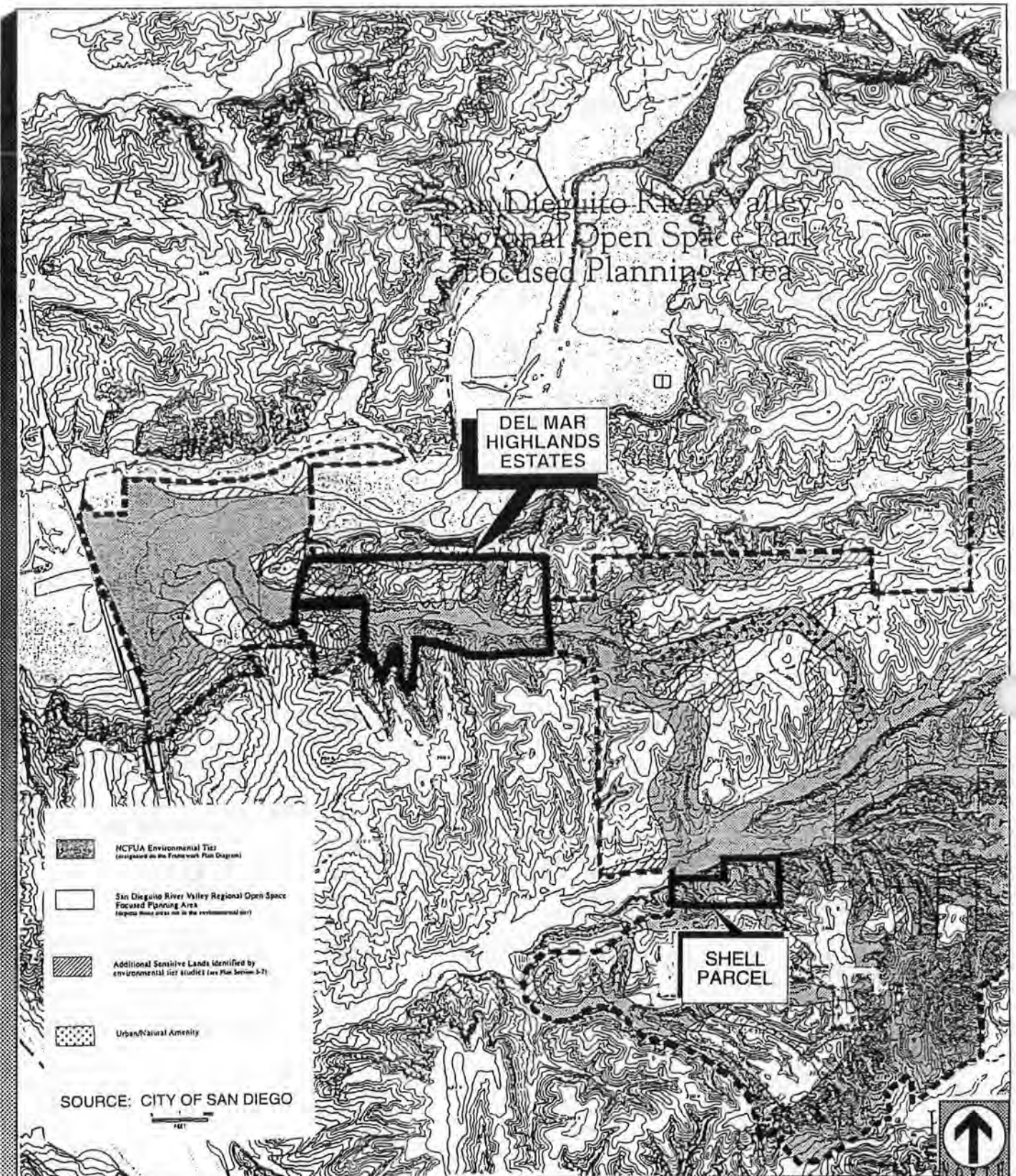
Framework Plan Land Use Map

Compact Community Uses

	Mixed Use Community Core retail and service office public and semi-public uses residential 32 du/gross acre average (with density bonus, up to 40 du/gross acre)
	Core Residential 11 du/gross acre average (with density bonus, up to 14 du/gross acre)
	Peripheral Residential 7 du/gross acre average (with density bonus, up to 8.7 du/gross acre)
	Low Density Residential 4 du/gross acre average (with density bonus, up to 5.2 du/gross acre)
	Moderately Low Density Residential 1.6 du/gross acre average (with density bonus, up to 2 du/gross acre)
	Very Low Density Residential .8 du/gross acre average (with density bonus, up to 1 du/gross acre)
	Estate Residential .2 du/gross acre average (with density bonus, up to .25 du/gross acre)
	Local Mixed Use Center local-serving retail public and semi-public uses residential 14 du/gross acre average (with density bonus, up to 17.2 du/gross acre)
	Employment Center
	Service Commercial
	Environmental Tier

Circulation Network

	Major Roadway (Generalized Alignment)
	Freeway
	Proposed Freeway
	Interchange
	Transit Emphasis
	Transit Exclusive Right-of-Way
	High School
	Junior High/ Middle School
	Community Park
	City Operations Station
	NCFUA Boundary
	Subarea Boundaries
	Retail Center (outside NCFUA)
	Major Employment Center (outside NCFUA)
	Regional Transit Terminal



Source: Helix Environmental 1995

FIGURE 4A-3
Framework Plan Open Space
Composite Plan

shift and an adopted subarea plan, development of the project site is only permitted at up to one unit per ten acres (A-1-10 zoning) or up to one unit per four acres (PRD) with clustering. These density limits would allow a maximum of 38 units or 97 units, respectively. Development at greater than 1 unit per 10 acres is subject to additional restrictions under the Framework Plan, as described previously for Council Policy 600-29. This PRD application includes both the Shell parcel and the Del Mar Highlands Estates parcel. Density would be calculated over both parcels.

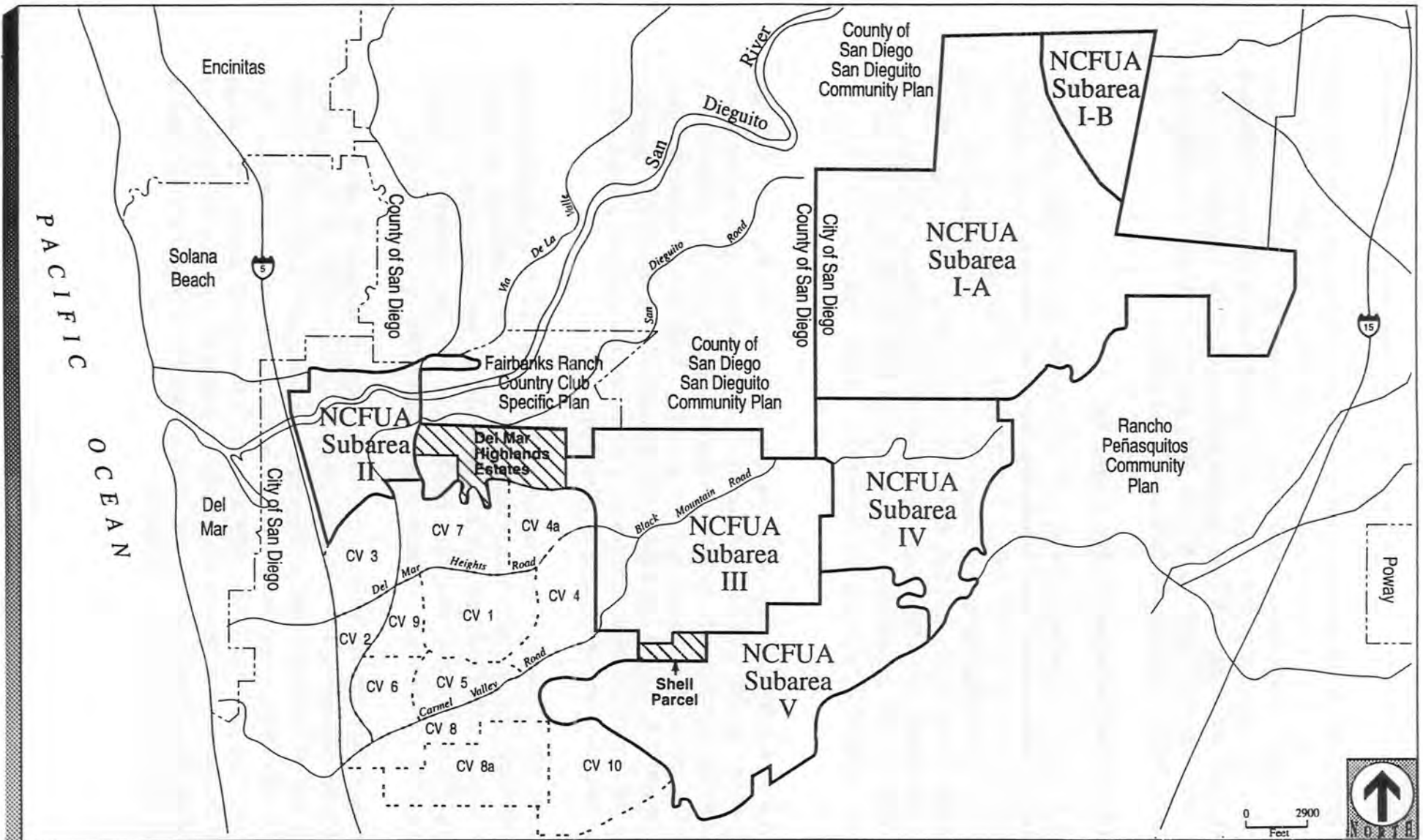
Planned Land Uses Surrounding the Project Site

Figure 4A-4 shows the planning areas adjacent to the project site. As shown, Neighborhoods 7 and 4a of the Carmel Valley Community Plan are adjacent to the south boundary of the project site. The Carmel Valley Community Plan has been refined by more specific neighborhood plans for each of these neighborhoods. The properties to the north and northeast of the project site fall within the boundaries of the Fairbanks Ranch Country Club Specific Plan (City of San Diego) and the San Dieguito Community Plan (County of San Diego), respectively. Subarea II of the FUA borders the project site on the west and Subarea III, of which the project site is a part, continues to the east and south.

Figure 4A-5 is a composite map of the planned land uses adjacent to the Del Mar Highlands Estates project site, based on the most specific level of planning document available for each adjacent planning area. As shown, the Carmel Valley neighborhoods south of the project site are planned for primarily single-family residential uses, interspersed with both natural and recreational open spaces. A multi-family residential area, three public parks, an elementary school, a fire station, and the existing Torrey Pines High School are also identified in these neighborhoods.

The Fairbanks Ranch Country Club Community Plan shows all open space (including both natural open space and golf course/country club uses) and single-family residential land uses. The San Dieguito Community Plan designates the entire area northwest of the project site for single-family residential development, but also indicates a planned elementary school adjacent to the Fairbanks Ranch Country Club Specific Plan area.

The Framework Plan planned land uses for those portions of Subareas II and III of the FUA which are adjacent to the project site were previously shown on Figure 4A-2. Subarea II, west of the project site, is designated for estate residential development (0.2 du/ac), very low density residential development (0.8 du/ac), and Environmental Tier preservation. The land east of the project site in Subarea III is identified for estate residential development, moderately low density residential development (1.6 du/ac) and Environmental Tier. There is also a small pocket of very low density residential land in Subarea III near the southwest corner of the site.



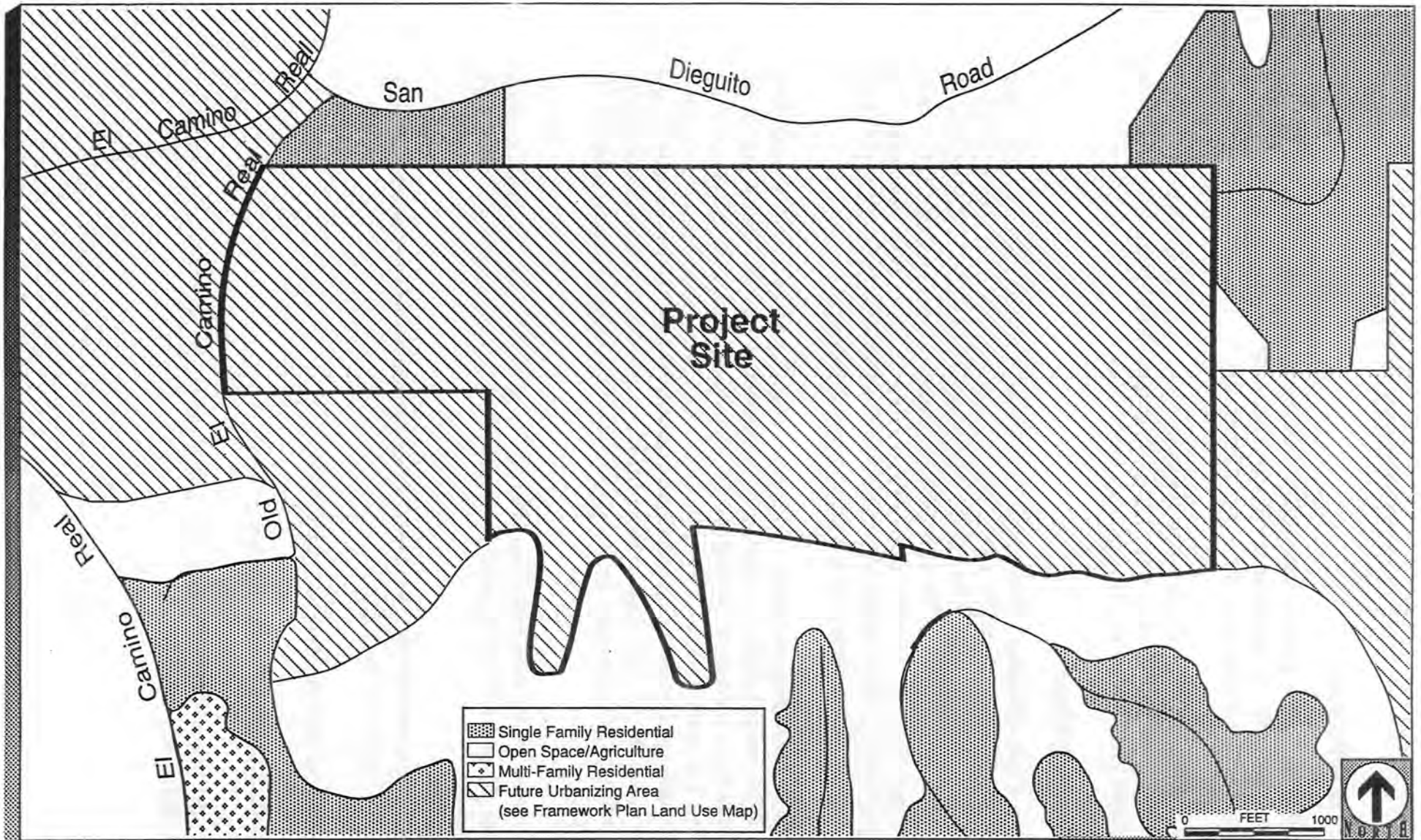
Source: Helix Environmental 1995

CV = Carmel Valley Community Neighborhood

NCFUA = North City Future Urbanizing Area

FIGURE 4A-4

Community and Specific Planning Areas in the NCFUA Vicinity



Source: Helix Environmental 1995

FIGURE 4A-5

**Del Mar Highlands Estates
Planned Land Use Map**

Local Coastal Program

The North City Local Coastal Plan (LCP) was certified by the California Coastal Commission in 1988. It addresses the Torrey Pines, Carmel Valley, Mira Mesa, and University–La Jolla communities of the city of San Diego.

The Coastal Zone abuts the project site on the west and includes Old El Camino Real, but does not extend onto the project site. The LCP designates that portion of the Coastal Zone adjacent to the project site for open space/park uses.

Other Planning Efforts

Equestrian Trails Planning. The City of San Diego adopted a “Plan for Equestrian Trails and Facilities” in February 1976. This plan does not identify any trails on or adjacent to the project parcels. The closest equestrian facility which is identified by the Plan for Equestrian Trails and Facilities is the Carmel Valley Connector Trail, which would extend from El Camino Real through the Carmel Valley floodplain and McGonigle Canyon (within Subarea III of the FUA) and beyond Subarea III to the top of Black Mountain. This trail may cross or pass near the Shell parcel.

San Dieguito River Regional Plan. This plan was adopted by the City Council in October, 1984, and is intended to serve as a comprehensive planning framework for the San Dieguito River watershed. It considers the planning documents and policies of many jurisdictions and agencies with responsibilities and interest in the watershed. Generally, the plan’s goals are to preserve the open space character, significant water resources, and landscape that make the San Dieguito River basin unique, as well as the various natural, cultural, and aesthetic resources in the basin. The following are major goals of the regional plan:

- To preserve the function of the San Dieguito River basin as an open space corridor through the protection of the contiguous nature of the existing dominant landscape features.
- To protect and preserve significant natural, cultural, and aesthetic resources, including the visual integrity of the river basin.
- To ensure compatibility between various land uses.
- To preserve water quality and quantity.

From the above goals, the following two points summarize general recommendations which are particularly relevant:

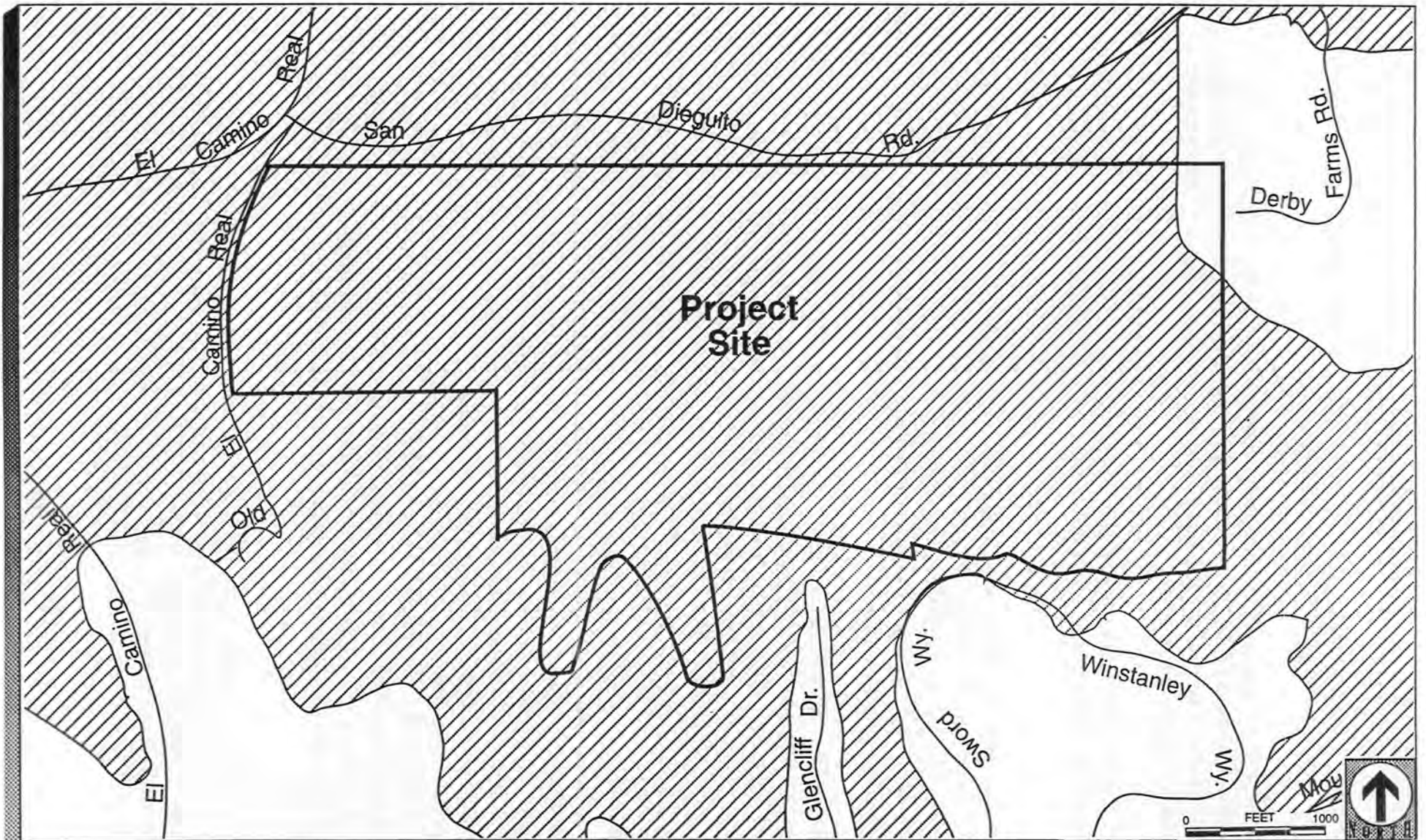
- Preservation of the San Dieguito River basin's recreation/open space potential should be the highest priority in considering land use issues.
- Establishment of a recreation/open space corridor through the river basin. This corridor would extend from the coast, inland to Sutherland Reservoir. As a first step in establishing a recreation/open space corridor, emphasize existing and proposed recreation programs and plans.

The San Dieguito River Regional Plan is intended to be a generalized plan. It identifies the need for more detailed planning to occur in the form of area, community, or specific plans.

The plan addresses the entire river valley from the Pacific Ocean northeasterly to Sutherland Reservoir. It divides the valley into six subareas for planning purposes. Subarea I is adjacent to the project site on the north. The plan recommends rural residential development (less than 1 du/ac), agriculture, and recreational/open space uses for those areas near the project site.

San Dieguito River Park Concept Plan. In June 1989, the San Dieguito River Valley Regional Open Space Park Joint Powers Authority (JPA) was established for the primary purpose of planning and acquiring a greenbelt and park system within the San Dieguito River valley. The JPA has been empowered by its member agencies (County of San Diego and the Cities of Del Mar, Escondido, Poway, San Diego, and Solana Beach) to acquire, hold, and dispose of property for park purposes and to plan, design, improve, operate, manage, and maintain the San Dieguito River Valley Regional Open Space Park. Thus, the planning process which began with the City's San Dieguito River Regional Plan is continuing under the jurisdiction of the JPA. The JPA is further empowered to establish guidelines for and advise public agencies on appropriate land uses within the San Dieguito River Park. In order to accomplish these objectives, the JPA mapped an 80,000-acre Focused Planning Area for the San Dieguito River Park and adopted a concept plan for the Focused Planning Area on February 18, 1994. The purpose of the concept plan is to set forth the vision, goals, and objectives of the park, as well as to establish the overall planning framework for future park development within the Focused Planning Area. The JPA itself does not have land use authority over the properties within the Focused Planning Area and the City of San Diego has not yet incorporated any part of the concept plan into City planning documents, although several Framework Plan policies address the park.

The Focused Planning Area extends for 55 miles from the river's source on Volcan Mountain near Julian to the ocean at Del Mar. It contains both private and publicly owned lands and roughly corresponds to the viewshed of the San Dieguito River valley and its major tributary canyons. This river system forms a natural corridor, connecting a wide variety of native environments and vegetation types. Figure 4A-6 shows the



Source: Helix Environmental 1995


 Focused planning area

FIGURE 4A- 6

**San Dieguito River Valley
Regional Park Focused Planning Area**

boundaries of the Focused Planning Area within the project area. As shown, it includes all of the project site, with the exception of the northeast corner, and continues along Gonzales Canyon, the San Dieguito River valley, and La Zanja Canyon east and west of the site. Gonzales and La Zanja Canyons are identified by the concept plan as important wildlife habitat links and open space trail connections to Carmel Valley. The plan states that special attention should be given to viewsheds of specific activity areas, although buffering of development with trees would be appropriate where compatible with wildlife habitat.

The vision of the concept plan is “to create an open space park within the 55-mile-long San Dieguito River valley that will protect the valley’s unique resources, while providing compatible recreational opportunities for the San Diego region.” The stated overall goal of the concept plan is to “preserve land within the Focused Planning Area of the San Dieguito River Park as a regional open space greenway and park system that protects the natural waterways and the natural and cultural resources; provides compatible recreational opportunities that do not damage sensitive lands; and provides a continuous and coordinated system of preserved lands with a connecting corridor of walking, equestrian, and bicycle trails encompassing the San Dieguito River valley from the ocean to the river’s source and beyond.” The general objectives for the park, as stated in the concept plan, are as follows:

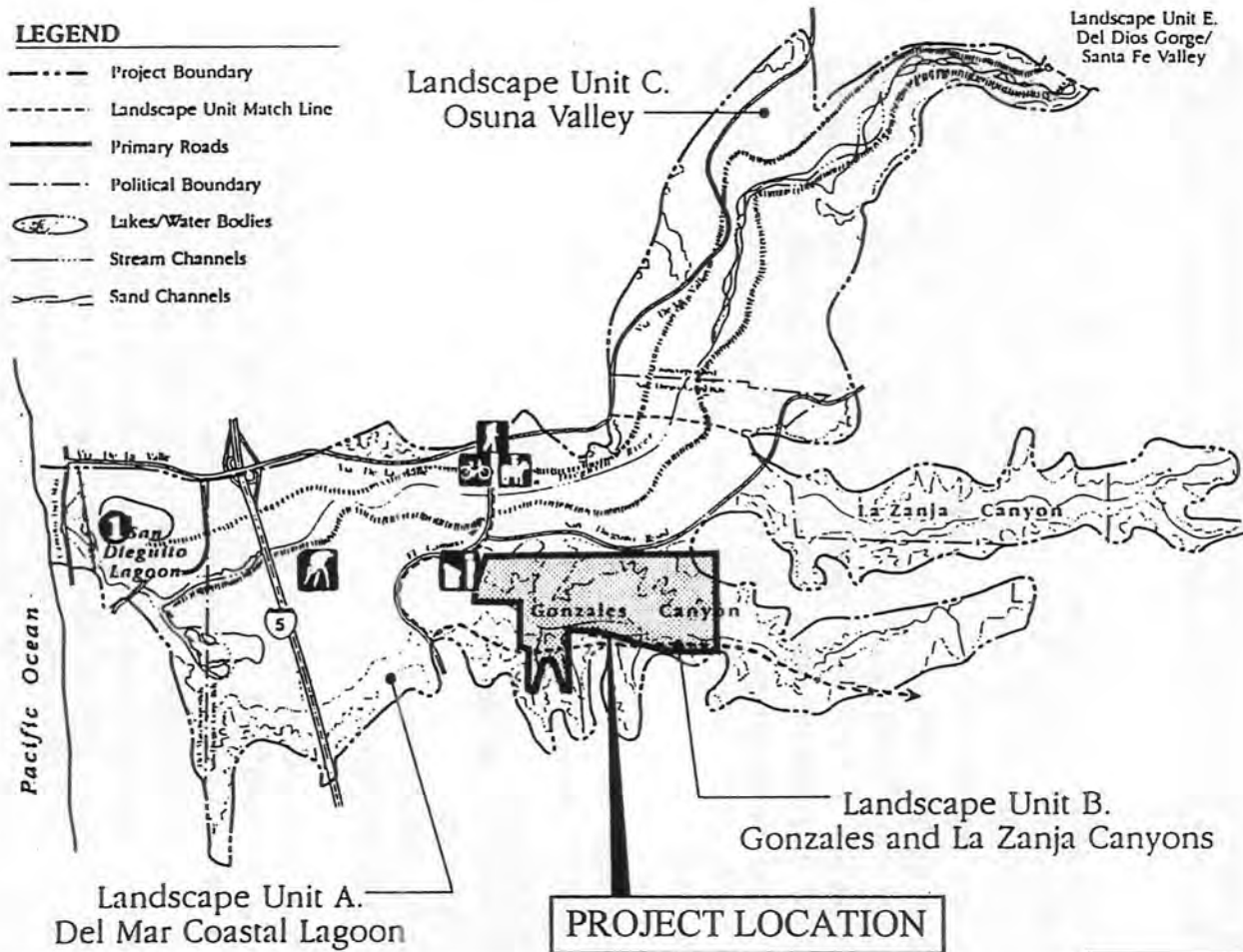
- Preservation of open space
- Conservation of sensitive resources
- Protection of water resources
- Preservation of the natural floodplain
- Retention of agricultural uses
- Creation of recreational and educational opportunities
- Establishment of design guidelines

The concept plan divides the Focused Planning Area into landscape units based on the differing physical characteristics of each unit. The preparation of master plans for each landscape unit is encouraged. The Del Mar Highlands Estates is within Landscape Unit B (Figure 4A-7). The concept plan acknowledges that much of the natural habitat within this landscape unit has been disturbed by existing land uses. However, the finger canyons between Gonzales and La Zanja Canyons and the San Dieguito River are identified as important wildlife links and open space trail connections. The mesas and upland slopes of these drainages are identified as “a very important frame to the view of the valley as it narrows.” Within Landscape Unit B, the concept plan calls for:

- Dedication of open space corridors within Gonzales and La Zanja Canyons in conjunction with development. These corridors should be of adequate size to accommodate both wildlife and human movement. Existing sensitive habitat in these

LEGEND

- Project Boundary
- - - Landscape Unit Match Line
- Primary Roads
- - - Political Boundary
- Lakes/Water Bodies
- Stream Channels
- Sand Channels



- San Dieguito Lagoon Enhancement Area
- Interpretive Center
- Sikes Adobe Restoration
- Campground
- Coast to Crest Trail Corridor
Hiking, Bicycling & Equestrian
- Secondary Trails
- Vista Point

1 San Diego County Fair Grounds

11000 5500 FEET 0

FIGURE 4A-7

**San Dieguito River Park
Concept Plan (1994)**

Source: San Dieguito River Park Joint Powers Authority 1994

corridors should be preserved and, where necessary, native habitats should be restored.

- Setback of development on the adjacent ridges from the top of slope in order to reduce its visibility from the river valley and canyons, as well as to provide for an upland transition area that will serve to buffer the development from the adjoining natural habitat. Architectural treatment should be sensitive to the views from the park, and appropriate landscaping should be provided within a transition buffer area to help screen the development.
- Construction of canyon overlooks or viewpoints within future development proposals that will provide visual access to interested park visitors.
- Maintenance and improvement of the equestrian facilities within this landscape unit.
- Sensitive siting of trails intended for hiking and equestrian use that connect to the regional trail systems in Los Peñasquitos Canyon Preserve, Black Mountain Park, and Carmel Valley. Existing trails and dirt roads should be utilized wherever feasible.
- Provision of a small trail staging area within this landscape unit for parking and access to the proposed trail system.
- Development of a park headquarters in Landscape Unit A or B that, in addition to administration, could serve as a park information and visitor's center, provide ranger housing and a central location for docent and volunteer programs, and provide a base for scientific research and educational programs on coastal wetlands.

The concept plan also lists implementing principles for development adjacent to the San Dieguito River Park Focused Planning Area. These principles call for minimizing alteration of drainageways and landforms, conforming development in hillside areas to the natural setting, preserving significant native vegetation, and clustering units where appropriate to minimize intrusion into sensitive habitat areas. Additional principles encourage blending of development with the hillside background and topography, preservation of public views, restoration of disturbed open space areas, minimal grading, setbacks from ridges and bluffs, use of landscaping as screening, use of shielded low-sodium exterior lighting, and variation of rooflines. On May 19, 1995, the JPA adopted a Private Property Rights Protection Policy which reiterates that the JPA does not have land use authority and states that the JPA respects private property rights and will not recommend or participate in hostile condemnation of private property for park purposes. It further states that the right to review and comment on private development proposals is in an advisory capacity only.

b) Shell Parcel

Existing Land Uses

This parcel is currently in open space. The Shell parcel abuts agricultural fields within Carmel Valley and includes southeasterly trending finger canyons (which contain agriculture along the canyon floors) extending into the mesa. Several trails or dirt roads are present through the south central section of the parcel. Sensitive wildlife habitat, including mule fat scrub and three varieties of Diegan coastal sage scrub, occur on-site. Along the northwestern boundary, the parcel is abutted by a residential property associated with the agricultural activity. The "Vintage at Palacio del Mar" development is located just west of a farm property in Carmel Valley.

Zoning Designations

This parcel also shares the A-1-10 zoning designation and is partially within the HR Overlay Zone, as described above. Portions of the Shell parcel are within the FW and FPF zones associated with Deer Canyon.

City of San Diego Progress Guide and General Plan

Land Use Designations. The Shell parcel contains "open space" designations in the major drainage areas (Deer Canyon itself and Carmel Valley) and is designated "Area for Future Growth" on the mesas in the City's 1989 Progress Guide and General Plan. These designations have been superseded by the FUA Framework Plan, as described above in Section 4.A.a.

Land Use and Environmental Goals and Objectives. The land use and environmental goals and objectives applicable to this project area are described in detail above in Section 4.A.a.

City of San Diego Council Policies

City of San Diego council policies which are applicable to development within the Future Urbanizing Area, in which this project area is located, are described in detail above in Section 4.A.a.

North City Future Urbanizing Area Framework Plan

Background information regarding the North City Future Urbanizing Area Framework Plan is provided above in Section 4.A.a. Based on Figure 3-2 in the Framework Plan, development for the Shell parcel anticipated approximately 5.0 acres of peripheral residential, or a maximum of approximately 35 dwelling units at 7 dwelling units per gross acre.

Planned Land Uses Surrounding the Project Site

A currently developing use just west of the Shell parcel is the 478-unit “Vintage at Palacio del Mar” residential development located along the south bank of Carmel Valley and extending westerly to Carmel Country Road. Other planned uses include Environmental Tier which abuts the Shell parcel intermittently.

Local Coastal Program

Over two-thirds of the Shell parcel is within the Deer Canyon portion of the Coastal Zone, as mapped by the California Coastal Commission. These areas are identified for public and semi-public open space and other open space systems in the LCP (City of San Diego 1981:105).

Resource Protection Ordinance

RPO would apply to any development on the Shell parcel. RPO requirements which are potentially relevant to the parcel were discussed in detail above for Del Mar Highlands Estates. The Shell parcel contains approximately 69.5 acres of biologically sensitive lands and slopes in excess of 25 percent.

Land Use Issues

1. Would the proposed project implement existing plans and policies of the City and would the project be compatible with existing and future land uses?
2. Would the proposed project be consistent with the goals and objectives of the North City Local Coastal Program and coastal ordinances?
3. Would the proposed land uses and open space be compatible with adjacent existing or planned uses and environmental plans?
4. Would the project result in a conflict with the purpose and intent of Council Policy 600-40 and the Resource Protection Ordinance or the Resource Protection Overlay Zone?

1) Issue

Would the proposed project implement existing plans and policies of the City and would the project be compatible with existing and future land uses?

Impacts

The proposed project would create 148 clustered residential lots and 1 affordable housing lot (for the construction of 24 affordable housing units) on the project site. This proposed density is based on the allowable PRD development for the project site (97 units) and 21 units transferred from the 84-acre Shell parcel, plus a 46 percent density bonus for affordable housing. Such development is permitted by the Framework Plan and Council Policy 600-29 prior to the availability of an approved subarea plan and phase shift to Planned Urbanizing Area. The clustering of the proposed development, provision of affordable housing, and preservation of Gonzales Canyon would be consistent with the land use policies of the General Plan and the Framework Plan, which encourage clustering to reduce impacts on sensitive resources.

The proposed project identifies 166.32 acres of the site as development area, leaving 222.68 acres (57 percent of the site) to be dedicated to the City as open space within the Framework Plan Environmental Tier. These nondevelopable areas would primarily consist of existing sensitive resource areas, as well as Gonzales Canyon, which is predominantly in agricultural use.

The Shell parcel where the 21 units would be transferred to Del Mar Highlands Estates, consisting of 84.42 acres, would retain no development rights. Approximately 83 percent of the parcel contains sensitive resources, but 100 percent of it would be deeded to the City. For the purposes of the Del Mar Highlands Estates PRD, therefore, parcels covered in the PRD total 473.42 acres, of which only 166.32 acres is proposed as developable (i.e., 35 percent). Approximately 307 acres, or 65 percent of the combined parcels, would be maintained in open space.

The percentage of Environmental Tier acreage on the proposed PRD site plan exceeds the percentage of Environmental Tier acreage identified in the Framework Plan for Subarea III (i.e., 65 percent versus 47 percent), and the configuration of the open space areas is generally comparable with the preliminary Environmental Tier boundaries in the Framework Plan. Although precise development boundaries do not match those identified in the Framework Plan (both north/south connections between Gonzales Canyon and San Dieguito are on the western side of the property rather than one to the east and one to the west as shown in the Framework Plan), the general boundaries of potential residential versus Environmental Tier match. Thus, the proposed project would meet the goals and objectives of the Framework Plan and the General Plan with respect to the Environmental Tier in the FUA. The Environmental Tier areas identified on the PRD site plan are contiguous and contribute toward the future connectivity with the San Dieguito River valley to the north and west and southerly through Carmel Valley toward the Los Peñasquitos Canyon Preserve. The proposed PRD site plan shows Environmental Tier through Gonzales Canyon on the project site, consistent with the Framework Plan.

The Del Mar Highlands Estates project would construct 24 units of affordable housing, preserve significant native vegetation, and propose clustering of units, as encouraged by the Framework Plan.

The proposed project is consistent with the Framework Plan and Council Policy 600-10 goals and policies regarding the provision of needed public facilities at the time of need and avoiding leapfrog development. The project site is surrounded by development, with public utilities connections to serve the project available in nearby roadways and Gonzales Canyon.

The proposed project would be consistent with the PRD regulations, which allow development of one unit per four acres, with clustering of units. In addition to the 97 units which would normally be permitted for the 389-acre project site, the development rights for 21 units are proposed to be transferred to the Del Mar Highlands Estates site from the Shell parcel, which totals 84 acres. Conformance with the Hillside Review Overlay Zone (through the Resource Protection Ordinance) is addressed under Issue 3 below and in Section 4.C, Landform Alteration/Visual Quality.

Significance of Impacts

The proposed Del Mar Highlands Estates project would be consistent with PRD regulations and would generally comply with the land use goals, objectives, and recommendations of the Progress Guide and General Plan, the Framework Plan, and City Council Policies 600-29 and 600-30. Furthermore, the proposed projects would cluster development and dedicate open space land consistent with the Framework Plan Environmental Tier. No significant adverse impacts are anticipated.

Mitigation, Monitoring, and Reporting

No mitigation is required.

2) Issue

Would the proposed project be consistent with the goals and objectives of the North City Local Coastal Program and coastal ordinances?

Impacts

The project site is not within the Coastal Zone. Therefore, the project site is not subject to the requirements of the Coastal Zone and no amendments to the LCP will be required in conjunction with approval of the proposed project. Minor utility extensions or

upgrades may occur within Old El Camino Real, however, which lies within the Coastal Zone.

The North City LCP designates land west of Old El Camino Real, across from the project site, for open space and park uses. The proposed project would establish Environmental Tier, affordable housing, and one residential lot adjacent to Old El Camino Real. These uses would be compatible with this adjacent land use designation.

Significance of Impacts

The project site is not within the Coastal Zone and would not affect the North City LCP.

Mitigation, Monitoring, and Reporting

Mitigation measures are not necessary.

3) Issue

Would the proposed land uses and open space be compatible with adjacent existing or planned uses and environmental plans?

Impacts

a) Adjacent Existing or Planned Uses

The proposed project would extend water utilities across the existing SDG&E easement containing aboveground high-power lines and buried fuel and natural gas lines. No other development would occur within this easement. The design guidelines for the proposed project do not allow any structures other than fencing to be located within SDG&E's easement. The issue of encroachment into the SDG&E easement is addressed further in Section 4.LK, Public Facilities and Services. The potential for adverse health impacts due to development near high-power transmission lines is addressed in Section 4.L, Public Safety.

The proposed residential use and open space areas are considered to be compatible with the adjacent existing single-family residential open space, equestrian, agricultural, and country club uses. The proposed access off San Dieguito Road and Old El Camino Real to serve the proposed project would add an estimated 1,776 and 240 traffic trips to those roadways, respectively (see Section 4.H). Emergency access only is proposed at the eastern boundary (Derby Farms Road) adjacent to the Senterra single-family residential

development. This would result in less than significant traffic, noise, and visual impacts on the single-family homes along these roads.

There is the potential for land use conflicts between future on-site residents and the commercial agricultural operation which is likely to continue just off-site to the east. Minor noise and dust impacts may be associated with this remaining agricultural/residential interface.

The planned land uses in the adjacent Carmel Valley, Fairbanks Ranch Country Club, and FUA planning areas, which are immediately adjacent to the project site, are all single-family residential and open space uses. These uses are compatible with the single-family residential and open space uses proposed on-site.

Grading and construction of the Del Mar Highlands Estates project are expected to take approximately three years. Site grading and construction of the proposed roadways and utilities would occur first, followed by construction of the homes. Residents of existing homes surrounding the site and those homes which would be constructed earlier in the project buildout process are likely to experience short-term nuisance impacts due to ongoing construction activities. These impacts would include unsightly views of bare dirt areas and construction trailers and equipment, as well as noise and dust from construction activities. Many of these impacts are already being experienced by residents immediately south and east of the Del Mar Highlands Estates site, due to the existing agricultural activities on the site. Visual and noise impacts, which contribute to short-term nuisance impacts, are addressed further in Sections 4.C and 4.J of this EIR.

b) Environmental Plans

San Dieguito River Regional Plan

The planning area for this park plan is adjacent to the project site on the north. The recommended residential, agricultural, and open space/recreational land uses and equestrian/hiking amenities in the regional plan are consistent with the designated residential land use and open space areas which the project proposes along the northern boundary of the site.

San Dieguito River Park Concept Plan

The San Dieguito River Park Focused Planning Area includes all but the northeast corner of the project site. Most of the project site is within the viewshed of either the San Dieguito River Valley or Gonzales Canyon. However, due to the low number of potentially visible residences on-site (fewer than approximately 30) and the clustering of development primarily in previously disturbed agricultural areas in the eastern and central parts of the site, the character of the project site (as seen from the Focused Planning Area) will be consistent with the existing surrounding developments which are visible from the

Focused Planning Area, including single-family residential subdivisions, a polo field, and rural residential and equestrian uses. The project would continue the suburbanization of the viewshed in the San Dieguito River valley.

The proposed design guidelines include measures that implement the principles for development adjacent to significant natural areas. These include building setbacks from the edge of the development pads above Gonzales Canyon and the San Dieguito River valley, building height limits, perimeter lot wall and fencing requirements to screen development, allowances for sensitive siting of pedestrian trails, and dedication of open space corridors in Gonzales Canyon.

The project plans show Environmental Tier lands along much of the northern site boundary, adjacent to the San Dieguito River valley. The development areas for Lots 8-9 and 12-13 touch the northern site boundary. The developable areas for the remaining lots above the San Dieguito River valley are set back approximately 100 to 500 feet from the northern site boundary. The concept plan encourages the dedication of Gonzales Canyon as an open space corridor for both wildlife movement and human use and the provision of a recreational trail in Gonzales Canyon (see Figure 4A-7). The proposed project would be consistent with the designation of Gonzales Canyon as Environmental Tier and begin the vegetation restoration process in the canyon. Under the Framework Plan, recreational trails are permitted in the transitional zone of the Environmental Tier. Thus, the proposed project is generally considered to be compatible with the concept plan (see Section 4.C, Landform Alteration/Visual Quality, for additional discussion). However, the proposed project would not provide for a trail staging area or canyon overlooks or view points, which the concept plan calls for somewhere in Landscape Unit B. However, these facilities could be sited elsewhere in Landscape Unit B of the Focused Planning Area.

Plan for Equestrian Trails and Facilities

The 1976 City plan does not identify any equestrian trails or facilities on or adjacent to the project site. Therefore, the proposed project would not adversely impact any planned equestrian trails or facilities.

Significance of Impacts

Short-term, construction-related nuisance impacts to residential uses within and adjacent to the site during roadway and home construction would be less than significant, due to the distance and topographic variation between the proposed building pads and off-site existing residents, as well as the short duration of project construction.

The Del Mar Highlands Estates project is compatible with the City's equestrian plan. The project's design guidelines and development standards would implement the principles

for development adjacent to significant natural areas, as described in the Visual Quality section (4.C). No significant impacts are anticipated.

Mitigation, Monitoring, and Reporting

No mitigation is required.

4) Issue

Would the project result in a conflict with the purpose and intent of the Resource Protection Ordinance?

Impacts

Approximately 248.4 acres of the Del Mar Highlands Estates and Shell parcels (53 percent of the sites) have sensitive biological resources, as defined by RPO, and/or slopes in excess of 25 percent with a gradient differential of 50 feet or more, which are subject to the City's Hillside Review Ordinance. Approximately 180.1 acres of the 389-acre Del Mar Highlands Estates property contains sensitive resources and 69.50 acres of the 84-acre Shell parcel contains sensitive resources. The RPO calculations (Table 4A-1) include both parcels because transfer of dwelling units from the Shell parcel to Del Mar Highlands Estates must be included in a single PRD application. Under RPO, the developable areas of the proposed project are permitted to encroach into the RPO-sensitive areas by up to 14.97 acres. Exempt areas (e.g., public roadways and utilities) are permitted to encroach by up to 12.48 acres. The developable areas of the proposed project would encroach into 31.45 acres of sensitive land, which exceeds the allowable encroachment by 16.48 acres. On-site roadways proposed as part of this project, which would contain public utilities and would qualify as exempt facilities, would have a total encroachment of 7.04 acres. This is less than the combined encroachment allowance for these facilities of 12.48 acres. The proposed project would exceed the allowable encroachment under RPO.

Although the proposed project would exceed the encroachment allowance for developable area of the project site, it would provide mitigation at a minimum 2:1 ratio on-site, which would mitigate impacts to biological resources and land use. The proposed project would cluster units in the center of the site and dedicate a combined total of approximately 307 acres of the Del Mar Highlands Estates and Shell parcels as open space within the City's Environmental Tier. The proposed 166-acre development area (including roadways) is less than the total developable acreage allowed under RPO (i.e., 228.7 acres), but a large part of the RPO developable area is within the areas planned for Environmental Tier under the Framework Plan. The proposed project would impact

**TABLE 4A-1
RPO ANALYSIS SUMMARY**

Category	Acres
PRD gross site area*	473.0
Area with no sensitive resources*	223.4
Area with sensitive biology and/or 25% slope*	249.6
Percent of site with sensitive resources*	52%
RPO Maximum encroachments	
Developable area	14.97 (6%)
Exempt area	12.48 (5%)
PRD encroachments	
Developable area	31.45
Exempt area	7.04
Maximum developable area per RPO	228.7
Proposed developable area per PRD	166.32

*Includes Del Mar Highlands Estates and Shell parcel.

sensitive resources in the central portion of the Del Mar Highlands Estates site in excess of the encroachment allowance, but it would dedicate undisturbed sensitive biological habitat and cease current agricultural activities within Gonzales Canyon. The project would provide a 1,000-foot-wide wildlife corridor within Gonzales Canyon and a 700-foot-wide corridor between Gonzales Canyon and the San Dieguito River valley.

In addition to the dedication of Environmental Tier lands, the proposed project would construct 24 units of affordable housing.

Significance of Impacts

Based on the preceding analysis, the proposed project would exceed the encroachment allowance for RPO but would provide adequate on-site mitigation to reduce impacts to a level below significance.

Mitigation, Monitoring, and Reporting

No mitigation is required.

B. Hydrology/Water Quality

Existing Conditions

a) Del Mar Highlands Estates

Surface Water

The project site is located within the San Dieguito hydrologic unit (HU), one of 11 statewide drainage designations. The San Dieguito HU includes an area of approximately 350 square miles and extends from the coast to just east of Santa Ysabel. Drainage is provided by three major creeks and associated tributaries, including the San Dieguito River, Santa Ysabel Creek, and Santa Maria Creek. Average annual precipitation in the San Dieguito HU ranges from approximately 11 inches along the coast to 30 inches near Santa Ysabel (Regional Water Quality Control Board [RWQCB] 1994).

Runoff within the project site flows primarily into Gonzales Canyon and drains west into the San Dieguito River, which eventually flows west to the San Dieguito Lagoon and the Pacific Ocean. Gonzales Canyon exhibits largely ephemeral runoff associated with storm events, although additional flow is associated with local irrigation runoff. On-site drainage facilities are limited to minor crossing structures (i.e., culverts) and impoundments (as described below under "Flooding Hazards"). Downstream drainage facilities include numerous crossing structures (bridges and culverts) in portions of Gonzales Canyon and the San Dieguito River. The design specifications for these downstream facilities are unknown, although it is likely that at least some of the older structures are not designed to accommodate current 100-year storm flows.

Flooding Hazards

City Council Policy 600-14 establishes provisions for development within areas of special flood hazard. This policy prohibits development within areas of special flood hazard prior to completion of flood control works (detention basins) with a capacity to contain the 100-year peak flow, the application of appropriate floodplain regulatory zoning, or demonstration that a proposed development or structure complies with the policy's provisions for flood hazard reduction. The policy establishes requirements for development approvals in floodplains, special standards of construction, and standards for utilities and subdivisions.

The City requires that all new construction or substantial improvements within the floodplain fringe zone (which lies between the floodway, or stream channel, and the outer limit of the 100-year floodplain) shall be elevated one foot above the 100-year flood elevation, or otherwise protected (pursuant to City guidelines).

The City's *Progress Guide and General Plan* (1989) recommends placing an emphasis on the multipurpose use of floodplains. The City has adopted the "California Storm Water Best Management Practices Handbook" (State of California 1993a), which is used during development of urban stormwater management plans. These BMPs describe several methods of reducing adverse effects caused by urban stormwater runoff. Several of the BMPs identified by the City and the State are included in this document as mitigation measures for potential hydrology/water quality impacts.

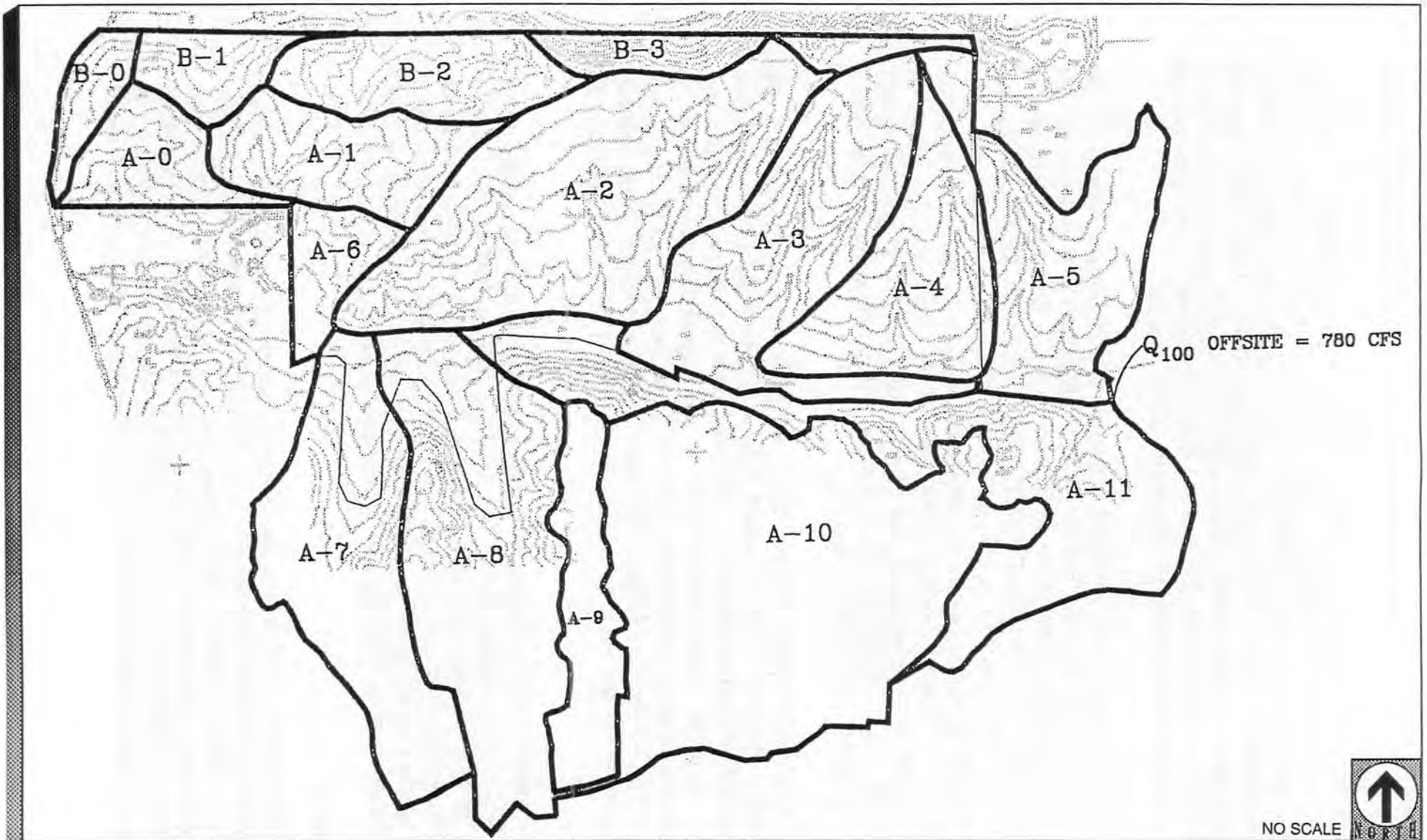
Floodplain mapping has been conducted within the project site and vicinity by the Federal Emergency Management Agency (FEMA). Mapped 100-year floodplains are present both within and adjacent to the site in association with Gonzales Canyon and the San Dieguito River. The Gonzales Canyon floodplain ranges in width to up to approximately 200 feet. The remaining portions of Gonzales Canyon (i.e., those not within the mapped 100-year floodplain boundaries) are mapped as Zone C, with this designation defined as areas of minimal flooding (FEMA 1983, 1989). The City of San Diego has records of severe flooding within the San Dieguito River basin at its confluence with Lusardi Creek. These records show that a storm in 1916 caused severe flooding, with a runoff rate of 72,100 cubic feet per second (cfs).

There are also several smaller unnamed creeks and tributaries in the project site and vicinity that are within the Gonzales Canyon watershed. These smaller drainages do not include mapped floodplains and are not considered flood hazards under existing site conditions. There are several existing small drainage impoundment areas within the project site, consisting of earthen dams or berms. These facilities were constructed in association with existing on-site agricultural activities as a condition of the existing agricultural permit for the site (refer to Section 4.N, Natural Resources/Agriculture, of this EIR).

The on-site watershed was divided into a number of sub-basins to estimate existing runoff from a 100-year storm (Figure 4B-1). The "Modified Rational Method" was used to determine the peak discharge from each sub-basin. Table 4B-1 provides a summary of the estimated discharges for each sub-basin area. Based on the data provided in this table, total existing 100-year stormwater runoff from the noted sub-basins is estimated at 1,060 cfs. A hydrologic analysis of the site was performed and is included as Appendix B.

Groundwater

Groundwater basins in the project site and vicinity are associated primarily with surface drainage courses in Gonzales Canyon and the San Dieguito River. Groundwater in these areas occurs largely in relatively shallow alluvial deposits, with aquifers in most areas near the project site within 25 feet of the surface (Luke-Dudek 1988; U.S. Geological Survey [USGS] 1983). Well yields in these shallow aquifers are variable, with historical average rates of approximately 250 gallons per minute (gpm) and maximum rates of



Source: Helix Environmental 1995

FIGURE 4B-1
Del Mar Highlands Estates
Surface Hydrology Map

**TABLE 4B-1
EXISTING STORMWATER RUNOFF ESTIMATES**

Subbasin Number	Area (acres)	Existing Q_{100} (cfs)
A0	23.3 (N)	35
A1	33.3 (N)	45
A2	102.5 (N)	92
A3	54.4 (N)	70
A4	47.0 (N)	51
A5	45.0 (N)	48
A6	13.2 (N)	22
A7	67.0 (OS)	79
A8	87.4 (OS)	103
A9	27.2 (D)	38
A10	150.0 (D)	196
A11	<u>118.2 (N)</u>	<u>124</u>
Total Basin A	768.5	903
B0	9.7 (N)	18
B1	18.3 (N)	30
B2	54.7 (N)	76
B3	<u>17.1 (N)</u>	<u>33</u>
Total Basin B	99.8	157
Total Basins A and B	868.3	1,060

N = natural or agriculture

OS = open space

D = developed

Q_{100} = flow associated with a storm with the probability of occurring once every 100 years

1,800 gpm (USGS 1983; California Department of Water Resources [DWR] 1975). A number of deeper groundwater basins are also present in the project site vicinity, in association with geologic strata including Tertiary sediments and Jurassic/Cretaceous metavolcanics. Groundwater associated with these deposits may occur at depths of approximately 300 to over 1,000 feet below the surface. While local production data are not known to be available for these deeper aquifers, well yields are estimated to range between approximately 2 and 125 gpm (USGS 1983). Perched groundwater may also occur seasonally in the project site and vicinity, in association with impermeable strata and high precipitation rates. Such aquifers are generally not laterally or vertically extensive and typically are not utilized as a water source.

Surface Water Quality

Surface water in the project site and vicinity consists largely of intermittent storm runoff and irrigation drainage. These types of flow are subject to wide variations in water quality with factors such as runoff volume, velocities, and adjacent land use. Runoff within the project vicinity is derived from a number of agricultural, urban, and open space land uses. These types of areas can differ markedly in runoff quality, with undeveloped areas typically contributing lower quantities of contaminants such as bacteria, pesticides, nutrients, solids, and metals than urban or agricultural zones (Wigington, Randall, and Grizzard 1983). Existing and potential beneficial uses identified for surface waters in the project site and vicinity include agricultural, industrial, recreational, water reclamation, and wildlife habitat applications (RWQCB 1994).

Existing on-site agricultural operations (approximately 200 acres) are contributing to soil erosion and sedimentation of natural drainages within and adjacent to the site. In addition, these operations utilize fertilizers and pesticides which are carried by stormwater and irrigation runoff into on-site drainages and off-site into the San Dieguito River and Lagoon. No reclaimed water is currently being used on-site. Although the current water quality impacts of on-site agriculture may be incremental and less than significant for the project site alone, cumulative urban and agricultural runoff may be significant.

Over the past 10-15 years, development in the Carmel Valley community and other surrounding areas has resulted in sedimentation, urban runoff, and the associated water quality degradation within the San Dieguito River and Lagoon, Los Peñasquitos Lagoon, and Carmel Valley (Los Peñasquitos Lagoon Foundation 1985; City of San Diego 1992).

Groundwater Quality

Overall groundwater quality in the project site region is considered poor, primarily due to past and current agricultural uses and/or saltwater intrusion. Groundwater that occurs in the coastal portion of the San Dieguito HU is generally sodium chloride in character, with total dissolved solids (TDS) levels typically varying from approximately 1,000 to 5,000

milligrams per liter (mg/l). Groundwater ratings for domestic use in this section of the San Dieguito HU are largely inferior, due to high TDS and sulfate content. Ratings for irrigation use in this unit are also generally inferior due to high electrical conductivity and a high chloride content (RWQCB 1994). Groundwater quality may vary locally, however, with conditions such as site-specific geology and land use. Two existing wells located in Gonzales Canyon just south of the project site, for example, yielded TDS concentrations of 947 and 1,250 mg/l during a 1981-82 study (USGS 1983). Existing and potential beneficial uses identified for groundwater in the project site vicinity include municipal, agricultural, and industrial applications (RWQCB 1994). Local groundwater is currently being used for irrigation in association with on-site agricultural activities (refer to the Natural Resources/Agriculture section (4.N) of this EIR).

b) Shell Parcel

Surface Water

The Shell parcel is located within the Miramar Reservoir Hydrologic Area, which is part of the Peñasquitos HU. It is also known as the Soledad basin. The Pacific Ocean forms the western border of the basin, which extends approximately 12 miles inland and covers approximately 55 square miles. Carmel Valley Creek, Los Peñasquitos Creek, and Los Peñasquitos Lagoon comprise some of the main hydrologic features of this HU. Average annual precipitation for this HU is 8 inches along the coast and 18 inches inland (RWQCB 1994).

Main hydrologic features include the westerly draining Shaw Valley Creek—a tributary of Carmel Valley Creek, and Deer Canyon Creek—which joins with McGonigle Canyon Creek to form Carmel Valley Creek. A few unnamed tributaries of Los Peñasquitos Creek flow southerly to meet Los Peñasquitos before turning westerly to drain into the ocean. The Shell parcel drains directly into Carmel Creek or its tributaries.

Flooding Hazards

Deer Canyon, Shaw Valley, Carmel Valley, and Los Peñasquitos Canyon all contain creeks with 100-year floodplains identified by FEMA. Although certain floodplains enter the Shell parcel boundaries, the parcel would be maintained in permanent open space under this proposal. There are other smaller unnamed tributaries and creeks in the area, although these are all mapped as Zone C (FEMA 1983, 1989) and are not considered flood hazards at this time.

Groundwater

As with Del Mar Highlands Estates, historical movement of groundwater has been toward the west, discharging to the Pacific Ocean. Groundwater may exist in the alluvial

aquifers around Shaw Valley Creek, Deer Canyon Creek, and near Los Peñasquitos Creek.

Surface Water Quality

Deer Canyon and Shaw Valley Creeks, which receive runoff from largely undeveloped areas, are expected to carry water of fairly good quality. This is because Deer Canyon drains an undeveloped, open space area. Shaw Valley receives runoff from Del Mar Mesa, which consists largely of open space but also contains residences and equestrian facilities.

As noted above, development throughout the area is contributing to off-site problems in downstream lagoons. Analysis of sediment cores in Los Peñasquitos Lagoon indicates that pre-European contact sediment rates of 4 inches per annum had increased five times (to 20 inches per year) by 1980. Sedimentation has a strong influence on keeping the mouth of the lagoon closed, restricting tidal flushing that would benefit wildlife habitat (Los Peñasquitos Lagoon Foundation and State Coastal Conservancy 1989).

Due in part to problems associated with sedimentation caused by development, the Los Peñasquitos Lagoon Foundation was formed and the *Los Peñasquitos Lagoon Management and Enhancement Plan and Program* (1985) completed. The plan established a fee program for development projects within the lagoon watershed and listed recommendations for methods to reduce sediment loading. The project parcel is within the area covered by the fee program. Suggested measures in the plan to control erosion include:

- Localized detention basins to capture runoff, reduce flow velocity, and provide settling.
- Maintenance by periodic cleaning to remove accumulated sediment and keep the basin capacity at an operational level.
- Prohibition of grading from November through March to avoid the rainy season and potential for large-scale erosion.

Groundwater Quality

Little is known about the groundwater within the Shell parcel. Overall, however, groundwater quality in the Miramar Reservoir HU has steadily deteriorated due to increased TDS concentration and is considered to be "poor quality" by the City's Water Utilities Department. In Carmel Valley during 1954-1963, the TDS level ranged from 510 mg/l to 6100 mg/l and averaged 2000 mg/l. Wells in 1984-1985 had levels ranging from 1000 mg/l to 2000 mg/l. This decrease in average TDS concentrations was

attributed to abandonment of the well with very high levels of TDS, thereby lowering the range and mean (Evenson 1989).

Hydrology/Water Quality Issues

1. What modifications to the natural drainage system would be required for implementation of the project? Would the project result in changes in the rate and amount of runoff?
2. What effect would implementation of the project have on downstream water quality?
3. Would the project result in alteration to the course or flow of floodwaters?

1) Issue

What modifications to the natural drainage system would be required for implementation of the project? Would the project result in changes in the rate and amount of runoff?

Impacts

Project implementation would result in reclamation of Gonzales Canyon from agricultural use and placement of this major drainage into naturally vegetated open space. Portions of associated tributary drainages would remain undeveloped, while other portions higher on the mesa have been identified as "developable areas." The FEMA-mapped 100-year floodplain within Gonzales Canyon would not include any graded areas of lots associated with Del Mar Highlands development (FEMA 1983, 1989). Some grading would be necessary in this floodplain to provide project water line and sewer hookups with pipelines located in Sword Way (south of project boundaries) and Gonzales Canyon, respectively.

Proposed and future project-related activities in the remaining developable areas would include grading, landscaping, and the construction of roads, buildings, and/or manufactured slopes. Such activities would change the physical nature of drainage patterns by increasing (or decreasing) grades in the upper reaches of some of the tributary canyons on the north side of Gonzales. Potential impacts to existing drainage patterns from these actions include altering the direction and/or velocity of runoff, as well as associated erosion/sedimentation from redirected or higher velocity flows. These impacts would be associated with the great majority of lots located within existing drainage channels in the eastern two-thirds of the development, where the lots are tightly clustered. Within the lots slated for development in the western portion of the development, these

effects are expected to be less; especially for Lots 143-148. These effects would be local in nature, with overland runoff eventually entering Gonzales Canyon and/or the San Dieguito River (either directly or through tributaries).

Proposed roadway development and future home lot development may increase runoff discharge volumes and velocities within and off the site, due to an increase in impervious surfaces such as buildings, roads, and other paved areas. Replacement of commercial agricultural endeavors on top of the mesa with vegetated lots, however, may actually decrease runoff. Any increase in on-site runoff volumes and velocities associated with proposed roadway construction would be minimal, due to the small area involved (i.e., approximately 14.7 acres spread throughout the project site and 0.5 acre northerly to connect with San Dieguito Road) and the nature of proposed roadway design. Specifically, roadways would include rolled concrete curbs with a number of drainage design features to accommodate projected runoff and protect roadway structures, drainage courses, and associated downstream facilities from drainage alteration impacts. Runoff would be collected at appropriately placed inlets in the streets and conveyed via underground pipes/conveyance systems to (as appropriate) detention basins. From there, waters would be dispersed to existing drainage courses on-site. Grading profiles to direct runoff away from structures and unstable areas (e.g., graded slopes) would be used. Intake inlets on the roads would accommodate projected 100-year storm flows, pursuant to direction by the City of San Diego Engineering Department, and detention basins would accommodate 10-year storm events (Campbell, pers. comm. 1995).

Drainage alterations associated with future lot development would vary with site-specific lot design. Based on the location and extent of developable areas, however, it is anticipated that such development could affect existing drainage patterns, runoff volumes, and flow velocities on a local level. This would be mitigated by the incorporation of a detention basin into project design. A basin is currently proposed by the applicant between Lots 60 and 68 in the more central portion (see Figure 3-1). This basin is downstream from the bulk of the development and is situated in steeper drainage areas. This basin would mitigate the potential significant adverse effect downstream from the proposed development.

Significance of Impacts

The alteration of existing drainage patterns associated with proposed roadway and lot development could result in significant local change to the direction and velocity of on-site flows. Specifically, locally altered drainage patterns could result in erosion and/or undermining of stream channels and banks, potentially threatening adjacent vegetation. Such effects would only be expected on the higher reaches of the drainages, however. By the time flows reach Gonzales Canyon, they would be within established floodways. This would be aided by the presence of a detention basin located in the central portion of

the site on the north side of Gonzales Canyon downslope from the proposed development.

Any increase in on-site runoff volumes associated with the proposed project is not considered significant on a direct, indirect, or cumulative basis due to its incremental nature. This conclusion is based on a detailed hydrologic analysis of the proposed project. Implementation of the detention basin will avoid or reduce all impacts related to drainage alteration below a level of significance.

Short-term construction impacts resulting in local erosion and sedimentation associated with on-site runoff are considered potentially significant, due to the amount of cut and fill associated with the proposed roadway and the potential for disturbance of up to approximately 166 acres, which represents the developable area of the site (lots plus roadways and internal slopes). Manufactured slopes and development would occur within and adjacent to on-site local drainages. These temporary impacts would be mitigated to below a level of significance by the following construction-related mitigation. Over the long term, however, downstream effects of the project are expected to be an improvement over current conditions as routine and repeated grading associated with agriculture will cease.

Mitigation, Monitoring, and Reporting

Based on the project hydrologic study, the following types of analyses and requirements are expected.

Short-term Construction Practices

As a condition of the VTM, the following mitigation measures will be specified on the grading plan:

1. As a condition of the VTM and to be shown as a note on the grading permit, grading and other surface-disturbing activities either shall be planned to avoid the rainy season (i.e., November through March) to reduce potential erosion impacts or shall employ construction phase erosion control measures, including the short-term use of sandbags, matting, mulch, berms, hay bales, or similar devices along all graded areas to minimize sediment transport. The exact design, location, and schedule of use for such devices shall be conducted pursuant to direction and approval by the City Engineering Department.
2. Prior to the issuance of a grading permit, the grading plan shall locate temporary desilting basins at all discharge points adjacent to drainage courses or where substantial drainage alteration is proposed. The exact design and location of such

facilities shall be conducted pursuant to direction by the City Engineering Department.

3. As condition of the VTM, the subdivider shall within 90 days of completion of grading activities hydroseed and landscape graded and common areas with appropriate ground cover vegetation consistent with the biology section mitigation requirements (e.g., use of native or noninvasive plants). These revegetated areas shall be inspected monthly by a qualified biologist until vegetation has been firmly established as determined by the City's grading inspector.
4. Compacted areas shall be scarified, where appropriate, to induce surface water infiltration and revegetation as directed by the project geologist, engineer, and/or biologist.
5. General Construction Activity Storm Water Permits (National Pollutant Discharge Elimination System [NPDES] No. CAS000002) shall be obtained from the State Water Resources Control Board (SWRCB) prior to project implementation. Such permits are required for specific (or a series of related) construction activities which exceed five acres in size and include provisions to eliminate or reduce off-site discharges through implementation of a Storm Water Pollution Prevention Plan (SWPPP). Specific SWPPP provisions include requirements for erosion and sediment control, as well as monitoring requirements both during and after construction. Pollution control measures also require the use of best available technology, best conventional pollutant control technology, and/or best management practices to prevent or reduce pollutant discharge (pursuant to SWRCB definitions and direction).
6. A Dewatering Waste Discharge Permit (NPDES No. CA0108804) shall be obtained for the removal and disposal of groundwater (if necessary) encountered during construction. Such permits are intended to ensure compliance with applicable water quality, and beneficial use objectives, and typically entail the use of BMPs to meet these requirements. Discharge under this permit will require compliance with a number of physical, chemical, and thermal parameters (as applicable), along with pertinent site-specific conditions (pursuant to RWQCB direction).
7. Specified vehicle fueling and maintenance procedures and hazardous materials storage areas shall be designated to preclude the discharge of hazardous materials used during construction (e.g., fuels, lubricants and solvents). Such designations shall include specific measures to preclude spills or contain hazardous materials, including proper handling and disposal techniques and use of temporary impervious liners to prevent soil and water contamination.

Project Design

As conditions of the vesting tentative map and to be included as notes and exhibits on the grading plan, the following mitigation measures will be required:

8. Postconstruction erosion control measures shall be implemented where proposed disturbance is adjacent to or encroaches within existing drainage courses and projected runoff velocities exceed 5 cfs.
9. Final project design shall incorporate all applicable BMPs contained in the City and State *Best Management Practices to be Considered in the Development of Urban Stormwater Management Plan*. Specifically, these may include measures such as the use of detention basins, retention structures, infiltration facilities, permeable pavements, vegetation controls, discharge controls, maintenance (e.g., street sweeping), and erosion controls.
10. Surface drainage shall be designed to collect and discharge runoff into natural stream channels or drainage structures. All project-related drainage structures shall be adequately sized to accommodate 10-year flood events (or other storm events pursuant to direction from the City).
11. Project operation and maintenance practices shall include a schedule for regular maintenance of all private drainage facilities within common development areas to ensure proper working condition. Public facilities shall be maintained by the City.
12. Surface and subsurface drainage shall be designed to preclude ponding outside of designated areas, as well as flow down slopes or over disturbed areas.
13. Runoff diversion facilities (e.g., inlet pipes and brow ditches) shall be used where appropriate to preclude runoff flow down graded slopes.
14. Energy-dissipating structures (e.g., detention ponds, riprap, or drop structures) shall be used at storm drain outlets, drainage crossings, and/or downstream of all culverts, pipe outlets, and brow ditches to reduce velocity and prevent erosion.
15. Long-term maintenance of the detention basin shall be the responsibility of the City of San Diego.

2) Issue

What effect would implementation of the project have on downstream water quality?

Impacts

Potential impacts to water quality from the proposed development include erosion of exposed soils and associated sedimentation of natural drainages, construction-related contaminant discharge, and runoff of urban and horticultural pollutants into the natural drainage system.

Grading and construction activities could conceivably increase the potential for erosion and transport of material both within and downstream of the project site. Specifically, the removal of stabilizing vegetation cover in *currently naturally* vegetated steep drainages, creation of artificial slopes, and use of granular cohesionless fill all have the potential to generate erosion effects. Developed areas would be especially susceptible to erosion between the end of construction and the establishment of permanent landscaping. The movement of sedimentary materials into on-site drainages and off-site into the San Dieguito River and Lagoon could produce significant impacts to surface water quality. The influx of such materials could temporarily increase the quantity of total solids and several individual organic and inorganic constituents.

Accidental spills or leaks of certain construction materials (e.g., vehicle fuels) could adversely impact local surface water quality. In addition, disposal of groundwater extracted during dewatering of construction areas (if necessary) could impact local surface water quality through the presence of contaminants (e.g., suspended sediment added during excavation or pumping) and/or erosion in water discharge areas.

Over the long-term, however, it is anticipated that implementation of the project would decrease the volume (and in some cases the rate) of on-site surface water runoff as discd acreage becomes vegetated. In addition, current on-site runoff is expected to be contaminated with pesticides, herbicides, fertilizers, or other "urban" pollutants, such as heavy metals, grease, and oil from the ongoing agricultural activities. Although project development could actually improve downstream water quality through diminution of sedimentation and pollutant runoff in the long term, project effects would remain.

Water running off rooftops picks up chemicals from construction materials, while water flowing across streets and driveways picks up hydrocarbons and heavy metals associated with roadways and automobiles. Runoff from domestic gardens and landscaped areas incrementally contributes fertilizers, herbicides, and/or pesticides to local drainages. These pollutants could adversely affect the quality of downslope or downstream surface water and groundwater. The quality of most surface runoff and groundwater in urban areas is generally below drinking water standards and is not usable for human domestic water purposes. Wildlife does use this resource, however, with the increased presence of urban pollutants also potentially resulting in adverse impacts to wildlife and riparian or wetland habitats. A number of existing federal, state, and local statutes regulate the discharge of hazardous and toxic substances. As a result, the potential discharge of such

materials in association with the proposed project would be controlled by these statutes and potential impacts are considered incremental.

Significance of Impacts

The proposed development of the project site has the potential to significantly impact water quality (both directly and cumulatively) in Gonzales Canyon and the San Dieguito River and Lagoon. Specifically, such impacts may be associated with short- and long-term erosion and sedimentation and construction-related contaminant discharge. Although the impacts would continue to remain significant, it is expected that the project effects would be less adverse overall than those currently resulting from commercial agricultural activities on-site. The runoff of urban-generated pollutants is not considered significant (on a direct basis) due to the presence of existing regulatory controls and the anticipated incremental nature and extent of such pollutants, though the incremental contribution of urban pollutants would be cumulatively significant.

Mitigation, Monitoring, and Reporting

Potential water quality impacts related to erosion and siltation and discharge of construction-related contaminants would be mitigated below a level of significance by incorporating the anticipated design measures to be identified as part of the ongoing project hydrologic study (see Issue 1 above).

3) Issue

Would the project result in alteration to the course or flow of floodwaters?

Impacts

The proposed project does not include grading and construction activities extending into mapped 100-year floodplains and would therefore not affect the course of floodwaters. The development of impervious surfaces on-site would increase the total amount of runoff generated within the site. A comparison of current and project runoff from the portions of the Del Mar Highlands Estates site proposed for development (i.e., basin numbers A2-A4, B1, and B2) is shown on Table 4B-2. As seen from this information, 100-year storm runoff within developed basins C and D would increase by 113 cfs, with 79 cfs of this total (representing 10-year storm flows) to be detained in an on-site basin. The net increase in off-site 100-year storm flows (i.e., 34 cfs) would be disseminated into Gonzales Canyon and (ultimately) the San Dieguito River and would not result in significant direct or indirect impacts related to downstream flooding hazards.

This increase in off-site storm flows could contribute to potentially significant cumulative impacts, however, in association with additional approved or planned development in the

**TABLE 4B-2
EXISTING AND DEVELOPED DISCHARGES AND
COASTAL ZONE DETENTION REQUIREMENTS
FOR PROJECT SUB-BASINS**

Measurement	Natural Subbasin Number			
	A0	A2-A4	B1	B2
Existing area	23.3 acres	203.9 acres	18.3 acres	54.7 acres
Q ₁₀₀ existing basin peak discharge	35 cfs	158 cfs	30 cfs	76 cfs
Developed basin	F	C and D	A	B
Q ₁₀₀ developed basin peak discharge	31	271 cfs	22 cfs	78 cfs
Q ₁₀₀ net increase/decrease	5 cfs	113 cfs	-8 cfs	2 cfs
Potential Coastal Zone detention requirement change in Q ₁₀	*	79 cfs	*	*

*Initial examination indicates the difference between the developed and natural flow (Q₁₀) is negligible (10 cfs or less), and detention of flow by way of detention basins will most likely not be required.

San Dieguito River watershed. Mitigation of such potential impacts would require a regional effort to reduce or control runoff (e.g., detention) and is beyond the scope of this analysis.

Significance of Impacts

Potential direct and indirect project-related impacts from the alteration of floodwater directions, velocities, or volume would be reduced below a level of significance through the implementation of proposed design measures (i.e., detention basin). The project could contribute to potentially significant cumulative flooding impacts, with mitigation for such effects requiring a regional effort to reduce or control runoff.

Mitigation, Monitoring, and Reporting

Mitigation is not required.

C. Landform Alteration/Visual Quality

Existing Conditions

a) Existing Landform

The northern portion of the project site is an east/west-trending ridge, the north side of which slopes steeply downward toward the San Dieguito River valley. The top of the ridge is relatively level and affords views in all directions, including views of the ocean to the west. The south side of the ridge drops into Gonzales Canyon, which runs east-west along the southern boundary of the project site.

The elevations of the project site vary from 40 feet above MSL in the northwest corner to 322 feet above MSL in the northeast corner. The top of the ridge in the northern portion of the site generally appears as a relatively level mesa, especially from a distance (e.g., from Via de la Valle). However, from close-up (e.g., from the San Dieguito River), variations in topography can be discerned due to the presence of shallow drainages along the mesa top. From Old El Camino Real on the west to the eastern site boundary, the ridgeline generally rises from 75 feet above MSL to 165 feet above MSL, then drops gradually to approximately 100 feet above MSL to the east. The remaining two-thirds of the on-site ridgetop climbs gradually to the east from 100 feet above MSL to 322 feet above MSL. Elevations within Gonzales Canyon decline gradually from approximately 120 feet above MSL near the eastern site boundary to approximately 75 feet above MSL at the western site boundary. The southern boundary of the site generally follows the southern edge of the canyon floor, except that in the southwest corner of the site, two fingers of land extend to the south, taking in two minor tributary canyons along the southern side of Gonzales Canyon.

Figure 4C-1 is a slope analysis map for the project site. Approximately 82 acres, or 21 percent, of the site consist of slopes of over 25 percent gradient. These slopes occur primarily along the northern and southern sides of the ridge in the northern portion of the project site. Adjacent to these areas are slopes with a 15-25 percent gradient, covering approximately 117 acres (30 percent) of the site. Slopes of 0-15 percent are within the remaining 190 acres (49 percent) of the site and are primarily located in the bottom of Gonzales Canyon in the southern portion of the site and along the ridge in the northern portion of the site.

b) Existing Visual Character

The existing character of the site is rural. Surrounding properties are mixed in character, with single-family residential subdivisions to the east and south of the project site and undeveloped land and residential development to the north. A photograph orientation

SLOPE

SLOPE
CATEGORY

0% TO 15%



AREA (AC.)

190

15% TO 25%

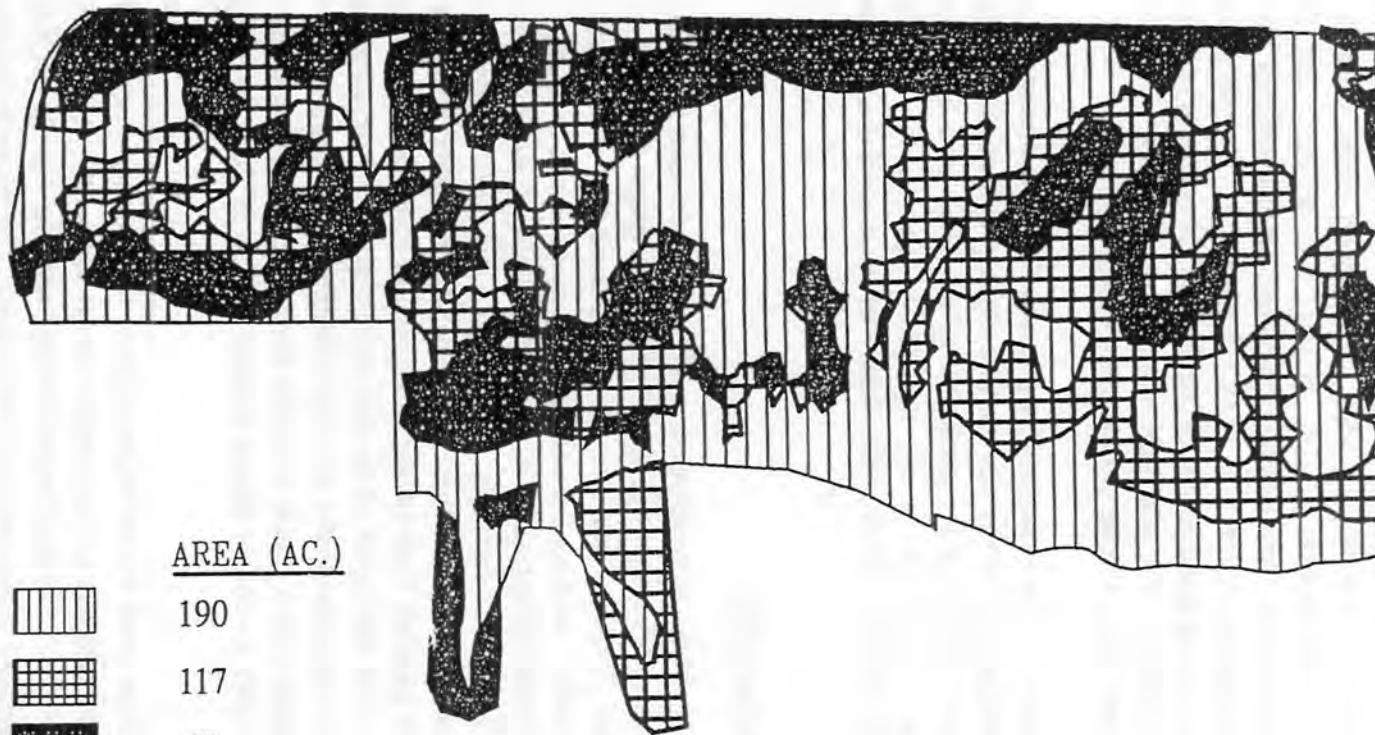


117

>25%



82



SOURCE: PROJECT DESIGN CONSULTANTS

FIGURE 4C-1

Del Mar Highlands Estates
Slope Analysis Map

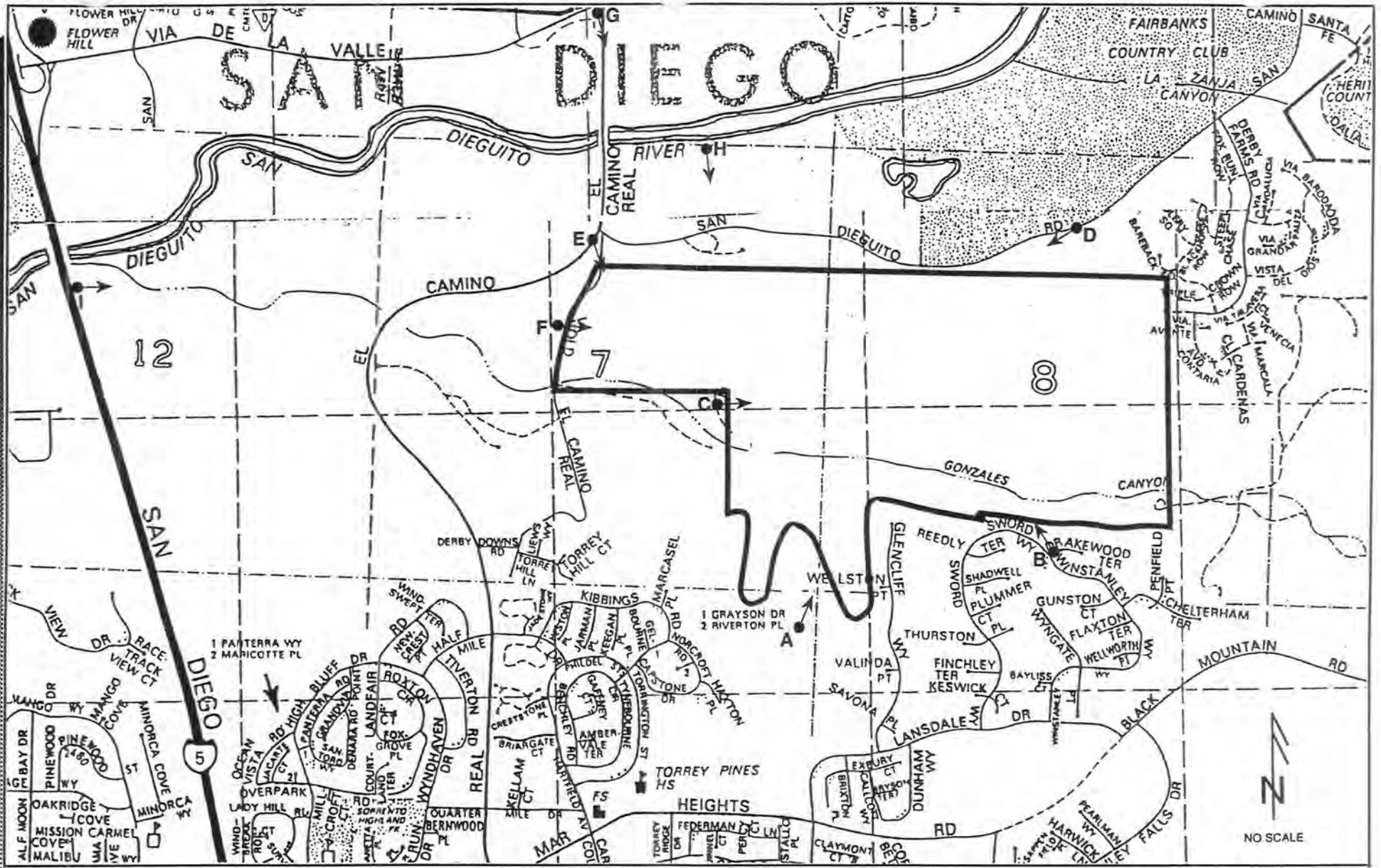
map is provided in Figure 4C-2. Photographs of the project site and surrounding areas are provided in Photographs 4C-1A through 4C-1I. The project site consists of approximately 200 acres of agricultural land, interspersed with undeveloped areas (disturbed and undisturbed), as shown in Photographs 4C-1A, 4C-1B, and 4C-1C. An SDG&E easement, with overhead high-power transmission lines, crosses the western portion of the site in a northwest-southeast direction (see Photograph 4C-1A). On-site agricultural crop production is primarily taking place on top of the ridge in the northern portion of the site and in portions of Gonzales Canyon (see Photograph 4C-1B). Areas not in production are kept disced and appear in the photographs as bare dirt areas.

The drainageway in Gonzales Canyon is marked by a narrow band of shrubs and trees in the center of the agricultural portion of the canyon (see Photograph 4C-1B). The steep slopes along the sides of the canyon and the north side of the ridge have been preserved in a natural condition as a condition of the agricultural permit for the site (see Photographs 4C-1A, 4C-1B, 4C-1C, and 4C-1D). Many of these natural areas have dirt trails across them.

c) Views of the Project Site

The project site can be seen from the residences, public roads, the San Dieguito River Park Focused Planning Area, and Torrey Highlands Park. Photograph 4C-1A is the view from Torrey Highlands Park. This is a mixed fore- to midground view of the agricultural areas of the site, the power lines crossing the site, and the undeveloped areas of the site. The entire project site, with the exception of its north-facing slopes and portions of the south side of Gonzales Canyon, is currently visible from the north edge of Torrey Highlands Park. The agricultural and undisturbed areas within the southern fingers of the project site, along with the existing high-power transmission line corridor, are visible from the park at midrange. The remainder of the site makes up the distant view from the park and appears as a mix of agricultural use and disturbed and undisturbed native vegetation. Existing residential development is visible at the edge of this view to the east and south. The developed hills of Solana Beach beyond Via de la Valle form a distant backdrop to this view.

Photograph 4C-1B is the view from Sword Way adjacent to a private pocket park and existing single-family homes adjacent to the project site to the south. The foreground view is of the disced areas of the Gonzales Canyon bottom, with the narrow band of trees and shrubs along the drainageway in the center of the canyon. The agricultural areas and natural, undeveloped areas in the northern portion of the project site form the background of this view. Although Photograph 4C-1B represents the closest view of the site from the residential neighborhoods south of the site, the project site is also visible from several other residential streets in this area, including Marcasel Place, Winstanley Way, and Drakewood Terrace.



Source: Helix Environmental 1995

FIGURE 4C-2
Del Mar Highlands Estates
Photograph Orientation Map



A. View of project site from Torrey Highlands Park.



B. View of project site from residential collector street (Winstanley Way) and adjacent pocket park.

PHOTOGRAPH 4C-1

Photographs of Del Mar Highlands Estates and Surrounding Areas



C. View of existing agriculture and native habitat on the project site.



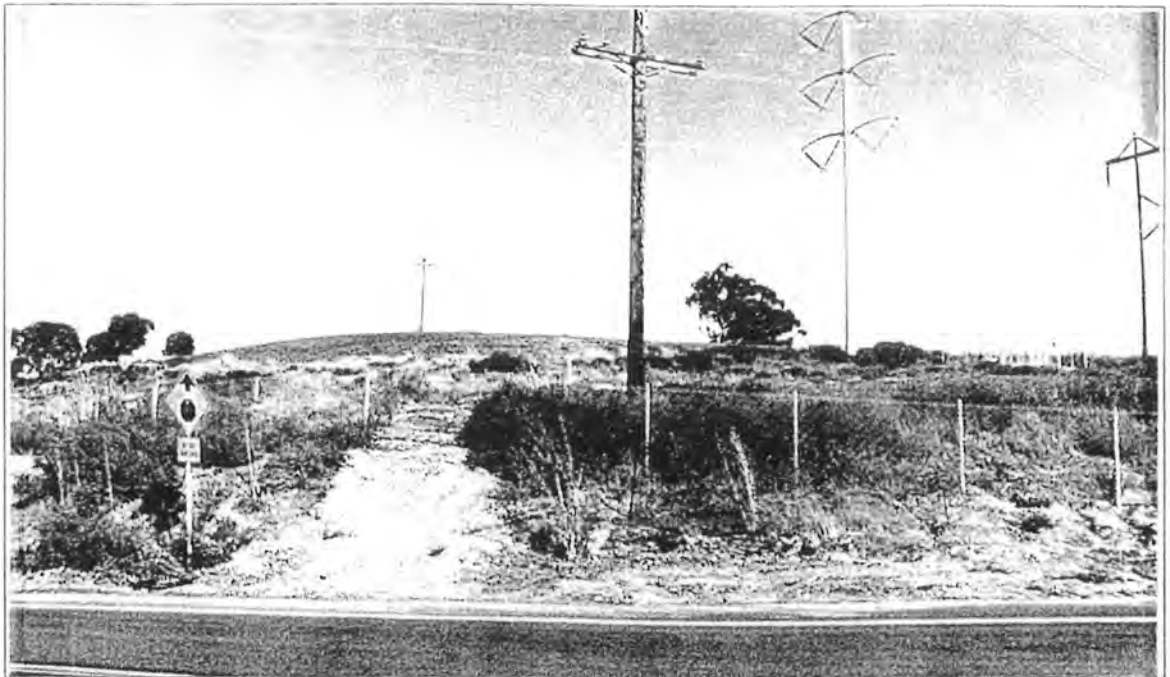
D. Steep slopes along the northern project boundary, as viewed from San Dieguito Road.

PHOTOGRAPH 4C-1

Photographs of Del Mar Highlands Estates and Surrounding Areas



E. Hillside in western portion of project site, as viewed from El Camino Real.

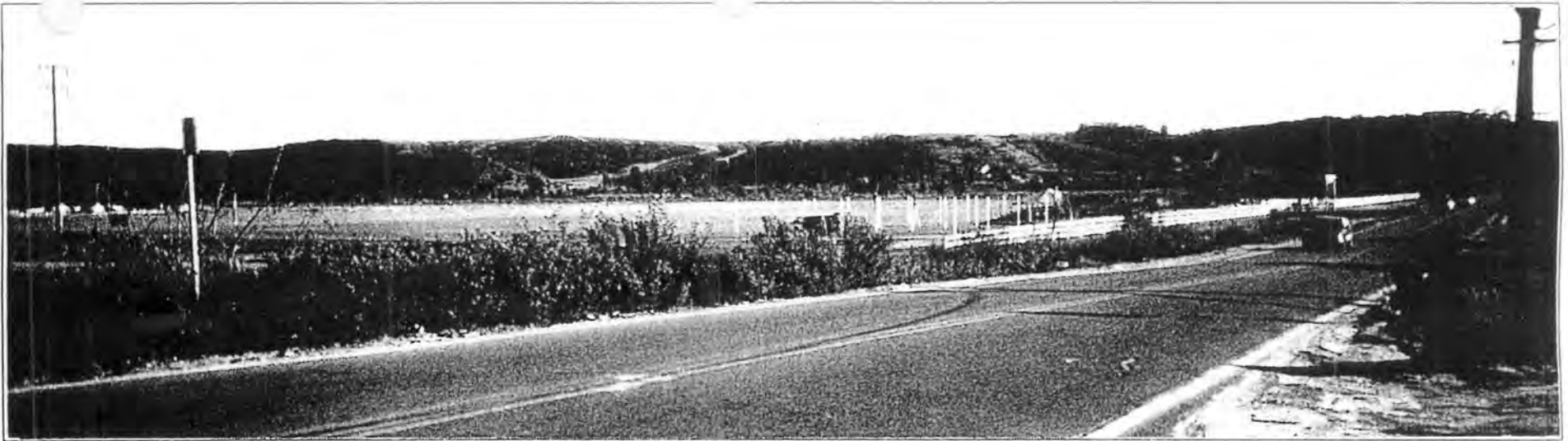


F. View of project site and SDG&E easement from Old El Camino Real.

PHOTOGRAPH 4C- 1

Photographs of Del Mar Highlands Estates and Surrounding Areas

Source: Helix Environmental 1995



G. View of project site from intersection of Via De La Valle and El Camino Real.

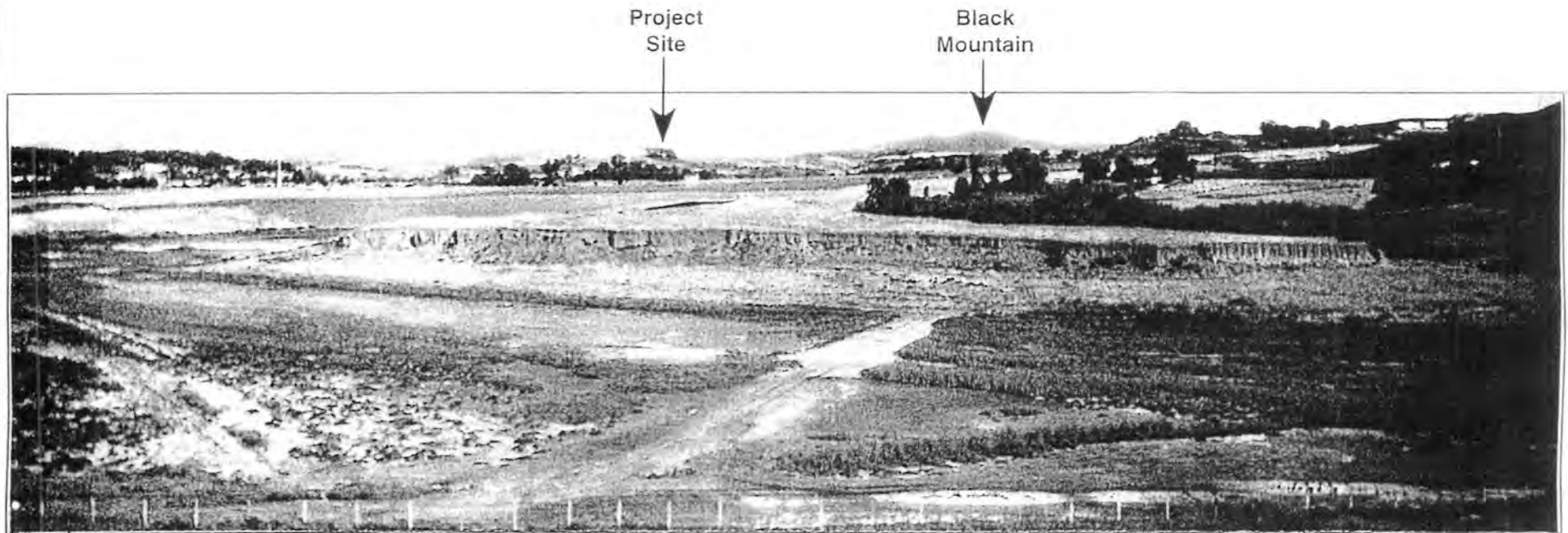


H. View of project site from the San Dieguito River Valley.

PHOTOGRAPH 4C-1

Photographs of Del Mar Highlands Estates and Surrounding Areas

Source: Helix Environmental 1995



1. Distant view of project site from Interstate 5, with the San Dieguito River Valley in the foreground and Black Mountain in the distance.

PHOTOGRAPH 4C-1

Photographs of Del Mar Highlands Estates and Surrounding Areas

Photograph 4C-1D is the view from San Dieguito Road of the steep natural slopes along the northern boundary of the project site. As shown, very limited views of the site are available from San Dieguito Road. Photographs 4C-1E and 4C-1F are representative views of the site from Old El Camino Real. As shown, these areas of the site have been heavily disturbed by agriculture and activities associated with the SDG&E easement. Chain link fencing is present along much of this site boundary, and in many locations the overhead transmission lines dominate the view. There are several stands of mature trees.

Photograph 4C-1G shows the view from the intersection of Old El Camino Real and El Camino Real, which is abutted by commercial uses. In this view, the polo field is in the foreground, with the northern slopes of the project site and adjacent parcels to the east as a backdrop. The slopes are primarily a mixture of disturbed and undisturbed native habitat, with the agricultural areas barely visible along the top of the ridge. There is also agricultural cropland along the gentler slopes to the right in the photograph (in the western portion of the project site).

Photograph 4C-1H is the view of the project site from the San Dieguito River valley. As shown, the project site is the backdrop for the views of the valley floor. There are a few existing homes along the bottom of the hill adjacent to San Dieguito Road. The western portion of the project site appears as agricultural land and undeveloped land. The eastern portion of the site appears as undeveloped land along the slopes, with agriculture barely visible on top of the ridge. Interstate 5 and commercial buildings are also visible in the distance to the west.

In addition to the project site, the viewshed from the adjacent portion of the San Dieguito River valley takes in off-site disturbed and undisturbed open space areas along the river. Agriculture and residential subdivisions can be seen to the east. San Dieguito Road and the adjacent rural residences can be seen to the south, adjacent to the project site. North of the San Dieguito River, the polo fields and Via de la Valle can be seen along the northern edge of the valley. Commercial buildings are located at the intersection of Via de la Valle and El Camino Real. The hillsides beyond Via de la Valle to the north are developed with single-family homes, which are partially screened by mature landscaping.

The view from Interstate 5 east towards the project site is shown in Photograph 4C-1I. As shown, the project site is barely visible in the distance, beyond the San Dieguito River valley. From this vantage point, the project takes up a narrow portion of the view. Black Mountain is prominent in the distance beyond the project site to the east.

d) Existing Landmark and Mature Trees

Existing landmark or mature trees within the project site include eucalyptus and sycamores, as well as several individual scrub oaks, pecans, and arroyo willows. Eucalyptus trees occur in 14 distinct areas in the northwest, central, and southern portions

of the site (see Photograph 4C-1B). These woodland areas vary in size from 40 to over 160 trees, include individuals ranging in height from approximately 6 to 80 feet, and are primarily adjacent to agricultural sites where they stand out in distinct relief. Approximately 15 mature eucalyptus trees are also located along the portion of Gonzales Canyon encompassing sycamore woodland habitat.

Approximately 160 sycamore trees are located within a riparian woodland area of Gonzales Canyon in the southwest corner of the site. The majority of these trees are mature, with heights ranging between approximately 60 and 80 feet. The sycamore woodland forms a dense canopy over the associated portion of Gonzales Canyon Creek and stands out in distinct relief compared to adjacent areas encompassing agricultural uses and/or brushy vegetation.

Two mature pecan trees are located near to the eastern tip of the above-described sycamore woodland area and are ostensibly associated with previous agricultural activity. These trees extend to a maximum height of approximately 40 feet and stand out in distinct relief compared to surrounding ruderal (primarily non-native grassland) vegetation.

e) Applicable Regulations

City of San Diego

The City's Progress Guide and General Plan does not identify any existing scenic highways or routes in the project area. However, the General Plan identifies Interstate 5 west of the project site as eligible for designation as a state scenic highway and recommends that the City apply for this designation. The view of the project site from Interstate 5 was provided in the preceding subsection as Photograph 4C-1I. The project site represents a small portion of the distant view from Interstate 5. Carmel Valley Road, south of the project site, is recommended for designation as a City scenic route. The project site is not visible from Carmel Valley Road. The Carmel Valley Community Plan does not address scenic resources or roadways in the community planning area for the proposed project.

The City's Resource Protection Ordinance includes (among other criteria) restrictions on disturbance or encroachment within areas of 25 percent or greater slope. Specifically, these restrictions involve conformance with RPO encroachment ratios (i.e., the percentage of total steep slopes on-site authorized for disturbance), zoning classifications, and HR Overlay Zone requirements. Zoning criteria generally regulate the type and size of allowable facilities within a given classification, while HR regulations involve discretionary approval of development activities such as grading, erosion control, landslide hazards, building scale and design, site clustering, and landscaping. When a particular development is subject to provisions of both RPO and HR, the City typically

conducts the evaluation as a single permit action. Additional discussion of RPO requirements related to the proposed project (including issues other than steep slopes) is provided in the Section 4.A discussion in this EIR.

The North City Future Urbanizing Area Framework Plan outlines implementing principles for development adjacent to significant natural areas. Gonzales Canyon and the San Dieguito River valley are considered significant natural features in the framework plan. The regulations are meant to ensure sensitive development adjacent to natural areas until such time that the City Council establishes criteria for development in the San Dieguito River Park Master Plan area.

- Development in hillside areas should conform to the unique natural setting of each area and site, retaining the character of existing landforms and preserving significant native vegetation.
- Cluster units where appropriate to minimize grading, roadway, and driveway intrusion into sensitive habitat areas. Neighborhoods abutting the areas of the Environmental Tier such as Gonzales Canyon are areas where clustering of dwellings is encouraged.
- The development pattern in hillside areas should be designed so that structures do not stand out prominently when seen from a distance.
- Development should not obstruct public views.
- In conjunction with project proposals, disturbed areas on a site which are to be retained as open space shall be contoured to blend in with natural slopes and shall be revegetated with native plants.
- Mass grading shall be avoided. Grading will be limited to the building footprint, accessory uses, and access corridors essential to the development of the site.
- Development adjacent to ridges and bluffs shall minimize visual impacts to these topographic features through setbacks and landscaping, especially near major canyons or valleys.
- New development shall be required to minimize erosion.
- Structures located within the view of the park, if within 200 feet vertically and 50 feet horizontally of a ridgeline, shall be setback and be low in profile so as not to be visually prominent from the future park.

- The facades of structures shall be angled at varying degrees to follow the natural topography of the site.
- All exterior lighting shall be a low-sodium type with horizontal cut-off and shall be shielded downward such that the light would not be visible to the adjacent properties and the proposed park.
- Rooflines shall vary in angle and height to provide a changing profile.

San Dieguito River Park Concept Plan and San Dieguito River Regional Plan

As noted in the Land Use discussion of this report, the JPA of the San Dieguito River Park has adopted a concept plan, which addresses future development activities within the viewshed of the San Dieguito River and its major tributary drainages. This viewshed area is called the Focused Planning Area. The goals of the San Dieguito River Regional Plan and San Dieguito River Park Concept Plan are discussed in the Land Use section of this EIR. Many of these goals relate specifically to natural areas (Gonzales Canyon and San Dieguito River valley) and the visual interface with new development.

The concept plan proposes to develop a "Coast to Crest Trail" as a bicycle, hiking, and equestrian trail system stretching the entire length of the park from the Pacific Ocean to Volcan Mountain near Julian. This trail system would run along both sides of the San Dieguito River. A secondary trail is proposed through Gonzales Canyon to connect with trails to the Los Peñasquitos Canyon Preserve. The northern slopes of the project site would be visible from the Coast to Crest Trail (see Photograph 4C-1H). The Gonzales Canyon Trail would cross the southern portion of the project site from west to east. The concept plan also generally identifies a scenic lookout in the vicinity of the western boundary of the project site.

The concept plan states that special attention should be given to viewsheds of specific activity areas, although buffering of development with trees would be appropriate where compatible with wildlife habitat. The plan acknowledges that much of the natural habitat within the project area has been disturbed by existing land uses. However, the mesas and upland slopes of Gonzales and La Zanja Canyons and the San Dieguito River are identified as "a very important frame to the view of the valley as it narrows." The concept plan calls for setback of development on the adjacent ridges from the top of slopes to reduce its visibility from the river valley and canyons, as well as to provide for an upland transition area that will serve to buffer the development from the adjoining natural habitat. Architectural treatment should be sensitive to the views from the park, and appropriate landscaping should be provided within a transition buffer area to help screen the development.

As discussed in the Land Use section of this report, the concept plan lists implementing principles for development within the San Dieguito River Park Focused Planning Area. Many of these principles address potential visual impacts of development on the existing visual character of the area and on views from the park. Such principles include clustering of residential units, minimizing of alteration of drainageways and landforms, conformance of development in hillside areas with the natural setting, preservation of significant native vegetation, blending of development with the hillside background and topography (including angling of facades to blend with existing topography), preservation of public views, restoration of disturbed open space areas, minimal grading, setbacks from ridges and bluffs, use of landscaping as screening, use of shielded low-sodium exterior lighting, and variation of rooflines.

Landform Alteration/Visual Quality Issues

1. Would implementation of the project result in a substantial change in topography or ground surface relief features, or the loss, covering, or modification of any unique geologic or physical features, including canyons, bluffs, or hillsides with a slope gradient in excess of 25 percent?
2. How would implementation of the project affect the visual quality of the area, especially with regard to views from public roadways and recreational areas?
3. Would compliance with the City's fuel management program result in visual impacts?

1) Issue

Would implementation of the project result in a substantial change in topography or ground surface relief features, or the loss, covering, or modification of any unique geologic or physical features, including canyons, bluffs, or hillsides with a slope gradient in excess of 25 percent?

Impacts

Project grading would occur primarily on the mesa top in areas already graded for agricultural efforts. Future grading would not occur in Gonzales Canyon (currently in agriculture), which would be largely revegetated with coastal sage scrub during project efforts, or in the area proposed for an open space north-south corridor extending from the San Dieguito River valley to Gonzales Canyon.

Project area roadways would extend primarily along the east/west-trending ridgeline in the northern portion of the site (Streets A, B, and I; each 40 feet wide), with the remaining driveways and cul-de-sacs being 36 feet in width. A 24-foot-wide private drive extends west from Lot 118 towards Old El Camino Real. The primary access to the site from San Dieguito Road will be a public street with a 74-foot-wide public right-of-way. Off-site grading is required to extend the project access road approximately 350 feet to San Dieguito Road.

Proposed roadways would disturb 15 acres (3.9 percent) of the project site and are designed to conform with existing site topography to the maximum extent feasible. Construction of the proposed project would involve approximately 1.6 million cubic yards of cut and 1.6 million cubic yards of fill over 166.32 acres, or 9,620 cubic yards per graded acre. The relatively high grading quantities per acre are a result of efforts to minimize the area of disturbance as much as possible. Project grading would create an estimated 22 cut or fill slopes in excess of 20 feet in height. As shown on Figure 4C-3, these manufactured slopes are located throughout the project site to create building pads and project roadways. Table 4C-1 lists the approximate maximum heights and lengths of the major manufactured slopes. Figure 4C-4 depicts cross sections that illustrate the proposed grading.

Based on the RPO analysis for the Del Mar Highlands Estates project site, the proposed project would encroach into approximately 31.45 acres of sensitive biology areas and slopes in excess of 25 percent gradient with an elevation differential of 50 feet or more. This exceeds the allowable encroachment under RPO by approximately 16.48 acres (see Section 4.A, Land Use, for more discussion of RPO compliance). Based on underlying topography and lot layout as shown on the PRD map, it is likely that project grading could involve changes in elevation of greater than five feet on each of the project lots.

Significance of Impacts

Project-related landform alteration impacts for Del Mar Highlands Estates would be significant due to the extent of earthwork, the anticipated level of disturbance to 25 percent or greater slopes, and the maximum height and length of the manufactured slopes.

Mitigation, Monitoring, and Reporting

Mitigation of significant landform impacts would require the modification of the proposed project design to (1) reduce grading requirements to 2,000 cubic yards or less per acre; (2) conform with RPO steep slope encroachment criteria; and (3) eliminate the major manufactured slopes. Incorporation of these measures into project design would require substantial revision to the proposed project. These adverse effects comprise significant and unmitigable impacts of the Del Mar Highlands Estates project.

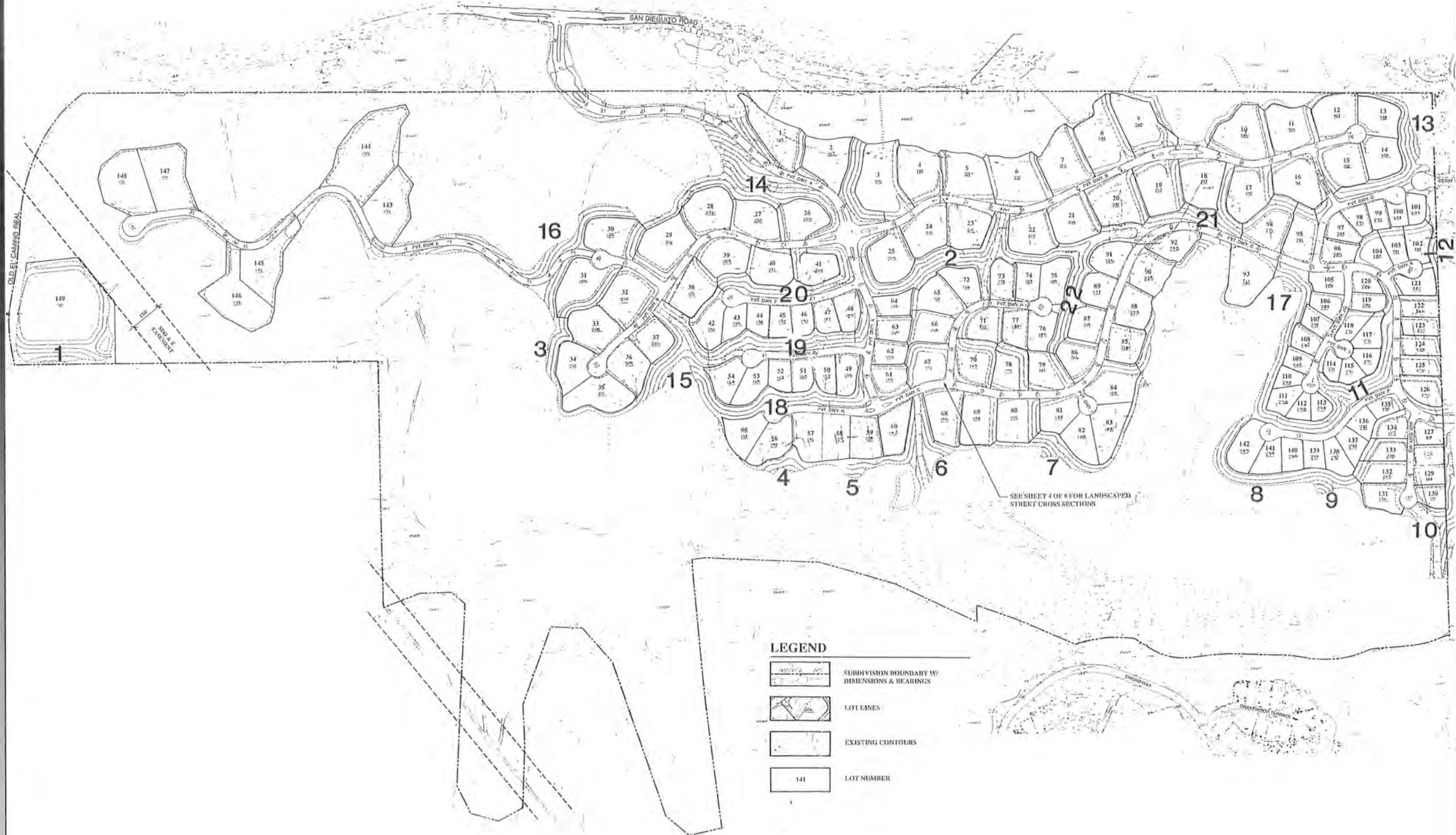
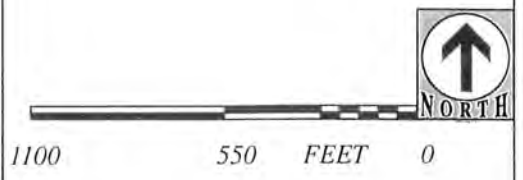
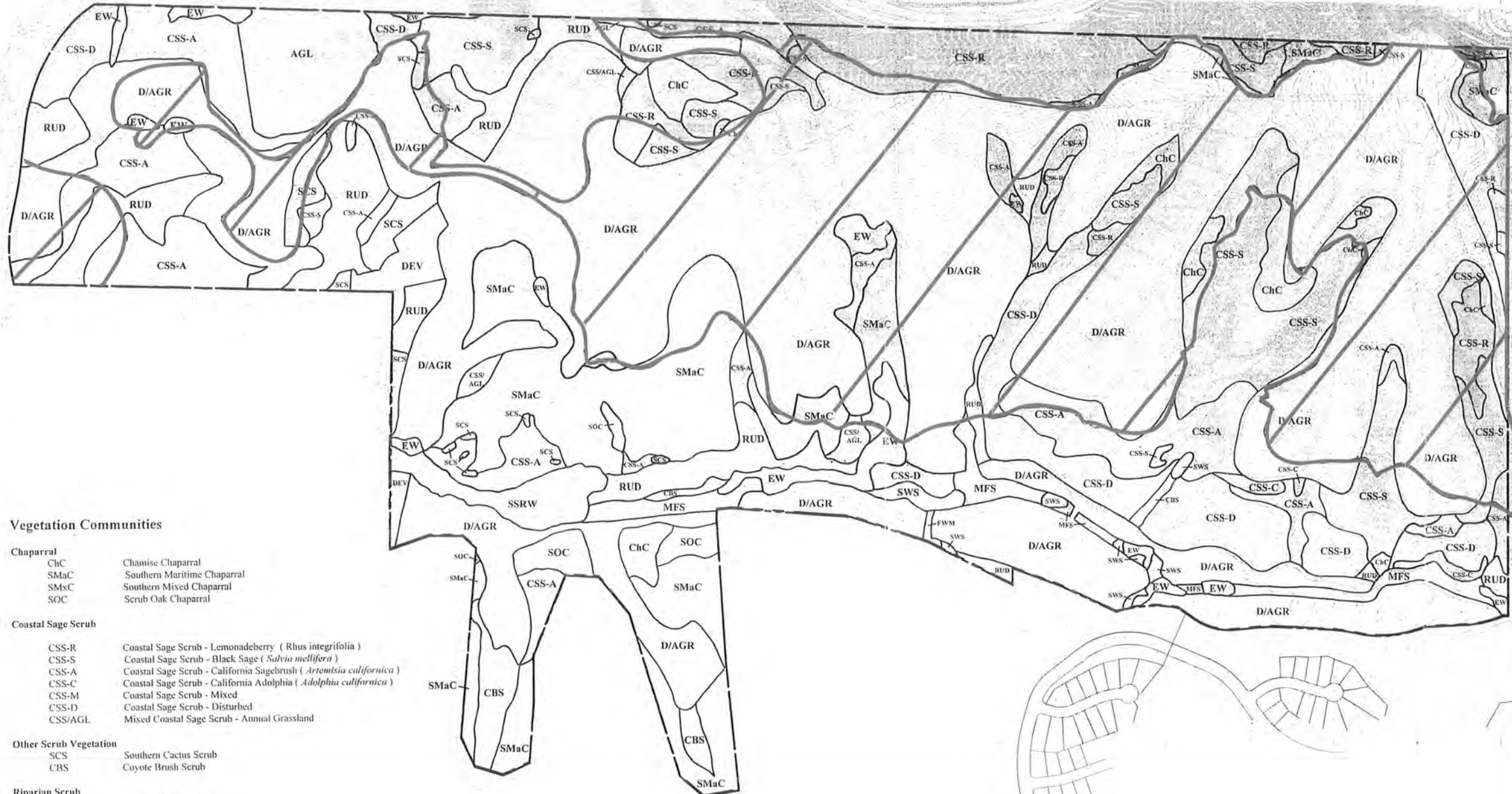



FIGURE 4C-3

Major
Manufactured
Slopes



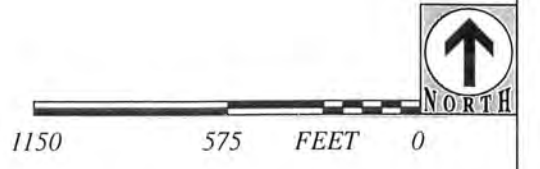


 Proposed extent of grading

Vegetation Communities

- | | |
|-------------------------------|--|
| Chaparral | |
| ChC | Chamise Chaparral |
| SMaC | Southern Maritime Chaparral |
| SMxC | Southern Mixed Chaparral |
| SOC | Scrub Oak Chaparral |
| Coastal Sage Scrub | |
| CSS-R | Coastal Sage Scrub - Lemonadeberry (<i>Rhus integrifolia</i>) |
| CSS-S | Coastal Sage Scrub - Black Sage (<i>Salvia mellifera</i>) |
| CSS-A | Coastal Sage Scrub - California Sagebrush (<i>Artemisia californica</i>) |
| CSS-C | Coastal Sage Scrub - California Adolphia (<i>Adolphia californica</i>) |
| CSS-M | Coastal Sage Scrub - Mixed |
| CSS-D | Coastal Sage Scrub - Disturbed |
| CSS/AGL | Mixed Coastal Sage Scrub - Annual Grassland |
| Other Scrub Vegetation | |
| SCS | Southern Cactus Scrub |
| CBS | Coyote Brush Scrub |
| Riparian Scrub | |
| SWS | Southern Willow Scrub |
| MFS | Mulefat |
| FWM | Coastal and Valley Freshwater Marsh |
| Woodland | |
| SSRW | Southern Sycamore Riparian Woodland |
| EW | Eucalyptus Woodland |
| Grasslands | |
| AGL | Annual Grassland |
| NGL | Native Grassland |
| RUD | Ruderal |
| D/AGR | Disked/Agricultural GR |
| Other Vegetation | |
| RUD | Ruderal |
| D/AGR | Disked/Agricultural |
| GR | Graded |
| DEV | Developed |

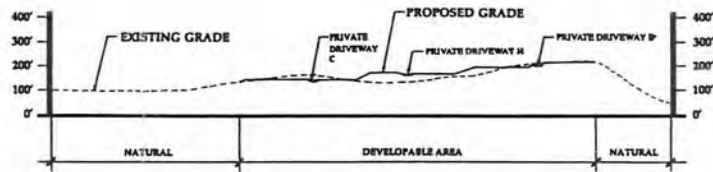
FIGURE 4E-1
Existing
Vegetation Map



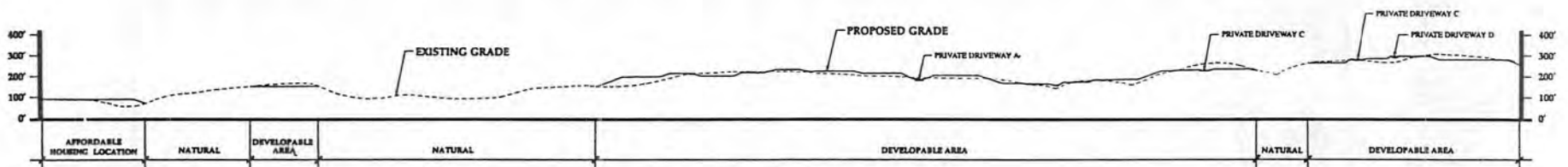
Source: Natural Resource Consultants 1997

**TABLE 4C-1
DEL MAR HIGHLANDS ESTATES
MAJOR MANUFACTURED SLOPES**

Slope Number	Approximate Maximum Height (feet)	Approximate Length (feet)	Cut/Fill
1	50	350	Fill
2	45	400	Cut
3	20	250	Fill
4	35	300	Fill
5	35	320	Fill
6	25	200	Fill
7	60	375	Fill
8	20	400	Fill
9	65	400	Fill
10	40	400	Fill
11	40	450	Fill
12	20	400	Cut
13	45	300	Fill
14	85	800	Cut
15	50	400	Fill
16	30	275	Fill
17	50	175	Fill
18	30	450	Fill
19	30	500	Fill
20	30	400	Fill
21	40	200	Fill
22	35	400	Fill



CROSS SECTION A - A'



CROSS SECTION B - B'

Source: T & B Planning Consultants 1997

FIGURE 4C-4

Cross Sections

2) Issue

How would implementation of the project affect the visual quality of the area, especially with regard to views from public roadways and recreational areas?

Impacts

The proposed project would ultimately add single-family homes and affordable housing to the project site. Agricultural uses on the mesa top would be developed with residential uses and agricultural uses in Gonzales Canyon would be replaced with native vegetation. The character of the site would shift from agricultural and open space to residential and natural open space. The proposed developable areas of the site correspond fairly closely with the existing agricultural disturbance on the mesa top, but would also soften some of the existing sharp-edged gullies. Approximately 36 acres of sensitive habitat would be removed as part of the proposed development. In general, those areas of the site on the mesa which are currently in agricultural use would be developed with dwellings as viewed from off-site. Likewise, the existing undisturbed areas of the site on the lower hillsides would continue to appear much the same way they do now, with native vegetation and dirt trails the predominant visual elements. Views into Gonzales Canyon would change from cultivated land to wildlife habitat.

In general, development would occur on the project upland areas, including estate development on each of three local (small) ridgeline/knoll features located in the western portion of the property (Estate Lots 143-148). The average lot area on the estate residential area would be 1.551.4 acres with a minimum floor area for the homes of 4,000 square feet. In the eastern portion of the site, Lots 96-142 (Small Lots) would be an average of 17.8009,500 square feet each. The homes on these lots would be a minimum of 3,0002,000 square feet and have a maximum height of 30 feet from finished grade. In the south-central portion of the site, Lots 42-95 (Medium Lots) would be an average of 29,00023,000 square feet with homes a minimum of 3,000 square feet that have a maximum height of 30 feet. In the central and northern portion of the property (Large Lots 1-41), the average lot size would be 48,60038,000 square feet and the homes would be a minimum of 3,500 square feet and have a maximum building height of 30 feet. The site plan (see Figure 3-3) and building design standards for the affordable housing site (Lot 149) would be predominantly earth-tone and soft pastel colors, with darker colors permitted as accents.

The proposed project would be visible from multiple public roadways and two public parks. These include Old El Camino Real, El Camino Real, San Dieguito Road, Via de la Valle, Sword Way, Interstate 5, Derby Farms Road, Torrey Highlands Park, and San Dieguito River Park. Impacts upon views from each of these key locations are addressed in the paragraphs which follow.

a) Old El Camino Real

The proposed project would provide an entrance into the southwestern corner of the project site from Old El Camino Real and would grade a 2.9-acre pad within the viewshed of Old El Camino Real. The pad (Lot 149), which would accommodate 24 affordable housing units (see Figures 3-3 and 3-4), would be located on the gentle slope which faces this roadway and is currently in agricultural use. The three 8-plex buildings would be located on top of the ridge above Old El Camino Real. Views of these units would be interrupted by the existing high-power transmission lines. Naturalized manufactured slopes are associated with the south and north slopes of the lot. Access to Old El Camino Real would be at grade, but the entrance would be screened with landscaping and fencing treatments along Old El Camino Real. These views of the proposed project would not be in character with the existing views along this roadway to the south of the project site where there are existing single-family homes and commercial stables.

b) El Camino Real

The views of the project site from El Camino Real are primarily experienced by southbound travelers between Via de la Valle and San Dieguito Road. From this roadway segment, the north-facing slopes and ridge in the northern half of the project site appear as a backdrop to the relatively level polo field and natural areas of the San Dieguito River valley. The site becomes clearer and takes up a greater portion of the view as the southbound traveler approaches the site. The ridge on the site appears as a relatively level mesa, which continues beyond the project site to the east. Existing residential development adjacent to the project site cannot be easily discerned from this roadway, with the exception that the existing Senterra residential subdivision immediately east of the project can be seen from the northern portion of this roadway segment. The larger areas of agricultural use on the site can be discerned along the tops of the ridges and along the slopes at the west end of the site.

Approximately 17 homes would be visible along the northern site boundary (including four of the six estate lots in the western portion of the property). Overall, the existing natural slopes along the northern site boundary would not be greatly altered by the proposed project because these slopes north of Lots 1-9 would be preserved as natural open space. Minor grading of natural areas along the upper reaches of these northerly, steep slopes would occur on or adjacent to Lots 10-13. The homes that would be visible from El Camino Real are all along the northern ridgeline. Although the design guidelines (see Appendix B) contain landscaping, setbacks, and architectural standards for these lots, the proposed project would noticeably change the skyline as viewed from El Camino Real by interrupting it with the rooflines of these homes and associated structures.

c) Via de la Valle

Views from Via de la Valle are primarily experienced by travelers in both directions from the vicinity of San Andres Drive to a point approximately 1,200 feet east of the intersection of Via de la Valle and El Camino Real. The views from this roadway are distant and several existing commercial and agricultural uses along the south side of Via de la Valle interrupt and detract from the views of the site. In addition, multiple residential subdivisions are visible beyond the project site and to the north of Via de la Valle in Solana Beach.

d) San Dieguito Road

The project site is visible from San Dieguito Road between approximately Derby Farms Road and El Camino Real. This roadway provides relatively close-up views of the northern slopes of the project site. The northern site boundary, which is visible from San Dieguito Road, is approximately 6,750 feet long. The proposed grading areas generally closely correspond with existing agricultural fields, which are visible from San Dieguito Road. The homes have lot lines which correspond closely to the previously cultivated property. The current views of agricultural activities and bare, fallow areas, then, would be replaced by views of homes and/or associated landscaping. The remaining slope areas would remain undisturbed, with native vegetation, in accordance with the City's RPO. Future homes along the northern edge of the ridgetop would be most visible from those portions of San Dieguito Road which are farthest from the site (e.g., just west of Derby Farms Road) and would be least visible from those portions of San Dieguito Road which are closest to the project site, where the hillside edging the road provides screening.

An additional effect of the project is related to construction of the major project access point. This entrance extends south, up the slope and into the project, from San Dieguito Road (see Figure 3-2). Currently consisting of disturbed grassland, the main entrance will have a gate, security personnel, and a gatehouse. The gatehouse would be constructed in an early California motif. Typical elements of this style of architecture include white stucco walls and clay or terra cotta tile roofs. Concrete tiles that have the appearance of terra cotta may also be used. Vehicular access gates should be constructed either of tubular steel or rough-hewn wood. The wood may be left natural, painted white, or stained in brown or other earth-tone colors. Associated vegetation will include trees and shrubs (see Figure 3-3). Planting along the access road would also be apparent to travelers along San Dieguito Road, whereas current views are to natural and disturbed vegetated slopes. It is expected that the proposed structure and vegetation, although certainly "developed" in nature when compared with the existing setting, would blend well with specimen planting along portions of San Dieguito Road and similar structural planting associated with the golf club/country club entrance just to the east.

e) Interstate 5

As discussed previously, Interstate 5 has been recommended by the City for designation as a state scenic highway. The views of the project site from I-5 are distant, with the project taking up a very narrow portion of the view. This view is dominated by the San Dieguito River valley in the foreground and Black Mountain in the background and includes several existing rural residential developments. While it is likely that many of the future homes in the western and southern portions of the project site would be visible from I-5, the rooflines of these homes are not expected to alter the current skyline.

f) Sword Way

Residents and travelers along Sword Way currently have views of Gonzales Canyon and the gentle slopes beyond the canyon. These views take in a mix of active and fallow farmland, with a narrow band of riparian vegetation within the drainageway of Gonzales Canyon and native coastal sage scrub along the south-facing, gently sloping wall of Gonzales Canyon. Sword Way is generally a minimum of 80 to 90 feet higher in elevation than adjacent portions of Gonzales Canyon.

With implementation of the proposed project, the entire area which is currently in agricultural use on the tops of the mesa beyond the canyon would be developed with homes while the bare dirt bottom of Gonzales Canyon would be revegetated to blend with the existing riparian corridor. The proposed developable areas in the eastern two-thirds of the project site are visible from Sword Way. The proposed project would step up the lot pads to generally match natural terrain slopes on the southern, and more gently sloping, portion of the mesa. At buildout of the project site, virtually all the homes in the eastern cluster area may ultimately be visible on-site from one vantage point or another along Sword Way. Thus, the view in Photograph 4C-1B would be replaced with a mix of single-family homes and associated landscaping in the mid-distance (to skyline) with segments of coastal sage scrub and riparian vegetation visible between the structures and the viewer. The agricultural operations, which are currently visible in the canyon, would cease and the native habitat of the canyon would be restored through replanting or natural regeneration.

g) Torrey Highlands Park

With project implementation, the existing commercial agriculture on the mesa top and portions of the south-facing slopes of Gonzales Canyon would be replaced by homes (with associated driveways and landscaping). The remainder of Gonzales Canyon and the southern fingers of the project site would be revegetated or allowed to naturally regenerate native vegetation. Due to the visibility of existing single-family residential developments around the periphery of the project site, the distant view of the proposed residential uses would be consistent with the character of the surrounding area.

h) San Dieguito River Park

The view from the planned Coast to Crest Trail alignment in the San Dieguito River Park is similar to the views described above for El Camino Real, except that it is consistently a midrange view. As such, the view of the project site and existing rural residential development along San Dieguito Road is much clearer and the east-west ridgeline within the site appears more variable. Existing residential subdivisions in Carmel Valley beyond the project site to the south cannot be seen. Views to the north are of residential development. The views of the project site currently take in agriculture, high-power transmission lines, trees, and native vegetation areas. The proposed residential development would occur primarily in the existing agricultural areas which are visible from the park (see Photograph 4C-1H). As was described for the views from El Camino Real, depending on the precise building pad location and specific home designs, several homes (each up to a maximum height of 30 feet) could be visible from the park along the ridge or on the north-facing slopes in the western portion of the site. These homes will appear to be an extension of the Senterra development to the east and would be in character with views to the north but would nonetheless replace the last section of rural view within the immediate area.

The San Dieguito River Park Concept Plan has design guidelines for the preservation or enhancement of views from the park, including clustering of units, setbacks from the top of the slope, use of landscaping to screen development as viewed from the park, and blending of rooflines and building facades with the existing topography. The project would cluster residential units, and the design guidelines for the proposed project would require a minimum 20-foot rear-yard setback for the units along the southern perimeter of the project site above Gonzales Canyon and a minimum 30-foot rear-yard setback for Lots 1-41 on the northern ridgeline from the rear-yard property lines. However, as shown on the brush management plan (see Figure 3-7), the building setbacks along the southern perimeter lots are predominantly 35 feet and generally 70 feet on the northern perimeter. In addition, the design guidelines also limit buildings to a single story within 50 feet of the rear-yard property line for these perimeter lots. The maximum building height for all of the single-family units is 30 feet.

The project's design guidelines (Appendix B) also include architectural requirements regarding building color (e.g., use of earth-tone and soft pastel colors), exterior lighting, signage, building materials, and roof design/overhang requirements. Landscaping treatments are also provided (see Figure 3-6) for perimeter slopes which will soften the visual impact of the development from off-site areas such as the San Dieguito River Park, and trees will be used along the ridgeline streetscape (Street M). In addition, the design guidelines includes rear-yard fencing guidelines and wall standards for perimeter lots in order to minimize the visual impacts from off-site areas.

i) Landmark and Mature Trees

The proposed development area within the project site includes portions of five of the noted eucalyptus woodland areas (specifically, within portions of Lots 41 and 147-148). The number of mature trees lost from development in these areas may vary substantially, however, with the final design and layout of the homes and ancillary facilities. It is estimated that a worst-case scenario for on-site lot development would involve the loss of up to approximately 100 mature eucalyptus trees. Specifically, this total assumes that virtually all mature trees within the identified development areas would be lost.

The on-site sycamore woodland would be preserved in the proposed Environmental Tier in Gonzales Canyon and would, therefore, be unaffected by the proposed project.

Significance of Impacts

The Del Mar Highlands Estates project would result in noticeable changes in views from many public vantage points, and would represent a continuation of the suburban development in the vicinity of the San Dieguito River valley. The proposed development would change the rural character of the site to a suburban atmosphere similar to that of the existing development to the north and east. However, the proposed design guidelines for the project would implement the recommendations in the San Dieguito River Valley Concept Plan for development adjacent to the natural areas which includes Gonzales Canyon and the San Dieguito River valley. The impact to visual quality would therefore not be significant.

The loss of mature eucalyptus trees would be considered a significant but temporary visual impact, due to the large size and high local visibility of these trees. These potential impacts would be reduced below a level of significance through the measure identified below.

Mitigation, Monitoring, and Reporting

No mitigation measures are required for changes in views to roadways Torrey Highlands Park or the San Dieguito River Park.

Mature eucalyptus removed as a result of proposed project development shall be replaced with saplings at an approximate ratio of 1:1. Replacement trees may consist of any ornamental or native tree species approved by the City of San Diego, Development Services Department Director, which will grow to match the height and breadth of lost trees. The designated project mitigation monitor shall verify that the above-described replacement trees are included in the project landscaping plan and shall verify and

document the planting of these trees to the Development Services Department Director as part of the site development.

3) Issue

Would compliance with the City's fuel management program result in visual impacts?

Impacts

As required by the City of San Diego, a brush management plan has been incorporated into the design guidelines for the proposed project in order to reduce the availability of flammable materials adjacent to future on-site structures. Brush management is typically accomplished by pruning and thinning of native plants, revegetation with non-native plants, or a combination of the two. In no case should hillsides be left devoid of vegetation, because this would lead to soil erosion.

Typically, fuel management involves the identification of three zones. These zones are shown on Figure 3-7. The vast majority of brush management proposed for Del Mar Highlands Estates would take place within the areas proposed to be graded for the project as shown in Figure 3-2, the PRD site plan. The grading boundaries are exceeded for brush management purposes for only a few lots because of the minimum setback requirements in the design guidelines. These worst-case excesses are minor in extent as they are small in area and consist only of zone 3 management efforts—selective pruning and thinning of native vegetation while preserving natural appearance. The actual extent of the brush management zones would be determined on a lot-by-lot basis. No off-site brush management impacts are proposed.

The design guidelines for the proposed project provide a list of recommended plant materials for brush management and identify those plant materials which are fire retardant. Notes on the map address future building materials, prohibited plants, and the requirement that maintenance of brush management areas be carried out in accordance with specifications in the City of San Diego Landscape Technical Manual.

Significance of Impacts

The selective thinning of native vegetation caused by implementation of a brush management program would alter the appearance of natural slopes adjacent to development, and the direct and cumulative effect of brush management would represent a potentially significant visual impact.

Mitigation, Monitoring, and Reporting

As a condition of the PRD, hand thinning brush in zones 2 and 3 would mitigate visual impacts from brush management activities to below a level of significance. Maintenance of zones 2 and 3 would be the responsibility of a homeowners association.

D. Geology and Soils

A geologic reconnaissance report (Pacific Soils 1989) was prepared for the proposed project site and other properties in Subarea III of the FUA. More recently, a preliminary geologic and geotechnical report (Converse Consultants West 1993) was prepared for the entire Subarea III.

Existing Conditions

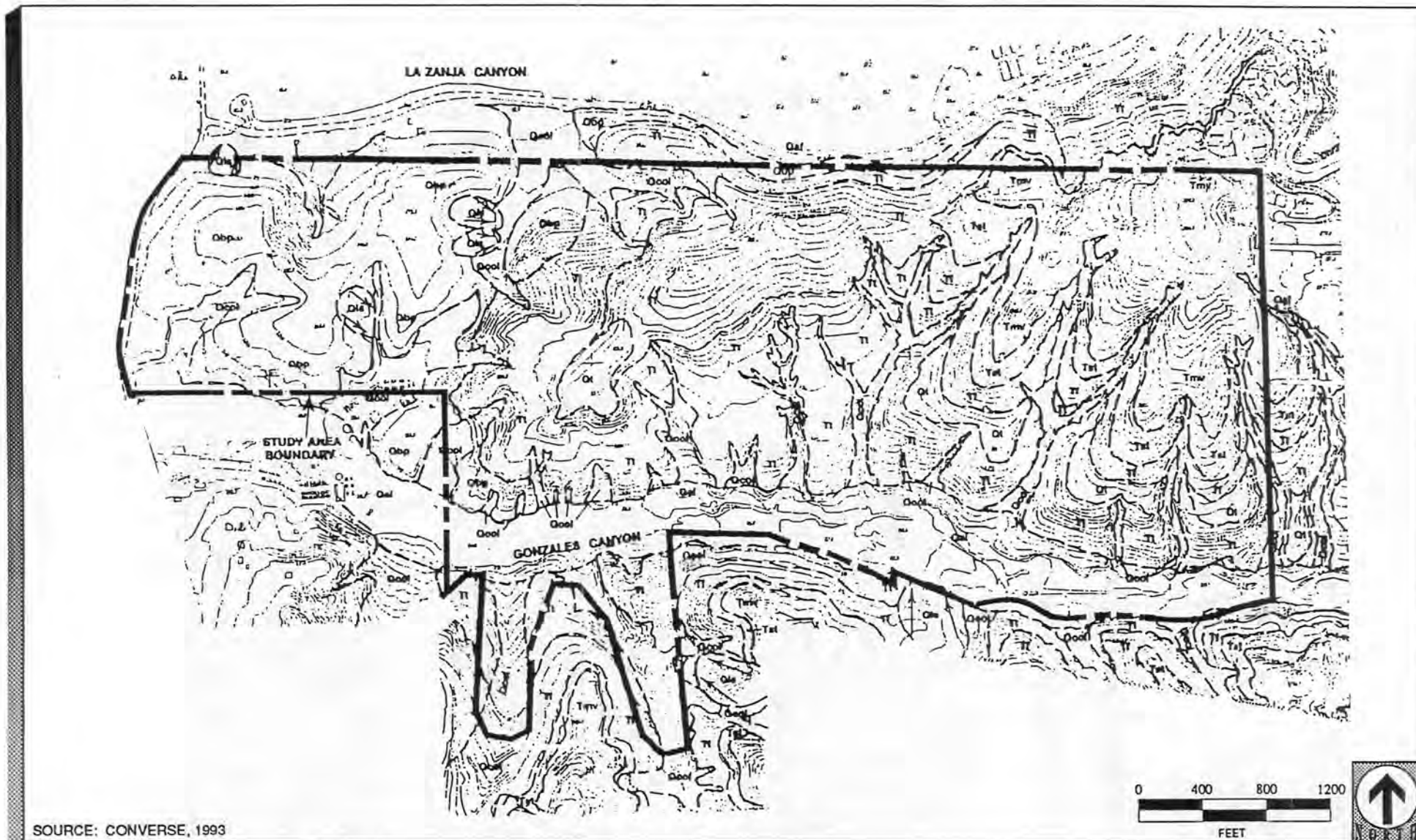
a) Del Mar Highlands Estates

Geology

The Del Mar Highlands Estates area is located within the Coastal Plain subprovince of the Peninsular Ranges geomorphic province. The Peninsular Ranges province is characterized by northwest- to southeast-trending mountain ranges and valleys separated by faults, while the Coastal subprovince typically exhibits low-lying dissected marine terrace deposits. In the project region, the Coastal Plain subprovince includes the San Diego Embayment, a northwest-trending depositional basin representing a period of Tertiary sea level fluctuations. This depositional environment has resulted in a number of transgressional and regressional sedimentation cycles (i.e., in relation to rising and falling sea levels), with these strata generally unconformably overlying Cretaceous and/or older rocks.

Topography within this locale is characterized by level to rolling mesas incised by variably sized drainages. Principal topographic features include the adjacent San Dieguito River valley to the north and Gonzales Canyon in the southern portion of the Del Mar Highlands Estates site. Both of these drainages extend east to west through the site vicinity and encompass a number of smaller tributary canyons of variable direction. On-site elevations within Del Mar Highlands Estates range from approximately 322 feet above MSL in the northeastern corner of the site to 40 feet above MSL in the northwestern corner.

Nine geologic units have been mapped on the Del Mar Highlands Estates site. These include four Eocene sedimentary formations (Torrey Sandstone, Friars Formation, Stadium Conglomerate, and Mission Valley Formation) and five Quaternary units (Bay Point Formation, river terrace deposits, alluvium, recent colluvium, and landslide deposits). Topsoil was also observed on the Del Mar Highlands Estates site surface. These surficial deposits and geological formations are described below in order of decreasing age, with on-site locations shown on Figure 4D-1.



SOURCE: CONVERSE, 1993

LEGEND

- | | | | |
|------|----------------------|-----|--------------------------|
| Qaf | Artificial Fill | Tmv | Mission Valley Formation |
| Qal | Alluvium | Tst | Stadium Conglomerate |
| Qcol | Colluvium | Tf | Friars Formation |
| Qis | Landslide Deposit | Tsc | Scripps Formation |
| Qt | Terrace Deposit | Tt | Torrey Sandstone |
| Qbp | Bay Point Formation | --- | Geologic Contact |
| Qin | Lindavista Formation | ••• | Buried Geologic Contact |

FIGURE 4D-1

**Del Mar Highlands Estates
Geologic Map**

The Torrey Sandstone (Tt) consists of dense, light-colored, medium- to coarse-grained sandstone. This unit is exposed primarily along a number of slopes adjacent to Gonzales Canyon (and smaller associated drainages) in the southern and central portions of the site. The Torrey Sandstone in the project vicinity has been observed to be stable when exposed in cut slopes. The sandstone possesses relatively high shear strength, a low expansive potential, and low compressibility characteristics in both an undisturbed or properly compacted condition. It is therefore generally suitable for foundation support.

The Friars Formation (Tf) consists of relatively dense, clayey sandstone and sandy claystone, with on-site exposures located predominantly in the south-central area. The sandstone and claystone units of this formation are relatively unstable (compared to other formations) when exposed in cut slopes. In addition to possessing relatively low shear strength, the more clayey portions of this formation are highly expansive. The Friars Formation is identified as slide-prone in the City of San Diego Seismic Safety Study (1983).

The Stadium Conglomerate (Tst) consists of very dense, clayey sand, gravel, and cobbles and overlies the Friars Formation and Torrey Sandstone in the western portion of the Del Mar Highlands Estates site. The Stadium Conglomerate typically exhibits favorable geotechnical engineering properties for development.

The Mission Valley Formation (Tmv) outcrops primarily in the northwest corner of the Del Mar Highlands Estates area, overlying the Stadium Conglomerate. This geologic unit is generally comprised of relatively dense sandstone interbedded with siltstone and claystone. It is anticipated that significant quantities of low-expansive sand occur within this unit.

The Bay Point Formation (Qbp) is extensively exposed in the northeastern portion of the Del Mar Highlands Estates site. This unit consists mostly of marine and nonmarine, poorly consolidated, fine- and medium-grained, pale brown, fossiliferous sandstone. The marine part of the formation interfingers with unfossiliferous sandstone that lies generally more than 100 but less than 200 feet above MSL (City of San Diego 1992). Typically, the Bay Point Formation exhibits a low to moderate expansion potential and generally good geotechnical characteristics. Slope instability in this formation has been observed locally on the Del Mar Highlands Estates site, with several mapped landslide deposits associated with the Bay Point Formation located in the northeastern corner of the site (as described below).

Thin stream terrace deposits (Qt) form low benches north of Gonzales Canyon in the central portion of Del Mar Highlands Estates. These deposits typically consist of dense, weakly cemented cobble conglomerates and sandstones, generally possessing excellent bearing characteristics in both a natural and properly compacted condition.

Alluvial deposits (Qal) of 5 to over 25 feet deep are found predominantly in the bottom of Gonzales Canyon on the Del Mar Highlands Estates site. The alluvium consists of silty sands to silts and may contain a large amount of cobbles and some boulders within the main streambeds. In general, observed alluvial deposits are soft and porous and considered unsuitable for supporting engineered fills and/or structures (Appendix D1).

Colluvial materials (Qcol) consist of loose, unconsolidated materials deposited along the bases of slopes, chiefly through the action of gravity. On-site colluvial deposits consist of silty sands to sandy clays with cobble-sized rock fragments and have an estimated maximum thickness of 10 to 15 feet. Deposits of colluvial materials are found within many of the secondary drainages on the Del Mar Highlands Estates site.

Possible landslide deposits (Qls) occur in two different categories as defined by the City of San Diego Seismic Safety Study (1983). The first category includes known or highly suspected landslides. The second category includes landslides which are considered to be possible or conjectured. Four known (first category) landslide deposits occur in the northwestern portion of the Del Mar Highlands Estates site in association with the Bay Point Formation. No possible or conjectured landslides have been identified for the Del Mar Highlands Estates area, although both the Friars and Bay Point Formations may exhibit local slope instability.

Topsoils (unmapped) within the Del Mar Highlands Estates site consist predominantly of well-drained clay, clay loam, loamy sand, and loam, all of which include clayey subsoils. In general, topsoils overlying the Stadium Conglomerate, Torrey Sandstone, Bay Point Formation, and terrace deposits are more loamy in nature and are likely to exhibit low expansion (or shrink-swell) potentials. The thickness of these soils on-site is estimated to be on the order of two feet. Topsoils overlying the Mission Valley and Friars Formations exhibit higher clay contents and typically possess higher expansive potentials. The thickness of these soils on-site may vary from approximately two to five feet.

Groundwater

The Del Mar Highlands Estates site is located within the San Dieguito Hydrographic Unit. It is likely that a permanent shallow groundwater table exists within Gonzales Canyon. It is also likely that during the rainy season, shallow perched groundwater conditions could develop within on-site alluvial and colluvial deposits.

Geologic Hazards

Faulting and Seismicity

Previous seismic evaluations prepared for the project files (Converse Consultants West 1993; City of San Diego 1983) do not identify any known active or potentially active faults on the Del Mar Highlands Estates site. Active faults are defined as those which

exhibit Holocene displacement (i.e., within approximately the last 11,000 years) or historic seismicity, while potentially active faults displace Pleistocene (two million years or less in age) but not Holocene strata (California Division of Mines and Geology 1992). The Del Mar Highlands Estates site is not within a currently designated Alquist-Priolo Special Studies Zone. These zones are designated by the California Division of Mines and Geology and are intended to identify active faults and associated setback requirements for habitable structures.

Regional topographic and seismic characteristics in the project vicinity are influenced by a series of northwest-trending faults associated with the San Andreas fault system. As part of the project seismic evaluation, an analysis was performed to estimate the magnitude and on-site peak horizontal ground accelerations for the maximum credible earthquake and maximum probable earthquake along major regional and local faults. A total of 12 major active or potentially active faults were identified within an approximate 62-mile (100 km) radius of the Del Mar Highlands Estates site, with the results of this analysis summarized in Table 4D-1.

As shown in Table 4D-1, the nearest major active faults to the Del Mar Highlands Estates site are the Rose Canyon fault, located approximately 5 to 8 miles (9 to 13 km) to the west, and the Coronado Bank fault, an offshore zone of deformation located approximately 17 to 19 miles (27 to 31 km) to the west. The peak horizontal ground acceleration range for maximum credible earthquake and maximum probable earthquake events along the Rose Canyon fault are 0.44 *g* to 0.39 *g* and 0.31 *g* to 0.24 *g*, respectively. These represent the maximum peak horizontal ground acceleration values expected on-site in association with major regional seismic activity.

In addition to the faults noted in Table 4D-1, the State Route 56 West, Carmel Valley Restoration and Enhancement Project Plan Amendments FEIR identifies a potentially active fault in Carmel Valley approximately 2,000 feet east of the I-5/Carmel Valley Road intersection (i.e., in the immediate vicinity of the Shell parcel). This potentially active fault, however, is not considered capable of generating a large-magnitude seismic event due to its relatively short length (2.5 miles) (Appendix D2).

Liquefaction

Liquefaction is the phenomenon whereby soils lose shear strength and exhibit fluidlike flow characteristics. Liquefaction is generally associated with seismic ground shaking and occurs predominantly in loose, unconsolidated, and saturated granular deposits. In the event of a strong earthquake, on-site liquefaction is most likely to take place in areas exhibiting shallow groundwater depths and loose, unconsolidated alluvial deposits. In the Del Mar Highlands Estates vicinity, these conditions occur on the project site in Gonzales Canyon and, to a lesser extent, in a number of smaller secondary drainages.

TABLE 4D-1
SUMMARY OF SEISMIC SOURCES AND PARAMETERS

Abbreviated Fault Name	Approximate Distance and Direction from Site mi (km)	Maximum Credible Magnitude (Richter Scale)	Peak Site Acceleration (g)	Site Intensity (Mercalli Scale)	Maximum Probable Magnitude	Peak Site Acceleration (g)	Site Intensity (Mercalli Scale)
Rose Canyon	5 (9) - 8 (13) - W	7.50	0.44 - 0.36	X - IX	6.25	0.31 - 0.24	IX
Coronado Bank/ Offshore Zone of Deformation	17 (27) - 19 (31) - W	7.50	0.22 - 0.20	VIII	6.00	0.09 - 0.08	VII
Elsinore	30 (48) - NE	7.50	0.14	VIII	6.75	0.09	VII
San Clemente	50 (81) - SW	7.50	0.08	VII	6.25	0.03	V
Palos Verdes Hills	51 (82) - NW	7.50	0.05	VI	5.50	0.01	III
Coyote Creek (San Jacinto)	60 (97) - NE	7.50	0.07	VI	6.00	0.02	IV
Casa Loma-Clark (San Jacinto)	58 (93) - NE	7.50	0.07	VI	7.00	0.05	VI
Newport-Inglewood	60 (97) -NW	7.50	0.07	VI	6.50	0.03	V
Hot S-Buck Ridge (San Jacinto)	60 (97) - NE	7.50	0.07	VI	6.25	0.02	IV
Whittier-North Elsinore	60 (97) - NNW	7.50	0.06	VI	6.25	0.02	IV
Gln. Helen-Lytle Claremont	61 (98) - N	7.50	0.06	VI	7.00	0.04	V
Borrego Mountain (San Jacinto)	62 (100) - ENE	6.50	0.02	IV	6.25	0.02	IV

SOURCE: Converse Consultants West (1993).

- NOTES: 1. Attenuation relation: Idriss (1987 - mean).
2. Soil condition: rock/stiff soil.

Expansion

A number of soils within the project site contain clayey horizons or substrata which may exhibit expansive behavior. Soil expansion is related to the water holding capacity of clay minerals and can adversely affect the integrity of structures such as foundations, footings, and retaining walls.

b) Shell Parcel

The northern portion of the Shell parcel abuts the floor of Carmel Valley and the (relatively open) mouth of Deer Canyon south of Santa Monica Ridge. From this northern boundary, the parcel extends south, incorporating the bisected slopes of the sloping mesa top above. Elevations range from a low of approximately 140 feet above MSL in the northwestern portion of the parcel in Carmel Valley to a high of approximately 320 feet above MSL along the mid-eastern boundary.

The Shell parcel contains two geologic units: Friars Formation and alluvium and slope wash (undifferentiated). Descriptions of geologic units not described for the Del Mar Highlands portion of the study area are summarized below.

Alluvium consists primarily of poorly consolidated stream deposits of silt, sand, and cobble-sized particles derived from bedrock sources that lie within or near the area. These deposits intertongue with Holocene slope wash that commonly mantles the lower valley slopes throughout coastal San Diego County. Alluvium and slope wash are mostly undifferentiated on the geologic maps.

Slope wash deposits are poorly consolidated surficial materials derived chiefly from nearby soil and decomposed bedrock sources. The slope wash is deposited along the flanks of the lower valley slopes by the actions of gravity and surface water. Thick deposits of slope wash are especially common on Friars Formation where deep soil horizons have developed. Expansive clay materials deposited as slope wash yield the hummocky topography developed on rocks of lagoonal and nonmarine origin.

Topsoils on the parcel contain clayey elements.

Groundwater

The project parcel is located within the Miramar Reservoir Hydrologic Area of the Peñasquitos Hydrologic Unit. Groundwater may exist in the alluvial aquifers around Shaw Valley Creek, Deer Canyon Creek, and near Los Peñasquitos Creek. Shallow groundwater conditions are indicated by standing water in Carmel Valley. It is likely that permanent shallow groundwater exists within Deer Canyon.

Geologic Hazards

Geologic hazards associated with the Shell parcel are discussed under the geologic hazards discussion for the Del Mar Highlands Estates section above.

Geology/Soils Issues

1. Are there unstable geologic conditions which would represent a constraint to development of the site and pose future hazards on the sites?
2. Would development of the site increase the potential for erosion?

1) Issue

Are there unstable geologic conditions which would represent a constraint to development of the site and pose future hazards on the sites?

Impacts

a) Geologic Formations and Surficial Deposits

Since the Torrey Sandstone formation is relatively unstable when exposed in cut slopes, slope stabilization may be required. This sandstone should be suitable for capping building areas which might otherwise contain expansive soils at grade. Excavations within this formation should be readily accomplished with moderate ripping by conventional earth-moving equipment. The occurrence of localized cemented stones or concretions may be expected; however, the need for blasting is unlikely.

The commonly occurring claystone beds within the Friars Formation generally require slope stabilization measures if exposed in cut slopes or if they lie at shallow depth beneath fill slopes. The clays of the Friars Formation are moderately to highly expansive and would require either selective grading or specially designed foundations. This formation should be rippable with conventional grading equipment.

Moderately heavy to heavy ripping should be anticipated during grading within the Stadium Conglomerate unit. Because of the high cobble content, this formation is generally considered less desirable than sandstones of the Mission Valley Formation or Torrey Sandstone for capping building pads. Cut or fill slopes should possess adequate stability if graded at inclinations of 2 horizontal to 1 vertical. The soil matrix of the conglomerate is generally of low expansive potential and should provide adequate bearing capacity for the support of conventional spread footings.

Within the Mission Valley Formation, cut and fill slopes with inclinations of 2:1 can be expected to possess adequate overall stability. Excavation should be readily accomplished with moderate ripping and conventional heavy-duty grading equipment. The occurrence of localized cemented zones or concretions is likely, but the need for blasting is considered extremely remote.

The Bay Point Formation may require slope stabilization measures where it is exposed in cut slopes or if it exists at shallow depths beneath fill slopes. The Bay Point Formation should be ripplable with conventional grading equipment.

Terrace deposits generally provide favorable geotechnical conditions relative to proposed development. Because only limited areas of the project site encompass these materials, however, they are not a major consideration for site development.

Alluvial and colluvial materials are generally loose and granular in nature and may be subject to seismically induced liquefaction during local or regional earthquake events. Where structural improvements are proposed in areas of alluvial or colluvial deposits, remedial grading in the form of removal and recompaction would likely be required, pursuant to direction by a qualified geologist.

The proposed project plans show developable areas for estate residences over or adjacent to known landslide deposits. It may therefore be necessary for lot owners to either avoid these landslide-prone areas or mitigate potential landsliding effects through measures such as removal and recompaction or buttressing. Such stabilizing efforts could potentially extend beyond the designated on-site limits of disturbance under RPO.

The unconsolidated consistency and expansive potential of unmapped on-site topsoils may require remedial grading, such as removal and recompaction or replacement with approved fill.

b) Groundwater

Where project-related development for Del Mar Highlands Estates extends into canyons or ravines, subdrains would be required to relieve the potential buildup of hydrostatic pressure. Due to the anticipated installation of a municipal water system, the proposed development would eliminate the current use of groundwater on-site for farming, thereby reducing impacts to local groundwater supplies. Use of groundwater for agricultural and domestic purposes is anticipated to cease upon the installation of a municipal water supply system, and existing groundwater quality problems in the area would therefore not impact the proposed project.

c) **Geologic Hazards**

Faulting and Seismicity

The seismic hazard considered most likely to impact the site is ground shaking associated with an earthquake along a major regional active fault. Specifically (pursuant to Table 4D-1), the Rose Canyon fault may be capable of producing a maximum probable earthquake of 6.25, the Elsinore fault is believed to have a repeat activity interval of approximately 60 years for magnitude 7.3 event, and the San Jacinto fault could produce a maximum probable earthquake of up to 7.0. Due to their distance from the project site, design engineering of on-site structures and features can provide an adequate margin of safety for seismic events along the noted faults. Potential on-site geologic hazards associated with seismic activity include landsliding and liquefaction, as outlined below.

Landslides

The Del Mar Highlands Estates site encompasses a number of known landslide deposits and areas of the Friars and Bay Point Formations which exhibit landsliding potential. These deposits may be subject to slope movements or failures from seismic ground shaking, as well as nonseismic factors such as gravity, vegetation removal, and irrigation. This is particularly applicable to manufactured slopes associated with building and road construction in areas exposing or underlain by the Friars and Bay Point Formations. Specifically, this includes portions of streets in the northwestern and north-central portions of the Del Mar Highlands Estates site, as well as developable portions of numerous residential lots. In order to accurately determine the size and subsurface geometry of known and potential landsliding hazards; however, site-specific exploratory drilling and/or trenching would be required. Where landslides are present in areas to be developed, earth buttresses or other remedial measures can be provided during site development to properly stabilize landslide deposits. Similarly, remedial grading may be required where slides are not present but where weak claystone beds (or other unstable strata) are encountered. Slide debris often possesses zones of compressible material and some recompaction of these soils may be necessary.

Liquefaction

No development is proposed for the alluvial (liquefiable) areas.

Expansion

Much of the developable portions of the Del Mar Highlands Estates site are overlain with topsoils exhibiting variable levels of expansion potential. These materials could significantly affect most proposed roadway and residential structures through displacement of and damage to foundations and surface structures. These potential impacts can be reduced below a level of significance through measures such as removal and replacement of expansive soils with approved fill.

Significance of Impacts

There are no soil or geologic conditions observed or known to exist on the project site which would preclude development of the property (Converse Consultants West 1993). A number of potentially significant on-site geologic conditions exist, however, which will require mitigation. Specifically, these include seismically induced ground shaking and landsliding, unstable manufactured slopes, and unsuitable surficial deposits (e.g., expansive or unconsolidated soils). Mitigation of potential landslides could result in temporary removal of vegetation and grading/recompaction of soils beyond the proposed limits of disturbance under RPO.

Mitigation, Monitoring, and Reporting

The following mitigation measures would be required for Del Mar Highlands Estates. These measures would reduce geology impacts associated with unstable geologic formations, soils, and geologic hazards to below a level of significance:

1. Prior to grading permit issuance for any development on the project site (including proposed roadways), a project-specific soils and geological investigation shall be submitted to and approved by the City Engineering Department. The evaluation shall include, but not be limited to, an analysis of the following conditions in areas to be graded and developed: seismic loading, gross and surficial slope stability, landslide and mudflow potential, hydrostatic pressure potential, foundation suitability of soils, and soil expansion. The evaluation shall provide remedial grading and foundation design measures to mitigate any significant impact associated with the foregoing conditions including unstable soil, bedrock, groundwater, or seismic conditions.
2. Grading and development plans shall be reviewed and approved by EAS and the City Engineering Department to determine compliance with the remedial grading measures identified in the development-specific geotechnical reports. Geotechnical specifications shall be identified as mitigation measures on grading plans. Field monitoring by a qualified geologist would be required. Should additional resource impacts be identified during plan check or field monitoring, additional environmental review will be required to determine whether or not additional mitigation or revegetation is necessary.

2) Issue

Would development of the site increase the potential for erosion?

Impacts

Many of the areas proposed for development are currently in agricultural production. These areas have been cleared of most stabilizing vegetation and are generally plowed or disced year-round. Therefore, although several on-site surficial deposits may be subject to erosion hazards due to project removal of stabilizing vegetation and the construction of manufactured slopes, development of the proposed project may actually reduce on-site erosion through implementation of project landscaping. Finally, erosion effects currently associated with keeping Gonzales Canyon (the area floodway) in a disced field crop or fallow state would cease. The natural and planned revegetation which would occur here would diminish present adverse effects on downstream sedimentation.

Where construction conditions could potentially accelerate erosion rates in currently undeveloped areas (due to the generally loose and unconsolidated nature of graded areas and fill materials), erosion potential would be highest in drainages or manufactured slopes. The latter condition would occur primarily along interior slopes between development levels. Existing topography in those areas would require recontouring of existing variable slopes. Based on the PRD site plan, modified slopes on-site would range up to 110 feet in height.

Most eroded materials within the Del Mar Highlands Estates site would enter the San Dieguito River, either directly or through tributary drainages (including Gonzales Canyon). Such erosion, if unchecked, could result in significant effects to proposed facilities through undermining of supporting fill or soil deposits. In addition, the transport of eroded sediment into local drainages could significantly impact local water quality through effects such as sedimentation and turbidity (refer to Hydrology/Water Quality). Potential on-site erosion impacts would be greatest during storm events, although local irrigation could also generate significant sediment transport. Effects associated with storm events would be largely alleviated by detention basins proposed as part of project design. Although remaining effects may be significant, they are still expected to be less than those currently associated with agricultural activities on over 50 percent of the Del Mar Highlands Estates site.

The proposed Del Mar Highlands Estates Design Guidelines provide a number of specific standards related to erosion control, including general landscaping and specific planting criteria for disturbed or manufactured slopes. Specifically, these latter criteria involve the following types of measures:

- Use of native drought-tolerant vegetation to reduce irrigation requirements.
- Provision of both deep-rooted and ground cover vegetation on all disturbed slopes.

- Use of erosion-controlling measures such as mulch or jute netting prior to establishment of vegetation.

Significance of Impacts

Future grading activities for Del Mar Highlands Estates, for roadways and development pad “terraces,” could result in potentially significant soil erosion and transport.

Mitigation, Monitoring, and Reporting

The proposed project design guidelines described above, as well as mitigation measures identified in Section 4.B, Hydrology/Water Quality, and below, would reduce impacts associated with on-site erosion potential to below a level of significance for Del Mar Highlands Estates.

Prior to grading permit issuance for proposed on-site roadways and lot development, a site-specific erosion control and landscaping plan shall be submitted to and approved by the City Development Services Department, Development and Environmental Planning Division. This plan will include measures to mitigate erosion and transport both during and immediately after construction (e.g., sediment traps or detention facilities), as well as the provision of landscaping to provide short- and long-term erosion control. Specifically, the landscaping plan shall include long-term landscaping to control erosion from manufactured slopes, and a phased plan of erosion-resistant ground cover planting shall be prepared for graded areas which require installation within 30 days of completion of grading.

E. Biology

The following discussion is based on the biology technical report prepared by Sweetwater Environmental Biologists in 1995. Vegetation community data was updated in 1997 by Natural Resource Consultants. These reports are included as Appendix E of the EIR.

Existing Conditions

a) Del Mar Highlands Estates

Vegetation

Vegetation types and subassociations for Del Mar Highlands Estates are shown on Figure 4E-1 and listed on Table 4E-1 along with their associated acreage. The text which follows describes the vegetation types in detail.

SCRUB COMMUNITIES

Diegan Coastal Sage Scrub. Diegan coastal sage scrub may be dominated by a variety of species, depending upon soil type, slope, and aspect and is classified into several subassociations based on the dominant species. There are three Diegan coastal sage scrub subassociations on the Del Mar Highlands Estates site: coastal sagebrush dominated, black sage dominated, and lemonadeberry dominated.

Most of the sage scrub at Del Mar Highlands Estates exhibits high structural and compositional quality and occurs along the south-facing slopes and tributary canyons of western Gonzales Canyon. There are areas of sage scrub that are recovering from fire and also some patches of disturbed sage scrub that have a high component of non-native, annual ruderal species such as mustard (*Brassica* sp.). Approximately 115 acres are dominated by Diegan coastal sage scrub. Of this total, approximately 33 acres are coastal sagebrush dominated, 30 acres are black sage dominated, and 18.6 acres are lemonadeberry dominated.

Southern Cactus Scrub. Southern cactus scrub is a new vegetation type that has been proposed (Magney 1992) to be included in the California Department of Fish and Game's (CDFG's) "Terrestrial Natural Communities of California" (Holland 1986). This vegetation type is a low, dense (50-85 percent cover) scrub dominated by succulent shrubs consisting primarily of prickly pear (*Opuntia littoralis*) and coastal cholla (*O. prolifer*). This vegetation type occurs on sandy soils and rocky areas, primarily on south-facing slopes. There are two small patches (totaling approximately 3.88 acres) of southern cactus scrub on the project site, just north of Gonzales Canyon. Because of the open canopy of this community, there is a large component of non-native, annual ruderal species involved.

**TABLE 4E-1
VEGETATION TYPES AND ACREAGE
OF DEL MAR HIGHLANDS ESTATES**

Vegetation Type	Acreage
<u>Scrub Communities</u>	
Diegan coastal sage scrub	88.27
Disturbed Diegan coastal sage scrub	22.92
Southern cactus scrub	<u>3.88</u>
Subtotal	115.07
<u>Chaparral Communities</u>	
Southern maritime chaparral	35.03
Chamise chaparral	6.75
Scrub oak chaparral	<u>2.64</u>
Subtotal	44.42
<u>Riparian Communities</u>	
Southern sycamore riparian woodland	3.66
Southern willow scrub	1.46
Mule fat scrub	4.98
Freshwater marsh	<u>0.15</u>
Subtotal	10.25
<u>Grasslands</u>	
Non-native grassland	7.39
<u>Non-native Communities</u>	
Ruderal	19.04
Eucalyptus woodland	6.25
Disturbed/agriculture	183.74
Developed	<u>2.84</u>
Subtotal	211.87
TOTAL	389.00

CHAPARRAL COMMUNITIES

Southern Maritime Chaparral. The southern maritime chaparral on-site in Del Mar Highlands Estates is best developed on the north- and south-facing slopes within Gonzales Canyon. The majority of this habitat type on-site is isolated from other native habitat by agricultural activities. This is especially true of the large patch in the center of the project site. There are approximately 35.03 acres of southern maritime chaparral within the site's boundaries.

Scrub Oak Chaparral. Scrub oak chaparral is a dense, evergreen chaparral that reaches a canopy height of up to 20 feet. This is dominated almost exclusively by Nuttall's scrub oak, with San Diego mountain mahogany (*Cercocarpus minutiflorus*), toyon (*Heteromeles arbutifolia*), and lemonadeberry as minor constituents. Within the project site this vegetation type seems to be restricted to north-facing slopes along the western portion of Gonzales Canyon. The scrub oak chaparral is contiguous with the southern maritime chaparral in that area of the Del Mar Highlands Estates site. Approximately 2.64 acres of scrub oak chaparral occur within the site.

RIPARIAN COMMUNITIES

Southern Sycamore Riparian Woodland. Southern sycamore riparian woodlands are composed of winter-deciduous trees that require water near the soil surface. Western sycamore (*Platanus racemosa*) is the dominant species in this vegetation type, forming an open to dense, medium-height woodland in the moist canyons and drainage bottoms. Associated understory species include mule fat, Mexican elderberry (*Sambucus mexicana*), and poison oak (*Toxicodendron diversiloba*). A remnant stand of southern sycamore riparian woodland occurs along the western portion of Gonzales Canyon near the western boundary of the site. Approximately 3.66 acres of southern sycamore riparian woodland occur on the Del Mar Highlands Estates site.

Mule Fat Scrub. Mule fat scrub is a riparian scrub community dominated by mule fat and interspersed with shrubby willows. This habitat occurs along intermittent stream channels with a fairly coarse substrate and moderate depth to the water table. It also occurs in areas where there is not enough water to support riparian tree species. The drainage that flows through Gonzales Canyon is dominated by mule fat scrub, with the exception of the above-noted riparian woodland portion of the canyon. Approximately 4.98 acres of mule fat scrub occurs within the project site.

GRASSLAND COMMUNITIES

Non-native Grassland. Non-native grassland is restricted to a few slopes that are infrequently disced. Since most of the nonagricultural, disturbed areas have been disced on an annual basis, it is difficult to assess whether these areas were grasslands or

dominated by ruderal species. As such, the non-native grassland may be more extensive than is mapped. Approximately 7.39 acre of non-native grassland occurs on the site.

NON-NATIVE COMMUNITIES

Ruderal Vegetation. Areas classified as ruderal are highly disturbed and dominated by non-native, broad-leaved forbs that are adapted to a regime of frequent disturbance. Many of the characteristic species of ruderal habitat are also indicator species of annual grasslands, but ruderal areas tend to be more dominated by forbs than by grasses. Characteristic species include red brome, mustard, tocolote (*Centaurea melitensis*), and Russian thistle (*Salsola* spp.). Approximately 19.04 acres of ruderal (including disced) vegetation occurs on the Del Mar Highlands Estates site.

Eucalyptus Woodland. Patches of eucalyptus woodland are present within Gonzales Canyon, with approximately 6.25 acres of eucalyptus woodland occurring within the Del Mar Highlands Estates project site.

Flora

A total of 194 plant species, 150 (77 percent) of which are natives, were observed during project field surveys. A complete inventory of plant species identified on the property is included in the biology technical report for Del Mar Highlands Estates (see Appendix E1). This high percentage of native species reflects the diversity and high quality of the habitats on the remaining undisturbed portions of the site. The plant surveys were thorough since they were conducted over a nearly complete growing season. The flowering periods of all sensitive plant species thought to have any potential for occurrence on-site were covered by this survey timing. In addition, the 1992-1993 winter rainfall was exceptional and provided suitable conditions to induce germination and growth of a high percentage of the on-site flora.

Wildlife

INVERTEBRATES

Invertebrate communities, for the most part, are linked to the plant life of a given area. Numerous invertebrate species undoubtedly inhabit the Del Mar Highlands Estates site, as predicted by the multiple habitats and floral diversity found there; most of these would belong to the phyla Mollusca and Arthropoda (including insects). The insect groups which should exhibit the greatest diversity on-site are the orders: Orthoptera (grasshoppers, crickets, katydids), Odonata (dragonflies and damselflies), Hemiptera (true bugs), Homoptera (cicadas and relatives), Coleoptera (beetles), Lepidoptera (butterflies and moths), Diptera (flies) and Hymenoptera (bees, wasps, and ants) (see Appendix E1). Most species would more likely be observed during the warmer months of late spring, summer, and early fall as these are the peak times of adult activity. Only the largest and

most noticeable species would be observed during a general survey, while many others would be found during a more focused invertebrate survey.

VERTEBRATES

Approximately 70 vertebrate species were observed or detected during the surveys of the project site: 1 amphibian, 4 reptiles, 54 birds, and 10 mammals. A complete list of these animals is presented in the biology technical report (see Appendix E1).

Amphibians. One amphibian species was observed during the late summer and winter surveys of the project site: pacific chorus frog (*Pseudacris regilla*). Some additional species may occur because the site contains their preferred habitats and is within their known range. These other species are expected to occur mostly in and around the wetland areas but may also be found in shrublands. Some of the other probable amphibian inhabitants include but are not necessarily limited to the California toad (*Bufo boreas halophilus*) and garden slender salamander (*Batrachoseps major*).

Reptiles. Four reptile species were observed during the survey of project site: the western fence lizard (*Sceloporus occidentalis*), side-blotched lizard (*Uta stansburiana*), Coronado island skink (*Eumeces skiltonianus interparietalis*), and orange-throated whiptail. Several other species are expected to occur on-site based on knowledge of specific habitat or food requirements and documented ranges. Some other reptile species that would be expected to occur on-site are the San Diego horned lizard, northern red diamond rattlesnake, southern alligator lizard (*Elgaria multicarinatus*), southern pacific rattlesnake (*Crotalus viridis helleri*), and common kingsnake (*Lampropeltis getulus*). Reptile species are widespread in the project area, occurring in the shrublands and woodlands mostly, but also grasslands.

Birds. During the surveys, 54 species of birds were observed utilizing the site; a complete list is presented in the biology technical report (see Appendix E1). Surveys conducted during different times of the year will undoubtedly encounter additional species, particularly those which may use the site during migration or as breeding habitat. Some of the most common birds using the site include the California towhee (*Pipilo crissalis*), red-tailed hawk (*Buteo jamaicensis*), and California quail (*Callipepla californica*). Bird species diversity is likely highest in the shrublands, but bird species are found in all habitat types found on-site.

Mammals. During the surveys of the site, 10 species of mammals were observed. The most common species observed include the California ground squirrel (*Spermophilus beecheyi*), Botta's pocket gopher (*Thomomys bottae*), and desert cottontail (*Sylvilagus audubonii*). These three mammals were seen in the grasslands and shrublands of the site. The scat of gray fox (*Urocyon cinereoargenteus*) was noted, and this species is likely found throughout the site. Additional carnivores which may occur include the coyote

(*Canis latrans*), raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), and bobcat (*Lynx rufus*). Rodents which have the potential for occurring on the site include, but are not limited to, the San Diego pocket mouse (*Chaetodipus fallax fallax*) and pacific kangaroo rat (*Dipodomys agilis*). Most of these mammals would be found in shrublands, but some undoubtedly use the grasslands and woodlands.

Sensitive Resources

SENSITIVE HABITATS

Sensitive habitats are those which are rare within the region or support sensitive plants or animals, are considered sensitive per CDFG (Holland 1986), and are identified in the City's RPO.

The sensitive habitats within Del Mar Highlands Estates are Diegan coastal sage scrub, southern maritime chaparral, and riparian communities (southern sycamore riparian woodland and mule fat scrub).

Diegan Coastal Sage Scrub. The Diegan coastal sage scrub on the site is fragmented due to agricultural activities and is primarily restricted to the slopes adjacent to drainages. Most of these drainages are interconnected by similar habitat along connecting slopes, creating a contiguous area of habitat. Much of the remaining habitat is of good quality (floristically and structurally). The highest-quality sage scrub occurs along the lateral tributaries of Gonzales Canyon.

Southern Maritime Chaparral. Much of the southern maritime chaparral on-site is fragmented due to agricultural activities. Almost all of the southern maritime chaparral is still of high quality (floristically and structurally) and contiguous with similar habitat (which is also limited in size and surrounded by development) off-site.

Riparian and Wetland Habitats. The riparian habitat on-site within the Del Mar Highlands Estates is of low quality due to agricultural activities that have impacted these areas. Much of the southern sycamore riparian woodland and mule fat scrub have been impacted by erosion and siltation from adjacent agricultural fields which alter the streambed and prevent the establishment of any understory stratum.

Scrub Oak Chaparral. Scrub oak chaparral composed almost entirely of Nuttall's scrub oak is also considered sensitive, as the Nuttall's scrub oak is described as a species of concern by the federal government. Scrub oak chaparral is found at one location on Del Mar Highlands Estates, on the lower portions of a slope adjacent to southern sycamore riparian woodland in Gonzales Canyon.

SENSITIVE FLORA

The following 10 sensitive plant species were detected within the project site during the field surveys. These sensitive species locations are shown on Figure 4E-2. A more detailed description of each of these species is also included in the biological technical report (see Appendix E1). In addition to the 10 sensitive plant species detected on the site, another 8 species could possibly occur. The 10 which occur on-site are listed below; the other species, their status, and the potential for their on-site occurrence are also described in Appendix E1.

No plant species listed by the state or federal government were identified on Del Mar Highlands Estates. Five plant species found on the property are considered species of concern by the California Department of Fish and Game:

- San Diego barrel cactus (*Ferocactus viridescens*)
- Nuttall's scrub oak (*Quercus dumosa*)
- Palmer's grappling hook (*Harpagonella palmeri* var. *palmeri*)
- summer holly (*Comarostaphylis diversifolia* ssp. *diversifolia*)
- wart-stemmed lilac (*Ceanothus verrucosus*)

Five additional sensitive plant species based on California Native Plant Society (CNPS) lists observed on the site are:

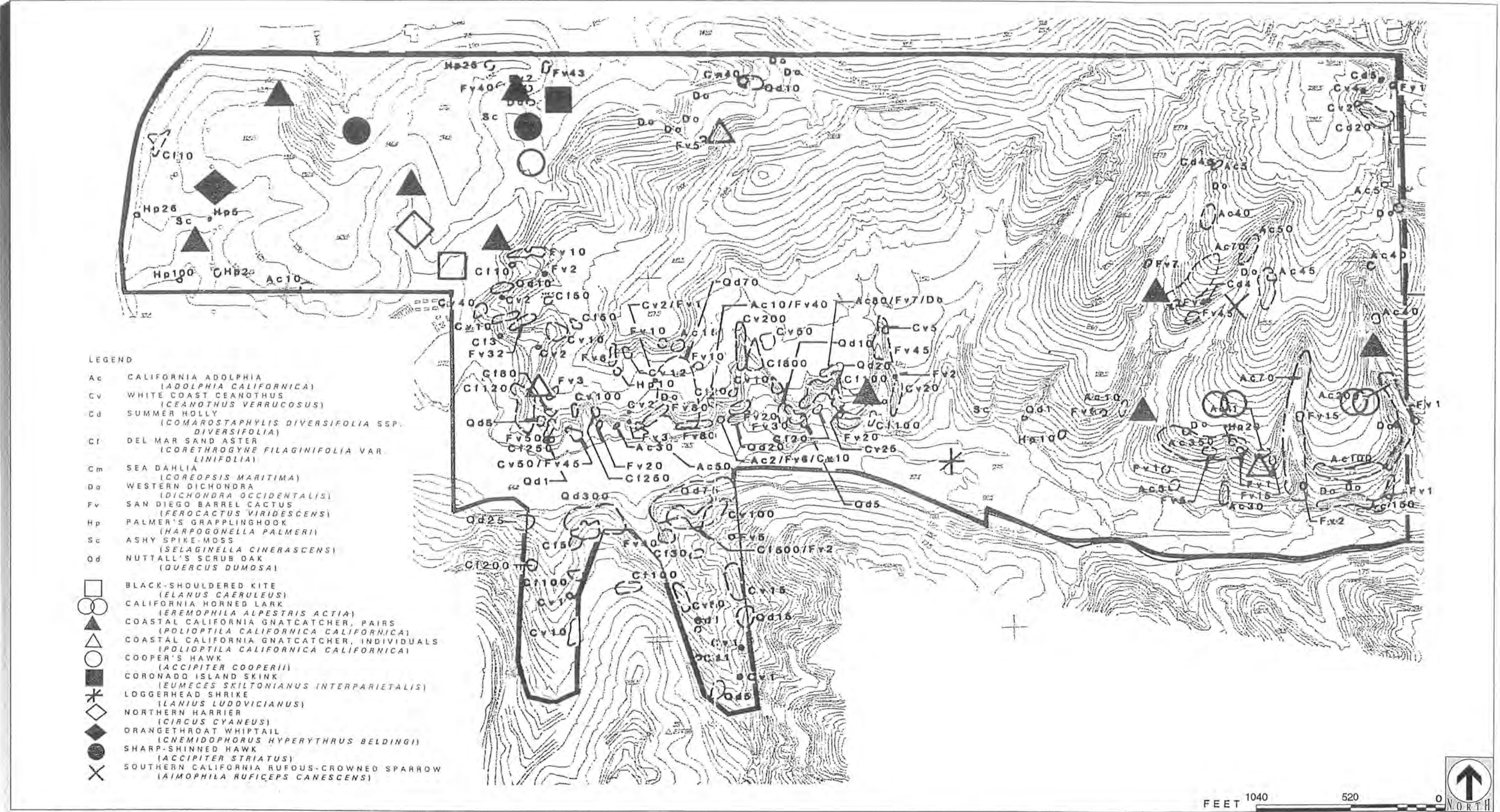
- ashy spike-moss (*Selaginella cinerascens*)
- California adolphia (*Adolphia californica*)
- Del Mar sand aster (*Lessingia [Corethrogyne] filaginifolia* var. *incana*)
- sea dahlia (*Coreopsis maritima*)
- western dichondra (*Dichondra occidentalis*)

SENSITIVE FAUNA

Ten sensitive animal species were observed during the survey of the Del Mar Highlands Estates site: two reptiles and eight birds. Their locations as observed during the surveys are shown on Figure 4E-2.

One species observed on-site is listed by the federal government as threatened, the coastal California gnatcatcher. Four others are considered species of concern by the California Department of Fish and Game:

- California horned lark (*Eremophila alpestris actia*)
- Coronado island skink (*Eumeces skiltonianus interparietalis*)
- orange-throated whiptail (*Cnemidophorus hyperythrus beldingi*)
- southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*)



LEGEND

- Ac CALIFORNIA ADOLPHIA
(*ADOLPHIA CALIFORNICA*)
- Cv WHITE COAST CEANOTHUS
(*CEANOTHUS VERRUCOSUS*)
- Cd SUMMER HOLLY
(*COMAROSTAPHYLIS DIVERSIFOLIA* SPP.
DIVERSIFOLIA)
- Ci DEL MAR SAND ASTER
(*CORETHROGYNE FILAGINIFOLIA* VAR.
LINIFOLIA)
- Cm SEA DAHLIA
(*COREOPSIS MARITIMA*)
- Da WESTERN DICHONDRA
(*DICHONDRA OCCIDENTALIS*)
- Fv SAN DIEGO BARREL CACTUS
(*FEROCACTUS VIRIDESCENS*)
- Hp PALMER'S GRAPPLINGHOOK
(*HARPOGONELLA PALMERI*)
- Sc ASHY SPIKE-MOSS
(*SELAGINELLA CINERASCENS*)
- Qd NUTTALL'S SCRUB OAK
(*QUERCUS DUMOSA*)
- BLACK-SHOULDERED KITE
(*ELANUS CAERULEUS*)
- CALIFORNIA HORNED LARK
(*EREMOPHILA ALPESTRIS ACTIA*)
- ▲ COASTAL CALIFORNIA GNATCATCHER, PAIRS
(*POLIOPTILA CALIFORNICA CALIFORNICA*)
- △ COASTAL CALIFORNIA GNATCATCHER, INDIVIDUALS
(*POLIOPTILA CALIFORNICA CALIFORNICA*)
- COOPER'S HAWK
(*ACCIPITER COOPERII*)
- CORONADO ISLAND SKINK
(*EUMECES SKILTONIANUS INTERPARIETALIS*)
- * LOGGERHEAD SHRIKE
(*LANIUS LUDOVICIANUS*)
- ◇ NORTHERN HARRIER
(*CIRCUS CYANEUS*)
- ◆ ORANGETHROAT WHIPTAIL
(*CNEMIDOPHORUS HYPERYTHRUS BELDINGI*)
- SHARP-SHINNED HAWK
(*ACCIPITER STRIATUS*)
- × SOUTHERN CALIFORNIA RUFOUS-CROWNED SPARROW
(*AIMOPHILA RUFICEPS CANESCENS*)

SOURCE: SWEETWATER ENVIRONMENTAL BIOLOGISTS, INC. 1995

FIGURE 4E-2

Del Mar Highlands Estates
Existing Sensitive Resources Map

Five other sensitive species were also observed:

white-tailed kite (*Elanus leucurus*)
Cooper's hawk (*Accipiter cooperii*)
northern harrier (*Circus cyanus*)
loggerhead shrike (*Lanius ludovicianus*)
sharp-shinned hawk (*Accipiter striatus*)

b) Shell Parcel

Vegetation

Many of the vegetation types located on the Del Mar Highlands site also occur on the Shell parcel located south of Carmel Valley; including the Diegan coastal sage scrub categories, scrub oak chaparral, mule fat scrub, eucalyptus woodland, and non-native grasslands and ruderal habitats. Other vegetation types are present as well (Table 4E-2).

The Shell parcel contains diverse habitats. Diegan coastal sage scrub habitats (including both lemonadeberry and sagebrush subassociations) are present. Chamise chaparral accounts for 4.3 acres, southern mixed chaparral for 50.7 acres; and scrub oak chaparral for 0.8 acre. Mule fat scrub, pond, and coast and valley freshwater marsh (each at 0.6 acre) and non-native grassland (2.9 acres) are also present.

Flora

Focused surveys were not carried out for the Shell parcel. Historical data gathered for previous projects, however, have been reviewed. These include field efforts carried out for the FUA Subarea V plan (Dudek 1993) and the MSCP effort (Ogden 1993). Based on these data, the Shell parcel has been known to maintain over 1,083 individuals of California adolphia, 3 individuals of western dichondra, 703 individuals of summer holly, and 7 individuals of coast barrel cactus.

Wildlife

As noted above, no detailed species surveys have been undertaken as part of the current project for the Shell parcel. Historic data are available, which were gathered as part of the FUA Subarea V and MSCP field check efforts (Dudek 1993; Ogden 1993). This information is summarized below.

No fauna were noted during previous surveys on the Shell parcel, but an individual northern harrier was noted immediately south of parcel boundaries and a pair of coastal California gnatcatchers were noted approximately 500 feet to the south.

**TABLE 4E-2
VEGETATION TYPES AND ACREAGE
OF SHELL PARCEL**

Vegetation Type	Acreage
<u>Scrub Communities</u>	
Diegan coastal sage scrub	7.4
Disturbed coastal sage scrub	<u>0.0</u>
Subtotal	7.4
<u>Chaparral Communities</u>	
Chamise chaparral	4.3
Southern mixed chaparral	48.4
Disturbed southern mixed chaparral	2.0
Scrub oak chaparral	<u>0.8</u>
Subtotal	55.5
<u>Riparian/Wetland Communities</u>	
Mule fat scrub	0.6
Pond	0.6
Coastal and valley freshwater marsh	<u>0.6</u>
Subtotal	1.8
<u>Grasslands</u>	
Valley needlegrass grassland	0.0
Non-native grasslands	<u>2.9</u>
Subtotal	2.9
<u>Non-native Communities</u>	
Disturbed habitat	0.0
Eucalyptus woodland	0.0
Ruderal	1.0
Agriculture	<u>15.4</u>
Subtotal	16.4
TOTAL ACREAGE	84.0

Sensitive Resources

SENSITIVE HABITATS

Sensitive habitats on the Shell parcel include Diegan coastal sage scrub, mule fat scrub, and coast and valley freshwater marsh, and valley needlegrass. Three of these communities, Diegan coastal sage scrub, scrub oak chaparral, and mule fat scrub, have been discussed above under the Del Mar Highlands Estates heading. Sensitivity descriptions for coast and valley freshwater marsh are provided below.

Coast and Valley Freshwater Marsh. This wetland habitat is naturally limited, and remaining acreage provides important habitat for migrant birds as well as performing many other functions, such as floodwater conveyance and water quality control.

SENSITIVE FLORA

As noted above, floristic data for the Shell parcel were taken from previous studies (Dudek 1993; Ogden 1993). The plants mapped by prior researchers which are considered sensitive include ashy spike-moss, California adolphia, coast barrel cactus, summer holly, and western dichondra.

SENSITIVE FAUNA

Sensitive fauna noted during prior field efforts on or adjacent to the Shell parcel include Bell's sage sparrow, coastal California gnatcatcher, northern harrier, and southern California rufous-crowned sparrow.

c) Draft Multiple Species Conservation Program

Following the listing of the coastal California gnatcatcher as a threatened species by the U.S. Fish and Wildlife Service in 1993, the City of San Diego and other land use jurisdictions in southwestern San Diego County began development of the Multiple Species Conservation Program to meet the Metropolitan Wastewater Department's need to mitigate the direct biological impacts associated with mandated improvements to the region's sewage treatment facilities. The MSCP effort was also directed toward mitigating the secondary biological impacts associated with projected growth in the region.

The MSCP is designed to identify lands that would conserve habitat for federal and state endangered, threatened, or sensitive species, including the federally listed threatened California gnatcatcher. The MSCP is intended to be the equivalent of a Natural Community Conservation Plan for the area, consistent with the federal Endangered Species Act Section 4(d) rule for the coastal California gnatcatcher that would define conditions under which "take" of the species could occur without violation of the

Endangered Species Act. That is, the MSCP is a plan and process for the issuance of permits under the federal and state Endangered Species Acts and the state's Natural Community Conservation Planning Act of 1991.

In August 1996, the Draft MSCP Plan and related resource documents were released for public review. A final joint federal environmental impact statement and state EIR was released in January 1997 on the MSCP Plan. The MSCP includes the compilation of information related to vegetation, land use, and generalized land ownership mapping and the preparation of biological standards and guidelines, a habitat evaluation model, a population viability analysis for the coastal California gnatcatcher, and an analysis of the acreage necessary for a viable preserve system. The MSCP Plan also includes an implementation strategy, preserve design, and management guidelines. When adopted by local jurisdictions and approved by the U.S. Fish and Wildlife Service and CDFG, a final MSCP plan and report will be prepared.

Using the MSCP Plan as a framework plan, subarea plans may be prepared by local general-purpose agencies. The City of San Diego has prepared a subarea preserve plan to guide implementation of the MSCP Plan within its corporate boundaries. The subarea plan is intended to guide land uses and preserve management but has not yet been adopted. The project site is within the northern subarea of the City's subarea plan as part of the Future Urbanizing Area preserve area. Within the northern subarea, the City proposes to "preserve two-thirds of the Los Penasquitos Lagoon/Canyon/Del Mar Mesa core area within its jurisdiction" (City of San Diego 1996). To do so, "[p]reserve areas would be acquired or a conservation easement applied, as necessary, to assure wildlife movement and habitat restoration/protection." The subarea plan contains a list of specific guidelines for the proposed North City FUA subarea; none of these directly apply to the proposed project area.

The MSCP Plan identifies lands for proposed open space and habitat preservation within a "Multi-Habitat Planning Area" (MHPA). The MHPA designates "Biological Core Areas," "Linkages," and potential preserve areas, with preserve areas also carrying a "Percent Preservation" designator that "applies only to habitat lands." In addition, the MHPA map states that the "MSCP Plan must be approved by Councils and Board of Supervisors for the cities and county before this information is used to regulate land use."

The MSCP defines core areas as those "supporting a high concentration of sensitive biological resources which, if lost or fragmented, could not be replaced or mitigated elsewhere" (City of San Diego 1996). Linkages are essential connections between Biological Core Areas for wildlife movement. MHPA-designated areas for the project site include an open space habitat linkage area in Gonzales Canyon.

Biology Issues

1. What sensitive species and associated habitats would be affected by implementation of the proposed project components?
2. Would compliance with the City's brush management program result in the loss of sensitive plant species or wildlife habitat?
3. Would the project affect the long-term conservation of biological resources; in particular, the maintenance and/or enhancement of biological diversity in the region and the conservation of viable populations of endangered, appropriate threatened, and key sensitive species and their habitats, to prevent their local extirpation and/or ultimate extinction as described in the draft Multiple Species Conservation Program?
4. Would implementation of the project result in interference with the movement of any resident or migratory wildlife species?

1) Issue

What sensitive species and associated habitats would be affected by implementation of the proposed project components? How do any proposed natural open space areas relate to open areas of the sites?

Impacts

An assumption of this impacts assessment is that all areas within the "limits of development" (as shown on the PRD site plan for Del Mar Highlands Estates) ultimately would be permanently and directly impacted. It is also assumed that all invasive fuel management (zone 1 activities; see Project Description) would occur within the direct impact area. Indirect impacts are impacts to the biological resources that result from adjacent direct permanent impacts. Though these sensitive biological resources may not initially be impacted by the adjacent impacts, over time they may be impacted due to their relative proximity to the proposed development. Examples of indirect impacts include habitat fragmentation, habitat insularization, edge effect, exotic species invasion, and increased human and domestic animal intrusion.

Affected sensitive habitats on Del Mar Highlands Estates total approximately 40.53 acres. On the project site, 33.88 acres of Diegan coastal sage scrub would be impacted, as well as 6.65 acres of southern maritime chaparral.

Overall, roughly 74 percent of the native habitat on the site will remain undisturbed with project development. The project proposes the physical alteration of approximately 182 acres of the project site, most of which have been disturbed by agricultural practices. This number includes temporary impacts which would result from installation of 20-foot-wide utility rights-of-way into Gonzales Canyon and a 25-foot-wide utility right-of-way between Lot 149 and Old El Camino Real. This project also proposes approximately 220 acres of undeveloped land as open space within the site, approximately 140 acres of which support native vegetation. Table 4E-3 provides a summary of impacts to the various habitats found within the project site.

Habitats

Approximately 33.88 acres (31 percent) of Diegan coastal sage scrub would be directly impacted by the project as it is currently designed. Most of the impacts to this habitat would be along the edges of the canyon slopes of the south-facing, tributary drainages of Gonzales Canyon.

Approximately 6.65 acres (18 percent) of southern maritime chaparral would be directly impacted by the project as it is currently designed. Approximately 3.27 acres (17 percent) of ruderal vegetation would be directly impacted by the project.

Mule fat scrub would be impacted by the utility crossings (0.17 acre). These impacts would require a 1603 Streambed Alteration Agreement with the CDFG and, if wetland delineations are positive, a 404 permit with the U.S. Army Corps of Engineers may be required prior to site grading.

Sensitive Species

PLANTS

Only 8 of the approximately 23 populations (35 percent) of California adolphia observed on-site would be partially or totally impacted by the project as it is currently proposed. Approximately 50 individuals of the estimated total population of 1,263 (4 percent) would be directly impacted by the project.

Approximately 1 of the 15 populations (7 percent) of Del Mar sand aster would be partially or totally impacted by the project as it is currently proposed. Approximately 25 individuals of the estimated population of 2,698 (less than one percent) of Del Mar sand aster would be directly impacted by the project.

Five of the approximately 23 populations (22 percent) of wart-stemmed lilac observed on-site would be partially or totally impacted by the project as it is currently proposed. Forty-one individuals of the estimated total population of 725 (6 percent) would be

**TABLE 4E-3
VEGETATION COMMUNITIES
ON THE DEL MAR HIGHLANDS ESTATES SITE
(acres)**

Vegetation Community	Total	Impacts	Retained
<u>Scrub Communities</u>			
Coastal sage scrub—black sage	29.50	11.04	18.46
Coastal sage scrub—California sagebrush	32.98	8.80	24.18
Coastal sage scrub—California adolphia	2.49	0	2.49
Coastal sage scrub—lemonadeberry	18.60	7.03	11.57
Coastal sage scrub—disturbed	22.92	6.53	16.39
Coastal sage scrub—annual grassland	1.27	0.03	1.24
Southern cactus scrub	3.88	0.45	3.43
Coyote bush scrub	3.43	0	3.43
Subtotal	115.07	33.88	81.19
<u>Chaparral Communities</u>			
Chamise chaparral	6.75	2.26	4.49
Southern maritime chaparral	35.03	6.65	28.38
Scrub oak chaparral	2.64	0	2.64
Subtotal	44.42	8.91	35.51
<u>Riparian Communities</u>			
Southern willow scrub	1.46	0	1.46
Mule fat scrub	4.98	0.17	4.81
Freshwater marsh	0.15	0	0.15
Southern riparian woodland	3.66	0	3.66
Subtotal	10.25	0.17	10.08
<u>Other Communities</u>			
Eucalyptus woodlands	6.25	1.93	4.32
Annual grasslands	7.39	0.50	6.89
Ruderal	19.04	3.27	15.77
Disturbed/agriculture	183.74	131.99	51.75
Developed	2.84	0	2.84
Subtotal	219.26	137.69	81.57
TOTAL	389.00	180.65	208.35

NOTE: As mapped by Natural Resource Consultants in January 1997.

directly impacted by the project. This species is still abundant in other parts of San Diego County.

Approximately two of the five stands of Nuttall's scrub oak (CNPS List 1B) would be partially or totally impacted by the project as it is currently proposed. Approximately 25 individuals (7 percent) of the estimated total population of 347 individuals of Nuttall's scrub oak would be directly impacted by the project.

Six of the approximately 15 stands (40 percent) of San Diego barrel cactus observed on-site would be partially or totally impacted by the project as it is currently proposed. Approximately 57 individuals of the estimated total population of 676 (8 percent) would be directly impacted by the project. This species is still abundant in other parts of San Diego County.

Out of the five populations of summer holly on-site, two (40 percent) would be either partially or totally impacted by the project. Approximately 22 individuals out of the estimated total of 34 (65 percent) would be directly impacted by the project.

Approximately one-half (50 percent) of the single population of sea dahlia on-site would be directly impacted by the proposed project.

Two out of the eight (25 percent) populations of Palmer's grappling hook would be either partially or totally impacted by the proposed project. Approximately 126 individuals out of the estimated 173 on-site (73 percent) would be directly impacted.

Small amounts of western dichondra (one location) and ashy spike-moss (six locations) will also be directly impacted by the proposed project. These impacts would not be considered significant because of the lower level of sensitivity of these plant species, the high amount of each species that is expected to be preserved by the project, and the abundance of these species elsewhere in San Diego County.

INVERTEBRATES

Because of the current and historical distribution of the quino checkerspot and Hermes copper butterflies, these species have a low potential to occur on-site and impacts are not expected.

VERTEBRATES

Reptiles, birds, and mammals would all be affected by development of Del Mar Highlands Estates.

Reptiles. The orange-throated whiptail and Coronado skink use much of the site, preferring the open sage scrub, chaparral, and grassland areas. Approximately 36 acres (23 percent) of the combined sage scrub and chaparral on the site would be directly impacted. The same amount and percentage of the preferred habitat of the San Diego horned lizard (open sage scrub and chaparral) would be directly impacted by the proposed project.

Birds. The project would impact 33.88 acres of Diegan coastal sage scrub habitat that is considered occupied by the coastal California gnatcatcher. Figure 4E-2 indicates that approximately three pairs of the nine gnatcatcher pairs and three individual gnatcatchers observed during the surveys of the project site would be impacted.

Potential roadway and construction noise impacts to gnatcatchers were evaluated. Based on the locations of the proposed roadways and developable areas relative to occupied habitat, the anticipated low intensity of project construction, and the low traffic volumes anticipated on project roadways, no adverse noise impacts on California gnatcatchers are anticipated due to the proposed project.

Direct impacts to Cooper's hawk nesting habitat are not anticipated. Direct impacts to sharp-shinned hawk nesting habitat are not anticipated since this species is not known to nest in coastal San Diego County. Sharp-shinned hawks and Cooper's hawks forage over chaparral and sage scrub and within wooded and riparian areas. Impacts to 6.65 acres of southern maritime chaparral, 33.88 acres of sage scrub, 1.93 acres of eucalyptus woodland, and 0.15 acre of riparian areas would reduce foraging habitat on the site for a maximum of one pair of either species.

The northern harrier forages over open grassy areas including non-native grasslands and ruderal habitats. Breeding habitat is not located on-site and would not be directly impacted by the project. Impact to non-native grasslands and ruderal areas total 3.77 acres. This would result in the loss of a portion of the foraging habitat for this species. Foraging habitat for this raptor, as well as others, is expected to increase after development because the agricultural lands remaining would be allowed to revegetate.

The California horned lark was sited in two upland areas north of Gonzales Canyon. Both areas fall within the development plan and would be directly impacted. The single southern California rufous-crowned sparrow was seen in an area that would not be developed.

Mammals. Sensitive mammal species would be most directly affected by the fragmentation of their habitat on the project site. Additional focused surveys (i.e., small-mammal trapping) would be required to determine the status of other sensitive mammal species on-site. Given the low sensitivity of these species, however, no small-mammal trapping is recommended.

Indirect Impacts

Remaining habitat would be impacted by the added pressures of humans and domestic animals, although in some areas these impacts may be reduced through fencing. With the proposed development, more people and their pets would have greater access to these areas than at any previous time. Intrusion into these areas may deleteriously affect the biological resources as domestic animals may prey upon the local fauna. The wildlife corridor through Gonzales Canyon and the proposed corridor to the north to the San Dieguito River valley are expected to function after project completion. Possible impacts would at least be partially offset by the maintenance of healthy predator populations, which are known to prey on domestic animals. The possible dumping of trash, lawn, and shrub clippings would not only directly damage the local biological resources but would also possibly provide a "staging area" for the successful invasion of non-native weedy species.

The replacement of vegetation with "impervious" structures such as buildings and roads will alter the hydrology of the area reducing soil water percolation and increasing runoff. There are many local examples of the formation of wetlands in drainages adjacent to developments as the result of urban runoff. An increased moisture regime in these typically xeric areas could result in the replacement of vegetation from a xeric to a more mesic one. The increased available water and associated sediment could provide the right environmental conditions for the successful invasion of non-native species that might not have been able to become established during the pre-development xeric conditions.

With increased urbanization also comes increased noise and artificial lighting. These two factors could have deleterious effects on the physiological and behavioral patterns of the local fauna. Increased noise could disrupt or interfere courtship behavior or interfere with an individual's ability to detect predators.

Zone 1 of the fuel management plan for the project falls within the limits of grading. These areas will be landscaped, but nevertheless they may provide an additional buffer between native habitat which is preserved in open space and the actual structures and associated lighting and noise of the development. Individual occupants of the residences will have the option of using native landscaping, and in these cases, the value of native habitat abutting the development may actually be enhanced.

A potential project benefit would be an improvement in water quality for on-site drainages by the elimination of agriculture and associated pesticides, herbicides, and fertilizers. Certainly some of these effects would remain with project development, however, a reduction in these types of pollutants is assured.

Edge effects due to noise, lighting, exotic plant and animal invasions, and other disturbances have the potential to affect habitat which abuts the limits of development

within Del Mar Highlands Estates. The following sensitive habitats occur within this zone: Diegan coastal sage scrub, disturbed coastal sage scrub, southern cactus scrub, and southern maritime chaparral.

Many variables affect the edge of habitats, including extent and location of impact. A major variable would be whether the zone would start at the inner or outer edge of the fuel management zone. For instance, the source of lighting and structure-related effects would likely be the inner edge, where the structures would be located. A source of native plant invasion might be the outer edge of the fuel management zones.

For the purposes of this analysis, edge effects were considered to occur 150 feet from the edge of urban development, excluding single-loaded streets which are assured to significantly reduce edge effects.

Significance of Impacts

Sensitive Habitats

The direct impacts to 33.88 acres of Diegan coastal sage scrub habitat would be considered significant. Project impacts to this coastal sage scrub (which supports approximately three pairs of coastal California gnatcatchers) would therefore be considered significant on both the local and regional level. Impacts to coastal sage scrub which is not currently occupied by the gnatcatcher are also considered significant.

Approximately eight percent (~~6.653-2~~ acres) of the southern maritime chaparral on-site would be impacted, which is considered a significant impact.

Similarly, impacts to mule fat scrub (0.05 acre) would be considered significant based on the wildlife value.

Sensitive Species

Two out of the eight (25 percent) populations of Palmer's grappling hook would be either partially or totally impacted by the proposed project. Approximately 126 individuals out of the estimated 173 on-site (73 percent) would be directly impacted. The large amount of impact would be a significant cumulative impact.

Impacts to 33.88 acres of Diegan coastal sage scrub that is considered occupied by the coastal California gnatcatcher is considered significant.

Mitigation, Monitoring, and Reporting

Proposed Mitigation

The proposed site design for Del Mar Highlands Estates includes on-site preservation of open space consisting of 81.19 acres of gnatcatcher-occupied coastal sage scrub (nearly a 3:1 ratio of area preserved to area impacted), of which approximately 64.5 acres is considered not to be affected by edge conditions. Additionally, 28.38 acres of southern maritime chaparral would be preserved on-site. Mitigation for the habitat impacts includes revegetation of 36.7 acres of coastal sage scrub on the Del Mar Highlands Estates property. Within the project site, approximately 77 acres which were previously used for agriculture on the western slopes of the property and in the bottom of Gonzales Canyon will be revegetated and preserved in open space. A revegetation plan has been developed which includes success criteria, a monitoring program, and a surety bond to ensure the creation of coastal sage scrub. The remaining 40.9 acres of revegetation can be used by the applicant as mitigation for future development. The revegetation plan is included as Appendix E3 of this EIR. Impacts to biological resources are considered to be mitigated below a level of significance.

The project design guidelines also include development standards for open space which include the following:

- Trails, although not included in the current project design, can be accommodated in the future in the open space area. Any trail located in the open space area shall not in the future be located to adversely affect areas supporting sensitive biological resources.
- The Design Guidelines shall reflect that the development of the individual lots abutting conserved habitat shall not permit large spotlight-type lighting directed into the conserved habitat. This shall not prohibit appropriate lighting for tennis courts, swimming pools, etc. so long as the lighting is directed toward the tennis court, swimming pool, etc. In addition, lighting from homes abutting conserved habitat shall be screened with vegetation to the extent appropriate that does not significantly reduce the purpose of the lighting.~~Lighting at perimeter lots adjacent to the open space shall be selectively placed, shielded, and directed away from that habitat.~~
- Rear-yard fencing guidelines and wall standards for perimeter lots have been developed and are included in the Design Guidelines~~shall be developed.~~

2) Issue

Would compliance with the City's brush management program result in the loss of sensitive plant species or wildlife habitat?

Impacts

Aggressive fuel management activities associated with zone 1 maintenance on the Del Mar Highlands Estates project site would not extend beyond the limits of disturbance line shown on the project's site plan. Therefore, the project's overall impacts to sensitive species and habitats, including the potential effects of fuel management, have been fully addressed above under Issue 1. No further analysis of this issue is provided in this EIR.

Significance of Impacts

The project's impacts to biological resources (approximately 0.3 acre of coastal sage scrub) as a result of brush management for zone 3 would be considered significant.

Mitigation, Monitoring, and Reporting

The significant effects of brush management have been mitigated as a result of the revegetation plan.

3) Issue

Would the project affect the long-term conservation of biological resources; in particular, the maintenance and/or enhancement of biological diversity in the region and the conservation of viable populations of endangered, appropriate threatened, and key sensitive species and their habitats, to prevent their local extirpation and/or ultimate extinction as described in the draft Multiple Species Conservation Program?

Impacts

The preceding sections of this draft EIR describe the project's impacts to vegetation communities, sensitive species (including MSCP covered species), core biological resource areas, and wildlife corridors and linkages. This analysis is based on the draft MSCP, including the City of San Diego subarea plan. In summary, impacts would potentially occur to the following MSCP covered species:

- Del Mar sand aster
- wart-stemmed lilac
- San Diego barrel cactus
- orange-throated whiptail
- coastal California gnatcatcher
- Cooper's hawk
- northern harrier
- California rufous-crowned sparrow

The project provides an interface between large areas of undeveloped lands to the east and west. Habitat evaluation maps prepared as part of the City of San Diego draft MSCP identify the site as moderate quality on the south-facing slopes of Gonzales Canyon and very high quality on the north-facing slopes of Gonzales Canyon which are on-site. The areas immediately off-site to the south and west are very high and moderate habitat quality. Areas immediately east are shown as agriculture and are not ranked.

Significance of Impacts

Development of the proposed Del Mar Highlands Estates project would not result in significant impacts to the MSCP covered plant species, as described above in detail under the Issue 2 heading. Impacts to the California gnatcatcher and its associated Diegan coastal sage scrub habitat would be significant under federal criteria, as described above. No other MSCP covered species would be significantly impacted.

The proposed project (and draft MSCP) has set aside Gonzales Canyon as permanent open space and a linkage area or corridor for wildlife. It is the most logical connection alternative between habitat to the south and east (McGonigle and Deer Canyons and Del Mar Mesa) with the San Dieguito Valley and Lagoon to the north and west.

Currently, the bottom of Gonzales Canyon is mainly used as agricultural fields and the existing lack of native vegetation is the most significant barrier to wildlife movement. A southern sycamore riparian woodland at the west end of the project site provides a patch of native vegetation, but the area west of this woodland currently supports horse stables. In addition, El Camino Real poses a constraint to the west. These conditions likely reduce existing and planned wildlife use of the corridor somewhat. The human presence in the canyon at present is quite low, however. The proposed project would dedicate this corridor to permanent open space and enhance the native habitat within Gonzales Canyon. This should ultimately increase its effectiveness as a linkage area for wildlife, because there will be more cover along its length.

Regarding the project as a whole, adverse impacts to wildlife movement and implementation of the draft MSCP preserve design would not be considered significant. The project as proposed sets aside a wildlife corridor and complies with the draft MSCP. It will provide approximately 220 acres overall toward preserve assembly and save representative examples of 20 MSCP covered species.

Mitigation, Monitoring, and Reporting

As no significant adverse impacts are identified, no mitigation measures are required.

4) Issue

Would implementation of the project result in interference with the movement of any resident or migratory wildlife species?

Impacts

Gonzales Canyon, in its current condition, connects the agricultural and native vegetation east of the project with the San Dieguito Valley and Lagoon, functioning as a wildlife corridor. It ultimately connects with McGonigle and Deer Canyons and Del Mar Mesa to the south through existing agriculture lands, although there is no canyon or other topographic feature normally associated with wildlife corridors. Black Mountain Road currently traverses the area that would be used by animals passing from McGonigle Canyon to Gonzales Canyon. In its current undeveloped status, Gonzales Canyon's physical configuration significantly exceeds the guidelines of the literature regarding reserve and corridor dimensions (1,000 feet wide). This corridor is maximized by existing dedicated land along the southern slopes of Gonzales Canyon. Connectivity off-site between the western site boundary and the San Dieguito Lagoon is limited by the requirement of crossing El Camino Real. This crossing could take place at one of several at-grade crossings or underneath El Camino Real via the San Dieguito River to the north. The applicant has agreed to provide the City with \$50,000 which can be used towards the future construction of a wildlife crossing under San Dieguito Road which would maintain the long-term connection between Gonzales Canyon and the San Dieguito River valley or for other purposes as determined by the City.

The Framework Plan's Environmental Tier identifies Gonzales Canyon as the east-west corridor connecting the San Dieguito Lagoon with a north-south corridor that ultimately connects with McGonigle and Deer Canyons and Del Mar Mesa. The Environmental Tier assumes that the corridor area would also be taken out of agricultural use, with the potential for this land to be restored to native vegetation. The project, as proposed, would conform to the Framework Plan and MSCP preserve design indicating conservation of Gonzales Canyon in open space. Existing agricultural activities currently associated with Gonzales Canyon would cease and the value of the Gonzales Canyon corridor to wildlife would be enhanced. Wildlife access through the site east-west would be maintained and access to the north (San Dieguito Valley) would be retained through the provision of four large breaks between lots (ranging from approximately 200 feet to approximately 600 feet) between the clustered housing and the six more isolated lots in the western portion of the project area. Wildlife traveling north or south could choose from several drainages. Although they would have to cross a paved road, this is not considered a significant barrier.

Significance of Impacts

No significant adverse effects would result from project implementation.

Mitigation, Monitoring, and Reporting

No mitigation measures are required.

F. Cultural Resources

Existing Conditions

a) Del Mar Highlands Estates

The following analysis for Del Mar Highlands Estates and for the parcels south of Carmel Valley is based, in large part, on a historical and archaeological survey report prepared by Gallegos and Associates for Del Mar Highlands Estates (July, 1995). The report is contained in Appendix F of this EIR.

Literature Survey

A literature search conducted for the Del Mar Highlands Estates area through the South Coastal Information Center at San Diego State University and the San Diego Museum of Man indicates that Del Mar Highlands Estates and the surrounding property have been the subject of numerous previous cultural resource studies. Eleven archaeological sites and one isolate have been previously recorded within the Del Mar Highlands Estates project area, and an additional 72 sites were previously recorded within a one-mile radius (Appendix F). No previously recorded sites are present in the area proposed for main project access to connect with San Dieguito Road. A review of the associated site forms indicates that almost every type of archaeological resource common to San Diego County is represented in the previously surveyed areas. Within the Del Mar Highlands Estates area, previously known resources include nine habitation sites, one shell midden, one historic/prehistoric site, and one isolated artifact (Table 4F-1). For definitions of these resources, see Appendix F. Many of the sites are noted as disturbed.

Several previous investigations addressed specific sites within the current project area in more detail. Bull (1978) conducted a 414-acre survey for the San Dieguito Estates project. Ten archaeological sites were identified during the survey. These sites include all the resources listed on Table 4F-1 but CA-SDI-10,117 and the isolated find. No recommendations were made for sites CA-SDI-5370 and CA-SDI-5371 because of their location outside of the San Dieguito Estates project area. No further work was recommended for site CA-SDI-5372/H because of the limited number of prehistoric artifacts (four) and the conclusion that little knowledge would result from the completion of additional fieldwork (Bull 1978:21). Recommendations for the remaining seven sites included either preservation or testing; including surface collection, systematic subsurface sampling, and photodocumentation.

Following Bull's (1978) work, Norwood and Walker (1980) completed a mitigation plan and carried out a data recovery program for seven of the site's prehistoric cultural resources. Mitigation of potential impacts was completed to the satisfaction of the City

TABLE 4F-1
PREVIOUSLY RECORDED SITES—
DEL MAR HIGHLANDS ESTATES

SDI No.	SDM No.	Pre historic	Historic	Site Type	Recording Date	Recorded By	Tested*
194	1586	X		Extensive habitation	1959	Treganza	Unknown
		X			1977	Norwood	Yes
293	1585	X		Habitation	1960	Diamond	Unknown
		X			1977	Walker	Yes
322	1588	X		Habitation	1958	Warren	Unknown
		X			1977	Norwood	Yes
685	1584	X		Extensive habitation	1960	Warren	Unknown
		X			1977	Norwood	Yes
5369	40	X		Extensive habitation Temporary habitation	1930	M. Rogers	Unknown
		X			1977	Norwood	Yes
5370	1589	X		Shell midden	1977	Norwood	No
		X			1986	Peter	Yes
5371	1590	X		Temporary habitation	1977	Norwood	No
		X			1986	Peter	No
5372/H	1591	X	X	Prehistoric/historic	1977	Norwood	No
		X			1986	Peter	No
5373	1587	X		Temporary habitation	1977	Norwood	Yes
5612	1667	X		Temporary habitation	1978	Walker	Yes
10,117	3522	X		Temporary habitation	1984	Cardenas & Robbins-Wade	No
-	3636	X		Isolate	1985	Cardenas & Winterrowd	No

*Testing as indicated on this table was all carried out prior to Del Mar Highlands Estates evaluation.

for sites CA-SDI-194 (SDM-W-1586), CA-SDI-293 (SDM-W-1585), CA-SDI-322 (SDM-W-1588), CA-SDI-685 (SDM-W-1584), CA-SDI-5369 (SDM-W-40), CA-SDI-5373 (SDM-W-1587), and CA-SDI-5612 (SDM-W-1667), all located within the Del Mar Highlands Estates area. Full mitigation of impacts for the seven sites included sample surface collection, a single 1×3-m backhoe trench, and excavation of a number of shovel test pits (STPs) and 1×1-m units (Norwood and Walker 1980). Specific test units per site and results of dating efforts are listed in Table 4F-2.

Peter and Whitney-Desautels' (1986) study consists of a record search and survey of approximately 718 acres of land located primarily north of Gonzales Canyon. The purpose of the report was to identify cultural resources that might be impacted by granting an agricultural use permit by the City for the acreage. Because of previous work conducted by Norwood and Walker (1980), seven sites within the project area were not further considered. At site CA-SDI-5370 (SDM-W-1589), visual inspection of fence postholes and the excavation of 20 STPs occurred. Because Peter and Whitney-Desautels' (1986) report identified CA-SDI-5370 as a highly disturbed, low-density lithic and shell scatter with no contextual integrity, no subsurface cultural deposit, and, therefore, no potential to contribute new archaeological information; impacts to this site were considered not significant. No further work was recommended for site CA-SDI-5370. The City concurred with the conclusions for all of these sites in its mitigated negative declaration for the agricultural use permit which was approved in 1989.

CA-SDI-5371 was identified by Peter and Whitney-Desautels (1986) as a highly disturbed, low-density lithic and shell scatter and no additional work was recommended.

Peter and Whitney-Desautels (1986) did, however, identify one site (CA-SDI-5372/H, SDM-W-1591) for which they recommended significance testing; including site mapping, excavation of STPs and two 1×1-m units, and laboratory analysis to determine whether the site warranted additional research.

Project Field Survey

A field survey of the project area was conducted from December 15, 1992, through March 30, 1993. A total of 20 person-days was spent in the field during the survey phase. The entire Del Mar Highlands Estates area was intensively surveyed to locate all visible artifacts and ecofacts using 10- to 12-meter-wide survey interval transects. Often, dense riparian or chaparral vegetation required that survey transects be varied from their intended direction, but in all cases, every attempt was made to survey all difficult areas.

Specific attention was given to relocating the 11 sites and 1 isolate previously identified within the Del Mar Highlands Estates area. Previously recorded sites were identified through review of both site record forms from the South Coastal Information Center and the San Diego Museum of Man and early maps (to identify historic structures). Following

TABLE 4F-2
DESCRIPTION OF NEW AND PREVIOUSLY RECORDED
HISTORIC AND PREHISTORIC RESOURCES

Site Number	Classification	Description
CA-SDI-194/ SDM-1-1586	Prehistoric	This site was originally recorded in 1959 and was updated in 1977. It measures 100 by 300 m and contains cultural material consisting of 6 manos, 10 cores, 40+ flakes of quartzite and metavolcanic materials, and some <i>Chione</i> sp. shell. The site area is presently being farmed and has been discd repeatedly for years. Siltstone and sandstone outcrops occur on the lower southern slopes and have been used for groundstone artifacts such as portable metates. CA-SDI-194 was previously mitigated by Norwood and Walker (1980). Thirty-four 1 by 1 m units and 69 STPs were placed on the site. A single radiocarbon date of 8600±110 (YBP) was produced from a shell sample. Based on results of the data recovery program, Norwood and Walker recommended no additional work.
CA-SDI-293/ SDM-W-1585	Prehistoric	The site was originally recorded in 1960 as a habitation site. Site information was updated in 1977 and it was also relocated for the present study. This habitation site lies on top of a knoll and contains 5 manos, 6 cores, 50+ flakes, and 1 quartz point. In addition, 150 fragments of <i>Chione</i> sp. and several <i>Argopecten</i> sp. fragments were noted on the uppermost portion of the knoll. The site was previously mitigated by Norwood and Walker (1980). Forty-eight 1 by 1 m units and 46 STPs were placed on the site. Obsidian was recovered and two radiocarbon dates, 7400±100 and 8420± (YBP), were obtained from shell samples. Based on results of the data recovery program, Norwood and Walker recommended no additional work.
CA-SDI-322/ SDM-W-1588	Prehistoric	Initially recorded in 1958 and updated in 1977, this habitation site was relocated and expanded during the present study. Originally the site was recorded as containing artifacts and shell located near the apex of a slight rise along a ridge. The site now contains two loci. Locus A, a 40 by 40 m area, contains 2 bifacial manos, 10 cores, 6 flakes and at least 60 fragments of <i>Chione</i> sp. shell fragments. Locus B, located 300-350 m south of Locus A, measures approximately 40 by 90 m and contains 1 portable metate, 2 cores and 3 flakes. Both loci are tilled fields with several fragments of lithic debris and some marine shell fragments visible near Locus A. Locus A was previously mitigated by Norwood and Walker (1980). Fifty-four 1 by 1 m units and 71 STPs were placed on the site. Two radiocarbon dates, 7720±100 and 8290±100 (YBP), were produced from shell. Based on results of the data recovery program, Norwood and Walker recommended no additional work.
CA-SDI-685/ SDM-W-1584	Prehistoric	Originally recorded in 1960 and updated in 1977, this habitation site was relocated and updated. The site, measuring 120 by 120 m, is situated on a knoll top. Surface artifacts noted consist of 4 manos, 5 cores, 50+ flakes and 1 hammerstone along with 50 fragments of <i>Chione</i> sp. and some <i>Argopecten</i> sp. No trace of the apparent 1.5 feet of fire-darkened midden sediments reported at the eastern edge of the site were observed. The site was previously mitigated by Norwood and Walker (1980). Thirty-four 1 by 1 m units and 64 STPs were placed on the site. Obsidian was recovered and two radiocarbon dates, 8030±100 and 8450±180 (YBP), were produced from shell samples. Based on results of the data recovery program, Norwood and Walker recommended no additional work.
CA-SDI-5369/ SDM-W-40	Prehistoric	Originally recorded in 1977, this habitation site was easily relocated and updated. The site measures approximately 90 by 240 m. Artifacts observed consist of 10 cores, 15 manos, 4 metate fragments, 50+ flakes, 1 hammerstone and hundreds of <i>Chione</i> sp. and <i>Argopecten</i> sp. shell fragments. There is also limited fire-affected rock near the periphery of the uppermost portion of the knoll. Fire-darkened sediments are present at the uppermost portions of the knoll and a midden deposit is present. Marine shell fragments can be found downslope, although there is little evidence that a midden deposit exists away from the top of the knoll. The site was previously mitigated by Norwood and Walker (1980). Seventy-one 1 by 1 m units and 72 STPs were placed on the site. Obsidian was recovered and two radiocarbon dates, 3930±80 and 8650±110 (YBP), were produced from shell samples. Based on results of the data recovery program, Norwood and Walker recommended no additional work.

TABLE 4F-2
DESCRIPTION OF NEW AND PREVIOUSLY RECORDED
HISTORIC AND PREHISTORIC RESOURCES
(continued)

Site Number	Classification	Description
CA-SDI-5370/ SDM-1-1589	Prehistoric	Originally recorded in 1977 and updated in 1986, this shell midden measures approximately 30 by 20 m; hundreds of shell fragments of <i>Chione</i> sp., <i>Tagelus californianus</i> sp. (razor clam), <i>Epilucina</i> sp. (lucine), and <i>Argopecten</i> sp. in a sand matrix with some depth were noted. This site is suspiciously sandy when compared to sediments of other sites within the region and may have been a sand deposit from an ocean or harbor dredge, or fill from a deep cut of Gonzales Canyon. A determination of shell origin should be made before assuming that this site is prehistoric in origin. Twenty STPs were excavated; results were negative. Peter and Whitney-Desautels recommended no further work.
CA-SDI-5371/ SDM-W-1590	Prehistoric	This site was originally recorded in 1977 and updated in 1986 as a temporary habitation site consisting of a low density shell fragment scatter with 2 fragmented handstones. This site is now a sparse shell midden lacking artifacts and contains only several small fragments of <i>Chione</i> sp. and <i>Argopecten</i> sp. in an area measuring 30 by 15 m. Disturbance appears to be major, with the top of the knoll unnaturally level, as if it was graded.
CA-SDI-5372H/ SDM-W-1591	Prehistoric/ Historic	Originally recorded in 1977 and updated in 1986, this site contains both prehistoric and historic components. Relocated at the base of a ridge, the site consists of two benches. The upper bench contains an historic component with marine shell and the lower bench contains a purely prehistoric component. The site measures approximately 90 by 50 m. The historic component consists of a rectangular, rock-lined cemented foundation which is probably the basement of an early historic structure. Artifacts near the rock-lined feature include 1 fragment of purple glass, several clear and brown glass fragments, 1 fragmented glazed ceramic, and some old lumber with approximately 100 wire and 2 square nails. The lower, prehistoric, bench contains 1 metate fragment, 5 cores and more than 30 flakes. Lithic material is made of porphyritic and fine-grained volcanic rock. Marine shell identified from both benches includes 3 fragments each of <i>Chione</i> sp., <i>Mytilus</i> sp., and unidentified pelecypod. There was no indication of the single fragment of Tizon Brown Ware reported for this site. Apparently, the historic component is deteriorating rapidly, as less exists than was reported on either previous site form (Norwood 1977, Peter 1986). Bottle hunting and potholes excavated for bottles were both mentioned on the earlier site forms and presently no glass exists except small fragments. Peter and Whitney-Desautels recommended mapping, STPs and two 1x1m units, with additional specifics to follow laboratory analysis.
CA-SDI-5373/ SDM-W-1587	Prehistoric	Originally recorded in 1977 as a camp or temporary occupation camp approximately 40 by 80 m, this site contains 3 manos, 2 cores and at least 5 flakes of quartzite and metavolcanic material. Non-artifactual constituents consist of sparsely scattered <i>Chione</i> shell along the uppermost portion of the ridge and knoll. Site CA-SDI-5373 was previously mitigated by Norwood and Walker (1980). Sixteen 1 by 1 m units and 40 STPs were placed within the site. Based on results of the data recovery program, Norwood and Walker recommended no additional work.
CA-SDI-5612/ SDM-W-1667	Prehistoric	This habitation site, originally recorded in 1978, was relocated. Site size is approximately 60 by 60 m, and consists of a scatter of fire-affected rock, marine shell and artifacts. Artifacts relocated include 2 manos, 2 cores and 5 flakes of porphyritic-volcanic materials. Marine shell consists of approximately 70 fragments of <i>Chione</i> sp. and 30 fragments of <i>Argopecten</i> sp. Site CA-SDI-5612 was previously mitigated by Norwood and Walker (1980). Seventeen 1 by 1 m units and 55 STPs were placed on the site. A radiocarbon date of 6490±110 was produced from a shell sample. Based on results of the data recovery program, Norwood and Walker recommended no additional work.

TABLE 4F-2
DESCRIPTION OF NEW AND PREVIOUSLY RECORDED
HISTORIC AND PREHISTORIC RESOURCES
 (continued)

Site Number	Classification	Description
CA-SDI-13094/H SDM-W-5413	Historic/ Prehistoric	Recorded during current field efforts, this historic trash scatter and prehistoric temporary camp measures approximately 140 m by 40 m and can be divided into a northern (upper) prehistoric locus, and a southern (lower) historic/prehistoric locus. The historic portion of the site consists of a trash scatter located within the downslope portion of the site and is mainly at the southern edge of the ridge on a small bluff overlooking Gonzales Creek. Historic refuse consists of brick and concrete foundation pieces, bottles, glazed ceramic fragments, metal pipe and pipe valves, all apparently bulldozed over the edge of the bluff. In addition, prehistoric artifacts consist of 3 cores, 1 broken granitic metate, 5+ pieces of lithic debitage, and several <i>Chione</i> sp. shell fragments. The southern locus measures approximately 40x40 m. A single structure is depicted on the 1903 La Jolla 15' USGS map in the location of the foundation and trash scatter. Neither the structure nor the refuse deposit are intact. On the small ridge immediately west of the eucalyptus stand is a single telephone pole containing 4 glass insulators. The pole contains dating nails with 1905, 1925 and 1974 dates, indicating that telephone service and probably electric power were available at the residence at an early time. The northern component of CA-SDI-13094/H is purely prehistoric and consists of 100 fragments of <i>Chione</i> sp. shell, 1 <i>Polinices</i> sp. shell, 1 hammerstone, 5 cores, and 10 flakes made of porphyritic-volcanic lithic materials. The upslope locus measures approximately 50 by 40 m and is separated from the lower locus by 30-40 m of tilled sediments with a few <i>Chione</i> sp. shell fragments scattered about. Together, both prehistoric portions of site CA-SDI-13094/H compose a small habitation site. Both upper and lower portions of the site contain some probability of a subsurface component, although the southern, lower portion of the site has most likely been destroyed.
SDM-W-3636	Prehistoric	The resource consists of an isolated scraper plane. It was not relocated as part of this study.
CA-SDI-I-597 SDM-W-5392	Prehistoric	The isolate consists of a single green, fine-grained metavolcanic core reduction flake. This flake was collected as part of this study.
CA-SDI-I-600 SDM-W-5412	Prehistoric	The isolated find consists of one porphyritic-volcanic core and one metavolcanic flake. Both artifacts were collected as part of this study.
CA-SDI-I-601 SDM-W-5414	Prehistoric	This isolate consists of a quartzite core. This artifact was collected as part of this study.

STP - Shovel test pit
 YBP - Years before present

relocation, previously recorded sites were intensively surveyed in order to locate all visible artifacts and ecofacts, and the site was updated on State of California site record forms. One site (CA-SDI-10,117) and one isolate (SDM-W-3636) were not relocated. The locale of CA-SDI-10,117 is now occupied by several residences and stables. Because of land alteration within the original site area, it is believed that the site has been graded/destroyed.

Based on current project work, the previously recorded sites and isolates are identified as nine habitation sites, one with both historic and prehistoric components; and one shell midden. Only one site (CA-SDI-13,094/H, a habitation site with both historic and prehistoric components) and three isolated finds (I-597, -600, -601) were newly recorded. Descriptions of the updated and newly recorded sites and isolates are found on Table 4F-3.

b) Shell Parcel

Four previously recorded sites are located on the Shell parcel, as listed in Table 4F-4. These sites (CA-SDI-7201 through -7204) include three lithic scatters and a temporary camp. Two of the lithic scatters (CA-SDI-7201 and -7203) were not relocated during survey for Subarea III studies carried out in 1992-93.

Cultural Resources Issue

1. To what extent would archaeological or historical resources be impacted by development of the proposed project components, including off-site improvements?

1) Issue

To what extent would archaeological or historical resources be impacted by development of the proposed project components, including off-site improvements?

Impacts

In all, 12 sites and 4 isolates have been recorded within the Del Mar Highlands Estates area. Eleven sites and one isolate were previously recorded, and one site and three isolates were newly recorded. Of the 12 previously recorded resources, site CA-SDI-10,117 and isolate W-3636 could not be relocated and may have been destroyed or were mismapped and not within the Del Mar Highlands Estates area.

**TABLE 4F-3
DEL MAR HIGHLANDS ESTATES CULTURAL RESOURCE SITES**

CA-SDI Site Number	SDM-W Site Number	Landform	Site Type	Comments	Status
194	1586	Ridge	H	Artifacts w/marine shell	Updated
293	1585	Ridge	H	Artifacts w/marine shell	Updated
322 A,B	1588	Ridge	H	Artifacts w/marine shell	A-Updated B-Newly recorded
685	1584	Ridge	H	Artifacts w/marine shell	Updated
5369	40	Ridge	H	Lit. II & SD-II w/marine shell	Updated
5370	1589	Gentle slope	SM		Updated
5371	1490	Gentle slope	H	Artifacts w/marine shell	Updated
5372/H	1491	Gentle slope	P/H	Historic structure/trash w/prehistoric	Updated
5373	1487	Ridge	H	Marine shell fragments (5)	Updated
5612	1667	Ridge	H	Artifacts w/marine shell	Updated
10,117	3522	Gentle slope	H	Artifacts w/marine shell	Not relocated
13,094/H	5413	Gentle slope	H, P/H	Possible midden	Newly recorded
-	3636	Drainage	I	Scraper plane	Not relocated
I-597	5392	Gentle slope	I	Flake	Newly recorded
I-600	5412	Gentle slope	I	Core and flake	Newly recorded
I-601	5414	Gentle slope	I	Core/core-tool	Newly recorded

H = habitation; SM = shell midden; P/H = prehistoric & historic components; I = isolated lithic find;
Lit. = Littoral; SD = San Dieguito.

**TABLE 4F-4
PREVIOUSLY RECORDED SITES—
SHELL PARCEL**

SDI No.	SDM No.	Pre historic	Historic	Site Type	Recording Date	Recorded By	Tested*
7201	2212	X		Lithic scatter	1979	Talley, Banks	No
7202	2213	X		Lithic scatter	1979, 1993	Gallegos	No
7203	2214	X		Lithic scatter	1979	Gallegos	No
7204	2214	X		Temporary habitation	1979, 1993	Gallegos	No

*Testing as indicated on this table was all carried out prior to Shell parcel evaluation.

The remaining 14 sites and isolates located within the Del Mar Highlands Estates area include 8 habitation sites, 1 shell midden, 2 sites with multiple components (historic and prehistoric habitation), and 3 isolated finds. These resources are discussed in some detail on Table 4F-3. The three isolates were collected. Of the 11 sites, all but two are at least partially located within development areas on project maps and therefore may be subject to direct impacts during custom home development. Adverse direct effects are assessed to nine sites located within project development area boundaries for the Del Mar Highlands Estates area. The two sites located wholly within nondevelopment areas are CA-SDI-5371 and CA-SDI-5372/H. No direct adverse effects have been assessed for these sites, but they are subject to indirect adverse effects.

Significance of Impacts

Impacts which require mitigation are those impacts assessed to significant sites, per CEQA, Appendix K, as discussed previously.

a) Significance Testing

Eight cultural resource sites (CA-SDI-194, CA-SDI-293, CA-SDI-322, CA-SDI-685, CA-SDI-5369, CA-SDI-5370, CA-SDI-5373, and CA-SDI-5612) had been previously tested for significance (Table 4F-5). Site CA-SDI-5371 was identified by Peter and Whitney-Desautels (1986) as a highly disturbed, low-density lithic and shell scatter, and no additional work was recommended. The remaining seven sites (CA-SDI-194, CA-SDI-293, CA-SDI-322, CA-SDI-685, CA-SDI-5369, CA-SDI-5373, and CA-SDI-5612) also had data recovery programs completed to mitigate potential impacts of development. For sites mitigated of impacts through previous data recovery, no additional work is recommended.

One newly recorded site, CA-SDI-13,094/H, was tested and the testing program is summarized here; additional detail is included in Appendix F.

Fieldwork for testing site CA-SDI-13,094/H was conducted July 17 through 31, 1995. The site is divided into two loci. Locus A, the southern locus, includes both prehistoric and historic surface debris and an historic trash deposit located on the toe of a slope at the southern end of the knoll. Locus B, the northern locus, includes the primary prehistoric deposit with shell and flaked lithics visible on the surface.

Testing at Locus A included surface collection, initial excavation of two 1×1-meter units to test the prehistoric deposit, and seven backhoe trenches to test the historic deposit. A subsurface historic deposit was identified on the toe of the knoll; therefore, two additional 1×1-meter units were excavated to further test the deposit.

**TABLE 4F-5
DEL MAR HIGHLANDS ESTATES
CULTURAL RESOURCE IMPACT AND RECOMMENDATIONS SUMMARY TABLE**

<u>Site Number</u>		Site Type	Comments	Site Status	Previous Work ¹	City Mitigated Negative Declaration 1989	Significance	Impacts ²	Recommendations Per City Guidelines
CA-SDI-	SDM-W-								
194	1586	Habitation	Artifacts w/ marine shell	Updated	T,D	Mitigated	Significant	Direct	No Add'l Work
293	1585	Habitation	Artifacts w/ marine shell	Updated	T,D	Mitigated	Significant	Direct	No Add'l Work
322-A	1588	Habitation	Artifacts w/ marine shell	Updated	T,D	Mitigated	Significant	Direct	No Add'l Work
322-B	1588	Habitation	Artifacts w/ marine shell	Newly recorded			Not Significant	Direct	No Add'l Work
685	1584	Habitation	Artifacts w/ marine shell	Updated	T,D	Mitigated	Significant	Direct	No Add'l Work
5369	40	Habitation	Lit. II and SD-II w/ marine shell	Updated	T,D	Mitigated	Significant	Direct	No Add'l Work
5370	1589	Shell midden	Shell	Updated	T	No Potential to Contribute	Not Significant	Direct	No Add'l Work
5371	1590	Habitation	Artifacts w/ marine shell	Highly disturbed		Little Potential to Contribute	Potentially Significant	Indirect	Testing
5372/H	1591	Historic/prehist.	Historic structure/trash w/prehist.	Updated		May yield important info.	Potentially Significant	Indirect	Testing
5373	1587	Habitation	Marine shell fragments (5)	Updated	T,D	Mitigated	Significant	Direct	No Add'l Work
5612	1667	Habitation	Artifacts w/ marine shell	Updated	T,D	Mitigated	Significant	Direct	No Add'l Work
13,094/H	5413	Historic/prehist.	Possible midden	Newly recorded			Locus B-Significant	Direct	Testing ³

¹ T - Tested; T,D - Data Recovery Program.

² Although specific project footprints are not available, direct impacts were assumed for all sites in potentially developable areas in a worst-case analysis. No impacts are expected for the two sites to be held in open space.

³ Significance testing at this site was completed during circulation of the draft EIR. Locus B, a prehistoric component, was assessed as significant.

Testing of the prehistoric deposit at Locus B included excavation of 15 STPs and four 1×1-meter units, and collection of surface artifacts. Upon completion of fieldwork, a map was prepared showing the location of surface artifacts, backhoe trenches, STPs, units, and natural features.

Historic cultural material recovered from CA-SDI-13,094/H Locus A represents a heavily disturbed historic site. Artifacts from the backhoe trenches and units were mixed with artifacts from 1903 through the mid-1960s, as well as prehistoric artifacts found throughout the deposit. A limited number of artifacts (hand-blown and blown-in-mold bottles and ceramic items) date to around the turn of the century and certainly before 1906. The majority of identifiable items were produced after 1932 and several were manufactured after 1945. Excavation of trenches and units within the trash deposit revealed that the more recent artifacts were probably deposited as a result of on-site grading activities when the buildings associated with the farmstead were cleared and the land prepared for tomato crops. This material is not associated with an intact deposit and does not lend itself to comparison with other historic rural resources in San Diego County or elsewhere. The prehistoric artifacts from this locus are similarly disturbed.

Excavation and collection at Locus B has identified a prehistoric deposit to a maximum depth of 110 centimeters (cm) with a primary site area of approximately 420 m². This deposit is intact below the plow zone at approximately 30 cm. Cultural material recovered from Locus B includes debitage, cores, core/cobble tools, flake tools, hammerstones, manos, a pestle, bone (some burned), shell, charcoal, and fire-affected rock. Tools recovered indicate that the prehistoric residents were grinding seeds and other foodstuffs, working bone and possibly hides and wood, processing material for basketry, and gathering shellfish, small mammals, and possibly birds for food. The presence of charcoal and fire-affected rock indicates that meals were prepared at this location. A variety of imported lithic material (i.e., chalcedony, Piedre de Lumbre chert) is present at the site, indicating trade and/or travel was occurring.

Locus B is identified as an intact Early Period habitation site. This determination is based on the absence of pottery and small projectile points and on a radiocarbon date of 5070 ± 70 years before the present as well as the presence of tools and large quantities of shellfish species (i.e., *Argopecten* sp. and *Chione* sp.) associated with Early Period sites.

Site CA-SDI-5371 has been determined to be outside the boundaries of the proposed Del Mar Highlands Estates VTM, and therefore, would not require testing. Documentation from previous technical reports, which clearly describe the site's location relative to the project boundary, indicate the site CA-SDI-5371 is mapped on the terminus of a ridge that is clearly outside the project boundary. There are no indications from completed field studies that the site boundary was changed or that the site was incorrectly mapped. Therefore, there is no basis for completing sampling at this location.

Finally, ~~onetwo~~ previously recorded sites (~~CA-SDI-5371 and CA-SDI-5372/H~~) ~~has~~ have not been tested for significance. ~~Sites not previously tested to determine significance under City of San Diego CEQA and RPO guidelines are considered potentially significant.~~

b) Conclusion

Locus B of site CA-SDI-13,094/H contains an intact prehistoric deposit to 110 cm that dates to approximately 5,000 years before the present and contains material to answer significant research questions regarding chronology, trade and/or travel, and subsistence. Locus B is identified as not significant under the City of San Diego RPO, as neither the prehistoric nor the historic deposit at this location possesses unique scientific, religious, or ethnic value of local, regional, state, or federal importance; it is not an area of important prehistoric or historic activities or events; and it does not contain burial(s), pictographs, petroglyphs, a solstice observation site, or sacred shrines.

~~Sites CA-SDI-5371 and CA-SDI-5372H is~~ are considered potentially significant; ~~however, this site is within a designated open space area and will be tested and evaluated for significance prior to the issuance of a grading permit. Both~~ All three sites are considered potentially significant and unmitigated at this time. The implementation of the proposed mitigation will achieve a lowering of impact to below a level of significance. Site CA-SDI-5371 has been determined to be outside the boundaries of the proposed Del Mar Highlands Estates VTM and, therefore, would not require testing for the project.

Mitigation, Monitoring, and Reporting

The objective of the mitigation program will be to mitigate impacts to CA-SDI-13,094/H Locus B associated with construction of Del Mar Highlands Estates and to provide an indexing of sites CA-SDI-5371 and CA-SDI-5372/H.

a) Site CA-SDI-13,094/H

Prior to the issuance of a grading permit, the following mitigation monitoring and reporting procedures shall be completed. Mitigation measures are provided for sites identified as either significant under RPO and/or important under CEQA. For site CA-SDI-13,094/H, only the habitation area (420 m² of Locus B) is identified as important under CEQA. Impacts to this localized habitation area can be mitigated to below a level of significance through (1) avoidance, capping, and placement of the 420 m² portion of CA-SDI-13,094/H Locus B within permanent open space deeded to the City; (2) completion of a data recovery program prior to construction grading; or (3) in concurrence with the City, a combination of capping, indexing the site through a sample excavation, and placement of deed restrictions to avoid direct or indirect impacts. Mitigation measure 3 assumes that the site will not be built on, that capping will not

exceed a depth of six feet, and that utility lines or deep-rooted plants will not be placed within the primary site area. The exact location of this deposit needs to be professionally mapped prior to completion of mitigation measures. Mitigation of impacts through data recovery will follow the City of San Diego's 15 percent sample excavation requirement and will be conducted in approximately five percent phases. The excavation program will be structured to provide information to address the research questions of chronology, subsistence, trade and travel, environmental setting, and lithic reduction strategy. Additional specifics on the research questions are provided in Appendix F. In addition, CA-SDI-13,094/H Locus B will be compared to Norwood and Walker's sites (1980) to evaluate change in these activities through time.

The data recovery program, designed to mitigate direct impacts to approximately 420 m² of CA-SDI-13,094/H Locus B, will be phased to identify the need for additional work. As noted above, the data recovery program will consist of up to a 15 percent excavation (hand and mechanical) program to be completed in three phases. Phase I will consist of a 100 percent surface collection and a 5 percent random sample excavation (21 m²). Phase II will be based on Phase I results and will consist of a 5 percent excavation focused on features (21 m²). The 5 percent Phase III excavation will include hand excavation, backhoe trenching, controlled grading, and excavation of prehistoric features and activity areas. All features will be completely exposed and documented using photographs and illustrations. Block excavations (i.e., 2x2-meter or 4x4-meter units) will be placed in areas with features and associated artifacts to expose intact living areas.

A random five percent sample will be conducted in the primary habitation area during Phase I. A random number table will be used for unit placement. The Phase I sample (21 m²) will be excavated to determine site content and Phase II unit placement. Upon completion of the five percent sample, the Development Services Department will be consulted and a determination made regarding Phase II excavation. The Phase II five percent sample within the primary habitation area (additional 21 m²) will be used to open features or activity areas identified during the initial Phase I sample. This phase may include block excavation (i.e., 2x2-meter, 4x4-meter). Each unit will be excavated in 10-cm levels using the natural surface contour. All soil will be screened through one-eighth-inch mesh screen, and artifacts and ecofacts will be collected by 10-cm levels. All recovered cultural material will be placed in resealable bags and labeled by site number, unit number, level, and date. Given City concurrence, if no features are encountered in Phase I, Phase II may not be conducted and Phase III may be started.

Upon completion of controlled hand excavation, backhoe pretrenching will be completed within the primary habitation area using shallow scrapes with a small bucket. If a concentration of rock is noted, then the backhoe will be stopped and hand excavation will be conducted to determine feature content.

When a feature is identified, either within an excavation unit or during backhoe trenching, the area will be cleared using hand excavation and the feature exposed, mapped, and removed. Any charcoal identified in the feature will be collected for radiocarbon dating. The backhoe pretrenching will be discontinued when the sterile subsurface deposit is encountered.

A standard system of cataloging cultural remains will be used. All cultural material will be washed and separated by material class within each level, prior to cataloging. Artifact classes identified will include flake, angular waste, flaked lithic tool, ground stone, shell, bone, and historic debris. In addition, lithic material for all artifacts will be identified. Flakes are identified as chipping waste containing a striking platform and a bulb of percussion. The remainder of the chipping waste (without a striking platform and a bulb of percussion) is defined as angular waste. Flaked lithic tools will be weighed, measured, and identified by artifact attributes and manufacture technique. Ground stone categories will include manos and metates. Ground stone attributes include shaped/unshaped, number of ground sides, presence of a shoulder, and whether the artifact is pecked, battered, or fire-affected.

Five column samples from five units will be processed either through flotation or by wet-screening through one-sixteenth-inch hardware mesh. The recovered materials will be dried, microsorted, recorded, and weighed. This material may provide a sample of midden contents that could include fish bone, otoliths, shell remains, bird and animal bone, and seeds. These remains will be analyzed by specialists to provide specific species identification.

Each item or group of items will be counted, weighed and/or measured, and given consecutive catalog numbers. Catalog numbers will be marked in ink either directly on the artifact or on an attached label. In addition, each item will then be analyzed for specific material class attributes. Flakes (diagnostic debitage) will be divided by material type and size. All cataloged items will be separated into typological categories by bag and stored in clearly labeled cardboard boxes.

Photographs, field notes, and artifacts will be temporarily curated by the company conducting the data recovery program until a regional repository becomes available. Catalogs and report copies will be stored on both electronic media and hard copies. Upon completion and acceptance of the final report, copies will be submitted to the South Coastal Information Center at San Diego State University and to the San Diego Museum of Man. A site record form update will be filed at the South Coastal Information Center and San Diego Museum of Man.

Ancillary studies that may be completed for this project are described in Appendix F and include faunal and shellfish analysis, obsidian sourcing and hydration rind measurement, radiocarbon dating, lithic analysis, immunological analysis, and soil stratigraphy. Results

of obsidian sourcing, obsidian hydration rind measurements, and radiocarbon dating will be used to answer the chronology question. Lithic analysis will be conducted to identify lithic reduction techniques used by the inhabitants of CA-SDI-13,094/H. Immunological analysis will assist in identification of tool use. Analysis of soil stratigraphy will identify intact cultural deposits and assist in answering the chronology question.

b) Sites ~~CA-SDI-5371~~ and CA-SDI-5372/H

CA-SDI-5372H is located within the Tentative Map area in an area that will be deeded to the City of San Diego as part of a natural open space corridor related to the Draft MSCP. There are no direct impacts identified within or adjacent to the recorded limits of this site. This resource area is identified as a light scatter of flaked lithic debris and the remnants of an historic-era cobble foundation. This site was not tested during previously completed work; however, survey level observations of the site indicate limited resource potential. The recommendation for this site is the completion of an "indexing" program which would provide sufficient information to place the historic and prehistoric portions of this site in context with the region prior to preservation in the open space area. The indexing program that is recommended includes the following steps:

- Conduct archival research of historic-era photographs, maps, and property records to establish background information on the historic-era feature.
- Complete a surface collection of historic and prehistoric materials used as a grid-based plotting system.
- Complete up to 10 shovel test pits in areas of positive surface material and in areas with potential subsurface deposit.
- Complete three sample units of one square meter in size.
- Prepare site map with locations of collected items, shovel test pits, sample units, and surface features.
- Update the site record form with the South Coastal Information Center and the San Diego Museum of Man.
- Clean, separate, and analyze the recovered artifacts and ecofacts. Submit one organic sample for radiocarbon analysis.
- Complete a report of findings and interpretations using the City of San Diego Archaeological Resource Management Report format.

These combined efforts should provide sufficient information to establish a general finding with regard to the quantity, quality, and variety of the archaeological materials that are present at this location and to allow for the placement of this resource site into the developing model of site settlement and chronology for the Carmel Valley region.

~~Prior to the issuance of a grading permit, the following mitigation monitoring and reporting procedures shall be completed:~~

- ~~1. Research. Historic research (i.e., review of early maps, literature review, title search, etc.) will be conducted for the historic components at CA SDI-5372/H.~~
- ~~1. Surface Collection. For sites with less than 200 surface artifacts, all artifacts will be collected using point provenience mapping to show exact location of surface artifacts or a grid-based surface collection. If surface artifacts are estimated to be over 200, then a 10 percent random sample grid-based surface collection will be conducted.~~
- ~~1. Subsurface Assessment~~
 - ~~a. Shovel test pits will be excavated to determine site size and depth.

 - ~~• STPs will be used along a north-south and east-west grid system in 10- to 40-meter intervals. This includes excavation of up to 10 STPs at CA SDI-5372/H and up to 6 STPs at CA SDI-5371.~~
 - ~~• STPs will be excavated in 10-cm levels to 50 cm or bedrock and all excavated soil will be processed through one-eighth-inch screen mesh.~~
 - ~~• All artifacts/ecofacts will be collected and bagged by STP number and depth.~~~~
 - ~~a. One-by-one-meter test units will be excavated at each site.

 - ~~• Unit placement will be determined by either the highest or most likely area to possess subsurface material (based on surface remains or natural features). One 1x1-m unit will be excavated at CA SDI-5371 and three 1x1-m units will be excavated at CA SDI-5372/H.~~
 - ~~• Units will be excavated in 10-cm levels to sterile soil, defined as bedrock or one level with no cultural material present. If two consecutive levels record a significant drop-off in cultural materials with the presence of cultural material explained in terms of natural processes, then that is defined as sterile.~~~~
 - ~~a. Ten to twenty meters of backhoe trenches will be excavated within the historic component at CA SDI-5372/H to determine presence/ absence of a subsurface deposit. If subsurface deposits are present, then two additional 1x1-m units will be excavated at each site.~~
 - ~~a. Map Preparation
 - ~~• Sites will be plotted on a USGS 7.5-minute quadrangle map.~~
 - ~~• Sites will be plotted on an engineering base map (either 1" = 100' or 1" = 200').~~
 - ~~• A site map will be prepared for each site showing site boundaries and the locations of STPs, 1x1-m units, significant landform and/or landmarks, and surface artifacts or surface artifact collection grids.~~~~
 - ~~a. Report
 - ~~• All artifacts collected will be cleaned and cataloged. Appropriate special studies will be conducted.~~
 - ~~• Sites/loei will be evaluated in terms of site size, depth, content, integrity, and potential to address important research questions as per City of San Diego guidelines and CEQA.~~
 - ~~• All results will be presented in a City of San Diego report format.~~~~

G. Paleontology

Paleontology is the science dealing with the life of past geologic periods as known from fossil remains. Paleontological resources (fossils) are the remains and/or traces of prehistoric animal and plant life exclusive of human remains or artifacts. Fossil remains such as bones, teeth, shells, and leaves are often found in the geologic deposits (rock formations) within which they were originally buried. Because of this, the potential for fossil remains at a given location can be predicted based on known correlations between fossil occurrence and the geologic formations with which they are associated. To evaluate paleontological resources on the various sites of the project, the presence and distribution of geologic formations and the respective potential for paleontological resources were reviewed. The following is a summary of the research conducted for the project sites and associated conclusions for paleontological resource potential.

Existing Conditions

The various project sites are located within the coastal area of San Diego County, which is characterized geologically by the presence of Eocene rocks of the San Diego Embayment. The San Diego Embayment area is a northwest-trending basin consisting of Tertiary and Quaternary successional sediments deposited on Upper Cretaceous strata. Sedimentary rocks of the Late Cretaceous, Eocene, Pliocene, Pleistocene, and Holocene age underlie the general vicinity of the project area. On-site geologic and topographic settings are described in Section 4.D of this EIR.

The rocks in the project area were laid down during a period when subsidence of the basin and repeated change in sediment flux resulted in alternating advances and retreats of the shoreline. This period of deposition occurred continuously for nearly 10 million years. The Eocene lithostratigraphic sequence contains fossil organisms representative of deep water marine, littoral marine, lagoonal, and nonmarine fluvial environments. The Eocene succession of the San Diego Embayment is presently the only place known in North America where this part of the Tertiary mammal chronology can be directly compared with invertebrate chronologies.

The City has identified at least six sites containing paleontological resources in the general area (City of San Diego 1992). These sites are listed on Table 4G-1, with relevant maps on file at the City Development and Environmental Planning Division. The noted paleontological sites have been typically encountered during grading/excavation for specific projects.

**TABLE 4G-1
KNOWN PALEONTOLOGICAL SITES IN THE PROJECT VICINITY**

Site No.	General Location	Formation or Deposit
2853, 2987	Outside of FUA, mouth of Carmel Valley	Boundary of alluvial deposits and outcropping of Bay Point Formation
3170	Just north of Los Peñasquitos Canyon at an elevation of approximately 180 feet	Santiago Peak Volcanics
3269	Outside of FUA, just north of Del Mar Heights Road and just east of El Camino Real	Friars Formation
3282	Just south of FUA, between Del Mar Heights Road and Gonzales Canyon	Mission Valley Formation
3284	Outside of FUA, in Carmel Valley, north and east of intersection with Shaw Valley	Alluvial deposits

SOURCES: City of San Diego (1992, n.d.); Kennedy (1975).

In addition to known paleontological loci, there are a number of on-site formations that have the potential to contain significant paleontological resources. Each of these formations has been evaluated for its paleontological resource potential and given a rating from high to low sensitivity based on the following criteria (PaleoServices 1991).

High Sensitivity - These formations contain a large number of known fossil localities. Generally speaking, highly sensitive formations produce vertebrate fossil remains or are considered to have the potential to produce such remains.

Moderate Sensitivity - These formations have a moderate number of known fossil localities. Generally speaking, moderately sensitive formations produce invertebrate fossil remains in high abundance or vertebrate fossil remains in low abundance.

Low and/or Unknown Sensitivity - These formations contain only a small number of known fossil localities and typically produce invertebrate fossil remains in low abundance. Unknown sensitivity is assigned to formations from which there are presently no known paleontological resources, but which have the potential for producing such remains based on their sedimentary origin.

Very Low Sensitivity - Very low sensitivity is assigned to geologic formations that, based on their relative youthful age and/or high-energy depositional history, are judged to be unlikely to produce any fossil remains.

Del Mar Highlands Estates contain four Eocene sedimentary formations—Torrey Sandstone, Friars Formation, Stadium Conglomerate, and Mission Valley Formation—and four Quaternary units—Bay Point Formation, river terrace deposits, alluvium, and colluvium. Each of the four Eocene formations and four Quaternary units are described in detail below. Figure 4G-1 summarizes the paleontological resource sensitivity for the Del Mar Highlands Estates project area.

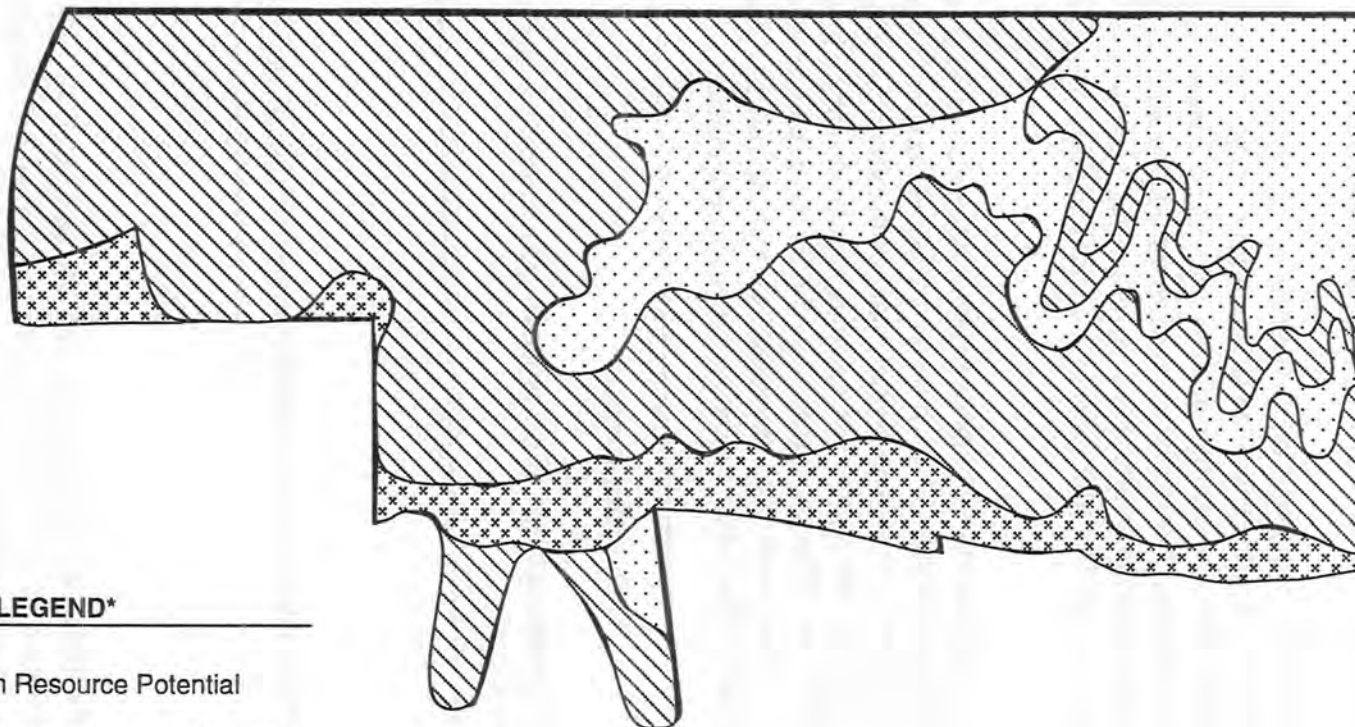
The Torrey Sandstone consists of dense sandstone and includes primarily marine and marginal marine sediments. Locally abundant marine invertebrate and vertebrate fossils as well as fossil leaves have been found within Torrey Sandstone deposits regionally. The resource potential for Torrey Sandstone is low to moderate.

The Friars Formation includes marine and nonmarine sediments forming relatively dense clayey sandstone and sandy claystone. Locally common terrestrial mammal fossils have been identified within this formation, which has a high resource potential.




The Stadium Conglomerate, consisting of very dense clayey sand, gravel, and cobbles, was found to overlie the Friars Formation and Torrey Sandstone. Rare terrestrial mammal and marine invertebrate fossils have been found within this formation. The resource potential for the Stadium Conglomerate is low to moderate.

The Mission Valley Formation outcrops on the Del Mar Highlands Estates site, overlying the Stadium Conglomerate. This geologic unit is generally comprised of relatively dense sandstone interbedded with siltstone and claystone. This formation has the potential for producing important Eocene land mammal remains similar to those recorded in the Miramar Reservoir area (fossil marine invertebrates, fossil marine vertebrates including remains of bony fish and sharks, and rare remains of terrestrial vertebrates). Grading operations for projects in the northern portions of Carmel Valley in this formation have unearthed well-preserved fossil remains, including different kinds of estuarine and nearshore marine organisms (clams, snails, barnacles, sea urchins, sharks, rays, and crocodiles). In addition, several sites in the area have produced important collections of well-preserved fossil plant remains, primarily leaves. The resource potential for the Mission Valley Formation is moderate to high.

The Bay Point Formation occurs on the Del Mar Highlands Estates site, north of Gonzales Canyon. This formation is composed of mostly marine and nonmarine, poorly consolidated, fine- and medium-grained, pale brown fossiliferous sandstone. The marine part of the formation interfingers with nonfossiliferous sandstone that lies generally more than 100 but less than 200 feet above MSL (City of San Diego 1992). Fossils identified within this formation consist primarily of marine mollusks. The resource potential for the Bay Point Formation is low to moderate.



LEGEND*

-  High Resource Potential
-  Moderate Resource Potential
-  Low Resource Potential

*In situations where a formation has been assigned a rating between categories (i.e. "Low to Medium") the more restrictive category is mapped.



Source: Helix Environmental 1995

FIGURE 4G-1
Del Mar Highlands Estates
Paleontological Resource Sensitivity

Thin stream terrace deposits form low benches along Gonzales Canyon in the Del Mar Highlands Estates project area. These deposits typically consist of dense, weakly cemented cobble conglomerates and sandstones. The fossil remains of a Pleistocene ground sloth are recorded from similar deposits in Fairbanks Ranch, just north of the project site. The terrace deposits on-site have a moderate resource potential.

Alluvial deposits 5 to 25 feet deep are found predominantly in the bottom of Gonzales Canyon on the Del Mar Highlands Estates site. The alluvium is of a relatively recent age, consists of brown silty sands, and may contain a large amount of cobbles and some boulders within the main streambeds. No fossils are recorded from the alluvial deposits in the project vicinity and their relative youthfulness suggests that none will be found. Therefore, the alluvial deposits on the Del Mar Highlands Estates site have been assigned a low resource potential.

Colluvial materials located on the Del Mar Highlands Estates site consist of silty sands to sandy clays with cobble-sized rock fragments and have an estimated maximum thickness of 10 to 15 feet. Colluvial materials are present within many of the secondary drainages on the project site. The potential for significant paleontological resources in on-site colluvial deposits is considered low. This conclusion is based on the extensive mechanical weathering typically associated with such materials, as well as the fact that any remnant fossils have been removed from their original stratigraphic environment.

Paleontology Issue

1. To what extent would implementation of the proposed project result in the loss of paleontological resources?

1) Issue

To what extent would implementation of the proposed project result in the loss of paleontological resources?

Impacts

A comparison of the proposed limits of development with the paleontology map (see Figure 4G-1) shows that development of the project site would have the potential to impact areas with high and moderate paleontological resource potential. Future on-site grading would cut into all of the geologic units described for this area, which exhibit moderate to high resource potential. Specifically, these include the Mission Valley Formation, Torrey Sandstone, Friars Formation, Stadium Conglomerate, Bay Point

Formation, and terrace deposits. Paleontological resources potentially occurring in these formations would be damaged or destroyed unless recovered during grading.

Significance of Impacts

Grading for roadway construction and future development on the project site would have the potential for significant impacts to paleontological resources. These impacts could be mitigated below a level of significance as described below.

Mitigation, Monitoring, and Reporting

The following mitigation measures shall be a condition of approval of grading permits within the Del Mar Highlands Estates area and shall mitigate impacts to below a level of significance.

A program for the recovery of paleontological resources during grading and earthwork shall be implemented. This program will include the following steps:

1. A qualified paleontologist and/or paleontological monitor shall be retained to implement the monitoring program. A qualified paleontologist is defined as an individual with a Ph.D. or master's degree in paleontology or geology who is a recognized expert in the application of paleontological procedures and techniques such as screen washing of materials and identification of fossil deposits. A paleontological monitor is defined as an individual who has experience in the collection and salvage of fossil materials and who is working under the direction of a qualified paleontologist.
2. The qualified paleontologist shall attend any preconstruction meetings to consult with the excavation contractor. The requirement for paleontological monitoring shall be noted on the construction plans. The paleontologist's duties shall include monitoring, salvaging, preparing materials for deposit at a scientific institution that houses paleontological collections, and preparing a results report. These duties are defined as follows:
 - a. **Monitoring.** The paleontologist or paleontological monitor shall be on-site during the original cutting of previously undisturbed areas of the sensitive formation to inspect for well-preserved fossils. The paleontologist shall work with the contractor to determine the monitoring locations and the amount of time necessary to ensure adequate monitoring of the project.
 - b. **Salvaging.** In the event that well-preserved fossils are found, the paleontologist shall have the authority to divert, direct, or temporarily halt construction activities in the area of discovery to allow recovery of fossil remains in a timely manner.

Recovery is anticipated to take from one hour to a maximum of two days. At the time of discovery, the paleontologist shall contact the Environmental Analysis Section of the City of San Diego Development Services Department. EAS must concur with the salvaging methods before construction is allowed to resume.

- c. Preparation. Fossil remains shall be cleaned, sorted, cataloged, and then deposited in a scientific institution that houses paleontological collections (such as the San Diego Natural History Museum).
 - d. Monitoring Results Report. A monitoring results report, with appropriate graphics, summarizing the results (even if negative), analysis, and conclusions of the above program shall be prepared and submitted to EAS within three months following the termination of the paleontological monitoring program.
3. The project manager shall notify EAS staff of any preconstruction meeting dates and of the start and end of construction.
 4. A report of findings, even if negative, shall be filed with EAS and the San Diego Natural History Museum prior to issuance of building permits.

It shall be a requirement of the project that the above mitigation measures be conditions of all subsequent tentative maps within the Del Mar Highlands Estates area. EAS shall verify this is a condition of tentative map approval.

A note shall be included on the grading plans that the above measures are conditions of approval of grading permits. EAS shall ensure these measures are conditions of the tentative map prior to approval of the tentative map. Prior to issuance of grading permits, EAS and the Engineering Department shall review the grading plans to ensure that these measures are on the plans.

H. Traffic Circulation

The following discussion is based on an evaluation of transportation/traffic circulation issues associated with the proposed Del Mar Highlands Estates project prepared by Urban Systems Associates, Inc. (1997). This study is summarized below, with the complete report included in this EIR as Appendix G.

Existing Conditions

a) Roadways

The Del Mar Highlands Estates site is located in the northwestern portion of the city of San Diego, with on-site and surrounding areas generally rural in nature. Regional access to the site is provided by Interstate 5, with local access obtained via several streets including Del Mar Heights Road, Via de la Valle, El Camino Real, San Dieguito Road, Old El Camino Real, Derby Downs Road, and Derby Farms Road (Figure 4H-1). Summary descriptions of these roadways are provided below.

Interstate 5

I-5 is a north/south-trending freeway which provides regional access between San Diego and northern coastal cities including Del Mar, Encinitas, Carlsbad, and Oceanside. I-5 is located approximately 1.0 mile west of the project site at its closest point.

Del Mar Heights Road

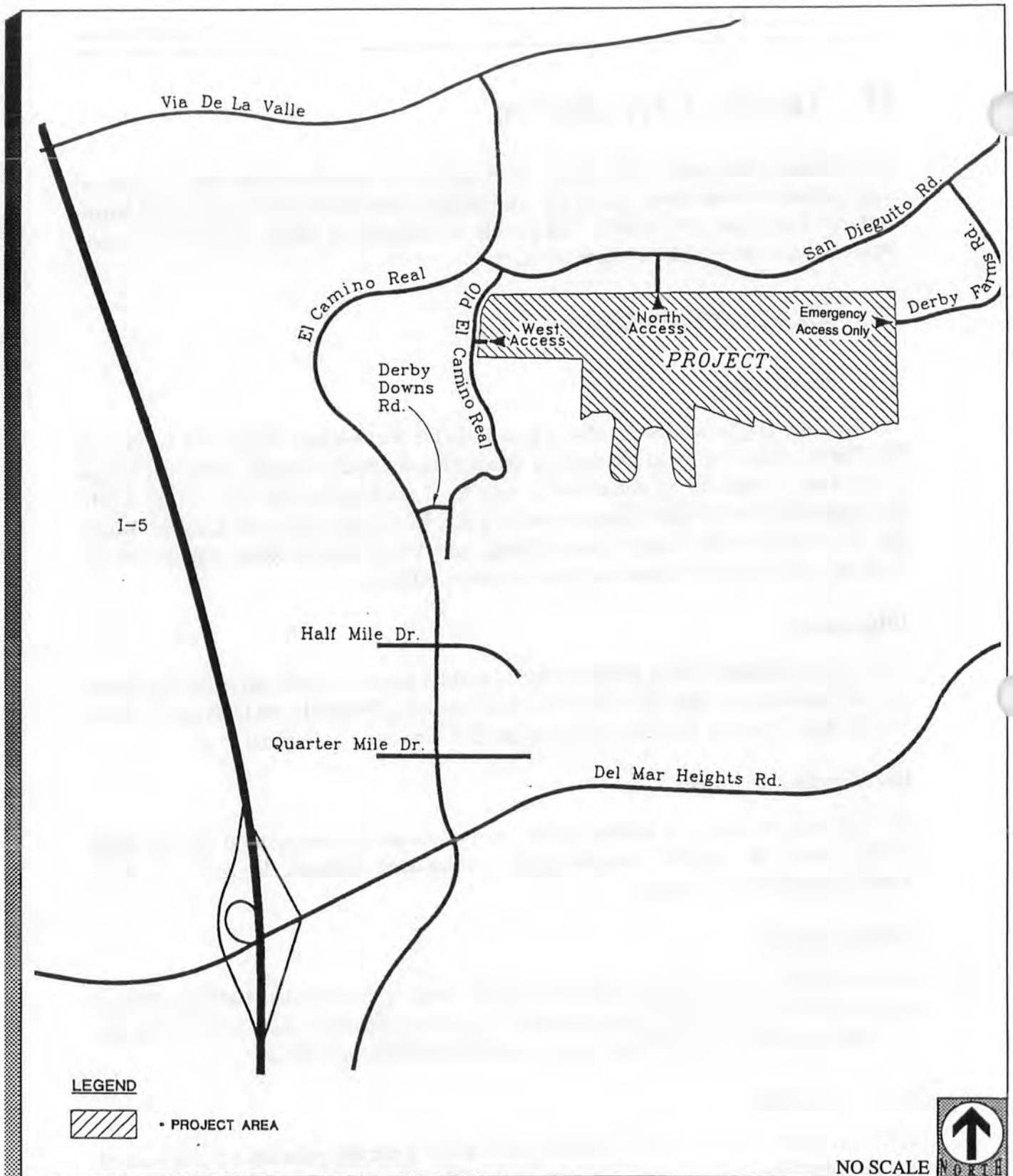
Del Mar Heights Road is a six-lane prime arterial located approximately 0.75 mile south of the project site. Del Mar Heights Road provides access between I-5 and the Carmel Valley community to the east.

Via de la Valle

Via de la Valle is located approximately 0.5 mile north of the Del Mar Highlands Estates site at its closest point. This roadway consists of a four-lane major street between I-5 and San Andres Drive and a two-lane collector street east of this intersection.

El Camino Real

El Camino Real is a north/south-trending street which generally parallels I-5 just west of the Del Mar Highlands Estates site (and east of the freeway). From Del Mar Heights Road to Half Mile Drive (approximately 0.5 mile south of the project site), El Camino Real is a four-lane facility. North of Half Mile Drive, this roadway continues as a two-lane street to its terminus at Via de la Valle (where it forms a T intersection).



SOURCE: URBAN SYSTEMS ASSOCIATES, INC., 1995

FIGURE 4H-1
Del Mar Highlands Estates
Existing Project Area Roadways

San Dieguito Road

San Dieguito Road consists of a two-lane collector street located just north of the Del Mar Highlands Estates site. This roadway extends east from a T intersection with El Camino Real and provides access to the community of Fairbanks Ranch.

Old El Camino Real

Old El Camino Real abuts the Del Mar Highlands Estates site on the west and extends north-south between San Dieguito Road (where it forms a T intersection) and Derby Downs Road. Old El Camino Real includes two lanes.

Derby Downs Road

Derby Downs Road is a two-lane, east/west-trending roadway segment extending between El Camino Real and Old El Camino Real, approximately 0.25 mile southwest of the project site.

Derby Farms Road

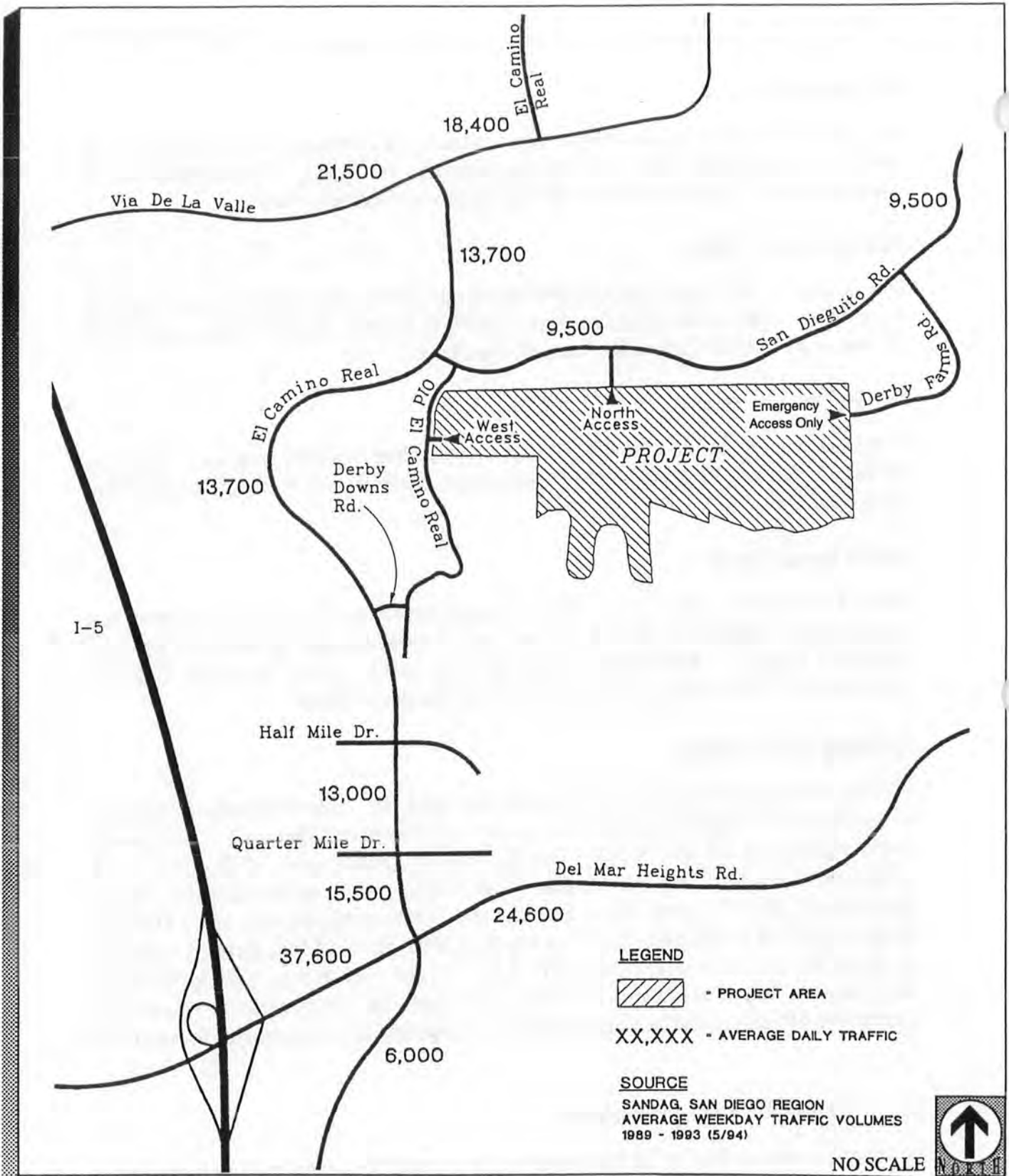
Derby Farms Road consists of a two-lane street extending south and west from San Dieguito Road (where it forms a T intersection) to the eastern site boundary of Del Mar Highlands Estates. Derby Farms Road provides access to San Dieguito Road for approximately 200 existing homes within the Senterra development.

Existing Daily Traffic

Existing average daily traffic (ADT) volumes for weekday traffic along major roadways in the Del Mar Highlands Estates site vicinity are shown on Figure 4H-2. As noted, traffic volumes in the site vicinity include between 13,000 and 15,500 ADT on El Camino Real north of Del Mar Heights Road; 9,500 ADT along San Dieguito Road; 18,400 to 21,500 ADT along Via de la Valle; and 24,600 to 37,600 ADT along Del Mar Heights Road. El Camino Real between Via de la Valle and Half Mile Drive is currently operating at a level of service (LOS) of F. LOS F is also currently assigned to Via de la Valle between San Andres Drive and El Camino Real. San Dieguito Road between El Camino Real to east of Derby Farms Road is also operating below acceptable levels (LOS E).

b) Regulatory Requirements

Proposed projects in the City of San Diego which generate long-term traffic are subject to applicable requirements of the San Diego County Congestion Management Program (CMP) and the City of San Diego Traffic Impact Study Manual.



SOURCE: URBAN SYSTEMS ASSOCIATES, INC., 1995

FIGURE 4H-2

Del Mar Highlands Estates Existing Street System and Average Daily Trips

The San Diego County CMP was developed by SANDAG in response to California Proposition 111 (approved in June 1990) and is intended to directly link land use, transportation, and air quality through level of service performance criteria. The San Diego County CMP requires a detailed analysis of potential transportation-related impacts for all projects which generate more than 2,400 total ADT or 200 peak hour trips.

The City of San Diego Traffic Impact Study Manual requires analysis of potential transportation-related impacts based on conformance with applicable community plan land use and transportation elements, as well as associated trip generation. Specifically, projects which conform with the noted elements and generate more than 2,400 ADT or 200 peak hour trips (based on driveway rates) are required to conduct a traffic impact study. Projects which do not conform to local land use and transportation elements and generate more than 1,000 ADT (based on driveway rates) are also required to prepare a traffic impact study, with similar criteria as noted above for determining computer modeling requirements. If a project exceeds these thresholds and the cumulative traffic impacts of the project also exceed 2,400 ADT or 200 peak hour trips, then the traffic study must incorporate computer modeling, pursuant to City guidelines.

Traffic Circulation Issues

1. Would the proposed Del Mar Highlands Estates project result in substantial direct impacts to the existing or planned transportation system?

1) Issue

Would the proposed Del Mar Highlands Estates project result in substantial direct impacts to the existing or planned transportation system?

Impacts

Project Trip Generation

Del Mar Highlands Estates proposes the development of 148 estate lots and 24 affordable housing units. Three access locations are proposed. The northern access is the main entry into the project estate lots via San Dieguito Road (see Figure 4H-2). The eastern access, which will be used for emergency access only, is via Derby Farms Road which extends southerly from San Dieguito Road. Access from the west is via Old El Camino Real and would only provide access to the affordable housing. The north access point would have security gates and all on-site streets would be private.

The Del Mar Highlands Estates project would generate approximately 2,016 ADT and is expected to generate 161 A.M. and 202 P.M. peak hour trips, as shown in Table 4H-1. Also shown on Table 4H-1 are peak hour in/out splits. During the A.M. peak hour, the directional split of expected trips is 32 trips inbound and 129 outbound. During the P.M. peak hour, an estimated split of 142 inbound and 60 outbound trips is expected.

**TABLE 4H-1
DEL MAR HIGHLANDS ESTATES
PROPOSED PROJECT TRIP GENERATION**

Use	Amount	Trip Rate ¹	ADT	AM Peak Hour				PM Peak Hour					
				% ¹	No.	In/Out Split ¹	In	Out	%	No.	In/Out Split ¹	In	Out
Estate	148 lots	12/du	1,776	8	142	2:8	28	114	10	178	7:3	125	53
Affordable	24 lots	10/du	240	8	19	2:8	4	15	10	24	7:3	17	7
TOTALS	172 lots		2,016		161		32	129		202		142	60

SOURCE: Urban Systems Associates (see Appendix G).

¹Source: City of San Diego Trip Generation Manual, 12/93.

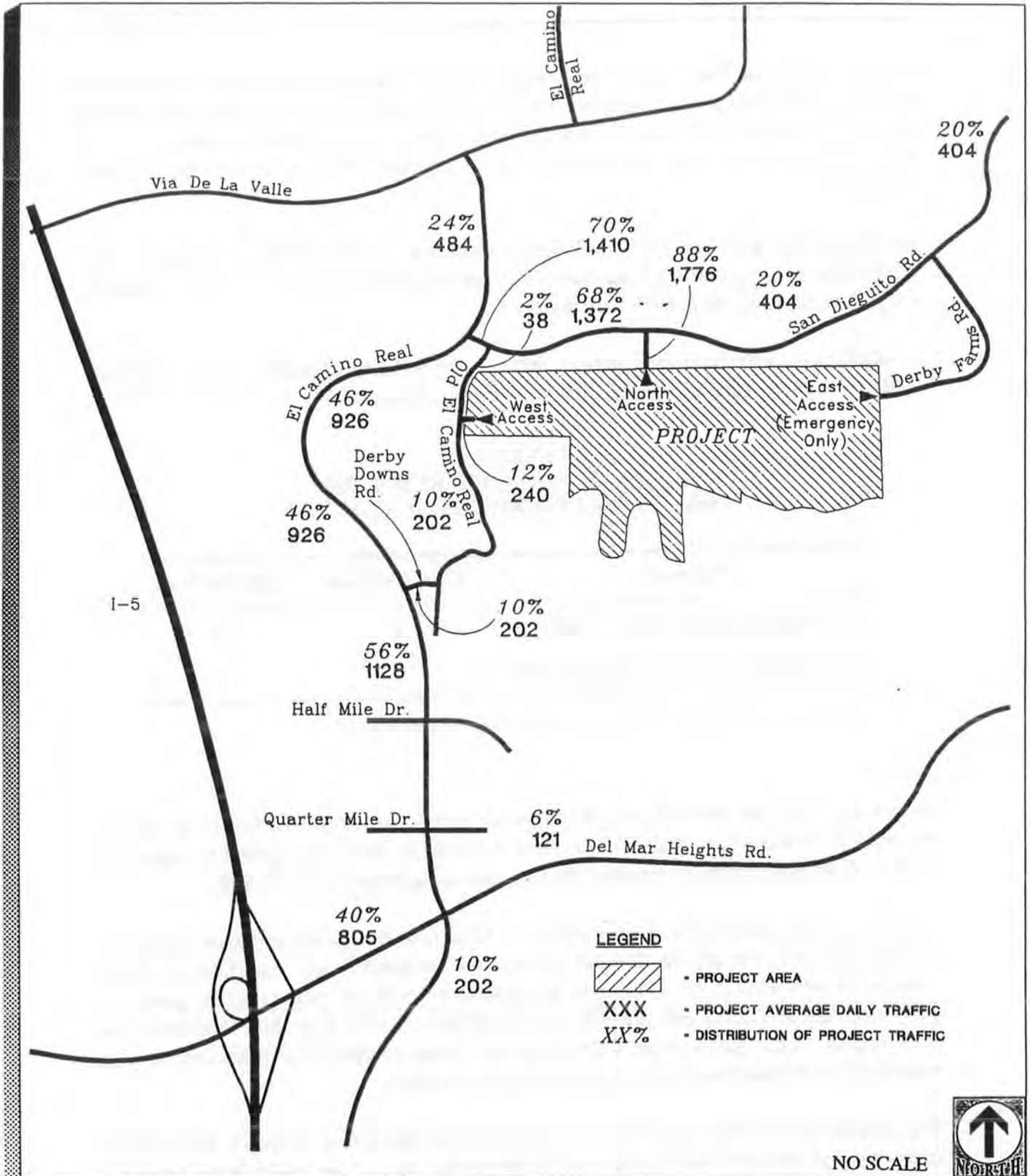
Figure 4H-3 shows the proposed traffic distribution and assignment for the Del Mar Highlands Estates project. As shown, it is estimated that about 88 percent of Del Mar Highlands Estates trips would use the north access. The remaining 12 percent of the projected trips are estimated to use the west access.

City Traffic Manual Required Study

For City traffic impact study purposes, a threshold of 1,000 ADT based on driveway rates determines the nature and extent of City requirements for a traffic impact analysis. Where a project generates between 1,000 ADT and 2,400 ADT, consultation with the City is required to determine the scope of traffic analysis. Since the proposed Del Mar Highlands Estates project would generate 2,016 ADT, a meeting was held with City of San Diego to determine traffic analysis requirements.

Based on this meeting, the City identified two street segments and two intersections to be analyzed for buildout conditions:

Street Segments:	El Camino Real - Via de la Valle to Half Mile Drive Via de la Valle - San Andres Drive to El Camino Real
Intersections:	El Camino Real at Via de la Valle El Camino Real at San Dieguito Road



SOURCE: URBAN SYSTEMS ASSOCIATES, INC. 1996

FIGURE 4H-3

**Del Mar Highlands Estates
Average Daily Trip Generation Rates**

Analysis using the FUA cumulative forecast (July, 1993) was conducted. Figure 4H-4 shows the buildout forecast volumes. The forecast included FUA proposed subarea plans and the proposed 4S Ranch (County) project. Based on the volumes shown on this figure, Table 4H-2 shows the resulting street segment level of service for buildout conditions.

Both El Camino Real and Via de la Valle are assumed to be improved to four lanes. This assumption is consistent with previous FUA transportation studies. All street segments are projected to operate at LOS D or better.

In addition, a peak hour intersection analysis for buildout conditions was completed. Table 4H-3 shows results of the peak hour intersection analysis.

**TABLE 4H-3
DEL MAR HIGHLANDS ESTATES
PEAK HOUR INTERSECTION ANALYSIS**

Location	LOS AM Peak	LOS PM Peak
El Camino Real @ Via de la Valle	C	D
El Camino Real @ San Dieguito Road	B	B

SOURCE: Urban Systems Associates (see Appendix G).

As shown, both intersections are projected to operate at acceptable levels of service, although the intersection of El Camino Real at Via de la Valle is projected to degrade to LOS D. LOS calculation worksheets are included in Appendix G of this EIR.

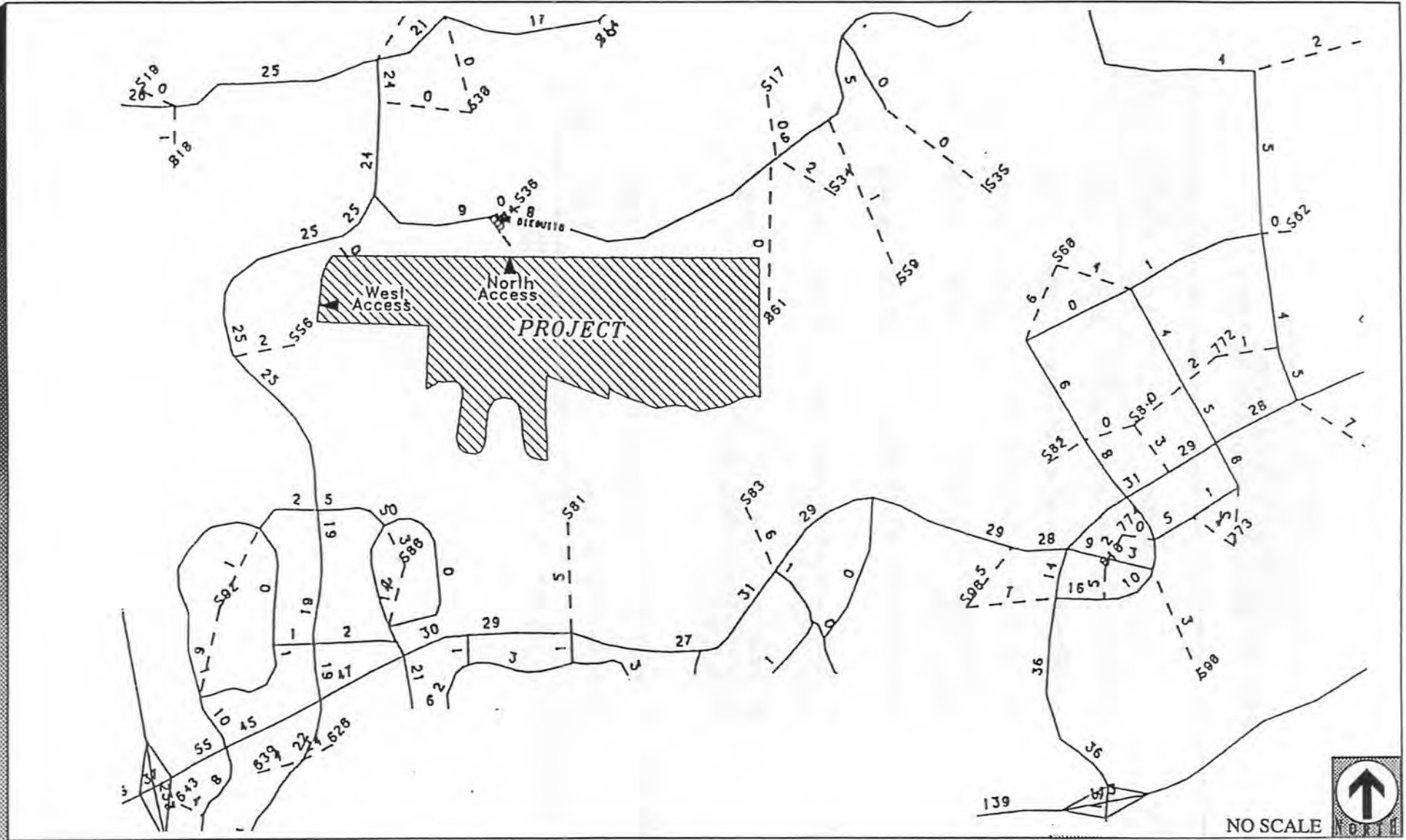
In addition to general traffic load, traffic may be slowed by project residents and guests turning into Del Mar Highlands Estates from San Dieguito Road. San Dieguito Road consists of two lanes in the vicinity of its intersection with the project access point. In particular, traffic turning left into Del Mar Highlands Estates from San Dieguito Road may impact traffic patterns on westbound San Dieguito Road, by increasing queues associated with vehicles waiting to turn left into the project.

The intersection of El Camino Real and Derby Downs Road may require a traffic signal in association with Del Mar Highlands Estates-related and future traffic level increases. (It should be noted that projected ADT levels on El Camino Real at this intersection exceed the City traffic signal warrant standard with or without the proposed Del Mar Highlands Estates.) Finally, traffic loads on segments of El Camino Real and Via de la Valle would also be increased.

**TABLE 4H-2
DEL MAR HIGHLANDS ESTATES
BUILDOUT CONDITIONS
STREET SEGMENT LEVELS OF SERVICE**

Street	Segment	ADT	Volume at LOS C	LOS
El Camino Real	Via de la Valle to San Dieguito Road	24,000	30,000	C
	San Dieguito Road to Half Mile Drive	25,000	30,000	C
	Half Mile Drive to Quarter Mile Drive	19,000	30,000	B
	Quarter Mile Drive to Del Mar Heights Road	19,000	30,000	B
	South of Del Mar Heights Road	22,000	30,000	C
Via de la Valle	San Andres Drive to El Camino Real (south of Via de la Valle)	25,000	30,000	C
	El Camino Real (south of Via de la Valle) to El Camino Real (north of Via de la Valle)	21,000	30,000	C
San Dieguito Road	El Camino Real to Derby Farms Road	9,000	7,500	D
	East of Derby Farms Road	8,000	7,500	D

SOURCE: Urban Systems Associates, Inc. 1997 (Appendix G of this EIR).



(IN THOUSANDS)

SOURCE: URBAN SYSTEMS ASSOCIATES, INC., 1995

FIGURE 4H- 4

NCFUA Cumulative Buildout Forecast

Significance of Impacts

Buildout of the proposed Del Mar Highlands Estates would result in potentially significant impacts to traffic movements at or near the intersection of San Dieguito Road and the project main access. In addition, Del Mar Highlands Estates may contribute to a cumulatively significant regional traffic impact at the El Camino Real/Derby Downs Road intersection. Finally, Del Mar Highlands Estates traffic would contribute to existing significant impacts to traffic flow on El Camino Real between Half Mile Drive and Via de la Valle and on Via de la Valle between El Camino Real (north of Via de la Valle) and San Andres Drive. Both project-specific direct and cumulative impacts would be reduced below a level of significance through the mitigation measures identified below.

Mitigation, Monitoring, and Reporting

The following mitigation measures shall be included as a condition of the tentative map and in the final project design specifications submitted to the City of San Diego Engineering Department. The project Mitigation Monitoring and Reporting Program shall require verification and documentation that these measures have been incorporated into final design prior to approval of the proposed Del Mar Highlands Estates tentative map.

- a. At the intersection of San Dieguito Road and the northern main access point, San Dieguito Road shall be modified to provide both westbound-to-southbound left-turn and eastbound-to-southbound right-turn lanes.
- b. The project applicant shall provide fair share contributions for a signal to mitigate traffic impacts at the El Camino Real/Derby Downs Road intersection.
- c. The project applicant shall provide fair share contributions to widen El Camino Real to four lanes between Half Mile Drive and Via de la Valle.
- d. The project applicant shall provide fair share contributions to widen Via de la Valle to four lanes between San Andres Drive and El Camino Real (north of Via de la Valle).

Implementation of the mitigation measures indicated above will reduce potential traffic impacts associated with buildout of the proposed Del Mar Highlands Estates project to below a level of significance.

I. Air Quality

Existing Conditions

a) Climate

The project area, like the rest of San Diego County's coastal areas, has a cool semiarid steppe climate characterized by warm, dry summers and mild, wet winters. The dominating permanent meteorological feature affecting the region is the Pacific High Pressure Zone, which produces the prevailing westerly to northwesterly winds. The project area has a mean annual temperature of 62 degrees Fahrenheit (F) and an average annual precipitation of 10 inches, falling primarily from November to March. Winter low temperatures in the project area average about 45 degrees F, and summer high temperatures average about 75 degrees F (U.S. Department of Commerce 1992; Pryde 1976).

Prevailing conditions along the coast are modified by the daily sea breeze/land breeze cycle. Fluctuations in the strength and pattern of winds from the Pacific High Pressure Zone interacting with the daily local cycle produce periodic temperature inversions that influence the dispersal or containment of air pollutants in the San Diego Air Basin (SDAB). The afternoon temperature inversion height, beneath which pollutants are trapped, varies between 1,500 and 2,500 feet above MSL. The altitude beneath the inversion layer is the mixing depth for trapped pollutants. In winter, the morning inversion layer is about 800 feet above MSL. Project area elevations range from an approximate high of 450 feet to a low of approximately 40 feet above MSL. In summer, the morning inversion layer is about 1,100 feet above MSL. A greater change between morning and afternoon mixing depth increases the ability of the atmosphere to disperse pollutants. Generally, therefore, air quality in the project area is better in winter than in summer.

The predominant pattern is sometimes interrupted by the so-called Santa Ana conditions, when high pressure over the Nevada-Utah area overcomes the prevailing westerlies, sending strong, steady, hot, dry northeasterly winds over the mountains and out to sea. Strong Santa Anas tend to blow pollutants out over the ocean, producing clear days. However, at the onset or breakdown of these conditions, or if the Santa Ana is weak, air quality may be adversely affected. In these cases, emissions from the South Coast Air Basin to the north are blown out over the ocean, and low pressure over Baja California draws this pollutant-laden air mass southward. As the high pressure weakens, prevailing northwesterlies reassert themselves and send this cloud of contamination ashore in the SDAB. There is a potential for such an occurrence about 45 days of the year, but San Diego is adversely affected on only about 5 of them. When this event does occur, the

combination of transported and locally produced contaminants produces the worst air quality measurements recorded in the basin.

b) Regulatory Framework

Federal Regulations

The federal Clean Air Act was enacted in 1970 and amended in 1977 and 1990 [42 U.S.C. 7506(c)]. In 1971, the U.S. Environmental Protection Agency (EPA) promulgated national ambient air quality standards. The six pollutants of primary concern for which national standards have been established are sulfur dioxide, lead, carbon monoxide, nitrogen dioxide, ozone, and suspended particulate matter (PM-10).

The EPA allows the states the option to develop different (stricter) standards, which California has adopted. Table 4I-1 lists the federal and California state standards.

State Regulations

As discussed above, the state of California has set more stringent limits on the six pollutants of national concern (see Table 4I-1).

Assembly Bill (AB) 2595 became effective on January 1, 1989, and requires that districts implement regulations to reduce emissions from mobile sources through the adoption and enforcement of transportation control measures. At a minimum, air quality plans as a whole must meet an annual emission reduction target of five percent. In major urban areas, this bill will result in greatly enhanced efforts to modify transportation habits and to reduce reliance on the single-occupant vehicle.

Section 15125(b) of the CEQA Guidelines contains specific reference to the need to evaluate any inconsistencies between the proposed project and the applicable/existing air quality management plan, which is the Regional Air Quality Strategies (RAQS) in the San Diego Air Basin.

Local Regulations

The San Diego Air Pollution Control District (APCD) is the agency which regulates air quality in the SDAB. The APCD has prepared the updated 1991/1992 RAQS in response to the requirements set forth in AB 2595. The updated draft was adopted, with amendments, on June 30, 1992 (County of San Diego 1992). Attached as part of the RAQS is the transportation control measures (TCM) for the air quality plan prepared by SANDAG in accordance with AB 2595 and adopted by SANDAG on March 27, 1992, as Resolution Number 92-49 and Addendum. The RAQS and TCM plan set forth the steps needed to accomplish attainment of state and federal ambient air quality standards.

**TABLE 4I-1
 AMBIENT AIR QUALITY STANDARDS**

Pollutant	Maximum Concentration Averaged over Specified Time Period	
	State Standard	Federal Standard
Oxidant (ozone)	0.09 ppm (180 $\mu\text{g}/\text{m}^3$) 1 hr.	0.12 ppm (235 $\mu\text{g}/\text{m}^3$) 1 hr.
Carbon monoxide	9.0 ppm (10 mg/m^3) 8 hr.	9 ppm (10 mg/m^3) 8 hr.
Carbon monoxide	20.0 ppm (23 mg/m^3) 1 hr.	35.0 ppm (40 mg/m^3) 1 hr.
Nitrogen dioxide	0.25 ppm (470 $\mu\text{g}/\text{m}^3$) 1 hr.	0.053 ppm (100 $\mu\text{g}/\text{m}^3$) Annual Average
Sulfur dioxide	0.25 ppm (655 $\mu\text{g}/\text{m}^3$) 1 hr.	0.03 ppm (80 $\mu\text{g}/\text{m}^3$) Annual Average
Sulfur dioxide	0.04 ppm (105 $\mu\text{g}/\text{m}^3$) 24 hr.	0.14 ppm (365 $\mu\text{g}/\text{m}^3$) 24 hr.
Suspended particulate matter (PM-10)	50 $\mu\text{g}/\text{m}^3$ 24 hr.	150 $\mu\text{g}/\text{m}^3$ 24 hr.
Suspended particulate matter (PM-10)	30 $\mu\text{g}/\text{m}^3$ Annual Geometric Mean	50 $\mu\text{g}/\text{m}^3$ Annual Arithmetic Mean
Lead	1.5 $\mu\text{g}/\text{m}^3$ 30-day Average	1.5 $\mu\text{g}/\text{m}^3$ Calendar Quarter

SOURCE: State of California 1995.

ppm = parts per million; $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter.

The APCD has also established a set of rules and regulations initially adopted on January 1, 1969, and periodically reviewed and updated. The rules and regulations define requirements regarding stationary sources of air pollutants and fugitive dust.

c) Existing Air Quality

The project area is within the SDAB. Air quality at a particular location is a function of the kinds and amounts of pollutants being emitted into the air locally and throughout the basin and the dispersal rates of pollutants within the region. The major factors affecting pollutant dispersion are wind speed and direction, the vertical dispersion of pollutants (which is affected by inversions), and the local topography.

Air quality is commonly expressed as the number of days in which air pollution levels exceed state standards set by the California Air Resources Board (CARB) and federal standards set by the EPA (see Table 4I-1). The concentration of pollutants within the SDAB is measured at 10 stations maintained by the APCD and the CARB. The station nearest the project area measuring a full range of pollutants is on Overland Avenue in the Kearny Mesa area of the city of San Diego, about 12 miles southeast of Del Mar Highlands Estates (monitoring of sulfur dioxide was discontinued at this station in 1994). The Del Mar station, about three miles southwest of Del Mar Highlands Estates, monitors only ozone levels. Neither station monitors lead concentrations. However, the 1994 lead levels measured at other monitoring stations in the SDAB were well below both federal and state standards.

Table 4I-2 summarizes the number of days annually from 1990 to 1994 during which state and federal standards were exceeded in the SDAB overall, while Table 4I-3 lists these data for the Kearny Mesa and Del Mar monitoring stations.

Ozone

San Diego County exceeded the federal standard for ozone on 9 days and the state standard on 79 days in 1994 and is classified as a state and federal "serious" area for ozone (County of San Diego 1995). The federal standard for ozone was not exceeded at the Kearny Mesa station in 1994, while the state standard was exceeded on two days. At the Del Mar station, the federal standard also was not exceeded during 1994, while the state standard was exceeded on four days.

In 1994, although ozone concentrations measured in San Diego County exceeded the federal ozone air quality standard on nine days, on only two of those days was the peak ozone concentration attributed primarily to emission sources within San Diego County. On the other seven days, ozone transported into San Diego from the South Coast Air Basin was a significant factor (County of San Diego 1995). On average, approximately 42 percent of the days over state standards since 1987 were attributable to pollution

**TABLE 4I-2
SUMMARY OF AIR QUALITY DATA
FOR THE SAN DIEGO AIR BASIN**

Pollutant	Number of Days Over Standard									
	State					Federal				
	1990	1991	1992	1993	1994	1990	1991	1992	1993	1994
Ozone (O ₃) - 1 hour	139	106	97	89	79	39	27	19	14	9
Carbon monoxide (CO) - 8 hour	1	0	0	0	0	0	0	0	0	0
Carbon monoxide (CO) - 1 hour	0	0	0	0	0	0	0	0	0	0
Nitrogen dioxide (NO ₂) - State 1 hour; Federal annual avg.	0	0	0	0	0	NE	NE	NE	NE	NE
Sulfur dioxide (SO ₂) State 1 hour; Federal annual average	0	0	0	0	0	NE	NE	NE	NE	NE
Particulates* (PM-10) - 24 hour	11/80	20/83	7/75	14/76	25/87	0/80	0/83	0/75	0/76	0/87
Lead (Pb) - State 30-day average; Federal calendar quarter	NE	NE	NE	NE	NE	NE	NE	NE	NE	NE

SOURCE: State of California 1991, 1992, 1993b, 1994, 1995.

*Number of samples over standard/number of samples collected.

N/A: data not available.

NE: standard not exceeded.

**TABLE 4I-3
NUMBER OF DAYS AIR QUALITY STANDARDS WERE EXCEEDED
AT KEARNY MESA AND DEL MAR MONITORING STATIONS**

Pollutant	Year				
	1990	1991	1992	1993	1994
<u>Kearny Mesa Station</u>					
Ozone					
Federal 1-hour standard (0.12 ppm, 235 $\mu\text{g}/\text{m}^3$)	13	8	6	3	0
State 1-hour standard (0.09 ppm, 180 $\mu\text{g}/\text{m}^3$)	29	25	15	15	2
Carbon monoxide					
Federal 8-hour average (9 ppm, 10 mg/m^3)	0	0	0	0	0
State 8-hour average (9.0 ppm, 10 mg/m^3)	0	0	0	0	0
State 1-hour average (20 ppm, 23 mg/m^3)	0	0	0	0	0
Nitrogen dioxide					
Federal annual average (0.053 ppm, 100 $\mu\text{g}/\text{m}^3$)‡	0.025*	0.027	0.024	0.023	0.024
State 1-hour standard (0.25 ppm, 470 $\mu\text{g}/\text{m}^3$)	0	0	0	0	0
Sulfur dioxide					
Federal annual average (0.03 ppm, 80 $\mu\text{g}/\text{m}^3$)‡	0.004*	0.002	0.004	0.002*	NR
State 1-hour average (0.25 ppm, 655 $\mu\text{g}/\text{m}^3$)	0	0	0	0*	NR
State 24-hour average (0.04 ppm, 105 $\mu\text{g}/\text{m}^3$)	0	0	0	0*	NR
Suspended 10-micron particulate matter (PM-10)					
Federal 24-hour average (150 $\mu\text{g}/\text{m}^3$)†	NR	NR	NR	0/16	0/57
Federal annual arithmetic mean (50 $\mu\text{g}/\text{m}^3$)‡	NR	NR	NR	32.6*	30.0*
State 24-hour average (50 $\mu\text{g}/\text{m}^3$)†	NR	NR	NR	3/16	1/57
State annual geometric mean (30 $\mu\text{g}/\text{m}^3$)‡	NR	NR	NR	27.1*	28.1*
<u>Del Mar Station</u>					
Ozone					
Federal 1-hour standard (0.12 ppm, 235 $\mu\text{g}/\text{m}^3$)	9	7	3	3	0
State 1-hour standard (0.09 ppm, 180 $\mu\text{g}/\text{m}^3$)	23	28	19	19	4

SOURCE: State of California 1991, 1992, 1993b, 1994, 1995

ppm - parts per million
 mg/m^3 - milligrams per cubic meter
 $\mu\text{g}/\text{m}^3$ - micrograms per cubic meter
 NR - not reported at this station

*Data points are valid, but an insufficient number were collected to meet EPA and/or CARB representative criteria.

†Number of samples over standard/number of samples collected.

‡Data shown is in $\mu\text{g}/\text{m}^3$.

transported from Los Angeles (SANDAG 1994: 249-250). The 1994 Regional Transportation Plan concludes that ozone remains the major primary pollutant in the San Diego region.

Carbon Monoxide

No violations of the state standard have been recorded for carbon monoxide since 1991. The basin can be reclassified as a state attainment area for carbon monoxide after three years of no violations (County of San Diego Information Desk, pers. comm. 1993). Therefore, the APCD applied to the CARB for transition status for carbon monoxide (County of San Diego 1992:8). The basin was reclassified as a state attainment area for carbon monoxide on November 10, 1994 (County of San Diego Information Desk, pers. comm. 1995).

The basin currently is classified as a federal nonattainment area for carbon monoxide; however, no violations of the federal standard have been recorded since 1989. Because the process for transitioning from federal nonattainment to federal attainment status is quite involved, the APCD has not yet applied for this change in status. It is expected that application for federal transition status for carbon monoxide will occur in 1995 (Goggin, pers. comm. 1995). It should be noted, however, that the state standard for carbon monoxide is more stringent than the federal standard.

Particulates (PM-10)

Particulates within the respirable range (10 microns in size or less) are reported as a 24-hour and an annual measure. The basin overall is currently in attainment of the federal standard, but has not met the more stringent state standard.

Nitrogen Dioxide, Sulfur Dioxide, and Lead

The basin is in attainment for these pollutants.

Ozone and particulates present special control strategy difficulties in the SDAB because of climatological and meteorological factors. Ozone is the end product of the chain of chemical reactions that produces photochemical smog from hydrocarbon emissions. A major source of hydrocarbon emissions is motor vehicle exhausts. In the SDAB, only part of the ozone contamination is derived from local sources; under certain conditions, contaminants from the South Coast Air Basin (such as the Los Angeles area) are windborne over the ocean into the SDAB. When this happens, the combination of local and transported pollutants produces the highest ozone levels measured in the basin.

Local agencies can control neither the source nor the transportation of pollutants from outside the basin. The APCD's policy, therefore, has been to control local sources effectively enough to reduce locally produced contamination to clean air standards.

For several reasons hinging on the area's dry climate and coastal location, the SDAB has special difficulty in developing adequate tactics to meet present particulate standards.

At present, the air basin is a nonattainment area with respect to both the state and the federal standards for ozone and for the state PM-10 particulate standard. Furthermore, the basin is classified as a nonattainment area for the federal standard for carbon monoxide. However, the basin is classified as attainment for the state standard for carbon monoxide, and the federal standard has not been exceeded since 1989. The SDAB presently meets the attainment standards for nitrogen dioxide, lead, and sulfur dioxide.

d) Standards and Criteria

City of San Diego

The City of San Diego's Significance Determination Guidelines (1991) provide criteria for determining significant direct, localized air quality impacts based on projected project roadway levels of service.

According to the City's guidelines, local air quality impacts can occur if traffic generated in the project area were to result in inadequate traffic flow. Substandard levels of service (below LOS D) create additional delays at the intersections which result in longer idling times for vehicles. Under the City's Significance Determination Guidelines, development which would cause the level of service on a six-lane prime arterial to deteriorate to LOS E or worse, or from LOS D to F, would result in a significant air quality impact. Significant air quality impacts would also occur if development caused levels of service on four-lane prime arterials to degrade to LOS F. If development causes the level of service on four-lane major roads to drop to LOS E or worse, or causes the average daily traffic to exceed the design capacity for these roads of 30,000 average daily trips, then significant air quality impacts would also occur (City of San Diego 1991:7).

California Air Resources Board Guidelines

For long-term emissions, the direct impacts of a project can be measured by the degree to which the project is consistent with regional plans to improve and maintain air quality. The regional plan for San Diego is the 1991/1992 RAQS and attached TCM plan. The CARB provides criteria for determining whether a project conforms with the RAQS (State of California 1989), which include the following:

1. Is a regional air quality plan being implemented in the project area?
2. Is the project consistent with the growth assumptions in the regional air quality plan?
3. Does the project incorporate all feasible and available air quality control measures?

Air Quality Issue

1. To what extent does the proposed project conform with the land use intensities and timing assumed in the Regional Air Quality Strategies?

1) Issue

To what extent does the proposed project conform with the land use intensities and timing assumed in the Regional Air Quality Strategies?

Impacts**a) Construction Emissions**

During construction, temporary emissions would be generated by construction equipment used to build the proposed project. Grading would disturb surface soils and cause a discharge of particulates into the air. Dust control during grading operations would be regulated in accordance with the rules of the San Diego APCD and the regulations of the City of San Diego Land Development Ordinance. All project construction is required to include the following measures to reduce fugitive dust impacts:

1. All unpaved construction areas shall be sprinkled with water or other acceptable San Diego APCD dust control agents during dust-generating activities to reduce dust emissions. Additional watering or acceptable APCD dust control agents shall be applied during dry weather or windy days until dust emissions are not visible.
2. Trucks hauling dirt and debris shall be covered to reduce windblown dust and spills.
3. On dry days, dirt or debris spilled onto paved surfaces shall be swept up immediately to reduce resuspension of particulate matter caused by vehicle movement. Approach routes to construction sites shall be cleaned daily of construction-related dirt in dry weather.
4. On-site stockpiles of excavated material shall be covered or watered.

Additionally, construction would be a one-time, short-term activity.

b) Operations Emissions

The primary air quality impacts which would occur from the future development of the proposed project area would be air pollutant emissions from automobile and truck traffic

to and from the development. Additional local emissions would result from the burning of natural gas for space and water heating, fireplace emissions, and basinwide emissions from power plants generating electricity for use in the development.

The proposed project site is in the city of San Diego, which is within the San Diego Air Basin. The 1991/1992 RAQS will be implemented by APCD throughout the air basin. Therefore, the proposed project fulfills the first criteria from the CARB guidelines described in Existing Conditions.

Normally, if a project is consistent with the City's General Plan or community plan, it can be considered consistent with the growth assumptions in the RAQS (State of California 1989). The proposed Del Mar Highlands Estates project would be consistent with PRD regulations and would generally comply with the land use goals, objectives, and recommendations of the *Progress Guide and General Plan*, the Framework Plan, and City Council Policies 600-29 and 600-30. Furthermore, the proposed project would cluster development and dedicate open space land consistent with the Framework Plan Environmental Tier. Therefore, it can be concluded that the proposed project is consistent with the growth assumptions in the RAQS.

c) **Forecasted Traffic Conditions**

Mobile sources (motor vehicles) account for a large portion of the current emissions of carbon monoxide, nitrogen oxides, and volatile organic gases in the San Diego Air Basin. Localized elevated levels of pollutants above the air basin's ambient conditions can occur adjacent to roadways if the roadways' levels of service are substandard, resulting in slower traffic, stop-and-go traffic, and increased delays at intersections. A degraded LOS would cause individual cars to emit more pollutants for a longer period of time as they travel through an area.

As shown on Table 4H-3 in the traffic section, the intersections with the lowest levels of service would be El Camino Real at Via de la Valle and El Camino Real at San Dieguito Road, which would be at LOS D and LOS B (worst case), respectively, at buildout of the area. Provided the project applicant contributes to the road improvements as proposed in the traffic section of this EIR, there are no intersections in the proposed project area projected to operate below LOS D, and traffic generated by buildout of the proposed project would be adequately accommodated.

Significance of Impacts

Because dust control during grading operations would be regulated in accordance with the rules of the San Diego APCD and the regulations of the City of San Diego Land

Development Ordinance, and since construction would be a one-time, short-term activity, air quality impacts due to construction of the proposed project would not be significant.

In accordance with the City's significance thresholds described previously, there would be no significant air quality impacts since the proposed project would not create LOS E or F conditions at intersections.

The proposed project would be consistent with the RAQS and would not create direct traffic impacts to the surrounding street system provided that the recommended road improvements are constructed. Therefore, direct air quality impacts would not occur if the proposed project were implemented.

Mitigation, Monitoring, and Reporting

No mitigation is required.

J. Noise

An acoustical analysis was prepared for Del Mar Highlands Estates by Giroux & Associates. This report is summarized below and is included in Appendix H of this EIR.

Existing Conditions

The community noise equivalent level (CNEL) is a 24-hour A-weighted average sound level [dB(A)] from midnight to midnight obtained after the addition of 5 dB to sound levels occurring between 7:00 P.M. and 10:00 P.M. and 10 dB to sound levels occurring between 10:00 P.M. and 7:00 A.M. A-weighting is a frequency correction that often correlates well with the subjective response of humans to noise. The 5 dB and 10 dB penalties added to the evening and nighttime hours, respectively, account for the added sensitivity of humans to noise during these time periods.

Exterior noise impacts to future sensitive receivers within the project site were evaluated in relation to the noise level standards promulgated in the City of San Diego's Progress Guide and General Plan Transportation Element (City of San Diego 1989:272). Interior noise impacts were also considered in relation to standards established by the City in their General Plan Transportation Element and in their Noise Abatement and Control Ordinance (Municipal Code Section 59.5.0701).

The noise level standards contained in the Progress Guide and General Plan Transportation Element apply to transportation noise sources (City of San Diego 1989:272). The exterior noise level standard is 65 CNEL for residences, parks, and schools [Figure 4J-1]. A maximum interior CNEL of 45 dB(A) is mandated for multi-family dwellings and is considered a desirable noise exposure standard for single-family dwelling units as well.

The City of San Diego assumes that standard construction techniques will provide a 15-decibel reduction of exterior noise levels to an interior receiver. With this criteria, standard construction could be assumed to result in interior noise levels of 45 dB(A) or less when exterior sources are 60 decibels or less. When exterior noise levels are greater than 60 dB(A), consideration of specific construction techniques is required.

Existing noise levels within the project area derive almost exclusively from transportation sources, especially vehicular sources on Interstate 5. Some distant Naval Air Station Miramar flight activity noise is sometimes faintly heard. Because of its intermittent nature, however, this noise is not loud enough to measurably affect baseline noise conditions which are computed using a 24-hour baseline.

Land Use		Annual Community Noise Equivalent Level in Decibels					
		50	55	60	65	70	75
1.	Outdoor Amphitheaters (may not be suitable for certain types of music)	Compatible	Compatible	Compatible	Incompatible	Incompatible	Incompatible
2.	Schools, Libraries	Compatible	Compatible	Compatible	Incompatible	Incompatible	Incompatible
3.	Nature Preserves, Wildlife Preserves	Compatible	Compatible	Compatible	Incompatible	Incompatible	Incompatible
4.	Residential-Single Family, Multiple Family, Mobile Homes, Transient Housing	Compatible	Compatible	Compatible	Incompatible	Incompatible	Incompatible
5.	Retirement Home, Intermediate Care Facilities, Convalescent Homes	Compatible	Compatible	Compatible	Incompatible	Incompatible	Incompatible
6.	Hospitals	Compatible	Compatible	Compatible	Incompatible	Incompatible	Incompatible
7.	Parks, Playgrounds	Compatible	Compatible	Compatible	Incompatible	Incompatible	Incompatible
8.	Office Buildings, Business and Professional	Compatible	Compatible	Compatible	Incompatible	Incompatible	Incompatible
9.	Auditoriums, Concert Halls, Indoor Arenas, Churches	Compatible	Compatible	Compatible	Incompatible	Incompatible	Incompatible
10.	Riding Stables, Water Recreation Facilities	Compatible	Compatible	Compatible	Incompatible	Incompatible	Incompatible
11.	Outdoor Spectator Sports, Golf Courses	Compatible	Compatible	Compatible	Incompatible	Incompatible	Incompatible
12.	Livestock Farming, Animal Breeding	Compatible	Compatible	Compatible	Incompatible	Incompatible	Incompatible
13.	Commercial-Retail, Shopping Centers, Restaurants, Movie Theaters	Compatible	Compatible	Compatible	Incompatible	Incompatible	Incompatible
14.	Commercial-Wholesale, Industrial Manufacturing, Utilities	Compatible	Compatible	Compatible	Incompatible	Incompatible	Incompatible
15.	Agriculture (except Livestock), Extractive Industry, Farming	Compatible	Compatible	Compatible	Incompatible	Incompatible	Incompatible
16.	Cemeteries	Compatible	Compatible	Compatible	Incompatible	Incompatible	Incompatible



COMPATIBLE

The average noise level is such that indoor and outdoor activities associated with the land use may be carried out with essentially no interference from noise.



INCOMPATIBLE

The average noise level is so severe that construction costs to make the indoor environment acceptable for performance of activities would probably be prohibitive. The outdoor environment would be intolerable for outdoor activities associated with the land use.

SOURCE: Progress Guide and General Plan (Transportation Element)

FIGURE 4J-1

City of San Diego Noise/Land Use Compatibility Chart

Existing project site noise levels were estimated using a computer model (FHWA-RD-77-108, Calveno modification), which predicts on-site noise levels at 100 feet from the centerline given variables such as traffic volume, distance, and speed. I-5 traffic noise levels were calculated to be 78.8 dB CNEL at 100 feet from the freeway centerline based on current traffic volumes, vehicle mixes, and travel speeds. Assuming a conservative (over-predictive) drop-off rate of 3 dB per distance doubling, the combined effects of atmospheric spreading and molecular absorption produce a baseline exposure of 56.3 dB CNEL at the western project boundary. Under a more likely drop-off rate of 4.5 dB per distance doubling, the westernmost project boundary would have a noise level of 48.0 dB, which decreases eastward in moving across the project site. Such levels do not create any constraint to residential development of the project site. Freeway noise is faintly audible, especially for units near the western site boundary with a direct view of any portion of I-5. With blockage by intervening terrain for most of the site, noise is not a development issue.

Noise Issue

1. Would implementation of the proposed project result in future noise levels compatible with proposed uses?

1) Issue

Would implementation of the proposed project result in future noise levels compatible with proposed uses?

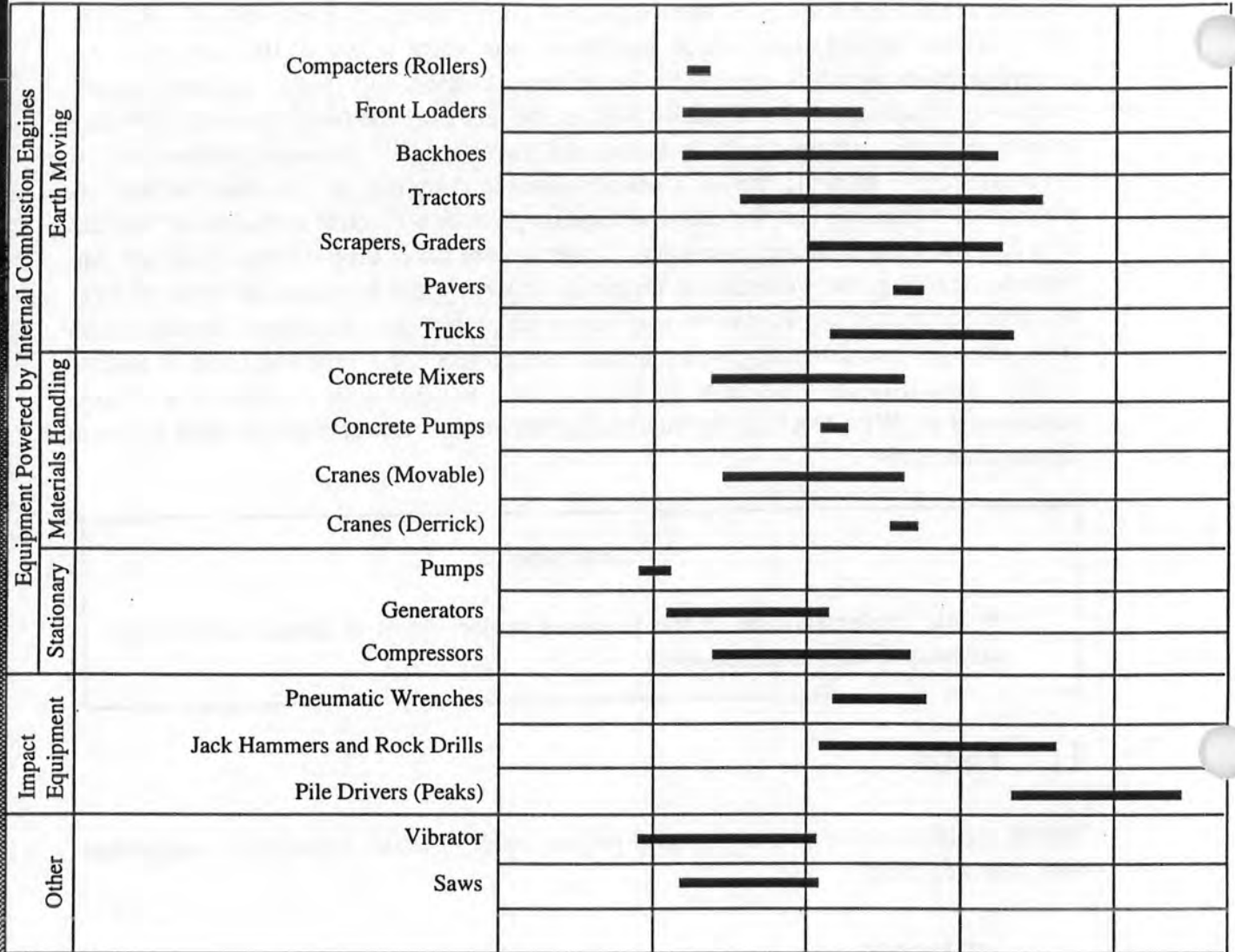
Impacts

a) Construction Noise Impacts

Temporary construction noise impacts vary markedly, because the noise strength of construction equipment ranges widely as a function of the equipment used and its activity level. Short-term construction noise impacts tend to occur in discrete phases dominated initially by site clearing and grading, then by foundation construction, and finally building construction. The earth-moving (grading) activities are the noisiest sources during construction, with equipment noise ranging from 75 to 90 dB(A) at 50 feet from the source (Figure 4J-2). The range of noise levels shown in the figure is meant to indicate that long-term (hourly or more) noise levels are at the lower end of the range, while short-term peaks are at the upper end. As a general rule, noise decreases by a factor of 6 dB per doubling of distance. Based on this rule, quieter construction noise sources are expected to drop below 60 dB by about 300 feet from the source, while the loudest sources might still be detectable above the local background beyond 1,000 feet from the

NOISE LEVEL (dBA) AT 50 FT

70 80 90 100



SOURCE: EPA PB 206717, Environmental Protection Agency, December 31, 1971, "Noise from Construction Equipment & Operations"

FIGURE 4J-2
Typical Construction Equipment
Noise Generation Levels

construction area. With hilly topography in the project vicinity, the terrain shielding effects would limit the “noise envelope” around each individual construction site to considerably less than the theoretical maximum presented above.

Construction noise sources are not strictly related to a noise standard because they occur only during selected times, and the source strength varies sharply with time. The penalty associated with noise disturbance during quiet hours and the nuisance factor accompanying such disturbance usually leads to time limits on grading activities being imposed as conditions on grading permits. The hours from 7 A.M. to 7 P.M., Monday through Saturday, are the times allowed in San Diego’s Noise Ordinance for construction or grading. Section 59.5.0404 of the Municipal Code also contains a performance standard that limits the allowable construction noise levels at the property line of any adjacent residential uses. The allowable average noise exposure during the permissible 12-hour construction “window” is 75 dB.

There is a potential for future Del Mar Highlands Estates residents to receive temporary nuisance noise impacts due to adjacent construction activities if all lots are not developed with homes at the same time. Construction activities would create short-term noise increases within the project site, although the loudest noise generator, the grading equipment and activity, would all be completed prior to home construction on any of the lots. In any event, construction-related noise would gradually decline and would cease completely by buildout of the project. Agricultural activities would continue off-site to the southeast of the project site. The exterior noise level standard for agricultural land uses is 75 CNEL (see Figure 4J-1). Compliance with the construction noise ordinance discussed above will ensure that this noise level standard is not exceeded at the adjacent agricultural users.

b) Development-related Vehicular Noise Impacts

Upon completion, project-related traffic will cause an incremental increase in noise levels throughout the project area. Due to the small number of trips generated by the planned 172 dwelling units, the regional noise impact of this project is limited. Therefore, the impact of ambient noise on the project site, rather than the project’s traffic noise impacts on the entire community, is the focus of this noise analysis.

Project-related traffic may incrementally contribute to the noise exposure of off-site receiver locations. However, high nonproject traffic levels will substantially mask any small project noise contribution. Traffic noise levels attributable to the proposed project are shown in Table 4J-1.

**TABLE 4J-1
TRAFFIC NOISE LEVELS
ATTRIBUTABLE TO THE PROPOSED PROJECT**

Location	Existing Levels	Projected Levels with Project	Increase
El Camino Real			
North of San Dieguito Road	64.7	64.9	+0.2 dB
South of San Dieguito Road	64.7	65.0	+0.3 dB
San Dieguito Road			
North access to El Camino Real	63.1	63.7	+0.6 dB
East of Derby Farms	63.1	63.3	+0.2 dB

Maximum off-site traffic noise impacts are 0.6 dB. Noise level differences of less than 1 dB are not distinguishable even in a laboratory setting—much less in an ambient environment. The project is limited in scope and would not create a discernible change in off-site traffic noise levels.

Two roadways that could affect project site noise exposure are I-5 and El Camino Real. The affordable housing on the proposed project (Lot 149) and Lot 148 would have the maximum exposure to both sources. The future traffic noise exposure was determined (based on previous traffic volume forecasts for Framework Plan buildout) to be 80 dB CNEL at 100 feet from the I-5 centerline and 67 dB CNEL at 100 feet from El Camino Real. These two sources were adjusted for the source-receiver separation between each roadway and the distance to the affordable housing (Lot 149) or Lot 148 building pads. The noise impact from each roadway and the combined noise impacts are shown in Table 4J-2.

**TABLE 4J-2
TRAFFIC NOISE IMPACTS AT THE PROPOSED PROJECT SITE**

Roadway	Distance to Project	CNEL at Project*
I-5	5,000 feet	54 dB
El Camino Real	1,200 feet	51 dB
Both roadways (combined impact)		56 dB

*CNEL is expressed as maximum value assuming no excess attenuation from ground absorption effects (acoustically "hard" surface).

The maximum on-site traffic noise exposure of 56 dB CNEL is well below the City of San Diego standard of 65 dB CNEL for residential uses. With actual limitations of the field of view (and noise exposure) to traffic sources, on-site noise exposure would be

even less than the calculated worst-case 56 dB CNEL noise level. “Ultimate” noise exposure is not a constraint to the development of the Del Mar Highlands Estates property as currently proposed.

In addition to traffic noise, on-site noise generation may result from small-scale agricultural activities on new lots where a portion of the various parcels are devoted to orchards, stables, or other rural activities. Only the six estate lots exceed 2.0 acres, the largest being 11.75 acres. This is likely to preclude agricultural activities involving heavy tractors or similar equipment. Any noise impacts from maintenance of such operations would be infrequent (tree pruning, hay delivery to stables, etc.) and would be consistent with the semirural character of the project site. Experience in comparable semirural estate developments has shown that noise is normally not a source of land use conflict and no adverse effects are assessed for this issue.

Significance of Impacts

The proposed project would not result in significant long-term noise impacts on the project site or adjacent development. Construction activities may create a temporary nuisance impact if new construction occurs adjacent to already completed residences. Construction activities shall be completed in compliance with the City of San Diego Noise Ordinance. Because grading (the noisiest construction activity) will be completed before any homes are built and occupied, and because a reasonable distance buffer will exist on most large lots in the development, custom construction of individual homes is not expected to create any significant temporary noise impacts.

Mitigation, Monitoring, and Reporting

No mitigation measures are necessary.

K. Public Facilities and Services

Existing Conditions

In preparing this section of the EIR, information was requested from responsible public agencies and districts. Because many of the utilities and services issues have a regional setting, Figure 4K-1 has been included to show the locations of community facilities in the project area.

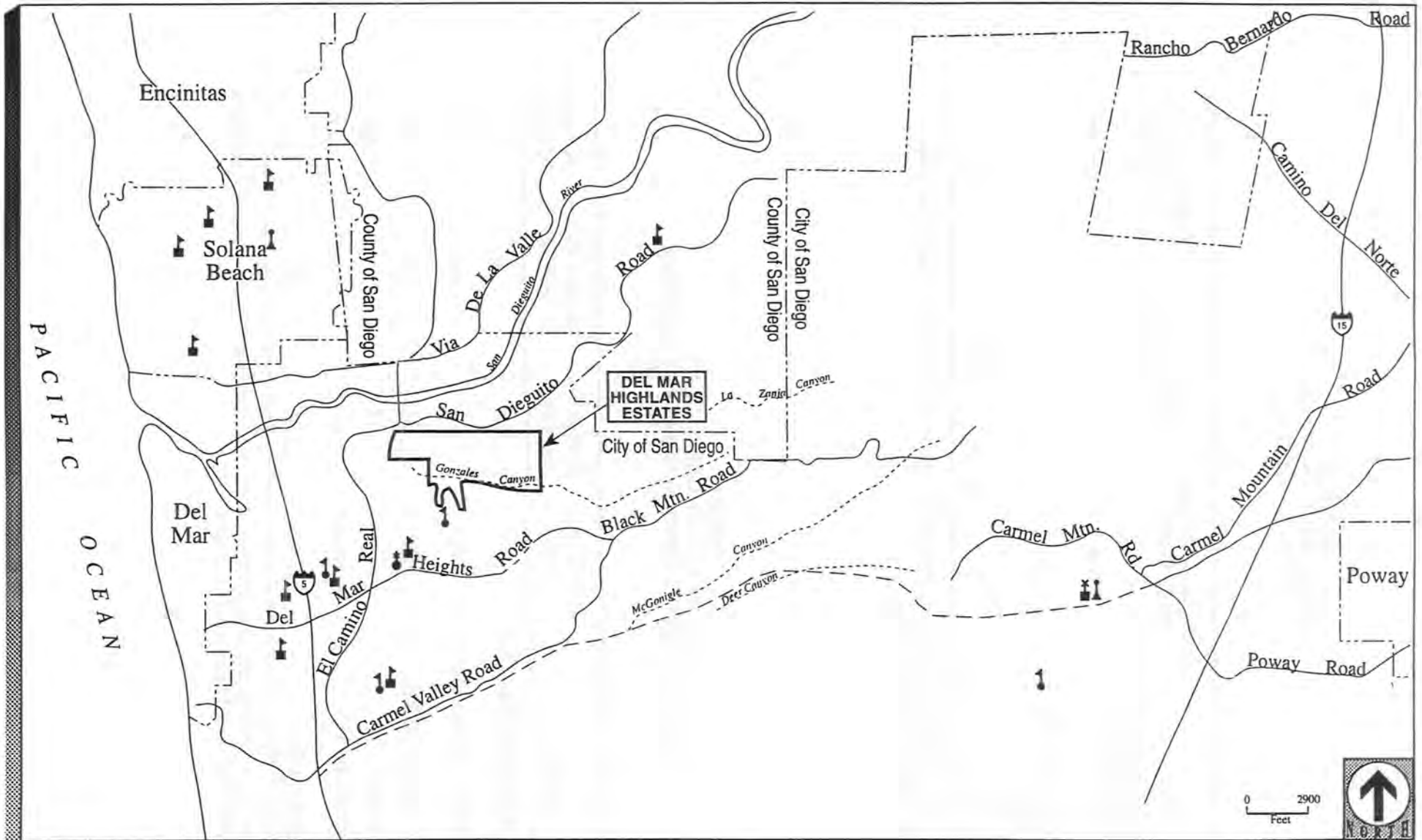
a) Elementary, Junior High, and High Schools

The project site is located within the jurisdiction of the Solana Beach Elementary School District (ESD) and the San Dieguito Union High School District (HSD). The elementary school currently expected to serve the project site is Solana Santa Fe, located at 6570 El Apajo in Rancho Santa Fe, approximately three and one-half miles from the Del Mar Highlands Estates property. Other school facilities operated by the Solana Beach ESD are Solana Highlands Elementary School, Carmel Creek Elementary School, Solana Vista Elementary School, and Skyline Elementary School. These schools would not be expected to serve project-generated children. There is also a parochial elementary school located off Nardo Avenue, approximately three miles northwest of the Del Mar Highlands Estates site.

Earl Warren Junior High School is located at 155 Stevens Avenue in Solana Beach, approximately three miles northwest of the project site. Two other junior high schools (Diegueño and Oak Crest) are also part of the San Dieguito Union HSD but are located in Encinitas, approximately five miles northwest of the project site.

Torrey Pines High School, which currently serves the project vicinity, is located approximately 0.75 mile south of the site, at 3710 Del Mar Heights Road. San Dieguito High School, in Encinitas, is too far north (approximately eight miles) for enrollment of students from the project site. Two special schools are also part of the San Dieguito Union HSD. These schools, Sunset Continuation and North Coast, are responsive to students with special educational or timing needs (e.g., students who work during normal schools hours or are involved in full-time athletic or arts programs). Both are located at 675 Requeza in Encinitas (approximately 8.5 miles northwest of the site). Although these schools are geographically removed from the site, special needs students from the proposed project could enroll at one of these two schools.

The student generation rates, average school capacities, and school site size requirement for each of the school districts serving the project site are identified in Table 4K-1. Table 4K-2 provides a summary of the enrollment status of existing schools and the capacity of existing and proposed schools that could serve the site. Solana Beach ESD



Source: Helix Environmental 1995

-  Schools
-  Fire Stations
-  Libraries
-  Public Parks
-  Police Stations

FIGURE 4K-1

Existing Community Facilities

**TABLE 4K-1
DEL MAR HIGHLANDS ESTATES
SCHOOL CRITERIA**

Grade	Student Generation Rates (Single Family)	Average Permanent Student Capacity	Required School Site Size (acreage)
Solana Beach Elementary School District (K-6)	0.4519	475	10*
San Dieguito Union High School District			
Junior (7-8)	0.12	680	30
High (9-12)	0.25	1,764	60

*Approximately three acres are actually school plan. Seven acres are joint-use park property under agreements with the City of San Diego.

**TABLE 4K-2
DEL MAR HIGHLANDS ESTATES
CURRENT SCHOOL ENROLLMENTS AND CAPACITIES**

School	Permanent Capacity	October 1994 Enrollment	Students Above (Below) Capacity	Percent of Capacity
Solana Santa Fe Elementary School (K-6)	378	387	9	102.4
Earl Warren Junior High School (7-8)	680	939	259	138
Torrey Pines High School (9-12)	1,764	2,035	271	115
Sunset High School (9-12)	As needed	174	N/A	N/A
North Coast High School (9-12)	As needed	192	N/A	N/A
TOTAL HIGH SCHOOL	1,764+	2,401	271	115

SOURCE: Data taken from October 1994 California Basic Educational Data System, prepared to document enrollment for the California Department of Education.

includes both permanent and district-owned relocatable classrooms in calculating total capacity. The latter table shows that for school year 1994-95, Solana Santa Fe Elementary School is operating at 102 percent of capacity. The junior and high schools to which project students would be sent are operating at 138 percent and 115 percent of permanent capacity, respectively. In October 1994, the district approved a Master Development School and Facilities Needs Analysis, which indicates that there is currently no capacity for additional students district-wide. The San Dieguito Union HSD is currently using portable classrooms to alleviate overcrowding in permanent facilities. Currently, Earl Warren has 16 and Torrey Pines has 19 on-site portables. Although the use of portable classrooms is considered a temporary rather than permanent measure, their presence would support absorption of 103 and 140 additional students, respectively.

b) Water

The Metropolitan Water District of Southern California (MWD) has supplied San Diego County, through the San Diego County Water Authority (SDCWA), with a reliable source of water for the past 45 years. MWD's sources of water are the Colorado River and the State Water Project. Future water availability, however, is not guaranteed due to the uncertain reliability of imported water from the Colorado River and the inefficiencies of the California Aqueduct. In addition, Arizona presently withdraws only 66 percent of its legal water entitlement from the Colorado River, enabling California to withdraw more than its legal entitlement. However, Arizona is expected to commence withdrawing its full entitlement in 1996, which would result in reduced water availability in California.

The San Diego region has a limited local supply of water; approximately 90 percent of the region's water is imported. The remaining percentage is obtained from local groundwater or surface runoff into reservoirs. Recent drought conditions in northern California limited the availability of imported water to local suppliers. Regionally, the shortages resulted in mandatory and, for the City of San Diego, voluntary water conservation measures.

The MWD, the SDCWA, and local jurisdictions are actively pursuing alternatives to existing water systems and supplies in response to future water shortages. Alternatives are being pursued to deal with potential problems associated with earthquakes, drought, and continued population growth in the major urban areas. These alternatives include resolution of problems associated with the California Aqueduct, transfer of water provided from federal projects and agricultural operations, construction of local emergency water storage reservoirs, expansion of water conservation and reclamation programs, and use of desalination plants.

~~A Water Master Plan for the City is currently being drafted. Phase I ended in December 1992 and entailed development of project software (water forecasting and modeling tools). Phase II studies are now under way. These will determine the future facility~~

~~needs for the entire city; a completion date is currently unspecified (LaSelle, pers. comm. 1994).~~

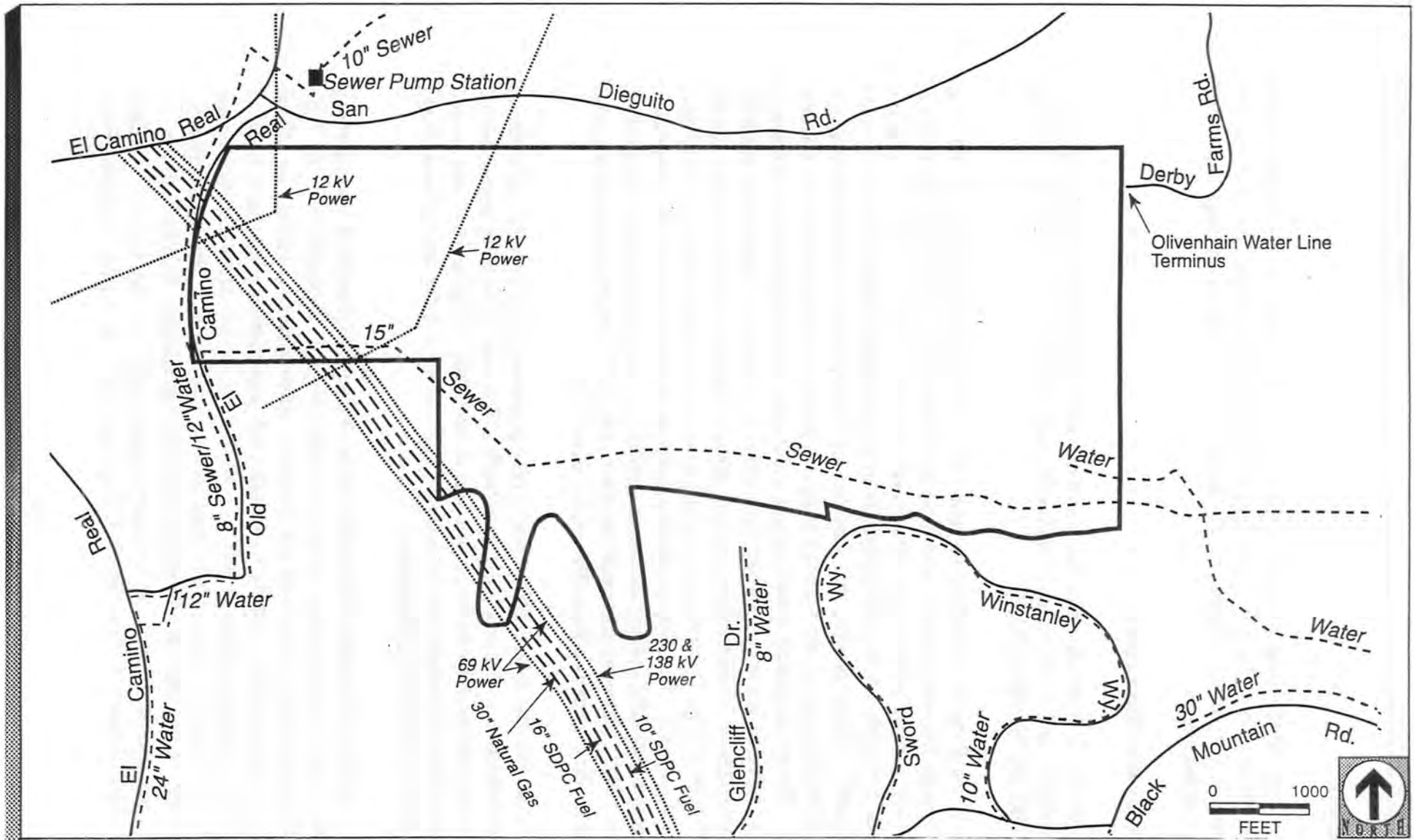
Planned improvements to the City's domestic water supply system include an expansion of the Miramar Water Treatment Plant (under way), future construction of Black Mountain Reservoir (to serve FUA development), and two new major delivery pipelines (Carmel Mountain Road and Green Valley). The Green Valley pipeline has been completed, and the Carmel Mountain Road pipeline will be built based on development demand. A pipeline alignment has not yet been determined.

A potential North City Filtration Plant is in the feasibility stage of review. The service area for this plant has not been determined but may include the FUA (LaSelle, pers. comm. 1994).

The project site is within the water service area of the City's Miramar Water Treatment Plant. Potable water is currently delivered to the vicinity via the 36-inch Rancho Bernardo pipeline and the 30-inch Del Mar Heights pipeline. The closest mains are a 24-inch main in El Camino Real, a 20-inch main in Via de la Valle, a 12-inch pipe in Old El Camino Real, and a 10-inch main within Sword Way. None of these abut the proposed development. The Del Mar Heights pipeline follows the existing alignment of Black Mountain Road through Subarea III of the FUA, approximately 1,500 feet south of the project site, and continuing west to Carmel Valley and ultimately the city of Del Mar (Figure 4K-2). There are two known active private water wells on adjacent properties southwest of the project site, adjacent to Old El Camino Real. (It should also be noted that the service area for Olivenhain Water District has an end point just east of Del Mar Highlands Estates in Derby Farms Road. Water for this project would be provided by the City of San Diego. Therefore, Olivenhain facilities have not been included in this analysis.)

~~The use of reclaimed water for some domestic uses is currently being evaluated. The City, through the Greater San Diego Clean Water Program, is planning upgrades of existing sewage collection and treatment facilities. Plans involve construction of a system of reclaimed water plants designed to provide tertiary treatment of raw sewage, resulting in reclaimed water suitable for nondomestic irrigation and other nonpotable uses. In September 1994, the City's Metropolitan Wastewater Department implemented the "optimized" reclaimed water distribution system for reclaimed water in the City's northern service area. The project area is outside of this service area and, therefore, will not receive or use reclaimed water from the City within the foreseeable future.~~

~~Existing water consumption due to on-site farming activities is estimated at 300,000 gallons per day (gpd), based on approximately 200 acres of field crops and 1,500 gpd per acre. This factor is based on measured agricultural water usage rates in the Escondido area (Willdan Associates 1992).~~



Source: Helix Environmental 1995

FIGURE 4K-2
Del Mar Highlands Estates
Existing Utility Lines

c) Sewer

No sewage is currently being generated on the project site. There is an existing 15-inch sewer line which crosses the Del Mar Highlands Estates project site from east to west within Gonzales Canyon (see Figure 4K-2). Sewer service in the project area is provided by the City of San Diego.

d) Parks and Recreation

Much of the area is currently open space covered with undisturbed or lightly disturbed native vegetation and eucalyptus. Recreational uses of this type of setting typically include hiking and horseback riding.

According to the Progress Guide and General Plan of the City of San Diego (1989), the criterion for population-based parks and facilities is service for "a resident population of 3,500 to 5,000 persons within a 1/2 mile radius" and they should contain "a minimum useable area of 5 acres when located adjacent to an elementary school or 10 acres when not so located." Parks meeting this standard are referred to as neighborhood parks. Larger facilities intended to serve a more extensive population are referred to as community parks. These community parks should supplement the facilities in neighborhood parks. The criterion for a community park reads as follows: "Community facilities should serve 18,000 to 25,000 residents within approximately a 1-1/2 mile radius. Ideally they should have at least 13 useable acres if adjacent to a junior high school or 20 useable acres if not so located." Because community parks are primarily used for playing fields, usable acres are generally defined as acreage graded to a two percent or less slope (Fye, pers. comm. 1992). However, this guideline can be relaxed for pathways and picnic areas where a flat surface is not as critical (Fye, pers. comm. 1992).

Table 4K-3 lists existing and proposed parks in the project area and provides information regarding construction status and adjacent schools. The nearest existing neighborhood and community park facilities to the project site, as identified in Figure 4K-1, are located within Carmel Valley developments immediately south or west of the site, and were sized and developed to serve those communities.

The North City West Community Plan and Carmel Valley Neighborhood Precise Plans identify one planned neighborhood park in Neighborhood 4, approximately one mile southeast of the project site. This park will consist of approximately 12 acres and will be adjacent to a planned school. Torrey Highlands Park, approximately one mile south of the site, has picnic and play areas, as well as paths leading to view areas overlooking the project site (see Landform Alteration/Visual Quality discussion). This approximately seven-acre park is not part of the population-based recreational facilities shown on Table 4K-3, but was developed as "enhanced open space" by the Carmel Del Mar developers. The Carmel Valley North Community Park is being designed, with

**TABLE 4K-3
PROPOSED AND EXISTING PARKS IN THE PROJECT VICINITY**

Park	Site Developed?	Acreage	Adjacent School
<u>Neighborhood Parks</u>			
Solana Highlands Park	Yes	12	Solana Highlands Elementary
Carmel Del Mar Park	Yes	12	Carmel Del Mar Elementary
Carmel Del Mar 4	No	12	Planned
Crest Canyon Park	No	10*	None
<u>Community Parks</u>			
Black Mountain Ranch	No	30	None
Canyonside	Yes	20	None
Subarea IB	No	35	None
Subarea III	No	35	None
<u>Regional Resource-based Parks</u>			
Black Mountain	N/A		None
San Dieguito River Park	No	80,000†	None
Torrey Pines Golf Course and City Park	Yes	420	None
Torrey Pines State Reserve and Beach	N/A	1,750‡	None
Los Peñasquitos Canyon Preserve	N/A	3,000	None

*This park is adjacent to a 133-acre open space nature reserve.

†This acreage represents the Focused Planning Area boundary of the San Dieguito River Park, which is presently 50 percent publicly owned.

‡State Park beach extends from Sixth Street to Black's Beach; approximately six miles.

construction to start in fiscal year 1997. One existing community park (Canyonside) is located approximately six miles southeast of Del Mar Highlands Estates adjacent to the Los Peñasquitos Canyon Preserve. The preserve itself is comprised of approximately 3,000 acres with associated access trails for hikers, mountain bikers, and equestrians. The preserve can accommodate up to 664 users at one time. The Black Mountain Ranch project, northeast of the project site in Subarea I of the FUA, proposes to provide a community park.

The portion of Gonzales Canyon which crosses the project site is within the Focused Planning Area of the San Dieguito River Valley Regional Open Space Park, a planned resource-based park (defined as a park located at or centered around some natural or man-made feature). Other resource-based parks available to project area residents include the planned Black Mountain Park, Torrey Pines Golf Course and City Park, and Torrey Pines State Reserve and Beach. Los Peñasquitos Canyon Preserve is also located in the vicinity, south of the site.

Fairbanks Ranch and The Farms Country Clubs are also located just north of the project area. These private/semiprivate facilities may be joined by future project site residents.

The Framework Plan for the FUA shows community parks southeast of the project site near the center of Subarea III and northeast of the project site in the northeast portion of Subarea IB. The Framework Plan requires that neighborhood park requirements and locations be determined at the subarea planning stage.

e) Law Enforcement

The City's Progress Guide and General Plan identifies the Police Facilities Plan as the resource document for Police Department standards. The Police Facilities Plan establishes a seven-minute average response time as a department goal. The Progress Guide and General Plan recommends that stations be located near the geographic centers of areas to be served and that the stations have access to major streets and freeways.

Police protection for the project area is provided by the Northern Division of the San Diego Police Department, located at 4275 Eastgate Mall in La Jolla. There are presently 157 sworn police officers and 16 nonsworn personnel assigned to the division. The City of San Diego Police Department presently maintains a city-wide ratio of 1.65 sworn personnel per 1,000 residents.

The City of San Diego is divided into "beats" for patrol purposes. The city-wide average police response time is seven minutes for emergency and priority one calls. The Northern Division response time is seven to eight minutes. The department receives 631.5 calls for service annually per 1,000 population on the average (Camacho, pers. comm. 1994).

Although the Northern Division is currently operating at a minimum staffing level of 80 percent of budgeted strength, the current level of service is within the acceptable range of calls for service/officer ratios.

The police facility at Eastgate Mall is approximately six miles to the south of the Del Mar Highlands Estates project site. The response time goal is an average of seven minutes. Black Mountain Ranch, northeast of the project site in Subarea I of the FUA, has reserved a site for a police station, should it be determined necessary at a future date. The site will be held until a station is built or the Police Department decides it is unnecessary.

The North City FUA Framework Plan states that a police substation should be sited within the FUA to attain the department's goals of an average seven-minute response time. The department indicates that the FUA police station should be a 16,000-square-foot facility, ideally constructed on a three- to four-acre site. The location of the police station within the FUA is to be determined during the subarea planning process for the FUA. A specific plan for Subarea V has been approved. The Subarea V specific plan does not provide for a new police station.

f) Fire Protection

The project area is within the service area of the City of San Diego Fire Department. To provide adequate fire protection to the community, the Fire Department strives to provide a six-minute response time to areas in need of service. The City's Progress Guide and General Plan establishes guidelines and standards for fire protection services. Fire stations should be sited to provide rapid response time within urbanized areas and should occupy a minimum of 0.5 acre of land.

Fire protection services for the Del Mar Highlands Estates project site are provided by City fire stations located in Del Mar Heights and Mira Mesa. As identified in Table 4K-4, the best current response time to the project site from surrounding fire stations is approximately 6.8 minutes from Station No. 24, located approximately 1.2 miles south-southwest of Del Mar Highlands Estates. Currently, there are 4 firefighters at Station 24 and 10 at Station 41 (see Table 4K-4). All firefighters are EMT-D certified and both stations are manned 24 hours a day with a minimum of four firefighters per engine and truck company. Existing fire protection services are currently adequate to serve the existing project site.

**TABLE 4K-4
FIRE STATION RESPONSE TIMES**

Station	Location	Response Time*
San Diego Fire Department Station 24	13077 Hartfield Avenue	6.8 minutes
San Diego Fire Department Station 41	4914 Carroll Canyon Road	7.4 minutes

*Response times were provided by R. Edwards, May 16, 1995.

Additionally, San Diego Fire Department Policy A-93-1, "Fire Access Roadways," requires that dead-end accessways in excess of 750 feet require "special" approval prior to design and construction and, secondly, that where a project has more than 100 units, two means of access are required. Where access is restricted to emergency vehicles only, the access design must be reviewed and approved by the Fire Department.

Required fire protection water flow shall be determined from "Guide for Determination on Required Fire Flow" published by the Insurance Services Office. Fire flow duration shall be sustainable for a minimum of five hours (City of San Diego 1994).

g) Solid Waste

The solid waste disposal needs of the project would be the responsibility of the City of San Diego. At present, the project would be served by Miramar Landfill, which encompasses approximately 1,093 acres, 729 acres of which are used for disposal. In December of 1994, the remaining capacity of Miramar Landfill was estimated to total approximately 13.3 million cubic yards (cy). The landfill currently accepts in excess of 1.3 million tons (approximately 2.1 million cubic yards [cy]) of refuse each year (Tirandazi, pers. comm. 1995).

In 1989 the State Assembly passed the Integrated Waste Management Act, AB 939, which requires each city and county within California to recycle or divert 25 percent of its current waste stream from landfills by December 1995 and 50 percent by December 2000. It is anticipated that with implementation of source reduction and recycling programs and construction of the rock aggregate program (which excavates construction materials from the landfill in order to create additional disposal area), the Miramar Landfill will serve as a solid waste disposal site through the year 2004. A materials recovery facility, proposed to be located at the landfill, could divert approximately 150,000 tons a year from the landfill through recycling and composting. Feasibility studies are under way for this facility. Its appropriateness, potential date of installation, and capacity are all under review.

Environmental analyses are being carried out for three potential future landfill sites (comprising four alternatives). Oak Canyon, a 236-acre site, would have a service life of 48 years and a capacity of 80 million cy. Upper Sycamore Canyon, a 240-acre site, would have a service life of up to 58 years and a capacity of 96 million cy. Spring Canyon, consisting of 385 acres, would have a capacity of approximately 134 million cy and a life span of approximately 80 years. A combined alternative of Oak and Spring Canyons (joined by removing the intervening ridge) would consist of 655 acres and have a capacity of 225 million cy and a life span of 90 to 135 years. All three sites are located in the eastern portion of the city, in the vicinity of the County of San Diego–operated Sycamore Canyon Landfill (Blum, pers. comm. 1994).

The current waste generation rate for city residents is 2.0 tons of refuse per household per year. There are currently no on-site residents. Plant waste generated by the on-site farming operation is mulched on-site. Other farming waste (e.g., fertilizer containers) is hauled off-site for disposal.

Residential solid waste collection service is provided on public streets throughout the project area by the City of San Diego and by private companies such as Laidlaw, BFI, and Waste Management on private roads. Del Mar Highlands Estates will be served by a private company, unless an agreement is entered into between the City and a community association allowing entrance for collection of waste and recyclables.

Public Facilities and Services Issue

1. Are existing public facilities and services adequate to meet the needs of the proposed projects? Would the proposed projects result in a need for new systems or require substantial alterations to existing public facilities?

1) Issue

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Impacts

a) Schools

Development of the proposed Del Mar Highlands Estates properties is expected to result in the development of 148 large-lot, single-family residences and 24 units of affordable housing. Table 4K-5 provides a breakdown of the projected student generation according

to grade level and percent of school capacity. Based on the student generation rates utilized by the Solana Beach ESD and San Dieguito Union HSD, the proposed project would add an estimated 74 elementary school students and 63 junior high and high school students to area schools.

**TABLE 4K-5
STUDENT GENERATION
DEL MAR HIGHLANDS ESTATES**

School District/Type of School	Students Generated* (Rate / Students)	School Capacity / Current Enrollment	Students Above (Below) Capacity
Solana Beach/Elementary	0.4330 / 74	378 / 387	9
San Dieguito/Junior High	0.12 / 20	1,042/ 939	(103)†
San Dieguito/High School	0.25 / 43	2,175 / 2,035	(140)†
TOTALS	137	N/A	N/A

*Generation rates are multiplied against total number of units (172).

†School is utilizing portable classrooms; enrollment is over permanent capacity.

As shown above, the elementary school expected to serve the project site is operating above capacity. However, Solana Beach ESD does have a few school facilities operating slightly under capacity.

The Solana Beach ESD has prepared a Districtwide School Facilities Master Plan. The plan evaluates student generation factors, proposed development, future enrollment, and the need for additional elementary school facilities. Although there is apparently excess capacity available at this time in the district, Solana Beach ESD's assessment is that excess capacity will be needed to house students generated by approved development projects—and may even be insufficient for them. It is probable that the district will need to construct a new elementary school to house students generated from this as well as other proposed residential developments in the district (Castanos, pers. comm. 1994). Adverse effects to the district are therefore assessed for the Del Mar Highlands Estates project.

Although both Earl Warren Junior High and Torrey Pines High Schools technically have space if one counts permanent capacity as well as capacity provided by currently used portable classrooms (103 and 140 spaces, respectively), both of these schools are operating at well over permanent capacity. Earl Warren is 259 students, or 38 percent, over permanent capacity and Torrey Pines is 271 students, or 15 percent, over permanent capacity. According to the district, capacity is not available at either school to

accommodate the growth and enrollment anticipated from Del Mar Highlands Estates (Hale, pers. comm. 1994).

In sum, elementary school children generated by the project would potentially attend existing Solana Beach ESD elementary schools until a new elementary school is constructed in the FUA. Middle school students would attend Earl Warren Junior High School until a new junior high school is built to serve the FUA. High school students would attend Torrey Pines High School, until the new high school is built in the FUA. During these interim periods, there is a potential for school overcrowding to occur.

b) Water

Development of the Del Mar Highlands Estates project would result in decreased on-site water consumption. Conversion of approximately 200 acres of agriculture to residential use would reduce on-site water consumption by an estimated 209,700 gpd (70 percent), as calculated in Table 4K-6.

**TABLE 4K-6
DEL MAR HIGHLANDS ESTATES
ESTIMATED WATER DEMAND AND SEWER GENERATION**

Source	GPD	Total GPD
172 units	525/unit - potable	90,300
172 units	280/unit - wastewater	48,160

SOURCE: City of San Diego 1991c.

There are no on-site water distribution facilities. Water distribution pipelines would need to be provided west of Lot 148 to meet an upgraded 24-inch main located in Old El Camino Real and south of the project to join an existing water main in Sword Way.

c) Sewer

Development of the project would result in the generation of an estimated 48,160 gpd of wastewater based on 280 gpd per unit. No sewer service currently exists on-site. Connections would need to be provided south of Del Mar Highlands Estates to the 15-inch sewer that extends through Gonzales Canyon in two locations; from south of Lot 59 and south of the southwestern corner of the site at Old El Camino Real.

d) Parks and Recreation

Buildout of the project site would result in approximately 560 residents, based on the City Parks and Recreation Department's factor of 3.35 persons per dwelling unit for estate residential development (148) and 2.7 persons per affordable housing units (24). Based on the Progress Guide and General Plan specific standards for population-based parks (2.4 acres per 1,000 persons), the project would generate a demand for 1.2 acres of neighborhood park.

The proposed project would be a private, gated community and does not include public or private park and recreational facilities. Open space and recreational trails are planned just north of the site in the San Dieguito River Park (planned for approximately 80,000 acres total). In addition, approximately 57 percent of the project site (approximately 220 acres) remains as nonlandscaped open space. This nondevelopable area, in conjunction with the relatively large size of the residential lots and the proximity to the San Dieguito River Park, is expected to reduce requirements for passive activity facilities (e.g., public park areas oriented toward walking, picnicking, etc.). It is also possible that residents will construct private recreational facilities such as swimming pools, stables, and tennis courts. Project-generated demand for more formal recreation opportunities is expected to remain constant, however (Fye, pers. comm. 1995). Existing park facilities in the project area were developed to serve existing populations. New facilities (or funds for such) are necessary. Until new facilities can be built, project residents will utilize the existing and planned park facilities in the Carmel Valley and Fairbanks Country Club areas, which may experience overcrowding.

e) Law Enforcement

Existing police stations, patrols, and personnel are adequate to serve the proposed projects. The projects will be incorporated into the service area for the existing Eastgate Mall Station, and the number and frequency of patrols would not be increased. Emergency response times to the site are expected to be seven to eight minutes, which is considered adequate by the department (Camacho, pers. comm. 1994). The project is a gated community and would result in an incremental increase in calls for police service. Based on the above discussion, the project-generated increase in demand for law enforcement services would be less than significant.

f) Fire Protection

Due to the relatively small number of units proposed, no adverse impacts resulting from development of the proposed project on fire protection facilities and staff are anticipated. The current stations were built in anticipation of development in the area and existing fire protection services are adequate to serve the proposed projects (Edwards, pers. comm. 1995).

Response time to the western portions of the estate lots (Lots 147-148) development is projected to be approximately 6.8 minutes from the nearest fire station (Station 24). Response times to the project site potentially would improve in the event of future Framework Plan implementation and associated construction of new fire stations.

Fire protection facilities (e.g., hydrants) incorporated into the project must meet City of San Diego and San Diego Fire Department guidelines.

The project proposes a gated community. These gates could result in increased response times for emergency services. The north access gate is proposed to be staffed 24 hours a day. The east access is proposed to be operated by emergency personnel using a master code, key, or card system.

g) Solid Waste

Construction waste from individual projects cumulatively make up a significant portion of the waste stream entering the City's Miramar Landfill. Construction debris is very heavy and disposal is expensive. Therefore reuse, source separation, and recycling are often cost-effective. However, the proposed projects would generate small amounts of construction waste intermittently over several years.

Based on research conducted on the quantity and the types of solid waste generated by the residential sector in the city of San Diego, the primary components of the waste stream are paper (29.6 percent) such as newspaper and mixed paper, yard waste (13.4 percent), plastic (7.2 percent), wood waste (6.2 percent), and glass (5.3 percent). Additional solid wastes may be generated by gardening and equestrian uses on individual lots. However, most of this waste would likely be composted on-site and there is currently no City method for calculating such waste. As per AB 2494, which refined AB 939, the City is required to reduce the amount of waste disposed of rather than waste generated. The City must decrease its waste disposal by 25 percent by the year 1995 and by 50 percent by the year 2000. Future on-site residents could participate in City recycling, source-reduction, and composting programs. It is anticipated that this would result in a 50 percent reduction of waste materials.

Based on the City of San Diego solid waste generation rate for City residents of 2.0 tons per dwelling unit per year, the project would result in the generation of approximately 344 tons of residential solid waste per year.

Significance of Impacts

a) Schools

The proposed project will add an estimated 74 students to the elementary school serving the project site. Given the crowded nature of the schools expected within the project development time frame, significant adverse impacts are anticipated until a new elementary school is constructed. The additional 63 students anticipated to join the junior and senior high school system as a result of the project also comprise a significant impact to an already overburdened district. Mitigation for these significant impacts is identified below.

b) Water

The proposed project would decrease on-site water consumption by replacing the current agricultural operations with residential development. This is not an adverse impact.

c) Sewer

The City currently has no plans to construct new water facilities or modify existing facilities in the area. The applicant would be responsible for extending utility lines, the financial burden of which would therefore not fall on the City. Additional sewage flow generated by the small number of units would be incremental and is expected to be a less than significant burden to the system on a project-specific level.

d) Parks and Recreation

Project residents would be between 0.5 and 6 miles from neighborhood and community parks. Available (e.g., Torrey Pines and Los Peñasquitos Canyon Preserve) and planned (i.e., San Dieguito River Park) resource-based parks are considered sufficient to meet or exceed the needs of proposed project residents. Existing neighborhood and community parks in the area are not adequate to serve new development. This is a potentially significant impact.

e) Law Enforcement

Development of the proposed project would not significantly impact the ability of the San Diego Police Department to provide adequate law enforcement services (with response times of seven to eight minutes). However, there is a potential for significant adverse impacts on emergency access due to the controlled (gated) entrances/exits. As indicated previously, the north access gate is proposed to be staffed 24 hours a day while the east access is proposed to be operated by emergency personnel using a master code, key, or card system.

f) Fire Protection

Fire Department response time to the project would be acceptable for the majority of the project site (under six minutes), except for the westernmost lots (Lots 143 to 148) where response time is projected to be approximately 6.8 minutes. Additionally, access to Lots 143 to 148 is via a dead-end roadway which exceeds 750 feet. These are potentially significant impacts.

It is currently unknown whether adequate water supplies would be available to fire fighters. Again, this issue relates particularly to the isolated lots (143 through 148), as there is a greater potential for distance from hydrant hookups along the street.

Although response time to the project is generally projected to be within acceptable limits, there is a potential for significant adverse impacts on emergency access due to the controlled (gated) entrances/exits. As indicated previously, the north access gate is proposed to be staffed 24 hours a day while the east access is proposed to be operated by emergency personnel using a master code, key, or card system.

g) Solid Waste

Although project construction would result in the generation of recyclable construction wastes, this waste generation would be in regionally less than significant quantities. Over the long term, the projects would have ongoing significant direct and cumulative impacts on solid waste disposal due to the limited landfill capacity in the region.

Mitigation, Monitoring, and Reporting

a) Schools

Prior to the issuance of any building permit for any residential dwelling unit, the applicant shall participate in mitigation through implementation of School Agreement (grades K-6) and the participation in a Mello-Roos Community Facilities District (Mello-Roos) (grades 7-12). Prior to the issuance of any building permit for any residential unit, these fees shall be established through a School Agreement with the Solana Beach Elementary School District and the participation in a Mello-Roos with the San Dieguito Union High School District.~~The Del Mar Highlands Estates project is within the Mello-Roos and Community Facilities District #1 and, therefore, would pay an appropriate share of school fees. Participation in the Mello-Roos and Community Facilities District #1 would mitigate cumulative impacts as adequate facilities are constructed. Direct impacts would also be mitigated with contribution of Mello-Roos fees and when adequate facilities are constructed.~~

b) Water

Mitigation measures beyond the required development and phasing of water facilities would not be required.

c) Sewer

Mitigation measures beyond the required development and phasing of sewer facilities would not be required.

d) Parks and Recreation

The developer shall pay to the City the development's fair share costs in providing population-based parks to serve future residents (i.e., park fees).

e) Law Enforcement and Fire Protection

In order to mitigate potentially significant impacts to public services (police/fire) and minimize emergency response times to future on-site residences, the following requirements will be incorporated into the design guidelines for Del Mar Highlands Estates:

1. Large, clearly legible address numbers will be provided at the street.
2. Security entrances will either be staffed 24 hours a day or a security gate code, key, or card will be provided to the Police and Fire Departments. Emergency access shall be reviewed and approved by the Fire Department prior to project approval.
3. The developer shall coordinate with the Fire Department to ensure that road widths and turning radii are adequate for all roads and that project fire hydrants are optimally located and meet all City and Fire Department standards. The results of this coordination shall be included within the Del Mar Highlands Estates Design Guidelines and tentative map.
4. Residential fire sprinklers will be required for any structure built on Lots 143, 144, 145, 146, 147, and 148.

f) Solid Waste

No mitigation is required for the proposed project; however, it should be noted that all City projects must comply with the City's recycling program.

L. Public Safety

Background on Electromagnetic Fields

Studies from the late 1970s have suggested a possible relationship between cancer, specifically childhood leukemia, and exposure to electric and magnetic fields or proximity to overhead transmission lines. The available scientific data do not support a conclusion that electric and/or magnetic fields cause health effects. However, due to increasing concern regarding electromagnetic (EMF) fields and health effects and the proximity of the power lines to potential development areas, this issue is addressed in this EIR. CEQA Guidelines Section 15145 states, "If, after thorough investigation, a Lead Agency finds that a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact." The following discussion summarizes information gathered to date on EMF effects and their possible ramifications.

High-power transmission lines (such as those described below on the project sites) generate electromagnetic fields, which consist of invisible lines of force that surround anything conducting electricity. An electrical field is created when voltage is established on a wire (i.e., when an item is "plugged in"), while magnetic fields are created with the flow of current (i.e., if there is no current, there is no electrically induced magnetic field). These man-made electric and magnetic fields are ubiquitous in modern America and are generated by all electrical items, including many common household appliances. A small sample of common EMF sources includes refrigerators, televisions, stereos, coffee makers, broilers, electric blankets, fax machines, computers, and light bulbs.

Electromagnetic fields are created by charged particles. The electric component of the field pushes or pulls charged particles, such as ions, in the direction of the field. The magnetic component acts on moving charged particles and pushes them perpendicular to their direction of motion.

Commonly, distributed electric power is alternating current. This is in contrast to the direct current produced by batteries. An alternating current does not flow steadily in one direction, but alternates back and forth. The power used in North America alternates at 60 cycles per second (the current changes direction 120 times per second), which is known as 60 hertz (Hz). Consequently, the electric and magnetic fields produced by the electric power also oscillate at 60 Hz. Europe and some other parts of the world use a 50 Hz frequency.

The electromagnetic fields produced by 60 Hz power lines have a much lower frequency and, therefore, lower energy than microwaves or X rays, although they are all forms of electromagnetic energy. For comparison, radio waves operate at approximately 10^6 Hz

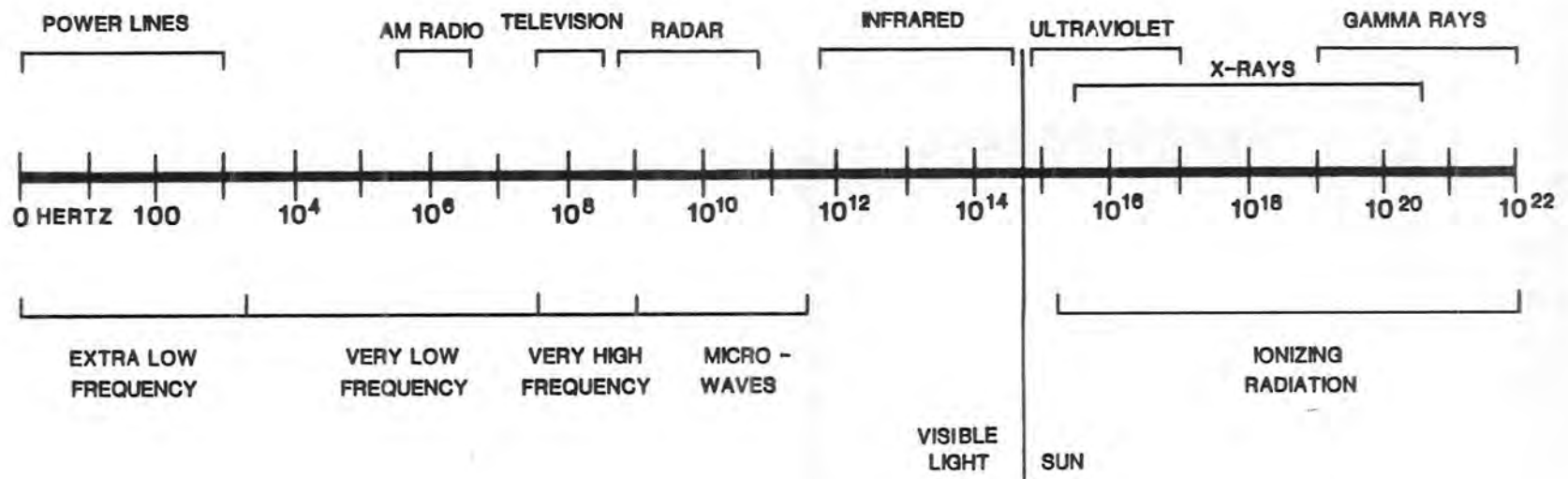
(1,000,000 cycles per second); a television screen operates at approximately 10^8 Hz; visible light occurs slightly below 10^{15} Hz; ultraviolet light ranges from about 10^{15} to 10^{17} Hz; and X rays range from 10^{16} to 10^{20} Hz. The spectrum of electromagnetic wavelengths is shown in Figure 4L-1.

Because X rays have enough energy to break apart the molecules that contain genes, excessive X-ray exposure can lead to mutations and cancer. When microwave energy passes through materials containing water, the energy is absorbed by the materials and converted to heat. This is how a microwave oven works. The electromagnetic fields produced by 60 Hz transmission lines do not have enough energy to break apart molecules, and although they can cause heating in substances, this heat is barely detectable. Normally occurring temperature changes (i.e., temperature changes due to normal biological processes) in human cells are greater than the temperature changes that these electromagnetic fields can produce (Culver Company 1994). Therefore, electromagnetic fields from 60 Hz power transmission lines do not have the same effects on the human body as microwaves or X rays.

Electric fields are measured in volts per meter (V/m) and magnetic fields are measured in teslas or gauss, which equals one ten-thousandth of a tesla. Typical electric field levels within the home or workplace are 1 to 10 V/m; fields within one foot of small appliances reach 20 to 200 V/m; and the field strength directly next to an electric blanket can reach 10,000 V/m. Ten thousand volts per meter is approximately the maximum level directly beneath a 765 kilovolt (kV) transmission line. Electric fields weaken rapidly with increased distance from the source. An electric field with a 10,000 V/m strength at the source will decrease to less than 500 V/m at a distance of 60 meters. Electric fields are also easily blocked by vegetation and buildings. Table 4L-1 shows some common electric field values. Figure 4L-2 shows a lateral profile of an electric field at ground level for typical transmission lines. These profiles assume a flat ground with no intervening obstacles, such as vegetation or walls. The highest-voltage line in the easements in or near the project sites is 230 kV.

The maximum magnetic field value beneath a power distribution line is approximately 50 milligauss (mG), and that directly beneath a 765 kV transmission line is approximately 250 mG. The level directly below a 220 kV line is about 65 mG, which decreases to about 15 mG at a distance of 30 meters. Typical home levels are between 0.1 and 50 mG and the values within several inches of appliances can be 10 to 20 times higher. Unlike electric fields, magnetic fields are not substantially affected by vegetation and buildings. Figure 4L-3 shows a lateral profile of a magnetic field at ground level for typical transmission lines. Table 4L-2 shows some common magnetic field values.

Reports from the Soviet Union of various health complaints among utility workers in high-voltage switchyards in the early 1970s generated worldwide concern regarding the possibility of adverse health effects from exposures to electric fields. Subsequent



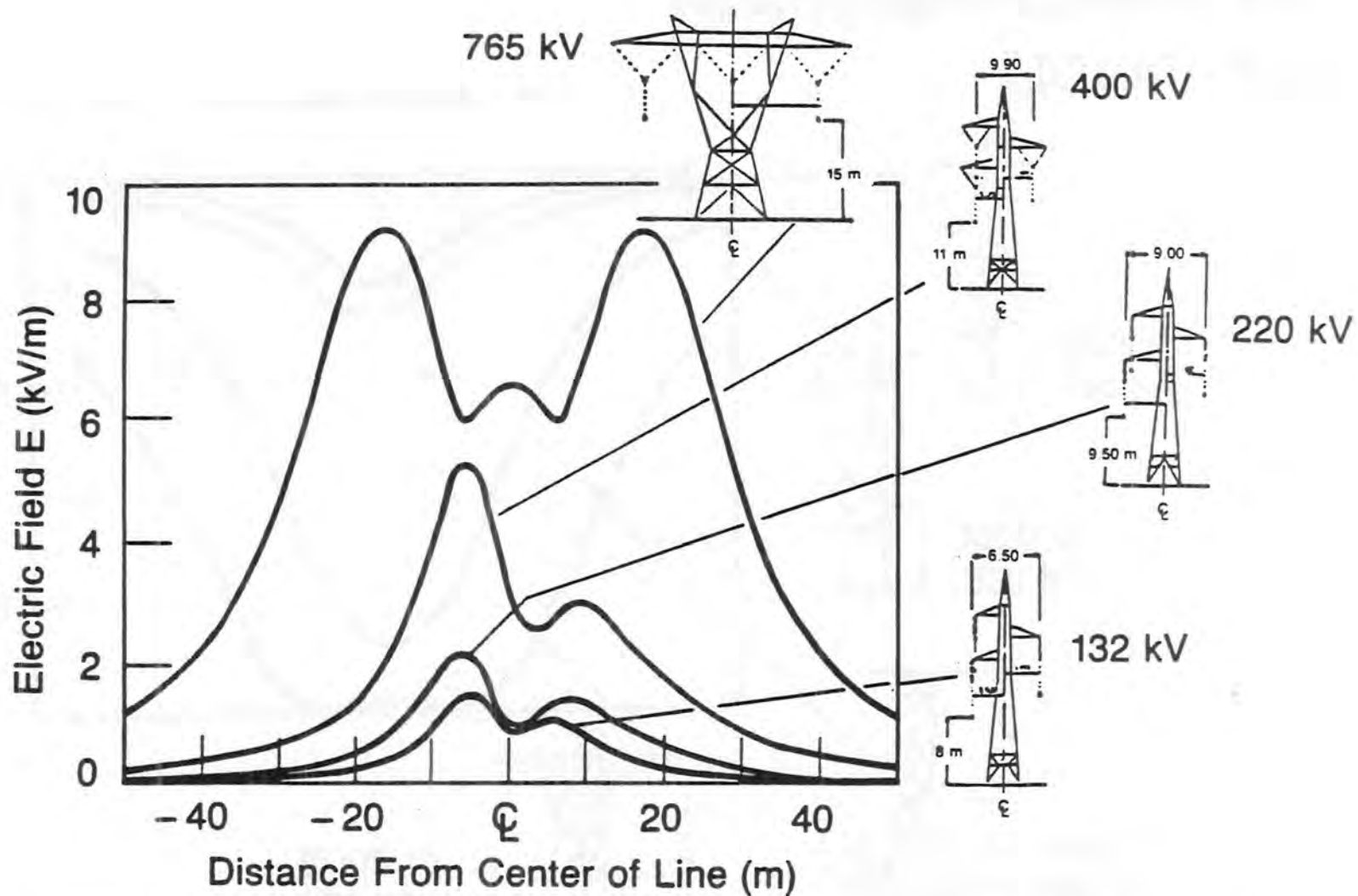
SOURCE : EPRI 1987

FIGURE 4L-1
Approximate Spectrum of
Electromagnetic Fields

**TABLE 4L-1
TYPICAL VALUES OF MAN-MADE POWER-FREQUENCY
ELECTRIC FIELDS**

Source	Electric Field (V/m) at 11.8 Inches from Source
Electric cooking	4
Toaster	40
Electric blanket	250
Iron	60
Broiler	130
Hair dryer	40
Vaporizer	40
Refrigerator	60
Color TV	30
Stereo sound equipment	90
Coffee pot	30
Vacuum cleaner	16
Hand mixer	50
Incandescent light bulb	2

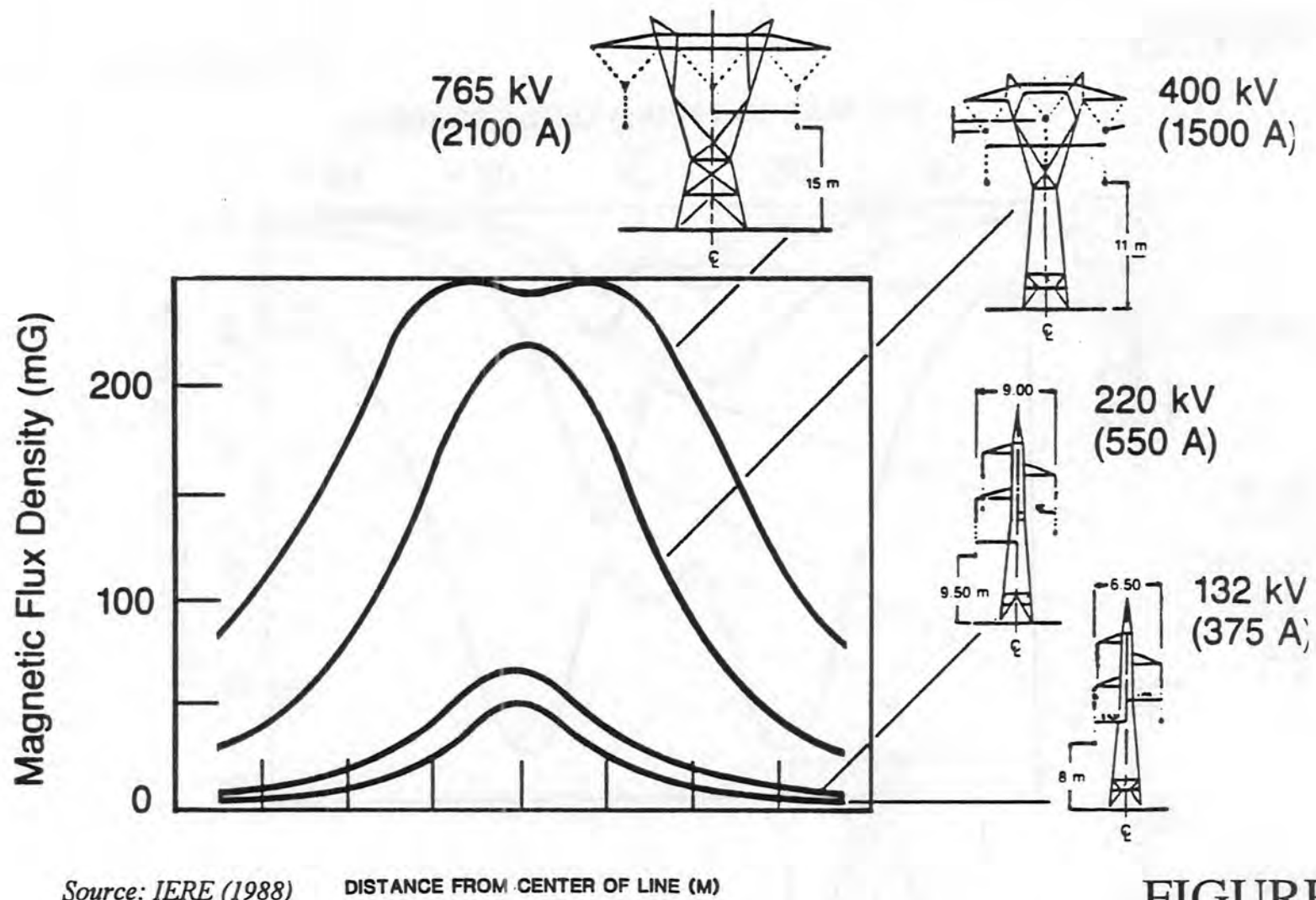
SOURCE: International Electricity Research Exchange 1988.



Source: IERE (1988)

FIGURE 4L-2

Lateral Profiles of Electric Field Intensities
of Typical Power Lines



Source: IERE (1988)

DISTANCE FROM CENTER OF LINE (M)

FIGURE 4L-3

Lateral Profiles of Magnetic Flux of Typical Power Lines

TABLE 4L-2
MAGNETIC FIELDS MEASURED AT 11.8 INCHES
FROM VARIOUS HOUSEHOLD APPLIANCES

Appliances	Range of Measured Fields (mG)		
Ranges	3	-	50
Ovens	1	-	50
Microwaves	40	-	90
Disposals	8	-	12
Dishwashers	7	-	14
Refrigerators	<0.1	-	3
Washers	2	-	20
Dryers	0.7	-	3
Coffee makers	0.7	-	1.5
Irons	1	-	4
Can openers	30	-	300
Mixers	6	-	150
Blenders	5	-	25
Vacuum cleaners	20	-	200
Portable heaters	1.5	-	40
Fans	0.2	-	40
Hair dryers	<1	-	100
Shavers	1	-	100
Televisions	0.3	-	20
Fluorescent fixtures	20	-	40
Desk lamps	5	-	20
Saws	10	-	300
Drills	25	-	40

SOURCE: International Electricity Research Exchange 1988.

research on electrical utility workers in Europe and North America failed to confirm the presence of such complaints, and subsequently, Soviet investigators indicated that their earlier concerns had been "overstated" (Bailey Research Associates, Inc. 1992).

In the late 1970s and throughout the 1980s, interest shifted primarily to magnetic fields because of a reported association between the apparent current-carrying capacity of power lines and childhood cancer (Wertheimer and Leeper 1979) and because electric fields from outside sources cannot penetrate building materials and enter homes.

The apparent association to date arises from epidemiological studies, which are based on a statistical association between a pattern of disease (such as cancer) and a factor (such as overhead power lines). This is in contrast to laboratory studies, which develop a cause-and-effect relationship from experimental evidence and are reproducible. Over 20 epidemiological studies have been conducted on this subject with conflicting results, but much of the debate is based on two studies in the Denver area. The first was published in 1979 by Nancy Wertheimer and Ed Leeper. It compared the home environments of childhood cancer victims and a control population to attempt to identify whether any factor related to home environment was statistically associated with the occurrence of cancer. Overhead power lines were identified as a possible factor.

Power delivery systems have high-tension wires which operate at high voltages (up to several hundred kilovolts) to allow power to be transported at relatively low currents. These wires deliver power to distribution substations where the voltage is stepped down, resulting in proportionately higher current in the medium-voltage primary lines. These lines carry power to a local transformer, where the voltage is stepped down again to produce the 240 volts delivered to individual residences. The current flow is greatest in the wires directly issuing from a substation or local transformer. At these points the voltage has been stepped down and "transformed" into current (Wertheimer and Leeper 1979). It was homes particularly close to these transforming points that were over-represented among cancer cases in the Wertheimer and Leeper study.

The magnetic fields produced by the currents in the power distribution lines can be canceled by balancing the supply and return currents (the magnetic field is zero between two lines with currents that are equal in magnitude but opposite in direction). This cancellation is not complete because the wires are often separated in space and because some of the return current does not flow through the wires. Some of the return current may instead go through the ground or, in many cases, through the plumbing system to which most urban electrical systems are grounded at each house. This results in a locally imbalanced current, both in the distribution wires and in the plumbing.

The Wertheimer and Leeper study states that the ground current flows not only in the street plumbing but also through the pipes in the house. Current which enters the plumbing at one house can flow through several homes before it returns to the

distribution wires because the plumbing provides a continuous low-resistance path between houses. The ground current produces a magnetic field which Wertheimer and Leeper state "appears to be roughly related to the types of wiring configurations nearby. This relationship between wires and plumbing is to be expected because, other things being equal, the greatest unbalanced current tends to occur where the total current in the wires is greatest, and the unbalanced portion of the current must detour through ground paths, such as the nearby earth and plumbing."

The Wertheimer and Leeper researchers classified the houses in the study based on the proximity to high-current configuration (HCC) and low-current configuration (LCC) wires. The HCC category was further divided into three subcategories: (1) homes less than 40 meters from large-gauge primaries or an array of six or more thin primaries; (2) homes less than 20 meters from an array of three to five thin primaries or from high-tension (50-230 kV) wires; and (3) homes less than 15 meters from first span secondary (240-volt) wires. First span secondaries were redefined as those secondaries which issued directly from the transformer and had not yet lost any current through a service drop occurring beyond the transformer pole.

However, no attempt was made to measure the actual magnetic field levels present. In other words, children with cancer were reported to be more likely to have power-line wiring outside the home apparently capable of generating higher magnetic fields than were healthy children, although actual exposures were not determined. Additionally, the studies by Wertheimer and Leeper were criticized for not eliminating confounding factors, such as maternal smoking, use of X rays, air pollution, traffic, noise, exposure to hazardous chemicals, and housing density, which might have contributed to the cancer but are unrelated to power-line fields. The classification of the wires was also considered biased because the researchers knew whether the case person of the house had contracted cancer or not. The classification itself was considered arbitrary based on visual inspection.

A second study in Denver was completed which expanded on Wertheimer and Leeper's work and improved some of the weaknesses in the previous methodology (Savitz et al. 1988). A modest statistical correlation between children with cancer and the proximity of their homes to HCC power lines was found. But the correlation between cancer and the actual measured magnetic fields in the homes was weak enough to be included in a statistical margin of error.

Another study that made field measurements of magnetic fields in the homes to estimate exposure (rather than using the crude estimations based on the type of utility wiring outside the home and the distance of the lines from the home) did not report a statistically significant association between childhood cancer and measured fields (London et al. 1991). Several other epidemiological studies conducted in community settings have not

detected any association between proximity to power-line sources of magnetic fields and cancer (Fulton et al. 1980; McDowall 1986; Coleman et al. 1989; Myers et al. 1990).

Results of occupational epidemiological studies are also contradictory. Some of these studies indicate a statistical association between some types of cancer and electrical occupations while others do not (California Department of Health Services 1992; Bailey Research Associates 1992). As with the residential studies, the major limitation of the studies completed to date is the lack of data regarding actual exposure, since they use job classification/job titles to estimate exposure (Office of Technology Assessment 1989).

Most recently, a study was completed involving cancer mortality among workers at Southern California Edison Company. No consistent association was found between either work in electrical occupations or magnetic fields measured in the work environment and all cancers combined. A similar study completed in 1992 among Swedish electric utility workers provided results consistent with the Southern California Edison study (Sahl, Kelsh, and Greenland 1993).

There are still relatively little data that give experimental support for a mechanism of cancer development from magnetic fields, but there is growing recognition that these fields may have biological effects based on the fact that every cell in the body has charged particles of various kinds on the two sides of the outer membrane. Thus, cell membranes are much like miniature storage batteries, maintaining a separation of charge across themselves. It is speculated that 60 Hz fields may alter the behavior of charged particles located in or attached to cell membranes. Most investigators agree that the findings are suggestive enough to deserve further inquiry. However, the following conclusion has been reached with regard to the laboratory evidence regarding the association between magnetic fields and cancer:

Extensive laboratory studies of human and animal cells exposed *in vitro* to 60 Hz electromagnetic fields (EMFs) over a wide range of intensities show no indication of damage to DNA, the capacity to repair DNA damage, micronuclei formation or increased chromosomal aberrations. Therefore, the consensus among members of the scientific community is that 60 Hz EMFs are not cancer initiators (Bailey Research Associates 1992).

The epidemiological and laboratory studies conducted to date, as a whole, do not support the conclusion that exposure to magnetic fields is a cause of cancer (California Department of Health Services 1992; Bailey Research Associates 1992; U.S. Environmental Protection Agency 1992). At present, the scientific community does not support the implementation of standards since science has not identified exposure to EMFs as a health hazard nor has it provided any meaningful dose-response data on which to base standards (California Department of Health Services 1992; Bailey Research Associates 1992).

At the local level, the California Public Utilities Commission (CPUC), after investigating the EMF issue, found that available scientific research does not support a conclusion that exposure to low-frequency fields is a health risk. However, the CPUC, SDG&E, and other utilities in California recognize that some public concern and scientific uncertainty exist regarding a potential health risk associated with EMF. As a result, the CPUC issued Decision 93-11-013 on November 2, 1993. In this order, the commission directed California's utilities to standardize guidelines with other utilities where possible.

The bottom line is that there is no established cause and effect relationship between EMF exposure and cancer or other disease. For this reason, we can't define a hazardous level of EMF exposure (EPA 1992).

Since the possible link between electromagnetic fields from power lines and deleterious health effects has not been established, no land use setback distances from power lines or easements has been recommended except for the California State Department of Education, which requires a 150-foot setback from 230 kV transmission lines for adjacent school sites.

Existing Conditions

a) Del Mar Highlands Estates

Electromagnetic Fields

SDG&E maintains a 150-foot right-of-way, which crosses the southwestern corner of the project site in a northwest-southeast direction (see Figure 4K-2). This right-of-way contains one 230 kV line, one 138 kV line, and two 69 kV lines.

High-Pressure Gas and Fuel Lines

The State of California and the United States government regulate the design, construction, operation, and maintenance of high-pressure gas and petroleum fuel lines. The State Department of Education does not currently have setback requirements for schools from these lines nor does the City of San Diego have setback requirements for commercial and residential uses.

A 30-inch-diameter high-pressure natural gas line and two fuel oil lines extend through the western portion of the project site. These lines are located underground and are within the 150-foot on-site SDG&E right-of-way, with additional discussion of these facilities (as well as off-site utility lines) provided in the Public Facilities discussion.

Hazardous Materials

Many pesticides, which could have been used in previous agricultural practices on the project site (see the Natural Resources/Agriculture section, above), have now been banned due to their persistence in nature and unhealthful effects on wildlife and humans. If large quantities of such pesticides have been dumped or leaked into the soil, it would be unhealthful to breathe dust from those soils.

b) Shell Parcel

Electromagnetic Fields

No electric transmission lines cross this parcel.

High-Pressure Gas and Fuel Lines

No high-pressure gas or utility lines are known for this parcel.

Hazardous Materials

No known hazardous waste sites are located on or adjacent to this parcel.

<p style="text-align: center;">Public Safety Issue</p> <ol style="list-style-type: none">1. Would the proposed project expose people to potential health hazards?
--

1) Issue

Would the proposed project expose people to potential health hazards?

Impacts

Studies of the potential for adverse public health effects due to electromagnetic fields are inconclusive at this point. A statement or conclusion of impacts would be speculative. In accordance with CEQA Guidelines Section 15145, the known information about electromagnetic fields is summarized above and no conclusion is reached.

a) High-Pressure Gas and Fuel Pipelines

Any project-related activities conducted within the described on-site SDG&E easement could potentially result in safety impacts related to the noted pipelines. However, SDG&E has strict encroachment requirements for SDG&E easements. Therefore, no

impacts to gas or fuel pipelines are anticipated from implementation of the proposed project.

b) Hazardous Materials

No known hazardous waste sites are located on or adjacent to the project site. Any water quality issues resulting from runoff into the two project-proposed impoundment basins (see Hydrology/Water Quality analysis, above) and ultimately into project area drainages would be less significant than those currently experienced due to on-site commercial agricultural activity.

The proposed estate residential uses (with accessory agricultural and/or equestrian uses permitted) are not expected to store, use, or generate significant quantities of hazardous materials which could result in contamination of soils, water, or air.

Significance of Impacts

In accordance with CEQA Guidelines Section 15145, the known information about electromagnetic fields is summarized above and no conclusion of significance is reached; the existing scientific data are inconclusive and potential impacts are speculative in nature.

a) High-Pressure Gas and Fuel Pipelines

No significant impacts are anticipated from project-related development due to restrictions and approval requirements associated with encroachment into SDG&E easements.

b) Hazardous Materials

No significant impacts are anticipated.

Mitigation, Monitoring, and Reporting

a) High-Pressure Gas and Fuel Lines

No mitigation is required provided that all project-related activities comply with existing SDG&E standards regarding easement encroachment.

b) Hazardous Materials

No mitigation is required.

M. Water Conservation

Existing Conditions

a) Water Supply and Distribution

Most of San Diego's water is imported from the Colorado River via the Colorado River Aqueduct or from northern California via the California Aqueduct, which is part of the State Water Project. The SDCWA acquires the imported water from the Metropolitan Water District of Southern California. The SDCWA sells water to 23 member agencies, including the City of San Diego.

Prior to transport south to San Diego, raw water is stored and treated at Lake Skinner in southern Riverside County. From Lake Skinner, the water is transported to San Diego County via the First and Second San Diego Aqueducts. Lake Hodges (to the north of the FUA) and Miramar Reservoir (to the south) are the closest reservoirs. The existing City of San Diego reservoir system is not designed to capture storm runoff to take effective advantage of local rainfall, but stores imported water, the supply of which fluctuates based on snowpack in northern California. Within the past few years, the City experienced severe drought conditions due to high local demands and to low snowfall and recharge rates in the northern part of the state.

Storage, treatment, and distribution facilities throughout the City's system have little remaining capacity to serve new development. The City is evaluating the feasibility of a North City Treatment Plant to treat raw aqueduct water. The service area for this plant has not yet been determined but may include the FUA (LaSelle, pers. comm. 1994).

Del Mar Highlands Estates

As discussed in Public Facilities and Services, current water use due to on-site agricultural activity is estimated to total approximately 300,000 gpd. This water is provided via a spur line constructed by on-site growers which taps into a 30-inch water main located along Black Mountain Road. No sewage is currently generated through on-site uses.

Shell Parcel

This parcel is primarily in open space with a limited amount of agricultural (field crop) activity associated with the parcel. Water consumption for this small field area is not documented.

b) Water Conservation

In compliance with state legislation, the City has an updated Urban Water Management Plan and Conservation Program. Included in the plan is a five-year strategy for water conservation which details measures to promote long-term conservation through public education and to encourage residents to install water-efficient plumbing fixtures. A residential interior plumbing retrofit program targeted to reach 150,000 pre-1981 constructed homes and to provide low-water-use shower heads and toilet upgrades has been successfully completed (Steirer, pers. comm. 1994). The following programs were implemented under the plan in 1991 and are ongoing:

- Ultra-Low Flush Toilet Rebate Program
- Public Information and Education Program
- Water Conservation Hotline
- City of San Diego Water Consumption Data Base
- Ultra-Low Flush Toilet Ordinance for New Construction
- Water Conservation Plumbing Retrofit Ordinance

Other water conservation efforts included the City Council's approval of becoming a signatory to the Memorandum of Understanding Regarding Urban Water Conservation in California, support of proven water conservation strategies, and the creation of the City Manager's Water Conservation Advisory Committee to review proposed long-term water conservation programs. Although no longer in a severe drought condition, San Diego is still in a "drought watch." In addition, the City can experience "structural drought," a condition in which potable water supplies are restricted due to drain-off of available water for other required uses, such as native species preservation.

Overall, water conservation efforts in the city have been effective. The City Council identified a city-wide conservation goal of 20 percent in April 1991. Through programs implemented under the conservation program and the receptiveness of San Diegans to them, city residents have conserved that average annually since then (Steirer, pers. comm. 1994).

Nevertheless, the history of development in the San Diego area includes many golf courses and large expanses of lush landscaped areas. Much of the plant material used in the past was imported from areas with higher rainfall and thus requires significant irrigation in order to survive. Only recently have landscaping trends been towards reducing irrigated areas and using more drought-tolerant plant materials. Although in the near future (perhaps as soon as mid-1997), City-watered golf courses such as Torrey Pines and Naval Air Station Miramar will receive reclaimed water, the maintenance of golf courses and other landscaped areas is currently a major consumer of potable water in the region (Lopez, pers. comm. 1994).

There are presently no sources of reclaimed water or reclaimed water distribution facilities in the vicinity of the project sites. In 1992, the City completed a reclaimed water distribution master plan for the city's northern service area, which shall be primarily served by the North City Water Reclamation Plant, located at Interstate 805 and Eastgate Mall. As part of this master plan, major users of reclaimed water were identified and a backbone reclaimed water distribution system was developed. An addendum to this report was published in November 1992, in which a more cost-effective backbone system was proposed.

For the past several years, the City has been conditioning qualifying development projects within the FUA to install facilities for the use of reclaimed water to offset new planned uses. In September 1994, however, the City's Metropolitan Wastewater Department implemented the "optimized" reclaimed water distribution system for reclaimed water use in the City's northern service area. The optimized reclaimed water distribution system will have a reclaimed water service area which is significantly reduced from that previously planned. Del Mar Highlands Estates is located outside of the optimized system service area and will, therefore, not receive reclaimed water from the City within the foreseeable future (Lopez, pers. comm. 1994).

Water Conservation Issue

1. Would the project result in the use of excessive amounts of water, resulting in the depletion of domestic water supplies or the generation of excessive amounts of wastewater?

1) Issue

Would the project result in the use of excessive amounts of water, resulting in the depletion of domestic water supplies or the generation of excessive amounts of wastewater?

Impacts

Del Mar Highlands Estates

Assuming 172 dwelling units and a water demand for residential units at 525 gpd, the average estimated domestic water use figure for the buildout of Del Mar Highlands Estates would be 90,300 gpd. This anticipated use rate would be 209,700 gpd under the current agricultural use rate in the project area; a 70 percent decrease.

It is also estimated that approximately 48,160 gpd of wastewater would be generated by residential uses at buildout, based on 280 gallons per unit per day. Although this average use rate has been successful in allowing the Water Utilities Department to appropriately size sewage facilities (LaSelle, pers. comm. 1994), wastewater generated by the project may be somewhat lower than this estimate because of the low-flush toilets required by law for new construction.

The exact level to which adverse effects might result from project-related overwatering required to maintain landscaping on the private lots is not known at this time as precise development plans are unavailable. Construction of project roads, however, is expected to impact 14.7 acres through grading, cut, and fill activities. Slopes of up to approximately 110 feet in height are planned, and undoubtedly, some of these slopes will be compacted to minimize erosion or slide potential. Compacting results in poorer water absorption, and vegetation therefore requires more water than it would ordinarily need in order to overcome amounts lost in runoff. A goal of the project design guidelines, however, is to encourage the use of native, naturalized, and drought-tolerant species in order to reduce water usage. A listing is provided in the guidelines of plants considered appropriate for the development with fire-retardant and drought-resistant qualities identified. In addition, project design guidelines state that:

- Plantings on all manufactured and existing slopes that abut areas of natural vegetation shall include annuals, perennials, woody ground covers, and shrubs capable of surviving without continuous supplemental water and shall be predominantly indigenous native species appropriate to the specific site conditions.
- All slopes steeper than 6:1 and greater than five feet in height shall be planted with herbaceous or prostrate shrubby ground covers. All internal slopes greater than 15 feet in height shall be planted with a combination of trees, shrubs, and ground covers (minimum one-gallon size) at an average rate of one tree or shrub per 100 square feet of slope area. A minimum of 50 percent of shrubs and ground covers shall be a deep root variety (root depth of five feet or greater).
- Turf shall be accepted as ground cover within parkways only in areas where it relates to turf plantings in the front yard areas of individual residences, at project entries, and at the enhanced circulation nodes. ~~Turf will not be installed as a ground cover within parkways since it requires intensive watering and maintenance.~~
- All shrubs, ground covers, manufactured and disturbed slope plantings, and lawn areas shall be permanently irrigated. Irrigation systems shall be fully automatic. Low-precipitation sprinkler heads and other water conservation devices will enable the system to distribute water efficiently while maintaining adequate coverage and health of plant materials.

- Design of irrigation systems for Del Mar Highlands Estates shall conform with the requirements set forth in the City's Landscape Technical Manual and shall be installed in accordance with San Diego Area Regional Standard Drawings. Each circuit within the landscape irrigation system shall be capable of meeting the minimum needs of the mature plant material during peak demands within a weekly irrigation schedule. When selecting plant materials, species of similar moisture needs should be grouped together to minimize the need for redundant or highly complex irrigation systems. In addition, the landscape irrigation system shall be designed and operated to minimize runoff and discharge of irrigation water onto adjacent property, nonirrigated areas, walks, roadways, or structures. The use of water-conserving equipment and techniques is highly encouraged.

Given that road grading activities are anticipated to affect less than four percent of the project site and that project design calls for use of drought-tolerant plants as well as low-precipitation sprinkler heads, this portion of project activities is not expected to result in adverse effects to water conservation.

Currently, it is anticipated that single-lot development would also not result in adverse effects as regards compacted slopes or conversion of open space to landscaped space. Eliminating lot acreage and project roadways (a total of approximately 147 acres), approximately 63 percent of the project site would be preserved in open space. These areas contain vegetated internal slopes, sensitive biological resources, and steep slopes as well as Gonzales Canyon. In large part, the "developable" portions of the lots generally correspond to areas which have already been graded for agricultural activities within the upland areas of the site, and overall, project development would reclaim current agricultural portions of Gonzales Canyon to be kept permanently in open space.

Based on these criteria, the effects of development are expected to be less than significant as regards compacted slopes or conversion of open to landscaped space.

Significance of Impacts

Because water usage would be decreased by up to an anticipated 70 percent (to 90,300 gpd), implementation of the proposed Del Mar Highlands Estates project would not have a significant adverse impact on city water supplies. Nonetheless, imported water supplies are limited and the continuing statewide drought watch condition renders water conservation efforts essential to curtail the cumulative effects of development in southern California.

Mitigation, Monitoring, and Reporting

Although significant project-level effects were not assessed based on anticipated water use rates for the 172 lots associated with the Del Mar Highlands Estates development, the following mitigation measures shall be incorporated into project design as noted below: ~~guidelines to address cumulative water usage concerns:~~

1. Limit grading in areas where no construction is proposed; thereby reducing the need for planting and irrigation of graded areas; (landscaping plans)
2. Provide integrated soil amendments in lifts of low-clay content soil in landscaped areas to improve infiltration; (landscaping plans)
3. Reduce runoff potential from landscaped areas by utilizing berming, raised planters, and drip irrigation systems; (landscaping plans)
4. Install soil moisture override systems in all common irrigation areas to avoid sprinkling when the ground is already saturated; (landscaping plans)
5. Identify in the plant materials list in the project design guidelines whether or not plants are native or naturalize easily and incorporate a list of local California sources for native plants; (landscaping plans)
6. Incorporate low-flush toilets, low-flow faucets, and timers on sprinklers (including nighttime watering) into project design; and (building permits)
7. Provide information regarding water conservation measures to new residents at the time of lot purchase. (certificate of occupancy)

N. Natural Resources/Agriculture

Existing Conditions

a) Agricultural Resources

Evaluations of agricultural resource potential are based on two data sources: analyses of project historical use of the area for agricultural purposes and area soil qualities.

Historical Agriculture. Agricultural production in the project vicinity has a lengthy history but is not regionally significant. The McGonigle family started farming in the Carmel Valley area in the 1860s. Farming operations were conducted in Shaw Valley and on the Del Mar Mesa since the early 1900s. Aerial photographs taken in 1928 show farming activities in the western half of McGonigle Canyon, as well as Gonzales Canyon. City of San Diego Agricultural Land Use maps from the 1950s show field crops in the project area. Much of the farming was on hills adjoining and bottomlands of Gonzales Canyon. Two small areas (5-10 acres each) of vegetable and orchard were also shown in Carmel Valley. By 1958, field crops were still located in Carmel Valley, McGonigle Canyon, and the western end of Deer Canyon. A 1966 map shows an overall decrease in agricultural activity, although crops were still present in McGonigle and Deer Canyons, the Carmel Valley area, and north of McGonigle Canyon. South of Carmel Valley, only Neighborhood 10 has recently been used for agriculture.

Soil Characteristics. Two soil rating systems are used to describe soils and their potential agricultural productivity: the soil capability rating system and the Storie Index rating system. The soil capability system indicates the limitations of a soil type for field crops and the way the soil responds to management practices. Soils are grouped in eight classes, from Class I through VIII, with Class I being the least restricted. Class III soils are more severely limited and may require both increased selectivity of cropping programs and conservation practices. Class IV soils require careful management practices, but farming of row, grain, and tree crops is still possible. The capability ratings of all on-site soils are provided in Table 4N-1.

The Storie Index soils rating system numerically expresses the relative suitability of a soil for intensive agriculture. Profile characteristics, soil surface texture, slope, and other miscellaneous conditions are assigned percentages, with the most agriculturally favored condition rated as 100 percent. These percentage factors are multiplied together to achieve the final Storie Index rating.

In addition to the above-described soil classifications, the California Department of Conservation (1992) has established a number of important farmland classifications based on extensive physical and chemical soil parameters, as well as local growing seasons,

**TABLE 4N-1
SOIL TYPES AND ACREAGE
RANKED BY STORIE INDEX AND CAPABILITY CLASS**

Soil	Soil Name	Capability Classification	Acreage	Storie Index	Weighted Storie Index
CsB	Corralitos loamy sand, 0 to 5 percent slopes	IIIs-4	83.9	64	3.82
CsD	Corralitos loamy sand, 9 to 15 percent slopes	IVs-4	0.3	52	0.09
HrC2	Huerhuero loam, 9 to 15 percent slopes	IVe-3	84.2	38	3.25
HrD2	Huerhuero loam, 9 to 15 percent slopes, eroded	IVe-3	1.9	36	0.90
HrE2	Huerhuero loam, 15 to 30 percent slopes, eroded	VIe-3	45.9	32	0.64
LvF3	Loamy alluvial land-Huerhuero complex, 9 to 50 percent slopes, severely eroded	VIIIs-1	40.6	23	1.75
OhE	Olivenhain cobbly loam, 2 to 9 percent slopes	VIe-7	98.0	20	5.0
TeF	Terrace escarpments	VIIIe-1	34.2	<10	0.96

SOURCE: U.S. Department of Agriculture 1973.

moisture supplies, and agricultural history. Specifically, these classifications include prime farmland, farmland of statewide importance, farmland of local importance, and unique farmlands. Farmland of statewide importance includes soil with similar characteristics to prime farmland, but with minor limitations such as slopes or less ability to hold and store moisture. Unique farmland includes lesser-quality soils used in the production of leading cash crops or dry-farmed farmland of statewide importance. Farmland of local importance consists of soils which are important to the local agricultural economy.

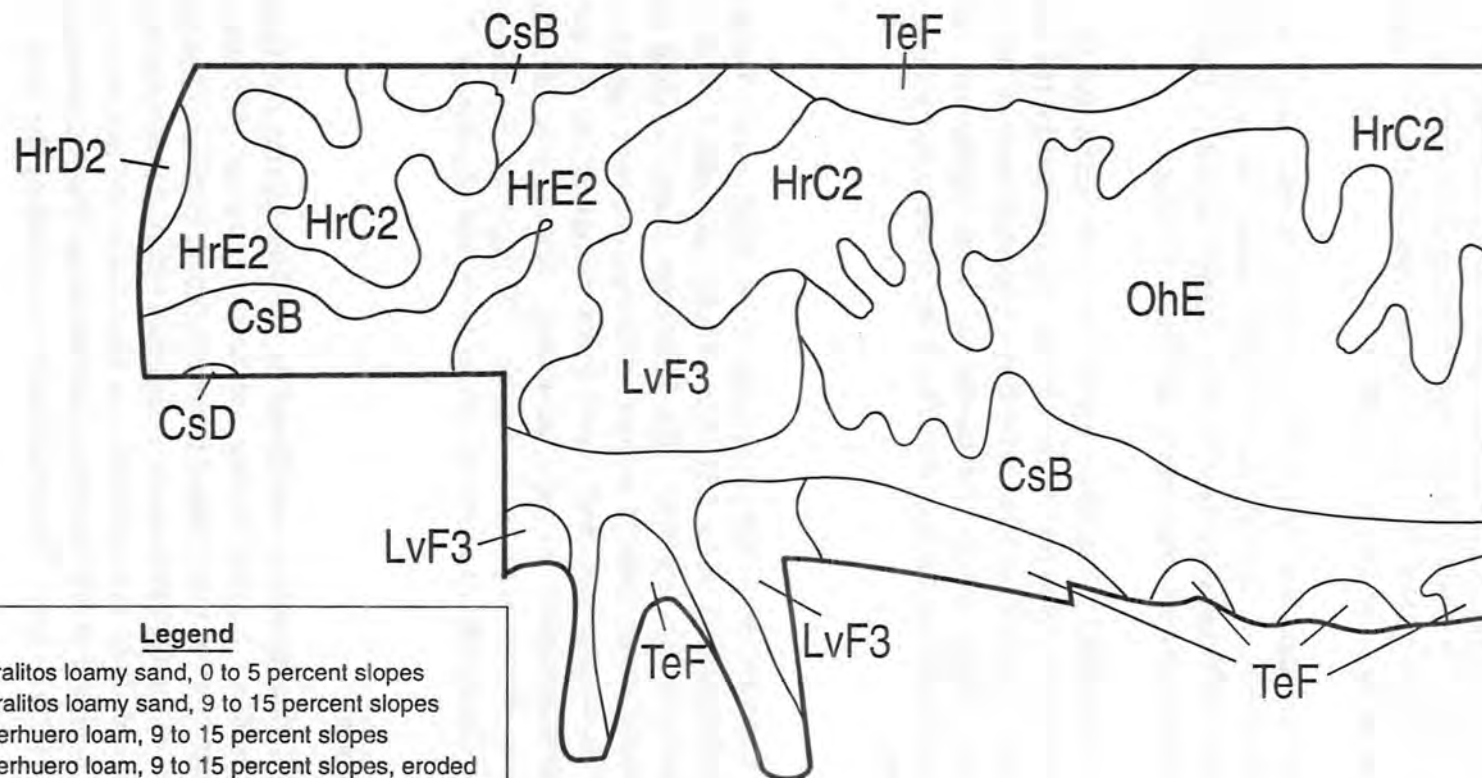
Del Mar Highlands Estates

Information on more recent agricultural uses in the project site and vicinity has been gathered from local owners and leaseholders. Agricultural use in the project site vicinity has generally diminished in recent years, although substantial portions of the site are currently in agricultural production. These areas are all located within the Gonzales drainage and were on the hilltops above the associated tributary drainages (see Photograph 2-1).

Existing on-site agricultural use includes approximately 200 acres planted predominantly in tomatoes. This activity is associated with the San Dieguito Valley Agricultural Permit, issued by the City of San Diego in 1989. The noted permit incorporates approximately 690 acres, including the entire project site and additional areas to the east. Of the total permit area, approximately 388 acres are authorized for irrigated agricultural uses (with specific identified crops including tomatoes, cucumbers, and peppers) and 302 acres are slated for nondisturbance. Generally, this latter designation is intended to protect sensitive resources by restricting agricultural use in drainages and areas with important biological and cultural values. Current agricultural use within the project site (approximately 200 acres) is located predominantly on rolling mesa tops (167 acres) and in Gonzales Canyon (33 acres), with most on-site drainages and steeper areas preserved as native vegetation.

There are no known Williamson Act lands or other agricultural preserve designations within the project site.

Mapped soil types within the project site are depicted on Figure 4N-1. No Class I or II soils are present on-site. Approximately 84 acres (21.6 percent) of the project area, primarily associated with Gonzales Canyon, are defined as having Class III soils. Approximately 86.4 acres (22.2 percent) of the site are defined as having Class IV soils and are, in fact, the areas where the majority of agricultural activity is currently taking place. Approximately 56.3 percent of the soils on-site are classified below Class IV and are not suitable for cultivation of coastal crops; their uses are mainly restricted to pasture, range, or recreational uses.



Legend

- CsB - Corralitos loamy sand, 0 to 5 percent slopes
- CsD - Corralitos loamy sand, 9 to 15 percent slopes
- HrC2 - Huerhuero loam, 9 to 15 percent slopes
- HrD2 - Huerhuero loam, 9 to 15 percent slopes, eroded
- HrE2 - Huerhuero loam, 15 to 30 percent slopes, eroded
- LvF3 - Loamy alluvial land - Huerhuero complex,
9 to 50 percent slopes, severely eroded
- OhE - Olivenhain cobbly loam, 2 to 9 percent slopes
- TeF - Terrace escarpments

SOURCE: U.S. Soil Conservation Service (1973)

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FIGURE 4N-1

**Del Mar Highlands Estates
Soil Types**

The best on-site soils under the Storie system have a rating between 60 and 80 and account for approximately 21.6 percent of project area soils. Soils with this rating are suitable for most crops and have few special management needs. Less than one percent of the soils have a rating between 40 and 60 and are suited to crops which require special management. Another 69.5 percent of on-site soils have a rating between 20 and 40, indicating that usage for crops is severely limited. Approximately 8.8 percent of the soils on-site have Storie Index ratings of less than 20, indicating unsuitability for any crops. Storie indices for all on-site soils are shown in Table 4N-1.

The location of important farmland soil designations (as well as other nonagricultural categories) is shown on Figure 4N-2. As seen on this figure, there is no prime farmland on the project site. On-site agricultural operations are primarily located on farmland of local importance, farmland of statewide importance, and unique farmland.

Approximately 45 acres of farmland of statewide importance occur within the site, with these soils located in three distinct areas (see Figure 4N-2). Approximately 168 acres of unique farmland occur on-site, with these areas extending throughout much of the central portion of the site (see Figure 4N-2). Farmlands of local importance include approximately 85 acres on-site and are located primarily in the northern and southwestern portions of the project area.

Shell Parcel

Prime farmland soils are associated with alluvial portions of the Shell parcel. These soils (consisting of Salinas clay loam) are Class II and have a Storie Index rating of 73. They are present in very limited quantity, however. The Huerhuero loam, Redding cobbly loam, and terrace escarpments, which form the majority of this parcel, have capacity class ratings of IV, VI, and VIII, respectively, with Storie Index ratings of 38, 10, and 10. Index 10 soils are considered unsuitable for any type of crop. The index of 38 indicates soils with severe limitations. Based on these criteria, the 1990 Important Farmland Map (California Department of Conservation) shows the parcel to consist of category "X," or Other Land.

b) Mineral Resources

In accordance with classification guidelines established by the State Mining and Geology Board and in compliance with the Surface Mining and Recovery Act of 1975, the state geologist is required to classify areas into Mineral Resources Zones (MRZ). These zones are established on the basis of an aggregate resource appraisal which includes an analysis of geologic reports and maps, field investigations, an examination of active sand and gravel mining operations, analyses of drill hole data, interpretation of aerial photographs, and evaluation of private company data. The guidelines for establishing the MRZ are as follows:

S = FARMLAND OF STATEWIDE IMPORTANCE. Land with a good combination of physical and chemical features for the production of agricultural crops

U = UNIQUE FARMLAND. Land of lesser quality soils used for the production of the State's leading agricultural cash crops

L = FARMLAND OF LOCAL IMPORTANCE. Nonirrigated Prime and Statewide soil mapping units, and cultivated farmlands not covered by any above category, but are of significant economic importance to the County

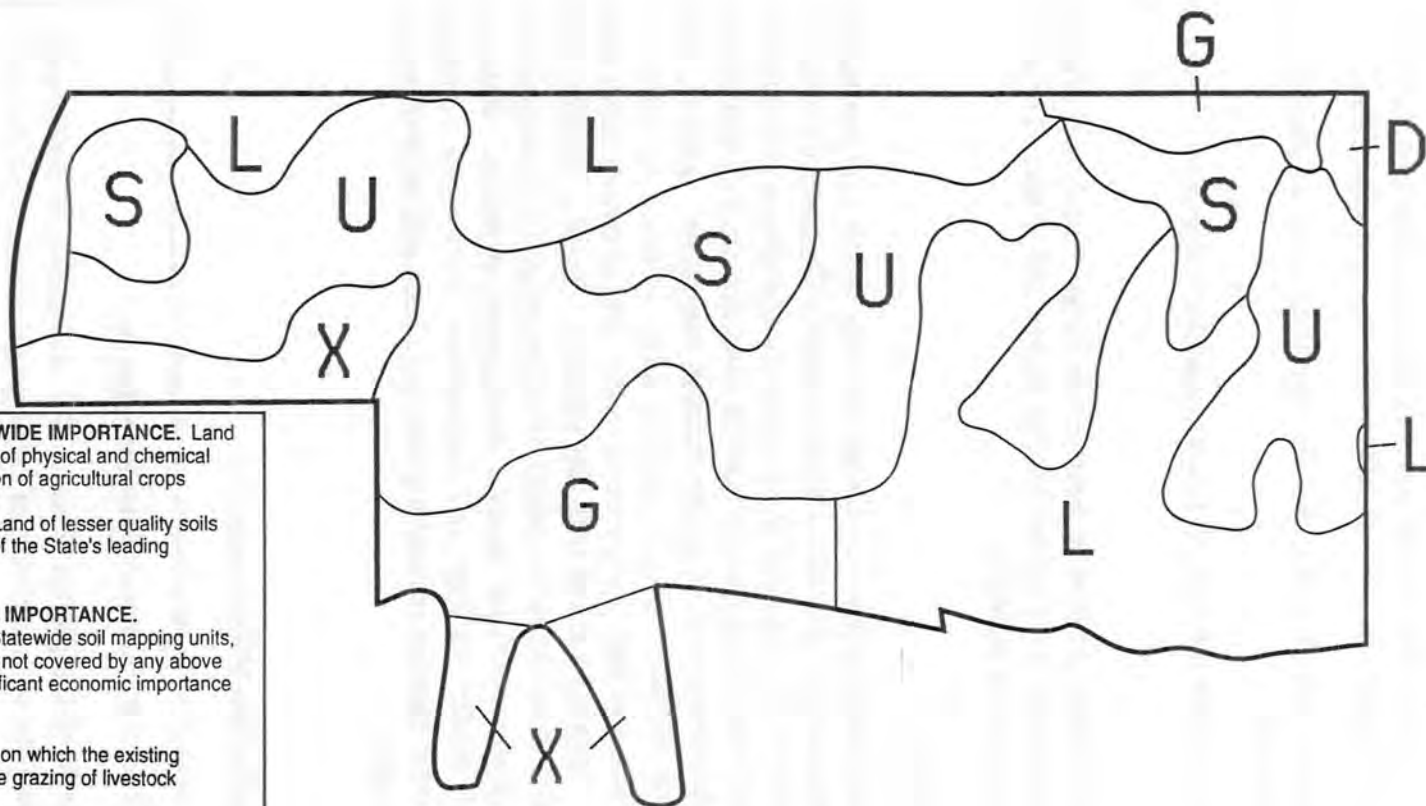
G = GRAZING LAND. Land on which the existing vegetation is suited to the grazing of livestock

D = DEVELOPED LAND

X = OTHER LAND. Land which does not meet the criteria of any other category

The above definitions are summarized from the "Advisory Guidelines for the Farmland Mapping and Monitoring Program"

SOURCE: STATE OF CALIFORNIA IMPORTANT FARMLAND MAP, 1992b



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FIGURE 4N-2

**Del Mar Highlands Estates
Important Farmlands**

- MRZ-1. Areas where adequate information indicates that no significant mineral deposits are present or where it is judged that little likelihood exists for their presence.
- MRZ-2. Areas where adequate information indicates that significant mineral deposits are present or where it is judged that a high likelihood for their presence exists.
- MRZ-3. Areas containing mineral deposits, the significance of which cannot be evaluated from available data.
- MRZ-4. Areas where available information is inadequate for assignment to any other MRZ.

Classification of aggregate mineral deposits in western San Diego County was compiled in the California Division of Mines and Geology *Special Report 153* (1982). These areas were then considered for designation as MRZs.

Del Mar Highlands Estates

The entire project site is designated as MRZ-3. On-site deposits which are most likely to have an economic importance are the alluvial materials located in Gonzales Canyon. The potential for economic mineral development in this area is considered generally low, however, due to the relatively small exposure of alluvial materials, the low unit value of aggregate minerals, and the presence of extensive riparian vegetation. That is, viable sand and gravel production typically involves mining large volumes of material to compensate for low unit value and high transportation costs. The relatively small extent of materials in Gonzales Canyon, coupled with the extensive riparian habitat (which would restrict operations due to its sensitive nature), would be expected to substantially reduce the potential for on-site economic mineral development potential. Based on preliminary evaluation of on-site geology and exploration history, no significant development potential for other types of mineral deposits (e.g., base and precious metals) is anticipated in the project area.

Shell Parcel

The Shell parcel is contained within MRZ-3 areas.

Natural Resources/Agriculture Issues

1. Would implementation of the project result in the conversion of agricultural land to nonagricultural use or impairment of existing agricultural productivity?
2. Would implementation of the project result in the prevention of future extraction of sand and gravel resources?

1) Issue

Would implementation of the project result in the conversion of agricultural land to nonagricultural use or impairment of existing agricultural productivity?

Impacts

Project implementation would permanently convert the site's commercial agricultural use to undisturbed open space, roads, and residential uses, with ancillary (including potential small-acreage agricultural) uses permitted in designated areas. Developable areas within lots total a maximum of approximately 148 acres, roads account for approximately an additional 15 acres, and the remaining approximately 280 acres would remain in open space.

Specifically, 200 acres of agricultural land would no longer be in production after project implementation. Because of the sensitive nature of most of the proposed nondevelopable area, however (i.e., mostly riparian or coastal sage scrub corridors), it is unlikely that agricultural use would be authorized in these areas. The existing on-site agricultural permit issued by the City of San Diego specifically excludes these sensitive areas and requires their retention as a natural preserve. Therefore, the loss of this agricultural land, including State of California lands mapped as farmland of statewide importance and unique farmland (see Figure 4N-2), would be cumulatively significant.

Significance of Impacts

No significant direct impacts to agricultural use or potential are anticipated as a result of proposed project implementation. This conclusion is based on a number of factors, including the lack of prime farmland on Del Mar Highlands Estates, very limited areas of prime farmlands on the Shell parcel, lack of agricultural preserves, the fact that local agriculture is not regionally significant, and the presence of numerous limiting factors for agricultural production (e.g., topography and sensitive habitats).

Mitigation, Monitoring, and Reporting

No mitigation is required.

2) Issue

Would implementation of the project result in the prevention of future extraction of sand and gravel resources?

Impacts

There are no existing on-site mining operations which would be replaced during project implementation. As mentioned previously, the entire project site is designated as MRZ-3, with the most likely location for previously unidentified mineral resources located within Gonzales Canyon. Project implementation includes the identification of developable and nondevelopable areas within the project site, in conformance with the City's RPO. The project would preclude on-site mineral extraction, which would be incompatible with both residential use and preservation of the proposed nondevelopable areas.

Significance of Impacts

The project site has unknown potential for aggregate mineral deposits. The most likely location for occurrence of such deposits is the alluvium in Gonzales Canyon. Any potential value associated with on-site mineral resources would be lost due to the proposed project, which places these areas into open space in perpetuity. This is not considered significant, however, due to the generally low potential assigned to on-site aggregate mineral development. This conclusion is based on the relatively small extent of on-site alluvial materials, the low unit value of aggregate minerals, and the presence of sensitive habitats (as described above).

Mitigation, Monitoring, and Reporting

No mitigation is required.

Chapter Five

CEQA Mandatory Discussion Areas

A. Any Significant Irreversible and Unavoidable Environmental Changes Which Would Be Involved in the Proposed Action Should It Be Implemented

The most apparent irreversible environmental change associated with the Del Mar Highlands Estates project and its implementation would be the continuation of a planned commitment of a major portion of the site to residential, recreational, and open space uses. This conversion of land for these uses is a permanent change. These include significant changes to existing landform, land use, noise, and archaeological and biological resources. The existing landform would be altered by grading operations that include cutting the mesa top areas and filling canyon heads to provide development areas. These alterations in the existing landform would be irreversible and, since they are a result of the project land use changes, cannot be avoided without changing the development concept.

The existing uses of the property (agriculture, biological habitat, unauthorized off-road-vehicle uses) would be changed with the implementation of the proposed project, whereby the project would be used for residential, educational, recreational, and open space uses. These changes in the land uses of the site would be irreversible.

Implementation of the project as proposed would cause significant irreversible impacts to biological resources that exist on the property. Approximately 169 acres of the existing project site land area would be affected by the residential and street development designated for the proposed project. Approximately 220 acres would be preserved as open space as a result of the proposed project.

Because of the commitment of land to these uses, implementation of the proposed project would result in the consumption of energy derived from nonrenewable sources, such as fossil fuel and nuclear fuels. Building materials would be considered permanently used.

B. Growth-Inducing Impacts of the Proposed Project

Section 15126(g) of the CEQA Guidelines describes growth-inducing impacts as “the ways in which the proposed project could foster economic or population growth, or the construction of new housing, either directly or indirectly in the surrounding environment.” If a project has characteristics which may “encourage or facilitate other activities that could significantly affect the environment, either individually or cumulatively,” then this aspect of the project must be discussed as well. The following discussion primarily focuses on two factors: (1) potential for stimulation of development of property at a greater density than allowed by existing planning and zoning; and (2) a change in the timing of development resulting from extension of public services or road access into an area where previously unavailable.

The 389-acre Del Mar Highlands Estates project site is located in an area of approximately 12,000 acres identified as the North City Future Urbanizing Area. The Del Mar Highlands Estates site is in the western portion of Subarea III of the FUA and adjoins Subarea II to the west, the Carmel Valley community to the south, the Fairbanks Country Club Specific Plan development to the north and east, and agricultural and undeveloped land in Subarea III to the southeast.

All lands in the FUA are designated as agricultural (with A-1-10 zoning) on an interim basis to prevent premature urbanization and protect environmental and fiscal resources by precluding leapfrog development. A Framework Plan for the FUA has been adopted by the City as an amendment to the General Plan. This plan would permit the development of up to 14,780 residential units in the FUA, including 5,460 units within Subarea III. The Framework Plan identifies the Del Mar Highlands Estates project site for estate residential development at up to 0.2 du/ac (77 units total). Implementation of the Framework Plan is dependent on a phase shift from “future urbanizing area” to “planned urbanizing area.”

According to the City of San Diego’s Progress Guide and General Plan, the FUA designation may be removed upon one of the following:

- The Urbanizing Area and Planned Urbanizing Area communities of the City approach buildout, or
- Significant opportunities arise to implement the City’s balanced housing, land use, or other goals.

At such time as it is determined that one of the two situations has occurred, a General Plan amendment for a phase shift may be prepared. If approved by the City Council, the

amendment would be brought to the voters in a city-wide election for final action in accordance with Proposition A, the Managed Growth Initiative (R-264708, 12-16-85). A subarea plan for Subarea III must also be prepared and adopted by the City prior to development at the densities permitted in the Framework Plan. See the Land Use discussion in Section 4.A for additional background information on phase shift and subarea planning requirements. A phase shift for the FUA was put to the voters on the June 1994 ballot and did not pass.

In the absence of a phase shift and adopted subarea plans for the FUA, the Framework Plan and Council Policy 600-29 permit development within the FUA consistent with the underlying A-1-10 zoning (one unit per ten acres), Planned Residential Development regulations (not to exceed one unit per four acres), Rural Cluster regulations (at the A-1-10 zoning density), and with a Conditional Use Permit.

The current project proposes 172 dwelling units on Del Mar Highlands Estates. This proposed number of units exceeds the allowable density discussed above for the parcel. The overage, however, results from two causes:

- Transfer of units from the Shell parcel held by the applicant which will be dedicated to open space (Table 5-1).
- Construction of 24 units of affordable housing.

**TABLE 5-1
PROJECT ANALYSIS**

Parcel	Acreage	Units at 0.25 du/ac	Density Bonus Units	Lots Proposed by Applicant	Affordable Housing Units
Del Mar Highlands Estates	389.0	97.25	54	148	24
Shell (unit transfer)	84.0	21.0	0	0	0
TOTALS	473.0	118.25	54	148	24

The transfer parcel (84 acres) could have supported 21 dwelling units under Council Policy 600-29 clustering provisions. Units on Shell (21) are being transferred to Del Mar Highlands Estates. When combined with the possible total of units for Del Mar Highlands Estates (97), the number of potential dwellings on the parcel totals 118. In addition, by inclusion of the affordable housing, the applicant would receive a 46 percent density bonus, or an additional 54 units ($118 \times 0.46 = 54$), bringing the total number of potential dwellings on Del Mar Highlands Estates to 172. This is precisely the number

proposed by the applicant: 148 market rate units and 24 affordable housing units to be developed under this project.

In addition to the fact that total housing units would comply overall with planned Policy 600-29 densities, when combined with the state-mandated density bonus granted through inclusion of affordable housing, the proposed project would not have a growth-inducing impact for the following reasons:

- The proposed project would not directly or indirectly foster significant economic or population growth through provision of employment opportunities and construction activities related to development of the surrounding area. Also, as described above, the overall density of proposed development within the FUA for the parcels considered in this EIR does not exceed these densities allowed by existing planning and zoning regulations.
- The proposed project does not represent leapfrog development. With regard to Del Mar Highlands Estates, the site is surrounded on three sides by development and the fourth side of the project abuts a roadway with existing utility lines. Although the project will extend roadways, utilities, and water service into a previously unserved area, it will not remove obstacles to growth for any adjacent areas and thereby stimulate development of surrounding properties at a higher density than currently allowed.

C. Effects Found Not to Be Significant

Based on the Initial Study, which was conducted by the City of San Diego to develop the scope of issues for the EIR, and the preceding environmental impact analysis (Chapter 4), several issues were found not to have potentially significant effects. These are briefly explained below.

1) Risk of Upset

None of the proposed project components would increase the risk of an explosion or release of hazardous substances to the environment due to an accident or upset conditions. There are no land uses proposed on any of the sites which would be expected to store, use, transport or generate large quantities of hazardous substances. Since there is currently no public vehicular access through the project site, project construction is not expected to result in interference with an emergency response or evacuation plan.

2) Population and Housing

There are no existing residences on either of the project component sites (Del Mar Highlands Estates and Shell parcel). Due to the consistency of the project with the density limits in local plans, no significant impacts on population and housing are anticipated.

3) Energy

Implementation of the proposed project would not result in substantial demand for or consumption of energy. Future home development would be in compliance with the energy conservation requirements in Title 24 of the California Administrative Code and would not be high-energy-demand land uses.

4) Light and Glare

The design guidelines for the proposed project components place limitations on lighting for the project. Due to the low number of hours and low density of the proposed project, no significant light and glare impacts are anticipated.

Chapter Six

Cumulative Effects

Cumulative effects are two or more effects which, when considered together, are considerable or compound or increase other impacts; and the incremental effects of a project which by themselves are not significant but, when considered with impacts occurring from other past, present, and reasonably foreseeable projects in the vicinity, would result in a significant impact.

Specific past, present, or reasonably foreseeable projects are reviewed to assess cumulative effects. These include the adopted Framework Plan, approved and proposed precise plans in Carmel Valley, the Via de la Valle Specific Plan, the Showpark Equestrian Center, and the Rhodes tentative map. Other ongoing planning efforts which are also included in this analysis discussion are the San Dieguito Lagoon Enhancement Program, the San Dieguito River Park Concept Plan, and the Multiple Species Conservation Program. Table 6-1 lists these above projects along with other specific proposals.

Cumulative Projects Considered

a) Subarea I of the Framework Plan

Subarea I of the adopted Framework Plan consists of Area 1A and 1B. According to the Framework Plan, Area 1A consists of approximately 4,680 acres. Projected land uses and acreages identified for Area 1A in the Framework Plan included designations of estate (352 acres), very low (2,071 acres), moderately low (156 acres), peripheral (32 acres), local mixed-use (20 acres), and open space (2,050 acres).

Within Subarea I, a revised vesting tentative map was approved in 1995 for 3,777 acres of this site known as Black Mountain Ranch. This map includes plans for 1,121 dwelling units, one 250-acre 18-hole golf course, one 300-acre 18-hole golf course, one 30-acre community park, two 5-acre parks, and 2,171.2 acres of natural open space. The plan also includes a reclaimed water reservoir, potable water reservoir, fire station, community hall, library, senior citizen center, day-care center, church, recreation center, and

**TABLE 6-1
CUMULATIVE PROJECTS**

Name of Project	Gross Acres	Proposed Development	Status
Subarea I of Framework Plan	5,100	Various residential densities, open space, and mixed use	Subarea plan in process
Subarea II of Framework Plan	830	Estate and low density residential use and open space	Subarea plan in process
Subarea III of Framework Plan	2,640	Various residential densities, open space, and mixed uses	Subarea plan in process
Subarea IV of Framework Plan	1,330	Various residential densities, open space, and mixed use	Subarea plan in process
Subarea V of Framework Plan	2,042	Various residential densities and open space, and school and park	Approved
Black Mountain Ranch TM	3,777	Within Subarea I consisting of 1,121 dwelling units, one 250-acre 18-hole golf course, one 300-acre 18-hole golf course, one 30-acre community park, two 5-acre parks, and 2,171.2 acres of natural open space	Approved
The Bougainvillea	383	Within Subarea V consisting of a golf course, 140 units, and resort hotel	Approved
Bame parcel subdivision	17	4 dwelling units	Approved
San Andres West	17.6	47 dwelling units	Under construction
State Route 56	9 miles	Connects I-5 and I-15	Proposed
Draft Multiple Species Conservation Program	260,000	Regional habitat conservation plan	Draft plan; not approved
Neighborhood 8	350	CVREP channel with residential use	Approved
Neighborhood 8A	402	952 dwelling units	Proposed
Neighborhood 8B	100	Very low density residential	No precise plan proposed

**TABLE 6-1
CUMULATIVE PROJECTS
(continued)**

Name of Project	Gross Acres	Proposed Development	Status
Neighborhood 10	806	1,438 dwelling units	Approved, amendment proposed
Via de la Valle Specific Plan	123.5	421 dwelling units and open space	Approved, being amended
Rhodes Vesting Tentative Map	10.2	42 dwelling units	Approved
Showpark Equestrian Center	64	Equestrian center	Existing
San Dieguito Lagoon Restoration	NA	Wetlands restoration	In process
San Dieguito River Park	80,000	Preserve natural resources and provide public recreational opportunities	Approved JPA

elementary, middle, and high school sites. The project will construct an extension of Carmel Valley Road from Black Mountain Road to the westerly segment of SR-56. Approximately 900 acres would be subject to future development under existing land use policies or, after a phase shift, under Framework Plan policies. No construction has begun in Area 1A.

According to the Framework Plan, Area 1B consists of an estimated 500 acres. Projected land uses and acreages identified in the Framework Plan for Subarea 1B include residential very low (76 acres), core residential (79 acres), peripheral (123 acres), mixed-use core (41 acres), employment (42 acres), community park (35 acres), and open space (100 acres). A Supplemental EIR and subarea plan are currently being prepared for the North and South Village plans, the resort hotel, and the perimeter properties within Area 1B.

Plans for the North Village include 3,340 dwelling units; 450,000 square feet of industrial, office, or other uses as an employment center; 140,000 square feet of commercial retail space; and 13 acres of medical, police, and fire facilities. The plan also calls for 10 acres of neighborhood parks and a 10-acre school site.

The South Village is planned to contain 200 dwelling units and 60,000 square feet of commercial retail development. Covering an area of 26 acres, the resort/hotel will be developed to provide overnight lodging open to the public and ancillary services for golf course visitors. The resort is planned to contain 450 rooms.

Along the Subarea I perimeter, there are four cluster areas which total 515 acres that are not owned by the Black Mountain Ranch Limited Partnership. The southwest perimeter is comprised of 515 acres held by five separate owners. The properties are designated "Estate Residential" and have a capacity to develop 163 units within 151 acres adjacent to and compatible with the Rancho Santa Fe Farms area.

The southeast perimeter is comprised of 282 acres held by five separate owners. The property has the capacity to develop 373 units within two areas of 72 acres and 13 acres adjacent to and compatible with the Rancho Peñasquitos residences.

The southern perimeter is a small 16-acre triangle under single ownership located along the southern Subarea I boundary. Approximately 10 dwelling units are planned in an isolated six-acre area.

The northeast perimeter of the subarea is a single ownership totaling 67 acres. Up to 232 dwelling units are planned within a development area of 18 acres. This property should develop at densities compatible with the adjacent northern village and ultimately function as an integral element of the village.

b) Subarea II of the Framework Plan

The Framework Plan estimates Subarea II to contain 830 acres. The Framework Plan estimated land use designations to include residential estate (25 acres), very low (220 acres), and open space (580 acres). The Framework Plan projected 230 units within Subarea II. Three projects, referred to as the Stallions Crossing projects, were proposed in this subarea (The Villas, The Ranch, and The Villages TMs), but were not approved.

c) Subarea III of the Framework Plan

The Framework Plan estimates Subarea III to contain 2,640 acres. The Framework Plan estimated the subarea would contain the following land uses: estate (172 acres), very low (147 acres), moderately low (231 acres), low (409 acres), peripheral (161 acres), core residential (56 acres), mixed-use core (46 acres), community park (35 acres), school (90 acres), and open space (1,300 acres). The Framework Plan also estimated 5,460 housing units for Subarea III. Currently within Subarea III, the Rancho Glen Estates project, a 128.22-acre project on 264 acres, has graded and is building on 30 of the 32 lots.

d) Subarea IV of the Framework Plan

The Framework Plan estimates Subarea IV to consist of 1,330 acres located east of Subarea III, south of Subarea I, and west of the Rancho Peñasquitos community. Projected land uses and acreages identified by the Framework Plan included residential-very low (437 acres), moderately low (213 acres), low (109 acres), peripheral (117 acres), local mixed-use (40 acres), service/commercial (32 acres), employment (80 acres), school (30 acres), and open space (270 acres). The Framework Plan also projected an estimated 2,850 units within Subarea IV.

e) Subarea V of the Framework Plan

The Framework Plan estimates that Subarea V consists of 2,290 acres, located south of State Route 56, north of the Peñasquitos Canyon reserve, between Carmel Country Road and Camino Ruiz. Projected land uses and acreages identified by the Framework Plan included residential estate (249 acres), very low (356 acres), peripheral (25 acres), local mixed-use (20 acres), and 1,640 acres of open space. The Framework Plan estimated 840 dwelling units within Subarea V. A subarea plan was approved for Subarea V.

Within Subarea V is the 385-acre Bougainvillea project site. This project, which has been approved, includes an 18-hole golf course, restored and natural open space, clustered residential dwelling units (at a density of one unit per four acres), and affordable housing units. A second phase of a resort hotel is being planned, and a third phase of a mixed-use development along Shaw Ridge Road may also be included in this plan.

f) Bame Parcel Residential Subdivision

The approved Bame parcel subdivision includes 17 acres located along the east side of Old El Camino Real, approximately 0.2 mile south of the Del Mar Highlands site. Proposed development in the Bame project includes four estate residential homes on 13 acres (with lot sizes ranging between 2.0 and 4.5 acres) and 4 acres of open space.

g) San Andres West Residential Development

The San Andres site includes 17.6 acres located north of Via de la Valle and west of San Andres Drive, approximately 1.1 miles northwest of the Del Mar Highlands Estates property. The approved development at San Andres West includes 47 single-family residential lots, two lots for private streets (1.66 acres), and four slope (open space) lots (8.54 acres). On-site excavation includes 80,000 cubic yards of balanced cut and fill (i.e., with no net material import or export). A Mitigated Negative Declaration (DEP No. 94-0437) was approved for the proposed project in December 1994 (Planning Commission Resolution No. 2152-1-PC). Key environmental issues identified for the San Andres West project in that document included biological resources and erosion/sedimentation. The project is under construction.

h) State Route 56 Mid-Portion

This six-lane state highway would be extended through Subareas III, IV, and V of the Future Urbanizing Area, connecting with the existing segments of State Route 56 located to the east and west of the Future Urbanizing Area. Caltrans originally evaluated seven alternative alignments for State Route 56 in a Project Work Program analysis. Caltrans is currently preparing a Project Report for a more in-depth analysis of the remaining two alternative alignments for State Route 56. The City of San Diego is the lead agency for preparation of the environmental documentation for this project. The City has completed an environmental constraints analysis for the project and a Notice of Preparation has been issued for the preparation of an environmental impact report.

i) Multiple Species Conservation Program

Following the listing of the coastal California gnatcatcher as a threatened species by the U.S. Fish and Wildlife Service in 1993, the City of San Diego and other land use jurisdictions in southwestern San Diego County began development of the Multiple Species Conservation Program to meet the Metropolitan Wastewater Department's need to mitigate the direct biological impacts associated with mandated improvements to the region's sewage treatment facilities. The MSCP effort was also directed toward mitigating the secondary biological impacts associated with projected growth in the region.

The MSCP is designed to identify lands that would conserve habitat for federal and state endangered, threatened, or sensitive species, including the federally listed threatened California gnatcatcher. The MSCP is intended to be the equivalent of a Natural Community Conservation Plan for the area, consistent with the federal Endangered Species Act Section 4(d) rule for the coastal California gnatcatcher that would define conditions under which “take” of the species could occur without violation of the Endangered Species Act. That is, the MSCP is a plan and process for the issuance of permits under the federal and state Endangered Species Acts and the state’s Natural Community Conservation Planning Act of 1991.

In August of 1996, the MSCP Plan and related resource documents were released for public review. A joint final federal EIS and state EIR was released in January 1997 on the MSCP Plan. The MSCP includes a compilation of information related to vegetation, land use, and generalized land ownership mapping and the preparation of biological standards and guidelines, a habitat evaluation model, a population viability analysis for the coastal California gnatcatcher, and an analysis of the acreage necessary for a viable preserve system. The MSCP Plan also includes an implementation strategy, preserve design, and management guidelines. When adopted by local jurisdictions and approved by the U.S. Fish and Wildlife Service and CDFG, a final MSCP Plan and report will be prepared.

Using the MSCP Plan as a framework plan, subarea plans may be prepared by local general-purpose agencies. The City of San Diego has prepared a subarea preserve plan to guide implementation of the MSCP Plan within its corporate boundaries. The subarea plan is intended to guide land uses and preserve management but has not yet been adopted. The project site is within the northern subarea of the City’s subarea plan as part of the Future Urbanizing Area preserve area. Within the northern subarea, the City proposes to “preserve two-thirds of the Los Penasquitos Lagoon/Canyon/Del Mar Mesa core area within its jurisdiction” (City of San Diego 1995:8-11). To do so, “[p]reserve areas would be acquired or a conservation easement applied, as necessary, to assure wildlife movement and habitat restoration/protection.” The subarea plan contains a list of specific guidelines for the proposed North City FUA subarea; none of these directly apply to the proposed project area.

The MSCP mapping and planning effort could refine identified open space boundaries for projects undergoing current planning. These areas could include the project site and the San Dieguito River Regional Open Space Park Focused Planning Area (FPA).

j) Carmel Valley Neighborhood 8

Neighborhood 8 is an approved precise plan north of Neighborhood 8A covering approximately 350 acres. This precise plan consists of the Carmel Valley Restoration and Enhancement Plan channel, low-density residential, and open space uses.

k) Carmel Valley Neighborhood 8A

A precise plan is currently being processed for the 390.2-acre Neighborhood 8A, which is located south of Neighborhood 8 and west of Neighborhood 10 and Subarea V. Proposed land uses include 952 residential units ranging from very low density to low-medium density, a 20-acre elementary school/community park site, and open space. A final EIR has been completed for the project, but the project has not been approved.

l) Carmel Valley Neighborhood 8B

Neighborhood 8B has initiated the processing of a precise plan for the existing Arroyo Sorrento area, north and west of Neighborhood 8A.

m) Carmel Valley Neighborhood 10

The approved Neighborhood 10 Precise Plan covers 806 acres located southwest of Subarea V, in the southern portion of the Carmel Valley community. The precise plan would provide for 1,438 dwelling units, with 125 units as multi-family, 4 acres of commercial, 5 acres of school sites, 10 acres of neighborhood parks, and 430.4 acres of open space. The EIR for this project has been completed as final, the project has been approved, and much of the site has been cleared pursuant to approved vesting tentative maps. An amendment to the approved precise plan is currently being processed to increase the number of single-family residential units from 1,438 to 1,566, a 128-unit increase.

n) Via de la Valle Specific Plan 1

The Via de la Valle Specific Plan 1, which was adopted in 1984 and amended in 1989, plans for 123.5 acres located north and east of I-5 and south of the San Diego/Solana Beach city boundary. The plan provided for 421 dwelling units and 57 acres of open space. Currently, approximately two-thirds of the plan area is developed with no current proposal to build out the remaining area. Recently, an amendment to the plan was submitted by an adjacent landowner under which 9 acres would be added to the plan, increasing the unit potential by 16 dwelling units.

o) Rhodes Vesting Tentative Map

This approved vesting tentative map is located adjacent to and south of The Villas project site. It is within the Carmel Valley community plan area and consists of 42 single-family residential lots on 10.2 acres. The final EIR for the project identified significant, unmitigated cumulative impacts to biological resources, landform alteration/visual quality, and hydrology/water quality. All the identified direct environmental impacts were mitigated. The project was approved in February 1994.

p) Showpark Equestrian Center

The Showpark Equestrian Center is located on 64 acres southwest of the intersection of El Camino Real west and Via de la Valle. The western boundary of the property is adjacent to The Villages project site. The entire site is disturbed, with a show ring, public viewing grandstands, horse boarding facilities, and parking.

q) San Dieguito Lagoon Restoration Project

The Lagoon Restoration Project is part of an extensive study being conducted for the western portion of the San Dieguito River valley. Analysis to date includes a baseline biology study, conceptual restoration alternatives, and a resources summary for the lagoon. The conceptual alternatives study identified 14 possible alternatives. Of these 14, three are presently being studied further and modeled hydrologically. Part of the wetlands restoration will be implemented by Southern California Edison as mitigation for impacts to ocean habitat from the San Onofre Nuclear Power Plant ocean discharge.

r) San Dieguito River Park Concept Plan (1994)

Planning for a regional open space park along the San Dieguito River and its tributary canyons extending from the Pacific Ocean inland to Volcan Mountain has been ongoing for several years. A Joint Powers Authority was established in 1989 to create an agency with a regional view of the park. The FPA boundaries and goals and objectives for the park have been adopted.

The JPA has prepared a concept plan to provide general planning for properties within the FPA. It is intended that detailed master plans will be prepared for each of the 14 planning units within the FPA (known as "landscape units") with different topographic, vegetative, and land use characteristics. The FPA extends approximately 55 miles from the Pacific Ocean in Del Mar to the desert just east of Volcan Mountain and encompasses approximately 80,000 acres.

Cumulative Effects Issue
1. What are the cumulative impacts of the proposed project when considered with impacts occurring from the other projects in the area?

Impacts

The following discussions examine only those issues which have the potential to create significant cumulative impacts.

a) Hydrology/Water Quality

The potential for cumulative sedimentation impacts to San Dieguito Lagoon exists from the development of approved and proposed projects near Del Mar Highlands Estates. For those projects that drain to the San Dieguito River and Lagoon, potential water quality impacts related to erosion, siltation, and discharge of construction-related contaminants would be mitigated but not to a level below significance by incorporating BMPs for each project's storm water permits approved by the Regional Water Quality Control Board and contributions to the Los Peñasquitos Lagoon Enhancement Fund.

b) Landform Alteration/Visual Quality

Grading and development of the proposed project site would significantly alter the existing landform. This project, along with other projects proposed in the area, would have a cumulative impact on landforms and visual quality in the region because of the widespread changes from undeveloped open space to urban and suburban environments which would occur if all proposed projects in the areas were built out.

c) Biological Resources

Although the Del Mar Highlands Estates project has been designed to be consistent with the draft MSCP regarding biological core areas and wildlife corridors, the potential for significant cumulative biological impacts has not been eliminated. Del Mar Highlands Estates, along with other projects in the North City area, would contribute to a significant cumulative loss of biological resources.

d) Traffic Circulation

The Del Mar Highlands Estates project would result in potentially significant cumulative impacts to traffic movements at or near the intersections of San Dieguito Road/Old El Camino Real and San Dieguito Road/project main access. In addition, the project may contribute to a potentially significant regional traffic impact at the El Camino Real/Derby Downs Road intersection. Finally, project traffic would contribute to significant impacts to traffic flow on El Camino Real between Half Mile Drive and Via de la Valle and on Via de la Valle between El Camino Real (north of Via de la Valle) and San Andres Drive.

e) Air Quality

Considered with other new development in the air basin, this project would contribute to the nonattainment of clean air standards and cumulative impacts to air quality would be considered significant. The resulting increase in emissions would be due to increased emissions from mobile sources, which would degrade existing air quality in the project area. Also, cumulative traffic impacts would degrade the peak hour levels of service of

some of the region's intersections, which would also create significant cumulative air quality impacts.

Because air quality is affected by the cumulative release of pollutants across the entire basin, cumulative impacts to the SDAB can be reduced only through implementation of regional strategies. The 1991/1992 RAQS for the SDAB have been designed to achieve conformance with state and federal air quality standards. It is the responsibility of the San Diego APCD to implement the RAQS throughout the SDAB.

f) Natural Resources/Agriculture

Considered with other development in the area, the loss of 200 acres of agricultural land in the Del Mar Highlands Estates component of the project is cumulatively significant. Neighborhood 10, the Bame subdivision, Bougainvillea, the MSCP, and Stallions Crossing all represent the permanent change from agricultural uses to other uses.

Significance of Impacts

Although the proposed project (Del Mar Highlands Estates) is consistent with the adopted traffic master plans and phasing plans applicable to the subregion, the potential cumulative traffic impacts area roadways identified above are considered regionally significant and unmitigable. Cumulative hydrology and water quality impacts are not significant because all of the project components would be required to comply with all NPDES requirements and contribute to the Los Peñasquitos Lagoon Enhancement Fund. Cumulative impacts concerning air quality, agriculture, landform alteration, and biology are considered significant and unmitigated.

Mitigation, Monitoring, and Reporting

No other mitigation is possible within the currently proposed project design. However, alternatives to the proposed project that would reduce the project's contribution to these cumulative impacts are discussed in Chapter 7 of this EIR.

Chapter Seven

Project Alternatives

The focus of evaluating alternatives to the project is identification of alternative actions that would avoid or mitigate significant effects of the project as proposed. For the Del Mar Highlands Estates project, the potentially significant impacts include land use, agricultural resources, and landform alteration. CEQA also directs that the specific alternative of no project be discussed. Other alternatives assess development under existing land use policies and regulations.

A. Alternatives Considered but Rejected

1) Subarea III Plan Alternative

In 1993, the applicant proposed development of the entire 2,725-acre Subarea III of the North City Future Urbanizing Area with 6,500 residential units, as well as commercial, industrial, and employment center uses. This plan included an estate residential development of 110 units covering 176 acres of the subject 389-acre project site. The remainder of the project site (213 acres) was proposed to be retained in open space within an area similar to that shown as Environmental Tier on the Framework Plan diagram. Similar to the proposed project, Gonzales Canyon would have been maintained in open space and a north-south connection to the San Dieguito River valley would have been preserved in the northwest corner of the parcel.

This alternative was pursued by the applicant for several years as part of the FUA and Subarea III planning process. Work completed included the accumulation of a significant environmental data base for the subarea, participation in the development of the Framework Plan and a Citizens Advisory Committee alternative to the Framework Plan, and the preparation of a draft Subarea III plan and accompanying screencheck draft EIR. Proposition C, a ballot measure to shift the FUA from its future urbanizing to a planned urbanizing designation, was defeated by a majority of the City's voting electorate in June, 1994. Because a phase shift is necessary to implement a subarea plan in the FUA, the defeat of Proposition C eliminates this alternative from further planning consideration and it has, therefore, been rejected as a viable alternative for the purposes of this EIR.

2) Reduced Project Alternative

As originally proposed, the Del Mar Highlands Estates project had significant unmitigated impacts related to the visual impact from the San Dieguito River valley and Gonzales Canyon. These areas are identified as major natural features in the Framework Plan for the Future Urbanizing Area. The originally proposed design guidelines for the project did not include measures to reduce visual quality impacts from the public viewsheds of the river valley and the canyons, as specified in the San Dieguito River Regional Plan and San Dieguito River Park Concept Plan. Therefore, a reduced project alternative was discussed in the previous EIR for the project which would have provided setbacks and design requirements along the project's southern perimeter as specified in the above-referenced plans.

With the current Del Mar Highlands Estates project, the applicant has modified the design guidelines to incorporate additional measures which would substantially lessen the visual quality impacts. As described in Section 4.C, Landform Alteration/Visual Quality, these measures now incorporated into the design guidelines include limiting buildings to a single-story within 50 feet of the rear-yard property line for the perimeter lots above Gonzales Canyon, building height limits, rear-yard fencing and wall standards for perimeter lots, architectural treatments, and landscaping requirements for external slopes adjacent to natural open space. All of these design guidelines measures serve to buffer the residential development and provide a transition to Gonzales Canyon and the San Dieguito River valley. As such, the reduced project alternative has been rejected because of the incorporation of the mandatory design measures included into the design guidelines.

B. No Project Alternative

The project site would remain essentially in its existing condition, utilized primarily for agricultural production. The significant impacts associated with project implementation and the potentially significant cumulative impacts of proposed and approved developments in the area would not occur under this scenario. These impacts include potential direct and indirect impacts to sensitive biological habitat, landform alteration, loss of mature trees, paleontological resources, cultural resources, runoff and erosion patterns, traffic circulation, public facilities and services (schools, parks, fire, and police services), cumulative water supply (conservation), and public safety.

On the other hand, this scenario would result in the continued agricultural use of over half of the project site, including portions of Gonzales Canyon. This existing land use is dusty and noisy, consumes large amounts of water, and prevents the reestablishment of wildlife habitat and wildlife movement. It results in erosion, sedimentation, use of pesticides and herbicides, and related water quality impacts. This scenario would not

facilitate the establishment and enhancement of the Environmental Tier and the MSCP wildlife habitat and corridor in Gonzales Canyon and the connection of Gonzales Canyon to San Dieguito River valley, which would occur with the proposed project. The affordable housing units provided by the proposed project would also not be available to the market.

C. A-1-10 Rural Cluster Alternative

One of the development alternatives allowed on the project site under the adopted Framework Plan, its current Future Urbanizing Area land use designation, and existing A-1-10 zoning is to develop the property under the City's Rural Cluster Development guidelines. This would allow development of the site according to the density of the applicable zone, but clustered to promote more efficient land utilization. The rural cluster alternative's site plan is shown on Figure 7-1. This alternative would develop 37 lots clustered in the northeastern corner of the property, with the remainder of the project (Lot 38) undevelopable unless a phase shift occurs, changing its land use status from a future urbanizing area to a planned urbanizing area. Agricultural use would most likely continue in the agricultural permit areas within Lot 38. Access to the site would be provided from the east via Derby Farms Road, with three roads stubbed at the project limits that could eventually be incorporated into a roadway system throughout the property in conjunction with future development.

Significant landform alteration would be substantially reduced with the implementation of this alternative. Development would be primarily located on the previously farmed mesa tops which would avoid nearly all of the impacts to biological resources. Although impacts to landform alteration/grading and biological resources would be reduced, the impacts would remain significant. Other mitigated impacts of the proposed project, such as impacts to hydrology, cultural resources, transportation, geology, paleontology, air quality, noise, landform alteration/visual, and public safety, would be further reduced by implementation of this alternative.

The rural cluster alternative would have the following potentially significant impacts if mitigation is not incorporated into the project: inconsistencies with the FUA Framework Plan regarding the Environmental Tier; loss of Diegan coastal sage scrub; erosion and subsequent sedimentation in the San Dieguito River and Lagoon; landform alteration in excess of City significance thresholds; significant on-site geologic conditions; potential loss of paleontological resources; impacts to local schools and parks; impacts regarding the provision of water and sewer service; and potential for construction within contaminated soils. Cumulative impacts related to the addition of project traffic to existing queues occurring at the intersections of El Camino Real/San Dieguito Road and San Dieguito Road/Derby Farms Road, increased traffic through the intersection of El



SOURCE: T&B PLANNING CONSULTANTS, 1995

FIGURE 7-1
Del Mar Highlands Estates
A-1-10 Rural Cluster Alternative

Camino Real/Derby Downs Road, solid waste disposal, and water conservation could also occur.

All of the above impacts are mitigable with the possible exception of the landform alteration. In addition, the feasibility of the proposed water and sewer service connections is not known at this time.

Chapter Eight

EIR Preparation

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Chapter Ten

References Cited

Bailey Research Associates, Inc.

- 1992 *An Overview of the Health Issues Associated with Exposure to Electric and Magnetic Fields*. May 14.

Bull, Charles S.

- 1978 *An Archaeological Survey of the San Dieguito Estates Property*.

California Department of Conservation

- 1992 *A Guide to the Farmland Mapping and Monitoring Program*. Office of Land Conservation. May.

California Department of Health Services

- 1992 *Electric and Magnetic Fields: Measurements and Possible Effects on Human Health*.

California Department of Water Resources (DWR)

- 1975 *California's Groundwater*. Bulletin No. 118, September.

California Division of Mines and Geology

- 1982 *Mineral Land Classification: Aggregate Materials in the Western San Diego County Production-Consumption Region*. Special Report 153.

- 1992 *Fault Rupture Hazard Zones in California*. Special Publication 42.

California, State of

- 1989 *Guidelines for Air Quality Impact Assessment for General Development and Transportation-Related Projects*. June.

- 1991 *Annual Summary of 1990 Air Quality Data, Gaseous and Particulate Pollutants, California* (Vol. XXII). Air Resources Board.

- 1992 *Annual Summary of 1991 Air Quality Data, Gaseous and Particulate Pollutants, California* (Vol. XXIII). Air Resources Board.
- 1993a California Storm Water Best Management Practices Handbook. March.
- 1993b *Annual Summary of 1992 Air Quality Data, Gaseous and Particulate Pollutants, California* (Vol. XXIV). Air Resources Board.
- 1994 *Annual Summary of 1993 Air Quality Data, Gaseous and Particulate Pollutants, California* (Vol. XXV). Air Resources Board.
- 1995 *Annual Summary of 1994 Air Quality Data, Gaseous and Particulate Pollutants, California* (Vol. XXVI). Air Resources Board.
- Camacho, Roland
- 1994 Personal communication with Jan Peters, RECON. City of San Diego Police Department.
- Campbell, Mark
- 1995 Personal communication with RECON. Project Design Consultants.
- Castanos, Michael
- 1994 Personal communication with Carol Shultz, RECON. Solana Beach Elementary School District.
- Coleman, M. P., C. Bell, H. Taylor, and M. Primic-Zakelj
- 1989 Leukemia and Residence near Electricity Transmission Equipment: A Case-Control Study. *British Journal of Cancer* 60:793-798.
- Converse Consultants West
- 1993 Revised Preliminary Geologic and Geotechnical Report, North City Future Urbanizing Area - Subarea III Plan, San Diego, California. August 11.
- Culver Company
- 1994 *Your Guide to Understanding Electric and Magnetic Fields*.
- Dudek & Associates, Inc.
- 1993 Environmental Impact Report for North City Future Area Subarea V. First screencheck draft, August.
- Edwards, Ralph
- 1995 Personal communication with Helix Environmental. City of San Diego Fire Department.

- Evenson, Kristin D.
1989 Water Resources of Soledad, Poway, and Roosa Basins, San Diego County, California. *U.S.G.S. Water Resources Investigation Report* 88-4030. Cited in Dudek & Associates, Environmental Impact Report for North City Future Area Subarea V, 1993.
- Federal Emergency Management Agency (FEMA)
1983 Flood Insurance Rate Map Panel No. 060295-0045B, August 15.
1989 Flood Insurance Rate Map Panel No. 060295-0044C, revised September 29.
- Fulton, J. P., S. Cobb, L. Preble, L. Leon, and E. Forman
1980 Electrical Wiring Configurations and Childhood Leukemia in Rhode Island. *American Journal of Epidemiology* 111:292-296.
- Fye, S.
1992 Personal communication with RECON, October 5. City of San Diego Parks and Recreation Department.
1995 Personal communication with Helix Environmental. City of San Diego Parks and Recreation Department.
- International Electricity Research Exchange (IERE)
1988 *Epidemiological Studies Relating Human Health to Electric and Magnetic Fields: Criteria for Evaluation*. June.
- Kennedy, Michael P.
1975 *Geology of the Western San Diego Metropolitan Area, California*. Bulletin 200A, California Division of Mines and Geology.
- London, Stephanie J., Duncan C. Thomas, Joseph D. Bowman, Eugene Sobel, Tsen-Chung Cheng, and John M. Peters
1991 Exposure to Residential Electric and Magnetic Fields and Risk of Childhood Leukemia. *American Journal of Epidemiology* 1345(9).
- Lopez,, Cesar
1994 Personal communication with Helix Environmental. City of San Diego Metropolitan Wastewater Department.
- Los Peñasquitos Lagoon Foundation and State Coastal Conservancy
1989 Los Peñasquitos Lagoon Enhancement Plan and Program.

Luke-Dudek Civil Engineers, Inc.

- 1988 Reclamation Development Groundwater Recharge and Groundwater Quality Control in the San Dieguito Subunit of the San Diego Region in California. August.

McDowell, M. E.

- 1986 Mortality of Persons Resident in the Vicinity of Electricity Transmission Facilities. *British Journal of Cancer* 53:271-279.

Myers A., A. D. Clayden, R. A. Cartwright, and S. C. Cartwright

- 1990 Childhood Cancer and Overhead Power Lines: a Case-Control Study. *British Journal of Cancer* 562:1008-1014.

Norwood, Richard, and Carol Walker

- 1980 The Cultural Resources of San Dieguito Estates.

Office of Technology Assessment

- 1989 Biological Effects of Power Frequency Electric and Magnetic Fields. Background Paper. Prepared by Nair, Morgan, and Florig. May.

Ogden Environmental and Energy Services Co.

- 1993 Field checks for biological species within North City Future Urbanizing Area Subarea V. December 15.

Pacific Soils Engineering, Inc.

- 1989 Geologic Reconnaissance Report, Del Mar Ranch. August 11.

PaleoServices, Inc.

- 1991 Paleontological Resources, Black Mountain Ranch, San Diego, California. September 30.

Peter and Whitney-DeSautels

- 1986 Cultural Resources Investigation of the Ukegawa Brothers Agricultural Use Permit Project.

Pryde, Philip R.

- 1976 *San Diego: An Introduction to the Region*. Kendall/Hunt, Dubuque.

Regional Water Quality Control Board (RWQCB)

- 1994 Comprehensive Water Quality Control Plan for the San Diego Basin. Amended through 1994. California State Water Resources Control Board.

Sahl, Jack D., Michael A. Kelsh, and Sander Greenland

- 1993 Cohort and Nested Case-Control Studies of Hematopoietic Cancers and Brain Cancer among Electric Utility Workers. *Epidemiology* 4(2).

San Diego, City of

- 1981 North City Local Coastal Program, Land Use Plan. March.
- 1983 *Seismic Safety Study*. Updated by Leighton and Associates. June.
- 1989 *Progress Guide and General Plan*. Updated. June.
- 1991 City of San Diego Planning Department Environmental Analysis Section Significance Determination Guidelines under the California Environmental Quality Act. Revised January 1994.
- 1992 Final Framework Plan for the North City Future Urbanizing Area. October.
- 1994 Water & Sewer Design Guide. City of San Diego Water Utilities Department. September 8.
- 1995 Draft Multiple Species Conservation Program. March.
- 1996 Draft Multiple Species Conservation Program. August.

San Diego, County of

- 1992 1991/1992 Regional Air Quality Strategies. Air Pollution Control District. June.
- 1995 *Air Quality in San Diego County - 1994 Annual Report*. Air Pollution Control District.

Savitz, D. A., H. Wachtel, F. A. Barnes, E. M. John, and J. G. Tvrdik

- 1988 Case-Control Study of Childhood Cancer and Exposure to 60-Hertz Magnetic Fields. *American Journal of Epidemiology* 128:21-83.

Swanson, Susan

- 1993 Personal communication with Jill Gurak, RECON. City of San Diego.

Tirandazi, Firouzeh

- 1995 Personal communication with Scott Fulmer, RECON. City of San Diego Environmental Services Department.

U.S. Department of Commerce

- 1992 *Monthly Station Normals of Temperature, Precipitation, and Heating and Cooling Days 1961-1990, California*. Climatography of the United States No. 81. National Climatic Data Center, National Oceanic and Atmospheric Administration. January.

U.S. Environmental Protection Agency (EPA)

- 1992 Questions and Answers About Electric and Magnetic Fields (EMFs). December.

U.S. Geological Survey (USGS)

- 1983 Evaluation of the San Dieguito, San Elijo and San Pasqual Hydrologic Subareas for Reclaimed Water Use, San Diego County, California. Water Resource Investigations Report No. 83-4044.

Wertheimer, Nancy, and Ed Leeper

- 1979 Electrical Wiring Configurations and Childhood Cancer. *American Journal of Epidemiology* 109(3).

Wigington, Parker J., Clifford W. Randall, and Thomas J. Grizzard

- 1983 Accumulation of Selected Trace Metals in Soils of Urban Runoff Detention Basins. *Water Resources Bulletin* 19(5), October.

is shown in the Framework Plan as Environmental Tier. The Shell and Deer Canyon parcels would be transferred to the City as mitigation for biological impacts associated with development of Neighborhood 8A. Rights to development currently held by the applicant would be transferred as follows:

- 21 dwelling units from Shell parcel to Del Mar Highlands Estates
- 9 dwelling units from Deer Canyon parcel to Lorenz parcel

The primary goal of the project for the Shell and Deer Canyon parcels is to remove them from future residential development and place them into Environmental Tier in perpetuity.

Significant Impacts of the Project Components and Proposed Mitigation Measures

A. Land Use

Significant Impacts

1. Consistency with Existing Plans and Policies

a) Neighborhood 8A Precise Plan

The proposed precise plan proposes less development and more open space than the community plan. It also differs in eliminating the designated neighborhood commercial center and in relocating the community park/elementary school complex. However, the project would result in significant impacts to land use due to the uncertainty of the two FPAs identified in the precise plan.

b) Acquisition Option

This option for the Neighborhood 8A Precise Plan, while providing substantial additional acreage to the draft MSCP preserve design, would result in significant impacts due to the uncertainty of the FPAs. The FPAs could be developed and these developments may preclude future preserve planning.

c) Torrey Surf Vesting Tentative Map

The residential development proposed by this VTM is consistent with the proposed precise plan. No significant impact would result from implementation of this VTM.

d) Del Mar Highlands Estates

The proposed Del Mar Highlands Estates project would be consistent with PRD regulations and would generally comply with the city land use goals, objectives, and recommendations. Furthermore, the proposed projects would cluster development and dedicate open space land consistent with the Framework Plan Environmental Tier. No significant adverse impacts are anticipated.

e) Lorenz Parcel

The impacts of developing the Lorenz parcel will be evaluated further at the tentative map stage. However, until a specific development is brought forth, the impacts are considered significant and unmitigated.

2. Consistency with the Local Coastal Program**a) Neighborhood 8A Precise Plan**

No development is designated or proposed in the Coastal Zone, so there would be no significant impact from implementation of the Neighborhood 8A Precise Plan. A determination on the future uses within the Mesa Top FPA is considered speculative.

b) Acquisition Option

This area is not within the Coastal Zone

c) Torrey Surf Vesting Tentative Map

No significant impact would result from implementation of this VTM.

d) Del Mar Highlands Estates and Lorenz Parcel

Neither project site is within the Coastal Zone and neither would affect the North City Local Coastal Plan.

3. Open Space**a) Neighborhood 8A Precise Plan and Torrey Surf VTM**

The land uses and open space designated in the Neighborhood 8A Precise Plan and Torrey Surf VTM are reasonably compatible with adjacent existing or planned uses and with the Multi-Habitat Planning Area presented in the draft MSCP. No significant impacts would result from their implementation. If, however, after three years the FPAs are developed, significant impacts could result.

b) Neighborhood 8A Acquisition Option (Pardee Parcels A and B)

The acquisition option for Pardee Parcels A and B could affect the funding for the Carmel Valley Facilities Benefit Assessment (FBA) and create adverse land use planning impacts. This impact is considered potentially significant.

c) Del Mar Highlands Estates and Lorenz Parcel

The Del Mar Highlands Estates project is compatible with the City's equestrian plan and draft MSCP. No significant impacts are anticipated.

No significant impacts to adopted environmental plans or policies are identified for the Lorenz parcel.

4. Resource Protection Ordinance and 600-40**a) Neighborhood 8A Precise Plan**

The development proposed by the revised Neighborhood 8A Precise Plan is not consistent with the encroachment allowances permitted by RPO for hillsides, wetlands, and biologically sensitive lands. Additionally, the precise plan does not provide the proper assurances that the project would cluster all development together, which is a significant land use impact.

b) Acquisition Option

The acquisition option would not fully implement the goals and objectives of Council Policy 600-40 because of the uncertainty associated with the FPAs and is a significant impact.

c) Torrey Surf Vesting Tentative Map

The proposed VTM would not be consistent with development regulations regarding encroachment allowances into sensitive biological lands in conformance with the Resource Protection Ordinance. This is a significant land use impact.

d) Del Mar Highlands Estates

The proposed project would exceed the encroachment allowance for RPO but would provide adequate on-site mitigation to reduce impacts to a level below significance.

e) Lorenz Parcel

RPO analysis and significance of impacts is considered potentially significant and unmitigated at this time. At the TM stage of development, mitigation will be provided.

Mitigation, Monitoring, and Reporting

1. Consistency with Existing Plans and Policies

a) Neighborhood 8A Precise Plan and Torrey Surf VTM

Adoption of project alternatives 4, 5, and 6a and 6b, which would comply with Council Policy 600-40 (see EIR Chapter 7) as well as the acquisition alternative, would mitigate the potentially significant land use impacts to below a level of significance. These alternatives would provide designated open space for all or a portion of the FPAs within the precise plan.

b) Acquisition Option

Adoption of project alternatives 4, 5, and 6a and 6b, which would comply with Council Policy 600-40 (see EIR Chapter 7) as well as the acquisition alternative, would mitigate the potentially significant land use impacts to below a level of significance. These alternatives would provide designated open space for all or a portion of the FPAs within the precise plan.

c) Del Mar Highlands Estates and Lorenz Parcel

No mitigation is required for the Del Mar Highlands Estates PRD. Appropriate mitigation for the Lorenz parcel will be identified when specific development is proposed.

2. Consistency with the Local Coastal Program

a) Neighborhood 8A Precise Plan, Acquisition Option, Torrey Surf VTM, and Del Mar Highlands Estates

Mitigation measures are not necessary.

3. Open Space

a) Acquisition Option

Mitigation for the potential impact to the facilities financing from the acquisition option of Pardee Parcels A and B would consist of amending the Carmel Valley FBA.

4. RPO and 600-40

a) Neighborhood 8A Precise Plan

The precise plan's inconsistency with the RPO encroachment provisions can be avoided with implementation of one of the alternatives which would allow compliance with Council Policy 600-40 or the acquisition/preservation alternatives. These alternatives are discussed in Chapter 7 of the EIR.

b) Acquisition Option

Mitigation under this option for the precise plan's inconsistency with the goals of Council Policy 600-40 could also be achieved through the implementation of one of the alternatives presented in Chapter 7.

c) Torrey Surf Vesting Tentative Map

Mitigation for the inconsistency with RPO encroachment provisions (e.g., loss of RPO-sensitive biological resources) is not provided within the VTM as proposed. The RPO alternative would reduce the impact to RPO-sensitive resources. These alternatives are discussed in detail in Chapter 7 of the EIR.

B. Hydrology/Water Quality**Significant Impacts****1. Natural Drainage Modification****a) Neighborhood 8A Precise Plan and Torrey Surf VTM**

Without appropriate temporary erosion control measures and landscaping, development under the proposed precise plan, including the proposed Torrey Surf VTM, could create significant hydrologic impacts. In addition, due to increased erosion, the amount of sediment carried downstream and into Carmel Valley Restoration and Enhancement Program (CVREP), without control measures, could increase, creating a significant impact. All development within the Los Peñasquitos watershed, including the proposed precise plan and Torrey Surf VTM, would contribute to cumulatively significant impacts to the lagoon.

b) Del Mar Highlands Estates

The alteration of existing drainage patterns associated with proposed roadway and lot development could result in significant local change to the direction and velocity of on-site flows. However, any increase in on-site runoff volumes associated with the proposed project is not considered significant on a direct basis due to its incremental nature, but is considered cumulatively significant.

c) Lorenz Parcel

Local erosion and sedimentation effects into these relatively unaffected drainages would be potentially significant. Detailed environmental review will occur following submittal of a project-specific proposal. The impact to rate and amount of runoff is considered to be potentially significant and unmitigated.

2. Downstream Water Quality

a) Neighborhood 8A Precise Plan

Installation of the storm drain system incorporating best management practices (BMPs) to control urban pollutants would reduce direct impacts from urban runoff to a level below significance. However, the incremental increase in amount of urban pollutants in runoff to CVREP and Los Peñasquitos Lagoon is considered a cumulatively significant impact.

b) Del Mar Highlands Estates

The proposed development of the project site has the potential to significantly impact water quality (both directly and cumulatively) in Gonzales Canyon and the San Dieguito River and Lagoon. The runoff of urban-generated pollutants is not considered significant (on a direct basis) due to the presence of existing regulatory controls and the anticipated incremental nature and extent of such pollutants.

c) Lorenz Parcel

Initial significance assessments would be similar for the Lorenz parcel as impacts to downstream water quality are considered to be potentially significant at this time. Project-specific environmental review will determine significance and identify appropriate mitigation measures.

3. Alteration to Floodwaters

a) Neighborhood 8A Precise Plan

Potential project-related impacts from the alteration of floodwater directions, velocities, or volume would be less than significant.

b) Del Mar Highlands Estates

Potential direct and indirect project-related impacts from the alteration of floodwater directions, velocities, or volume would be reduced below a level of significance through the implementation of proposed design measures (i.e., detention basins).

c) Lorenz Parcel

No significant direct, indirect, or cumulative impacts related to floodwaters are expected in association with proposed development of the Lorenz parcel. This conclusion will require verification, however, through review and approval of a site-specific hydrologic study by the City of San Diego.

Mitigation, Monitoring, and Reporting

1. Natural Drainage Modification

a) Neighborhood 8A Precise Plan

In order to ensure that the increased runoff and potential erosion generated from development within the precise plan does not adversely impact CVREP or Los Peñasquitos Lagoon, the following measures would be incorporated into the project design as conditions of approval for each of the future tentative maps and development plans within the precise plan area. These measures would reduce runoff and erosion impacts to less than a significant level.

1. A grading plan that incorporates runoff and erosion control procedures to be utilized during all phases of the project development shall be prepared and submitted concurrently with proposed subdivision improvement plans, where such development is proposed on land that will be graded or filled. Runoff control shall be accomplished by establishing on-site catchment basins, detention basins, and siltation traps along with energy-dissipating measures at the terminus of storm drains or other similar means of equal or greater effectiveness.

The grading plans for each future map shall incorporate a maintenance program for erosion and runoff control measures which shall be approved by the City Engineer and Planning Department. The erosion and runoff control measures shall be designed and bonded prior to recordation of final maps; erosion control measures shall be implemented prior to acceptance of the grading and public improvements by the City. The applicant and future property owners shall be responsible for the specialized maintenance program and shall maintain records of the maintenance.

2. Per the Clean Water Act, "best management practices" to control sediment and pollutants from entering stormwater runoff are required for the precise plan, under the City's municipal permit. The precise plan will provide source control BMPs via landscaping of all slopes and street rights-of-way to prevent erosion and a grading/drainage concept which directs water away from easily erodible areas, such as the bluffs. The water is to be directed into a drainage system designed to safely handle the stormwater runoff. Additionally, desilting basins/water quality basins will be provided at strategic locations within the precise plan area. Any other applicable source control or BMPs which may be implemented on a city-wide basis in conjunction with the City's municipal National Pollutant Discharge Elimination System (NPDES) permit (Permit No. CA 0108758) and State Regional Water Quality Control Board Order No. 90-42 shall be incorporated into the precise plan, as applicable. Such measures shall include the use of grass swales in parking lots for

commercial and multi-family residential areas where determined applicable by the City Engineer.

3. All grading activities shall be prohibited during the rainy season, which is designated by the City as the period from November 15 to March 31 unless special erosion control measures are implemented. Prior approval from the Development Services Department shall be required.
4. Landscaping of cut/fill slopes and the undeveloped building pads shall be accomplished within 30 days of completion of grading activities. The proposed landscape plan and project design shall include drought-resistant, low-fertilizer vegetation and a low-precipitation irrigation system.
5. The exact locations of additional basins shall be determined at the tentative map planning stage. The basins shall be located in an area with practical, feasible access. The TM applicant shall provide access to all basins to the satisfaction of the City Engineer.

Mitigation for cumulatively significant impacts is beyond the scope of this project.

b) Del Mar Highlands Estates

A detailed hydrologic study for the proposed project ~~has been~~ ~~will be completed prior to~~ ~~issuance of a grading permit.~~ This study will be incorporated into the project design and submitted to the City Engineering Department for review in conjunction with the project TM. All applicable comments and recommendations resulting from this review shall be incorporated into the project design prior to its approval by the City. Based on existing information, the project hydrologic study is expected to include (but not be limited to) the types of analyses and requirements cited above for Neighborhood 8A.

c) Lorenz Parcel

Although specific mitigation cannot be determined until a project-specific proposal is submitted for the Lorenz parcel, measures similar to those described above would be required.

2. Downstream Water Quality

a) Neighborhood 8A Precise Plan

Urban runoff control steps which would reduce direct but not cumulative impacts from project pollutants to a level below significance are stated below. These measures shall be made conditions of the proposed Torrey Surf VTM and any subsequent tentative maps

and development plans in the precise plan area and shall be shown on the final grading and improvement plans.

1. The use of BMPs as described under Issue 1 above.
2. The City Development Services Department shall verify that the precise plan mitigation measures are conditions for the approval of each of the subsequent tentative maps within Neighborhood 8A. The City Engineering Department shall assure that these mitigation measures are conditions of approval of the tentative map and that they have been completed prior to issuance of building permits.

b) Del Mar Highlands Estates

Potential water quality impacts related to erosion and siltation and discharge of construction-related contaminants would be mitigated below a level of significance by incorporating the anticipated design measures to be identified as part of the ongoing project hydrologic study (see Issue 1 above).

c) Lorenz Parcel

Mitigation measures which could reduce potential adverse effects to a level of less than significant would include contribution to the Los Peñasquitos Lagoon Enhancement Fund, provision of adequate erosion and siltation devices, and implementation of applicable best management practices pursuant to City guidelines.

3. Alteration to Floodwaters

a) Neighborhood 8A Precise Plan

Potential impacts related to floodwaters would be lessened by incorporating the anticipated design measures to be identified as part of ongoing project hydrologic studies required for future precise plan development.

b) Del Mar Highlands Estates and Lorenz Parcel

Prior to the issuance of a grading permit, a complete hydrologic study will be reviewed and approved by the City of San Diego; measures will be incorporated into the final tentative map.

Additionally, a number of mitigation measures identified above for Issue 1 would reduce identified adverse (but not significant) impacts related to floodwaters.

C. Landform Alteration/Visual Quality

Significant Impacts

1. Topographic Change

a) Neighborhood 8A Precise Plan

Grading for the precise plan would require substantial alteration of the topography and creation of 18 slopes in excess of 30 feet in height to develop and access the site. Additionally, the headward extensions of several small finger canyons will be filled. These alterations to the existing topography are considered to be significant landform alteration impacts.

b) Acquisition Option

The option of the City of San Diego acquiring Pardee's Parcels A and B for permanent open space would eliminate the grading required for the proposed residential development on Parcel A. The elimination of this portion of the precise plan as a development area would preserve the existing topography and ground surface relief features. Under this option, Street A would still be constructed and landscaped as discussed above.

c) Torrey Surf Vesting Tentative Map

Grading proposed in the VTM would result in cuts of about 60 feet from a ridgetop that is the southern extension of Carmel Mountain and replacing the existing topography with a wide, level pad area. This alteration of the existing topography is considered to be a significant landform alteration impact.

d) Del Mar Highlands Estates

Project-related landform alteration impacts for Del Mar Highlands Estates would be significant due to the extent of earthwork, the anticipated level of disturbance to 25 percent or greater slopes, and the construction and length of 157 manufactured slopes up to 100 feet in height.

e) Lorenz Parcel

As no specifics are known for future development on the Lorenz parcel, significance cannot be assessed with certainty. It is possible, however, that filling of the westernmost canyon portions could result in significant impacts. These potentially significant impacts are considered unmitigated at this time.