

FINAL

WOODLANDS SPECIFIC PLAN

Environmental Impact Report

September 1998

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FINAL ENVIRONMENTAL IMPACT REPORT
WOODLANDS SPECIFIC PLAN

Prepared for:

COUNTY OF SAN LUIS OBISPO, CALIFORNIA

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1.0 INTRODUCTION

1.1 SUMMARY OF PROPOSED ACTION

The project applicant proposes to develop a 957-acre mixed use development including residential, commercial, business park, open space, and recreational uses. The residential component of the project would consist of several density types ranging from single family residential at one unit per acre to multi-family residential at 20 units per acre. Residential uses would occupy a total of 235 acres and result in up to 1,320 units. Approximately 27 acres of commercial uses are proposed within the project, which would consist of 9 acres of commercial retail uses in a village center and an 18 acre resort hotel (up to 500 rooms), conference facilities and a restaurant. The Business Park component of the proposed project would total 22 acres. The project would contain a total area designated for parks, buffers and open space on the site of 587 acres, including the following: approximately 300 acres designated for two golf courses, a 12-acre public park, 30 acres of neighborhood play areas and open space between residential lots, 11 acres set aside for Monarch Butterfly overwintering, 76 acres designated for open space buffers along the perimeter of the site, and 158 acres remaining in natural condition. A network of pedestrian, bicycle and equestrian trails is also proposed. In addition, two 10-acre areas are proposed for a Wastewater Treatment Facility and a potential school site.

1.2 PROJECT LOCATION

The project site is located approximately two miles west of the community of Nipomo in the County of San Luis Obispo, adjacent to Highway 1. The site consists of approximately 957 acres and is located in a predominantly rural area, bordered on the west by Highway 1, limited row crops and undeveloped land; on the north by rural residential development and a commercial nursery; on the east by rural residential development and undeveloped land; and on the south by undeveloped property along the Nipomo Mesa bluff.

1.3 STUDY ISSUES

A Notice of Preparation (NOP) and Initial Study was circulated by the County of San Luis Obispo on March 3, 1995 for the Woodlands Specific Plan. A copy of the NOP and Initial Study

is included in Appendix A of this document; Appendix B contains the responses to the NOP. The Initial Study identified the following issues to be addressed in the EIR:

- Water Resources/Wastewater
- Traffic and Circulation
- Noise
- Air Pollution
- Public Services
- Biological Resources
- Archaeology
- Agricultural Compatibility
- Hazardous Materials
- Aesthetics
- Drainage, Erosion and Sedimentation

The project site was the subject of a previous EIR certified by the County on April 21, 1980, for a project known as the Flintkote Rezoning and Parcel Map. The project analyzed in that EIR involved rezoning 865 acres from M-2 (heavy industrial) to A-3-40 (unrestricted agriculture - 40 acre minimum lot size) and to create 24 parcels of slightly greater than 40 acres each. The remaining 172 acres of the site was proposed to retain M-2 zoning and be divided into four parcels in the 40 to 45 acre range. This document is incorporated by reference.

1.4 ACTIONS/APPROVALS REQUIRED

It is expected that the project implementation process will include the following types of approvals: adoption of the Specific Plan, Development Agreement for the Specific Plan, Vesting Tract Maps, discretionary use permits (e.g., Development Plans, Minor Use Permits), construction permits, and possibly General Plan Amendments concurrent with the Specific Plan. Other agencies or departments that may be involved in separate approvals include, but are not necessarily limited to: County Engineering, County Department of General Services, Environmental Health, Caltrans, Regional Water Quality Control Board, the Air Pollution Control District, and the Lucia Mar Unified School District.

1.5 PURPOSE OF THE ENVIRONMENTAL IMPACT REPORT

In accordance with CEQA Guidelines §15121(a), the purpose of an EIR is to serve as an informational document that will inform public agency decision makers and the public generally of the significant environmental effects of a project, identify possible ways to minimize the

significant effects, and describe reasonable alternatives to the project. CEQA Guidelines §15151 contains the following standards for EIR adequacy:

An EIR should be prepared with a sufficient degree of analysis to provide decision makers with information which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection; but for adequacy, completeness, and a good faith effort at full disclosure.

The Woodlands Specific Plan EIR is an informational document for decision makers and the public to use in their review of the potentially significant environmental impacts of the proposed project, as well as in the evaluation of alternatives and mitigation measures which may minimize, avoid, or eliminate those impacts. As such, this document includes a full discussion of the project description and the existing environmental setting, significant impacts, mitigation measures with the level of significance after mitigation, and project alternatives.

1.6 SUMMARY OF IMPACTS AND MITIGATIONS

The following table, Table 1-1, is a summary of the impacts associated with the proposed project, recommended mitigation measures, and the level of impacts remaining subsequent to implementation of the mitigation measures.

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

ENVIRONMENTAL IMPACT

MITIGATION IDENTIFIED IN THIS EIR

CLASS I - SIGNIFICANT UNAVOIDABLE ADVERSE ENVIRONMENTAL IMPACTS of the project for which the County of San Luis Obispo must write a "Statement of Overriding Considerations" as required under CEQA Section 15093(b).

4.3 Air Quality

Impact 4.3-1: Construction of the proposed project or any of the alternatives considered would result in air pollutant emissions; which are anticipated to. Since these emissions would exceed the threshold of significance for NO_x and PM₁₀, therefore, therefore, impacts to air quality would be considered significant.

The following mitigation measures have been developed by the San Luis Obispo County APCD to mitigate combustion emissions from heavy-duty construction equipment. The following mitigation measures should be implemented to reduce emissions associated with construction activities:

Significant

Mitigation Measure 4.3-1a: The project applicant shall implement the following Best Available Control Technology (CBACT) for each piece (no less than six overall) of diesel-fueled construction equipment estimated to cause the highest level of combustion emissions during construction. Implementation of a given CBACT technology or combination of technologies should always be preceded by an evaluation of the subject equipment to determine the most appropriate retrofit strategy. Other CBACT technologies with similar emissions reduction potential to the example below may also be considered if appropriate documentation is provided.

CBACT retrofit examples:

- I.
 - a. Injection timing retard of 2 degrees;
 - b. Installation of high pressure injectors; and
 - c. Use of reformulated diesel fuel.
- II.
 - a. Fuel injection timing retard of 2 degrees, and
 - b. Coating of internal combustion chamber surfaces (cylinder head, pistons, and valves), and
 - c. Use of reformulated diesel fuel

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES - (Continued)

ENVIRONMENTAL IMPACT

MITIGATION IDENTIFIED IN THIS EIR

CLASS I - SIGNIFICANT UNAVOIDABLE ADVERSE ENVIRONMENTAL IMPACTS

4.3 Air Quality - (Continued)

If the above cannot be implemented, the applicant shall implement an equivalent emission reduction methodology to achieve a 50 percent reduction in emissions to the equipment estimated to cause the highest level of combustion emissions. The following measures shall be used to achieve the specified reduction and incorporated into any contractor or subcontractor's contract, as well as shown on all applicable construction plans:

- d. Caterpillar pre-chamber diesel engines (or equivalent) shall be used together with proper maintenance and operation to reduce emissions of NO_x.
- e. General contractors shall maintain equipment engines in proper tune per manufacturer's specifications and operate construction equipment so as to minimize exhaust emissions.
- f. If available within the (sub)contractor's fleet, gasoline-powered equipment shall be substituted for diesel-fueled equipment.
- g. If available within the (sub)contractor's fleet, compressed natural gas (CNG) or propane-powered portable equipment (e.g., compressors, generators, etc.) shall be used on-site instead of diesel-powered equipment.

Prior to commencement of grading and construction activities, the applicant shall notify the Department of Planning and Building and the Air Pollution Control District, by letter, of the status of the above air quality mitigation measures, and shall clearly state the following: 1) which pieces of equipment have implemented measures a, b, and c; 2) the reasons why any measures not taken are infeasible; 3) what measures have been

TABLE I-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES - (Continued)

RESIDUAL
IMPACTENVIRONMENTAL IMPACTMITIGATION IDENTIFIED IN THIS EIR

CLASS I - SIGNIFICANT UNAVOIDABLE ADVERSE ENVIRONMENTAL IMPACTS

4.3 Air Quality - (Continued)

incorporated to substitute for these measures; and 4) when tree clearance and grading will be initiated to allow for APCD inspection of the above measures.

Mitigation Measure 4.3-1b: During construction, trucks and vehicles in loading or unloading queues should be kept with their engines off, when not in use, to reduce vehicle emissions. Signs with prominent lettering at such queuing areas shall be posted to remind drivers. Large Construction activities shall be phased and scheduled to avoid emissions peaks.

Mitigation Measure 4.3-1c: General contractors shall use reasonable and typical watering techniques to reduce fugitive dust emissions. All unpaved demolition and construction areas shall be wetted at least twice a day during excavation and construction, and temporary dust covers shall be used over stockpiled areas to reduce dust emissions. To keep moist, additional watering should be done as needed in the afternoons, when it is typically much more windy, or when winds of 15 mph or greater are predicted or are occurring at any given time.

Mitigation Measure 4.3-1d: To keep dust levels to a minimum, soil binders shall be spread where there will be regular construction vehicle usage such as unpaved roads and parking areas. These binders shall be applied immediately after area is ready for vehicle use.

Mitigation Measure 4.3-1e: Ground cover shall be re-established on the construction site through seeding and watering, as soon as is feasible or immediately following completion of grading, whichever occurs first. The following seed mix is recommended for areas that are adjacent to or within existing or future native areas (namely coastal sage scrub):

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES - (Continued)

ENVIRONMENTAL IMPACT

MITIGATION IDENTIFIED IN THIS EIR

RESIDUAL IMPACT

CLASS I - SIGNIFICANT UNAVOIDABLE ADVERSE ENVIRONMENTAL IMPACTS

4.3 Air Quality - (Continued)

"CHAPARRAL/SAGE SCRUB" SEED MIX

Species	lbs/ac
<i>Adenostoma fasciculatum</i> (chamise)	0.50
<i>Artemisia californica</i> (California sagebrush)	0.25
<i>Ceanothus cuneatus</i> (buckbrush)	1.00
<i>Dendromecon rigida</i> (bush poppy)	0.25
<i>Eriogonum parvifolium</i> (buckwheat)	0.20
<i>Eriophyllum confertiflorum</i> (golden yarrow)	0.20
<i>Eschscholzia californica</i> (California Poppy)	0.50
<i>Heteromeles arbutifolia</i> (toyon)	0.20
<i>Lotus scoparius</i> (deerweed)	1.20
<i>Mimulus aurantiacus</i> (bush monkeyflower)	0.25
<i>Nasella (Stipa) pulchra</i> (purple needlegrass)	1.50
<i>Salvia mellifera</i> (black sage)	0.50

Mitigation Measure 4.3-1f: Trucks, prior to leaving the site, shall be washed off.

Mitigation Measure 4.3-1g: Prior to the initiation of any tree clearing activities, or approval for subdivision improvement plans or issuance of grading permits, the applicant shall submit to the county an APCD-approved Construction Activities Management Plan. This Plan should outline the following:

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES - (Continued)

**RESIDUAL
IMPACT**

MITIGATION IDENTIFIED IN THIS EIR

ENVIRONMENTAL IMPACT

CLASS I - SIGNIFICANT UNAVOIDABLE ADVERSE ENVIRONMENTAL IMPACTS

4.3 Air Quality - (Continued)

- Methods to minimize the amount of large construction equipment operating during any given time period; and
- Scheduling of construction truck trips during non-peak hours to reduce peak hour emissions.

Impact 4.3-2: Long-term operational emissions, which include both stationary-source and mobile-source emissions, would be generated by the project, as well as any of the alternatives considered. These emissions are estimated to exceed the thresholds of significance for all the criteria pollutants. As a result, emissions at project buildout would result in a significant impact to air quality. Long-term operational emissions (stationary-source and mobile-source emissions) generated by the project are estimated to exceed the significance thresholds for all the criteria pollutants; this would result in a significant impact to air quality.

Mitigation Measure 4.3-2a: Prior to approval of discretionary development (e.g. map recordation, Development Plan approval), the project applicant shall coordinate with the South County Area Transit and Dial-a-Ride, which currently serve the Arroyo Grande community north of the Nipomo Mesa area to expand their route system to serve the project site and provide public transportation to this mixed use community.

Significant

Mitigation Measure 4.3-2b: Prior to approval of discretionary permits involving new roads or potentially providing access between existing roads/points of interest, pedestrian/bicycle linkages shall be considered to encourage bicycle and pedestrian travel.

Mitigation Measure 4.3-2c: Prior to submittal of discretionary plans for commercial development, showers and bicycle locker facilities shall be considered in the design of commercial facilities to encourage employees to bike and/or walk to work. Per the APCD county guidelines, the following general rule of thumb shall be used: 3 bike lockers and 1 shower for every 25 employees.

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES - (Continued)

<u>ENVIRONMENTAL IMPACT</u>	<u>MITIGATION IDENTIFIED IN THIS EIR</u>	<u>RESIDUAL IMPACT</u>
CLASS I - SIGNIFICANT UNAVOIDABLE ADVERSE ENVIRONMENTAL IMPACTS		
4.3 Air Quality - (Continued)	<p>Mitigation Measure 4.3-2d: Prior to approval of discretionary permits, where appropriate, the applicant shall include the following as part of project design to reduce employee/visitor lunchtime trips: on-site food storage refrigeration; prepared food facilities within 5 minute walking distance; and access to comfortable, appropriately sized, and pleasant eating areas.</p> <p>Mitigation Measure 4.3-2e: Prior to approval of discretionary permits, the applicant shall show, through project design, how the project will exceed, by 10 percent, the minimum energy conservation requirements set forth by the current Uniform Building Code.</p> <p>Mitigation Measure 4.3-2f: Upon submittal of proposed subdivision, the applicant, where possible, shall configure lots to easily allow building footprints to maximize passive solar design.</p> <p>Mitigation Measure 4.3-2g: Project residents will be discouraged from using unpaved roads within the boundaries of the subject property (which may also lead to other unpaved roads) through the use of gates and posted signs.</p> <p>Mitigation Measure 4.3-2h: The project specific plan shall include a standard that will be required at the time of permit approval for any golf course where, only electric golf carts for rental or loan shall be allowed, as well as provide a mechanism to purchase subsidies and/or incentives to residents to encourage the use of personal electric carts.</p>	

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES - (Continued)

**RESIDUAL
IMPACT**

MITIGATION IDENTIFIED IN THIS EIR

ENVIRONMENTAL IMPACT

CLASS I - SIGNIFICANT UNAVOIDABLE ADVERSE ENVIRONMENTAL IMPACTS

4.5 Noise

Impact 4.5-1: Development of the proposed project under any one of the development alternatives would generate high noise levels intermittently during construction. This would be a significant impact for the residences located near the project boundary.

Mitigation Measure 4.5-1a: Prior to approval of construction plans, all applicable plans shall show that construction work will be limited to between 7:00 a.m. and 6:00 p.m. for Monday through Friday, between 8:00 a.m. and 5:00 p.m. on Saturday, with no work allowed on Sunday. The applicant shall notify all employees, contractor and/or subcontractors of this condition prior to their initiating work at the project site.

Significant

Mitigation Measure 4.5-1b: The project sponsor shall notify all residences within 1,000 feet of the site boundary concerning the project construction schedule, particularly with respect to tree clearing.

Impact 4.5-2: Development of the project under any one of the development alternatives would result in higher noise levels along local roadways. The increase in roadside noise would be significant and unavoidable along some road segments. In some cases, the significant impact would be project-specific, while along others, the significant impact would be cumulative.

Mitigation Measure 4.5-2a: The project sponsor shall provide proportional funding to install noise barriers (e.g., solid block walls) for residential outdoor use areas that would experience significant increases in future cumulative noise levels and that would experience exterior noise levels greater than 60 L_{dn}. The proportional share could be based on the percentage of cumulative traffic that would be related to the project.

Significant

For the other significantly affected residences, the following measure shall be implemented:

Mitigation Measure 4.5-2b: The project sponsor shall provide proportional funding to install acoustical insulation (i.e., double-paned windows, hardwood doors, etc.) to those residents whose residential interior noise levels would be significantly affected under future cumulative (with Project) conditions (i.e., significant increase and resulting interior noise level over 45 L_{dn}). The proportional share could be based on the percentage of cumulative traffic that would be related to the project.

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES - (Continued)

ENVIRONMENTAL IMPACT

MITIGATION IDENTIFIED IN THIS EIR

CLASS I - SIGNIFICANT UNAVOIDABLE ADVERSE ENVIRONMENTAL IMPACTS

4.5 Noise- (Continued)

Mitigation Measure 4.5-2c: The project sponsor shall construct a 6-foot high noise barrier or other appropriate device to reduce excessive noise below county thresholds for sensitive receptors significantly affected by the Project development. The placement of noise barriers shall be in accordance with the acoustical analyses.

Mitigation Measure 4.5-2d: A site specific acoustical analyses shall be required to account for project and cumulative noise impacts for all residences along potentially affected roads. The analyses shall be conducted prior to obtaining any discretionary permits and reviewed as necessary throughout the development of the project.

Impact 4.5-3: The project would introduce noise-sensitive uses into an area subject to noise from both transportation and stationary sources and would introduce commercial noise sources onto the project site. This would be a significant impact.

Mitigation Measure 4.5-3a: Project-related commercial uses and wastewater treatment facilities shall be designed to meet or exceed the standards set forth in Table 4.5-2. These performance standards can be achieved in a number of different ways, including (but not limited to) the following:

- Noise-generating equipment and activities shall be located on an individual parcel such that the distance between the equipment and activities and nearby noise-sensitive uses would be maximized.
- Noise sources, which are directional in nature, shall be positioned in such a way as to direct the noise away from noise-sensitive uses.
- Noise sources shall be muffled or installed within acoustically-treated enclosures or buildings.
- Noise barriers shall be constructed where other noise reducing strategies prove infeasible.

Significant

RESIDUAL IMPACT

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES - (Continued)

RESIDUAL IMPACT

MITIGATION IDENTIFIED IN THIS EIR

ENVIRONMENTAL IMPACT

CLASS I - SIGNIFICANT UNAVOIDABLE ADVERSE ENVIRONMENTAL IMPACTS

4.7 Public Services

Impact 4.7-2: Implementation of the proposed project, or any of the alternatives considered, would increase the population concentration, significantly impacting law enforcement services and resources.

Mitigation Measure 4.7-2a: Prior to issuance of any construction permits for commercial development or approval of tentative map(s), the applicant shall submit project site plans that will be reviewed by the County of San Luis Obispo Sheriff Office to ensure public safety and enhance site security.

Significant

Mitigation Measure 4.7-2b: The applicant shall consult with the Sheriff's Office on design and implementation of a security plan for the project. The security plan may include, but are not limited to, the following:

- Entryways and parking areas shall be well illuminated and designed with minimum dead space to eliminate areas of concealment.
- Preventive measures such as easy access for patrol cars and deputies on foot, as well as well-lit sites shall be a part of all site designs.
- Private security guards shall be employed to monitor access to and patrol the Specific Plan Area during construction and operation.
- Doors leading to residential units shall be composed of solid core construction with deadbolt locks.

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES - (Continued)

ENVIRONMENTAL IMPACT

MITIGATION IDENTIFIED IN THIS EIR

RESIDUAL IMPACT

CLASS II - SIGNIFICANT ADVERSE ENVIRONMENTAL IMPACTS THAT CAN BE FEASIBLY MITIGATED OR AVOIDED of the project for which the County of San Luis Obispo must make "findings" under CEQA Section 15091 if the project is approved.

4.1 Water Resources/Wastewater

Impact 4.1-6: The project, in conjunction with other nearby projects, will increase groundwater withdrawals and, over the long term, may have significant cumulative impacts to groundwater levels.

Mitigation Measure 4.1-6a. To reduce consumptive use, prior to approval of discretionary development (e.g. recordation of the final map, Development Plan approval), or at such time that a comprehensive program is developed by the water supplier (whichever occurs first), the applicant shall participate in a toilet retrofit program that would replace existing non-low-flow residential and commercial toilets at a 1:1 basis with new development. This retrofit program shall be limited to existing development on the Nipomo Mesa. Should it be proven to the county that there are insufficient fixtures available for this replacement program, a comparable water savings program may be substituted.

Less than significant

Mitigation Measure 4.1-6b. Prior to approval of the first discretionary development (e.g. recordation of the final map, Development Plan approval), the applicant shall develop a "master" water conservation education program for all future Specific Plan residents and commercial operators/employees, which must receive county approval before implementation. Such a program shall be developed by appropriate experts (e.g. for landscape watering, use a landscape architect or contractor familiar with the area's vegetation, who would prepare: (1) guidelines for residents covering water conservation techniques; and (2) lists of ornamental drought-tolerant plants that would do well in sandy soils). The program shall address all consumer-controlled water uses (e.g. landscaping, washing, showers, etc.). Prior to approval of subsequent development, The applicant shall incorporate, or modify as needed, this program into the specific development. Any modifications must receive county approval prior to approving subsequent development.

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES - (Continued)

**RESIDUAL
IMPACT**

MITIGATION IDENTIFIED IN THIS EIR

ENVIRONMENTAL IMPACT

CLASS II - SIGNIFICANT ADVERSE ENVIRONMENTAL IMPACTS THAT CAN BE FEASIBLY MITIGATED OR AVOIDED

4.1 Water Resources/Wastewater

Mitigation Measure 4.1-6c. Prior to approval of discretionary development (e.g. prior to recordation of the final map, Development Plan approval), the applicant shall show how the initial landscaping will have low-water requirements. As applicable, at a minimum the following shall be used: (1) all residential irrigation shall employ low water use techniques (e.g., drip irrigation); (2) residential landscaping shall not exceed 50 percent lawn surface with remaining landscaping being drought-tolerant and low water requirements; (3) golf course turf shall be of varieties that have reduced water requirements; (4) all other golf course landscaping shall be drought-tolerant, have low water requirements, utilize drip-irrigation where possible, and be composed of at least 50 percent natives.

Mitigation Measure 4.1-6d. Prior to approval of discretionary development (e.g. prior to recordation of the final map, Development Plan approval), the applicant shall conduct a complete survey of wells that could be affected by cumulative water level interference. The applicant shall then implement means to allow for continued production of these wells under drought conditions to the satisfaction of the County Engineer.

4.2 Traffic and Circulation

Impact 4.2-1: Implementation of Stage I would result in increased traffic on local roadways, and would significantly impact several study area roadways and intersections.

Mitigation Measure 4.2-1a: The Stage I analysis found that the project has the potential to impact several of the study-area roadways and intersections. The following measures are recommended to be installed prior to map recordation or prior to occupancy/final inspection of a construction permit to mitigate these potential impacts:

Less than significant

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES - (Continued)

**RESIDUAL
IMPACT**

MITIGATION IDENTIFIED IN THIS EIR

ENVIRONMENTAL IMPACT

CLASS II - SIGNIFICANT ADVERSE ENVIRONMENTAL IMPACTS THAT CAN BE FEASIBLY MITIGATED OR AVOIDED

4.2. Traffic and Circulation -- (Continued)

Albert Way. The segment of Albert Way between Dawn Road and Willow Road shall be improved to County Collector Road standards (two-lane).

Via Concha. The segment of Via Concha between Dawn Road and Willow Road shall be improved to County Collector Road standards (two lane).

Dawn Road. The segment of Dawn Road between Via Concha and Pomeroy Road shall be improved to County Collector Road standards (two lane). Amend the South County Area Plan Circulation Chapter and Map to recognize portions of the above-discussed roadways as Collectors.

Viva Way & Camino Caballo. Sections of these roadways that front the property shall be improved to County standards.

Route 1/Main Entrance. Prior to construction/logging operations, the Route 1/Main Entrance intersection shall be improved to include a southbound left-turn lane and a northbound right-turn lane. The turning-lanes shall be constructed to provide adequate truck storage and turning movements. The intersection design shall conform to Caltrans design standards.

Route 1/Willow Road. This intersection currently has single lane approaches with substandard geometric design. It is recommended that this intersection be realigned and widened to provide turn-lanes on all of the approaches. The intersection should be reconfigured to form a standard three-way approach configuration in order to alleviate driver confusion. This would involve realignment of the Willow Road approach. As volumes increase due to buildout of the area, the control of the intersection may need to be modified to provide signalization.

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES - (Continued)

**RESIDUAL
IMPACT**

MITIGATION IDENTIFIED IN THIS EIR

ENVIRONMENTAL IMPACT

CLASS II - SIGNIFICANT ADVERSE ENVIRONMENTAL IMPACTS THAT CAN BE FEASIBLY MITIGATED OR AVOIDED

4.2 Traffic and Circulation - (Continued)

Route 1/Dawn Road. The project is proposing to extend Dawn Road along the northerly boundary of the site to form a new four-way intersection at Route 1 opposite Olivera Avenue. This new intersection will need to be designed to accommodate the addition of project traffic. The intersection location would accommodate a standard four-way intersection design, with the Dawn Road-Olivera Avenue approaches controlled by stop signs. The intersection design would need to accommodate truck movements given the location of the business park within the Woodlands Specific Plan area.

Transit Facility. It is recommended that a transit facility be incorporated into the village area to accommodate potential future service to the site.

Impact 4.2-2: Implementation of Stage I without the Willow Road Extension and partial interchange at U.S. Highway 101 would result in significant impacts at several study area roadways and intersections. Impacts are anticipated to be the same as with the extension.

Mitigation Measures 4.2-2a: The Stage I analysis found that the project has the potential to impact several of the study-area roadways and intersections. The same measures recommended for the Stage I with the Willow Road extension and partial interchange would be required to mitigate the project's impacts under this scenario.

Less than significant

Impact 4.2-4: Buildout of the proposed project would result in increased traffic on local roadways, significantly impacting several study area roadways and intersections.

Mitigation Measure 4.2-4a: In general, the future street system can accommodate the addition of the Woodlands project traffic. The buildout analysis found that the project has the potential to impact some of the study-area roadways and intersections. In addition to the measures outlined in Mitigation Measure 4.2-1a, the following measures are recommended to mitigate potential impacts:

Less than significant

Camino Caballo. The segment of Camino Caballo between Via Concha and Pomeroey Road should be improved to County Collector Road standards, if not improved by other project development in the area or the County at the time of development of Woodlands buildout.

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES - (Continued)

**RESIDUAL
IMPACT**

MITIGATION IDENTIFIED IN THIS EIR

ENVIRONMENTAL IMPACT

CLASS II - SIGNIFICANT ADVERSE ENVIRONMENTAL IMPACTS THAT CAN BE FEASIBLY MITIGATED OR AVOIDED

4.2 Traffic and Circulation - (Continued)

Mesa Road. The segment of Mesa Road between Viva Way and Osage Street should be improved to County Collector Road standards, if not improved by other project development in the area or the County at the time of development of Woodlands buildout.

Eucalyptus Road. The segment of Eucalyptus Road between the Woodlands site and Osage Street should be improved to County Collector Road standards, if not improved by other project development in the area or the County at the time of development of Woodlands buildout.

Pomeroy Road/Willow Road. The Pomeroy Road/Willow Road intersection is forecast to degrade to LOS F with buildout of Woodlands, assuming the existing geometrics and two-way stop control. This location will require separate left, thru, and right-turn lanes on the Willow Road approaches. These improvements would provide LOS B.

Pomeroy Road/Willow Road. The Pomeroy Road/Willow Road intersection is forecast to degrade to LOS F with buildout of Woodlands, assuming the existing geometrics and two-way stop control. This location will require separate left, thru, and right-turn lanes on the Willow Road approaches. These improvements would provide LOS B.

The project would be required to contribute to the Willow Road extension and U.S. Highway 101 interchange through the County's fee program established for the South County Area.

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES - (Continued)

ENVIRONMENTAL IMPACT

MITIGATION IDENTIFIED IN THIS EIR

CLASS II - SIGNIFICANT ADVERSE ENVIRONMENTAL IMPACTS THAT CAN BE FEASIBLY MITIGATED OR AVOIDED

4.2 Traffic and Circulation - (Continued)

Impact 4.2-5: Buildout of the proposed project without completion of the full interchange at Willow Road and Highway 101 would result in significant impacts at several area roadways and intersections. Impacts are anticipated to be the same as with the completion of the full interchange.

Mitigation Measure 4.2-5a: In general, the future street system can accommodate the addition of the Woodlands project traffic. The buildout analysis found that the project has the potential to impact some of the study-area roadways and intersections. In addition to the measures outlined in Mitigation Measure 4.2-1a, the measures recommended to mitigate impacts associated with Woodlands buildout with the Willow Road extension and full interchange would also be required for this scenario.

Less than significant

Willow Road/Highway 101. If the Willow Road extension and partial interchange have not been funded and constructed prior to the commencement of Stage II development, the project sponsor may elect to pay for the balance of the unfunded portion of this improvement. This payment would be subject to reimbursement from the County fee program, which has programmed the funding of this entire improvement.

Impact 4.2-7: Buildout of the proposed project, along with buildout of the General Plan land uses, would significantly impact area roadways and intersections.

Mitigation Measure 4.2-7a: As reviewed above, the 2060 buildout analysis indicated that several additional improvements would be required in the study area based on the new land uses and traffic modeling completed for the South County area. It is recommended that the County update the South County Fee Program in conjunction with adoption of the proposed Woodlands Specific Plan. The updated fee program would include the additional improvements required in the South County area and the additional revenues generated from the new land uses proposed (i.e., Woodlands, the new High School, etc.).

Less than significant

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES - (Continued)

<u>ENVIRONMENTAL IMPACT</u>	<u>MITIGATION IDENTIFIED IN THIS EIR</u>	<u>RESIDUAL IMPACT</u>
CLASS II - SIGNIFICANT ADVERSE ENVIRONMENTAL IMPACTS THAT CAN BE FEASIBLY MITIGATED OR AVOIDED		
4.4 Biological Resources		
<p>Impact 4.4-1: Implementation of the proposed project, or any of the alternatives considered, would result in significant direct impacts to approximately 9 acres of Central Coastal Scrub, potentially considered a sensitive native community in California (CDFG Sensitivity Ranking S2.1¹). This would be considered a significant impact.</p>	<p>Mitigation Measure 4.4-1a: The potential loss of 9 acres of Central Coastal Scrub can be reduced to below the level of significance by one of the following:</p> <ol style="list-style-type: none"> 1) Prior to the issuance of a tree removal or grading permit or approval of a subdivision, the project will be reconfigured to avoid Area A, as mapped in Figure 4.4-1 and surrounded by a buffer strip of native perennial grasses averaging 25 feet wide; or 2) Prior to the issuance of any permit, develop a program for the County's approval which will be prepared by a qualified biologist familiar with central coast scrub habitats and which will identify a site with the necessary characteristics to re-establish coastal scrub in an acreage equivalent to that lost as a result of the project. The program shall include, at a minimum, the following items: <ol style="list-style-type: none"> a. transplanting any of the existing scrub to the new site, as practicable, b. a planting/propagation/seed collection program to establish key species, c. a weed eradication program to successfully remove any competing non-native plants, d. a temporary irrigation system, if appropriate, and e. a monitoring and maintenance program that will ensure the restored site is self-sustaining after 5 years. 	<p>Less than significant</p>

¹ State sensitivity ranking is a reflection of the overall habitat throughout its range. A rating of S2.1 indicates that the habitat is "very threatened" and less than 10,000 acres remain in the region.

TABLE I-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES - (Continued)

<u>ENVIRONMENTAL IMPACT</u>	<u>MITIGATION IDENTIFIED IN THIS EIR</u>	<u>RESIDUAL IMPACT</u>
CLASS II - SIGNIFICANT ADVERSE ENVIRONMENTAL IMPACTS THAT CAN BE FEASIBLY MITIGATED OR AVOIDED		
4.4 Biological Resources - (Continued)		
<p>Impact 4.4-2: Implementation of the proposed project, or any of the alternatives, would result in the loss of approximately 68 acres of California annual (non-native) grassland within the project boundaries. This impact would not be considered significant.</p>	None required.	Less than significant.
<p>Impact 4.4-3: The project, or any of the alternatives considered, has the potential to affect the following special status animal species: monarch butterfly, silvery legless lizard, and nesting raptors. This would be considered a significant impact.</p>	<p>Mitigation Measure 4.4-3a: For the monarch butterfly overwintering area, implement the mitigation recommendations submitted by Dr. Kingston Leong (Leong, 1996; see Technical Appendix). Long-term maintenance mitigations should be supported through an endowment fund or other suitable financial instrument. As mitigations, these recommendations are interpreted to include the following:</p> <ol style="list-style-type: none"> 1. Preserve the clustering area (approximately 300 feet by 500 feet) which occupies most of the high ground at the 320 ft knoll near the center of the project site. This is the core of the overwintering habitat for the butterfly. The core area shall be posted MONARCH BUTTERFLY OVERWINTERING AREA. AVOID APPROACHING WITHIN 20 FEET OF TREES WITH ROOSTING CLUSTERS. 2. Preserve as a buffer (against strong winds and for sunlight filtration) trees surrounding the cluster out to a distance of 200 feet from the outside boundary of the core. 	Less than significant

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES - (Continued)

**RESIDUAL
IMPACT**

MITIGATION IDENTIFIED IN THIS EIR

ENVIRONMENTAL IMPACT

CLASS II - SIGNIFICANT ADVERSE ENVIRONMENTAL IMPACTS THAT CAN BE FEASIBLY MITIGATED OR AVOIDED

4.4 Biological Resources - (Continued)

3. Maintain the structure of the habitat by planting new trees as necessary. The grove and buffer may be thinned by 10 percent of its basal area annually, although no tree in current use by monarchs should be thinned without consulting a qualified entomologist. Based on data from Santa Barbara County, forest density should be maintained within the range of 300-350 trees/acre with a basal area in the range of 65-150 square feet/acre. Cut stumps will generally re-sprout; these should be trimmed to a single stem after five years. No branches of any healthy tree within the core area should be removed.
4. Support a program to restore the habitat and buffer area for a period of five years from the initial surrounding tree clearance activities (i.e., planting of new seedlings in strategic areas, selective tree trimming, and/or selective removal of trees). A qualified entomologist or a monarch butterfly specialist shall be consulted to develop and monitor the implementation of this program.
5. Ban the use of pesticides within 0.5 miles of the habitat between October and March.
6. Manage understory and public use of the area to minimize fire danger. Eucalyptus groves within 0.5 miles of the buffer should have fuel loading of less than 2 tons per acre of down and dead material. No open fires or smoking on pathways will be allowed, and spark arrestors will be required on all internal combustion equipment

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES - (Continued)

ENVIRONMENTAL IMPACT

MITIGATION IDENTIFIED IN THIS EIR

CLASS II - SIGNIFICANT ADVERSE ENVIRONMENTAL IMPACTS THAT CAN BE FEASIBLY MITIGATED OR AVOIDED

4.4 Biological Resources - (Continued)

7. Minimize woodsmoke pollution by allowing no barbecues and only pellet stove fireplaces within 0.25 miles of the habitat.
8. Preserve sources of plant nectar by landscaping with species maintaining blossoms through winter, including the following (see also Table 4.4-3):

<i>Ceanothus</i> - Deer brush	<i>Echium</i> - Pride of Madeira
<i>Leptospermum</i> - Australian tea	<i>Pittosporum</i> - Pittosporum
<i>Pyracantha</i> - Pryacantha	<i>Aster spp.</i> - Aster
<i>Calliuna vulgaris</i> - Scotch heather	<i>C. maximum</i> - Shasta daisy
<i>Cheiranthus erysimum</i> - Wallflower	<i>Cistus skanbergii</i> - Rock rose
<i>Chrysanthemum frutescens</i> - Marguerites	<i>Cosmos spp.</i> - Cosmos
<i>C. paludosum</i> - Miniature shasta daisy	<i>Salvia spp.</i> - Sages
<i>Ribes spp.</i> - Gooseberry, currant	<i>Sedum spp.</i> - Sedum
<i>Rosmarinus officinalis</i> - Rosemary	<i>Zinnia spp.</i> - Zinnia
<i>Iberis spp.</i> - Candytuft	

Mitigation Measure 4.4-3b: To avoid impacts to the silvery legless lizard, preserve coastal sage scrub as described in 'Mitigation Measure 4.4-1a'.

Mitigation Measure 4.4-3c: For areas which are scheduled for construction between March and July, a pre-construction survey shall be conducted for nesting raptors. Trees containing active raptor nests shall be identified by the project biologist. Destruction of such breeding sites shall be avoided for the duration of the breeding season by establishment of an appropriate setback as determined by consultation with California Department of Fish and Game and/or the U.S. Fish

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES - (Continued)

**RESIDUAL
IMPACT**

MITIGATION IDENTIFIED IN THIS EIR

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CLASS II - SIGNIFICANT ADVERSE ENVIRONMENTAL IMPACTS THAT CAN BE FEASIBLY MITIGATED OR AVOIDED

4.4 Biological Resources - (Continued)

and Wildlife Service. An exclusion barrier shall be installed around the perimeter to prevent destruction of nest trees which would result in destruction of nests, eggs, and/or nestlings per Fish & Game Code Section 3503.5 and to minimize the effect of construction related noise and dust. Prior to issuance of any construction permit, to avoid conflicts with nesting raptors, construction activities shall not be allowed during the nesting season (March to July), unless a qualified biologist has surveyed the impact zone and determined that no nesting activities will be adversely impacted. At such time, if any evidence of nesting activities are found, the biologist will determine if any construction activities can occur during the nesting period and to what extent.

The project biologist shall also conduct periodic (monthly) surveys for raptors which move onto the site during construction. It is assumed that species using the site under these conditions will be somewhat resistant to construction-related disturbance; however, the results of the surveys will be passed immediately to the CDFG and the County, possibly with recommendations for variable buffer zones, as needed, around individual nests.

Impact 4.4-4: During the construction phase, the project or any of the alternatives could result in disturbance to, or direct mortality of, common and special-status wildlife species. This would be considered a significant impact.

Mitigation Measure 4.4-4a: Prior to submittal of any construction or grading permit, a qualified biologist shall be retained to: 1) conduct a contractor education program; 2) identify and stake all biologically sensitive areas; 3) monitor all construction activities in areas supporting sensitive biological resources; 4) Scheduling and implement surveys for raptor nests; 5) inform the County, the project engineer and the project general contractor if there are construction activities that threaten significant biological resources for which no mitigation measures have been identified in this EIR; and 6) develop alternative and comparable mitigation measures, where possible, to significantly reduce

Less than
significant

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES - (Continued)

RESIDUAL
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MITIGATION IDENTIFIED IN THIS EIR

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CLASS II - SIGNIFICANT ADVERSE ENVIRONMENTAL IMPACTS THAT CAN BE FEASIBLY MITIGATED OR AVOIDED

4.4 Biological Resources - (Continued)

new potential impacts not previously identified. The resident engineer and contractor shall then cease such construction activities until appropriate mitigation measures are implemented.

Mitigation Measures 4.4-4b: All sensitive habitat areas to be avoided shall be clearly marked on project maps and provided to the contractor by the project biologist. These areas shall be designated as "no construction" or "limited construction" zones. These areas shall be flagged by the project biologist prior to construction activities. In some cases, resources may need to be fenced or otherwise protected from direct or indirect impacts, as determined by the project biologist.

Mitigation Measure 4.4-4c: A pre-construction survey to locate loggerhead shrike nesting sites and active badger burrows shall be conducted prior to commencement of all grading activities involving vegetation removal. A preconstruction survey will also be conducted on a site that has not been disturbed more than 90 days. An appropriate setback, as determined by California Department of Fish and Game and/or the U.S. Fish and Wildlife Service, shall be established around active sites. An exclusion barrier shall be installed around the perimeter to prevent destruction of the nest site or burrow. Construction activities shall, meanwhile, be allowed to continue outside the protected area. When it is determined that an active site is no longer active, construction activities shall be permitted to resume at that site.

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES - (Continued)

**RESIDUAL
IMPACT**

MITIGATION IDENTIFIED IN THIS EIR

ENVIRONMENTAL IMPACT

CLASS II - SIGNIFICANT ADVERSE ENVIRONMENTAL IMPACTS THAT CAN BE FEASIBLY MITIGATED OR AVOIDED

4.4 Biological Resources - (Continued)

Impact 4.4-5: Golf course turfed areas require long-term landscape maintenance that include irrigation and the application of fertilizers and pesticides and the possible introduction of additional non-native species to the area. These operations have the potential to adversely affect biological resources. **This would be considered a significant impact.**

Mitigation Measure 4.4-5a: The golf course shall be designed to intersperse areas of natural vegetation with turf areas by limiting intensive landscaping to primary play areas (greens, tees, fairways and short rough). Travel corridors of native vegetation shall be allowed to remain in strips at least 50 feet wide between holes. Species used in landscaping shall exclude those on Table 4.4-2 and include, to the extent possible, those preferred species on Table 4.4-3. Irrigation rates shall be matched to average evapotranspiration rates, to reduce groundwater infiltration by irrigation water.

Less than significant

Mitigation Measure 4.4-5b: Fertilizer will not be applied within 24 hours before a predicted rainfall to minimize leaching by rainwater, and soils will be tested and monitored for nutrient levels to insure fertilizer application rates match uptake rates by turf grasses. Such monitoring will be conducted annually by the course management and the results made available for County review. Alternatively, a simulation model may be used to estimate soil nutrient transport, such as LEACHM (Wagenet and Hutson, 1989; as cited in Balogh and Walker, 1992).

Mitigation Measure 4.4-5c: The County shall develop, or the applicant shall develop and the County shall approve, an Integrated Pest Management (IPM) program with specific guidelines on the use of pesticides. The IPM guidelines should include the following:

1. Because closely-mowed turf is more susceptible to environmental stresses (and hence disease), mowing heights will be at the highest portion of the ranges of heights consistent with play.

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES - (Continued)

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4.4 Biological Resources - (Continued)

2. Antibacksiphoning devices will be used in application equipment to reduce the potential for pesticide contamination of groundwater or other water supplies during irrigation.
3. To act as a buffer between turf and either scrub areas or water hazards, a band of native perennial grass vegetation will be established averaging 25 feet wide adjacent to the short rough. Such buffer or filter strips are an accepted method of managing non-point source fertilizer runoff problems.
4. For vertebrate pests (e.g., pocket gopher [*Thomomys bottae*]), install nest boxes for barn owls and kestrels. Information provided by the University of California Cooperative Extension Program suggests that a family of barn owls can kill 4-5 gophers per week.
5. Slow-release, organic fertilizers will be used wherever possible, as an effective biological method to help suppress many turf pathogens, as well as reduce potential for contamination of ground and surface waters. The County shall consider the use of bacterial additives, as these become commercially available to enhance nitrogen uptake and improve turf disease resistance.
6. Any biological control methods shall be environmentally sound, where they will not result in any adverse impacts to coastal scrub wildlife or raptors. Use of non-chemical control measures shall be used before other alternatives are considered or applied, unless it is clearly shown to the County such measures would be ineffective.

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES - (Continued)

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4.4 Biological Resources - (Continued)

7. All chemicals shall be applied by or under the supervision of a trained, licensed applicator.
8. Establish and use an employee education program to describe the pesticides and herbicides used and how to avoid potential human health risks as well as risks to sensitive habitats. As needed, non-English versions of this program shall be provided to employees/applicators.
9. Dispose of chemical rinseate in a manner that will not increase the potential for point or non-point source pollution.
10. Following all manufacturers' directions for proper chemical/fertilization application, and container disposal procedures.

Impact 4.4-6: Fragmentation of the existing eucalyptus stands may increase the mortality of remaining trees, especially where maintained as narrow screens. This would be an adverse, but not a significant impact.

Mitigation Measure 4.4-6a: The increased effects of wind throw and blow down may require additional silvicultural effort, including trimming of limbs (excepting in the monarch butterfly wintering area) and replanting. Stands should be monitored yearly, in winter or early spring, for signs of beetle activity. If infested trees are noted, the entire tree should be removed immediately and disposed of off-site. Exposed stands may also be more vulnerable to drought, and in the event of severe drought stress, irrigation may be necessary.

Less than significant

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES - (Continued)

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4.5 Noise

Impact 4.5-3: The project would introduce noise-sensitive uses into an area subject to noise from both transportation and stationary sources and would introduce commercial noise sources onto the project site. This would be a significant impact.

Mitigation Measure 4.5-3a: Project-related commercial uses and wastewater treatment facilities shall be designed to meet or exceed the standards set forth in Table 4.5-2. These performance standards can be achieved in a number of different ways, including (but not limited to) the following:

Less than significant

- Noise-generating equipment and activities shall be located on an individual parcel such that the distance between the equipment and activities and nearby noise-sensitive uses would be maximized.
- Noise sources, which are directional in nature, shall be positioned in such a way as to direct the noise away from noise-sensitive uses.
- Noise sources shall be muffled or installed within acoustically-treated enclosures or buildings.
- Noise barriers shall be constructed where other noise reducing strategies prove infeasible.

4.6 Aesthetics

Impact 4.6-1: Development of the proposed project, or any of the alternatives considered, would change the natural visual character and form of the site. This would be a significant impact.

Mitigation Measure 4.6-1a: In the perimeter buffer areas and visually sensitive areas on the southern portion of the site, as shown in Figure 4.6-12, thinning shall be limited to the removal of deadwood and clearing for proposed trails. As with the Monarch Butterfly sensitive resource area, forest density shall be maintained within the range of

Less than significant

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES - (Continued)

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4.5 Aesthetics - (Continued)

300-350 trees/acre (12 to 15 feet between trees) with a basal area in the range of 65-150 square feet/acre (see Section 4.4, Biological Resources). Cut stumps will generally resprout; these trees should be trimmed to a single stem after five years.

Mitigation Measure 4.6-1b: In the perimeter grassland areas, as shown in Figure 4.6-12, and along the golf course fairways, native species such as Coast Live Oak, Cypress or Redwood shall be planted to provide additional screening and enhance the visual buffer.

Mitigation Measure 4.6-1c: Any changes in land uses, densities, or design of the southern portion of the property (south of the central ridge) shall be remain within the footprints as shown in Figure 4.6-12.

Mitigation Measure 4.6-1d: Landscaping shall be planted in conformance with the Fire and Safety Plan to provide additional screening of structures.

Impact 4.6-2: Development of the project or any of the alternatives considered may intensify and introduce new sources of illumination on the site. Proposed buildings could introduce glare from the site. These could impact adjacent uses and alter the rural character of the area. This would be a potentially significant impact.

Mitigation Measure 4.6-2a: The following measures would serve to mitigate light and glare impacts associated with the proposed project:

- Project exterior lighting shall be designed to direct light and glare away from neighboring properties.
- To minimize excessive lighting and glare, building exteriors and roofs shall utilize low reflectance materials. Mirrored glass and other highly reflective building materials shall not be utilized on the exterior of the buildings.

Less than significant

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES - (Continued)

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4.5 Aesthetics - (Continued)

- All outdoor lighting other than identification signage shall be directed from the perimeter of the property toward building entrances and parking areas utilizing cut-off fixtures to prevent nighttime illumination to spill onto properties and residential uses on-site.
- Exterior building courts and corridors illumination shall be designed to minimize intrusive glare on residential buildings and on adjacent land uses. Low level security lights shall be used along driveway entrances.
- Plant materials, shade structures, and other architectural features shall be used, where appropriate, to decrease reflectivity of landscape and light and glare toward adjacent land uses.

Impact 4.6-3: Development of the proposed project or any of the alternatives considered would alter views from Highway 1, located west of the project site. Views from surrounding residential areas would also be affected. This would be a significant impact.

Mitigation Measure 4.6-3: Mitigation Measures 4.6-1a and 4.6-1b would also serve to mitigate this impact.

Less than significant

4.7 Public Services

Impact 4.7-1: Implementation of the proposed project, or any of the alternatives considered, would place residential and commercial buildings in close proximity to stands of eucalyptus, creating a fire hazard. Additional staffing, hydrants and/or fire

Mitigation Measure 4.7-1a: The proposed project must comply with Title 19 (Building and Construction Ordinance), which includes requirements for automatic fire extinguishing devices being installed in commercial structures.

Less than significant

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES - (Continued)

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4.7 Public Services - (Continued)

fighting systems (fire flow) may be required. This would contribute to cumulative impacts associated with several large developments in the Nipomo area and would be considered a significant impact.

Mitigation Measure 4.7-1b: The residential component of the proposed project shall install automatic sprinkler systems as part of a fire/safety plan in accordance with Building and Fire Department standards.

Mitigation Measure 4.7-1c: Plans shall be submitted to the CDF/SLO Fire Department during the plan check phase; the project shall be required to meet all the applicable codes, including street width, water supply, alarm systems and others.

Mitigation Measure 4.7-1d: Prior to issuance of grading/construction permits and approval of tract map improvements, the applicant shall show a minimum distance of 30 feet between eucalyptus trees and any structure, with regular clearing of tree understory to minimize potential fire risk in accordance with CDF/SLO Fire Department requirements.

Mitigation Measure 4.7-1e: During the construction phase, surrounding streets shall be kept clear and unobstructed during tree removal and construction. Prior to issuance of tract map improvements, the applicant shall submit the construction equipment circulation plan, which identified key routes to remain clear at all times for fire equipment access. All stored and parked construction equipment and materials shall be kept on the project site in such a way to avoid obstruction of traffic circulation, especially during traffic peak hours.

Mitigation Measure 4.7-1f: As required by the County of San Luis Obispo Fire Department, access for fire equipment shall be maintained during construction.

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES - (Continued)

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4.7 Public Services - (Continued)

Mitigation Measure 4.7-1g: During tree removal and construction, adequate water supplies for fire flow must be identified and immediately available.

Mitigation Measure 4.7-1h: In order to reduce the fire hazard conditions of the stands of eucalyptus, the applicant shall implement a Vegetation Management Plan, found in Appendix F. Specifically, the project shall conform to the following measures which will reduce the risk of fire:

- Conduct all forest management activities in accordance with Best Management Practices specified by the California Forest Practices Rules (Title 14 CCR) in order to minimize acceleration of erosion and sedimentation rates. Manage eucalyptus woodlands to maintain healthy, vigorous stands with a multiplicity of age and size classes. Remove dead and diseased trees. All such efforts shall consider the measures recommended in Section 4.6, Aesthetics.
- Stands should be maintained within the areas designated for them in the final site design. Eucalyptus can be controlled in early stages of growth but is able to resprout from roots once established. There will be extensive root sprouting after existing stands are removed, which will compete with new woody plantings and other landscaping such as lawns. Remove new seedlings around the perimeter of retained stands as soon as possible to control spread.
- Where groves are >100 feet in width, manage to maintain a range of stem diameter classes, with approximately five percent of the stand <5 inches dbh and five percent of the stand in trees >35 inches dbh.
- Stands should be monitored yearly, in winter or early spring, for signs of beetle activity. If infested trees are noted, the entire tree should be removed

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES - (Continued)

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4.7 Public Services - (Continued)

- immediately and disposed of off-site. Exposed (narrow) stands, irrigation may be necessary. The increased effects of wind throw and blow down may require additional silvicultural effort, including trimming of limbs (excepting in the monarch butterfly wintering area) and replanting.
- All eucalyptus groves to remain shall have fuel loading of less than 2 tons per acre of down and dead material, and shall be managed to prevent the formation of vertical fuel ladders, where bark and dead limbs form a fuel continuum from the ground to tree crowns.
- The trees comprising the sensitive monarch overwintering and buffer zone areas shall be actively managed to maintain conditions suitable for winter aggregations of butterflies. After completion of the tree removal activities surrounding the sensitive monarch habitat, grove enhancement activities should be implemented for a period of five years to restore conditions favorable for winter aggregations of butterflies. Enhancement activities should include the planting of seedlings and selective trimming and removal of established trees to provide wind protection (buffer zone) and/or greater access to winter sunlight for the butterflies. To ensure maintenance of favorable conditions for the butterflies, the habitat shall be periodically evaluated via the monitoring of microclimatic conditions and the location and movement of the butterfly's clusters within the grove. If necessary, grove enhancement or modifications shall be implemented to restore conditions favorable for modifications should be implemented to restore conditions favorable for winter aggregations. Good forest management practices of the eucalyptus groves (removal of fallen or hazardous branches, fallen trees, etc.) shall be practiced where possible and shall be in agreement with a qualified habitat restoration monarch specialist.

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES - (Continued)

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4.7 Public Services - (Continued)

Mitigation Measure 4.7-1i: Prior to issuance of a building permit, hydrant flow testing of all hydrants in the project area must be done to determine if the water lines can meet the necessary fire flow.

Impact 4.7-3: The proposed project, or any alternative considered, would generate new students in the LMUSD. This is anticipated to result in a significant impact. Therefore, significant impacts are anticipated for all alternatives.

Less than significant

Mitigation Measure 4.7-3a: Prior to approval of the first subdivision or discretionary permit, the applicant or any successor in interest shall have reached a binding agreement with the appropriate public school district (currently LMUSD) that will be applicable to all development within the Specific Plan for full mitigation of school facilities impacts. Such mitigation agreement may include, but not be limited to: (i) alternatives for full financial mitigation of school facilities; (ii) requiring the applicant to participate in a financing mechanism (such as a Mello Roos community facilities district) to mitigate school facilities impacts; (iii) requiring the project to be phased in a manner which allows the school districts to accommodate students as the project is built out; and /or (iv) supplemental fair-share fees above the state-mandated amount currently collected to cover actual costs.

Impact 4.7-6: The project implementation of the proposed project or any of the alternatives considered would result in increased waste generation. This would contribute to the exhaustion of the remaining capacity at the Cold Canyon Landfill. Therefore, this would be considered a significant impact.

Less than significant

Mitigation Measure 4.7-6a: Prior to issuance of building permits, the applicant shall submit to the County Environmental Health Department a compost management plan for the project site which, by the year 2000, would handle 50-100 percent of the greenwaste generated by the entire project site. The project shall use all compost generated on-site. The plan shall address management of residential green waste as well as commercial and recreational uses. One hundred percent (100%) of the green waste generated by the golf courses and fifty percent (50%) of the balance of the green waste material generated by the project shall be managed on the project site. The compost management plan shall be submitted for approval to the County Engineer with permits contingent on that approval.

TABLE I-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES - (Continued)

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4.7 Public Services - (Continued)

Mitigation Measure 4.7-6b: The applicant shall submit a recycling plan to the County Engineering Department and the County Integrated Waste Management Agency San Luis Obispo Integrated Waste Management Authority prior to issuance of a building permit. Garbage and recycling collection fees shall be collected in the garbage bill and service shall be provided on a weekly basis. The recycling plan shall apply to all land uses and shall include, but not be limited to: 1) lists of recyclable materials, such as white paper, computer paper, newspaper, metal cans, aluminum, motor oil, chipboard and glass; 2) location of recycling and waste bins; 3) designated recycling coordinator, 4) a plan stating the nature and extent of internal and external pick-up services; pick-up schedule; and 5) a plan to inform tenants/occupants of recycling services; and (6) the use of mulching mowers for public, residential and commercial properties.

The plan shall be designed to capture and recycle 98% of the recyclables set out for collection. The required recycling plan shall also include a waste reduction plan that shall articulate the steps the developer must take to minimize waste generation during construction. These steps shall include, the purchasing practices that will assure that excess materials are not delivered to the site, that any materials and packaging that are delivered are recycled locally, and that proper separation of discarded materials (e.g. sheet rock, conduit, metal flashing, corrugated cardboard, scrap dimension lumber, etc.) will assure maximum recycling.

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES - (Continued)

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4.7 Public Services - (Continued)

Mitigation Measure 4.7-6c: Prior to Map Recordation or Development Plan approval, the applicant shall develop an educational brochure that will inform the property owners within the project site about the recycling services in the area. Drop-off, buy-back centers and other possible markets from recyclables in the area shall be identified. Recycling glass, metal, paper, cardboard, and other materials to the maximum extent feasible shall be suggested to residents and business.

Mitigation Measure 4.7-6d: Prior to issuance of a construction permit, plans shall show that adequate space has been provided per current County specifications for on-site trash and recyclable collection/separation.

Mitigation Measure 4.7-6e: The applicant shall ensure through CC&R's or other mechanisms, that proper disposal and recycling collection and green waste collection will be required for all project occupants, that mulching mowers are encouraged for on-site properties and the use of recycled building materials are encouraged.

The use of recycled building materials is encouraged in building projects. Development plan applications shall include in the project description methods to ensure that the project use recycled content materials during construction to the extent economically feasible. Recycled construction material shall include, but not be limited to, flooring, roofing materials, block, glass, plastics, tile, carpet, and paint in any public, residential and commercial buildings. When possible and economically feasible, public structures, including the resort, golf course, and business park, shall incorporate rubberized asphalt, recycled content plastic signs, posts and wheel stops.

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES - (Continued)

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4.8 Archaeology

Impact 4.8-1: Known prehistoric and historic cultural resources, as well as previously undiscovered prehistoric and historic cultural resources, could be disturbed and/or destroyed during construction or operation of the project. This would be a significant impact.

Mitigation Measure 4.8-1a: Subsequent to tree removal activities, and prior to the finalization of project designs, subsurface testing shall be required for Prehistoric Site 1 and Prehistoric Isolate 1 to define the actual boundaries, content, antiquity and significance of the sites. A series of sixty or less shovel test pits (40 cm diameter) and four to six 1x1 meter test units shall be utilized to map Prehistoric Site. 1. A series of ten to twenty shovel test pits and one or two 1x1 meter test units shall be utilized to map Prehistoric Isolate. 1. If cultural materials are present on site, a data recovery phase shall be undertaken for areas which cannot be avoided by design or capping.

Less than significant

Mitigation Measure 4.8-1b: An archaeological monitor shall be present during all earthmoving activities on the site. If human remains of native American origins are encountered during development, project construction shall be immediately suspended, and the county Coroners office and the Native American Heritage Commission shall be contacted to determine necessary procedures for protection and preservation of remains, including reburial at applicant's expense, as provided in the State CEQA Guidelines, Appendix J.

Mitigation Measure 4.8-1c: In accordance with the County Land Use Ordinance, Section 22.05.140, in the event archaeological resources are unearthed or discovered during any construction activities, the following standards apply:

Construction activities shall cease within 50 yards of the archaeologically sensitive area, and the Environmental Coordinator and Planning Department shall be notified so that the extent and location of discovered materials may be recorded by a qualified archaeologist, and disposition of artifacts may be accomplished in accordance with state and federal law.

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES - (Continued)

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4.8 Archaeology - (Continued)

In the event archaeological resources are found to include human remains, or in any other case where human remains are discovered during construction, the County Coroner is to be notified in addition to the Planning Department and Environmental Coordinator so proper disposition may be accomplished.

Mitigation Measure 4.8-1d: If archaeological resources encountered are found to be important, the applicant shall provide reasonable funding and adequate time for recovery of such resource, or the equivalent avoidance measure as approved by the County.

4.10 Hazardous Materials

Impact 4.10-2: Under the proposed project or any alternative, improper application or handling of agricultural chemicals used for turf maintenance at the proposed golf course could expose the applicators, golfers, nearby residents, or the environment to toxic materials. This would be a significant impact.

Less than significant

Mitigation Measure 4.10-2a: Upon submittal of any golf course application, the applicant shall have consulted with a qualified landscape architect to ensure that the golf course is designed in accordance with standard and accepted course design, and is landscaped with species adapted to the local climate. Plantings adapted to the local climate would be more resistant to pests and drought, and less likely to require intensive application of chemicals. Landscape design should also include:

- consideration of typical plant pests in this part of the State and types of pesticides effective in this region;
- nonchemical control procedures that would help reduce dependence on agricultural chemicals, such as cultivation of turf areas to maximize absorption of rainfall, provisions for hand weeding, and preventative mowing of greens to minimize dew and fungus;

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES - (Continued)

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4.10 Hazardous Materials - (Continued)

- irrigation rates appropriate for minimizing runoff;
- an adequate buffer around any wetlands and water bodies that are constructed as part of the golf course to minimize chemical transport of fertilizers and pesticides to surface water (Balogh and Walker, 1992, p. 470, Lagin, 1993 p. 28, and Love, 1992, p. 36); and
- design of a drainage system to minimize chemical transport to groundwater.

All of these potential design issues would be addressed and evaluated by the qualified landscape architect at the time of golf course design; they cannot be elaborated further in this EIR. The full golf course design would need to be submitted to the County for approval as part of the golf course application.

Mitigation Measure 4.10-2b: Prior to application of pesticides or fertilizers, samples and measurements shall be taken for plant and insect pests on the course, and a narrow spectrum of pesticides selected from those specified in the IPM Program to control the specific problems indicated by the test samples.

Mitigation Measure 4.10-2c: The applicant shall have its pest control contractor prepare an Integrated Pest Management (IPM) Program that would be submitted to the County Agricultural Commissioner and the County Environmental Health Division prior to approval of any golf course. The IPM Program would be prepared prior to project approval by an experienced applicator of pesticides and fertilizers licensed by the State of California. At minimum, the following elements should be included:

TABLE I-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES - (Continued)

<u>ENVIRONMENTAL IMPACT</u>	<u>MITIGATION IDENTIFIED IN THIS EIR</u>	<u>RESIDUAL IMPACT</u>
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4.10 Hazardous Materials - (Continued)	<ul style="list-style-type: none"> • Recommendations for each herbicide, insecticide, and fungicide that could be used as part of golf course maintenance activities. • Restrictions regarding use of each recommended pesticide and procedures for its application clearly specified. Safety data sheets for each product should be included. • Guidelines for fertilizer application rates that would encourage absorption of chemical fertilizers through plant growth. Runoff contamination could be minimized by use of slow-release fertilizers and an application schedule that takes seasonal runoff patterns and the course irrigation schedule into consideration. • Identification of soluble, fast-leaching products that should be avoided. • An agricultural chemical storage plan requiring that the golf course operator store agricultural chemicals only in properly secured structures with spill containment features that conform with hazardous materials storage requirements (this is a legal requirement under FIFRA). • Provisions for alternative nonchemical or advanced pest control procedures under development to supplement application of agricultural chemicals (City of San Jose, 1993). 	

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES - (Continued)

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4.10 Hazardous Materials - (Continued)

Impact 4.10-3: Improper Under the proposed project or any alternative, improper storage or use of fuels, solvents, or other hazardous materials used for vehicle or building maintenance at the golf course could expose employees, golfers, nearby residents, or the public to health or safety hazards from accidental upsets. This would be a significant impact.

Mitigation Measure 4.10-3a: The golf course shall be designed to include storage of hazardous materials only in properly secured structures, with secondary spill containment features to prevent spills from escaping, such as concrete floors and berms. The containment features shall provide the following:

- 100-percent containment of all stored liquids. Minor spills should be contained by the structure.
- Sprinklers for fire suppression to provide 20 minutes of fire protection sprinkler water flow.
- Flammable solvents shall be stored in safety cans or cabinets and away from any source of ignitions.
- Incompatible materials should be kept separated.

Prior to final inspection of the golf course operation, the local Fire Department shall inspect the structure to assure that there is adequate sprinkler water containment in the event of a fire. The project sponsor will also be required to obtain a hazardous materials storage permit from San Luis Obispo County.

Mitigation Measure 4.10-3b: In order to promote proper handling and storage of hazardous materials, the procedures itemized below will be implemented.

Less than significant

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES - (Continued)

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4.10 Hazardous Materials - (Continued)

1. Fertilizers and pesticide storage would be limited to available covered space only. Outdoor storage of excess quantities will not be allowed.
2. Only chemicals currently approved for use on the course would be stored in the maintenance facility at any time. Leftover chemicals from any one-time application would not be stored, but would be disposed of properly.
3. Maintenance vehicles would transport only sufficient quantities of fertilizers and pesticides to complete the current day's work. All leftover chemicals and application equipment would be returned to the maintenance facility when not in use at the end of every workday.
4. Herbicides or other pesticides will be applied with hand-trigger, manual equipment only. no fogger or truck-mounted hose-end applications would be acceptable.
5. Records would be kept of all chemical applications in accordance with California Department of Agriculture requirements.
6. No applicator rinse waters or any other waters known to contain fertilizer or pesticides shall be allowed to enter surface waters, including any storm drains or other conveyances that drain to surface waters, at any time. Fertilizer rinse waters may be drained to a sewage line or retained and reapplied to turf.
7. Prior to Development Plan approval of the golf course, the golf course superintendent shall develop and implement a chemical spill response plan. The plan shall include at a minimum:

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES - (Continued)

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4.10 Hazardous Materials - (Continued)

- a) posting of a requirement for immediate notification of the County Environmental Health Division;
- b) specifications for spill cleanup equipment to be maintained, adequate to contain and clean up any solid or liquid spill; and
- c) descriptions of procedures to be followed in the event of a solid or liquid spill, including procedures to prevent spilled material from entering a storm drain, wetland, or waterway.

Impact 4.10-6: Transportation Under the proposed project or any alternative, transportation of hazardous materials or hazardous waste could result indirectly in greater potential for accidents involving hazardous materials and pose potential threats to receptors along transportation routes. This would be a significant impact.

Mitigation Measure 4.10.6-a: Prior to approval of a construction plan for each project facility, the project sponsor shall prepare a hazardous material transportation plan as part of project design. The hazardous material transportation plan shall

Less than significant

identify the location of the facility and designate either (1) specific routes to be used for transport of hazardous materials and wastes to and from the facility, or (2) specific routes to be avoided during transport of hazardous materials and wastes to and from the facility. Routes would be selected to minimize proximity

to sensitive receptors to the greatest practical degree. Passage through residential neighborhoods should be minimized, and parking of waste haulers on residential streets should be prohibited. All concerns expressed by local residents and other concerned persons regarding the safety of hazardous materials transport shall be addressed in the hazardous materials transportation plan. The County would review and approve the applicant's hazardous material transportation plan or, working with the applicant, modify it to the satisfaction of all parties.

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES - (Continued)

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CLASS II - SIGNIFICANT ADVERSE ENVIRONMENTAL IMPACTS THAT CAN BE FEASIBLY MITIGATED OR AVOIDED		
4.10 Hazardous Materials - (Continued)		
<p>Impact 4.10-7: An accidental release of hazardous materials at the Tosco facility could result in a potential health risk to residents.</p> <p>Hazardous substances are routinely handled at the Tosco facility. In the unlikely but possible occurrence of an accidental release at the Tosco facility project residents could be exposed to a serious health risk. Such an event could require evacuation of the site.</p>	<p>Mitigation Measure 4.10-7a: The County's Hazardous Material Emergency Response Plan addresses potential evacuation of County residents.</p>	<p>Less than significant.</p>
4.11 Drainage, Erosion and Sedimentation		
<p>Impact 4.11-2: Development of the proposed project, or any of the alternatives considered, may expose people and structures to flood hazards. This would be a significant impact.</p>	<p>Mitigation Measure 4.11-2a: Prior to final map or development plan approval, the project applicant shall provide the County with final design plans and a Hydrology Report in accordance with the County's Standard Improvement Specifications and Drawings that demonstrates adequate flood protection.</p>	<p>Less than significant</p>
<p>Impact 4.11.3: Construction activities associated with the proposed project or any of the alternatives considered would increase soil erosion and may transport other contaminants to downstream receiving waters. This would be a significant impact.</p>	<p>Mitigation Measure 4.11-2b: Prior to development plan or other discretionary permit approval, the project applicant shall provide the County with schematic design plans that demonstrates adequate flood protection.</p> <p>Mitigation Measure 4.11-3: The project applicant shall employ construction stormwater quality management practices as follows:</p>	<p>Less than significant</p>

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES - (Continued)

ENVIRONMENTAL IMPACT

MITIGATION IDENTIFIED IN THIS EIR

RESIDUAL IMPACT

CLASS II - SIGNIFICANT ADVERSE ENVIRONMENTAL IMPACTS THAT CAN BE FEASIBLY MITIGATED OR AVOIDED

4.11 Drainage, Erosion and Sedimentation - (Continued)

The project applicant shall prepare a Stormwater Pollution Prevention Plan as part of the construction activities NPDES stormwater permit required by the Regional Water Quality Control Board. In addition to retention basins, other stormwater Best Management Practices (BMPs) would need to be employed at the site to comply with the NPDES requirements for construction activities. These BMPs may include temporary berms, straw bales, hydroseeding, and phased grading practices to reduce soil erosion. Permanent landscaping plans would not eliminate the need for temporary erosion control measures, especially for construction activities in the winter months. At a minimum, the Stormwater Pollution Prevention Plan shall include the following requirements:

1. Plan excavation and grading activities for only the dry season (April 15 to October 31) to the extent possible. This reduces the chance of severe erosion from intense rainfall and surface runoff, as well as the potential for soil saturation in swale areas.
2. If excavation occurs during the rainy season, storm runoff from the construction area shall be regulated by temporary on-site silt traps and/or basins with multiple discharge points to natural drainages and energy dissipaters. Stockpiles of loose material shall be covered and runoff all be diverted away from exposed soil material. If work is stopped due to rains, a positive grading away from slopes shall be provided to carry the surface runoff to areas to where flow can be controlled, such as the temporary silt basins. Sediment basin/traps shall be located and operated to prevent offsite sediment transport. Any trapped sediment shall be removed from the basin or trap and placed at a suitable location on-site away from concentrated flows, or removed to an approved disposal site.

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES - (Continued)

ENVIRONMENTAL IMPACT

MITIGATION IDENTIFIED IN THIS EIR

RESIDUAL IMPACT

CLASS II - SIGNIFICANT ADVERSE ENVIRONMENTAL IMPACTS THAT CAN BE FEASIBLY MITIGATED OR AVOIDED

4.11 Drainage, Erosion and Sedimentation - (Continued)

3. Temporary erosion control measures shall be provided until perennial revegetation or landscaping is established. Properly trenched and staked silt fences shall be placed on steep areas along the toe of cut or fill slopes.
4. After completion of grading, erosion protection shall be provided on all cut and fill slopes. Revegetation shall be facilitated by mulching, hydroseeding or other methods, and shall be initiated as soon as possible after completion of grading, and prior to the onset of the rainy season (by November 1).
5. Permanent revegetation/landscaping shall emphasize drought-tolerant perennial ground coverings, shrubs, and trees, to improve the probability of slope and soil stabilization without adverse impacts to slope stability due to irrigation infiltration and long-term root development.
6. Best Management Practices selected and implemented for the project shall be in place and operational prior to the onset of major earthwork on the site. The construction phase facilities shall be maintained regularly and cleared of accumulated sediment as necessary to preserve the siltation basins storage volumes and permit adequate conveyance.

CLASS III - IMPACTS FOUND NOT TO BE SIGNIFICANT

4.1 Water Resources/Wastewater

Impact 4.1-1: The project will decrease water storage in the Nipomo Mesa subarea and the Santa Maria groundwater basin;

None required.

Less than significant

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES - (Continued)

<u>ENVIRONMENTAL IMPACT</u>	<u>MITIGATION IDENTIFIED IN THIS EIR</u>	<u>RESIDUAL IMPACT</u>
CLASS III - IMPACTS FOUND NOT TO BE SIGNIFICANT		
<p>4.1 Water Resources/Wastewater -- (Continued) however, this decrease is small compared with baseline conditions. This would not be considered a significant impact.</p>	None required.	Less than significant
<p>Impact 4.1-2: The application of reclaimed water, pesticides, and fertilizers from the project is not anticipated to result in significant impacts on groundwater quality.</p>	None required.	Less than significant
<p>Impact 4.1-3: Since the project includes stormwater retention basins, which minimize, if not eliminate, urban runoff contaminants to be transported off-site, no significant impacts to surface water quality are anticipated.</p>	None required.	Less than significant
<p>Impact 4.1-4: Discharges from the proposed wastewater treatment plant, subject to permit conditions from the RWQCB, could degrade groundwater resources. Compliance with these conditions would reduce impacts to less than significant levels.</p>	None required.	Less than significant
<p>Impact 4.1-5: Groundwater pumping for the project is not anticipated to cause any significant impacts associated with interference with other water wells or the reduction of water levels in nearby ponds.</p>	None required.	Less than significant
4.2 Traffic		
<p>Impact 4.2-3: Implementation of Stage I would result in an incremental increase in traffic in the Guadalupe area and the City</p>	None required.	None

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES - (Continued)

RESIDUAL IMPACT

MITIGATION IDENTIFIED IN THIS EIR

ENVIRONMENTAL IMPACT

CLASS III - IMPACTS FOUND NOT TO BE SIGNIFICANT

4.2 Traffic - (Continued)

of Santa Maria. This is not anticipated to result in any significant impacts.

Impact 4.2-6: Project Buildout would result in an incremental increase in traffic in the Guadalupe area and the City of Santa Maria. This is not anticipated to result in any significant impacts. None required.

4.3 Air Quality

Impact 4.3-3: Project-generated traffic associated with the proposed project, or any one of the alternatives considered, is not anticipated to create a CO hot spot at any one of the modeled intersections. None of the project alternatives would as it would not cause the exceedance of the one-hour or the eight-hour average CO standard. No significant impacts are anticipated. None necessary.

Impact 4.3-4: Implementation of the proposed project or any of the project alternatives would introduce sensitive receptors in proximity to the Unocal Refinery, and would increase the population subject to intermittent odors generated by the facility. However, this is not anticipated to result in a significant impact. The proposed project would be consistent with the County's Clean Air Plan. In addition the project could introduce odors associated with the on-site wastewater treatment plant. The plant will be sized and designed to efficiently process with minimal odors) the project's proposed effluent. The plant will be required to meet Basin Plan requirements and approval through RWQCB. This is not anticipated to be significant. None necessary.

Less than significant

Less than significant

TABLE I-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES - (Continued)

RESIDUAL IMPACT

MITIGATION IDENTIFIED IN THIS EIR

ENVIRONMENTAL IMPACT

CLASS III - IMPACTS FOUND NOT TO BE SIGNIFICANT

4.3 Air Quality - (Continued)

Mitigation Measure 4.3-4a: As required by the 1989 Order for Abatement, the applicant shall record an advisory to title documents on each parcel within the project stating that "... odors may occur due to refinery emissions. The notice shall also indicate the possibility for exceedance of the state health standard for SO₂."

Mitigation Measure 4.3-4b: The proposed wastewater treatment facility shall implement odor controlling measures, such as using ferric chloride in the headworks, covering all tanks, sumps and wet wells that may produce odorous compounds, and enclosing wastewater treatment equipment and processes which may contribute to the overall odor emissions."

Mitigation Measure 4.3-4c: The applicant (and/or property owners association(s)) shall work with APCD to designate a person, acceptable to APCD, to respond to and investigate odor complaints including source determination, compliant follow up, notification and/or reports to APCD staff of response summary received and prepare public notices, as appropriate.

Impact 4.3-5: The proposed project, as well as each of the alternatives considered, is not consistent with the County's Clean Air Plan. This would be considered a significant impact.

None necessary.

Less than significant.

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES - (Continued)

RESIDUAL IMPACT

MITIGATION IDENTIFIED IN THIS EIR

ENVIRONMENTAL IMPACT

CLASS III - IMPACTS FOUND NOT TO BE SIGNIFICANT

4.4 Biological Resources

Impact 4.4-2: Project development would result in the loss of approximately 68 acres of California annual (non-native) grassland to support some of the habitat requirements for special species resident. This impact would not be considered significant.

None required.

Less than significant

4.7 Public Services

Impact 4.7-4: Implementation of the proposed project, or any of the alternatives considered, would require the development of infrastructure to provide water services to the proposed urban land uses. ~~result in increased consumption of water due to introduction of urban land uses. However, as~~ As the project would provide its own water service, no adverse impacts to water service are anticipated.

Although no significant impacts anticipated, the following measures are recommended to further reduce water consumption:

Less than significant

Mitigation Measure 4.7-4a: Prior to issuance of construction permits, plans for the golf course will identify that reclaimed water will be utilized as a source to irrigate large landscaped areas. Prior to issuance of construction permits, plans will show that a dual-piping system will be installed, to the satisfaction of the County, to accommodate the future use of reclaimed water. Pipelines for reclaimed water shall be clearly identified and shall meet Health and Safety Code Title 22 requirements.

Mitigation Measure 4.7-4b: The project applicant shall prepare a Water and Reclaimed Water Master Plan that will address the water and reclaimed water pumping storage conveyance system design and operation for the entire project. The system shall be in conformance with the requirements of the County Engineering and Health

TABLE I-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES - (Continued)

<u>ENVIRONMENTAL IMPACT</u>	<u>MITIGATION IDENTIFIED IN THIS EIR</u>	<u>RESIDUAL IMPACT</u>
CLASS III - IMPACTS FOUND NOT TO BE SIGNIFICANT		
4.7 Public Services - (Continued)		
<p>Impact 4.7-5: Implementation of the proposed project or project alternatives would increase wastewater flow over existing conditions. The developer proposes to construct wastewater collection, treatment and disposal facilities within the project site. Because the proposed project would adequately manage its own wastewater, this would not be considered a significant impact.</p>	<p>Departments and the Central Coast Regional Water Quality Control Board. The Master Plan shall identify a phasing program for development of the system concurrent with project site development, and shall identify a financing mechanism for installation, operation, and maintenance of the system.</p>	<p>Less than significant</p>
<p>Impact 4.7-5: Implementation of the proposed project would result in the conversion of the site from open space to non-agricultural uses; however, as the site consists of Class IV irrigated and Class VI non-irrigated soil, this would not be considered significant. In addition, the project would incorporate substantial open space buffers between its proposed residential uses and adjacent agricultural uses.</p>	<p>Mitigation Measure 4.7-5a: The project applicant shall prepare a Wastewater Master Plan that addresses the wastewater conveyance, treatment and disposal for the entire project. The system shall be in conformance with the requirements of the County Engineering Department and the Central Coast Regional Water Quality Control Board. The Master Plan shall identify a phasing program for development of the system concurrent with project site development, and shall identify a financing mechanism for installation, operation, and maintenance of the system.</p>	<p>Less than significant</p>
4.9 Agricultural Compatibility		
<p>Impact 4.9-1: Implementation of the proposed project would result in the conversion of the site from open space to non-agricultural uses; however, as the site consists of Class IV irrigated and Class VI non-irrigated soil, this would not be considered significant. In addition, the project would incorporate substantial open space buffers between its proposed residential uses and adjacent agricultural uses.</p>	<p>Mitigation Measure 4.9-1a: Prior to recordation of the final map or Development Plan approval, the applicant shall submit a tentative map to the County Agricultural Commissioner for review and approval, indicating compliance with the required buffers.</p>	<p>Less than significant</p>

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES - (Continued)

<u>ENVIRONMENTAL IMPACT</u>	<u>MITIGATION IDENTIFIED IN THIS EIR</u>	<u>RESIDUAL IMPACT</u>
CLASS III - IMPACTS FOUND NOT TO BE SIGNIFICANT		
4.10 Hazardous Materials		
<p>Impact 4.10-1: Under the proposed project or any alternative, improper handling or storage of hazardous materials by new businesses within the project area, especially those involved with research and development, could expose workers, the public, or the environment to toxic materials. With adherence to existing laws and regulations, no significant impacts are anticipated.</p>	<p>Mitigation Measure 4.10-1a: Business Park uses that handle enough hazardous materials to generate wastes in reportable quantities (12,000 kilograms of hazardous waste per year or 12 kg of extremely hazardous waste per year) shall submit a Source Reduction Evaluation and Review Plan with the San Luis Obispo County Health Agency and the Department of Toxic Substances Control for review and approval.</p>	Less than significant
<p>Impact 4.10-4: The Under the proposed or any alternative, development and operation of the proposed Wastewater Treatment Plant would involve storage, handling, and use of hazardous materials that may could pose health threats to sensitive receptors/workers or to the public. With adherence to existing laws and regulations, no significant impacts would be anticipated.</p>	<p>Mitigation Measure 4.10-1b: Business Park uses handling acutely hazardous materials shall prepare a written Risk Management and Prevention Program (RMPP) and file it with the County Health Agency for review and approval.</p>	Less than significant
	<p>Mitigation Measure 4.10-1c: Business Park uses handling hazardous materials and/or using underground storage tanks shall prepare a Hazardous Materials Management Plan that details hazards inventories, site layouts, training and monitoring procedures, and emergency response plans, all in conformance with State law.</p>	
	None required.	

TABLE 1-1: SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES - (Continued)

<u>ENVIRONMENTAL IMPACT</u>	<u>MITIGATION IDENTIFIED IN THIS EIR</u>	<u>RESIDUAL IMPACT</u>
CLASS III - IMPACTS FOUND NOT TO BE SIGNIFICANT		
4.10 Hazardous Materials - (Continued)		
<p>Impact 4.10-5: The Under the proposed project or any alternative, the golf course and other new installations in the project area would generate hazardous waste that may could pose health and safety threats to workers or the environment unless disposed or properly. sensitive receptors unless disposed of property.— With adherence to existing laws and regulations, no significant impacts would occur are anticipated.</p>	None required.	Less than significant
4.11 Drainage, Erosion and Sedimentation		
<p>Impact 4.11-1: The proposed project, or any of the alternatives considered, may increase the volume of surface water runoff. Stormwater infiltration facilities and containment of runoff within certain areas of the development are conceptually included in the project. No significant impacts are anticipated.</p>	<p>Mitigation Measure 4.11-1a: Prior to final map or development plan approval, the project applicant shall provide the County with final design plans and a Hydrology Report in accordance with the County's Standard Improvement Specifications and Drawings that demonstrates adequate retention and percolation of stormwater. With the additional runoff generated from the Expanded Business Park alternative, the capacity of the infiltration basin in the business park drainage subarea would require additional capacity than other alternatives to meet the County's standards.</p> <p>Mitigation Measure 4.11-1b: Prior to the first development activity (e.g., vegetation removal, grading, final map, development plan, etc.) within the southern half of the subject property, detailed drainage, sedimentation and erosion control plans shall be submitted to the county for approval along with a description of how and when these measures will be installed to insure no off-site erosion will occur during any phase of the development. All plans shall show that sedimentation and erosion control measures are installed prior to any other ground disturbing work.</p>	Less than significant

THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT
5720 S. UNIVERSITY AVE.
CHICAGO, ILL. 60637

TO: [Name]
[Address]
[City, State, Zip]

FROM: [Name]
[Address]
[City, State, Zip]

RE: [Subject]

DATE: [Date]

PHYSICS DEPARTMENT
5720 S. UNIVERSITY AVE.
CHICAGO, ILL. 60637

TO: [Name]
[Address]
[City, State, Zip]

FROM: [Name]
[Address]
[City, State, Zip]

RE: [Subject]

DATE: [Date]



2.0 PROJECT DESCRIPTION

2.1 PROJECT LOCATION

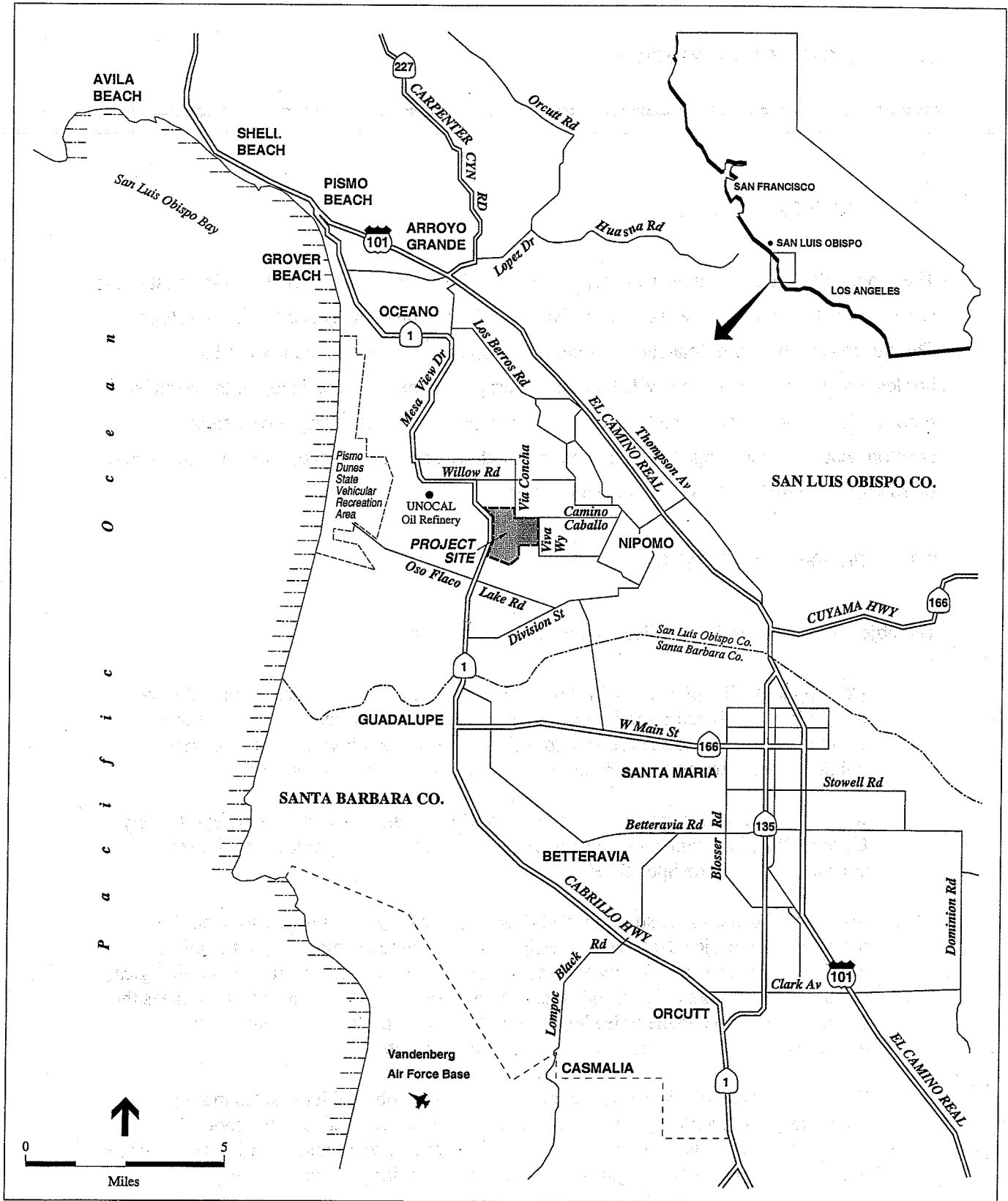
The project site is located in the County of San Luis Obispo, approximately two miles west of the community of Nipomo, on the east side of Highway 1 and immediately south of Dawn Road.

The site consists of approximately 957 acres and is located in a predominantly rural area, bordered on the west by Highway 1, limited row crops and undeveloped land; on the north by rural residential development and a commercial nursery; on the east by rural residential development and undeveloped land; and on the south by undeveloped property along the Nipomo Mesa bluff. Figure 2-1 shows the project location.

2.2 PROJECT OBJECTIVES

The objectives of the project applicant include the following:

1. Develop a specific plan that will provide for the long-term implementation of a mixed-use project that includes the following components: recreational and rural resort uses; business parks; commercial retail and residential uses; employment opportunities; a public school; permanent open space; and a multi-use circulation system.
2. Implement a project consistent with the Specific Plan and the San Luis Obispo County General Plan, including any amendments to the South County Area Plan adopted concurrently with the Specific Plan.
3. Minimize short-term construction and long-term development impacts to natural resources with project features and design that: encourages improving air quality; provides for good water quality and sustainable quantities; protects important biological resources; minimizes off-site drainage, sedimentation or erosion impacts; minimizes the potential for unacceptable noise levels; avoids damage to cultural resources; and preserves and enhances public views to and from the site.
4. Develop a project involving public input that is compatible with the surrounding community by minimizing vehicular traffic through residential neighborhoods, implementing area wide circulation, providing public services and facilities necessary to support the project, and designing the project to be inviting to the community.
5. Develop an infrastructure improvement program that directly supports the needs of the project, makes the project fit within the community, and provides for a fair share contribution to off-site public improvements.



SOURCE: Environmental Science Associates

Woodlands Specific Plan / 950250 ■

Figure 2-1
Regional Location Map

6. Provide for flexibility in project implementation that will allow for changes in market demand and community-wide needs.
7. Facilitate timely and efficient project implementation by conducting a comprehensive environmental analysis with the specific plan and establish an efficient permit process for project buildout.

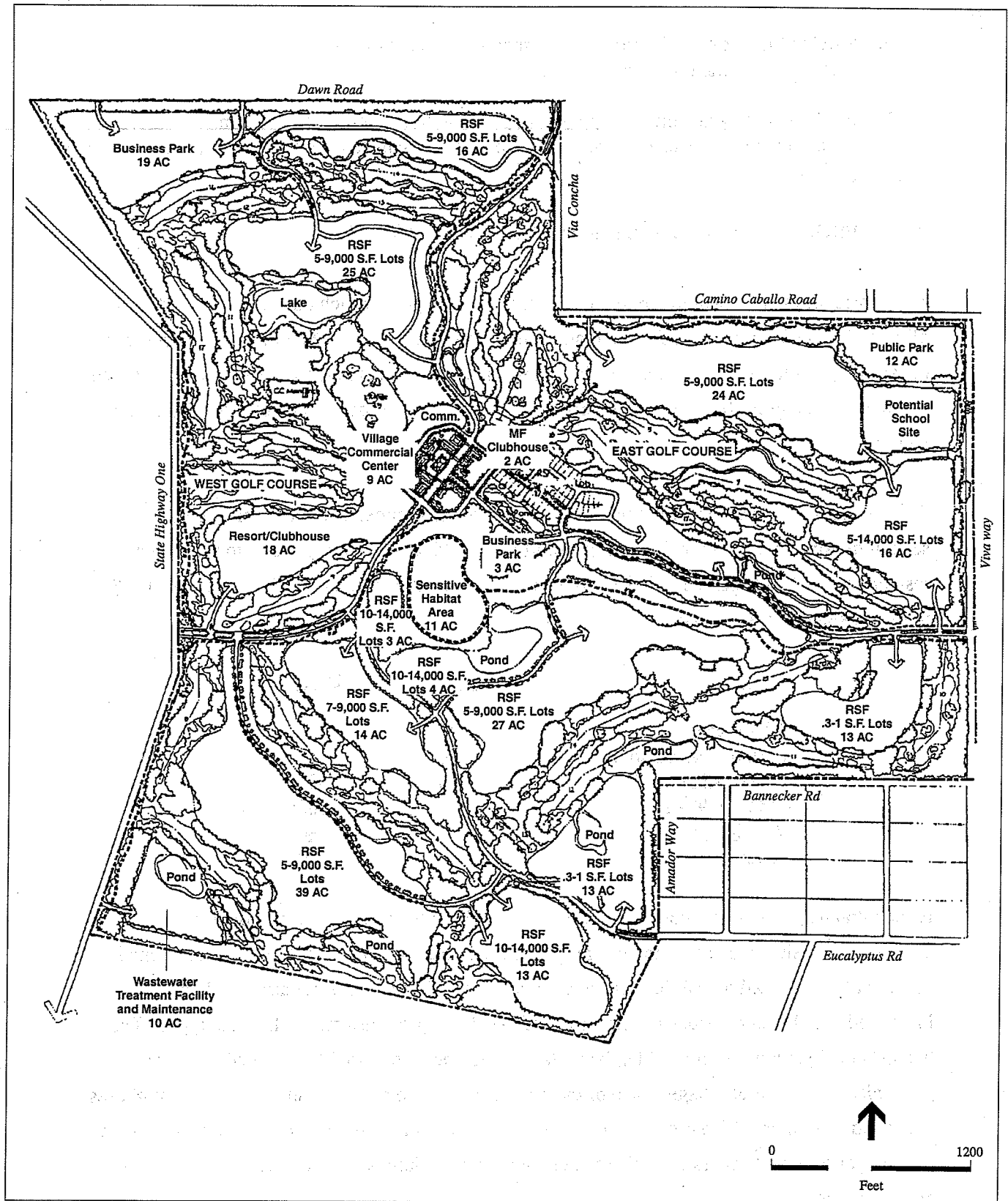
2.3 PROJECT CHARACTERISTICS: PROPOSED PROJECT

The subject property is within the Recreation land use category, which allows for a broad range of uses. Figure 2-2 illustrates the site plan for the proposed project. The proposed project would consist of a mixed use development including residential, commercial, business park, open space, and recreational uses. Specific characteristics for each of the proposed land uses are discussed below.

Residential Land Use: The residential component of the proposed project would consist of several density types ranging from single family residential at one unit per acre to multi-family residential at 20 units per acre. Residential uses would consist of a total of 235 acres and 1,320 units, broken down as follows:

<u>Density</u>	<u>Acres</u>	<u>Units</u>
0.3 - 1 acre	33	48
10,000 - 14,000 sq. ft.	20	72
7,000 - 9,999 sq. ft.	85	437
4,000 - 6,999 sq. ft.	93	683
<u>20 units/acre</u>	<u>4</u>	<u>80</u>
Total:	235	1,320

Residential neighborhoods would be clustered throughout the site, surrounded by open space. The lowest density residential land use ranges may be located on private streets, with a limited number of lots located on cul-de-sacs. Higher densities of 5 to 8 units per acre would be integrated with lower densities in some areas of the site to provide a mix of housing types. The highest density, multi-family residential units (20 units per acre) would be located in closer proximity to the central village; some of these units may be combined with retail commercial uses as second story units. The proposed 1,320 residential unit limit will apply to all units in all land use categories that allow residential uses (e.g., apartments, duplexes, condominiums, secondary dwellings, etc.).



SOURCE: The Woodlands Specific Plan

Woodlands Specific Plan / 950250 ■

Figure 2-2
Land Use Concept Plan

Commercial Land Use: Approximately 27 acres of commercial uses are proposed within the project, which would consist of two primary land uses: the village center and the resort. The village center would consist of approximately 9 acres of commercial retail uses, and would provide goods and services within a one-quarter to one-half mile walking distance to both visitors and most residents. The village center would include up to 140,000 square feet of shops, restaurants, offices, the golf course clubhouse, up to 40 apartment units, landscaped parking areas and a central village green/square. Residential apartments and offices would be located on second stories. Additionally, approximately 18 acres of the village center would be designated for commercial service uses, consisting of resort hotel (up to 500 rooms), conference facilities and a restaurant. The resort would be located in proximity to the proposed golf courses, and would provide access to the village center and nearby recreational opportunities. A one-way street would encircle the village square with diagonal parking located on the retail side of the street.

Business Park: The Business Park component of the proposed project, totaling 22 acres, would include 19 acres in the northwestern portion of the site and three acres in the village center, as shown in Figure 2-2. Up to 335,000 sq. ft. of research and development, commercial and professional offices could be accommodated in these areas based on a Floor-to-Area Ratio (FAR) of 0.35:1.

Should the business park land inventory not be absorbed by the market, then the Specific Plan will include a process to change the land use designation for the remaining undeveloped land from Business Park to Residential Single Family. In this event, although the residential acreage would be increased, overall density would be decreased, and the maximum number of units would remain at 1,320 units.

Recreation and Open Space: The Recreation and Open Space component of the proposed project would contain a wide range of open space features including landscaped entry medians and large landscaped buffer "woodlands." The total area designated for parks, buffers and open space on the site would be 587 acres, including the following: approximately 300 acres of active, commercial recreational uses designated for two golf courses; 118 acres of non-commercial recreational uses, consisting of a 12-acre public park, 30 acres of neighborhood play areas and open space between residential lots, and 76 acres designated for open space buffers along the perimeter of the site; and 169 acres of natural open space, consisting of 11 acres set aside for Monarch Butterfly overwintering and 158 acres remaining in natural condition. The proposed residential neighborhoods would be separated by either meadows, golf courses or woodland open

spaces. In addition to the areas reserved for open space buffers and natural areas, many of the existing eucalyptus trees would remain in the golf course and between the residential neighborhoods. A network of pedestrian, bicycle and equestrian trails is also proposed.

The two 18-hole golf courses planned for the project would radiate out from the village center and be located primarily within the valleys of the site. The 12-acre public park would be located in the northeast corner of the site, and would provide easy access for the surrounding residential communities.

Public Facilities: The public facilities component of the proposed project, totaling 20 acres, would consist of two 10-acre areas for a wastewater treatment facility and a potential school site. The treatment facility would include a wastewater treatment plant, offices, storage basins, maintenance vehicle storage and maintenance buildings. The facility would treat approximately 346 acre-feet of wastewater per year, which would be used for golf course irrigation.

The proposed school site would be located adjacent to the public park. The site would accommodate an elementary school, including school facilities, playgrounds, ballfield areas and parking. If the site is rejected by the Lucia Mar Unified School District, the area will be used for one of the other existing project components, provided there will be no increase in density of other uses.

A total of 66 acres of the site would be designated for streets.

2.4 PROJECT ALTERNATIVES

In addition to the proposed project, this EIR analyzes the potential impacts of two alternatives at an equal level of detail as the proposed project. The specific characteristics of each alternative are described below. A third alternative is discussed in lesser detail in Section 7.0 of the EIR.

2.4.1 Expanded Commercial/Business Park

The Expanded Commercial/Business Park Alternative would be similar to the proposed project with the exception that the business park area would be increased from 22 acres to 46 acres, with a corresponding decrease in residential acreage from 235 acres to 211 acres. The additional 24 acres of business park would be located in the general location of the proposed 19 acre business park at the northwest corner of the property; under this alternative, up to 366,000 sq. ft. of

additional research and development, commercial and professional offices could be accommodated, based on a maximum FAR of 0.35:1, for a total of 701,000 sq. ft. Although residential acreage would be reduced with this alternative, the maximum number of units would remain unchanged at 1,320 units, with the effect of increasing residential density elsewhere on the site. This alternative would also require the reconfiguration of the golf courses.

2.4.2 Reduced Project/Rural Village

This alternative would apply "Rural Village" planning area standards to the property. The residential component would decrease from 1,320 to 957 units, due to a maximum density of one unit per acre for the 957-acre site. The business park component of this alternative will be analyzed under two scenarios:

- 1) Rural Village I: 22 acres of business park (up to 335,000 sq. ft.);
- 2) Rural Village II: 46 acres of business park (up to 701,000 sq. ft.).

As with the Expanded Commercial/Business Park alternative, the Rural Village II variation of this alternative would require reconfiguration of the proposed golf courses/site plan.

Table 2-1 summarizes the residential and commercial components for each alternative.

2.4.3 Revised Project Alternative

The applicant incorporated changes to the original proposed project after review of the DEIR.

Both the original proposed project and the revised project are identical in the following project features, specifically residential units (1,320 units), acreage of business park (22 acres with up to 335,000 sq.ft. of space), resort rooms (up to 500 rooms) and active irrigated open space. However, the Revised Project Alternative would not include a school site; instead, the applicant would contribute funding (see Mitigation Measure 4.7-3a). If the park site is eliminated the Applicant would provide in lieu fees based on provisions of Title 21 (Chapter 9).

TABLE 2-1: COMPARISON OF ALTERNATIVES

<u>Alternative</u>	<u>Residential</u>	<u>Business Park</u>
Proposed Project	1,320 units	22 acres
Expanded Business Park	1,320 units	46 acres
Rural Village I	957 units	22 acres
Rural Village II	957 units	46 acres
Revised Project Alternative	1,320 units	46 acres

Note: All other components of each alternative (i.e., commercial uses, golf courses, open space) remain the same.

As stated above, project features under the proposed project and the revised project would remain similar. However, in order to reduce certain environmental impacts, the Applicant has proposed minor changes to the proposed project. Under this alternative, the 19-acre business park originally proposed in the northwest portion of the project would be relocated to the southwest corner of the property parallel to Highway 1, just south of the development's Highway 1.

The Revised Alternative Concept Plan is shown in Figure 2-2a. The proposed village would move slightly to the east from its location as described under the proposed project. The proposed resort would be repositioned directly south of the Monarch butterfly habitat. Also, under the Revised Project Alternative the internal road system would include six roads radiating out of the village rather than three as included in the proposed project alternative. The school would be eliminated under this alternative.

Under this alternative the proposed golf course would have nine additional holes, (a total of 45 holes compared to the original 36). The applicant has designed the course such that this expansion of the golf course would not require additional water consumption.

Under this alternative, the project would be developed in four stages rather than two. Stage I would include of 580,000 cubic yards of cut and fill while Stage II would include



SOURCE: RRM Design Group.

Woodlands Specific Plan / 950250 ■

Figure 2.2a
Revised Project Alternative

375,000 cubic yards. Stage III would include 290,000 yards and the final Stage would include 318,000 cubic yards. Development would begin in the northwest quadrant, then move to the northeast quadrant in a clockwise manner. This differs from the original proposed project, which proposed to develop the western portion of the site and then the eastern portion.

2.5 PROJECT SCHEDULE

The proposed project would be developed in two general stages. The first stage would consist of the western site components, including the west golf course, western residential neighborhoods, the resort, the clubhouse, village infrastructure, the three-acre business/office park, the 19-acre business park, and the wastewater treatment facility. Public and private open spaces including the Sensitive Resource Area, village green, woodland buffers, trails, dedication of the public park site and internal neighborhood open spaces are also planned for this stage, as well as all necessary supporting infrastructure, roads, and site amenities.

The second stage would involve the buildout of the east golf course, eastern residential neighborhoods, the second golf clubhouse, the remainder of the Village Center, a multi-family residential neighborhood, expansion of the wastewater treatment facility, and dedication of the school site. Table 2-2 summarizes the two stages of development for each alternative. Figure 2-3 illustrates the proposed stages for the project. **Under the Revised Project Alternative, the project would be developed in four stages instead of two. Development would occur in the northwest quadrant of the site and more in a clockwise motion.**

It is anticipated that the entire project would be completed within 10 to 15 years from project approval. In this EIR, the year 2020 is used for cumulative impact assessment, as this year corresponds with other relevant studies (e.g., the recent EIR traffic assessment completed for the Willow Road Extension and Interchange).

Site clearance is anticipated to occur in one phase at the onset of the project, and would consist of the removal of approximately 640 acres of eucalyptus trees from the site. Tree trunks would be logged for transport, while slash (tree limbs and debris) and stumps would be chipped on-site. Approximately eight to ten million boardfeet of eucalyptus would be removed from the site, resulting in approximately 2,000 truckloads of logs and 500 truckloads of chipped material.

TABLE 2-2: PROJECT STAGING

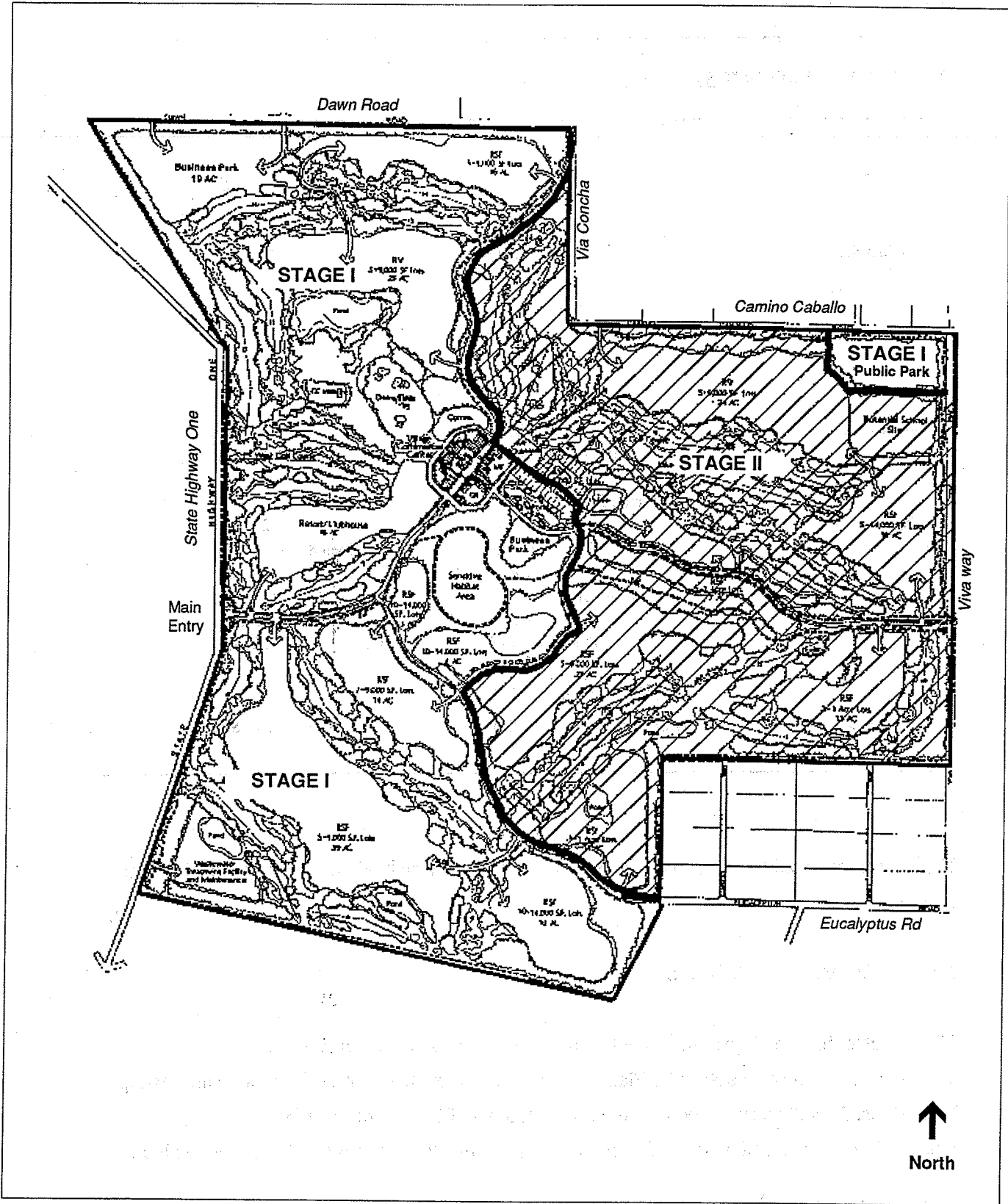
<u>Land Use</u>	<u>Phase I</u>	<u>Phase II</u>
Residential	838 units	482 units
Business Park	22 acres	
Commercial	(335,000 sq. ft.) 9 acres (Village Center)	
Recreation	18 acres (Resort Hotel) 150 acres (West Golf Course)	150 acres (East Golf Course)
Open Space	12 acres (Public Park Dedication) 11 acres (Sensitive Resource Area) 50 acres (Open Space Buffers) 105 acres (Natural Areas) 15 acres (Play Areas/Open Space)	26 acres (Open Space Buffers) 53 acres (Natural Areas) 15 acres (Play Areas/Open Space)
Infrastructure	Wastewater Treatment Plant	10-acre School Site

These materials would be most likely hauled to a pulp mill, which would be located outside of the County.¹

2.6 PROJECT APPROVALS

It is expected that the project implementation process will include the following types of approvals: adoption of the Specific Plan, Development Agreement for the Specific Plan, Vesting Tract Maps, discretionary use permits (e.g., Development Plans, Minor Use Permits), construction permits, and possibly General Plan Amendments concurrent with the Specific Plan.

¹ Mr. Tim Wilson, Planned Sierra Resources, telephone conversation, October 4, 1997. For the purposes of this analysis, it is assumed that logged and chipped material taken from the site will be transported to a pulp mill at the Port of Sacramento.



SOURCE: The Woodlands Specific Plan

Woodlands Specific Plan | 950250 ■

Figure 2-3
Staging Map

Other agencies or departments that may be involved in separate approvals include, but are not necessarily limited to: County Engineering, County Department of General Services, Environmental Health, Caltrans, Regional Water Quality Control Board, the Air Pollution Control District, and the Lucia Mar Unified School District.

THE UNIVERSITY OF CHICAGO
DEPARTMENT OF CHEMISTRY
58 CHEMISTRY BUILDING
CHICAGO, ILLINOIS 60637



3.0 OVERVIEW OF ENVIRONMENTAL SETTING

3.1 PHYSICAL SETTING

As discussed in Section 2.0, Project Description, the project site is located in the County of San Luis Obispo, approximately two miles west of the community of Nipomo, on the east side of Highway 1 and immediately south of Dawn Road. The site consists of approximately 957 acres and is located in a predominantly rural area, bordered on the west by Highway 1, limited row crops and undeveloped land; on the north by rural residential development and a commercial nursery; on the east by rural residential development and undeveloped land; and on the south by undeveloped property along the Nipomo Mesa bluff.

3.2 EXISTING LAND USE

The topography of the project site can be described as older, well established gently rolling sand dunes, a landform typical of much of the Nipomo Mesa. Elevation ranges from approximately 125 feet near the southwest corner of the site to approximately 325 feet near the center. The site was planted in eucalyptus in the 1800s. Most of the site has been logged and burned more than once, and supports dense second or third growth eucalyptus. Before the trees were planted, the site was most likely dominated by coastal scrub and grassland communities intermixed with coast live oak woodland along the eastern boundary. Currently, while much of the site is dominated by eucalyptus groves, there are four small open areas supporting grassland and scrub vegetation.

3.3 CONSISTENCY WITH COUNTY OF SAN LUIS OBISPO PLANS AND POLICIES

The South County Area Plan (Inland Portion) articulates a future vision of the South County planning area and serves as a guide for future development to balance the social, economic, environmental and governmental resources and activities affecting the quality of life. To this end, all projects should support, implement and be consistent with this area plan.

Generally, the proposed project includes many components that are consistent with the vision of the Area Plan. The project would improve the economic climate in South County by providing short-and-long-term jobs. The project design and many of its features would be consistent with

provisions in the Area Plan to maintain the existing rural character. The project would provide for business and office park development located on the project site, as identified in the vision statement for the South County planning area. A variety of housing is proposed, which would provide housing for a range of incomes. The proposed resort hotel and golf courses would facilitate the transformation of the Nipomo Mesa and its environs into an appealing destination for recreation. Specifically, this project would constitute the major recreational resort identified in the vision statement to be developed west of Nipomo. The proposed business park component would accommodate the industrial research and development parks the vision statement identifies to be located within the development.

The Land Use chapter (Chapter 4) of the area plan, describes the South County's vision for development of the project site (page 4-15):

The Woodlands. A 950-acre property, shown in Figure 4-6 [of the area plan], offers the opportunity for an integrated resort and office development that would enhance employment in South County. A specific plan is encouraged to study a mix of recreational resort, research and development/light industrial parks, residential and related commercial uses. If a specific plan is not completed, clustered residential development should be allowed at the Residential Rural density. Adjacent properties that are located within the Residential Rural category may participate in the specific plan to transfer their development entitlement to the larger Hanson Industries property.

The proposed Specific Plan would be generally consistent with this vision.

If the project is developed as either of the two Reduced Project/Rural Village alternatives, the project would then constitute the additional rural village identified in the vision statement to be created west of Nipomo. Chapter 4 of the area plan (pages 4-20 and 4-21), describes the South County's vision for development of a New Rural Village:

Village Design. The rural village should be designed within a minimum set of site planning criteria, as shown in the village standards in Chapter 7. A rural village should be designed as a compact, internalized neighborhood, with strong focal points and central recreational facilities and amenities. There should be provisions for pedestrian and equestrian circulation throughout the village, as well as around its perimeter. A buffer area should be designed between the major road network and the site, within which pedestrian and equestrian paths would provide linkages to other destinations in the area.

Village Planning. A specific plan application is required by area plan standards in Chapter 7 for consideration of a rural village, to be reviewed concurrently with the necessary general plan amendments and subdivision maps. The specific plan will address both on and off-site issues concerning site planning and development, financing of improvements and evaluation of the potential implementation of a transfer of development credit program.

The Reduced Project/Rural Village alternatives would be generally consistent with this vision.

Chapter 7 of the South County area plan, Planning Area Standards, contains development standards to address particular concerns in individual communities or areas. There are standards for public services, circulation and land use that provide criteria for the detail evaluation of development projects. Table 3-1 summarizes the project's consistency with the area standards.

In addition to these plans, all residential development within the unincorporated areas of the County are subject to the County's Growth Management Ordinance, Title 26 of the San Luis Obispo County Code. This ordinance restricts the maximum number of new dwelling units to an annual increase of 2.3 percent, based on the number of existing county unincorporated housing units, as defined by the most recent annual estimate provided by the State Department of Finance. As of January 1, 1997, the number of existing county unincorporated housing units was 38,461 units; therefore, a maximum of 884 units can be developed Countywide during 1997.

The ordinance distributes 20 percent of this allocation to developers of multi-family dwellings and dwelling units in phased projects approved as Planned Developments or through adoption of a Specific Plan (Category 1). The remaining 80 percent is available to all other applicants for new dwelling units (Category 2). No single applicant may receive more than five percent of the maximum allocation in either category.

The proposed project would fall under Category 1. If the project were to be constructed today, the maximum allocation for Category 1 would be 177 units, of which 44 units could be allocated to a single applicant. These limits will increase as the total number of county unincorporated housing units increases; however, the above figures serve to illustrate the magnitude of the maximum allowable residential development on the site. **Residential units would remain the same in the Revised Project Alternative as the original proposed project.**

3.4 CUMULATIVE DEVELOPMENT

The cumulative impacts section of this EIR is prepared in accordance with *State CEQA Guidelines Section 15130 and 15355*, which require that cumulative impacts be discussed when they are significant. Cumulative impacts are defined as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts" in the *State CEQA Guidelines (Section 15355)*. Individual effects include the various

TABLE 3-1: CONSISTENCY WITH COUNTY OF SAN LUIS OBISPO PLANS AND POLICIES

<u>Standard</u>	<u>Consistency</u>
<i>Areawide Standards - The following standards apply throughout the planning area.</i>	
<p>2. Groundwater Recharge Areas. New development shall be located to preserve existing natural drainage areas and aquifer recharge areas and shall incorporate natural drainage systems in new developments to aid in groundwater recharge.</p>	<p>Consistent. The project design utilizes the on-site undrained depressions for drainage retention.</p>
Circulation Planning	
<p>1. Public Right-of-Way Dedications. Applications for land divisions or development plans shall provide an offer of dedication for public streets, bikeways and pathways where necessary to mitigate the impacts of the project and to implement the Circulation Element and the County Trails Plan.</p>	<p>Consistent. Right-of-ways will be dedicated where public roads are required. All streets, bikeways and pathways, both public and private, are designed to be consistent with the circulation element and the County Trails Plan.</p>
<p>2. Pathways in New Land Divisions. Land division applications that propose public pathways that are adjacent to the road may utilize the gross acreage to calculate the allowable number of parcels, instead of the net acreage as otherwise required by the Land Use Ordinance.</p>	<p>Consistent. Land divisions within the project site will be allowed to use gross acreage where public pathways are included as part of that particular land division application.</p>
<p>3. Traffic Noise Mitigation. Noise-sensitive land uses that are proposed near collector, arterial streets and highways shall be reviewed for potential noise impacts and mitigated, if needed, in accordance with the Noise Element. Where feasible, possible mitigation measures shall be prioritized in the following order:</p> <ul style="list-style-type: none"> a. Setbacks/open space separation; b. Site layout, orientation and shielding of noise sensitive uses with non-noise-sensitive uses; c. Construction of earthen berms; d. Structural measures: acoustical treatment of buildings, walls. 	<p>Consistent. Noise-sensitive uses such as, residences and hotel rooms shall be setback beyond the established noise contours for Highway One. Land division and development plan applications shall be designed to be consistent with the Noise Element and the specified mitigation measure priorities.</p>
<p>4. Transit-Oriented Standards. Minor Use Permit, Development Plan and subdivision applications shall provide a design and site development that is consistent with the following standards, where applicable for implementing the county Circulation Element and the Regional Transportation Plan:</p> <ul style="list-style-type: none"> a. Where determined appropriate by the Regional Transit Agency, subdivisions or developments of 20 or more housing units shall provide pedestrian access to a bus stop along the closest major arterial or collector and fund their share of one shelter or bus stop per ½ mile of that roadway. 	<p>Consistent. This project will exceed both thresholds found in subsections a and b. The project will contribute its fair share for the improvement of transit facilities and trip reduction programs where and when appropriate, including providing ample right-of-way or space for future transit stops for on-site streets and perimeter roads. General locations shall be designated in the specific plan.</p>

TABLE 3-1: CONSISTENCY WITH COUNTY OF SAN LUIS OBISPO PLANS AND POLICIES (cont.)

<p>b. Employment centers (50 jobs or more) shall provide one shelter and bus stop pull-out within 1/4 mile of the project and assure pedestrian access to the transit facility. Whenever employment densities are expected to exceed 50 jobs per acre, up to a 20% reduction in the number of required parking spaces may be allowed for a project.</p>	<p>Partially Consistent. This project will exceed both thresholds found in subsections a and b. The project will contribute its fair share for the improvement of transit facilities and trip reduction programs where and when appropriate, including providing ample right-of-way or space for future transit stops for on-site streets and perimeter roads. General locations shall be designated in the specific plan. However, it is unknown if or when the bus route will be changed to include the Woodlands development.</p>
<p>c. Transit facilities shall be integrated into new development and be multi-modal (accessible by bike, walking and car) whenever possible, with spacing to provide easy access without unduly impacting route times.</p>	<p>Partially Consistent. Future transit stops shall be provided for and designated as future stops at appropriate locations both within the project and along perimeter roads. However, it is unknown if or when the bus route will be changed to include the Woodlands development.</p>
<p>d. On-site services are encouraged as appropriate within projects, including child care, personal and bank services, cafes, pharmacy and convenience stores, depending on the size of the project.</p>	<p>Consistent. The village center, resort and business parks will provide these services.</p>

Rural Standards - The following standards apply throughout the planning area in the rural areas (outside of existing urban or village boundaries).

Circulation. The following standards apply to the circulation features of all discretionary land use permits including land divisions.

- | | |
|---|---|
| <p>1. Areawide Circulation Linkages. All land division and Development Plan applications are to be integrated into areawide circulation and utility easements, providing for future extensions into adjacent undeveloped properties wherever feasible or where known areawide rights-of-way are planned.</p> | <p>Consistent. This project will make improvements to areawide circulation and previously dead-end roadways will be extended through the project site to Highway One.</p> |
| <p>2. Driveways - New Land Divisions. New land divisions are to include, where possible, design provisions for combining driveways and private access roads serving proposed parcels from collector or arterial roads wherever terrain and adequate sight distance on the public road allow.</p> | <p>Consistent. The project's street system is designed to minimize access to Highway One. Direct driveway access onto public arterials and collectors shall not be permitted.</p> |

TABLE 3-1: CONSISTENCY WITH COUNTY OF SAN LUIS OBISPO PLANS AND POLICIES (cont.)

3. Equestrian, Pedestrian and Bike Paths - Development Plans and New Land Divisions. Safe and site-sensitive equestrian, pedestrian and bicycle circulation facilities shall be provided in projects subject to Development Plans and new land divisions where feasible either within the street right-of-way or in separated locations as illustrated in Figure 7-5 subject to the County Trails Plan. Unless determined to be infeasible or to result in significant effects on the environment, density may be calculated in such new land divisions on the basis of gross site acreage when such facilities are provided, instead of net site acreage as otherwise required by the Land Use Ordinance.

Consistent. The project circulation plan integrates multi-modal transportation and recreational trails. Where appropriate, gross acreage will be used to determine density on individual land division applications. The overall project density will be established by the specific plan.

4. Road Design and Construction - New Land Divisions. Road alignments proposed in new land division applications are to be designed and constructed to minimize terrain disturbance consistent with safety and construction cost. Altered slopes are to be replanted with indigenous plants or protected by other appropriate erosion control measures.

Consistent. The primarily gentle terrain of the site will allow for minimal site disturbance associated with road alignments. Landscape and revegetation plans will be required for all altered slopes.

Drainage. The following standard applies to all discretionary land use permits including land divisions.

1. Potential Flooding Within Undrained Depressions - New Land Divisions. New land divisions located in the vicinity of undrained depressions shall designate building sites above the spill elevation of the depression; or, utilize the cluster division provisions of the Land Use Ordinance to locate new parcels and building sites out of areas subject to flooding. [See Figure 7-6 of the area plan.]

Consistent. Undrained depressions will be used for storm water retention and groundwater recharge. All undrained depressions shall be identified with the specific plan. Spill elevations shall be designated on all land division maps with building restriction lines noted accordingly.

Where the enclosed depression is large and the above mechanisms are not feasible, prepare a detailed flood analysis for review and approval by the County Engineering Department to delineate the extent of the flood hazard and identify the areas for suitable building sites.

Hanson Industries Property. The following standards apply to the subject site [identified as Hanson Industries property and shown in Figure 7-23 in the area plan].

2. Permit Requirement - Specific Plan. For development in excess of the 190 parcels allowed by standard no. 1, a Specific Plan in accordance with Section 65450 of the California Government Code shall be prepared under the guidance of the county upon application and funding by the property owner(s).

Consistent.

3. Specific Plan Objectives: The Specific Plan is to be prepared to achieve the following performance criteria:

TABLE 3-1: CONSISTENCY WITH COUNTY OF SAN LUIS OBISPO PLANS AND POLICIES (cont.)

<p>a. Types of Land Uses. Recreational and rural resort uses (such as golf courses and lodging), business parks, related commercial retail and residential uses are the broad categories of uses that should be considered. Uses are encouraged that will provide employment opportunities for area residents, enhance the jobs/housing balance within Nipomo, be in harmony economically with other existing or planned business areas, and be a positive long-term revenue generator for public support services.</p>	<p>Potentially consistent. The types of uses proposed in the specific plan are consistent with this standard. However, full development and operation of the business parks, resort and village center will likely be necessary for the project to be consistent with the requirement to enhance the jobs/housing balance within Nipomo.</p>
<p>b. Open Spaces and Recreation. The specific plan shall provide for permanent open space areas that will retain the rural character of the site as seen from Highway 1. A landscaped open space buffer shall be provided around the perimeter of the Woodlands site. Open spaces shall be emphasized in the plan for active and passive public recreation, for informal social activity and to reinforce the identity of neighborhoods and focal points with the use of spatially defined squares and parks. Provide for public recreational uses such as golfing, walking and horse riding around and through the development areas.</p>	<p>Consistent. The project is designed to include two golf courses, a village center with a defined focal point, recreational trails, passive public recreation areas and open space buffers.</p>
<p>c. Circulation and Access. Consider alternative access roads with the intent of minimizing vehicle traffic through residential neighborhoods within Nipomo yet utilizing alternative routes to minimize traffic increases on Highway 1 and Willow Road. Provide a system of multi-use pathways that is separate from roadways between points on the property.</p>	<p>Consistent. Road improvements to public collectors and local roads are required, as are the projects fair share to improvements to Willow Road and the Willow Road interchange with Highway 101. Multi-use pathways are proposed on-site.</p>
<p>d. Water Conservation. Where feasible, provide for the use of reclaimed water to satisfy much of the project non-potable water demand. Minimize water consumption by the use of drought-tolerant plants and low-consumption irrigation techniques.</p>	<p>Partially Consistent. The golf course will utilize reclaimed water for a portion of their irrigation. The plant list for the project contains many drought tolerant and low water-consuming plants.</p>
<p>e. Funding for Public Facilities and Services. Identify and implement areawide circulation, public service and facility improvements necessary to support the project.</p>	<p>Consistent. The project will improve public roads, contribute its fair share to major circulation improvements, provide and contribute to transit facilities where required, and set aside land for a public park and school site.</p>
<p>4. Specific Plan - Content. Preparation of the Specific Plan is to include all information required by Sections 65450 et. Seq. Of the Government Code, and in addition, it is to include the information to achieve the objectives in standard no. 2 and the following information:</p>	<p>Consistent. The specific plan includes all of the required content.</p>
<p>a. Resource capacities of the project site and site vicinity including but not limited to water supply</p>	

TABLE 3-1: CONSISTENCY WITH COUNTY OF SAN LUIS OBISPO PLANS AND POLICIES (cont.)

	and usage, sewage disposal suitability, schools and transportation.	
b.	Site layout and development concepts for all uses on the property, including the location of clustered residential sites and the proposed number of units within each cluster. Residential development is to utilize the applicable sections for clustering in Land Use Ordinance Chapter 22.04, within the density allowed for the Residential Rural category.	
c.	A phasing plan for implementation of the project, if multiple phases are proposed.	
d.	Circulation patterns and street alignments in the project, and consider the extension of Mesa Road and Eucalyptus Road to Highway 1 for access from eastern portions of the site to the highway, extension of Via Concha from Willow Road to Eucalyptus Road, pedestrian paths, equestrian trails and bikeways.	
e.	Architecture and landscaping that respond to the character of the area.	
<i>The following standards apply to the "Rural Village" concept. They are only applicable to the Reduced Project/Rural Village alternatives.</i>		
1.	Mix of Land Uses. The village shall contain a mix of land uses that may include a sheltered postal center, community hall, large central park and other smaller recreation areas and facilities. A variety of residential housing types shall be provided, including affordable housing opportunities for the incomes of people who work within the South County planning area. Higher residential densities shall be located toward the village center where they should be mixed with non-residential uses.	Mostly consistent. The commercial uses may exceed the scale of the rural village. An affordable housing feature would need to be added.
2.	Site Planning. The village shall have a compact arrangement of residential densities within a street and pedestrian path system that orients travel to a central core area and specific peripheral uses, as shown in Figure 7-15 [of the area plan]. Permanent open space should be utilized for agriculture, community recreation, circulation and as a buffer between other surrounding properties.	Consistent.
a.	Core Area. The village should have a central core area located close to a collector or arterial street laid out to form an entrance and destination. A park or plaza should be located within the core area. Civic uses should be adjacent to the park or plaza, such as a self-serve post office, recreation and meeting building, workshops and offices. The core area should be attractive for gathering, meeting and lounging.	Consistent.
b.	Circulation. A system of connected streets shall provide alternative routes of travel from any one location. Use of slightly curving streets to create a changing perspective for	

TABLE 3-1: CONSISTENCY WITH COUNTY OF SAN LUIS OBISPO PLANS AND POLICIES (cont.)

	visual interest is encouraged. Local streets should be narrower than standard county streets, if possible, to enhance the rural character of the village. The number of street connections to off-site arterial and collector roads shall be minimized. Streets shall be designed in blocks to maximize access by all modes of travel - automobile, bicycle and walking. Locate any transit stops within easy walking distance of all residents.	Consistent.
c.	Residential Areas. Residential densities shall be higher adjacent to the core area and lowest at the periphery of the village. Residential design should be oriented to the street for pedestrian security.	Consistent.
d.	Non-residential Uses. Non-residential uses should be developed at a scale that is appropriate to the village size and location. Civic structures should be provided in the core area, such as for postal services, recreation, meetings, eating, workshops and office work. Commercial structures shall be provided as determined to be feasible in the core area for food and beverage retail sales, eating and drinking places, personal services, offices, small-scale manufacturing, general merchandise sales, social gatherings, and offices.	Mostly Consistent. The commercial uses may exceed the scale of the rural village.
	Agriculture should be maintained and enhanced where feasible, and water-conserving irrigation methods should be encouraged. Recreational uses and structures should be developed for residents and visitors, such as golf courses, equestrian facilities, linear parkways, parks, playgrounds and other open space uses.	
3.	Open Space. Clustering of residential densities shall be accompanied with at least 60 percent of the parent site in private and/or dedicated public open space. A minimum 200-foot-wide open space buffer shall be provided adjacent to all arterial and collector perimeter roads and be landscaped to shield the improved village area. Golf course fairways, equestrian trails are potential open space uses. A community focal point such as a central park or plaza shall be provided. Smaller improved parks should be incorporated into neighborhoods. A network of continuous pedestrian, equestrian and bicycle paths should connect neighborhoods and centralized destinations.	Mostly Consistent. Perimeter road buffer may need to be increased in some locations.
4.	Specific Plan Requirement. A specific plan shall be prepared in accordance with Government Code Section 65450 under the guidance of the county upon the application and funding by property owner(s). The specific plan shall address both on and off-site issues concerning environmental constraints, site planning and development, financing of improvements and evaluation of the potential for a transfer of development credit (TDC) program.	Mostly Consistent. An evaluation of TDC program would be necessary.

TABLE 3-1: CONSISTENCY WITH COUNTY OF SAN LUIS OBISPO PLANS AND POLICIES (cont.)

5.	Scale and Intensity. The specific plan shall determine the scale and intensity of residential and non-residential development that will be compatible with resources, public services, roads and facilities, and other destinations such as employment centers in the South County planning area. The evaluation of project size shall utilize an environmental constraints analysis as well as market feasibility and fiscal impact studies. Standards 6 through 11 below provide primary factors for evaluating the appropriate size and density of a village.	See standards 6 through 11 below.
6.	Constraints analysis. A constraints analysis shall be prepared to address, but not be limited to, project market feasibility analysis, fiscal impact analysis and analysis of biological resources, cultural resources, agricultural resources, water supply and groundwater recharge, traffic, air quality and noise.	Mostly consistent. Market feasibility and fiscal impact analysis would need to be added.
a.	Feasibility Analysis. An economic feasibility analysis shall be the basis of the whole project and should identify incentives that can be offered to business operators to help ensure their success. A feasibility analysis shall be the basis of the whole project, and for private commercial, office and service uses to meet the basic services and daily shopping needs of the village residents. It should identify incentives that can be offered to business operators to help ensure their success.	Undetermined. A detailed feasibility analysis has not been done.
b.	Fiscal Impact Analysis. An economic feasibility analysis shall be the basis of the whole project, and it should identify incentives that can be offered to business operators to help ensure their success in providing private commercial, office and service uses that will contribute to the basic daily service and shopping needs of the village residents.	Undetermined. A detailed fiscal impact analysis has not been done for the property.
c.	Open Space Provisions. Designation of open space areas should be utilized to minimize impacts to and from affected commercial agricultural operations, important biologic resources and important historical and archaeological resources.	Consistent.
d.	Water Resources. To minimize water consumption, drought-tolerant low water-using plants are required for landscaping purposes. To improve groundwater recharge from surface runoff, fewer and larger drainage basins shall be provided.	Consistent.
e.	Traffic and Air Quality. Alternative development designs should be prepared that will minimize impacts to traffic circulation and air quality, including but not limited to the orientation and access of the village to any adjacent or nearby village or urban area, and minimal impacts on smaller rural roads and optimal use of larger roads.	Partially Consistent. This EIR analyzes two "reduced project" concepts.

TABLE 3-1: CONSISTENCY WITH COUNTY OF SAN LUIS OBISPO PLANS AND POLICIES (cont.)

7.	Size. Depending on the size of the parent parcel(s), the developed village site should be a compact village with a boundary no more than one-half mile long on any side in order to achieve a sufficient central density for interaction and convenient pedestrian access.	Consistent.
8.	Transfer of Development Credits. Additional development entitlements may be achieved through a transfer of development credits from other locations in the planning area through a county-approved (TDC) program, as one method to achieve additional density.	Undetermined. A TDC program is not proposed with this project.
9.	Number of Allowable Residential Units. The allowable number of units shall be determined by the size of the parent parcel, the resource, market and fiscal constraints on development identified in the specific plan, and the extent of public facilities provided by the developer.	Undetermined. Market analyses have not been done.
a.	Base Number of Units. A base number of dwelling units shall be established at one unit per five acres.	Inconsistent. The number of units exceeds one unit per five acres. Additional units could be added per standard 9b.
b.	Additional Dwelling Units. Additional dwelling units may be proposed beyond the base number up to a density of one unit per acre, depending on the evaluation in the specific plan regarding the following incentive bonuses, including:	Potentially consistent. An evaluation of the bonus under b(3) would be required.
(1)	An initial incentive for participating;	
(2)	Transfer of development credits (TDC) from other land identified in a South County TDC program;	
(3)	Proposals for providing for a community-serving need, such as a community school, park or recreational facility, major public works improvements, or environmental enhancements that exceed the minimum mitigation measures that are required.	
10.	Residential Densities. Densities within the village should occur within a range from 2 to 20 units per acre, including secondary dwellings. The average density within the village site should be at least 5 dwelling units per acre, which is intended to achieve a predominant single-family character. Suburban densities at two units per acre should be balanced by multi-family densities to maintain this average.	The Reduced Project alternatives could be designed to be consistent with this standard.
11.	Collector or Arterial Street Access. The village site should be located so that residents will be within walking distance (one-quarter to one-half mile) of a collector or arterial road, shown on the Circulation map.	Consistent.

changes related to a single project, as well as the changes resulting from closely related projects which are either planned, under construction, or recently completed. The analysis need not be as in-depth as the project alone, "...but be guided by the standards of practicality and reasonableness..." (CEQA Section 15130).

Table 3-2 summarizes the currently approved and pending projects on the Nipomo Mesa. As shown, a total of 660 units of housing are currently proposed, along with a 27-hole golf course, three greenhouses totaling 770,000 sq. ft., and a mini-storage facility. The most prominent project on the list is the proposed Cypress Ridge Tract Map and Development Plan, which includes 386 housing units and the 27-hole golf course located within the Palo Mesa Village to the northwest of the project site. The other project of note is the Chen Ting-Fong Tract Map, a 37-lot subdivision located immediately south of the Woodlands property.

With the exception of the Chen Ting-Fong Tract Map, none of these projects are located in the immediate project vicinity, and are therefore not expected to result in site-specific cumulative impacts with the proposed project. However, all of these projects, along with other future development consistent with the County's General Plan, would contribute to cumulative regional impacts in areas such as traffic, air quality, and water resources. Cumulative impacts are discussed in Section 6.0 of this document.

TABLE 3-2: WOODLANDS- LIST OF APPROVED/PENDING PROJECTS ON NIPOMO
MESA

<u>NAME</u>	<u>DESCRIPTION</u>	<u>LOCATION</u>	<u>STATUS</u>
Cypress Ridge Tract Map & Development Plan	27-hole golf course, 386 homes	At Halcyon Rd. & El Campo in Palo Mesa village area	Approved
Black Lake Specific Plan Amendment & Tract Map	Increase Existing Specific Plan densities by 44 units	Willow Rd. & Pomeroy	Pending
Meier/Hermreck Tract Map	Resubdivide 113 lots into 183 lots (70 lot increase)	Old Nipomo, Thompson Rd. & Chestnut	Pending
Choin Tract Map	6-lot subdivision	Zenon Rd. & Black Lake Cyn.	Pending
Co. Eng., Willow Rd. extention	Extend Willow Rd. from Pomeroy to Thompson w/Hwy 101 interchange; west-side frontage road from Nipomo to Los Berros interchange		Pending
Co. Eng., No. Mesa Assessment District	Improve various roads on north side of Black Lake Cyn.	Portions of El Campo, Zenon, Stanton Roads	Pending
Co. Eng., Eucalyptus Rd. Assessment District	Improve Eucalyptus Rd.		Approved & constructed
Co. Eng., Widen portion of Halcyon Rd.	Widen portion of Halcyon Rd.		Approved
Teter Tract Map	Resubdivision from 3 to 4 lots	Pomeroy & Live Oak	Pending
Greenhart Farms Dev. Plan	415,000 sq. ft. greenhouse	Zenon Rd., south of Cheasepeake	Approved
Murphy Tract Map (NR)	6-lot subdivision	Division St. & Tyrus Ct.	Pending
Koch Development Plan (SM)	147,000 sq. ft. greenhouse		Pending
Katzenstein Parcel Map	4-lot subdivision	Zenon Rd. & Black Lake Cyn.	Pending

TABLE 3-2: WOODLANDS- LIST OF APPROVED/PENDING PROJECTS ON NIPOMO MESA (cont.)

<u>NAME</u>	<u>DESCRIPTION</u>	<u>LOCATION</u>	<u>STATUS</u>
Armstrong Tract Map	27-lot subdivision	Orchard & Grande	Pending
Neudoll Tract Map	8-lot subdivision	W. Tefft & Hazel	Approved
Shields & Shields Tract Map	41-lot subdivision	Hwy. 101 & Hwy. 166	Pending
Lampe Tract	7-lot subdivision	S. Oak Glen	Pending
Busick Tract Map	18-lot subdivision	El Campo Rd. & Hwy. 101	Pending
Sauer Tract Map	11-lot subd.	Hazel & Tefft	Approved
Sejera/Thompson Tract Map	13-lot subd.	Thompson & Hwy. 101	Pending
Chen Ting-Fong Tract Map	37-lot subd.	Immediately south of Woodlands property	Pending
Belsher & Becker Tract Map	4-lot subd.	Pomeroy near Willow	Pending
Galloway Tract Map	16-lot subd.	Tefft & Hazel	Pending
R.H. Newdoll Parcel Map	4-lot subd.	Tefft & Hazel	Pending
Newdoll Parcel Map	4-lot subd.	Tefft & Hazel	Pending
Pruit Dev. Plan	Mini-Storage	Camino Caballo & N. Frontage Rd.	Pending
Ball Seed Dev. Plan	208,000 sq. ft. greenhouse	Zenon & Cheasepeake	Pending

SOURCE: County of San Luis Obispo, Environmental Division, Department of Planning and Building

4.0 ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION

4.1 WATER RESOURCES/WASTEWATER

This section describes the surface water and groundwater resources in the vicinity of the project and analyzes potential impacts to those resources from construction activities, and from ongoing operation - daily use of water and discharge of wastewater.¹ This section is related to Section 4.11, which analyzes impacts on surface water resources from drainage conditions, and Section 4.7 which describes public services including water supply and wastewater collection, treatment, and disposal systems.

4.1.1 ENVIRONMENTAL SETTING

4.1.1.1 Surface Water

4.1.1.1.1 Regional Surface Water

Surface water resources in the general vicinity of the project site include a number of closed depressions (ponds and lakes) on the Nipomo Mesa and, to the south of the project, the Santa Maria River and its tributaries.

The Nipomo Mesa has little natural surface water due to the typically high permeability of the dune sands. The main surface water features on the Mesa are ponds along Black Lake Canyon, about 7,000 feet north of the site. Black Lake Canyon drains into Black Lake to the west. Several dune lakes below 20 feet in elevation lie west of the Mesa at the south end of the Cienega Valley. Lakes are also found along the western edge of the Santa Maria Valley. These surface water resources are used in a variety of ways, as discussed in the following paragraphs.

Black Lake Canyon. Black Lake Canyon is a San Luis Obispo County Sensitive Resource Area (SRA), designated mainly due to the sensitive vegetation found in the canyon floor. The ponds in

¹ Elements of this section were derived from *Water Resources Management Study for The Woodlands*, by Cleath and Associates, April, 1996, and Addendum dated September, 1997 and December, 1997. These reports were independently reviewed by Environmental Science Associates.

the canyon are recharged from percolation of precipitation and irrigation runoff. The percolated water accumulates in sedimentary beds about 50 to 100 feet thick above a clay aquitard (geologic zone with low water transmission). The ponds occur where the shallow sands are saturated to the level of the canyon floor. A previous study has concluded that the ponds exist due to the perched water table underlying the canyon. Groundwater fluctuations in the deeper water bearing aquifers do not appear to influence the water levels in the ponds.²

Dune Lakes and Oso Flaco Lakes. There are a number of lakes in the vicinity of the project that are used as surface water resources for the intensive agricultural activities in the area. The Dune Lakes are a collection of ponds to the northwest of the project. One of the Dune Lakes, Celery Lake, is connected to the agricultural drainage system for the south Cienega Valley. Similarly, Oso Flaco Lake and Little Oso Flaco Lake to the west of the project are connected to the agriculture drains in the Santa Maria Valley. In addition to receiving irrigation water runoff, these lakes are pumped for irrigation.

4.1.1.1.2 Local Runoff Conditions

As described in Section 4.11, there is a prominent ridgeline that bisects the property in an east-west direction. Rainfall runoff from the northern section of the property flows to the northwest towards Black Lake Canyon. Runoff from the southern portion of the property flows to the southwest toward the Nipomo Mesa bluffs and Oso Flaco Creek. There are no surface water features on the property, however, there are "closed" topographic depressions that collect and percolate runoff. Due to the high percolation rate of the sandy soils at the project site, most rainfall percolates to groundwater or is used through evapotranspiration by the site vegetation.

4.1.1.2 Groundwater

Groundwater is the principal source of water for the Nipomo Mesa, the Cienega Valley, and Santa Maria Valley. Groundwater within the region is pumped for agricultural, municipal and industrial uses.

² Final Environmental Impact Report, Cypress Ridge Tract Map and Development Plan, County of San Luis Obispo, August 1996.

4.1.1.2.1 Regional Hydrogeology

The project site is located on the southwest side of the Nipomo Mesa, a physiographic upland in the Coast Ranges Province of California. The Nipomo Mesa is bounded by the Arroyo Grande Valley to the north and northwest, by Los Berros Canyon and the Nipomo Valley to the northeast and east, by coastal dunes to the west, and by the Santa Maria Valley to the south.

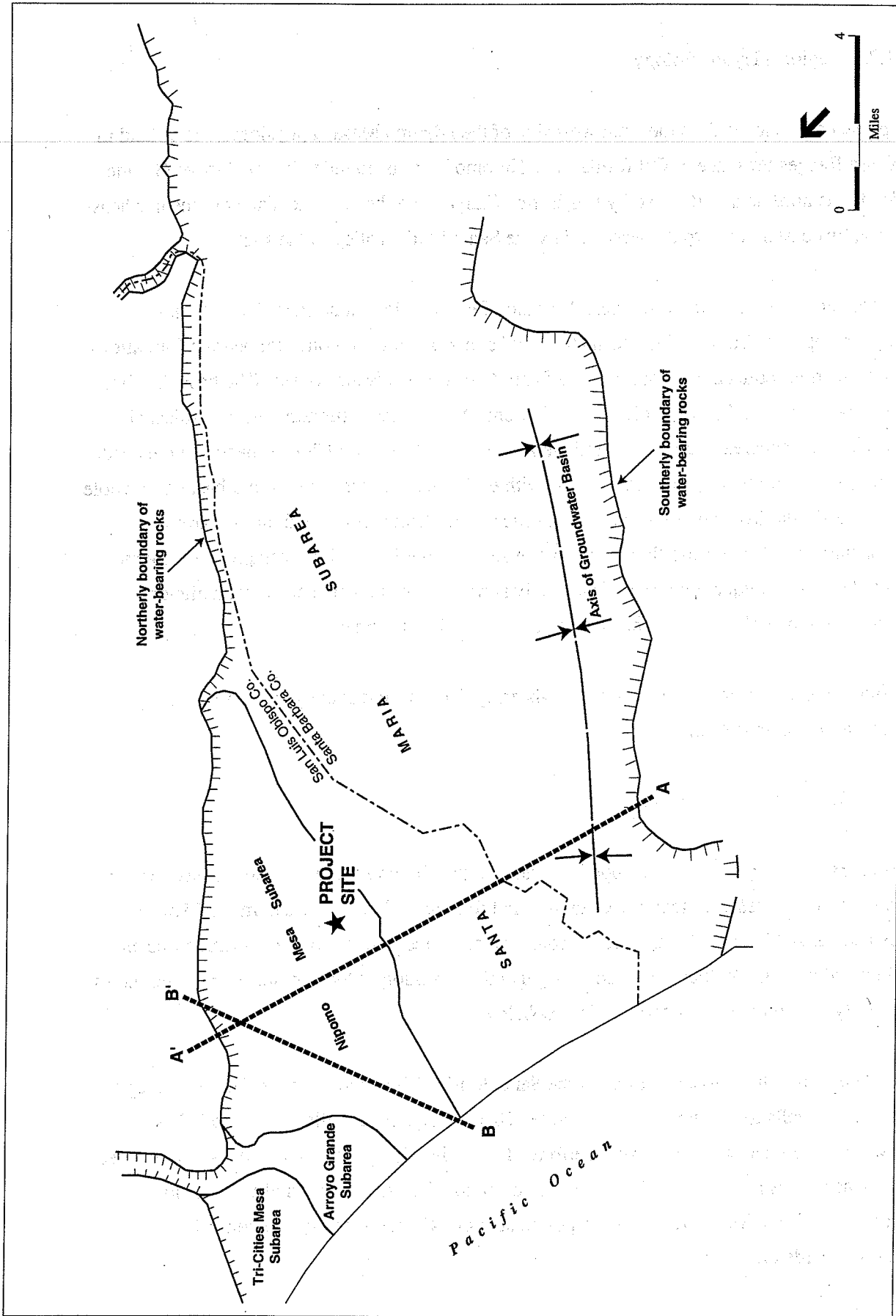
The geologic formations of the southern Nipomo Mesa are: older dune sand, Paso Robles Formation deposits, Careaga Sand formation, and a number of deep nonwater bearing formations. These formations collectively comprise the Santa Maria Groundwater Basin. The basin has been divided into various subareas, including the Nipomo Mesa subarea (underlying the project site), the Santa Maria subarea to the south, and the Arroyo Grande and Tri Cities subareas to the north (Figure 4.1-1). The subareas are contiguous with each other and the Santa Maria basin as a whole and exhibit similar hydrogeological characteristics. The basin was divided into subareas for analysis purposes and because they have unique surface conditions. For example, the Nipomo Mesa Subarea has unique topography and sandy surface deposits which allow for a higher infiltration and percolation rate when compared to the other subareas.

The following paragraphs describe the water-bearing deposits and some general relationships between geologic units of interest.

4.1.1.2.2 Water-Bearing Deposits

The primary groundwater sources tapped by wells on the Nipomo Mesa include the Paso Robles Formation and, to a lesser extent, the Careaga Sand formation (Figure 4.1-2). In the Cienega Valley and Santa Maria Valley the major groundwater sources tapped by wells include Recent alluvium and the Paso Robles Formation. A general description of these water bearing sediments and their hydrogeologic characteristics follow below.

Recent Alluvium. The alluvial aquifers in the Santa Maria Valley and Cienega Valley are tapped by production wells for commercial agriculture. Historically, these wells penetrated below shallow, often perched water, and were perforated in the highly transmissive gravels of the lower alluvium, as well as in the deeper Paso Robles Formation deposits. Permeability of the lower alluvium in the Santa Maria Valley was reported at about 470 feet per day and generally decreases towards the coast.

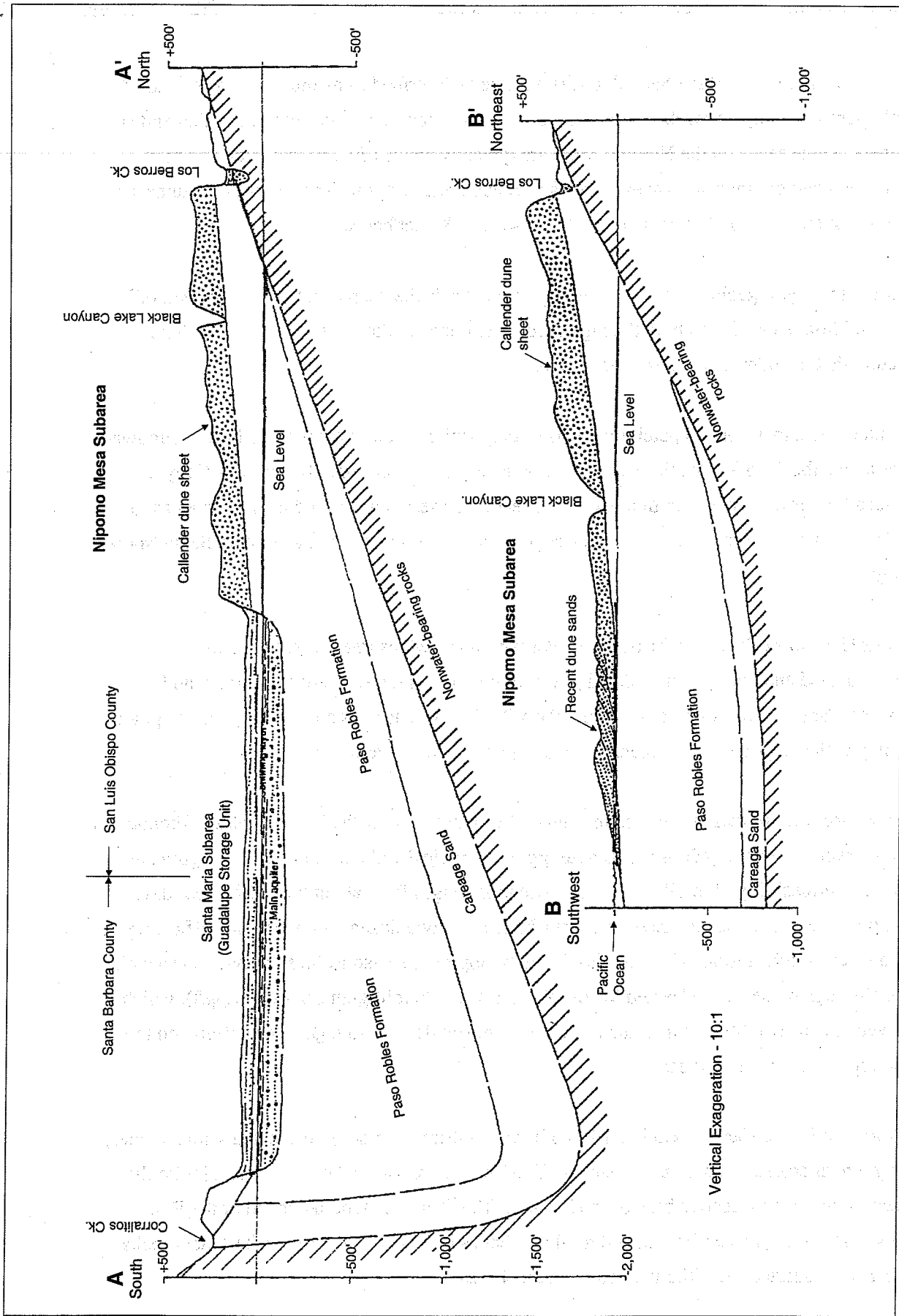


SOURCE: County of San Luis Obispo

Woodlands Specific Plan / 950250

Figure 4.1-1

Subareas in the Santa Maria Basin, 1975



SOURCE: County of San Luis Obispo, Environmental Science Associates

Woodlands Specific Plan / 950250

Figure 4.1-2
 Cross Sections Northern Santa Maria Basin
 and the Nipomo Mesa Subarea

Older Dune Sand. The Dune Sand deposits have been described as medium to coarse grained, highly porous, highly permeable sand and lightly compacted fine sands containing clay and silt stringers. Dune sands on the Nipomo Mesa are typically about 150-250 feet thick and may include perched groundwater zones, such as in Black Lake Canyon. The thickness of dune sands increases to the south and is estimated to be closer to 300 feet beneath the subject site.

An important hydrogeologic issue for the Nipomo Mesa is the deep percolation rate. Runoff from the Mesa is low due to both the high percolation rates of the sands and from the dune structure that includes many closed depressions.

The dune sands may contain perching layers of clay which result in areas of shallow groundwater zones above the Paso Robles Formation (or ponds, in the case of upper Black Lake Canyon). This perching layer is not a continuous bed beneath the Mesa but is found in enough areas to restrict groundwater flow. These clay layers act as a confining layer in the western Santa Maria Valley.

Paso Robles Formation. The Paso Robles Formation is a widespread assemblage of unconsolidated and poorly consolidated gravel or conglomerate, sandstone, siltstone, and claystone. Beneath the Nipomo Mesa, the Paso Robles Formation is comprised of sandy gravels forming distinct aquifer zones separated by less permeable silts and clays.

The Paso Robles Formation is the main source of groundwater for the Nipomo Mesa. Production rates of several hundred gallons per minute (gpm) are typical and rates of over 1,000 gpm are possible. Permeability of the Paso Robles Formation ranges from about 5 to 50 feet per day, based on Cleath & Associates' review of data from about two dozen pump tests and efficiency tests on wells on the Mesa. Water quality in wells tapping the Paso Robles Formation is usually good, although moderately elevated levels of nitrates (15-20 milligrams per liter (mg/l), which, however, is considerably less than the drinking water standard of 45 mg/l) are common on the Mesa, especially to the northeast.

Careaga Sand. The Careaga sand consists of two members, an older fine-grained sand member, and a younger coarse-grained sand member. The lower Careaga sand often coincides with the deepest extent of the effective base of fresh water. The Careaga sand, like much of the Paso Robles Formation, thins to the east and northeast beneath the Nipomo Mesa as basement rocks rise to ground surface near Highway 101 (Figure 4.1-2).

The valley floors consist of deposits of Recent alluvial gravel, sand, silt, and clay.

4.1.1.2.3 Site Hydrogeology

The geology beneath the project site has been interpreted based on electric logs, penetration logs, and drill cuttings during well construction. Soil beneath the surficial soil horizon is an orange-brown sand to approximately 130 feet below ground surface (bgs). Silt content increases with depth to about 130 feet bgs. The sand color changes to tan or light brown beginning at approximately 130 feet bgs and gravels are present as minor constituents beginning at about 270 feet bgs. The shallowest aquifer zone occurs within these gravels that also mark the upper portion of the Paso Robles Formation.

A total of five aquifer zones were identified beneath the site through a depth of about 700 feet below mean sea level. The composition of the aquifer zones are typically sand and gravel, and are separated by lower permeability zones between about 30 and 60 feet in thickness.

4.1.1.2.4 Groundwater Conditions

As previously mentioned, groundwater production is primarily from the Paso Robles Formation, with some wells also producing from shallower alluvial zones or the deeper Careaga Formation. Perched water zones are present in parts of the valleys and beneath the Mesa, but these are generally not utilized as a pumped groundwater supply.

Groundwater under the proposed project is within the Nipomo Mesa subarea, a part of the Santa Maria Groundwater Basin. The thick dune sands overlying the Paso Robles Formation distinguish the Nipomo Mesa subarea from the other areas in the Santa Maria Groundwater Basin. These dune sands are extremely porous and infiltrate essentially all of the rainfall on the Mesa.³ Almost all of the rainfall water that does not percolate is lost to evaporation and vegetation uptake.

There are discrepancies among reports describing the hydrogeologic conditions of the Nipomo Mesa subarea. The EIR for the South County Area Plan Inland Portion, 1991, relying on groundwater levels reported by the State Department of Water Resources (DWR), concludes that the Nipomo Mesa, "is providing outflow to adjacent areas of the Santa Maria Groundwater Basin

³ Final Environmental Impact Report, South County Area Inland Portion, County of San Luis Obispo, 1991.

because it has historically had an excess of groundwater recharge as opposed to extractions⁴. The report prepared for the project applicant by Cleath and Associates, 1996, describes groundwater historically flowing *from* the Santa Maria Valley northwest *to* the Nipomo Mesa. This inflow varies annually, but has been estimated to average 3,300 acre-feet per year (afy) from 1976 to 1992. The Cleath report attributes the discrepancy on the improper use by DWR of certain wells that draw on water in higher perched water zones, showing water levels as high as 200 feet above levels in the production zones. Therefore, the Cleath report concludes that there is less groundwater in storage above mean sea level in the Mesa (56,400 afy) than was estimated by DWR⁵.

Both reports, however, find no evidence of adverse groundwater conditions from current groundwater levels at the Mesa. Although groundwater levels have historically declined in this area, the lack of adverse effects would suggest that the subarea is not in an "overdraft" condition.⁶ However, other reports have used this term to describe water conditions in the Nipomo Mesa Subarea.⁷ The term "overdraft" essentially means that extractions are exceeding the perennial yield of a basin. The perennial yield is the amount of water that can be withdrawn perennially *without causing an undesirable effect*.⁸ Undesired effects could include: progressive reduction of the available water resource, development of uneconomic pumping conditions, degradation of groundwater quality, encroachment of sea water, or land subsidence. A basin in overdraft condition implies that continuation of the pumping will result in significant environmental, social, or economic impacts. Overdraft should not be assumed or confused with a general reduction in groundwater levels. Pumping may reduce subsurface outflows from the basin and lower groundwater levels without causing adverse effects.

Groundwater conditions in the Santa Maria Valley are influenced primarily by the Santa Maria River and by large scale pumping by agricultural users. Surface water in the Santa Maria River is a major source of recharge in the groundwater basin. Although there are disagreements in the

⁴ Ibid., page V-9

⁵ Groundwater in the Arroyo Grande, California Department of Water Resources, 1979

⁶ Final Environmental Impact Report, South County Area Inland Portion, County of San Luis Obispo, 1991.

⁷ Comment letter from the Nipomo Community Services District to the San Luis Obispo Department of Planning and Building on the Cypress Ridged Development Plan EIR dated May 6, 1996. The letter cites six publications which conclude that the subarea is in overdraft. The reader is referred to the response to this comment in the Final EIR which discusses each of these publications.

⁸ Todd, David Keith, Groundwater Hydrology, Second Edition, John Wiley and Sons, New York, 1980. See pg. 363-364 for an in-depth discussion.

literature, some reports have determined that the Santa Maria groundwater basin is in an overdraft condition based on the agricultural pumping.⁹ The County of Santa Barbara has included the Santa Maria groundwater basin in its list of overdrafted/overcommitted basins. The County reports that the basin has a net overdraft of 20,000 afy, 1,100,000 af in available storage, with a calculated remaining life of 55 years.¹⁰

However, further documentation that the Santa Maria Basin is not in an overdraft condition is provided by a recent report (June 1997) by Luhdorff and Scalmanini for the Santa Maria Valley Water Conservation District¹¹. The report documents historical trends in groundwater levels in the Santa Maria Basin. Groundwater levels in the basin declined substantially between 1945 and the late 1960s due to increased pumping for agriculture and drier weather conditions. This was followed by a period of recovery comprised of periodic groundwater level declines and recoveries. This is illustrated in the hydrograph of a well in the western end of the Santa Maria Valley (Figure 4.1-3), located Southeast of the City of Guadalupe (approximately 2,400 feet north of Highway 166 and 900 feet north of Obispo Street). The periodic fluctuations can be attributed to intermittent dry and wet climatic conditions and from releases from Twitchell Reservoir to the Santa Maria River. The report concludes that the reservoir appears to provide sufficient supplemental recharge through the river to maintain and enhance the recovery of groundwater levels in the basin. The long term stability may be from increased recharge since the construction of the reservoir and from stabilization of agricultural community pumping.

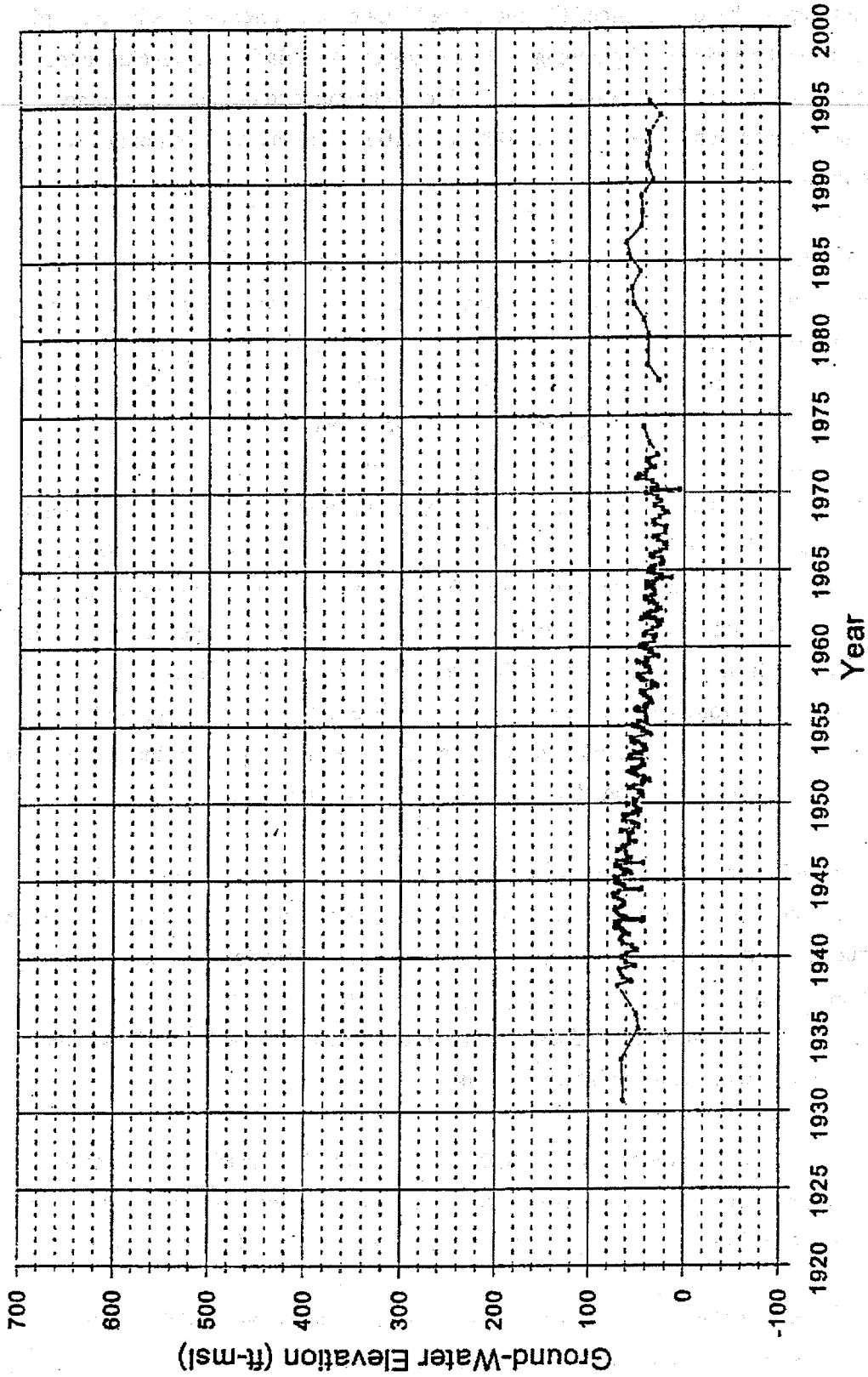
The hydrograph in Figure 4.1-3 and records from other coastal wells in the basin show that coastal groundwater water levels have remained above sea level throughout the period, which has likely continued the natural outflow from the basin to the ocean and precluded seawater intrusion. The report concludes that the repeated recovery of groundwater levels to near-historical high levels in most of the Santa Maria Basin does not support the conclusion that the basin is in an overdraft condition. ESA concurs with this assessment.

Figure 4.1-4 shows the groundwater levels in the Nipomo Mesa and Santa Maria subareas in the vicinity of the project site as determined by Cleath and Associates. Groundwater flow directions are shown with arrows, flowing from high elevations to low elevations. This figure shows a

⁹ Final Environmental Impact Report, South County Area Inland Portion, County of San Luis Obispo, 1991.

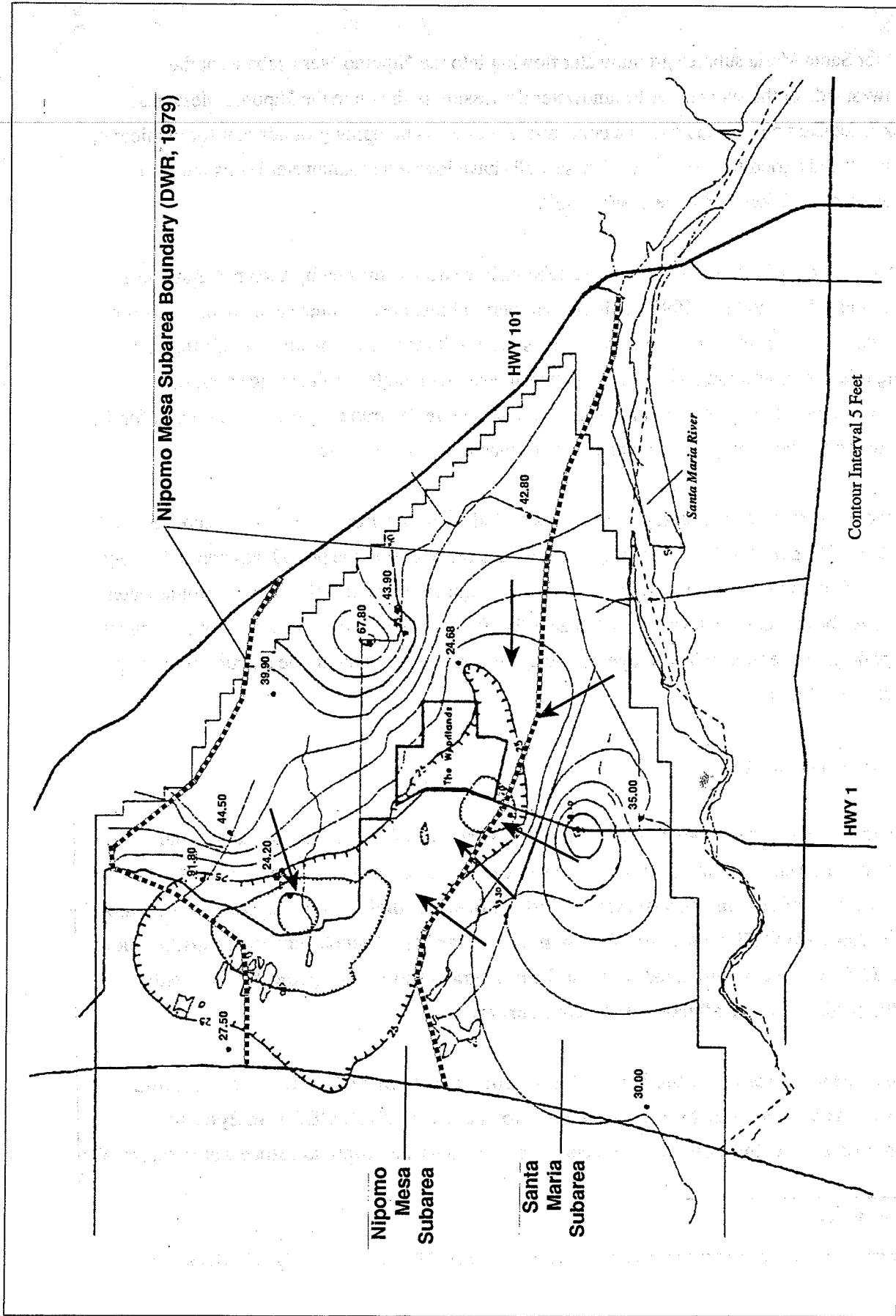
¹⁰ County of Santa Barbara Environmental Thresholds and Guidelines Manual, 1995.

¹¹ Engineer's Report, Special Assessments for Ground Water Management, Santa Maria Valley Water Conservation District, June, 1997.



Woodlands Specific Plan / 950250 ■
Figure 4.1-3
 Hydrograph for Well # 10N/35W-09F01S
 (Western End of Valley)

SOURCE: Lohdorf & Sealmanini Consulting Engineers



SOURCE: Cleath and Associates and ESA.

Woodlands Specific Plan / 950250

Figure 4.1-4

Water Levels and Groundwater Flow

trend for Santa Maria subarea groundwater flowing into the Nipomo Mesa subarea at the southwest side of the subarea. A groundwater depression is shown in the Nipomo Mesa near Black Lake Canyon. This is due to a concentration of wells pumping groundwater for municipal, industrial, and agricultural purposes. These wells have lowered groundwater levels locally to between 5 and 10 feet below mean sea level¹².

Storage changes within the Nipomo Mesa subarea have been estimated by Cleath & Associates between Fall 1976 and Fall 1992. This 16-year period illustrates a sequence of water levels for years that include both drought and wet periods. Rainfall recorded at nearby rainfall stations during this period was roughly balanced between years with higher than average rainfall and years with lower than average rainfall (the total cumulative departure from average rainfall for the four station is near zero)¹³. This represents a balanced hydrologic cycle.

The overall groundwater in storage during this period decreased from about 55,200 acre-feet (af) to 49,200 af (Figure 4.1-5). The average decline in storage during the period was approximately 375 afy. This annual decline is over two orders of magnitude *less* than the average groundwater in storage above mean sea level of 56,400 acre-feet (0.7 percent). This illustrates that the annual storage decline over this balanced hydrologic cycle is small compared to the amount of water in storage in the Mesa.

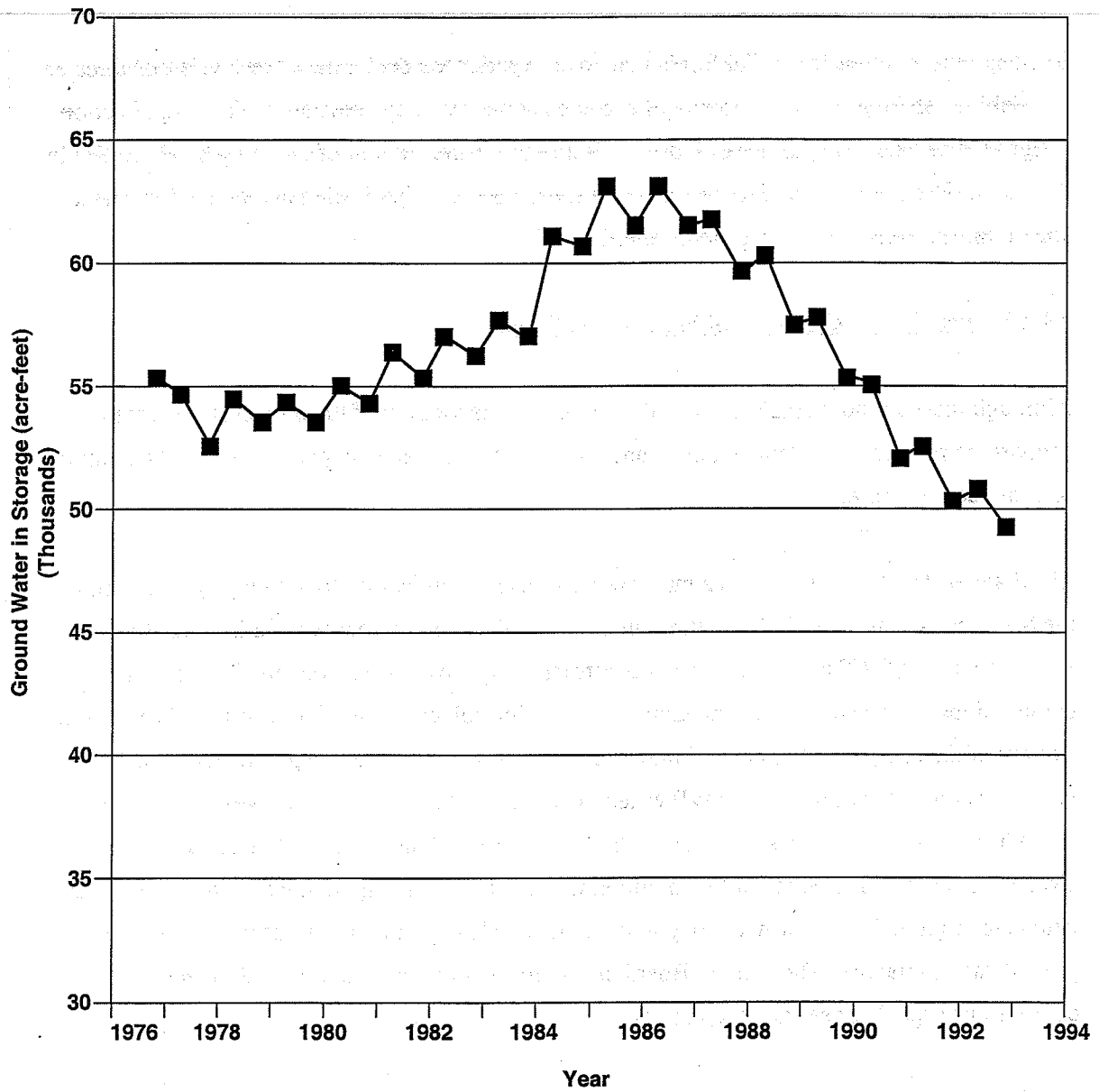
4.1.1.2.5 Water Rights

The Santa Maria Groundwater Basin currently is not adjudicated and all landowners are able to install wells and pump groundwater in the basin. However, on July 14, 1997, the Santa Maria Valley Water Conservation District filed a complaint against the City of Santa Maria, Southern California Water Company, and the City of Guadalupe to adjudicate the basin. If the basin is adjudicated prior to the implementation of the project, it is possible that the project may be affected by the court order.

Because the adjudication of the Santa Maria Groundwater Basin is in process and could have numerous outcomes it is too speculative, for purposes of this CEQA analysis, to consider further as this adjudication process may or may not apply to future water rights of

¹² Cleath & Associates, 1996

¹³ The rainfall stations selected surround the Mesa and are: Oceano (194), Nipomo (038), Santa Maria (380), and Guadalupe (352).



Woodlands Specific Plan / 950250 ■

SOURCE: Cleath and Associates, 1996.

Figure 4.1-5
Groundwater in Storage
Nipomo Mesa

the proposed project. In any event, the project already includes numerous measures to conserve water and/or offset water impacts (e.g. toilet retrofit program).

~~Some groundwater basins in California that have experienced declining water levels that threaten the viability of the groundwater supply have been adjudicated by court order. The adjudication assigns water rights to agencies or individuals and limits the amount of pumping by all parties in the basin. The Santa Maria Groundwater Basin has no such adjudication and all landowners are able to install wells and pump groundwater in the basin.~~

4.1.1.3 Other Potential Sources of Water to the Project

Although there are no viable surface water sources in the vicinity of the project sufficient to support the project water demand, there are several regional water supply projects in the planning or construction phase.

The State Water Project (SWP) is a major water transmission facility for conveying water from the Sacramento-San Joaquin Delta through the Central Valley to Southern California. An extension of the SWP has recently been constructed to convey water west to Central Coast communities. The San Luis Obispo County Flood Control and Water Conservation District and County of Santa Barbara has entered into an agreement with the State Department of Water Resources for distribution of the SWP water. There will be several water purveyors within the Santa Maria groundwater basin, including the City of Santa Maria, that will be contracting for SWP water allotments. Some of the imported water applied for irrigation would be expected to percolate to groundwater, provide long term recharge of the groundwater basin, and also decrease groundwater pumpage. The County Board of Supervisors has currently not authorized connections capable of serving the project.

Another project would bring water from Nacimiento Reservoir as far south as the southern end of San Luis Obispo. Extension of the transmission pipeline further south to the project area has been determined as economically unfeasible.

4.1.1.4 On-Site Water Sources

Development on the project site proposes to obtain water from four existing groundwater wells at the site and from recycling wastewater produced at a community treatment plant. The four

production wells are located around the site perimeter¹⁴. Table 4.1-1 presents the construction data and pump tests results for the wells.

4.1.1.5 Water Quality

4.1.1.5.1 Groundwater

Groundwater samples collected from the monitoring wells and production wells were analyzed for water quality parameters as shown in Table 4.1-2 below. Although water quality varied

somewhat between the wells, all the constituents analyzed were within acceptable limits for use in domestic and agricultural applications¹⁵.

4.1.1.5.2 Wastewater Effluent Standards

Effluent treated at a wastewater treatment plant is required to be treated in accordance with the applicable standards from the California Code of Regulations Title 22 (Environmental Health) and the Central Coast Region Water Quality Control Plan. The wastewater would undergo various physical, chemical, and biological treatment processes to remove contaminants from the flow, resulting in two products: liquid effluent and sludge. The quality of the treated effluent from the wastewater treatment plant would vary with the origin of the wastewater (residential, commercial, etc.) and with the quality of the original well water. Due to the varying quality in the production wells, reclaimed water quality would depend on which well was being pumped for domestic use.

The Central Coast Regional Water Quality Control Board (RWQCB) has authority to regulate water discharges and has set water quality standards for specific water bodies. The owner of the treatment plant would be required to obtain a permit from the RWQCB for operation of the plant, the discharge of effluent, and the disposal of sludge.

The California Porter-Cologne Water Quality Control Act is implemented by the State Water Resources Control Board and nine Regional Water Quality Control Boards. The State Water Board carries out its water quality protection authority through the adoption of specific Water

¹⁴ The location of these wells are shown in Figure 4.1-10 in Section 4.1.2.2.

¹⁵ Water quality of the wells was tested by independent laboratories.

TABLE 4.1-1: WELL CONSTRUCTION AND PRODUCTION DATA

<u>DATA DESCRIPTION</u>	<u>DEPTHS IN FEET BELOW GROUND SURFACE</u>			
	Highway 1	Dawn Road	Mesa Road	Homestead
Production Well Name				
State Well Number ¹	11N/35W-16J	11N/35W-15D	11N/35W-15R	11N/35W-22M
Surface Elevation ²	255	250	260	170
Sanitary Seal ³	0-50	0-50	0-50	0-50
Total Drilled Depth	690	695	662	900
<u>CASING DIAMETER:</u>				
14-inch	0-539	0-440	0-450	0-430
10-inch	539-690	440-640	450-582	430-690
<u>SCREEN:</u>				
14-inch diameter	389-539	340-390	360-450	
10-inch diameter	540-690	442-632	455-572	430-680
<u>PRODUCTION DATA</u> (24-Hour constant discharge test):				
Static water level	246	244	237	171
Final water level	286	295	295	251
Flow rate (gpm)	1000	1200	1400	1400
Specific Capacity ⁴ (m ³ /day)	25	24	24	18

- 1 Unofficial and incomplete designation based on location
2 Approximate surface elevation in feet above mean sea level
3 30-inch diameter conductor casing cemented in 38-inch hole
4 Specific capacity for 24 hours at test flow rate.

Source: Cleath & Associates, 1996

Quality Control Plans (Basin Plans), which establish water quality standards for particular bodies of water. The Water Quality Control Plan for the Central Coast Region sets the water quality standards (often called "objectives") for discharges to surface and groundwaters in the Nipomo area. Groundwater standards have been established for bacteria, chemical constituents, radioactivity, tastes and odors, and organic chemicals that apply to all groundwater in the Central Coast. Additionally, standards have been established for the Lower Nipomo Mesa subarea of the Santa Maria basin as shown in Table 4.1-3. The RWQCB considers these objectives when issuing waste discharge requirements for wastewater treatment plants and other discharges.

TABLE 4.1-2: WATER QUALITY FROM EXISTING WELLS ON NIPOMO MESA

Constituent	Units	MCL	Production Well (with sampling date)			
			Hwy 1 12/16/93	Dawn Rd. 8/6/94	Mesa Rd. 8/6/94	Homestead 8/6/94
pH	unit	*	6.9	7.7	7.6	7.2
EC	µmhos/cm	1600	610	1185	1060	1425
TDS	mg/l	1000	442	700	616	840
Total Hardness	mg/l	*	220	456	408	552
Bicarbonate (HCO ₃)	mg/l	*	95	176	144	184
Sodium (Na)	mg/l	*	43	48	41	53
Potassium (K)	mg/l	*	2	3.8	4	3.7
Calcium (Ca)	mg/l	*	54	120	115	150
Iron (Fe)	mg/l	0.3	ND	0.14	0.14	0.14
Manganese (Mn)	mg/l	0.05	ND	0.04	ND	0.04
Magnesium (Mg)	mg/l	*	21	38	29	43
Sulfate (SO ₄)	mg/l	500	140	314	286	429
Chloride (Cl)	mg/l	500	42	68	56	58
Nitrogen (NO ₃ N)	mg/l	10	3.6	0.7	2.8	0.9
Nitrate (NO ₃)	mg/l	45	16	3.1	12.4	4
Boron (B)	mg/l	*	ND	0.44	0.38	0.75

MCL = Maximum Contaminant Level (State of California)

* = No MCL has been specified by the State for these constituents

ND = Not Detected

EC = Electrical Conductance

TDS = Total Dissolved Solids

µmhos/cm = micromhos per centimeter

mg/l = milligrams per liter

Source: Coast-to-Coast Analytical Services, Water Testing and Consulting Laboratory

4.1.2 ENVIRONMENTAL IMPACTS

4.1.2.1 Significance Criteria

The California Environmental Quality Act classifies a project as having a significant effect on the environment if it would result in any of the following (as adapted from CEQA guidelines, Appendix G):

TABLE 4.1-3: GROUNDWATER STANDARDS FOR THE LOWER NIPOMO MESA SUBAREA

Constituent	mg/L
Total Dissolved Solids (TDS)	710
Chlorine (Cl)	95
Sulfate (SO ₄)	250
Boron (B)	0.15
Sodium (Na)	90
Nitrogen (NO ₃ -N)	5.7

Contaminate a public water supply,

- Substantially degrade water quality,
- Substantially degrade or deplete groundwater resources.

A groundwater basin could be considered significantly impacted if project pumping were to place a groundwater basin in an overdraft condition. For basins already in an overdraft condition, additional groundwater pumping could cause significant effects by exacerbating adverse conditions.

The County of San Luis Obispo has not adopted a significance threshold for groundwater use. However, the Santa Maria Groundwater Basin also underlies Santa Barbara County to the south of the proposed project. Santa Barbara County has included the Santa Maria Groundwater Basin on its list of overdrafted basins. Santa Barbara County has adopted groundwater extraction thresholds for groundwater basins that are in a state of overdraft.¹⁶ Calculations for each individual groundwater basin are based on a formula that considers the basin safe yield, the available storage, and the net annual overdraft. For new groundwater withdrawals from the basin, the threshold of significance is 25 afy of extractions. By using this threshold, a project which would involve a net consumptive use of 25 afy of groundwater would be considered to have a significant impact on groundwater resources.

¹⁶ County of Santa Barbara Environmental Thresholds Guidelines Manual, 1995.

However, as discussed previously in the Groundwater Conditions section, the decline in water levels in the mesa has not produced adverse groundwater conditions. The Santa Maria Basin has achieved long term stability with periods of drought and recovery. The periodic recovery of the basin provides sufficient recharge to preclude long term adverse conditions and continuing water level declines in the basin are not evident¹⁷. This report does not consider the basin to be in a state of overdraft, therefore, this numeric threshold level is not used in this report.

Neighboring wells can be affected by new or increased groundwater extractions. If the production rate of a pre-existing well would drop to a level that would not support the existing or planned use as a result of lowered local groundwater conditions (well interference), this impact could be considered significant.

A significant effect could be realized if the quality of water in the basin is degraded below drinking water standards or if discharges would exceed Basin Plan objectives. Groundwater quality degradation could occur from percolation of low quality water applied to the surface or from altering groundwater flow or storage such that adverse effects are created.

4.1.2.2 Impacts and Mitigation Measures

Impact 4.1-1: The project will cause additional long-term lowering of groundwater storage in the Nipomo Mesa subarea, however, the decrease in water storage caused by the project is small compared with continued decreases in water levels caused by baseline conditions and would not significantly contribute to potential future overdraft condition. This would not be considered a significant impact.

Project Water Demand

Based on information provided by the applicant, the development would be constructed in two phases over a time period that would depend on market conditions. At buildout, the development infrastructure requiring a water supply would include 1,320 residences on 235 acres, an elementary school, a 500-room hotel/resort complex, a 27-acre commercial center, a 22-acre business park, and 587 acres of recreation and open space to include two golf courses with ponds and clubhouses, a number of local parks, and other facilities. Water uses of these facilities have been estimated by Cleath & Associates using typical values on a "unit" basis; that is, elements of the project were identified in various units such as numbers of lots, acres, hotel rooms, etc. Typical water rates for each unit (sometimes called a water duty factor) were researched and applied to the quantities of the units in the project. The unit values were determined from

¹⁷ Cleath and Associates, 1997b and Luhdorff and Scalmanini, 1997.

discussions with local municipalities and a nearby golf course operator and represent typical current usage rates for local uses.¹⁸

Table 4.1-4 presents a summary of the project water demand at total buildout prepared by Cleath & Associates. The table lists the types of water consuming elements, the number of units for each element in the proposed development and the water duty factors for each element. The water demand is calculated for each element and the demand is split into indoor demand volumes and outdoor demand volumes. This was done to determine the amount of wastewater that would be available from indoor use and would be recycled at the wastewater treatment plant. The recycled water would subsequently be available for landscape irrigation, reducing the amount of water that would otherwise be pumped from groundwater. The amount of water from outdoor applications that would percolate to recharge the groundwater (return flows) was also calculated for factoring into the overall water budget for the project.

The water duty factors were derived from numerous studies and communications with water suppliers to obtain local water use information. Residential rates for various lot sizes were obtained from the usage rates provided by Cities of Arroyo Grande and San Luis Obispo¹⁹. The City of Santa Barbara has published a study showing average use rates in the City²⁰. As shown in Table 4.1-5, the rates used in the Cleath study for the residential land uses are generally considerably higher than those used by the City of Santa Barbara. Estimates of water usage rates for elementary school students and hotel rooms are slightly higher. However, rates for multi-family residential are slightly lower. Rates for Village Mixed Use, Resort Mixed Use, and Business Park are not specifically identified in the Santa Barbara study, but using rates for comparable facilities would suggest that the Cleath rates are somewhat lower for these uses in comparison to the Santa Barbara study.

In summary, the rates used by the Cleath analysis for the various single family residential uses are substantially more liberal than the Santa Barbara study. Although rates for some other land uses may be lower, residential and hotel uses consume more than 90 percent of the non-irrigation demand for the project. Overall, the Cleath rates appear to be higher than the Santa Barbara study, which adds an element of conservatism to the Cleath analysis.

¹⁸ Discussion with Tim Cleath, May 15, 1996.

¹⁹ City of Arroyo Grande, Draft Water Demand Neutralization Ordinance (1994), City of San Luis Obispo Water Use Factors (1987).

²⁰ Water Demand Factor and Conservation Study, Technical Report Document No.1, City of Santa Barbara

Element Description	Type Unit	Number Units	Water Demand						Water Consumed				Return		Wastewater	
			Duty Factor (afy/unit)	indoor		outdoor		total afy	indoor		outdoor		total afy	flow afy	afy	afy
				%	afy	%	afy		%	afy	%	afy				
Resid. 4K-6,999 sf	D.U.	683.0	0.37	81.0	204.7	18.0	48.0	252.7	20.0	40.9	80.0	38.4	79.3	9.6	163.8	
Resid. 7K-9,999 sf	D.U.	437.0	0.50	60.0	131.1	40.0	87.4	218.5	20.0	26.2	80.0	69.9	96.1	17.5	104.9	
Resid. 10K-14,000 sf	D.U.	72.0	0.79	38.0	21.8	62.0	35.3	56.9	20.0	4.3	80.0	28.2	32.5	7.1	17.3	
Resid. 0.3-1 acre	D.U.	48.0	1.50	20.0	14.4	80.0	57.6	72.0	20.0	2.9	80.0	46.1	49.0	11.5	11.5	
Multi-family	D.U.	80.0	0.22	100.0	17.6	0.0	0.0	17.6	20.0	3.5	0.0	0.0	3.5	0.0	14.1	
Village: mixed use	acre	3.0	2.10	100.0	6.3	0.0	0.0	6.3	20.0	1.3	0.0	0.0	1.3	0.0	5.0	
Village: Landscaping	acre	2.0	1.50	0.0	0.0	100.0	3.0	3.0	20.0	0.0	80.0	2.4	2.4	0.6	0.0	
Resort: Hotel	room	500.0	0.15	70.0	52.5	30.0	22.5	75.0	20.0	10.5	80.0	18.0	28.5	4.5	42.0	
Resort: mixed use	acre	2.0	2.10	70.0	2.9	30.0	1.3	4.2	20.0	0.6	80.0	1.0	1.6	0.3	2.3	
Business Park	acre	22.0	1.60	70.0	24.6	30.0	10.6	35.2	20.0	4.9	80.0	8.5	13.4	2.1	19.7	
Golf (36 holes+practice)	acre	275.0	2.50	0.0	0.0	100.0	687.5	687.5	0.0	0.0	90.0	618.8	618.8	88.8	0.0	
Ponds	acre	22.0	4.70	0.0	0.0	100.0	103.4	103.4	0.0	0.0	100.0	103.4	103.4	0.0	0.0	
Golf Clubhouse	facility	2.0	6.40	100.0	12.8	0.0	0.0	12.8	20.0	2.6	0.0	0.0	2.6	0.0	10.2	
Schools	student	350.0	0.03	50.0	5.3	50.0	5.3	10.6	20.0	1.1	80.0	4.2	5.3	1.1	4.2	
Maint/AWWTP	lump	1.0	7.30	49.0	3.6	51.0	3.7	7.3	20.0	0.7	80.0	3.0	3.7	0.7	2.9	
Parks - neighborhood	acre	30.0	1.70	0.0	0.0	100.0	51.0	51.0	0.0	0.0	80.0	40.8	40.8	10.2	0.0	
Parks - public	acre	12.0	2.10	0.0	0.0	100.0	25.2	25.2	0.0	0.0	80.0	20.2	20.2	5.0	0.0	
TOTAL					497.4		1141.6	1639.2		99.5		1002.9	1102.4	138.9	397.9	

SOURCE: Cleath and Associates, September 1997

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Table 4.1-4

Cleath & Associates Estimated Project Water Use

TABLE 4.1-5: COMPARISON OF CLEATH REPORT AND CITY OF SANTA BARBARA WATER USAGE RATES

Cleath Report		City of Santa Barbara Report	
Land Use	Use Rate (afy/unit)	Land Use	Use Rate (afy/unit)
SFR, 4K-8,999 sf	0.37	SFR, up to 9,999 sf	0.33
SFR, 7K-9,999 sf	0.50		
SFR, 10K-14,000 sf	0.79	SFR, 10K-22,000	0.51
SFR 0.3-1 ac	1.50	SFR, 22,000 - 1 ac	0.85
Multi-family	0.22	Multi-family	0.24
Elementary School	0.03/student	Elementary School	0.02/student
Hotel	0.15/room	Hotel	0.13/room

SFR = Single Family Residential

By examining the residential rates on a per capita basis the project rates are similar to average rates reported by water agencies in Arroyo Grande, Santa Maria, and San Luis Obispo.²¹ The irrigation rate for the proposed golf courses (2.5 afy per acre) was derived from actual usage at the nearby Black Lake Golf course. This rate is comparable to the proposed rate (2.44 afy per irrigated acre) calculated for the golf course at the planned Cypress Ridge development, and with other nearby golf courses.²²

²¹ Rates presented in the Department of Water Resources Bulletin 166-4 show residential rates of 182, 171, and 179 gallons per capita per day (gpcd) for these respective cities. The U.S. Census Bureau reports the San Luis Obispo County 1990 average to be 2.53 persons per household. The County's South County Area Plan shows the South County Area 1990 average as 3.13 persons per household. For new homes in a developed community associated with golf courses, the average household size may be expected to be lower than the County average and reflect a more urban household size. Assuming 2.5 persons per household, the Cleath & Associates overall residential rate would be 167 gpcd. The Cleath report shows 618 afy for 1320 total residential connections.

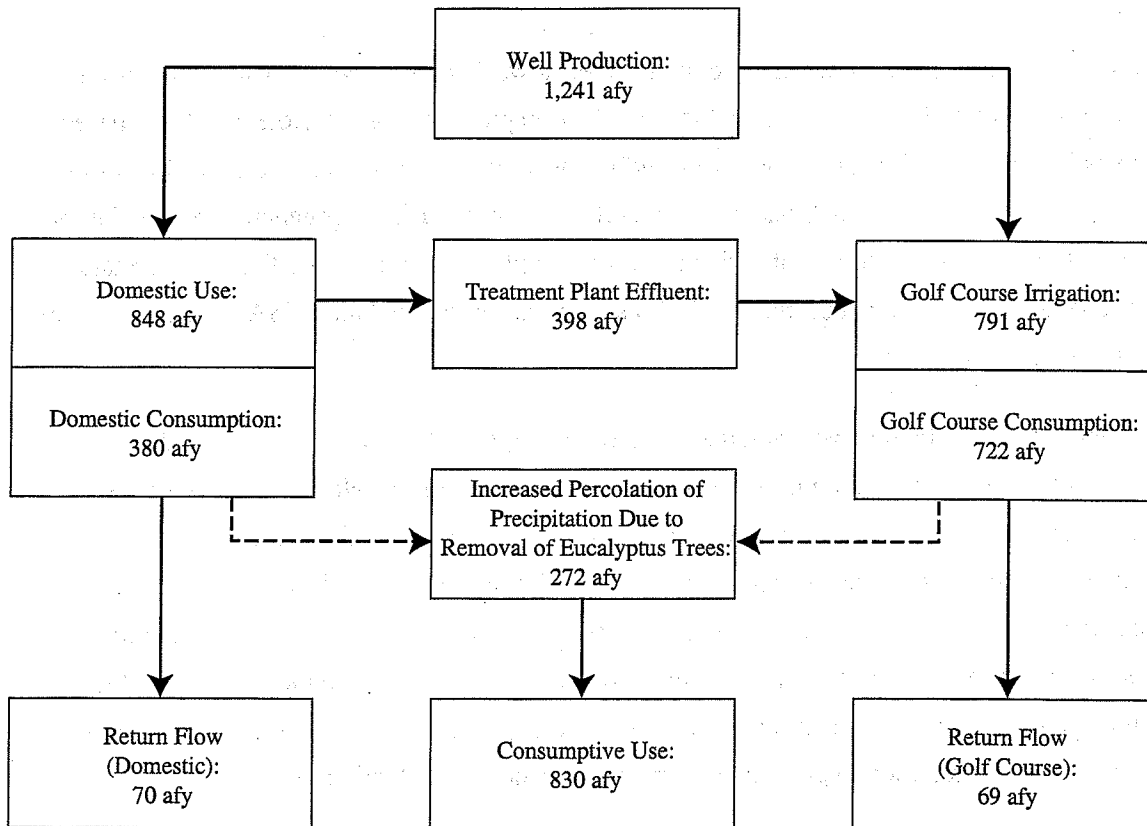
²² Final Environmental Impact Report, Cypress Ridge Tract Map and Development Plan, County of San Luis Obispo, August 1996.

The water use factors were reviewed by ESA. The level of detail shown in the detailed breakdown of land uses is good and the use of water duty factors from local communities and from a nearby golf course gives validity to the analysis. There are, however, some minor discrepancies in the Cleath analysis. The Cleath analysis assumed 350 students at the school instead of the expected 600. There was an omission of multi-family common area outdoor irrigation and for potable water needed for the parks. These omissions would not substantially change the overall water demand for the project. Therefore, ESA finds the water demand analysis to be generally valid and appropriate.

Cleath and Associates estimates that the wastewater flows from the development would produce almost 398 afy of reclaimed water suitable for irrigation purposes for the project. This is based on an estimate that 80% of indoor water use will flow to the treatment plant. ESA estimates that over 450 afy would be available based on generally accepted wastewater generation rates for the various land uses. It should be noted that the water supply modeling used 398 afy for irrigation water availability, which makes the calculations more conservative than if ESA's estimate of 450 afy was used in the analysis.

It is important to distinguish between the terms water demand and consumptive use. Water demand refers to the total amount of water that is conveyed to users. However, some of the initially applied water is not lost to the system. A portion of the water delivered to domestic users is recycled through the wastewater treatment plant and its application to landscape irrigation offsets the demand for potable water. Additionally, a portion of the water that is applied to landscape irrigation at homes or the golf course percolates through the soil and recharges the groundwater, which partially offsets the water originally pumped. Only the water that is actually consumed and not returned to groundwater system is called consumptive use.

Figure 4.1-6 shows the overall water flow of the project, considering recycling and application of wastewater, increased percolation due to the elimination of eucalyptus trees, and percolation of irrigation water to recharge groundwater. Gross water demand is estimated at 1639 afy (Table 4.1-4); 848 afy would be used for domestic purposes and 791 afy would be used to irrigate the golf courses. Of the 848 afy of domestic use, 398 afy would be discharged from the homes, businesses, and schools as wastewater and flow to the treatment plant, 380 afy would be consumed, and 70 afy would percolate to groundwater from landscape irrigation. Of the 791 afy applied to the golf course, 393 afy would come from wells and 398 afy would be treated wastewater effluent from the treatment plant. Most of the water applied to the golf course would be evapotranspired (90% or 722 afy), but 69 afy would percolate to groundwater.



SOURCE: Cleath & Associates

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Figure 4.1-6
Water Flow Diagram

The amount of water required to be pumped for the project is 1,241 afy. This equals the domestic use (848 afy) plus the golf course irrigation (791 afy) minus the amount of water recycled (398 afy).

A factor in the analysis is the elimination of the water use by the thousands of eucalyptus trees that would be removed for the project. Eucalyptus trees cover approximately 880 acres of the 957 acre site; the project would remove approximately 640 acres of eucalyptus groves.

The eucalyptus tree grove currently consumes a large quantity of water. The evapotranspiration rate of the trees has been estimated at 17.7 inches per year²³ which actually exceeds the average annual precipitation on the property (14 inches). The trees are able to obtain additional water by extracting moisture from fog (fog drip) and storing excess water for later use by the tree in a dense mat of shallow roots. The trees are so efficient at utilizing rainfall that essentially no rainfall passes through the root mat and percolates to groundwater, so no groundwater recharge was assumed in the analysis for the area directly beneath the eucalyptus groves. For the existing 94 acres of grassland areas, 25 percent of precipitation was assumed to percolate based on previous studies of Nipomo Mesa, hydrologic balance calculations, and modeling analyses²⁴. This would include runoff captured in the closed depressions on the site that may evaporate before percolating. Calculations by Cleath and Associates show that existing groundwater recharge at the project site from the grassland area is 27 afy.

The project would replace many of the eucalyptus trees with turf grasses which allow for significantly more rainfall to percolate to groundwater; and with various structures and impervious surfaces from which runoff would drain to percolation basins. It was assumed that the 491 acres of eucalyptus cleared for open space areas, such as the golf courses and parks, would percolate 25 percent of rainfall. The 221 acres of trees cleared for areas with impervious surfaces were assumed to percolate 60 percent of rainfall through the percolation basins. No percolation was assumed for the remaining 245 acres of eucalyptus grove. The resulting recharge from project conditions was calculated to be 299 afy. Therefore, the removal of the eucalyptus trees was estimated by Cleath and Associates to increase the percolation by 272 afy.

²³ See Appendix E of the Cleath and Associates, 1997 for a list of references. Work by Chipping (1994) was cited by the Cypress Ridge EIR and by Cleath and Associates for this topic.

²⁴ Cleath and Associates, Letter to Rich Masters of ESA dated January 15, 1998.

The total consumptive use of the project, considering the domestic and golf courses consumption, the return flows from percolation, and the increased rainfall percolation due to the removal of eucalyptus trees, would be 830 afy.

Groundwater Analysis

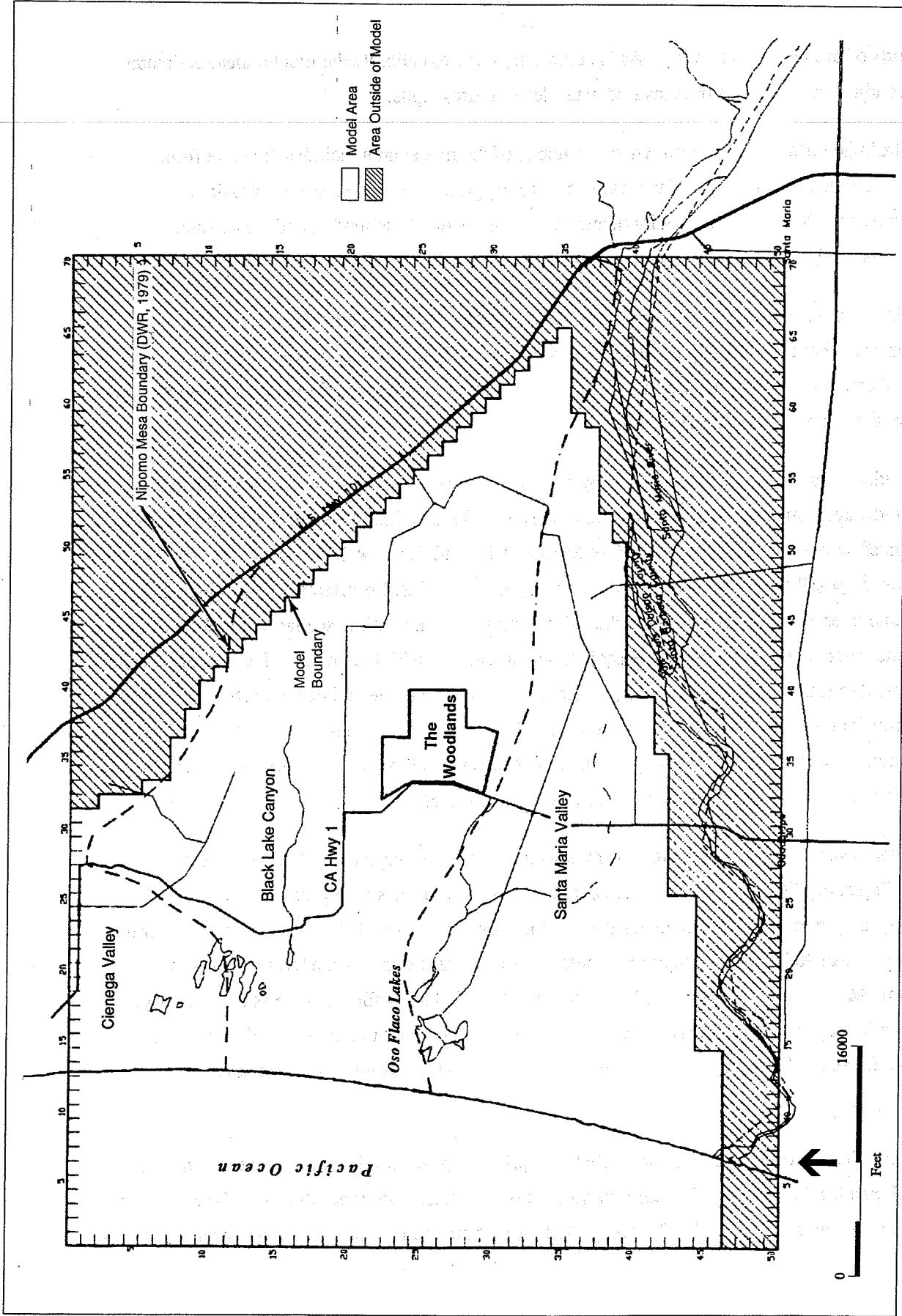
A finite-difference groundwater model was used to simulate the hydrogeologic conditions of the Nipomo Mesa (Figure 4.1-7). The model was developed to compare the effects on the hydrogeologic regime of projected conditions both with and without the proposed project. The differences between the baseline conditions and project conditions were related to pumpage to satisfy the project water demands, the effects of the removal of eucalyptus trees, and recharge of irrigation return flows.

In finite-difference groundwater modeling, water flowing into and out of each of the cells in a grid is represented by a partial differential equation. This equation includes terms for inflows such as recharge from rainfall, irrigation return flow, creek surface flow, underflow, and seawater intrusion, as well as for outflows (primarily well extraction and flows to the ocean). Differences between inflow and outflow result in changes in the quantities of water in storage.

The model chosen for the analysis is ModFlow, a widely used and respected computer software model developed by the U.S. Geological Service. Other software programs were used to interact with ModFlow for data input, graphics production, and data retrieval. The model area was subdivided into a grid composed of 50 rows and 70 columns; each cell comprises a 1,000-foot by 1,000-foot square area.

Data used to construct the model were compiled from the following sources: water and oil well drilling logs on file at Cleath & Associates; current and historical production data from local water purveyors; historic water level, stream flow, and rainfall data provided by the San Luis Obispo County Engineer's Office and the Santa Barbara County Flood Control District; stream bed elevation data and agricultural pumpage information from area reconnaissance; land use data from the office of the San Luis Obispo County Agricultural Commissioner; and land use and water well data from the State of California Department of Water Resources.

The hydrogeologic parameters affecting the flow of groundwater are the permeability of the aquifer and the ability of the aquifer media to store water, or the storativity. Initial estimates of these parameters were made by Cleath and Associates on the basis of well logs from the area and



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Figure 4.1-7
 Model Grid

SOURCE: Cleath and Associates, 1996.

reports of production capability. As is commonly done to calibrate the model, these estimates were adjusted in order to fit measured water level hydrographs.

Hydrologic inflow to the groundwater resources of the model area includes recharge from precipitation, stream flow, surface water storage, irrigation returns, seawater intrusion, groundwater flow across the hydraulically upgradient side of the model, and wastewater discharge to land which percolates into the soil.

Hydrologic outflow from the water resources of the model area includes pumpage from project wells and other area wells, groundwater flow across the hydraulically downgradient side of the model area, and evapotranspiration. Streams may also act as outflow areas if they remove more water than they bring into the model.

Potential impacts from the proposed project on groundwater in storage were evaluated using the groundwater flow model. The model was calibrated to match historic water levels during the balanced 16-year hydrologic period (see Section 4.1.1 and Figure 4.1-5) from 1976-1992 as closely as possible. Two scenarios were developed to simulate the effects of groundwater demand over the 48 years following the calibration period: a baseline scenario to predict future groundwater conditions without the project; and a scenario with the project. The scenarios were designed to start with the conditions predicted by the model at the end of the calibration period, and run from November 1, 1992 to October 31, 2048. The only differences in the input data sets between the two scenarios are the pumpage, increased rainfall percolation due to the removal of eucalyptus trees, and irrigation returns related to the project.

Environmental Science Associates has reviewed the assumptions and methodology of the modeling study. Although there is considerable room for professional judgment in developing hydrogeologic models, ESA believes the methods used are reasonable. The area selected for the model appears to be large enough to include areas that affect groundwater conditions beneath the Nipomo Mesa, including all of the Nipomo Mesa, the Cienega Valley, and parts of the Arroyo Grande Valley and Santa Maria Valley. Note that the entire Santa Maria Groundwater Basin was not modeled, but boundary conditions on the model reflect conditions expected outside of the model grid.

Baseline Scenario. Baseline, or non-project conditions, were simulated using the past trends (developed for the 1976 to 1992 calibration period) for water level input data plus the estimated area well pumpage from the 1992 year applied throughout the model simulation period.

The model of baseline conditions indicates that, initially, future water in storage beneath the Nipomo Mesa would follow a pattern similar to that under the historic conditions, but would be reduced by about 3,100 acre-feet, slightly over half the reduction during the historic 1976 to 1992 period. After this initial 16-year cycle, groundwater in storage is relatively stable; the lowering of water levels in the westerly portion of the Mesa induces additional recharge from the Santa Maria River in the Santa Maria Valley subarea. This additional recharge reduces the rate of decline of groundwater levels from the pumping of existing wells.

Woodlands Scenario. This scenario simulates the effects of groundwater production for the project as proposed over the 48-year period modeled in the Baseline scenario. Input data for this scenario was developed by taking the production for the Baseline scenario and overlaying the estimated pumpage for each phase of the project, factoring in the additional rainfall percolation from removing the eucalyptus trees, and adding in return flows from irrigation. The project pumpage was extracted from the groundwater basin in the model at locations corresponding to the four project wells. Recharge resulting from return flow from irrigation of the golf courses was simulated by adding a factor of approximately 10% of the applied water to the general recharge over each of the golf course sites as they would be phased in. All other inputs were the same as in the Baseline scenario.

The model was calibrated using the data and estimated parameters as detailed above to simulate the conditions prevailing during the years 1976 through 1992. Groundwater flow parameters (permeability and storativity) and recharge parameters were adjusted until there was a close fit between the historic water levels and those predicted by the simulation. Because much of the data utilized for the development of the model were estimated (such as agricultural groundwater production and water levels in the creeks), the accuracy of this model should not be considered to be any greater than the accuracy of the many estimates and assumptions of the modeling analysis. However, computer modeling is the best tool available to analyze groundwater conditions and impacts, and the ModFlow software used in the analysis is well respected in the water industry.

Project Impacts

As shown in Table 4.1-6 and illustrated in Figure 4.1-8, groundwater in storage in the Nipomo Mesa area is predicted by Cleath and Associates to continue to drop both under current (baseline) conditions and with the project. During the first 16 year cycle of the time span simulated, groundwater in storage declines by 4,173 acre feet with the project and 3,083 acre feet without it, an average decline of 261 afy with the project and 193 afy without the project. After this 16 year

TABLE 4.1-6: CHANGES IN STORAGE IN NIPOMO MESA DUE TO PROJECT CONDITIONS

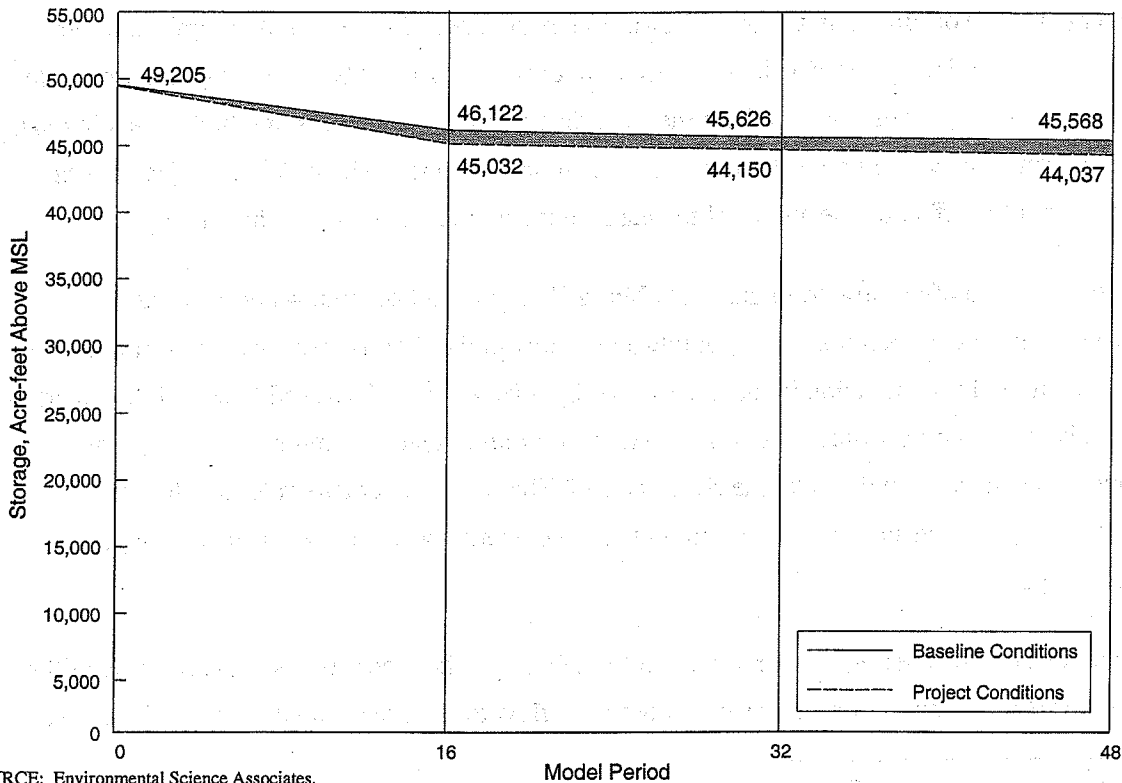
<u>Year</u>	<u>Baseline Storage (af)</u>	<u>Woodlands Storage (af)</u>	<u>Difference Woodlands vs. Baseline (af)</u>	<u>Model Period Storage Rate Difference (afy)</u>
1992	49,205	49,205	0	0
2008	46,122	45,032	-1,090	68
2024	45,626	44,150	-1,476	24
2040	45,568	44,037	-1,531	3

Source: Cleath & Associates, 1996, 1977a.

period, a new equilibrium groundwater level would be established, and continued water level declines would be partially offset by increased recharge from the Santa Maria Valley. During the second 16 year cycle, groundwater in storage would decline by 882 acre feet with the project, and 496 acre feet without it. During the third 16 year cycle, groundwater in storage would decline by 113 acre feet with the project and 58 acre feet without it, a difference of 63 acre feet or a rate of 3.9 afy averaged over the 16 year time period. At the conclusion of the third 16 year cycle, the average rate of decline in storage (over 48 years) is estimated at 108 afy with the project and 76 afy without the project, a 32 afy net difference.

The historic declines in groundwater storage between Fall 1976 and Fall 1992 averaged an estimated rate of 375 afy, which is more than future estimated declines - with or without the project. This reduction in the rate of storage decline over time, despite increased pumpage on the Nipomo Mesa, is a result of the interactions between subsurface inflow and outflow. The lower overall storage results in increased groundwater inflow and decreased groundwater outflow beneath the Mesa, thereby reducing the impacts of pumpage on changes in storage.

In summary, groundwater levels in the Nipomo Mesa are anticipated to continue to decline both with and without the proposed project. The largest losses of groundwater beneath Nipomo Mesa have taken place historically; future losses are anticipated to be much less, despite increased production. The reduced water in storage is anticipated to result in an increase in inflow to the subarea and a decrease in outflow, and therefore the rate of storage loss as a result of continued pumping diminishes with time. In both the Baseline and Woodlands scenarios, water levels under the Nipomo Mesa are expected to decline and this decline would induce inflow from the Santa Maria Valley. At the end of the 48-year model period, there would be only 1,531 af less usable water in storage under Nipomo Mesa due to the project, which is about 3 percent of the Nipomo Mesa storage above sea level. The project would result in an additional rate of reduction in storage of about 32 afy over baseline conditions for the 48-year period, but at end of the period, the difference in the rate of decline of the project over baseline conditions is only about 3 afy.



SOURCE: Environmental Science Associates.

Figure 4.1-8
Difference in Nipomo Mesa Storage
Baseline vs. Project

The additional pumping for the project will result in only a minor reduction in storage in the Nipomo Mesa over the 48-year model period (3 percent of the total water available in storage above sea level, an average rate of reduction of 32 afy). In subsequent years, the difference in baseline conditions and project conditions would become even smaller (for the last 16-year model period, the rate difference is only 3 afy).

Since the Santa Maria groundwater basin is not considered in this report to be in an overdraft condition, the minor reduction in long term groundwater storage caused by the project would not be a significant adverse effect as compared to baseline conditions.

Impacts to Santa Maria Valley

As shown Figure 4.1-4, regional flow patterns indicate that water in the deep aquifer is moving into the Nipomo Mesa from the Oso Flaco area of the Santa Maria Valley. The modeling conducted for the project shows that the project pumping will contribute to lower groundwater levels beneath the Nipomo Mesa, however, the effect of lowering groundwater levels will induce recharge from the Santa Maria Valley which will reduce the magnitude of the pumping effects. The model shows that, of the 830 afy of consumptive use from the project, about half of this water (415 afy) originates in the Santa Maria Valley subarea of the Santa Maria groundwater basin²⁵. As previously described, groundwater hydrographs for the basin show long term stable conditions with periodic cycles of declines and then recovery to near historic high levels in most of the basin. No continuing water level declines in the basin are evident²⁶. The project would have very little effect on the ability of the basin to recover and continue its historic cycle.

Most of the 415 afy inflow from the Santa Maria Valley would be from water from the Santa Maria River that has percolated to groundwater. Flow in the river is influenced by primarily by rainfall, agricultural pumping in the Valley, and by releases from Twitchell Reservoir upstream. There is no stream flow during periods of extended drought and flow returns to the river as percolating water mounds under the river channel. The river is over two miles south of the project. Any impacts on stream flow from the project would be spread out over several years following a drought.

Operations of Twitchell Reservoir significantly effect river flow conditions. One purpose of the reservoir is to impound flows that would otherwise flow to the ocean and then later release this

²⁵ Cleath and Associates, 1997b. The other half of the consumptive use is reduced outflow from the groundwater basin to the ocean.

²⁶ Ibid., also Luhdorff and Scalmanini, 1997.

water so that it can percolate through the river bottom and replenish the groundwater basin. Therefore, the dam operations decrease periods of high flows in the river and increase periods of low flows. River flow effects from project pumping would be secondary to the effects of releases from the dam and would be far more influenced by agricultural pumping in the Valley.

Additionally, impacts from the project would be offset by the importation of State water by the City of Santa Maria. The use of State water by the city will reduce the amount of groundwater pumped and will result in higher basin-wide groundwater levels. Even if pumping was resumed by the City during a drought period, the higher groundwater level conditions at the onset of the drought would offset any groundwater storage losses from the project. It is not anticipated that project pumping would reduce or delay the onset of flows in the river.²⁷

Alternatives

Water demand was calculated by Cleath and Associates for each of the project alternatives (refer to Table 2.4-1 for descriptions).

The expanded commercial/business park alternative was calculated to have a slightly less consumptive use than the proposed project. This is due to the smaller amount of acres irrigated and larger wastewater flows generated which are recycled for golf course irrigation.

A modeling analysis was also conducted for the Rural Village II Alternative. The impacts for the other two alternatives would lie between the project impacts and the impacts from this alternative in proportion to their consumptive use values shown in Table 4.1-7. Changes in storage for this alternative were similar to the project conditions. The total decline in storage from baseline conditions for this alternative was estimated to be 1,494 af for the 48-year model period. As with the project conditions, this represents only 3 percent of the total water available in storage above sea level and an average groundwater storage reduction rate of 32 afy. The impacts of this alternative and the other two alternatives on long term groundwater storage would also not be significant as compared to baseline conditions.

Mitigation Measures: None required.

Significance After Mitigation: No significant impacts are anticipated.

²⁷ Cleath and Associates, 1997b.

TABLE 4.1-7: WATER USE RATES FOR PROJECT AND ALTERNATIVES (ACRE FEET)

	Project	Expanded Commercial/ Business Park Alternative	Rural Village I Alternative	Rural Village II Alternative
Total Water Demand	1,639	1,654	1,532	1,547
Return Flows	139	137	139	137
Wastewater Flows	398	419	312	334
Consumptive Use	830	824	819	810

Impact 4.1-2: The application of reclaimed water, pesticides, and fertilizers from the project is not anticipated to result in significant impacts on groundwater quality. However, if not properly managed, contamination to groundwater could occur. This would be considered a significant impact.

The proposed project includes a wastewater treatment plant to treat domestic wastewater from the development and to provide a source of acceptable quality water for irrigation of the golf course and landscaped areas. Sewage from domestic sources in the surrounding area is currently treated and disposed by individual septic tank systems. These systems have generally worked well in the sandy soils of the area. Use of individual septic systems for any proposed development at the site would be constrained by the minimum lot size allowed by the County Land Use Ordinance (Section 22.04.032), County Building and Construction Ordinance (Title 19, Section 19.20.222), by criteria established by the Central Coast Regional Water Quality Control Board, and by the state Health and Safety Code.

The potential project impacts to groundwater quality are primarily increases in concentrations of nitrogen and total dissolved solids. Potential increases may result from the application of reclaimed water and the commercial fertilizers and other chemicals typically used on golf courses and landscaping.

Nitrogen and other nutrients are important for plant metabolism. The annual nitrogen fertilizer requirement for the project has been estimated at 21.4 tons.²⁸ The use of reclaimed water to irrigate the golf courses would provide a significant portion of this requirement, reducing the need to apply commercial fertilizer to only about 9.7 tons/year. Potential impacts to groundwater may occur when nitrogen and other constituents applied through irrigation water and fertilizers leach to groundwater.

To assess the potential impacts to groundwater a "basin pickup" analysis was conducted. A basin pickup analysis determines the increase in potentially unhealthy constituent concentration in groundwater caused by materials, such as nutrients and salts in reclaimed water and fertilizers, that would eventually leach to groundwater. These constituents, selected based on health concerns and general parameters of water quality, are nitrogen, sulfur, chloride, boron, metals, total dissolved solids, and pesticides. Much of the estimated basin pickup of water quality constituents is associated with irrigation with reclaimed water and fertilizer use on the golf courses and landscaped areas. Leaching of these constituents into groundwater is reduced by microbial degradation of compounds, such as pesticides, by the bacteria in the soil, as well as uptake by plants of nutrients and some metals. Removing grass clippings from the golf course would export nutrients and other constituents from the site and reduce leaching.

The basin pickup analysis first determined from textbook references the various constituents that would be applied from the use of reclaimed water annually from the project. The amount of fertilizer constituents applied annually were determined from quantities applied at the Black Lake golf course and from U.S. Golf Association publications.

The quantities from reclaimed water and fertilizer were combined to represent the total "import" of constituents by the project that have the potential to leach to groundwater. The amount of constituents that would be "exported", or removed from potential leaching, was also calculated based upon published reports and conversations with agricultural specialists. The amount of each constituent that remains after exports are subtracted from imports is the basin pickup.

²⁸ Cleath and Associates, 1996

The concentrations of constituents that are estimated to be found in the groundwater after implementation of the project was determined by adding the basin pickup to the existing (initial) water quality. The results of these calculations are shown in Table 4.1-8.

It was determined that the average quality of water percolating to groundwater at the site following total buildout would generally be of similar quality compared to the existing water quality beneath the site (Table 4.1-9). The predicted concentrations of some constituents are somewhat lower than existing conditions and for others are somewhat higher. However, the estimated average concentrations of water quality constituents in the water that percolates to the groundwater table would not exceed drinking water standards. Thus, the application of reclaimed water, fertilizers, and pesticides from the project, when properly selected, handled, stored and applied is not anticipated to significantly degrade water quality. However, groundwaters could be contaminated if excessive quantities were applied and percolated to groundwater. This would be a significant impact.

As described previously, the treatment plant would be operated by under permit from the RWQCB. The quality of the effluent discharged would be required to meet the basin plan water quality objectives and, therefore, would not have a significant impact on water quality.

It is possible that a disruption at the plant could result in discharges exceeding designated standards, resulting in contamination of the underlying groundwater basin. This would be a violation of the permit conditions and the plant owner would be responsible for mitigation of the discharge under the supervision of the RWQCB. The plant would include design redundancy and backup systems as required by the RWQCB to lessen the potential for unplanned discharges.

Sludge generated from the treatment plant would either be applied to nearby agricultural lands or disposed of at an area landfill in accordance with federal regulations (40 CRF 503) and the plant's operating permit issued by the RWQCB. With proper disposal, no water quality impacts would be anticipated.

Alternatives

Impacts on percolating water quality for the project alternatives would be similar to the above project impacts. Constituent loading rates for the various alternatives would be plus or minus about one percent from those described in Table 4.1-8 above. Therefore, the impacts would be essentially the same as those described above and the percolating water quality from the alternatives to the project would also generally of similar quality compared to the existing water

TABLE 4.1-8: ESTIMATED GROUNDWATER QUALITY

Constituent	Imports (tons/yr)		Exports (Tons/yr)	Basin Pickup (Tons/yr)	Percolating Water Quality (Project)		Water Quality Standards MCL (mg/L)	
	Reclaimed Water	Fertilizer			Initial (mg/L)	Pickup (mg/L)		Final (mg/L)
Nitrogen (N)	9.7	12.3	20.6	1.5	1.1	2.45	3.56	10
Phosphorus	1.4	5.9	7.3	0.0	0.00	0.00	0.00	no MCL
Potassium	5.4	0.0	5.4	5.4	0.98	9.07	10.05	no MCL
Calcium	8.1	7.5	15.6	15.6	28.65	26.21	54.86	no MCL
Magnesium	3.8	0.0	3.8	3.8	8.97	6.39	15.36	no MCL
Sulfur	5.4	0.0	5.4	5.4	19.72	9.07	28.79	no MCL
Boron	0.1	0.0	0.1	0.1	0.07	0.17	0.24	no MCL
Chloride	40.6	0.0	40.6	40.6	22.23	68.22	90.45	500
Sodium	37.9	0.0	37.9	37.9	16.95	63.69	80.64	no MCL
TDS	173.2	80.0	253.2	139.9	188.96	235.08	424.04	1000

* Estimates of initial percolating water quality were derived from a weighted average of rainfall water quality and existing well water quality (Table 4.1-2)

MCL = Maximum Contaminant Level (State of California)

Source: Cleath & Associates, 1997, ESA

TABLE 4.1-9: COMPARISON OF PROJECTED PERCOLATING WATER QUALITY WITH WELL WATER QUALITY AND DRINKING WATER STANDARDS

<u>Constituent</u>	<u>Percolating Water Quality</u>	<u>MCL</u>	<u>Production well (with sampling date)</u>			
			<u>Hwy 1 12/16/93</u>	<u>Dawn Rd. 8/6/94</u>	<u>Mesa Rd. 8/6/94</u>	<u>Homestead 8/6/94</u>
TDS	424	1000	442	700	616	840
Sodium (Na)	81	*	43	48	41	53
Potassium (K)	10	*	2	3.8	4	3.7
Calcium (Ca)	55	*	54	120	115	150
Magnesium (Mg)	15	*	21	38	29	43
Chloride (Cl)	90	500	42	68	56	58
Boron (B)	0.24	*	ND	0.44	0.38	0.75

MCL = Maximum Contaminant Level (State of California drinking water standards)

* = No MCL has been specified by the State for these constituents

ND = Not Detected

TDS = Total Dissolved Solids

All units are in mg/l (milligrams per liter)

quality beneath the site. The average concentration of water quality constituents in the water that percolates to the groundwater table from the project alternatives, with proper application, is not anticipated to exceed drinking water standards.

Mitigation Measures:

The following mitigation measures are not intended to supplant existing state pesticide laws or regulations administered by the County.

Mitigation Measure 4.1-2a. Prior to completion of construction, the Applicant shall work with the County's Agricultural Commissioner's Office to prepare an Integrated Pest Management (IPM) Program. At a minimum, the following elements should be included:

1. Recommendations for each herbicide, insecticide, and fungicide that could be used as part of golf course maintenance activities.

2. Restrictions regarding use of each recommended pesticide and procedures for its application clearly specified. Safety data sheets for each product should be included.
3. Descriptions of the application of fertilizers and provide guidelines for application rates that would encourage absorption of chemical fertilizers through plant growth. Runoff contamination could be minimized by use of slow-release fertilizers and an application schedule that takes seasonal runoff patterns and the course irrigation schedule into consideration.
4. Identification of soluble, fast-leaching products that should be avoided.
5. Preparation of agricultural chemical storage plan requiring that the golf course operator store agricultural chemicals only in properly secured structures with spill containment features that conform with hazardous materials storage requirements (this is a legal requirement under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)).
6. Provisions for alternative nonchemical or advanced pest control procedures under development to supplement application of agricultural chemicals.

Mitigation Measure 4.1-2b. Prior to application of pesticides or fertilizers, samples and measurements should be taken of plant and insect pests on the course, and a narrow spectrum of pesticides selected from those specified in the IPM Program to control the specific problems indicated by the test samples.

Mitigation Measure 4.1-2c. The operator of the proposed golf course should use only licensed pesticide applicators for the application of restricted use pesticides. This is a legal requirement under FIFRA and enforced by the County Agricultural Commissioner's Office.

Mitigation Measure 4.1-2d. The golf course superintendent should establish a policy to avoid application of agricultural chemicals during periods of heavy rainfall or excessive irrigation.

Mitigation Measure 4.1-2e. Pesticides and fertilizer applications should be coordinated with any periodic irrigation potentially needed to leach salts from the root zone of the turf due to a buildup of total dissolved solids from the application of reclaimed water.

Mitigation Measure 4.1-2f. The golf course should employ a grounds manager trained in modern techniques of greens care in order to minimize potential impacts on surface and groundwater from the application of fertilizers and pesticides.

Significance After Mitigation: No significant impacts are anticipated.

Impact 4.1-3: The proposed project and project alternatives could potentially transport urban runoff contaminants to downstream receiving waters. However, the project concept includes stormwater retention basins and little or no runoff is expected to leave the site. No significant impacts to surface water quality are anticipated.

Urban activities at the project site would result in the greater potential for fuels, solvents and/or other chemicals to be spilled, dumped, leaked or discarded, which could then ultimately seep or leak into the project's flood control and drainage system. As described in Section 4.11, runoff from the project and the alternatives to the project would be conveyed to infiltration basins

designed to the County's standards. No significant impacts to surface water quality are anticipated.

Mitigation Measures: None required

Significance After Mitigation: No significant impacts are anticipated.

Impact 4.1-4: Discharges from the proposed wastewater treatment plant could potentially degrade groundwater resources. However, the project would be subject to permit conditions from the RWQCB. Compliance with these conditions would reduce potential impacts to a less than significant level.

The project includes a wastewater treatment plant where disposal of treated effluent will be applied to the golf courses, landscaped areas, and parks through a reclaimed water irrigation system. Treated effluent that is not consumed by the plants would percolate to groundwater. As described in Section 4.11, the treatment plant would be operated under permit from the RWQCB. The quality of the effluent discharged would be required to meet the Basin Plan water quality objectives and, therefore, would not have a significant impact on water quality.

The plant would treat less than 0.5 million gallons per day (mgd) which is considered a small plant. Ponds would need to be constructed on site for storage of effluent during rainy periods and to equalize peak flows.

As stated previously, it is possible that a disruption at the plant could result in discharges exceeding designated standards, resulting in contamination of the underlying groundwater basin. This would be a violation of the permit conditions and the owner of the facility would be responsible for mitigation of the discharge under the supervision of the RWQCB. The plant would include design redundancy and backup systems as required by the RWQCB to lessen the potential for unplanned discharges.

Ownership and operation and maintenance responsibility of the wastewater conveyance, treatment, and disposal facilities has not been determined at this time. According to the County Building and Construction Ordinance (Section 19.20.224a), sewerage facilities shall be operated by a public agency unless the County Engineer or the RWQCB finds that a an existing public agency is unavailable and formation of a new agency is unreasonable. If such finding is made, a private entity shall be established with adequate resources to assume responsibility for waste discharges. The County may encourage the applicant to assign these responsibilities to the project's Homeowners Association or join a nearby Community Services District (CSD) such as the Nipomo CSD, or form a new CSD. The Homeowner's Association or the CSD would collect

fees from homeowners and may contract with a professional operation and maintenance firm. Final disposition of the facilities would be decided in negotiations between the developer and the County.

The alternatives to the project would include similar wastewater treatment plant discharges and would operate under the same permit conditions. The impacts from the alternatives would be the same as from the project.

Mitigation Measures: Assuming that the project will comply with the Waste Discharge Requirements issued by the RWQCB through the plant's operating permit, no additional mitigation measures are necessary.

Significance After Mitigation: No significant impacts are anticipated.

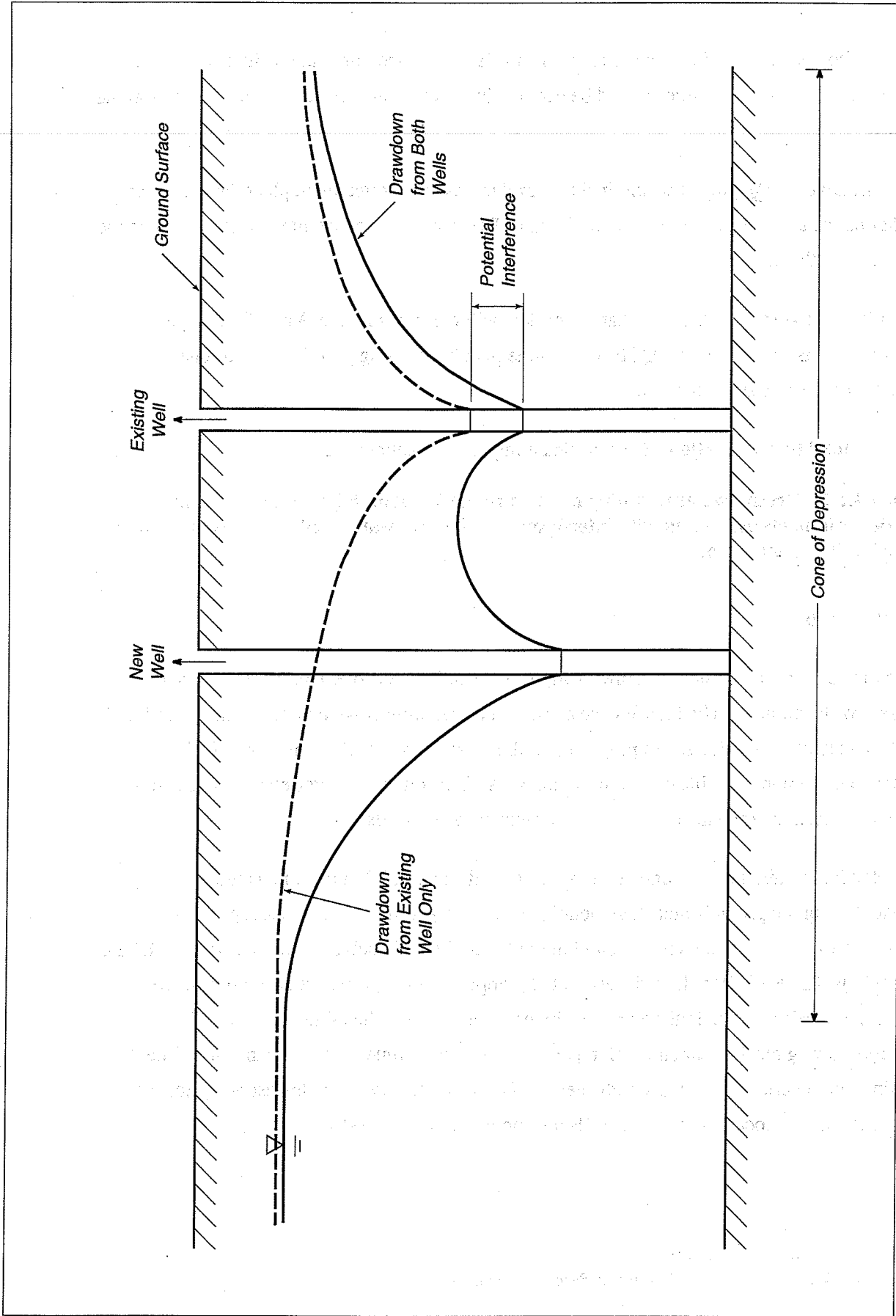
Impact 4.1-5: Groundwater pumping for the project is not anticipated to cause any significant impacts associated with interference with other water wells or the reduction of water levels in nearby ponds.

Project Impacts

When the cones of depression, or drawdown, of two nearby wells overlap, one well is said to *interfere* with another.²⁹ The interference causes increased drawdown and additional pumping lift which can result in additional pumping costs and, in some cases, wells going dry. Well interference is graphically illustrated in Figure 4.1-9. The amount of interference varies with pumping rates, aquifer characteristics, and distance between wells.

The potential interference that on-site pumpage would cause at off-site well locations was estimated using the groundwater flow model (a discussion of the how the model predicts groundwater and storage changes is found in the Groundwater Analysis section of Impact 4.1.1). As shown in Table 4.1-10 below, the estimated pumping for the proposed development would lower water levels in six neighboring wells by between 1 to less than 4 feet over baseline conditions during the 48-year simulation period. The chosen time for this "snapshot" of the 48-year simulation period is when groundwater levels and storage are at the lowest point, the worst-case scenario. The locations of these wells are shown in Figure 4.1-10.

²⁹ Todd, David Keith, Groundwater Hydrology, Second Edition, 1980.



SOURCE: Environmental Science Associates

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Figure 4.1-9
Well Interference Effects

TABLE 4.1-10: EFFECTS AT NEARBY WELLS FROM PROJECT PUMPING

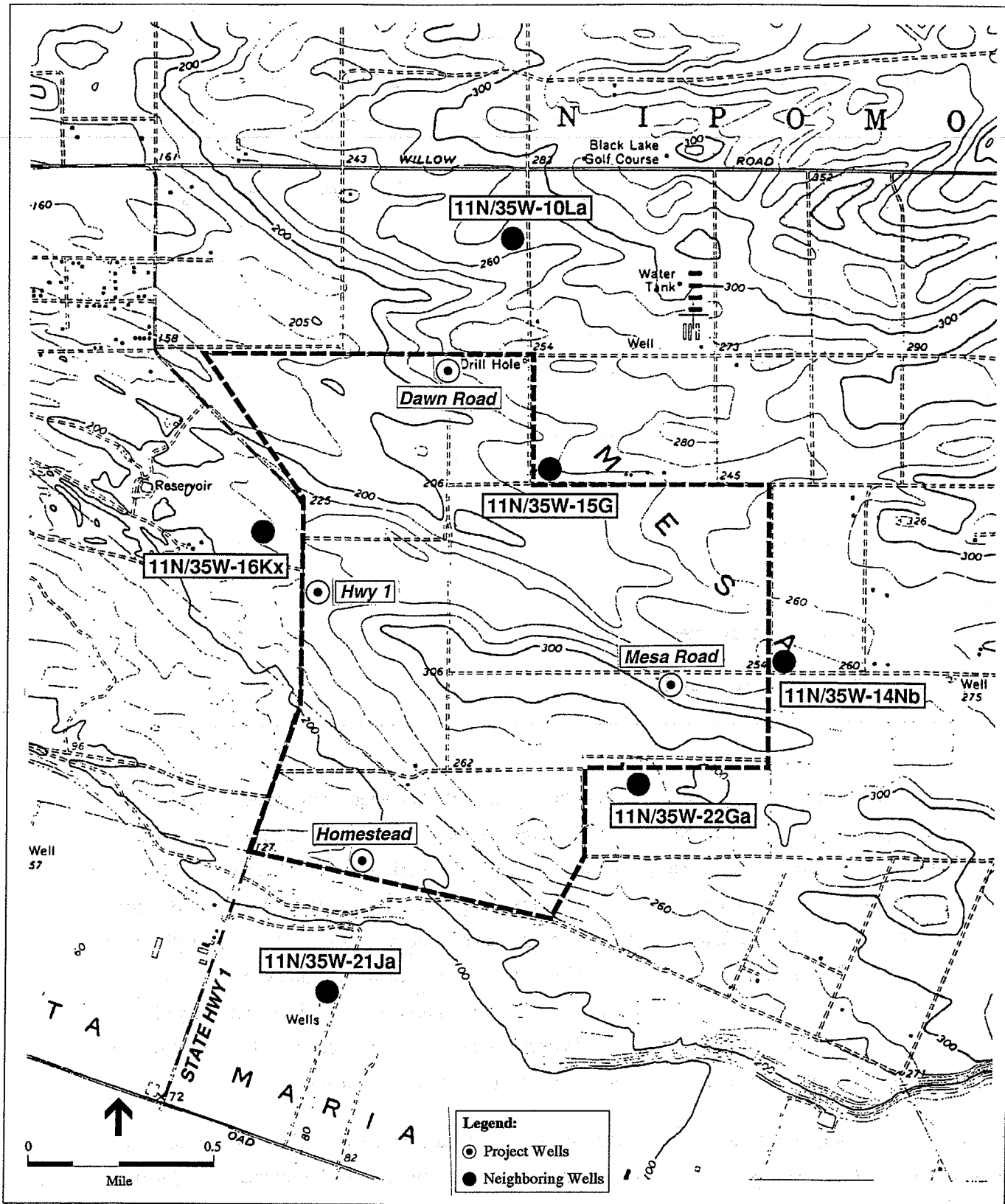
<u>Well Number</u>	<u>Baseline (ft*)</u>	<u>Woodlands Project (ft*)</u>	<u>Difference (ft)</u>
11N/35W-10La	10.83	7.98	-2.85
11N/35W-14Nb	23.21	19.40	-3.81
11N/35W-15G	17.62	14.43	-3.19
11N/35W-16Kx	13.2	10.81	-2.39
11N/35W-21Ja	18.12	17.29	-0.83
11N/35W-22Ga	21.84	19.47	-2.37

* Elevations are feet above mean sea level

Source: Cleath and Associates, 1997a

Production in neighboring wells should not be significantly impacted from project-related pumpage, based on the modeled water level elevations and the available data on the perforated intervals of the nearby wells. The perforated interval is the portion of the well casing that is perforated and allows groundwater to flow into the well. If water levels fall below the top of the perforated interval, the efficiency of the well pump can decline, and in some cases the well can be damaged. The top of the perforated interval for wells in the area are as high as 15 feet below sea level, well below the effects of the project pumping. Well pumpage should not cause any direct interference with agricultural operations. However, long term production from the project would add slightly to continued declines in regional water levels and water in storage.

Project pumping is not anticipated to significantly affect water levels in the Black Lake Canyon ponds. Since the ponds exist due to the perched water table underlying the canyon, drawdown in the deeper water bearing aquifers should not influence the water levels in the ponds.



SOURCE: USGS 7.5' Oceano Quadrangle and Cleath and Associates

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Figure 4.1-10
Locations of Project Wells
and Neighboring Wells

Santa Maria Valley Impacts

Well No. 11N/35W-21Ja in the above table is located in the Santa Maria Valley. The water level drawdown from the project during the model period with the lowest water levels at this well would be less than one foot. Other wells at further distances from the project would have even less interference. Wells in the Oso Flaco area of the Santa Maria Valley typically have more than 100 feet of static water above the perforations in the wells. The high permeability and storage capacity of the alluvial material in this area would further minimize impacts.

Alternatives

As with the project impacts, the impacts on interference at the six area wells from the project alternatives were estimated to be between 1 and less than 4 feet. There is no significant difference in the water level drops between the alternatives.

Mitigation Measures: None required.

Significance After Mitigation: No significant impacts are anticipated.

Impact 4.1-6: The project, in conjunction with other nearby projects, will increase groundwater withdrawals and, over the long term, may have significant cumulative impacts to groundwater levels.

As described in Chapter 3.0, there are a number of proposed projects in the project vicinity that could have cumulative impacts on water resources with the project. The list of approved or pending cumulative projects shown in Table 3-2 would add an additional 676 homes to the area that are within the basin. The most significant project on this list is the Cypress Ridge development, an approved project with a 27-hole golf course and 386 homes. There are also three greenhouse projects on the list that would consume water. The additional consumptive use of all of these projects is estimated to be 627 afy. In combination with the Woodlands project, the cumulative consumptive use for all reasonably foreseen projects would be 1,457 afy.

Water level interference in area wells due to cumulative projects would be greater in some areas than that due individually to the Woodlands project. The area of greatest susceptibility to cumulative water level interference is between the Woodlands property, the Cypress Ridge development, and Black Lake golf course (Township 11N, Range 35 W, Sections 9 and 10). Cumulative water level interference in this area during the drought condition evaluated in the model is estimated to be between 4 and 5 feet and cumulative pumping during extended drought

periods could lower water levels to near the top of the perforations in some nearby wells³⁰. Although there would be sufficient water available in storage to continue pumping through the drought, it is possible that the cumulative drawdown could affect the operation of some wells in the area. Cleath and Associates reviewed the construction details of 16 wells in the area. Although most wells in this sample could continue to function, for some wells the pump horsepower may be inadequate to maintain the same production rate or the depth settings of the pump may be too high to adequately pump water under cumulative pumping and drought conditions. A complete survey of area wells and their construction details would be required to identify all of the wells in the area that are in operation and could be affected.

The cumulative pumping, however, is not anticipated to affect long term groundwater availability. As discussed previously, the groundwater basin cycles through periods of drought and periods of recovery. Wet-cycle recovery would be expected to continue and should not be affected by the cumulative pumping.

Affects on the Santa Maria Valley subarea and the Santa Maria River from cumulative pumping would be expected to be similar to the impacts described previously for the Woodlands project. About half of the cumulative consumptive use, or 730 afy, would flow from the Santa Maria Valley to the Nipomo Mesa³¹. As with the project impacts, cumulative impacts would not be expected as the groundwater conditions of the Valley are controlled to a much larger degree by agricultural pumping and releases from Twitchell Reservoir. Any cumulative project effects on the valley would be offset by the importation of State water by the City of Santa Maria.

Cumulative pumping would also not be anticipated to cause seawater intrusion. Water levels at beach observation wells are consistently over 5 feet above sea level and the existing pumping depression is over two miles from the ocean³². Based on the results of the groundwater model, the pumping depression would not become enlarged so as to reverse the hydraulic gradient and induce seawater intrusion.

Mitigation Measures:

Mitigation Measure 4.1-6a. To reduce consumptive use, prior to approval of discretionary development (e.g. recordation of the final map, Development Plan approval), or at such time that a comprehensive program is developed by the water supplier (whichever occurs first), the applicant shall participate in a toilet retrofit program that

³⁰ Cleath and Associates, 1997b.

³¹ Cleath and Associates, 1997b.

³² Cleath and Associates, 1997b.

would replace existing non-low-flow residential and commercial toilets at a 1:1 basis with new development. This retrofit program shall be limited to existing development on the Nipomo Mesa. Should it be proven to the county that there are insufficient fixtures available for this replacement program, a comparable water savings program may be substituted.

Mitigation Measure 4.1-6b. Prior to approval of the first discretionary development (e.g. recordation of the final map, Development Plan approval), the applicant shall develop a "master" water conservation education program for all future Specific Plan residents and commercial operators/employees, which must receive county approval before implementation. Such a program shall be developed by appropriate experts (e.g. for landscape watering, use a landscape architect or contractor familiar with the area's vegetation, who would prepare: (1) guidelines for residents covering water conservation techniques; and (2) lists of ornamental drought-tolerant plants that would do well in sandy soils). The program shall address all consumer-controlled water uses (e.g. landscaping, washing, showers, etc.). Prior to approval of subsequent development, the applicant shall incorporate, or modify as needed, this program into the specific development. Any modifications must receive county approval prior to approving subsequent development.

Mitigation Measure 4.1-6c. Prior to approval of discretionary development (e.g. prior to recordation of the final map, Development Plan approval), the applicant shall show how the initial landscaping will have low-water requirements. As applicable, at a minimum the following shall be used: (1) all residential irrigation shall employ low water use techniques (e.g., drip irrigation); (2) residential landscaping shall not exceed 50 percent lawn surface with remaining landscaping being drought-tolerant and low water requirements; (3) golf course turf shall be of varieties that have reduced water requirements; (4) all other golf course landscaping shall be drought-tolerant, have low water requirements, utilize drip-irrigation where possible, and be composed of at least 50 percent natives.

Mitigation Measure 4.1-6d. Prior to approval of discretionary development (e.g. prior to recordation of the final map, Development Plan approval), the applicant shall conduct a complete survey of wells that could be affected by cumulative water level interference. The applicant shall then implement means to allow for continued production of these wells under drought conditions to the satisfaction of the County Engineer.

Mitigation Measure 4.1-6e: As a part of the project's CC&Rs' no water softeners shall be allowed.

Significance After Mitigation. No significant impacts are anticipated.

4.2 TRAFFIC AND CIRCULATION

4.2.1 ENVIRONMENTAL SETTING

4.2.1.1 Existing Conditions

4.2.1.1.1 Street Network

The circulation system adjacent to the project site is comprised of regional highways, arterials, collector and local streets. The principal components of this street network are discussed in the following text. Figure 4.2-1 illustrates the existing street network within the project study-area.

U.S. Highway 101 is a multi-lane highway which serves as the principal inter-city route between Los Angeles and San Francisco, and provides access to many of the communities within San Luis Obispo and Santa Barbara Counties. Within the study-area, Highway 101 contains four travel lanes. Access to the Nipomo area via Highway 101 is currently provided at Tefft Street with a full interchange, which has recently been improved.

Tefft Street is a primary arterial roadway within the Nipomo area. Tefft Street extends from Dana Foothill Road at the northeast to Las Flores Drive at the southwest. The roadway varies in width from two- to four-lanes. The section of Tefft Street extending from Highway 101 to just south of Orchard Avenue is four-lanes wide with a left-turn median and bike lanes. The posted speed limit along this roadway section ranges between 35 and 45 miles per hour. This four-lane section serves small businesses and residential uses. A two-lane section with a center left-turn median and bike lanes exists from just south of Orchard Avenue to south of Verbena Street. The roadway becomes a 20 foot, two-lane undivided roadway without median or bike lanes from Verbena Street to Las Flores Drive. The posted speed limit along the two-lane section of Tefft Street is 45 miles per hour. The two-lane section serves abutting residential uses. The intersections of Tefft Street with Pomeroy Road, Orchard Avenue, Mary Avenue, and U.S. 101 ramps are controlled by 3-stage traffic signals. The remaining Tefft Street intersections are controlled by side-street stop signs.

Willow Road is an undivided, arterial roadway that begins at Pomeroy Road on the east and extends west to Guadalupe Road. At Guadalupe Road, Willow Road merges with and becomes

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MEMORANDUM FOR THE DIRECTOR

DATE: 10/10/68

TO: DIRECTOR

FROM: SAC, NEW YORK

RE: [Illegible]

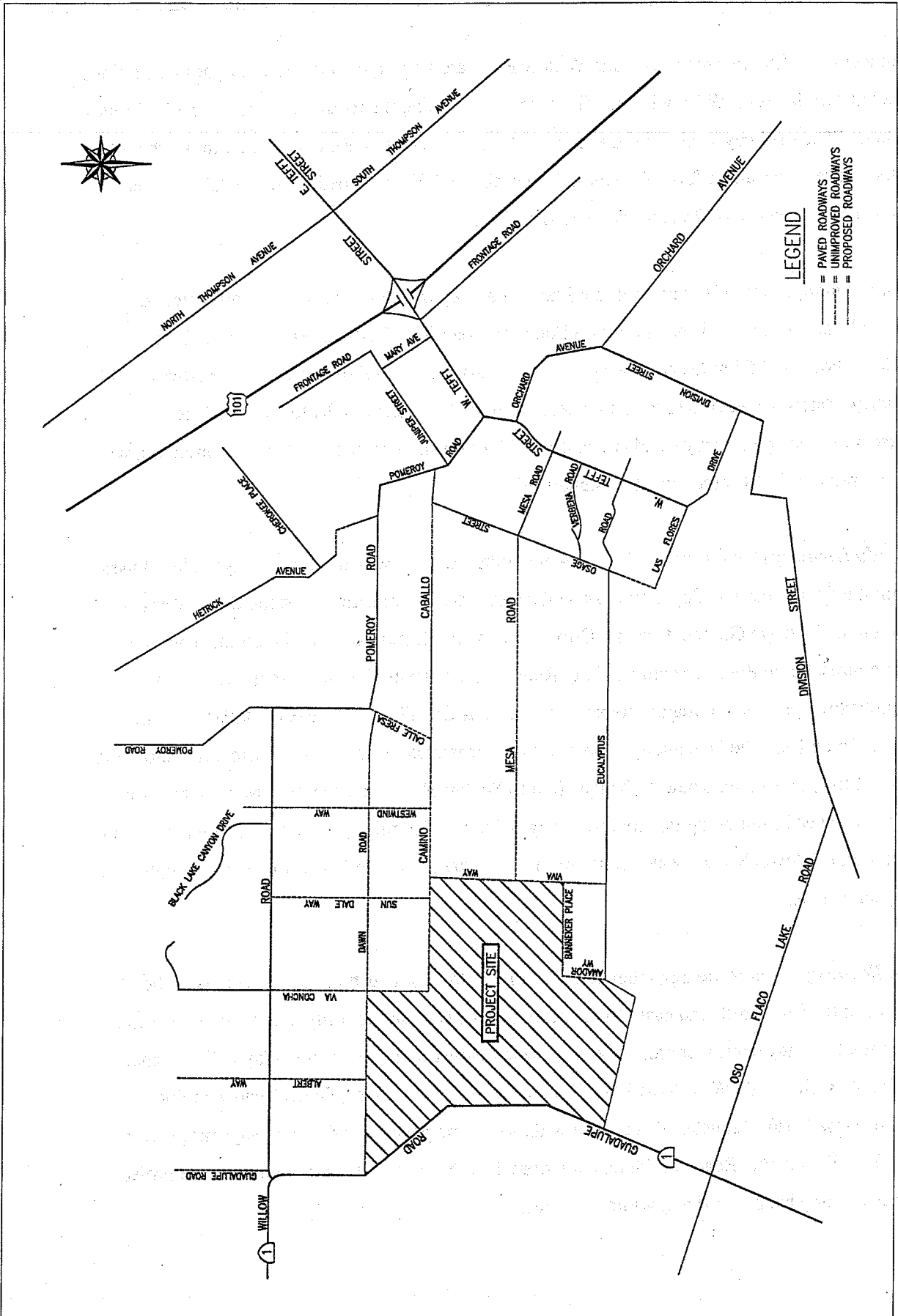
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Woodlands Specific Plan / 950250

Figure 4.2-1
Existing Street Network

SOURCE: Associated Transportation Engineers

State Route 1. The intersections along Willow Road are stop-sign controlled. Major intersections have left-turn lanes on Willow Road. The speed limits along the roadway range from 45-55 miles per hour. The roadway section from Pomeroy Road to Guadalupe Road is 40 feet in width with 10 foot travel lanes and 5 foot bike lanes. The section of Willow Road from Guadalupe Road west is approximately 20-25 feet wide without bike lanes.

Pomeroy Road is a two-lane arterial, undivided roadway with bike lanes from Tefft Street to Willow Road. The posted speed limit on Pomeroy Road from Tefft Street to Hetrick Avenue is 45 miles per hour, and 55 miles per hour from Hetrick Avenue to Willow Road. The roadway width is approximately 40 feet along the entire section from Tefft Street to Willow Road. The intersections along Pomeroy Road are controlled by stop signs on the side street approaches, with the exception of Tefft Street which is signalized.

Cabrillo Highway (State Route 1) is a two-lane State highway which serves the agricultural uses within the Santa Maria Valley region, as well as provides a connection between Santa Maria to the south and Arroyo Grande, Oceano, Grover Beach and Pismo Beach to the north. The side street approaches at the intersections along Route 1 are controlled by stop signs, with left-turn channelization provided at major intersections, such as Oso Flaco Lake Road. Adjacent to the project, Route 1 is called Guadalupe Road and is approximately 20 feet wide with a dirt shoulder. North of the project site, Route 1 changes first to Willow Road then becomes Mesa View Drive. The posted speed limit along this roadway ranges from 45-55 miles per hour. The intersection of Route 1 and Halcyon Road, located north of the study area, is controlled with a flashing light and 4-way stop signs.

Local Roadways: There are a number of collector and local streets that provide access to the project site from the north and east. Many of these roadways are not fully improved at this time and do not have any control at cross streets. These roadways include Albert Way, Via Concha, Amador Way, Sun Dale Way, Viva Way, Westwind Way, Calle Fresa, Dawn Road, Camino Caballo, Mesa Road, Banneker Place. The widths of these paved and dirt roadways range from 15-25 feet. Eucalyptus Road, which extends from Tefft Street to the southern area of the project site, has recently been paved to a width of 24 feet.

4.2.1.1.2 Roadway Operations

In the following analysis, Average Daily Traffic (ADT) volumes are discussed. Existing ADT volumes for the street segments in the study area were obtained from the County, traffic counts, and Caltrans.¹ Figure 4.2-2 shows the existing ADT volumes on roadway segments throughout the study-area.

In rating a roadway's operating condition with existing or future traffic volumes, "Levels of Service" (LOS) A through F are used, with LOS A indicating very good operation and LOS F indicating poor operation. The County's current traffic impact policy considers LOS C acceptable on all rural roadways.

The operational characteristics of the roadways within the study area were analyzed based on the County's roadway classification system and their corresponding design capacities. This analysis methodology examines average daily traffic volumes and determines volume-to-capacity ratios based on functional roadway classification and corresponding design capacity. A summary of the roadway design capacities is contained in the Technical Appendix. These design capacities were developed using data presented in several Environmental Impact Reports recently completed within the County.

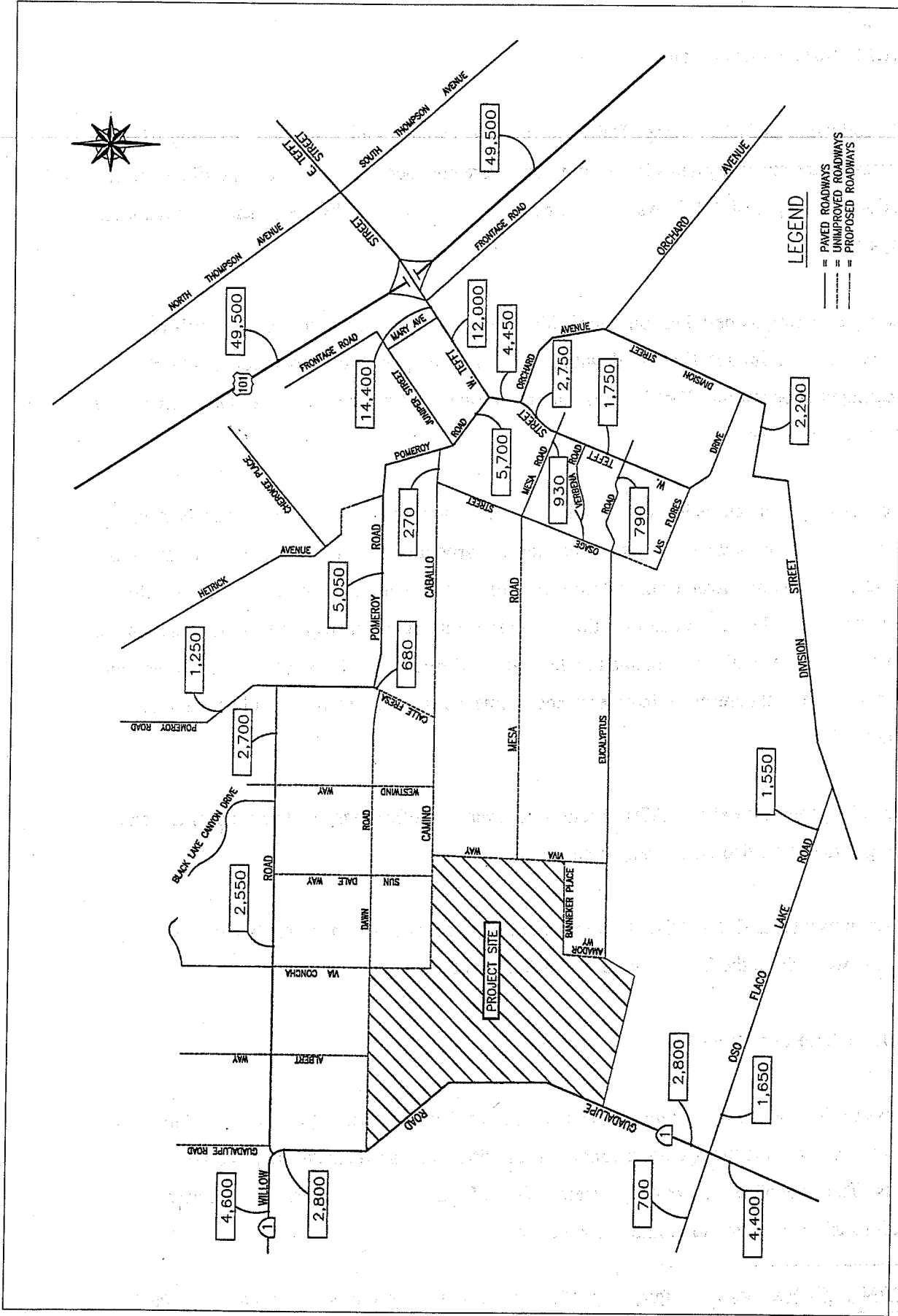
Table 4.2-1 shows the existing ADT volumes, roadway classifications, roadway capacities, and existing levels of service along major roadway sections.

The data presented in Table 4.2-1 show that all of the roadways within the study-area are operating well within the LOS A range with existing volumes.

4.2.1.1.3 Intersection Operations

Because traffic flow on street networks is most restricted at intersections, a detailed traffic impact analysis must examine the operating conditions of critical intersections during peak travel periods. The level of service grading system (LOS A-F) discussed previously for roadway operations is also used in rating intersection operations.

¹ 1994 Traffic Volumes on California State Highway, California Department of Transportation, May 1995; Traffic Volumes, County of San Luis Obispo Engineering Department, May 1995.



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Figure 4.2-2
 Existing ADT Volumes

SOURCE: Associated Transportation Engineers

TABLE 4.2-1: EXISTING ROADWAY LEVELS OF SERVICE

Roadway Segment	Roadway Classification	ADT Capacity	Existing ADT	Existing LOS
U.S. Highway 101	4-lane Freeway	80,000	43,500	LOS A
State Route 1	2-lane Arterial	18,000	4,700	LOS A
Tefft Street	4-lane Arterial	35,900	14,400	LOS A
Tefft Street	2-lane Arterial	18,000	4,450	LOS A
Willow Road	2-lane Arterial	18,000	2,700	LOS A
Pomeroy Road	2-lane Arterial	18,000	5,700	LOS A
Mesa Road	2-lane Collector	10,600	930	LOS A
Camino Caballo	2-lane Collector	10,600	270	LOS A
Eucalyptus Road	2-lane Local	10,600	700	LOS A

SOURCE: Associated Transportation Engineers, Inc.

Existing peak hour traffic counts were collected for the study-area intersections by ATE in January 1996, for this study. The existing P.M. peak hour volumes are shown on Figure C-1 contained in Appendix C. Level of service for the unsignalized study-area intersections were calculated based on vehicle delays measured in the field. The delay ranges contained in the Highway Capacity Manual² for stop sign controlled intersections were used to assign a LOS to the observed vehicle delays. Existing LOS for the four signalized study-area intersections were calculated using signalized methodology contained in the Highway Capacity Manual. Table 4.2-2 lists the type of control and existing peak hour LOS for each of the study-area intersections.

The data presented in Table 4.2-2 show that all of the study-area intersections currently operate at LOS A or LOS B during the P.M. peak hour period, which are considered good levels of service.

²

Highway Capacity Manual, Transportation Research Special Report 209, National Research Council, Third Edition, Updated 1994.

TABLE 4.2-2: INTERSECTION LEVELS OF SERVICE

Intersection	Control Type	Delay / LOS
Guadalupe Rd. (SR 1)/Oso Flaco Lake Rd.	1-Way STOP	3.0 sec./A
Guadalupe Rd. (SR 1)/Willow Rd.	1-Way STOP	3.5 sec./A
Via Concha/Willow Rd.	2-Way STOP	3.5 sec./A
Pomeroy Rd./Willow Rd.	1-Way STOP	3.1 sec./A
Pomeroy Rd./Calle Fresa	1-Way STOP	3.1 sec./A
Tefft St./Pomeroy Rd.	Signal	9.0 sec./B
Tefft St./Orchard Ave.	Signal	9.0 sec./B
Tefft St./Mesa Rd.	2-Way STOP	6.0 sec./B
Tefft St./Eucalyptus Rd.	2-Way STOP	3.9 sec./A
Tefft St./U.S. 101 SB Off-Ramp-Frontage Rd	Signal	13.9 sec./B
Tefft St./U.S. 101 NB Ramps	Signal	8.5 sec./B

SOURCE: Associated Transportation Engineers, Inc.

4.2.2 ENVIRONMENTAL IMPACTS

4.2.2.1 Methodology

The methodology used to analyze the proposed project assumes that the site would be developed in two stages. The first stage is anticipated for completion by the year 2005, and the second stage would be completed by 2010. The traffic impact analysis therefore examines 2005 conditions with Stage I and 2010 conditions for full buildout. A discussion of General Plan buildout conditions (Year 2060) in the Nipomo area with the revised zoning proposed for the Woodlands site is also provided.

The trip generation analysis for the project considered the mixed-use nature of the project. Analysis of the project assumes internal trip capture based on the mixed of uses proposed on the site. A significant amount of internal home-work, home-shopping, home-school and work-shopping trips are anticipated to occur within the project boundaries.

4.2.2.2 Planned and Recently Completed Improvements

4.2.2.2.1 Project Related Improvements

The project entrance proposed on State Route 1 (Main Entry) would function as a primary access to the project site in the initial development stages. Improvements for turning lanes are necessary on State Route 1 within the existing Right-of-Way (ROW). The entry would be marked with a monument, visible from both directions.

The public collector streets would function as rural main streets that serve all the land use areas of the Woodlands. There are three types of collector streets distinguished by their location and their respective rights-of-way. The applicant is proposing that portions of the collector streets located near an entry into the project would have landscaped medians. **While the collector roads proposed within the Village area suggest angled parking on both sides, design revisions may be appropriate to provide for safe and desirable bicycle travel. The final design of these roadways shall be subject to review and approval by the County Engineering Department for traffic safety and circulation at the time they are specifically proposed.** ~~The collectors within the village commercial area would have angled parking on both sides.~~ Other collector roads would have two travel lanes, two emergency parking lanes with no median, and a pedestrian walkway on one side. The emergency parking lanes would function as bike lanes. The ultimate design of the public roadways to be constructed on-site will need to be reviewed and approved by the County.

Via Concha is an existing County road designated as a future collector that would extend to link Willow Road to the north with State Route 1 to the southwest. A landscaped median is planned at the entrance on Via Concha. A second collector would form a link from Via Concha to Eucalyptus Road in a southwesterly direction. A third collector would provide direct access into the village center from Mesa Road, running in an east/west direction. Mesa Road would also have a landscaped median at its entry into the project site. As noted above, the ultimate design of these public roadways will need to be reviewed and approved by the County.

The on-site construction and paving of the primary collector streets - essentially Via Concha and Eucalyptus for the first stage of development, and Mesa for buildout - would commence as soon as is feasible. Off-site street improvements to Via Concha and Dawn Road would be coordinated

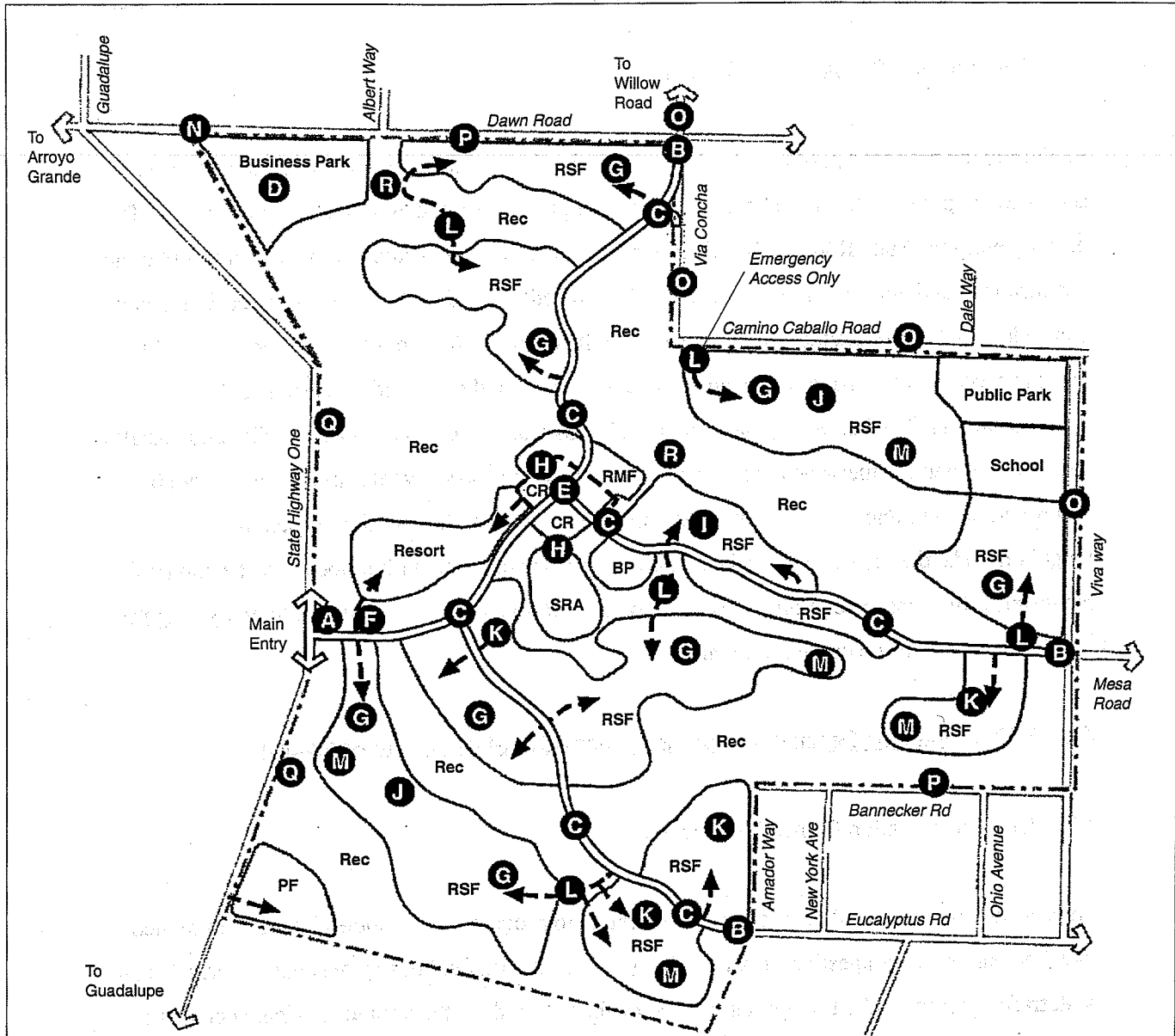
to coincide with the development of Stage I. Off-site improvements to County and perimeter roads servicing the eastern portion of the development would be dependent upon the progress of residential development in this area.

The local streets will serve the residential neighborhoods of the planning area, resort hotel and the secondary streets in the village. There are several local street types depending on their location in the plan and whether the street interfaces with the open space or residential lots. The street sections also vary based on the size of the adjacent residential lots. If these streets are slated for public ownership, County Improvement Standards would be used to replace the proposed standards. Figure 4.2-3 shows the planned project street improvements.

4.2.2.2.2 Regional Improvements

The County of San Luis Obispo has initiated the environmental review/design process on a project which would construct a future extension of Willow Road and provide a new interchange at Willow Road and Highway 101. The future extension and interchange would provide a second principal highway access point to/from the Nipomo area. The improvement project includes extending Willow Road approximately 2.5 miles east from Pomeroy Road to Thompson Avenue as a two-lane arterial with bike lanes, as well as construction of a full access interchange at U.S. Highway 101. The future Willow Road extension and freeway interchange would provide a primary access connection between the Woodlands site and Highway 101.

This study for the Woodlands site assumes that by 2005, Willow Road will be extended to Highway 101 with a half-diamond interchange providing southbound on/off ramps; and that by 2010-2011 (about the time of Woodlands buildout) a full-diamond interchange will be constructed. The analysis of project impacts for Stage 1 assumes Year 2005 conditions with the Willow Road extension and half-diamond interchange, as well as a scenario assuming no extension or partial interchange. The analysis of project impacts for full buildout assumes Year 2010 conditions with the Willow Road extension and a full-diamond interchange, as well as a scenario assuming the Willow Road extension and the half-diamond interchange option.



Legend:

- A. Collector Street-78' R.O.W.
(With Pedestrian Path at One Side and Center Median)
- B. Collector at Secondary Entry-74' R.O.W.
- C. Local Street-68' R.O.W. (Without Median, with Pedestrian Path at One Side)
- D. Business Park Collector-66' R.O.W.
- E. Village Center"Main Street"-84' R.O.W.
- F. Local Street at Resort Intersection-72' R.O.W.
(With Median Type Intersection)
- G. Local Street-60' R.O.W. (5-9,000 SF Lots)
- H. Local Street at Village-64' R.O.W.
- I. Local Street at Village Residential area-62' R.O.W.
- J. Local Street-56' R.O.W. (5-10,000 SF Lots with Park/Golf Course at One Side)
- K. Local Street-56' R.O.W. (10,000 SF to One Acre Lots)
- L. Local Street-48' R.O.W. (At Golf Course and Trail)
- M. Local Street Cul-de-Sac w/Planting Island (4-10,000 SF Lots)
- N. Dawn Road (Local)-60' R.O.W.
- O. Public Collector-60' R.O.W.
- P. Public Local Streets on Property Perimeter
- Q. 200' Buffer at Highway One
- R. Detached Public Class I Bike/Pedestrian Path



SOURCE: The Woodlands Specific Plan

Woodlands Specific Plan / 950250 ■

Figure 4.2-3
Road Section Key

4.2.2.2.3 Proposed Site Access and Circulation

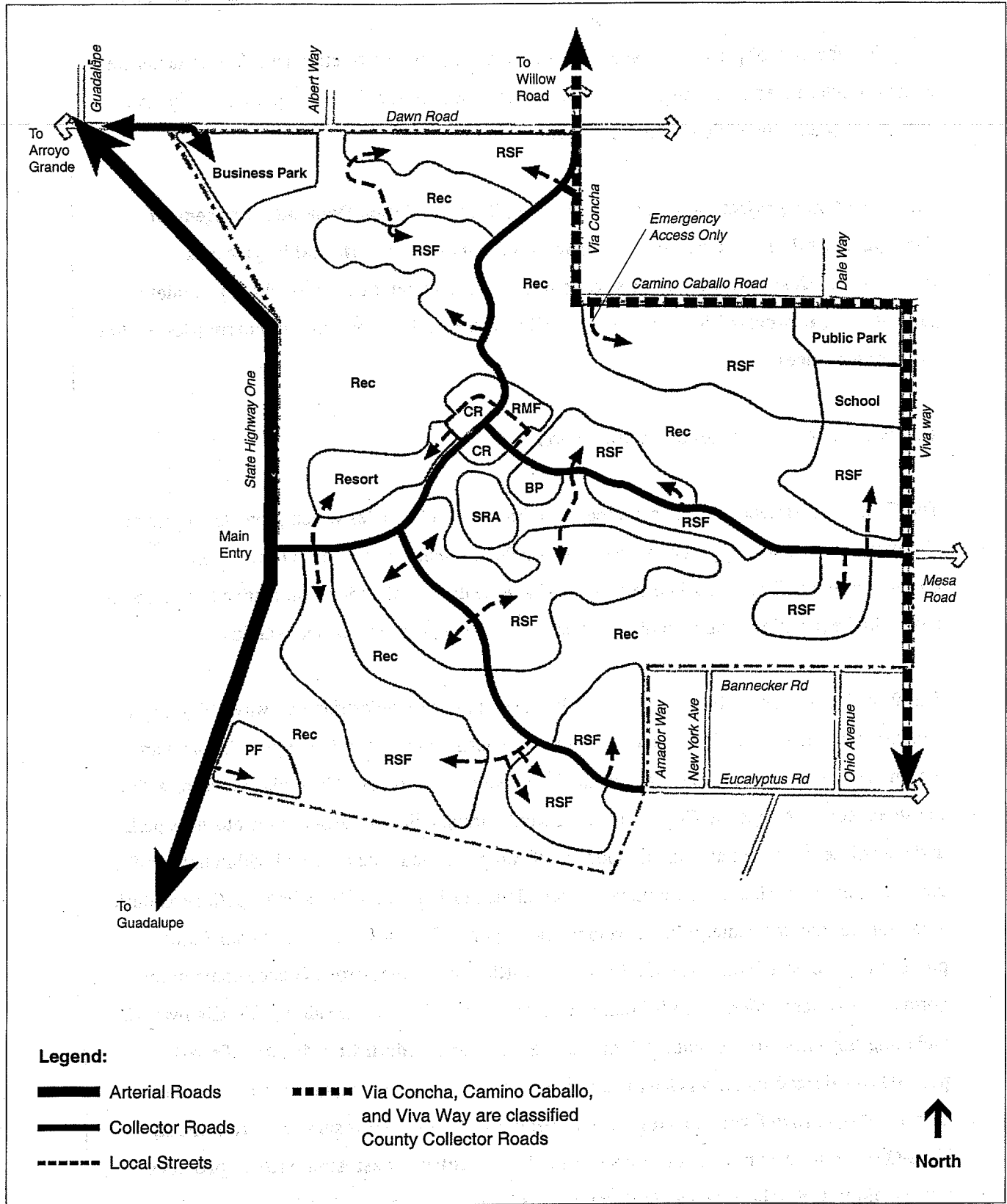
Excluding the proposed public park, elementary school site and waste water treatment facility, access to the project site would be provided by one primary entry and four secondary entries. The primary entry via State Route 1 would require widening on State Route 1 to provide a southbound left-turn lane and northbound right-turn lane into Woodlands. This location would be STOP sign controlled on the Woodlands exit approach. The State Route 1/Dawn Road intersection would provide access to the business park entry on Dawn Road. Other secondary entries to the site would be at Via Concha, Mesa Road, and Eucalyptus Road. Access proposed on Camino Caballo would be limited to emergency access only. All secondary entries would need to be STOP sign controlled on the minor street approaches. Internal streets which serve the residential neighborhoods, the resort hotel, and commercial village would be built to local street standards. However, if they are to be publicly owned, County Improvement Standards would apply. Figure 4.2-4 illustrates the site circulation plan.

4.2.2.3 Transportation Demand Management/Alternative Modes of Transportation

4.2.2.3.1 Transportation Demand Management

Transportation Demand Management (TDM) refers to programs and policies intended to reduce travel demands and congestion on the roadway system through various means, particularly during peak traffic periods. TDM programs involve methods to reduce the number of single occupant vehicle trips made in the planning area by promoting alternative modes of travel such as ridesharing, transit, and bicycling. TDM policies can be used to reduce or delay the need for more expensive conventional street and highway improvements, such as adding traffic lanes or constructing new roads. TDM strategies emphasize productivity, efficiency, and modification of individual transportation choices. They are typically designed to promote alternative mode choices both voluntarily and through trip reduction ordinances.

Land use planning strategies can also be implemented to reduce dependence on the automobile. For instance, residential communities, commercial centers, and employment bases can be located and designed in a way that reduces the need to drive. Land use policies and standards can also be developed which require developments to mitigate their effects on the circulation system. TDM measures are most frequently directed at commute trips made by employees because this group



SOURCE: The Woodlands Specific Plan

Woodlands Specific Plan Constraints Analysis / 950250 ■

Figure 4.2-4
Circulation Classification Map

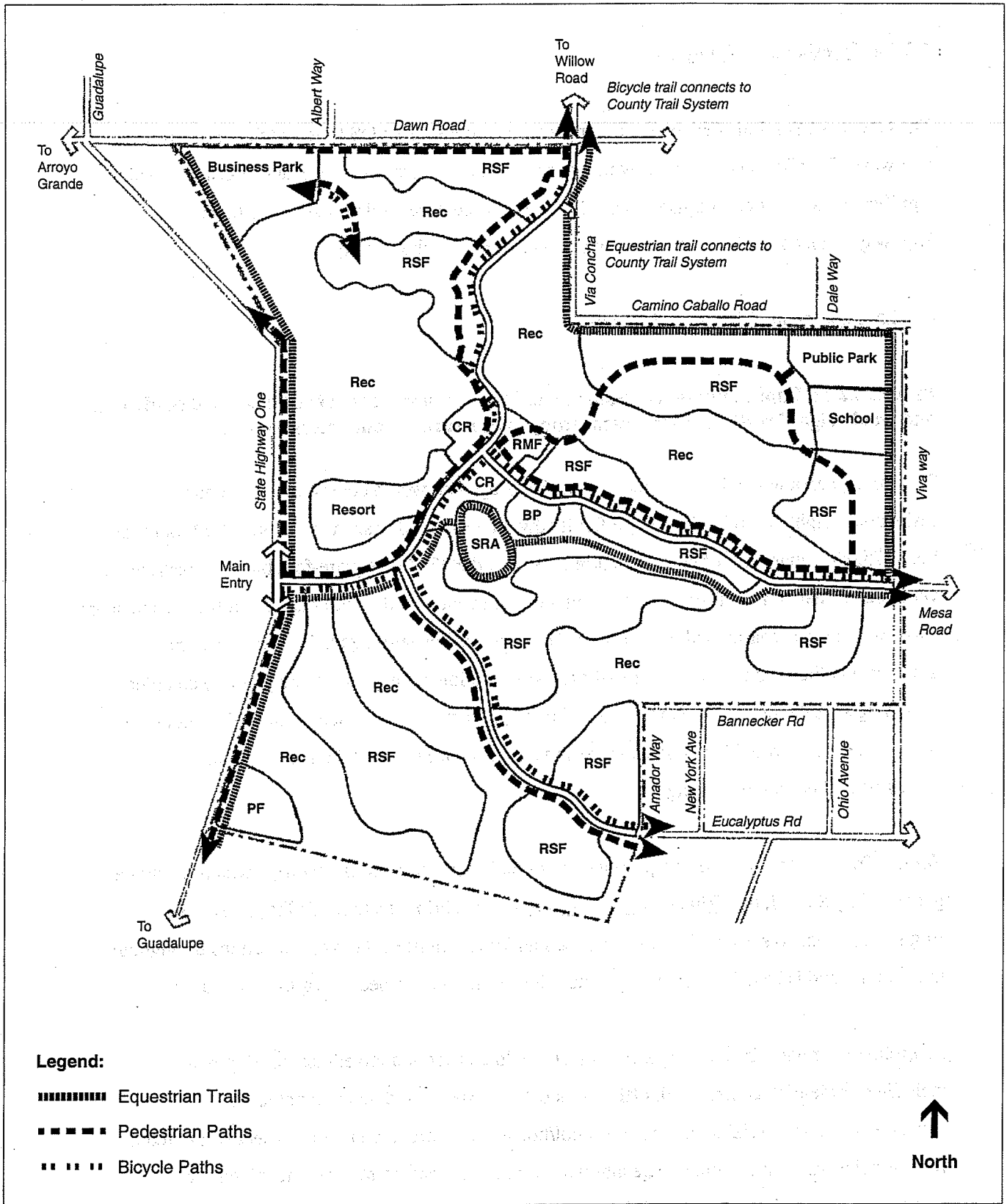
comprises the bulk of peak hour travel. Because roadway and intersection lane requirements are generally determined based on peak hour design volumes, most effective opportunities for trip reductions occur among these commute trips.

The Woodlands project incorporates numerous Transportation Demand Management concepts in its design. These include provision of an extensive internal bicycle and pedestrian path system within the site, as well as a mixed land use plan which provides a jobs-housing balance within the area, as well as retail and recreational opportunities for the on-site residences.

4.2.2.3.2 Alternative Modes of Transportation

The County's CAP recommends a number of ordinances and policies which promote the use of alternative modes of transportation instead of single occupancy vehicles (SOVs). These ordinances and policies would be expected to increase the use of various alternative transportation modes in the planning area, including transit use, carpooling, bicycling and walking.

The Woodlands Specific Plan provides for the development of pedestrian pathways, bicycle paths, golf cart paths, and equestrian trails. Most of the pedestrian pathways in the planning area are within the street ROW, planned as separate 4-foot wide paved paths. Most bike paths are within the street ROW. A separate Class I bike path would provide linkage between the business park and the adjacent residential neighborhood. Golf cart paths would be provided within both golf courses. The equestrian trails would be located along portions of the Woodlands peripheral buffer areas and through the center of the development. Figure 4.2-5 shows the public paths/trails proposed by the Woodlands Specific Plan. Dial-a-Ride serves the Arroyo Grande community north of the Nipomo Mesa. South County Area Transit provides service along U.S. Highway 101 including stops in Arroyo Grande, Nipomo and Santa Maria. **South County Area Transit provides local fixed-route service in Arroyo Grande, Grover Beach, Oceano and Pismo Beach. The Arroyo Grande community north of the Mesa Area is served by Runabout, Ride-On and other similar county-wide providers. Central Coast Area Transit provides service along U.S. Highway 101 including stops in Arroyo Grande, Nipomo and Santa Maria.** ~~Future coordination with the public transit provider may result in expansion of route system to serve Woodlands.~~



Woodlands Specific Plan / 950250 ■
 SOURCE: The Woodlands Specific Plan
Figure 4.2-5
 Public Paths / Trail Map

4.2.2.4 Thresholds of Significance

The County of San Luis Obispo traffic impact policy considers LOS C acceptable on all rural roadways. Traffic related impacts which raise a street or intersection LOS above C are considered significant and must be mitigated. LOS D is considered acceptable for state facilities (e.g. U.S. Highway 101), and unincorporated urbanized areas within the County.

4.2.2.5 Impacts and Mitigation Measures

Impact 4.2-1: Implementation of Stage I would result in increased traffic on local roadways, and would significantly impact several study area roadways and intersections.

The western area would be developed in the first stage and would consist of a golf course, residential neighborhoods (758 single-family dwellings and 80 apartment units), a 500-room resort hotel, 75,000 square feet of commercial/retail space, the 335,000 square-foot business park, and a wastewater treatment facility. The remaining eastern area would be built as part of the second stage. Two circulation scenarios will be analyzed for the Stage I development. The first scenario assumes that the proposed Willow Road extension and interchange would be partially completed, providing southbound on- and off-ramps. This improvement is included in the 2005 model. A second scenario is provided which analyzes the impacts of Stage I without completion of this extension and partial interchange.

Stage I Trip Generation. For the purpose of estimating the number of new trips which would be generated by Stage I, the *Trip Generation Manual*, 5th Edition, Institute of Transportation Engineers, 1995, was used. This manual is a standard reference used by jurisdictions throughout the country, and is based on actual trip generation studies performed for various land uses.

As discussed previously, the proposed project would consist of a mixed-use development including residential, commercial, office, school, open space, and recreational uses. The jobs/housing, commercial/housing and school/housing mix provided by the project would reduce vehicle miles traveled and encourage alternative modes of transportation. The mixed uses proposed by the project would result in a considerable amount of internal trips within the project boundaries (home-work, home-shopping, home-school and work-shopping trips). In order to estimate internal versus external trip interactions, the National Cooperative Highway Research Program Report No. 255, "Highway Traffic Data for Urbanized Area Project Planning and

Design" was used. This document provides information on the types of trips which occur at various developments and how far they are likely to travel. The trip generation analysis found that, based on nationally accepted travel demand statistics, approximately 42 percent of the trips generated by the project would be internal trips and the remaining 58 percent would be external to the site for Stage I.

Table 4.2-3 shows the trip generation for Stage I. A more detailed trip generation table is contained in the Technical Appendix. The data presented in Table 4.2-3 indicate that Stage I would generate 22,256 average daily trip ends and 2,149 P.M. peak hour trip ends. For trip generation purposes, total trip ends for a land use represent the sum of all trips entering and all trips exiting a site during a designated time period.

Stage I Trip Distribution. The trips generated by Stage I were distributed onto the study-area street network based on the percentages shown on Figure 4.2-6 and listed in Table 4.2-4. This distribution methodology was developed based on data generated from the South County Traffic Model as well as existing traffic flows observed in the study area. Stage I trip distribution was completed with and without the Willow Road extension to Highway 101 with a half-diamond interchange (southbound freeway access). Once distributed, the trips were assigned to the study-area street network.

The distribution percentages shown in Figure 4.2-6 and Table 4.2-4 are regional in nature, and are not affected by the Willow Road extension. For instance, 33 percent of project traffic is expected to be oriented to U.S. Highway 101 to the north – with or without the Willow Road extension. The travel route of traffic would be changed if the extension were completed: traffic generated by the proposed project would use Pomeroy Road to the Los Berros Road interchange to access Highway 101 without completion of the extension; with the extension, project traffic would use the more direct route provided by the extension. The overall distribution of 33 percent to the north would remain the same under both scenarios.

Stage I Impacts - With Willow Road Extension

The following section reviews the impacts of Stage I of the project assuming that the Willow Road extension and partial interchange at U.S. Highway 101 are constructed by the Year 2005.

TABLE 4.2-3: STAGE I TRIP GENERATION

Land Use	Size	Average Daily Trip Ends			P.M. Peak Hour Trip Ends		
		Internal	External	Total	Internal	External	Total
Commercial(a)	75,000 SF	3,646	2,258	5,904	337	209	546
Business Park	335,000 SF	1,162	3,485	4,646	121	362	482
Resort Hotel	500 Rooms	909	2,726	3,635	78	233	310
Golf Course	18 Holes	339	339	677	30	30	60
Park	12 Acres	216	24	240	22	2	24
Single Family Dwellings	758 Units	2,781	3,880	6,663	266	407	675
Apartments	80 Units	205	286	491	20	32	52
Total		9,258	12,998	22,256	874	1,275	2,149

(a) Internal commercial trips include 15% pass-by per ITE Trip Generation Report.

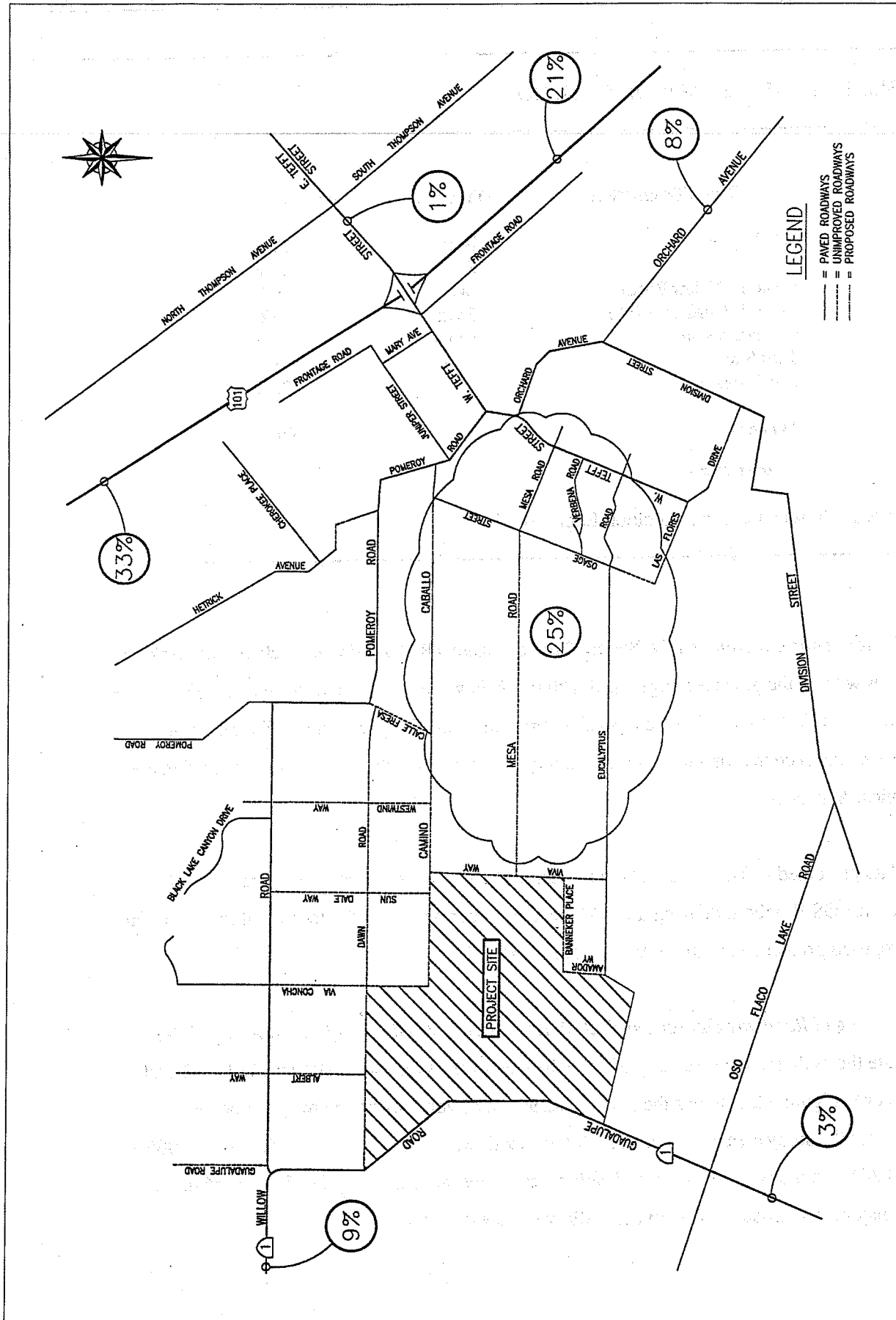
SOURCE: Associated Transportation Engineers, Inc.

2005 Background Development With Willow Road Extension (Without Project). The 2005 baseline traffic forecasts for the study area were developed using the South County Traffic Model

for the classified major street system. The future land uses assumed in the project study area were forecast in accordance with the *San Luis Obispo County General Plan*. The traffic from the future development was assigned to the future street network using the South County Traffic Model. Project-generated traffic was not included in the 2005 baseline traffic volumes. As noted above, the first Year 2005 scenario assumes that the proposed Willow Road extension and interchange would be partially completed, providing southbound on- and off-ramps at U.S. Highway 101.

2005 Roadway Operations With Willow Road Extension (Without Project). Table 4.2-5 shows the 2005 average daily traffic volumes, roadway classifications, roadway capacities, and 2005 levels of service along major roadway sections without the proposed project and with the Willow Road extension. Figure C-2 in Appendix C shows the 2005 ADT volumes on roadway segments throughout the study area.

The data presented in Table 4.2-5 show that all of the roadways within the study-area are forecast to operate at LOS A with 2005 volumes without the proposed project and with the Willow Road extension, except for the LOS C forecast for Highway 101.



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Figure 4.2-6

Woodlands Trip Distribution Percentages

SOURCE: Associated Transportation Engineers

TABLE 4.2-4: STAGE I TRIP DISTRIBUTION

Origin/Destination	Direction	Percentage
U.S. Highway 101	North	33%
	South	21%
Route 1 (Willow Road)	West	9%
Route 1 (Guadalupe Rd.)	South	3%
Orchard Avenue	South	8%
Tefft Street	West	1%
Local Area(a)	--	25%
TOTAL		100%

(a) Local to Mesa area.

SOURCE: Associated Transportation Engineers, Inc.

2005 Intersection Operations With Willow Road Extension (Without Project). 2005 P.M. peak hour volumes without the proposed project and with the Willow Road extension are shown in Figure C-3 (Appendix C). Table 4.2-6 lists the type of control and 2005 P.M. peak hour LOS for each of the study area intersections without the proposed project. LOS calculation sheets are contained in the Technical Appendix.

The data presented in Table 4.2-6 show that all of the study-area intersections are forecast to operate at LOS B or better during the P.M. peak hour period with 2005 traffic volumes without the proposed project and with the Willow Road extension.

2005 + Stage I Roadway Operations With Willow Road Extension. Figures 4.2-7 and 4.2-8 illustrate the assignment of Stage I traffic to the study-area street network (with Willow Road extension). Figure 4.2-9 shows the 2005 + Stage I ADT volumes on roadway segments throughout the study area assuming the Willow Road extension. Table 4.2-7 shows the 2005 + Stage I ADT volumes, roadway classifications, roadway capacities, and 2005 levels of service along major roadway sections with the Willow Road extension.

TABLE 4.2-5: 2005 ROADWAY LEVELS OF SERVICE (WITHOUT PROJECT)

Roadway Segment	Roadway Classification	ADT Capacity	2005 ADT	2005 LOS
U.S. Highway 101	4-lane Freeway	80,000	57,420	LOS C
State Route 1	2-lane Arterial	18,000	5,340	LOS A
Tefft Street	4-lane Arterial	35,900	16,150	LOS A
Tefft Street	2-lane Arterial	18,000	4,150	LOS A
Willow Road	2-lane Arterial	18,000	3,080	LOS A
Pomeroy Road	2-lane Arterial	18,000	5,500	LOS A
Mesa Road	2-lane Collector	10,600	1,160	LOS A
Camino Caballo	2-lane Collector	10,600	310	LOS A
Eucalyptus Road	2-lane Local	10,600	1,120	LOS A

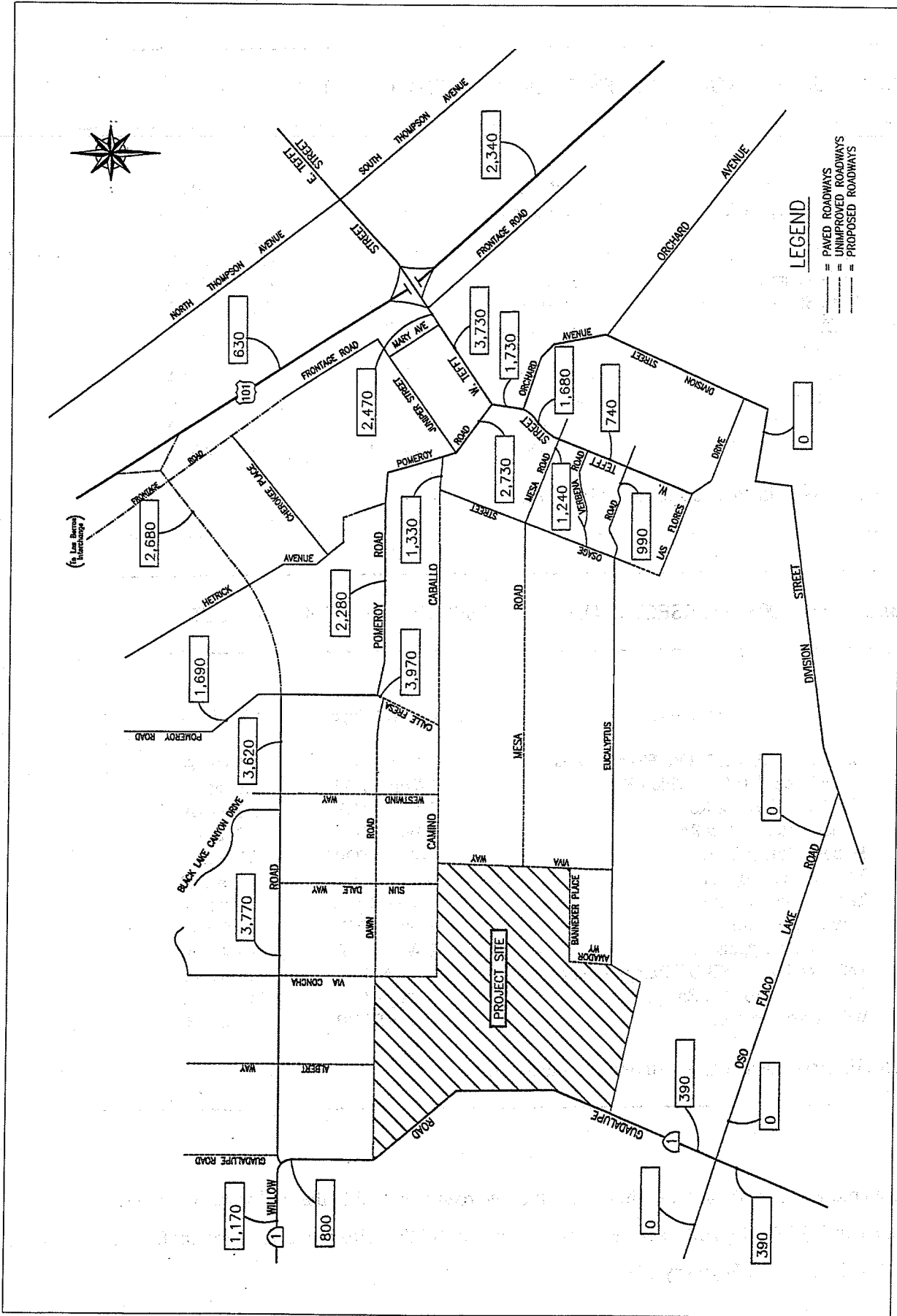
SOURCE: Associated Transportation Engineers, Inc.

TABLE 4.2-6: 2005 INTERSECTION LEVELS OF SERVICE (WITHOUT PROJECT)

Intersection	Control Type	Delay / LOS
Guadalupe Rd. (SR 1)/Oso Flaco Lake Rd.	1-Way STOP	3.5 sec./A
Guadalupe Rd. (SR 1)/Willow Rd.	1-Way STOP	3.9 sec./A
Via Concha/Willow Rd.	2-Way STOP	3.8 sec./A
Pomeroy Rd./Willow Rd.	2-Way STOP	4.2 sec./A
Pomeroy Rd./Calle Fresa	1-Way STOP	2.9 sec./A
Tefft St./Pomeroy Rd.	3-Stage Signal	10.3 sec./B
Tefft St./Orchard Ave.	3-Stage Signal	9.7 sec./B
Tefft St./Mesa Rd.	2-Way STOP	7.4 sec./B
Tefft St./Eucalyptus Rd.	2-Way STOP	4.5 sec./A
Tefft St./U.S. 101 SB Off-Ramp-Frontage Rd.	Signal	12.0 sec./B
Tefft St./U.S. 101 NB Ramps	Signal	11.2 sec./B
Willow Rd./Frontage Rd.	2-Way STOP	6.5 sec./B

SOURCE: Associated Transportation Engineers, Inc.

The data presented in Table 4.2-7 show that all of the roadways within the study-area are forecast to operate at LOS A with 2005 + Stage I volumes and the Willow Road extension, except for the LOS C designation for Highway 101.



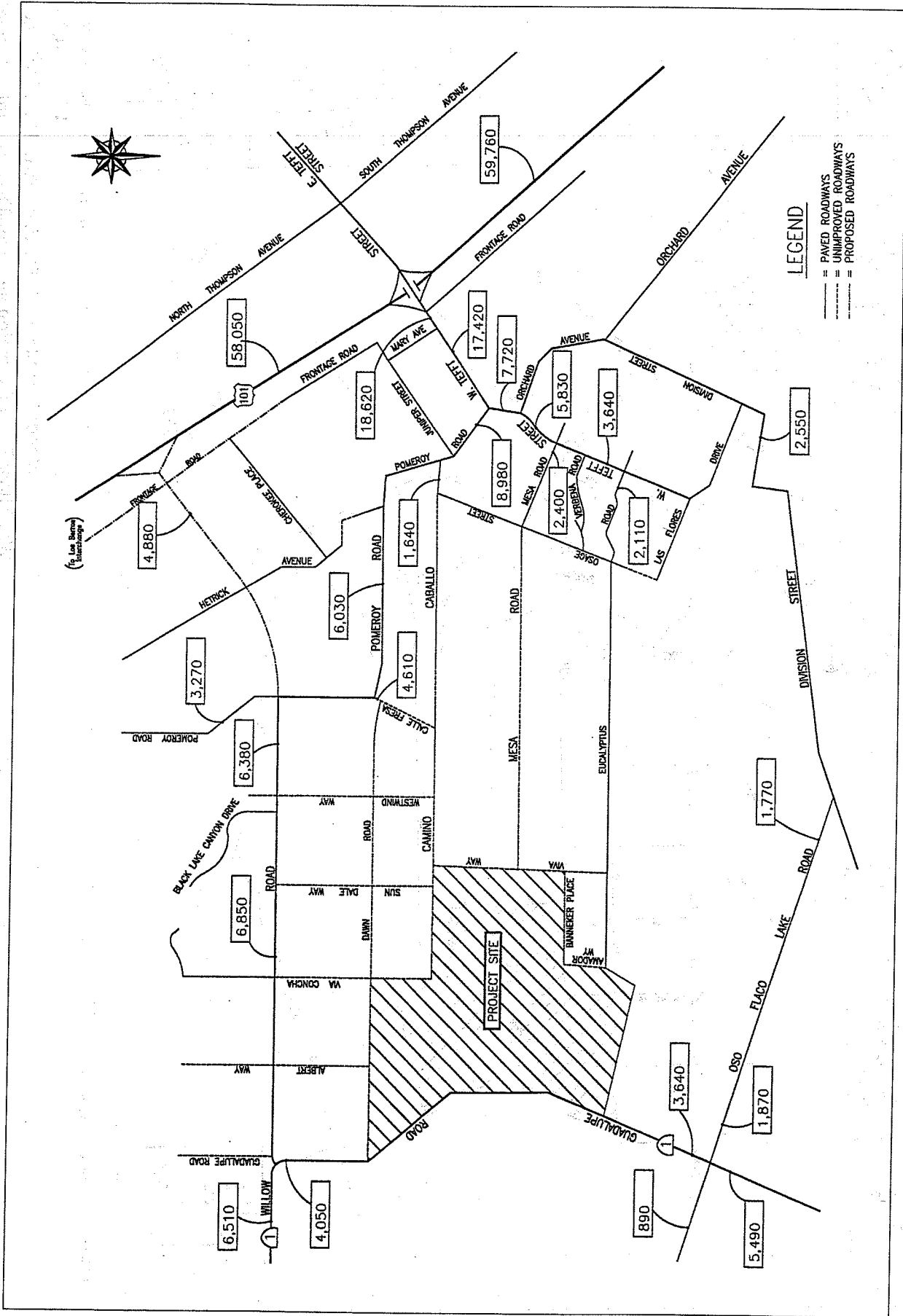
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Figure 4.2-7

Woodlands Stage I ADT Volumes

(W/Willow Road Extension and Half-Diamond Interchange)

SOURCE: Associated Transportation Engineers



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Figure 4.2-9

Year 2005 + Stage I ADT Volumes

(W/Willow Road Extension and Half-Diamond Interchange)

SOURCE: Associated Transportation Engineers

TABLE 4.2-7: 2005 + STAGE I ROADWAY LEVELS OF SERVICE (WITH WILLOW ROAD EXTENSION)

Roadway Segment	Roadway Classification	ADT Capacity	2005 + Stage I ADT	2005 + Stage I LOS
U.S. Highway 101	4-lane Freeway	80,000	59,760	LOS C
State Route 1	2-lane Arterial	18,000	6,510	LOS A
Tefft Street	4-lane Arterial	35,900	18,620	LOS A
Tefft Street	2-lane Arterial	18,000	5,830	LOS A
Willow Road	2-lane Arterial	18,000	6,850	LOS A
Pomeroy Road	2-lane Arterial	18,000	6,030	LOS A
Mesa Road	2-lane Collector	10,600	2,400	LOS A
Camino Caballo	2-lane Collector	10,600	1,640	LOS A
Eucalyptus Road	2-lane Local	10,600	2,110	LOS A

SOURCE: Associated Transportation Engineers, Inc.

2005 + Stage I Local Roadway Impacts With Willow Road Extension. Stage I of the project would add a substantial amount of traffic to the segments of Albert Way and Via Concha between Dawn Road and Willow Road (a total of about 4,000 ADT). This would require upgrading these roadways to County Collector Road standards. Stage I would add about 3,970 ADT to the segment of Dawn Road between Via Concha and Pomeroy Road, also requiring improvements to the existing roadway segment. In addition to the roadway improvements planned by the project, the Woodlands development would need to coordinate and work with the County of San Luis Obispo on the improvement and construction of these off-site roadway segments in order to serve traffic generated by Stage I. Stage I would add approximately 1,120 ADT to the section of Route 1 north of the site (i.e., north of Willow Road). This ADT addition would not significantly impact the section of Route 1 north of the site, which has more than adequate reserve capacity to accommodate the traffic generated by Stage I.

If the business park component of the Specific Plan were not developed, traffic generated would be approximately 15% less than the traffic generated by the proposed project. Removal of the business park land use from the site would result in more commute traffic generated from the on-site housing units leaving the site. This increase in external traffic generation would, however, be offset by the commute traffic which would no longer travel to the site to access the business park. The analysis completed for the proposed project assumed that 25% of the employees at the business park would

come from residents of the project site, while 75% of the employees would travel to the site from the outlying areas. Given this internal-external split, overall traffic generation would be reduced with the removal of the business park.

Traffic impacts to the study-area streets and intersections would be generally the same, although the additional traffic to Via Concha and Albert Way would be reduced as less traffic would be generated in the northern part of the Specific Plan.

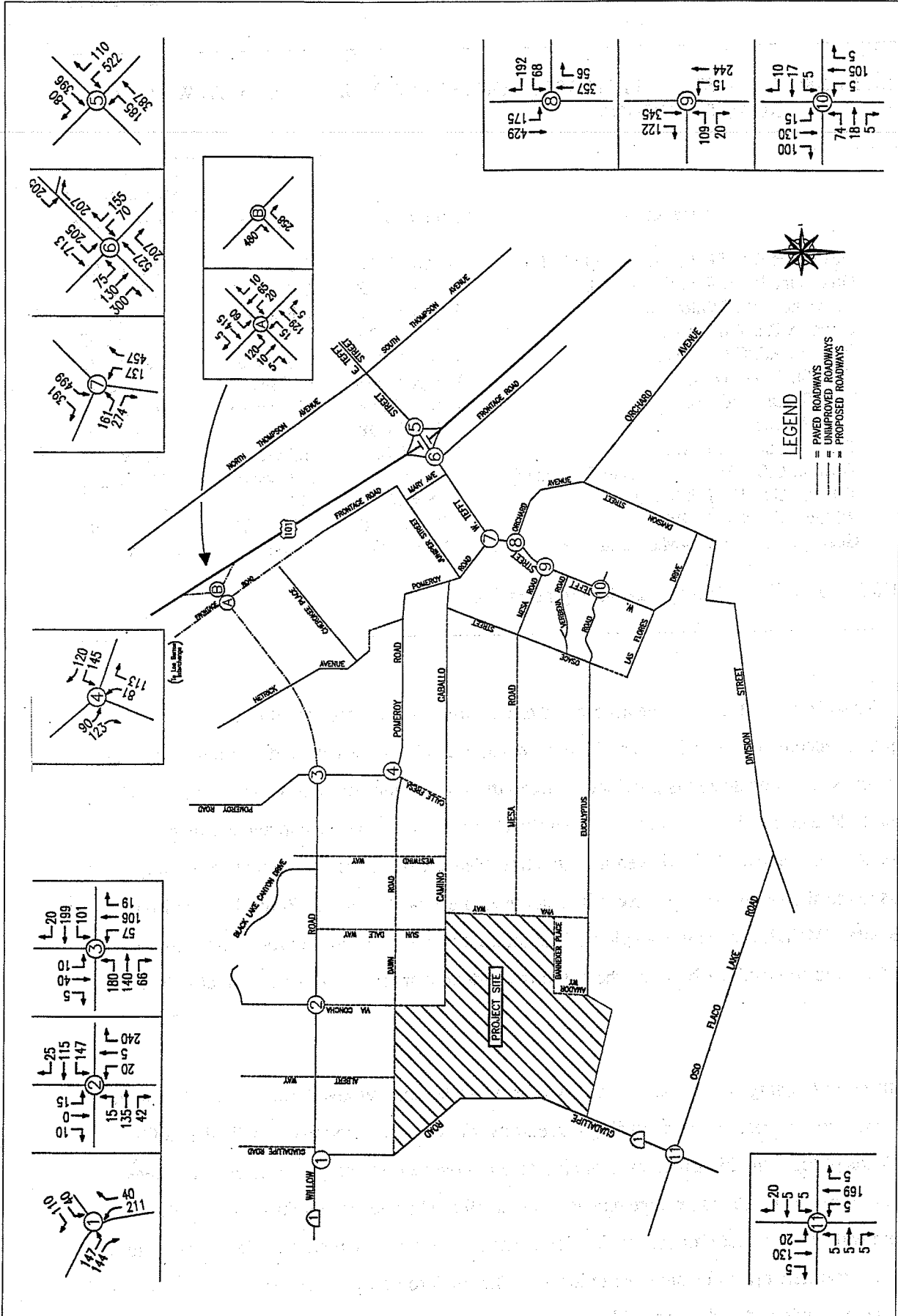
2005 + Stage I Intersection Operations With Willow Road Extension. Figure 4.2-10 shows the 2005 + Stage I P.M. peak hour volumes assuming the Willow Road extension and partial interchange. Table 4.2-8 list the type of control and 2005 + Stage I P.M. peak hour LOS for each of the study-area intersections. LOS worksheets are contained in the Technical Appendix.

The data presented in Table 4.2-8 show that all of the study-area intersections would operate at LOS C or better during the P.M. peak hour period with 2005 + Stage I volumes with the Willow Road extension.

2005 + Stage I Potential Intersection Impacts With Willow Road Extension. The project is proposing to improve the Route 1/Main Entrance intersection to include a southbound left-turn lane. Although the intersection is forecast to operate at LOS A with this improvement, a northbound right-turn lane should also be provided to accommodate decelerating vehicles, given the speed on this segment of Route 1 (see discussion in mitigation measures section).

Once Stage I of the project is completed and occupied, nine percent of project generated external trips will travel through the Route 1/Willow Road intersection. The existing geometrics at the Route 1/Willow Road intersection are currently substandard and would require improvements to accommodate the addition of project traffic (see discussion in mitigation measures section).

The project is proposing to extend Dawn Road along the northerly boundary of the site to form a new four-way intersection at Route 1 opposite Olivera Avenue. This new intersection will need to be designed to accommodate the addition of project traffic, as outlined in Mitigation Measure 4.2-1a.



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Figure 4.2-10

Year 2005 + Stage I Peak Hour Volumes

(W/Willow Road Extension and Half-Diamond Interchange)

SOURCE: Associated Transportation Engineers

TABLE 4.2-8: 2005 + STAGE I INTERSECTION LEVELS OF SERVICE (WITH WILLOW ROAD EXTENSION)

Intersection	Control Type	2005 Delay / LOS	2005 + Stage I Delay / LOS
Guadalupe Rd. (SR 1)/Oso Flaco Lake Rd.	1-Way STOP	3.5 sec./A	3.7 sec./A
Guadalupe Rd. (SR 1)/Willow Rd.	1-Way STOP	3.9 sec./A	4.6 sec./A
Via Concha Rd./Willow Rd.	2-Way STOP	3.8 sec./A	4.3 sec./A
Pomeroy Rd./Willow Rd.	2-Way STOP	4.2 sec./A	11.7 sec./C
Pomeroy Rd./Calle Fresa	1-Way STOP	2.9 sec./A	4.4 sec./A
Tefft St./Pomeroy Rd.	3-Stage Signal	10.5 sec./B	9.1 sec./B
Tefft St./Orchard Ave.	3-Stage Signal	10.1 sec./B	10.1 sec./B
Tefft St./Mesa Rd.	2-Way STOP	7.4 sec./B	11.2 sec./C
Tefft St./Eucalyptus Rd.	2-Way STOP	4.5 sec./A	5.5 sec./B
Tefft St./U.S. 101 SB Off-Ramp-Frontage Rd	Signal	12.0 sec./B	12.4 sec./B
Tefft St./U.S. 101 NB Ramps	Signal	11.2 sec./B	13.7 sec./B
Willow Rd./Frontage Rd.	2-Way STOP	6.5 sec./B	11.3 sec./C
Guadalupe Rd. (SR 1)/Main Entrance	1-Way STOP	NA	3.8 sec./A

SOURCE: Associated Transportation Engineers, Inc.

Site Circulation and Access. The access and circulation plan proposed for the site will adequately accommodate both access from the external roadway network and internal circulation within the site. Good access is provided between the site and the adjacent roadway network via the multiple access points on Route 1, Dawn Road, Via Concha, Mesa Road and Eucalyptus Drive. As noted above and reviewed in Mitigation Measure 4.2-1a, improvements to enhance access to the site would be ~~required~~ required at the Route 1/Willow Road, Route 1/Dawn Road, and Route 1/Main Entrance intersections. The internal circulation pattern proposed for the site provides good connectivity between the outlying residential areas and the commercial village core.

Construction/Logging Operations. Trees will be harvested and removed, followed by "clear and grub" operations in readiness for grading and earthwork. It is estimated that it will take 2,000 truck loads of logs and 250 truck loads of chip material over a 6 month period to clear the trees from the project site. On an average day, it will take 19 trucks with 38 total trips to complete the tree removal. The project proposes to develop a truck route which will have the least impact to the local street network and residents in the area. The truck route would be developed by the applicant and reviewed and approved by staff at the County Engineering Department prior to the

issuance of permits to begin logging operations.

It is anticipated that the majority of the truck trips generated at the site will travel on U.S. Highway 101. The northern truck route suggested by County staff would allow access to U.S. Highway 101 from the Grand Avenue or Halcyon Rd. interchange in Arroyo Grande. Trucks would travel northbound on State Route 1, use Halcyon Road, then continue on to Grand Avenue or Halcyon Rd./Brisco Rd.. The trucks would return via the reverse route. Alternatively trucks would travel southbound on State Route 1 to State Route 166 accessing U.S. Highway 101 via the State Route 166 interchange, returning via the reverse route. The selection of the final truck haul route would be done in co-operation with County's Engineering Department. ~~It is anticipated that the majority of the truck trips generated at the site will travel northbound on U.S. Highway 101. The suggested truck route would allow access to U.S. 101 from the Los Berros Road interchange. Trucks would travel northbound on State Route 1, use Willow Road and Pomeroy Road, then continue on to Los Berros Road. The trucks would return via the reverse route. Alternatively trucks would travel southbound on State Route 1, use Oso Flaco Lake Road and Division Street, then continue on to Tefft Road, returning via the reverse route. The selection of the truck haul route would be done in co-operation with the County's Engineering Department.~~

The recommended haul routes would have adequate capacity to handle the increase in truck traffic generated by the logging and construction activities. The construction/logging operations would, however, result in truck traffic turning to and from State Route 1 at a given site entrance location. This will require improvements to State Route 1 to safely accommodate the trucking activities. It is recommended that the project's main entrance facility on State Route 1 be constructed prior to the commencement of the logging in order to safely accommodate truck turn movements to and from the site (see discussion in mitigation measures section).

Transportation Demand Management/Alternative Modes of Transportation

The County's CAP recommends a number of ordinances and policies which promote the use of alternative modes of transportation instead of single occupancy vehicles (SOVs). These ordinances and policies would be expected to increase the use of various alternative transportation modes in the planning area, including transit use, carpooling, bicycling and walking.

The rural area design of the Woodlands Specific Plan provides the necessary connectivity between the residential and commercial areas, with respect to alternative transportation modes. The neo-traditional design creates jobs/housing and commercial/housing balances so that a portion of the trips generated from the residential units should be captured by the commercial and business park uses proposed within the specific plan area. The jobs/housing, commercial/housing and school/housing mix provided by the project would reduce vehicle miles traveled and encourage alternative modes of transportation. The mixed uses proposed by the project would result in a considerable amount of internal trips within the project boundaries (home-work, home-shopping, home-school and work-shopping trips). If the proposed school is not constructed on the site, the internal capture of traffic within the site would be somewhat reduced.

The Woodlands Specific Plan also provides for the development of pedestrian pathways, bicycle paths, golf cart paths, and equestrian trails. Provision of these alternative travel facilities within the site will promote non-vehicular travel within the Woodlands site. It is recommended that a transit facility be incorporated into the village area to accommodate potential future service to the site.

Mitigation Measures:

Mitigation Measure 4.2-1a: The Stage I analysis found that the project has the potential to impact several of the study-area roadways and intersections. The following measures are recommended to be installed prior to map recordation or prior to occupancy/final inspection of a construction permit to mitigate these potential impacts. **Bicycle Circulation: The final design of these Class I and/or Class II bikeways shall be subject to review and approval by the County Engineering Department, in consultation with the Planning Department, for bicycle safety and circulation.**

Detailed Plans. As detailed circulation plans/design for each Stage are prepared, they shall be submitted to the County Engineering Departments and Planning for review of specific resource impacts and consistency with county road standards.

Albert Way. The segment of Albert Way between Dawn Road and Willow Road shall be improved to County Collector Road standards (two-lane).

Via Concha. The segment of Via Concha between Camino Caballo and Willow Road shall be improved to County Collector Road standards (two-lane).

Dawn Road. The segment of Dawn Road between State Route 1 and Pomeroy Road shall be improved to County Collector Road standards (two-lane).

Amend the South County Area Plan Circulation Chapter and Map to recognize portions of

the above-discussed roadways as Collectors.

Viva Way & Camino Caballo. Sections of these roadways that front the property shall be improved to County standards.

Route 1/Main Entrance. Prior to construction/logging operations, the Route 1/Main Entrance intersection shall be improved to include a southbound left-turn lane and a northbound right-turn lane. The turning-lanes shall be constructed to provide adequate truck storage and turning movements. The intersection design shall conform to Caltrans design standards.

Route 1/Willow Road. This intersection currently has single lane approaches with substandard geometric design. It is recommended that this intersection be realigned and widened to provide turn-lanes on all of the approaches. The intersection should be reconfigured to form a standard threefour-way approach configuration in order to alleviate driver confusion. This would involve realignment of the Willow Road approach. As volumes increase due to buildout of the area, the control of the intersection may need to be modified to provide signalization.

Route 1/Dawn Road. The project is proposing to extend Dawn Road along the northerly boundary of the site to form a new four-way intersection at Route 1 opposite Olivera Avenue. This new intersection will need to be designed to accommodate the addition of project traffic. The intersection location would accommodate a standard four-way intersection design, with the Dawn Road-Olivera Avenue approaches controlled by stop signs. The intersection design would need to accommodate truck movements given the location of the business park within the Woodlands Specific Plan area.

Transit Facility. It is recommended that a transit facility be incorporated into the village area to accommodate potential future service to the site.

Significance After Mitigation: Less than significant. The improvements identified to the roadways mentioned above would also serve to eliminate potential PM₁₀ emissions which could result from increased traffic along unpaved roads in the project vicinity (see Section 4.3, Air Quality).

Impact 4.2-2: Implementation of Stage I without the Willow Road Extension and partial interchange at U.S. Highway 101 would result in significant impacts at several study area roadways and intersections. ~~Impacts are anticipated to be the same as with the extension.~~ The intersection should be reconfigured to form a standard four-way approach configuration in order to alleviate driver confusion.

Transportation Demand Management. A transportation demand management (TDM) program should be part of the development plan for the business park. The TDM Program should include measures designed to provide transportation information, assistance and incentives to employees.

The following section reviews the impacts of Stage I of the project assuming that the Willow Road extension and partial interchange at U.S. Highway 101 are not constructed by the Year 2005. Figures C-4 through C-7, in Appendix C, show the 2005 and Woodlands Stage I traffic volumes without the Willow Road extension and partial interchange at U.S. Highway 101.

2005 + Stage I Roadway Operations Without Willow Road Extension. Table 4.2-9 shows the 2005 + Stage I average daily traffic volumes, roadway classifications, roadway capacities, and 2005 levels of service along major roadway sections the proposed project and without the Willow Road Extension. Figure 4.2-11 shows the 2005 ADT + Stage I volumes on the study-area roadways for this scenario.

The data presented in Table 4.2-9 show that all of the study-area roadways would operate in the LOS A range with 2005 + Stage I volumes without the Willow Road extension, except for the LOS C forecast for Highway 101. Stage I would add approximately 1,120 to the section of Route 1 north of the site. This ADT addition would not significantly impact the section of Route 1 north of the site, which has more than adequate reserve capacity to accommodate the traffic generated by Stage I.

Without the Willow Road extension and partial interchange, the project would result in higher traffic additions to Dawn Road, Pomeroy Road and Tefft Street. The Stage I additions would, however, be within acceptable levels on these roadway segments.

2005 + Stage I Potential Local Roadway Impacts Without Willow Road Extension. Development of Stage I would result in a substantial increase in traffic on the segments of Albert Way and Via Concha between Dawn Road and Willow Road (a total of about 3,430 ADT). This would require upgrading these roadways to County Collector Road standards. Stage I would add about 4,750 ADT to the segment of Dawn Road between Via Concha and Pomeroy Road also requiring improvements to the existing roadway segment. In addition to the roadway improvements planned by the project, the Woodlands development would need to coordinate and work with the County of San Luis Obispo on the improvement and construction of these off-site roadway segments in order to serve traffic generated by Stage I.

2005 + Stage I Intersection Operations Without Willow Road Extension. 2005 + Stage I P.M. peak hour volumes are shown in Figure 4.2-12, and Table 4.2-10 lists the 2005 + Stage I P.M.

TABLE 4.2-9: 2005 + PHASE I ROADWAY WITHOUT WILLOW ROAD EXTENSION
LEVELS OF SERVICE

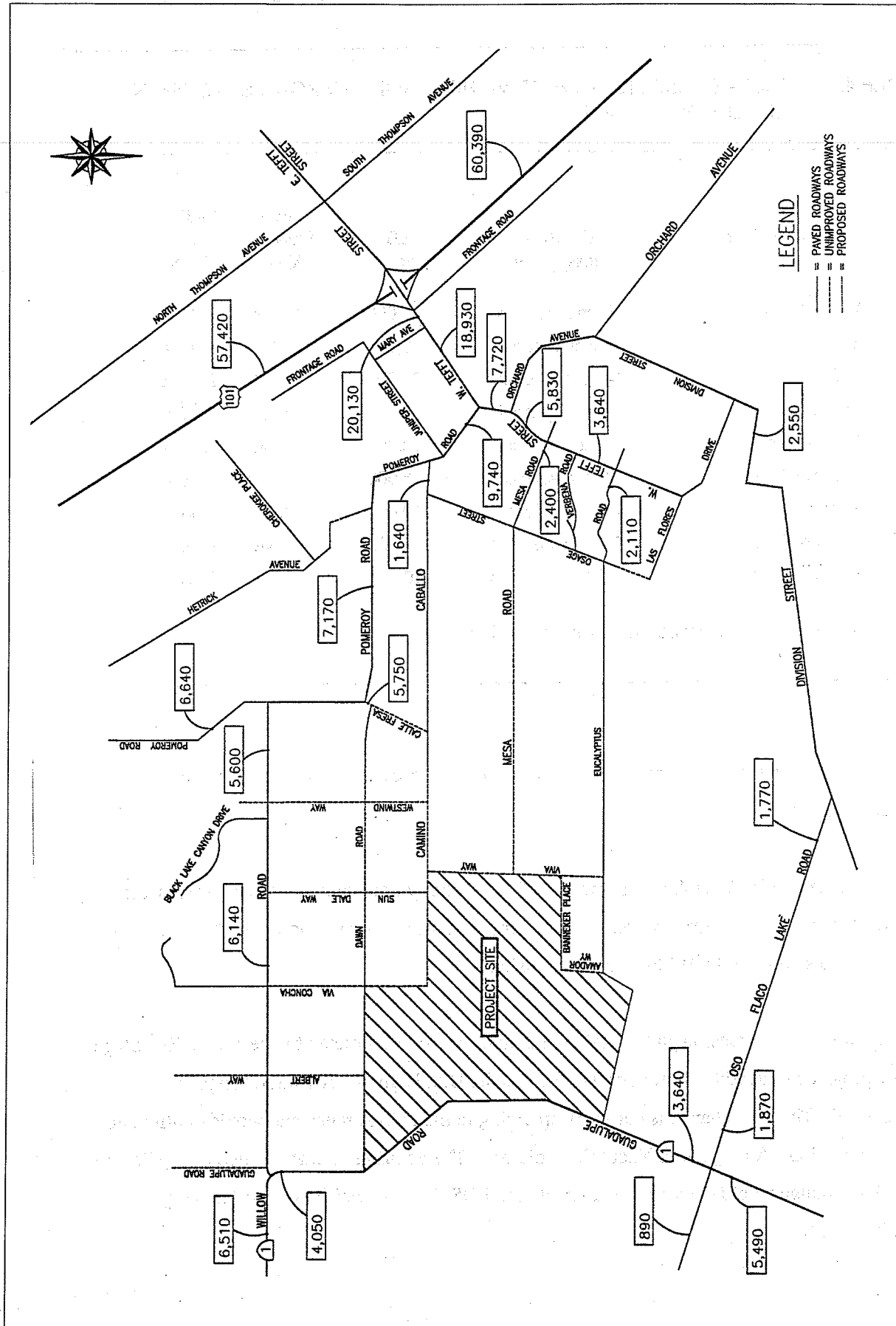
Roadway Segment	Roadway Classification	ADT Capacity	2005 + Phase I ADT	2005 + Phase I LOS
U.S. Highway 101	4-lane Freeway	80,000	60,390	LOS C
State Route 1	2-lane Arterial	18,000	6,510	LOS A
Tefft Street	4-lane Arterial	35,900	20,130	LOS A
Tefft Street	2-lane Arterial	18,000	5,830	LOS A
Willow Road	2-lane Arterial	18,000	6,140	LOS A
Pomeroy Road	2-lane Arterial	18,000	7,170	LOS A
Mesa Road	2-lane Collector	10,600	2,400	LOS A
Camino Caballo	2-lane Collector	10,600	1,640	LOS A
Eucalyptus Road	2-lane Local	10,600	2,110	LOS A

SOURCE: Associated Transportation Engineers, Inc.

peak hour LOS for each of the study area intersections. LOS calculation sheets are contained in the Technical Appendix.

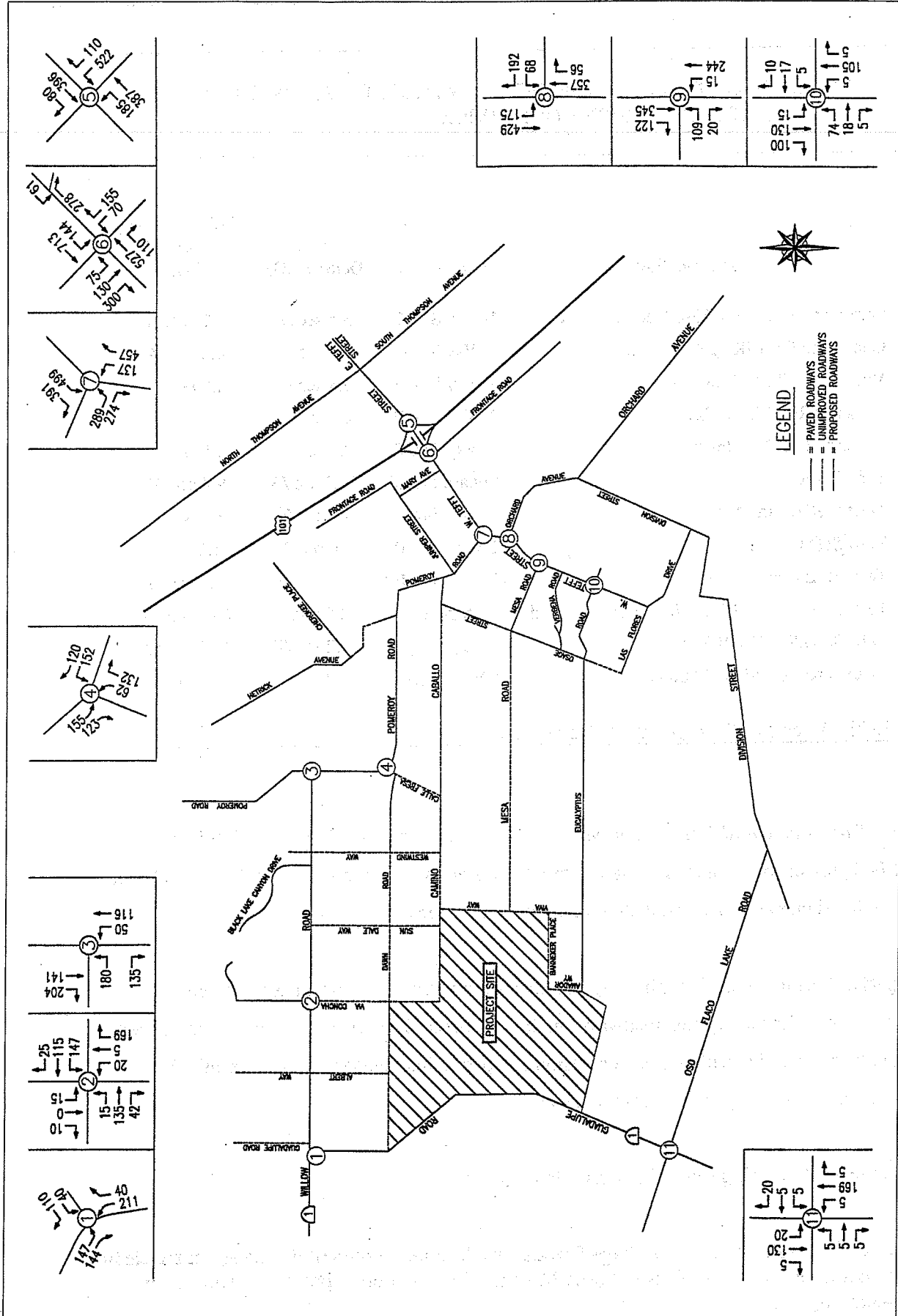
The data presented in Table 4.2-10 show that all of the study-area intersections are forecast to operate at an acceptable LOS C or better during the P.M. peak hour period with 2005 + Stage I traffic volumes without the Willow Road extension.

If the Willow Road extension and partial interchange are not constructed by the Year 2005, Stage I of the project would add a portion of its traffic to the U.S. Highway 101 interchange at Los Berros Road. This interchange is currently operating in the LOS A range and would continue to operate in the LOS A range with Year 2005 volumes. The addition of traffic generated by Stage I to this interchange would degrade operations to the LOS B range, which is considered a good operating level.



Woodlands Specific Plan / 950250
Figure 4.2-11
 Year 2005 + Stage I ADT Volumes
 (Without Willow Road Extension)

SOURCE: Associated Transportation Engineers



Woodlands Specific Plan / 950250

Figure 4.2-12
 Year 2005 + Stage I Peak Hour Volumes
 (Without Willow Road Extension)

SOURCE: Associated Transportation Engineers

TABLE 4. 2-10: 2005 + PHASE I INTERSECTION WITHOUT WILLOW ROAD
EXTENSION LEVELS OF SERVICE

Intersection	Control Type	2005 Delay / LOS	2005 + Phase I Delay / LOS
Guadalupe Rd. (SR 1)/Oso Flaco Lake Rd.	1-Way STOP	3.5 sec./A	3.7 sec./A
Guadalupe Rd. (SR 1)/Willow Rd.	1-Way STOP	3.9 sec./A	4.6 sec./A
Via Concha Rd./Willow Rd.	2-Way STOP	3.8 sec./A	4.0 sec./A
Pomeroy Rd./Willow Rd.	2-Way STOP	4.1 sec./A	6.7 sec./C
Pomeroy Rd./Calle Fresa	1-Way STOP	2.9 sec./A	4.5 sec./A
Tefft St./Pomeroy Rd.	3-Phase Signal	10.3 sec./B	9.4 sec./B
Tefft St./Orchard Ave.	3-Phase Signal	9.7 sec./B	10.1 sec./B
Tefft St./Mesa Rd.	2-Way STOP	7.4 sec./B	11.2 sec./C
Tefft St./Eucalyptus Rd.	2-Way STOP	4.5 sec./A	5.5 sec./B
Tefft St./U.S. 101 SB Off-Ramp-Frontage Rd	Signal	12.5 sec./B	13.3 sec./B
Tefft St./U.S. 101 NB Ramps	Signal	11.2 sec./B	13.7 sec./B
Guadalupe Rd. (SR 1)/Main Entrance	1-Way STOP	NA	3.8 sec./A

SOURCE: Associated Transportation Engineers, Inc.

2005 + Stage I Potential Intersection Impacts Without Willow Road Extension. The impacts identified previously for Stage I at the Route 1/Main Entrance, Route 1/Willow Road, and Route 1/Dawn Road intersections would also occur under this scenario.

Mitigation Measures 4.2-2a: The Stage I analysis found that the project has the potential to impact several of the study-area roadways and intersections. The same measures recommended for the Stage I with the Willow Road extension and partial interchange would be required to mitigate the project's impacts under this scenario.

Significance After Mitigation: Less than significant.

Impact 4.2-3: Implementation of Stage I would result in an incremental increase in traffic in the Guadalupe area and the City of Santa Maria. This is not anticipated to result in any significant impacts.

Guadalupe Area

Stage I will have a less than significant impact on the Guadalupe area. Approximately three percent of the external site traffic generated by Stage I will impact the area. The project assumes that three percent of the Stage I ADT (390) and P.M. peak hour (39) volumes will travel along State Route 1 south of Oso Flaco Lake Road. Some of these traffic volumes are assumed to originate from the Guadalupe area, and would not be new to the area. The overall net traffic additions generated by the project in this area would not generate significant impacts.

City of Santa Maria

Stage I is expected to have a less than significant impact on the City of Santa Maria. Approximately twenty-one percent of the external site traffic generated by Stage I would travel south on U.S. Highway towards the Santa Maria area (2,340 ADT and 200 P.M. peak hour trips). Some of these traffic volumes are assumed to originate from the City of Santa Maria, and would not be new to the area. The overall net traffic additions generated by the project in at the U.S. Highway 101 interchanges in the Santa Maria area would not generate significant impacts.

Mitigation Measures: None Required.

Significance After Mitigation: No significant impacts are anticipated.

Impact 4.2-4: Buildout of the proposed project would result in increased traffic on local roadways, significantly impacting several study area roadways and intersections.

The following discussion reviews the impacts of project buildout assuming that the proposed Willow Road extension and interchange would be fully constructed by the year 2010.

Woodlands Buildout Trip Generation. As for Stage I, *Trip Generation Manual*, 5th Edition, Institute of Transportation Engineers, 1995, was used to estimate the number of trips which would be generated by buildout of Woodlands. The trip generation analysis for project buildout found that about 44 percent of the trips generated by the project would be internal trips, with the remaining 56 percent external to the site. The National Cooperative Highway Research Program Report No. 255, "Highway Traffic Data for Urbanized Area Project Planning and Design" was used to estimate internal versus external trip interactions.

Table 4.2-11 shows the trip generation for Woodlands buildout. A more detailed trip generation worksheet is contained in the Technical Appendix. As shown, Woodlands buildout would generate 30,177 average daily trip ends and 2,874 P.M. peak hour trip ends. As noted earlier, total trip ends for a land use are the sum of all trips entering and all trips exiting a site during a designated time period.

Woodlands Buildout Trip Distribution. The trips generated by buildout of Woodlands were distributed onto the study-area street network based on the percentages shown in Table 4.2-12. This distribution methodology was developed based on data generated from the South County Traffic Model as well as existing traffic flows observed in the study area. Buildout trip distribution assumed the Willow Road extension to U.S. Highway 101 with a full-diamond interchange.

Once distributed, the trips were assigned to the study-area street network. Figures C-8 and C-9 in Appendix C illustrate the assignment of the trips to the study-area street network.

2010 Background Development. As with the 2005 analysis, 2010 traffic forecasts for the study area were developed using the South County Traffic Model assuming development in accordance with the *San Luis Obispo County General Plan*. The 2010 scenario assumes that the proposed Willow Road extension and interchange would be fully completed, providing a full-access diamond interchange. This improvement is included in the 2010 model.

2010 Roadway Operations With Full Interchange (Without Project). Figure 4.2-13 shows the 2010 ADT volumes on roadway segments throughout the study area without the project. Table 4.2-13 shows the 2010 volumes, roadway classifications, roadway capacities, and levels of service for the major roadway sections without the project.

The data presented in Table 4.2-13 show that all of the roadways within the study-area are forecast to operate at LOS A with 2010 volumes without the project, except the LOS C forecast for U.S. Highway 101.

2010 Intersection Operations With Full Interchange (Without Project). The 2010 P.M. peak hour volumes without the project are shown in Figure 4.2-14. Table 4.2-14 lists the type of control and 2010 peak hour LOS for each of the study-area intersections. LOS calculation sheets are

TABLE 4.2-11: WOODLANDS BUILDOUT TRIP GENERATION

Land Use	Size	Average Daily Trip Ends			P.M. Peak Hour Trip Ends		
		Internal	External	Total	Internal	External	Total
Commercial(a)	140,000 SF	5,386	3,336	8,722	502	311	813
Business Park	335,000 SF	1,162	3,485	4,646	121	362	482
Resort Hotel	500 Rooms	909	2,726	3,635	78	233	310
Golf Course	36 Holes	677	677	1,353	61	61	121
Park	12 Acres	216	24	240	22	2	24
Single Family Dwellings	1,240 Units	4,215	6,275	10,490	380	658	1042
Apartments	80 Units	197	294	491	19	33	52
School (600-700 Students)	10 Acres	450	150	600	23	8	30
Total		13,212	16,965	30,177	1,206	1,668	2,874

(a) Internal commercial trips include 15% pass-by per ITE Trip Generation Report.

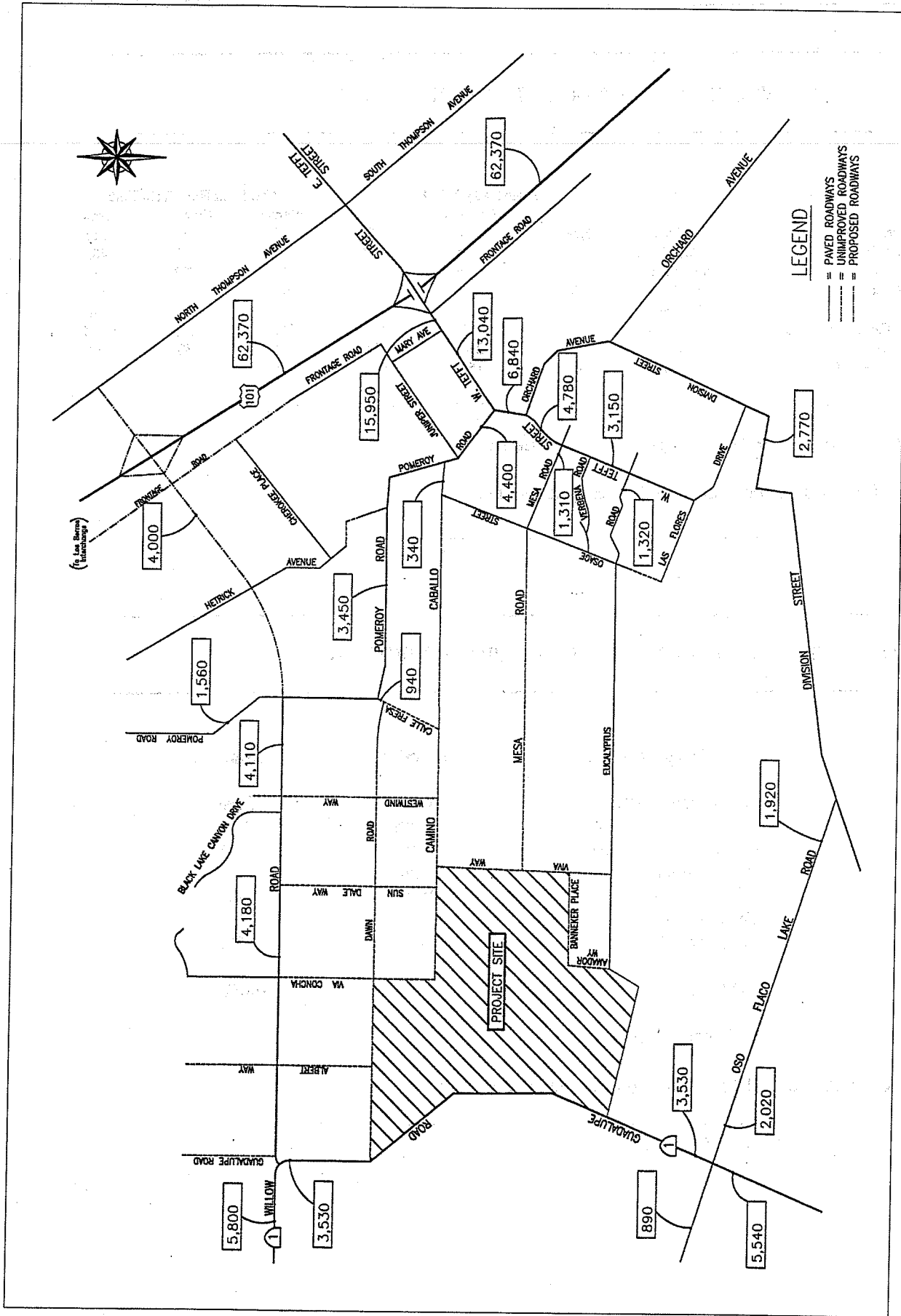
SOURCE: Associated Transportation Engineers, Inc.

TABLE 4.2-12: WOODLANDS BUILDOUT TRIP DISTRIBUTION

Origin/Destination	Direction	Percentage
U.S. Highway 101	North	33%
	South	21%
Route 1 (Willow Road)	West	9%
Route 1 (Guadalupe Rd.)	South	3%
Orchard Avenue	South	8%
Tefft Street	West	1%
Local Area (a)	--	25%
TOTAL		100%

(a) Local to Mesa area.

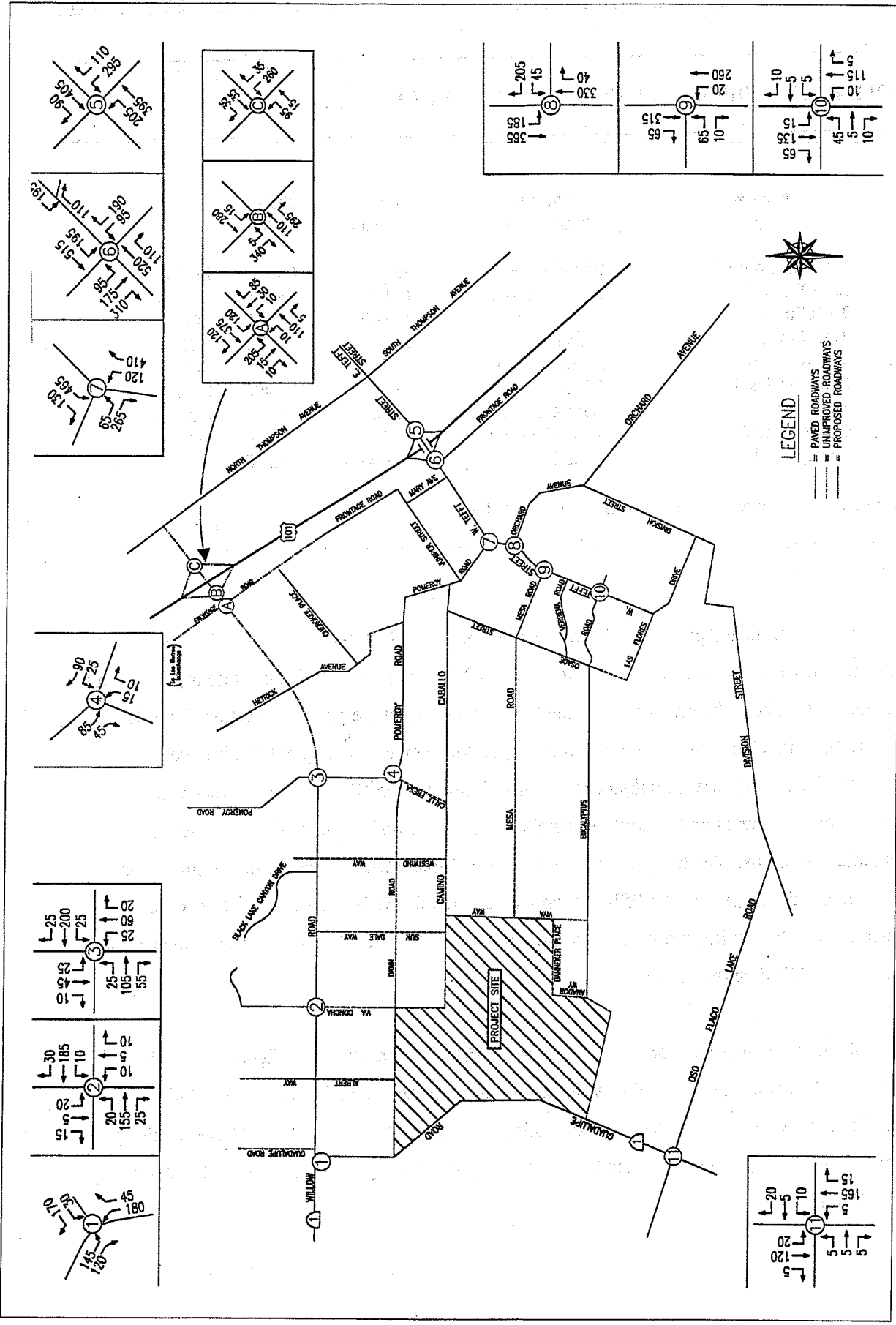
SOURCE: Associated Transportation Engineers, Inc.



Woodlands Specific Plan / 1950250 ■
Figure 4.2-13
 Year 2010 ADT Volumes
 (With Full-Diamond Interchange)

SOURCE: Associated Transportation Engineers

Woodlands Specific Plan / 950230
Figure 4.2-14
 Year 2010 P.M. Peak Hour Volumes
 (With Full-Diamond Interchange)



SOURCE: Associated Transportation Engineers

TABLE 4.2-13: 2010 ROADWAY LEVELS OF SERVICE

Roadway Segment	Roadway Classification	ADT Capacity	2010 ADT	2010 LOS
U.S. Highway 101	4-lane Freeway	80,000	63,370	LOS C
State Route 1	2-lane Arterial	18,000	5,800	LOS A
Tefft Street	4-lane Arterial	35,900	13,040	LOS A
Tefft Street	2-lane Arterial	18,000	4,780	LOS A
Willow Road	2-lane Arterial	18,000	4,180	LOS A
Pomeroy Road	2-lane Arterial	18,000	4,400	LOS A
Mesa Road	2-lane Collector	10,600	1,310	LOS A
Camino Caballo	2-lane Collector	10,600	340	LOS A
Eucalyptus Road	2-lane Local	10,600	1,320	LOS A

SOURCE: Associated Transportation Engineers, Inc.

shown in the Technical Appendix. The data presented in Table 4.2-14 show that all of the study-area intersections are forecast to operate at LOS B or better during the P.M. peak hour period with 2010 volumes without the project. It is noted that operations at the proposed Willow Road/U.S. Highway 101 interchange would be dependent upon the geometrics and control ultimately provided. These issues are the subject of a Project Study Report (PSR) that is currently in process. The geometrics and control ultimately provided would be designed to provide for acceptable operations. The levels of service shown in Table 4.2-14 are based on the preliminary traffic forecast developed for the PSR, which indicate that the Willow Road/Frontage Road intersection would require traffic signal control and the Willow Road/U.S. 101 ramp intersections would require STOP sign control.

2010 + Woodlands Buildout Roadway Operations With Full Interchange. Figure 4.2-15 shows the 2010 + Woodlands Buildout ADT volumes on roadway segments throughout the study area. Table 4.2-15 shows the 2010 + Woodlands Buildout volumes, roadway classifications, roadway capacities, and future levels of service for the roadway segments assuming the full interchange at Willow Road.

TABLE 4.2-14: 2010 INTERSECTION LEVELS OF SERVICE

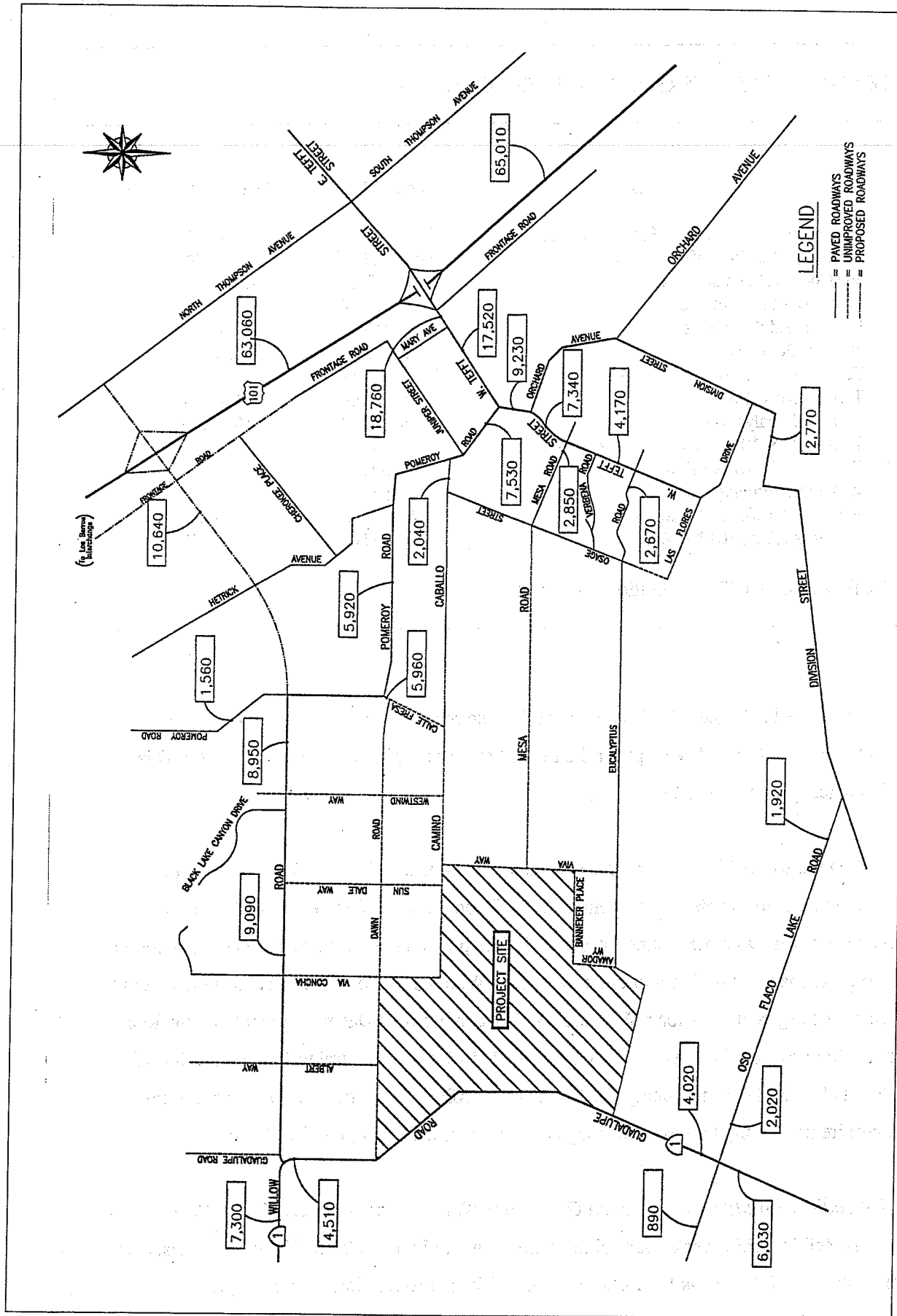
Intersection	Control Type	Delay / LOS
Guadalupe Rd. (SR 1)/Oso Flaco Lake Rd.	1-Way STOP	3.8 sec./A
Guadalupe Rd. (SR 1)/Willow Rd.	1-Way STOP	4.3 sec./A
Via Concha Rd./Willow Rd.	2-Way STOP	4.4 sec./A
Pomeroy Rd./Willow Rd.	2-Way STOP	5.2 sec./B
Pomeroy Rd./Calle Fresa	1-Way STOP	3.3 sec./A
Tefft St./Pomeroy Rd.	3-Phase Signal	10.2 sec./B
Tefft St./Orchard Ave.	3-Phase Signal	8.8 sec./B
Tefft St./Mesa Rd.	2-Way STOP	8.2 sec./B
Tefft St./Eucalyptus Rd.	2-Way STOP	4.6 sec./A
Tefft St./U.S. 101 SB Off-Ramp-Frontage Rd.	Signal	13.3 sec./B
Tefft St./U.S. 101 NB Ramps	Signal	10.5 sec./B
Willow Rd./Frontage Rd.	Signal	6.9 sec./B
Willow Rd./U.S. 101 SB Ramps	1-Way STOP	5.9 sec./B
Willow Rd./U.S. 101 NB Ramps	1-Way STOP	5.6 sec./B

SOURCE: Associated Transportation Engineers, Inc.

The data presented in Table 4.2-15 show that all of the roadways within the study-area are forecast to operate at LOS A, except for the LOS D forecast for U.S. Highway 101. LOS D is considered acceptable for state facilities.

2010 + Woodlands Buildout Potential Local Roadway Impacts With Full Interchange. In addition to the planned project improvements, the Woodlands development would need to coordinate and work with the County of San Luis Obispo on the improvement and construction of several off-site roads for buildout circulation needs. Woodlands would add a substantial amount of traffic to the segments of Albert Way and Via Concha between Dawn Road and Willow Road (a total of about 5,430 ADT); as well as Dawn Road (5,020 ADT), Camino Caballo (1,700 ADT), Mesa Road (1,540 ADT) and Eucalyptus Road (1,350 ADT) east of the site. These additions would require upgrading these roadway segments if not already completed at that time.

2010 + Woodlands Buildout Intersection Operations With Full Interchange. The 2010 + Woodlands Buildout P.M. peak hour volumes are shown in Figure 4.2-16. Table 4.2-16 lists the type of control and future peak hour LOS for each of the study-area intersections. LOS calculation sheets are shown in the Technical Appendix.



SOURCE: Associated Transportation Engineers

Woodlands Specific Plan / 950250

Figure 4.2-15
 Year 2010 + Buildout ADT Volumes
 (With Full-Diamond Interchange)

TABLE 4.2-15: 2010 + WOODLANDS BUILDOUT ROADWAY LEVELS OF SERVICE

Roadway Segment	Roadway Classification	ADT Capacity	2010 + Buildout ADT	2010 + Buildout LOS
U.S. Highway 101	4-lane Freeway	80,000	65,010	LOS D
State Route 1	2-lane Arterial	18,000	7,300	LOS A
Tefft Street	4-lane Arterial	35,900	17,520	LOS A
Tefft Street	2-lane Arterial	18,000	7,340	LOS A
Willow Road	2-lane Arterial	18,000	9,090	LOS A
Pomeroy Road	2-lane Arterial	18,000	7,530	LOS A
Mesa Road	2-lane Collector	10,600	2,850	LOS A
Camino Caballo	2-lane Collector	10,600	2,040	LOS A
Eucalyptus Road	2-lane Local	10,600	2,670	LOS A

SOURCE: Associated Transportation Engineers, Inc.

The data presented in Table 4.2-16 show that most of the study-area intersections are forecast to operate at LOS C or better during the P.M. peak hour period with 2010 + Woodlands traffic volumes, assuming the full interchange at Willow Road.

It is again noted that operations at the proposed Willow Road/U.S. Highway 101 interchange would be dependant upon the geometrics and control ultimately provided, which are the subject of the PSR that is currently in process. The PSR is based on traffic forecast developed by the South County Traffic Model, which include the Woodlands Specific Plan land uses. The geometrics and control ultimately provided at the Willow Road/U.S. Highway 101 interchange would be designed to provide for acceptable operations. The Woodlands development would be required to contribute to the Willow Road extension and U.S. Highway 101 interchange through the County's fee program.

2010 + Woodlands Buildout Potential Intersection Impacts With Full Interchange. The Pomeroy Road/Willow Road intersection is forecast to degrade to LOS F with buildout of Woodlands, assuming the two-way stop control. This location would require traffic signals. The Woodlands Specific Plan proposes to improve the Route 1/Main Entrance intersection by adding a

TABLE 4.2-16: 2010 + WOODLANDS BUILDOUT INTERSECTION LEVELS OF SERVICE

Intersection	Control Type	Delay / LOS
Guadalupe Rd. (SR 1)/Oso Flaco Lake Rd.	1-Way STOP	4.0 sec./A
Guadalupe Rd. (SR 1)/Willow Rd.	1-Way STOP	5.1 sec./B
Via Concha/Willow Rd.	2-Way STOP	5.5 sec./B
Pomeroy Rd./Willow Rd.	2-Way STOP	> 60 sec./F
Pomeroy Rd./Calle Fresa	1-Way STOP	7.0 sec./B
Tefft St./Pomeroy Rd.	3-Phase Signal	8.8 sec./B
Tefft St./Orchard Ave.	3-Phase Signal	8.8 sec./B
Tefft St./Mesa Rd.	2-Way STOP	16.2 sec./C
Tefft St./Eucalyptus Rd.	2-Way STOP	6.1 sec./B
Tefft St./U.S. 101 SB Off-Ramp-Frontage Rd.	Signal	13.3 sec./B
Tefft St./U.S. 101 NB Ramps	Signal	10.5 sec./B
Willow Rd./Frontage Rd.	Signal	10.1 sec./B
Willow Rd./U.S. 101 SB Ramps	1-Way STOP	16.2 sec./C
Willow Rd./U.S. 101 NB Ramps	1-Way STOP	19.3 sec./C
Guadalupe Rd. (S.R. 1)/Main Entrance	1-Way STOP	3.9 sec./A

SOURCE: Associated Transportation Engineers, Inc.

southbound left-turn lane. Although the intersection is forecast to operate at LOS A with this improvement, a northbound right-turn lane should also be provided, given the speed on this segment of Route 1. As detailed in the analysis of Stage I, the project would also generate potential impacts at the Willow Road/Route 1 and Dawn Road/Route 1 intersections.

Mitigation Measures:

Mitigation Measure 4.2-4a: In general, the future street system can accommodate the addition of the Woodlands project traffic. The buildout analysis found that the project has the potential to impact some of the study-area roadways and intersections. In addition to the measures outlined in

Mitigation Measure 4.2-1a, the following measures are recommended to be completed prior to map recordation or prior to final inspection of construction permit, to mitigate potential impacts:

Detailed Plans. As detailed circulation plans/design for each Stage are prepared, they shall be submitted to the County Engineering Departments and Planning for review of specific resource impacts and consistency with county road standards.

Camino Caballo. The segment of Camino Caballo between Via Concha and Pomeroy Road shall be improved to County Collector Road standards, if not improved by other project development in the area or the County prior to construction of the second stage of the Woodlands project.

Mesa Road. The segment of Mesa Road between Viva Way and Osage Street shall be improved to County Collector Road standards, if not improved by other project development in the area or the County prior to construction of the second stage of the Woodlands project.

Pomeroy Road/Willow Road. The Pomeroy Road/Willow Road intersection is forecast to degrade to LOS F with buildout of Woodlands, assuming the existing geometrics and two-way stop control. This location would require installation of traffic signals, as well as widening to provide separate left, thru, and right-turn lanes on the Willow Road approaches. These improvements would provide LOS B.

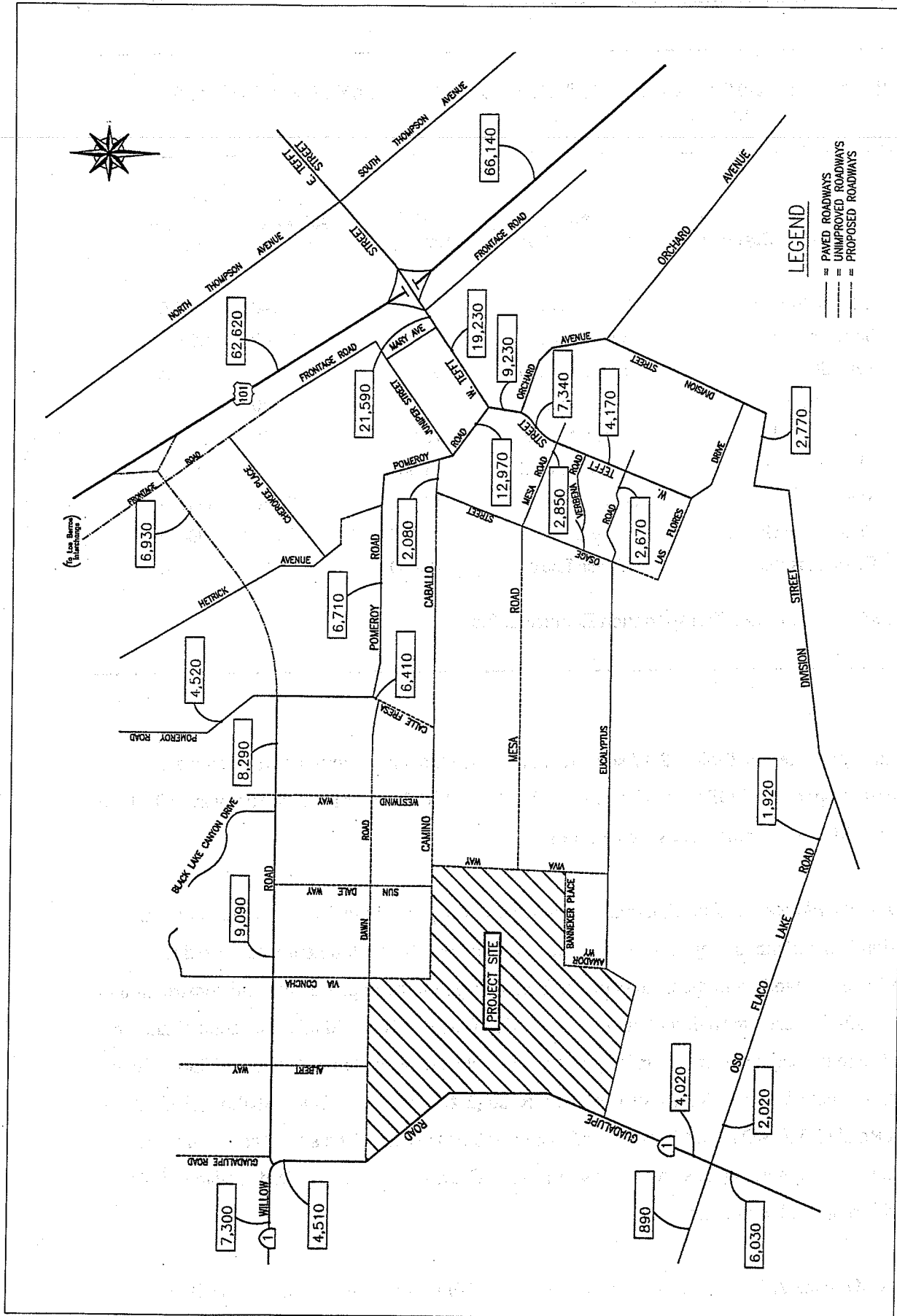
The project would be required to contribute to the Willow Road extension and U.S. Highway 101 interchange through the County's fee program established for the South County Area.

Significance After Mitigation: Less than significant.

Impact 4.2-5: Buildout of the proposed project without completion of the full interchange at Willow Road and Highway 101 would result in significant impacts at several area roadways and intersections. Impacts are anticipated to be the same as with the completion of the full interchange.

The following section reviews the impacts of project buildout assuming that the Willow Road extension and partial interchange at U.S. Highway 101 are constructed by the Year 2010. Figures C-10 through C-13, in Appendix C, show the 2010 and Woodlands Buildout traffic volumes with the Willow Road extension and partial interchange at U.S. Highway 101.

2010 + Woodlands Buildout Roadway Operations with Willow Road Extension and Partial Interchange. Figure 4.2-17 shows the 2010 + Woodlands Buildout ADT volumes on roadway segments throughout the study area. Table 4.2-17 shows the 2010 + Woodlands Buildout volumes, roadway classifications, roadway capacities, and future levels of service for the roadway segments.



Woodlands Specific Plan / 950250
Figure 4.2-17
 Year 2010 + Buildout ADT Volumes
 (With Half-Diamond Interchange)

SOURCE: Associated Transportation Engineers

TABLE 4.2-17: 2010 + WOODLANDS BUILDOUT ROADWAY LOS WITH HALF-DIAMOND INTERCHANGE

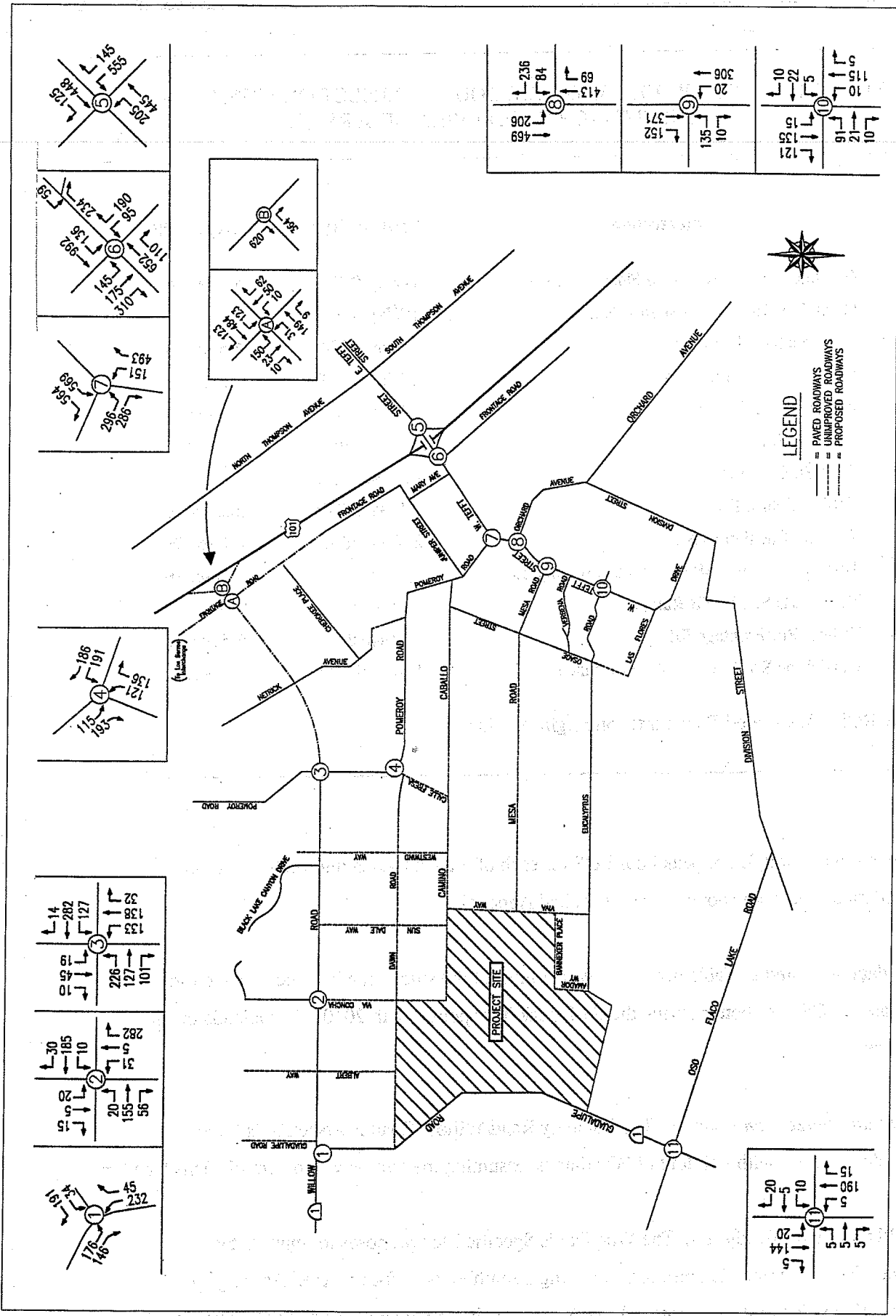
Roadway Segment	Roadway Classification	ADT Capacity	2010 + Buildout ADT	2010 + Buildout LOS
U.S. Highway 101	4-lane Freeway	80,000	66,140	LOS D
State Route 1	2-lane Arterial	18,000	7,300	LOS A
Tefft Street	4-lane Arterial	35,900	19,230	LOS A
Tefft Street	2-lane Arterial	18,000	7,340	LOS A
Willow Road	2-lane Arterial	18,000	9,090	LOS A
Pomeroy Road	2-lane Arterial	18,000	12,970	LOS C
Mesa Road	2-lane Collector	10,600	2,850	LOS A
Camino Caballo	2-lane Collector	10,600	2,080	LOS A
Eucalyptus Road	2-lane Local	10,600	2,670	LOS A

SOURCE: Associated Transportation Engineers, Inc.

The data presented in Table 4.2-17 show that all of the roadways within the study-area are forecast to operate at LOS C or better, except for the LOS D forecast for U.S. Highway 101. LOS D is considered acceptable for state facilities.

2010 + Woodlands Buildout Potential Local Roadway Impacts With Partial Interchange. In addition to the planned project improvements, the Woodlands development would need to coordinate and work with the County of San Luis Obispo on the improvement and construction of several off-site roads for buildout circulation needs. Woodlands would add a substantial amount of traffic to the segments of Albert Way and Via Concha between Dawn Road and Willow Road (a total of about 5,430 ADT); as well as Dawn Road (5,460 ADT), Camino Caballo (1,700 ADT), Mesa Road (1,540 ADT) and Eucalyptus Road (1,350 ADT) east of the site. These additions would require upgrading these roadway segments to County Collector standards (2-lane), if not already completed at that time.

2010 + Woodlands Buildout Intersection Operations With Partial Interchange. The 2010 + Woodlands Buildout P.M. peak hour volumes are shown in Figure 4.2-18. Table 4.2-18 lists the



Woodlands Specific Plan / 950250 ■ **Figure 4.2-18**
 Year 2010 + Buildout P.M. Peak Hour Volumes
 (With Half-Diamond Interchange)

SOURCE: Associated Transportation Engineers

TABLE 4.2-18: 2010 + WOODLANDS BUILDOUT INTERSECTION WITH HALF-DIAMOND INTERCHANGE LEVELS OF SERVICE

Intersection	Control Type	Delay / LOS
Guadalupe Rd. (SR 1)/Oso Flaco Lake Rd.	1-Way STOP	4.0 sec./A
Guadalupe Rd. (SR 1)/Willow Rd.	1-Way STOP	5.1 sec./B
Via Concha Rd./Willow Rd.	2-Way STOP	5.5 sec./B
Pomeroy Rd./Willow Rd.	2-Way STOP	> 60 sec./F
Pomeroy Rd./Calle Fresca	1-Way STOP	6.9 sec./B
Tefft St./Pomeroy Rd.	3-Phase Signal	11.3 sec./B
Tefft St./Orchard Ave.	3-Phase Signal	8.8 sec./B
Tefft St./Mesa Rd.	2-Way STOP	16.2 sec./C
Tefft St./Eucalyptus Rd.	2-Way STOP	6.1 sec./B
Tefft St./U.S. 101 SB Off-Ramp-Frontage Rd.	Signal	13.3 sec./B
Tefft St./U.S. 101 NB Ramps	Signal	14.2 sec./B
Willow Rd./Frontage Rd.	Signal	6.5 sec./B
Guadalupe Rd. (S.R. 1)/Main Entrance	1-Way STOP	3.9 sec./A

SOURCE: Associated Transportation Engineers, Inc.

type of control and future peak hour LOS for each of the study-area intersections. LOS calculation sheets are shown in the Technical Appendix.

The data presented in Table 4.2-18 show that most of the study-area intersections are forecast to operate at LOS C or better during the P.M. peak hour period with 2010 + Woodlands traffic volumes.

Potential Intersection Impacts. The Pomeroy Road/Willow Road intersection is forecast to degrade to LOS F with buildout of Woodlands, assuming the two-way stop control. This location

would require traffic signals. The Woodlands Specific Plan proposes to improve the Route 1/Main Entrance intersection by adding a southbound left-turn lane. Although the intersection is forecast to operate at LOS A with this improvement, a northbound right-turn lane

should also be provided, given the speed on this segment of Route 1. As detailed in the analysis of Stage I, the project would also generate potential impacts at the Willow Road/Route 1 and Dawn Road/Route 1 intersections.

Mitigation Measures:

Mitigation Measure 4.2-5a: In general, the future street system can accommodate the addition of the Woodlands project traffic. The buildout analysis found that the project has the potential to impact some of the study-area roadways and intersections. In addition to the measures outlined in Mitigation Measure 4.2-1a, the measures recommended to mitigate impacts associated with Woodlands buildout with the Willow Road extension and full interchange would also be required for this scenario.

Detailed Plans. As detailed circulation plans/design for each Stage are prepared, they shall be submitted to the County Engineering Departments and Planning for review of specific resource impacts and consistency with county road standards.

Willow Road/Highway 101. If the Willow Road extension and partial interchange have not been funded and constructed prior to the commencement of Stage II development, the project sponsor may elect to pay for the balance of the unfunded portion of this improvement. This payment would be subject to reimbursement from the County fee program, which has programmed the funding of this entire improvement.

Significance After Mitigation: Less than significant.

Impact 4.2-6: Project buildout would result in an incremental increase in traffic in the Guadalupe area and the City of Santa Maria. This is not anticipated to result in any significant impacts.

Guadalupe Area

Project buildout will have a less than significant impact on the Guadalupe area. Less than three percent of the external site traffic generated by project buildout will impact the area. The project assumes that three percent of the buildout ADT (490) and P.M. peak hour (49) volumes will travel along State Route 1 south of Oso Flaco Lake Road. Some of these traffic volumes are assumed to originate from the Guadalupe area, and would not be new to the area. The overall net traffic additions generated by the project in this area would not generate significant impacts.

City of Santa Maria

Project buildout is expected to have a less than significant impact on the City of Santa Maria. Approximately twenty-one percent of the external site traffic generated by buildout would travel south on U.S. Highway towards the Santa Maria area (2,640 ADT and 377 P.M. peak hour trips). Some of the trips travelling to and from the project site are assumed to originate from the City of Santa Maria, and would therefore not be new to the City street system. For instance, some of the business park trips will travel to existing or new housing in the City of Santa Maria, and thus would part of the City's existing and buildout traffic volumes. The overall net traffic additions generated by the project in the Santa Maria area would not generate significant impacts.

Mitigation Measures: None required.

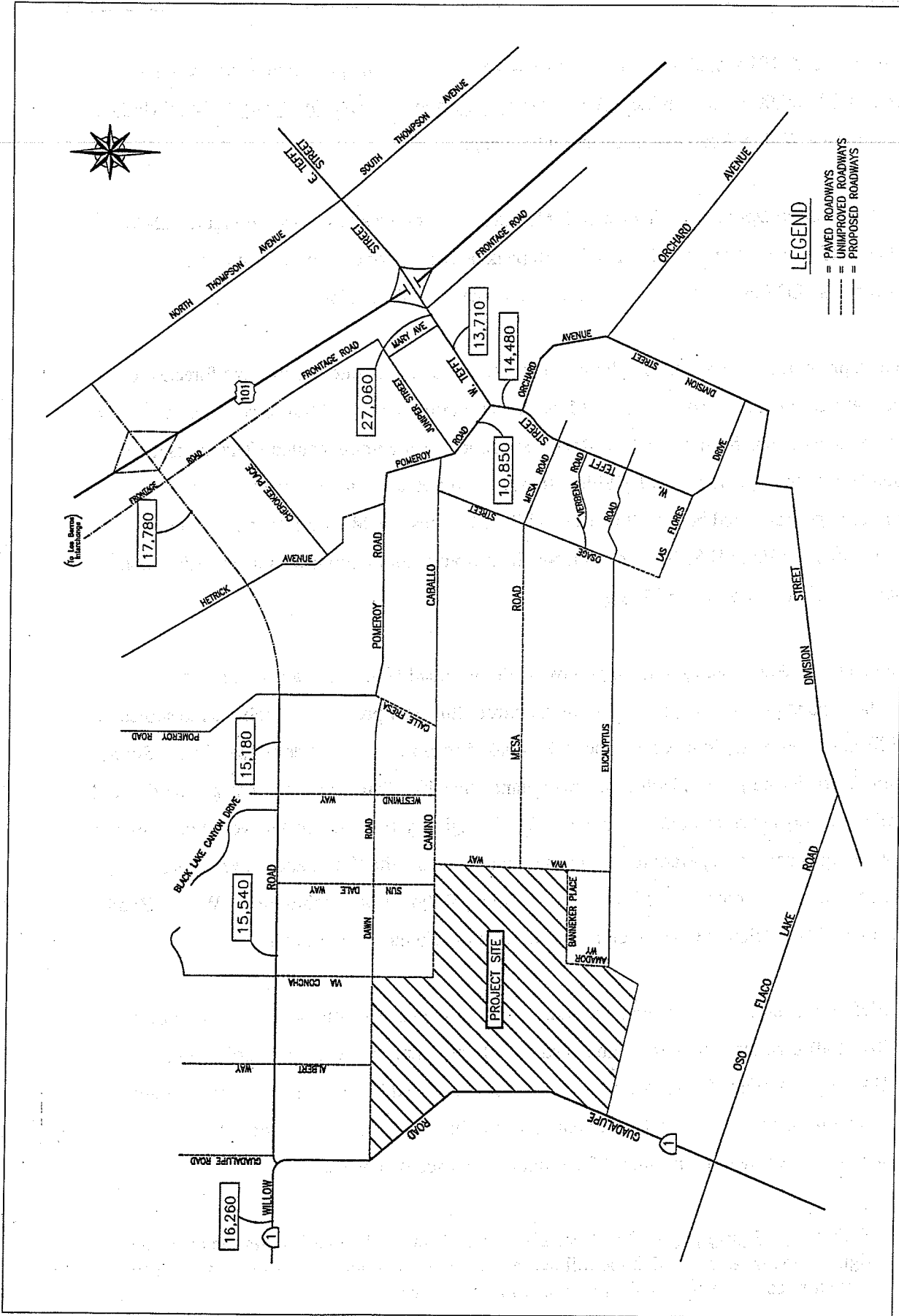
Significance After Mitigation: No significant impacts are anticipated.

Impact 4.2-7: Buildout of the proposed project, along with buildout of the General Plan land uses, would significantly impact area roadways and intersections.

The intensity of the proposed development has not been considered in any of the long range planning and circulation documents prepared by the County, including the South County Circulation Study. Given the size of the proposed development, the following analysis identifies if the proposed project would result in a significant increase to the cumulative traffic impacts at buildout of the South County planning area. The buildout analysis assumes year 2060 conditions with the Willow Road extension and full interchange.

2060 Development. As with the 2005 and 2010 analysis, 2060 traffic forecasts for the study area were developed using the South County Traffic Model assuming development in accordance with the *San Luis Obispo County General Plan*. The 2060 scenario assumes full buildout of the Woodlands project and full buildout of the Nipomo area. The model analysis also assumes that the proposed Willow Road extension and interchange would be fully completed, providing a full-access diamond interchange.

2060 Roadway Operations. Figure 4.2-19 shows the 2060 ADT volumes on roadway segments throughout the study area. Generally, the planned roadway network as described in the South County Circulation Study can accommodate 2060 traffic volumes. However, Willow Road from



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Figure 4.2-19
 Year 2060 ADT Volumes

SOURCE: Associated Transportation Engineers

Pomeroy to U.S. 101 would need to be 4-lanes to accommodate the projected traffic volumes. Currently \$7,100,000 has been identified in the South County Circulation Study 1994/95 Update Report for the Willow Road extension and interchange.

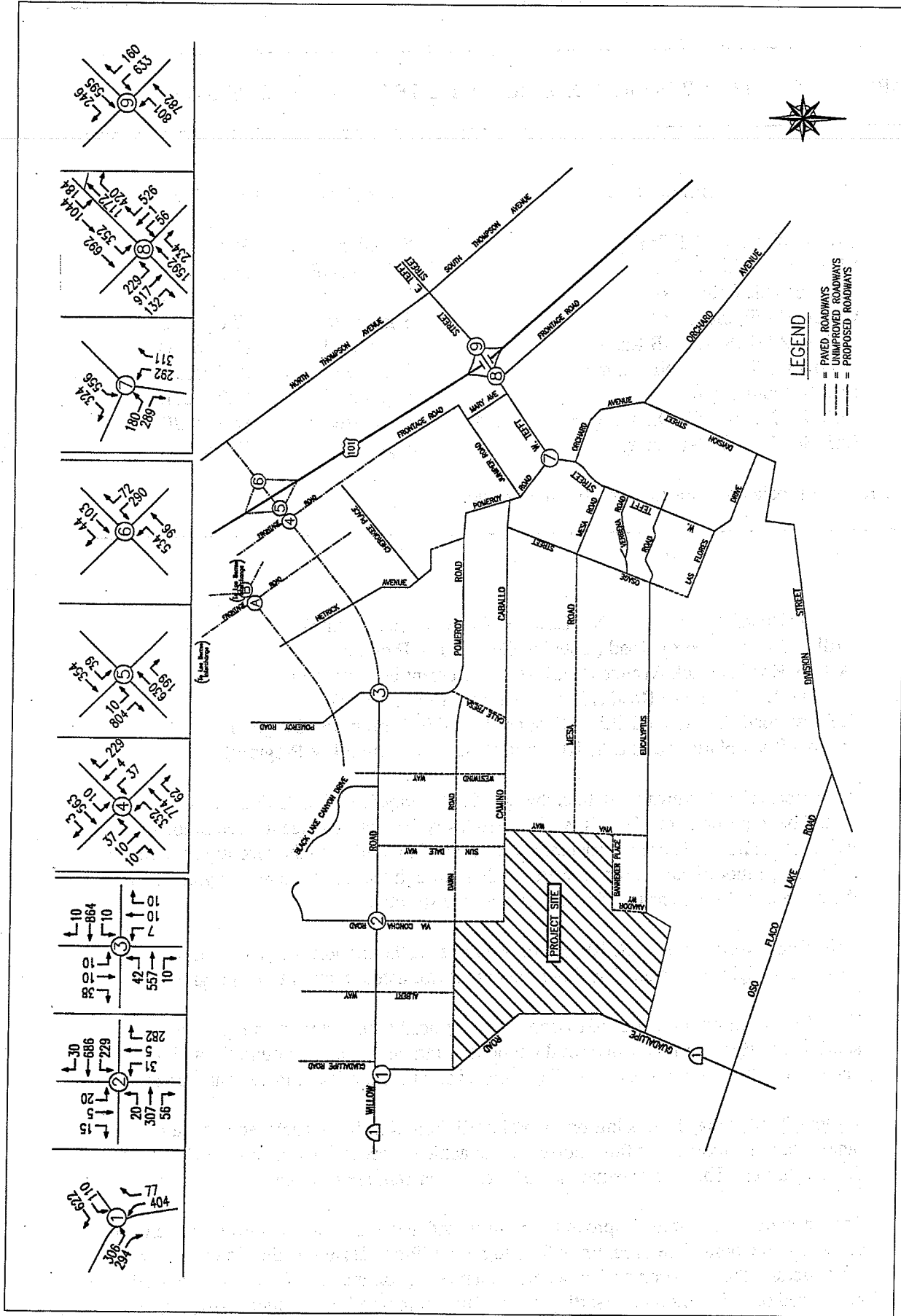
2060 Intersection Operations. The 2060 P.M. peak hour volumes are shown in Figure 4.2-20. Table 4.2-19 lists the type of control and 2060 peak hour LOS for each of the study-area intersections. LOS calculation sheets are shown in the Technical Appendix.

The data presented in Table 4.2-19 show that all of the study-area intersections are forecast to operate at LOS D or better during the P.M. peak hour period with 2060 traffic volumes, assuming the recommendations from the Willow Road Extension EIR are implemented. The intersections of Guadalupe Road (State Route 1)/Willow Road, Willow Road/Pomeroy Road Willow Road/Frontage Road, and both Willow Road/U.S. 101 ramps would require signalization. The geometry of Tefft Road/U.S. 101 ramp intersections would require modification according to the Willow Road extension EIR traffic study.

It is again noted that operations at the proposed Willow Road/U.S. Highway 101 interchange would be dependant upon the geometrics and control ultimately provided, which are the subject of the PSR that is currently in process. The PSR is based on traffic forecast developed by the South County Traffic Model, which include the Woodlands Specific Plan land uses. The geometrics and control ultimately provided at the Willow Road/U.S. Highway 101 interchange would be designed to provide for acceptable operations. As discussed previously, the Woodlands development would be required to contribute to improvements along Willow Road including the Willow Road extension and U.S. Highway 101 interchange through the County's fee program.

Year 2060 Improvements: In general, the future street system can accommodate the addition of Year 2060 traffic volumes with the planned street network improvements as described in the 1994/1995 South County Traffic Model and Study and included in the County's current South County Area fee program. Several improvements have been identified, however, that are in addition to those outlined in the current fee program, as discussed below:

Traffic Signal Installation: The Year 2060 analysis indicated that installation of traffic signals would be required at the following intersections. Four of the signals have been programmed in the current fee program while two have not.



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Figure 4.2-20
Year 2060 P.M. Peak Hour Volumes

SOURCE: Associated Transportation Engineers

TABLE 4.2-19: 2060 + WOODLANDS BUILDOUT INTERSECTION LEVELS OF SERVICE

Intersection	Control Type	Delay / LOS
Guadalupe Rd. (SR 1)/Willow Rd.	Signalized	30.9 sec./D
Via Concha/Willow Rd.	2-Way STOP	13.9 sec./C
Pomeroy Rd./Willow Rd.	Signalized	7.3 sec./B
Willow Rd./Frontage Rd.	Signalized	17.6 sec./C
Willow Rd./U.S. 101 SB Ramps	Signalized	27.4 sec./D
Willow Rd./U.S. 101 NB Ramps	Signalized	19.5 sec./C
Tefft St./Pomeroy Rd.	Signalized	10.7 sec./B
Tefft St./U.S. 101 SB Off-Ramp-Frontage Rd.	Signalized	37.3 sec./D
Tefft St./U.S. 101 NB Ramps	Signalized	25.3 sec./D

SOURCE: Associated Transportation Engineers, Inc.

Willow Road/State Route 1 (Not Listed in Current Fee Program)
 Willow Road/Pomeroy Road (Listed in Current Fee Program)
 Willow Road/Hetrick Avenue (Not Listed in Current Fee Program)
 Willow Road/Frontage Road (Listed in Current Fee Program)
 Willow Road/Southbound U.S. 101 ramp (Listed in Current Fee Program)
 Willow Road/Northbound U.S. 101 ramp (Listed in Current Fee Program)

Tefft Road/U.S. Highway 101 Interchange: 2060 analysis indicated that improvements would be required at the Tefft Road/U.S. Highway 101 interchange to accommodate buildout volumes. These improvements would be in addition to the recently constructed interchange modifications which were funded through the County's fee program, and are therefore considered unfunded by the current fee structure.

Tefft Road/Northbound U.S. 101 ramp: Add one eastbound left-turn lane and one westbound right-turn lane. This improvement is not listed in current fee program.

Tefft Road/Southbound U.S. 101 ramp: Add one northbound right-turn lane, one southbound right-turn lane, one southbound through lane, one eastbound through lane and one eastbound right-turn lane. This improvement is not listed in current fee program.

Willow Road/Route 1: In addition to the installation of traffic signals, additional turn lanes would be required at this intersection to achieve acceptable operations with Year 2060 volumes. This improvement is not listed in current fee program.

The estimated costs of the improvements discussed above that are not currently included in the South County Fee Program in \$2.6 to \$3.0 million. Based on the County's current fee structure, the proposed project would generate approximately \$2.8 million in traffic fees based on full buildout, offsetting most of the increased improvement costs required in the South County area.

Mitigation Measures:

Mitigation Measure 4.2-7a: As reviewed above, the 2060 buildout analysis indicated that several additional improvements would be required in the study area based on the new land uses and traffic modeling completed for the South County area. It is recommended that **one of the following approaches be applied 1) prior to approval of any development of Stage 2b the applicant shall install the additional 2060 improvements; or 2) the County update the South County Fee Program in conjunction with adoption of the proposed Woodlands Specific Plan. The updated fee program (which would include the additional '2060' improvements) required in the South County area and the additional revenues generated from the new land uses proposed (i.e., Woodlands, the new High School, etc.) and assess the new development.**

Significance After Mitigation: Less than significant.

Impact 4.2-8: Implementation of any of the project alternatives would result in increased traffic on local roadways, and would have similar impacts as the proposed project.

Expanded Business Park

The Expanded Business Park alternative would consist of 1,240 single-family dwelling units, 80 apartments units, a 701,000 square foot business park, 75,000 square feet of commercial/retail space, a 500 room resort hotel, a 12 acre park and an 18 hole golf course. The scenario represents a net increase of 366,000 square feet of business park.

Expanded Business Park Trip Generation. The Trip Generation Manual, 5th Edition, Institute of Transportation Engineers, 1995, was used to determine the number of trips for this scenario. The trip generation analysis completed for this alternative assumed that 25% of the trips generated by the expanded business park would be internal to the site and 75% of the trips would be external to the site, which are the same splits used for the "Project". The trip generation analysis found that about 44 percent of the total site trips generated by this alternative would be internal trips, with the remaining 56 percent external to the site. Both the "Project" and Expanded Business Park alternative have approximately the same internal verses external trip splits. However, the overall trips generated by the Expanded business Park alternative are greater than those generated by the "Project". The Expanded Business Park would generate 35,254 average daily trip ends (5,077 more than the project) and 3,401 P.M. peak hour trips ends (527 more than the project). The trip generation worksheet is contained in the Technical Appendix. Figures C-14 and C-15 in Appendix C show the Expanded Business Park traffic volumes on the study-area street network.

2010 + Expanded Business Park Roadway Operations. Figure C-16 in Appendix C shows the 2010 + Expanded Business Park ADT volumes on roadway segments throughout the study area. Table 4.2-20 shows the 2010 + Expanded Business Park ADT volumes, roadway classifications, roadway capacities, and future levels of service along major roadway segments.

The data presented in Table 4.2-20 show that all of the roadways within the study-area are forecast to operate at LOS A with 2010 + Expanded Business Park volumes, except for the LOS D forecast for U.S. Highway 101.

Potential Local Roadway Impacts. As with the proposed project, the Expanded Business Park alternative would add a substantial amount of traffic to the segments of Albert Way and Via Concha between Dawn Road and Willow Road; as well as to Dawn Road, Camino Caballo, Mesa Road, and Eucalyptus Road east of the site. These additions would require upgrading these roadway segments, similar to what is recommended for the proposed project, if not already completed at that time this additional development would be constructed.

2010 + Expanded Business Park Intersection Operations. The 2010 + Expanded Business Park P.M. peak hour volumes are shown in Figure C-17 in Appendix C. Table 4.2-21 lists the type of control and future peak hour LOS for each study-area intersection. The LOS calculation sheets are shown in the Technical Appendix.

The data presented in Table 4.2-21 show that most of the study-area intersections most of the study-area intersections are forecast to operate at LOS C or better during the P.M. peak hour period with 2010 + Expanded Business Park volumes. As shown, the Willow Road/U.S. Highway 101 ramp intersections would result in the acceleration for the need of signal control for this scenario (but not with the proposed project).

Potential Intersection Impacts. Similar to the proposed project, the Pomeroy Road/Willow Road intersection is forecast to degrade to LOS F with 2010 + Expanded Business Park volumes, assuming the two-way stop control.

Mitigation Measures: In general, the future street system could accommodate the addition of the Expanded Business Park traffic. The measures recommended for the proposed project would also be required for the Expanded Business Park. In addition, traffic signals would be required at project completion for the Willow Road/U.S. Highway 101 interchange and the Pomeroy

TABLE 4.2-20: 2010 + EXPANDED BUSINESS PARK ROADWAY LEVELS OF SERVICE

Roadway Segment	Roadway Classification	ADT Capacity	2010 + Expanded Business Park ADT	2010 + Expanded Business Park LOS
U.S. Highway 101	4-lane Freeway	80,000	66,790	LOS D
State Route 1	2-lane Arterial	18,000	7,660	LOS A
Tefft Street	4-lane Arterial	35,900	19,230	LOS A
Tefft Street	2-lane Arterial	18,000	7,780	LOS A
Willow Road	2-lane Arterial	18,000	9,920	LOS A
Pomeroy Road	2-lane Arterial	18,000	8,060	LOS A
Mesa Road	2-lane Collector	10,600	3,110	LOS A
Camino Caballo	2-lane Collector	10,600	8,060	LOS A
Eucalyptus Road	2-lane Local	10,600	2,910	LOS A

SOURCE: Associated Transportation Engineers, Inc.

Road/Willow Road intersection. As with the proposed project, the Route 1/Main Entrance intersection would also require a northbound right-turn lane, given the speed on this segment of Route 1.

Rural Village I

The Rural Village I alternative would consist of 877 single-family dwelling units, 80 apartments units, a 335,000 square foot business park, 75,000 square feet of commercial/retail space, a 500 room resort hotel, a 12 acre park and an 18 hole golf course.

Rural Village I Trip Generation. The Trip Generation Manual, 5th Edition, Institute of Transportation Engineers, 1995, was used to determine the number of trips for this scenario. The trip generation analysis found that about 49 percent of the trips generated by this alternative would be internal trips, with the remaining 51 percent external to the site. The Rural Village I would generate 27,106 average daily trip ends (3,071 less than the project) and 2,569 P.M. peak hour trips ends (305 less than the project). The trip generation worksheet is contained in the Technical Appendix. Figures C-18 and C-20 show the Rural Village I traffic volumes on the study-area street network.

TABLE 4.2-21: 2010 + EXPANDED BUSINESS PARK INTERSECTION LEVELS OF SERVICE

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Intersection	Control Type	Delay / LOS
Guadalupe Rd. (SR 1)/Oso Flaco Lake Rd.	1-Way STOP	4.0 sec./A
Guadalupe Rd. (SR 1)/Willow Rd.	1-Way STOP	5.2 sec./B
Via Concha/Willow Rd.	2-Way STOP	6.1 sec./B
Pomeroy Rd./Willow Rd.	2-Way STOP	388.9 sec./F
Pomeroy Rd./Calle Fresca	1-Way STOP	6.0 sec./B
Tefft St./Pomeroy Rd.	3-Stage Signal	10.1 sec./B
Tefft St./Orchard Ave.	3-Stage Signal	9.4 sec./B
Tefft St./Mesa Rd.	2-Way STOP	18.9 sec./C
Tefft St./Eucalyptus Rd.	2-Way STOP	6.4 sec./B
Tefft St./U.S. 101 SB Off-Ramp-Frontage Rd.	Signal	16.6 sec./C
Tefft St./U.S. 101 NB Ramps	Signal	13.2 sec./B
Guadalupe Rd. (S.R. 1)/Main Entrance	2-Way STOP	3.9 sec./A
Willow Rd./Frontage Rd.	Signal	8.4 sec./B
Willow Rd./U.S. 101 SB Ramps	Signal	13.9 sec./B
Willow Rd./U.S. 101 NB Ramps	Signal	10.2 sec./B

SOURCE: Associated Transportation Engineers, Inc.

2010 + Rural Village I Roadway Operations. Figure C-20 in Appendix C shows the 2010 + Rural Village I ADT volumes on roadway segments throughout the study area. Table 4.2-23 shows the 2010 + Rural Village I ADT volumes, roadway classifications, roadway capacities, and future levels of service along major roadway segments.

The data presented in Table 4.2-22 show that all of the roadways within the study-area are forecast to operate at LOS A with 2010 + Rural Village I volumes, except for the LOS D forecast for U.S. Highway 101. *Potential Local Roadway Impacts.* As with the proposed project, the Rural Village I alternative would add a substantial amount of traffic to the segments of Albert Way and Via Concha between Dawn Road and Willow Road; as well as Dawn Road, Camino Caballo, Mesa Road, and Eucalyptus Road east of the site. This alternative would require upgrading and improving these roadway segments to collector roads if not already completed at that time.

TABLE 4.2-22: 2010 + RURAL VILLAGE I ROADWAY LEVELS OF SERVICE

Roadway Segment	Roadway Classification	ADT Capacity	2010+ Rural Village I ADT	2010+ Rural Village I LOS
U.S. Highway 101	4-lane Freeway	80,000	65,420	LOS D
State Route 1	2-lane Arterial	18,000	7,010	LOS A
Tefft Street	4-lane Arterial	35,900	16,660	LOS A
Tefft Street	2-lane Arterial	18,000	8,770	LOS A
Willow Road	2-lane Arterial	18,000	8,320	LOS A
Pomeroy Road	2-lane Arterial	18,000	6,930	LOS A
Mesa Road	2-lane Collector	10,600	2,550	LOS A
Camino Caballo	2-lane Collector	10,600	1,750	LOS A
Eucalyptus Road	2-lane Local	10,600	2,410	LOS A

SOURCE: Associated Transportation Engineers, Inc.

TABLE 4.2-23: 2010 + RURAL VILLAGE I INTERSECTION LEVELS OF SERVICE

Intersection	Control Type	Delay / LOS
Guadalupe Rd. (SR 1)/Oso Flaco Lake Rd.	1-Way STOP	4.0 sec./A
Guadalupe Rd. (SR 1)/Willow Rd.	1-Way STOP	4.9 sec./A
Via Concha Rd./Willow Rd.	2-Way STOP	4.9 sec./A
Pomeroy Rd./Willow Rd.	2-Way STOP	30.3 sec./E
Pomeroy Rd./Calle Fresa	1-Way STOP	5.1 sec./B
Tefft St./Pomeroy Rd.	3-Phase Signal	10.6 sec./B
Tefft St./Orchard Ave.	3-Phase Signal	8.6 sec./B
Tefft St./Mesa Rd.	2-Way STOP	14.0 sec./C
Tefft St./Eucalyptus Rd.	2-Way STOP	5.8 sec./B
Tefft St./U.S. 101 SB Off-Ramp-Frontage Rd.	Signal	16.6 sec./C
Tefft St./U.S. 101 NB Ramps	Signal	12.6 sec./B
Willow Rd./Frontage Rd.	Signal	7.5 sec./B
Willow Rd./U.S. 101 SB Ramps	1-Way STOP	10.8 sec./C
Willow Rd./U.S. 101 NB Ramps	1-Way STOP	12.6 sec./C
Guadalupe Rd. (S.R. 1)/Main Entrance	1-Way STOP	3.8 sec./A

SOURCE: Associated Transportation Engineers, Inc.

TABLE 4.2-24: TRIP GENERATION: RURAL VILLAGE II

Scenario	External ADT	External P.M. Peak Hour
Rural Village II	16,686	1,652
Proposed Project	16,965	1,668
Net Difference	- 279	- 16

SOURCE: Associated Transportation Engineers, Inc.

2010 + Rural Village I Intersection Operations. Figure C-21 shows the 2010 + Rural Village I P.M. peak hour volumes, while Table 4.2-24 lists the type of control and future peak hour LOS for each intersection.

The data presented in Table 4.2-23 show that most of study-area intersections are forecast to operate at LOS C or better during the P.M. peak hour period with 2010 + Rural Village I volumes.

Potential Intersection Impacts. The Pomeroy Road/Willow Road intersection is forecast to degrade to LOS E with 2010 + Rural Village I volumes, assuming the two-way stop control. The Willow Road/U.S. 101 ramps would operate at acceptable levels of service under this scenario.

Mitigation Measures: In general, the future street system could accommodate the addition of the Reduced Rural Village I traffic. The measures recommended for the proposed project would also be required for the Reduced Rural Village Park alternative. The Pomeroy Road/Willow Road intersection will require signalization. The Route 1/Main Entrance intersection would still require a northbound right-turn lane.

Rural Village II

Traffic generated by this alternative would be about the same as the proposed project, as shown in Table 4.2-24. Traffic impacts to the study-area streets and intersections would therefore be very similar to the proposed project. The mitigation measures recommended for the proposed project would also be required for this alternative.

Revised Project Alternative

The Revised Project Alternative would result in minor changes in the overall number of trips generated. The internal road system would be revised to include six roads radiating out of the village instead of the three proposed as part of the project. External access for Stage I of the Revised Project Alternative would be limited to Highway 1 on the west and Albert Way and Via Concha on the north (with no improvements proposed for Dawn Road and Camino Caballo, and no connections proposed to Mesa Road or Eucalyptus Road). Additional external connections would be provided to Mesa Road and Eucalyptus Road in subsequent Stages, however, direct connections to Dawn Road, Camino Caballo and Viva Way are not proposed.

Trip Generation. Table 4.2-25 summarizes the trip generation estimates for Stage I, Stage II and Buildout. Also shown are comparisons to the trip generation estimates developed for the proposed project. The trip generation estimates are based on regression equation rates published in Institute of Transportation Engineers, Trip Generation Manual, 6th Edition. The trip generation estimates also addressed internal versus external trip splits and pass-by trip reductions pursuant to the methods developed for the proposed project.

As shown in Table 4.2-25, the Revised Project Alternative would result in minor changes in the overall number of trips generated. Most importantly, the number of trips external to the site would increase. This is due to the mix of land uses and the internal capture rates (the number of residential units remains the same with fewer uses to interact with provided on the site). For example, although buildout of the site would result in a net reduction of 501 ADT and 24 PHT, the number of trips external to the site would be 568 ADT and 41 PHT higher than the proposed project.

Stage I Impacts. Stage I of the Revised Project Alternative would generate 6,052 ADT and 628 PHT external to the site. External access for Stage I is proposed via Highway 1 on the west and the Albert Way and Via Concha on the north, with no direct access via Camino Caballo, Mesa Road, or Eucalyptus Road. Dawn Road would remain unimproved adjacent to and west of the site, thus limiting its usability as an east-west connector. The applicant is also proposing to leave the majority of the roadways along the perimeter of the site unimproved (Dawn Road, Camino Caballo, Viva Way, Banneker and Amador). This access

TABLE 4.2-25: REVISED PROJECT ALTERNATIVE TRIP GENERATION

Stage	ADT	PHT
Stage I - Revised Project Alternative		
Internal	3,102	302
External	<u>6,052</u>	<u>628</u>
Totals	9,154	930
Stage II - Revised Project Alternative		
Internal	8,826	831
External	<u>13,190</u>	<u>1,294</u>
Totals	22,016	2,125
Stage I - Proposed Project		
Internal	9,258	874
External	<u>12,998</u>	<u>1,275</u>
Totals	22,256	2,149
Net Difference		
Internal	-432	-43
External	<u>+192</u>	<u>+19</u>
Totals	-240	-24
Buildout - Revised Project Alternative		
Internal	12,143	1,141
External	<u>17,533</u>	<u>1,709</u>
Totals	29,676	2,850
Buildout - Proposed Project		
Internal	13,212	1,206
External	<u>16,965</u>	<u>1,668</u>
Totals	30,177	2,874
Net Difference		
Internal	-1,069	-65
External	<u>+568</u>	<u>+41</u>
Totals	-501	-24

Estimates based on ITE regression curve rates.

ADT = Average Daily Trips; PHT = Peak Hour Trips.

plan requires that the trips generated within the Stage I development area travel approximately one-half mile north to Willow Road, traverse Willow Road to the east, and then back-track to the south via Pomeroy Road to access the downtown Nipomo area and the Tefft Road/U.S. Highway 101 interchange. The plan would also require that the majority of the local traffic in Nipomo area which is destined for the site to travel north to Willow Road via Pomeroy Road then south to the site via Albert Way or Via Concha. This circuitous routing would affect over 50% of the trips generated by the project.

This alternative would result in much higher traffic loading on Albert Way, Via Concha, and Willow Road, while significantly reducing the forecast traffic loading on Dawn Road and Camino Caballo. While the study-area roadways and intersections could generally accommodate the traffic volumes generated by Stage I with the limited circulation system proposed by the applicant (assuming improvements to Albert Way and Via Concha), the circulation plan is inconsistent with good transportation planning principles. The current Stage I plan includes over 500 residential units and 177,500 square feet of retail/business park space. Over 50% of the traffic which would be generated by this development would be oriented to and from the east (the Nipomo commercial area and the freeway). Providing only one east-west connector link located one-half mile north of the site would be viewed as a minimal circulation system given the size of the development. The proposed circulation system would result in approximately 2,000 additional vehicle miles traveled (VMT) per day (equating to over 600,000 additional VMT on an annual basis) in the Nipomo area (and associated vehicle emissions). The limited access plan could also increase emergency vehicle response times to the site. It is also noted that some of the traffic generated at the site would find its way to the other adjacent dirt roadways (i.e. Dawn Road, Camino Caballo, Viva Way, etc.) even though no improvements are proposed by the applicant for these roadways, thus inducing the need for future roadway improvements. For instance, residents living on Dawn Road who wish to patronize the retail or recreational components of the Woodlands project would travel on Dawn Road to access the site regardless of whether the road was paved or not.

Assuming the access plan proposed by the applicant for this alternative, the operation of the Willow Road/Pomeroy Avenue intersection would degrade to the LOS D range. This access alternative would also result in heavy turning movements at the Willow Road intersections with Albert Way and Via Concha Road. The project would also add traffic to the Willow

Road/Route 1 intersection, which could generate potential safety impacts given its current substandard design.

Stage I Mitigations. As discussed above, Stage I of the Revised Project Alternative would generate impacts to several intersections and roadways in the study area. Mitigations are listed below:

Albert Way and Via Concha: These two roadways, which would carry the bulk of the traffic generated by Stage I, shall be improved to County Collector Road standards between Dawn Road and Willow Road. In addition to these roadway improvements, left-turn channelization would be required on Willow Road at the Albert Way and Via Concha Road intersections to accommodate the turning movements generated by the project. These improvements would be required prior to occupancy the Stage I developments.

Willow/Pomeroy: Based on the limited circulation system proposed for the Stage I development, traffic signals would be required at this intersection to accommodate the volumes generated by Stage I. Intersection widening to provide appropriate left- and/or right-turn lanes would also be required. It is anticipated that this improvement would not be required until most of the Stage I development is constructed. Furthermore, if the County requires an additional east-west access connection, as recommended below, the signal would not be required at all for Stage I. It is therefore recommended that the applicant bond for the signal and that signal warrant studies be conducted at periodic occupancy intervals (i.e. at 50% and 75% occupancy) to determine the timing for installation.

Project Frontage Improvements: In order to provide for the equitable development of the future circulation system which will be required to serve the Woodlands site as well as buildout of the Nipomo area, the project applicant would be responsible for improving the roadways fronting the property. These would include Dawn Road, Camino Caballo, Route 1 and Viva Way. The roadways would be improved to County standards, as determined by the County Engineering Department. These improvements would be required prior to occupancy of the Stage I developments.

Route 1/Main Entrance. Prior to construction/logging operations, the Route 1/Main Entrance intersection shall be improved to include a southbound left-turn lane and a northbound right-turn lane. The turning-lanes shall be constructed to provide adequate truck storage and turning movements. The intersection design shall conform to Caltrans design standards.

Route 1/Willow Road. This intersection currently has single lane approaches with substandard geometric design. It is recommended that this intersection be realigned and widened to provide turn-lanes on all of the approaches. The intersection should be reconfigured to form a standard three-way approach configuration in order to alleviate driver confusion. This would involve realignment of the Willow Road approach. As volumes increase due to buildout of the area, the control of the intersection may need to be modified to provide all-way STOP control or signalization. These improvements would be required prior to occupancy of any of the Stage I developments.

The improvements recommended for the Willow Road/Route 1 intersection would be required to mitigate potential safety impacts associated with the addition of project traffic and the current substandard design. These improvements would still be required with the revised project. The improvements would need to be constructed prior to development of Stage I. If the improvements are constructed by Caltrans prior to development of Stage I, then no additional improvements would be required of the project.

East-West Connections: As previously noted, the current Stage I plan includes no direct east-west connection to the project site. This would result in significant increases in vehicle miles traveled in the area. It is therefore recommended that a minimum of one direct east-west roadway connection be provided for the Stage I development. This could include the connection to and improvement of Mesa Road (as proposed in Stage II of the project), or development of Dawn Road or Camino Caballo as analyzed for the proposed project. These improvements would be required prior to occupancy of any of the Stage I developments. Eucalyptus Road was not included in the discussion because of its southerly location, since development of Stage I would occur in the northern portion of the site.

Stage II Impacts. Stage II of the Revised Project Alternative would generate about the same level of external traffic as Stage I of the proposed project (see Table 4.2-25). External access for Stage II would be expanded by adding a connection to Mesa Road, with no direct access to Camino Caballo or Eucalyptus Road and no improvements proposed for Dawn Road. The revised project information provided by the applicant indicates that access to Dawn Road and Camino Caballo would be for "emergency vehicles only". However, the site plan shows two major connections between the site and Dawn Road at Albert Way and Via Concha.

Stage II of this alternative would result in much higher traffic loading on Albert Way, Via Concha, Willow Road, and Mesa Road, while significantly reducing the forecast traffic loading on Dawn Road and Camino Caballo.

While the study-area roadways and intersections could generally accommodate the traffic volumes generated by Stage II with the limited circulation system proposed by the applicant (assuming improvements to Mesa Road) based on roadway engineering design capacities, the circulation plan is inconsistent with good planning principles. The Stage II development includes 838 dwelling units, over 400,000 S.F. of commercial square-footage, and a 500 room hotel. Providing a single east-west connector link at Mesa Road for this level of development would focus traffic on this roadway and within the neighborhood adjacent to Tefft Road and at a limited number of intersections. Providing additional east-west links would disperse traffic over more of the study-area roads and intersections.

Assuming the access plan proposed by the applicant for this alternative, the operation of the Mesa Road/Tefft Road intersection would degrade to the LOS D range.

It is also noted that development of the Nipomo mesa east of the site may trigger the need for upgrading the links and the cost of the upgrades should be shared by the project according to the project's traffic contributions. Project-generated traffic would find its way to the links as they are paved in the future.

Stage II Mitigations. As discussed above, Stage II of the Revised Project Alternative would generate impacts to several intersections and roadways in the study area. Mitigations are listed below:

Mesa Road: The segment of Mesa Road between Viva Way and Osage Street should be improved to County Collector Road standards, if not improved by other project development in the area or the County prior to construction and occupancy of the second Stage of the Woodlands project.

Mesa Road/Tefft Road: Based on the revised circulation system proposed for the Stage II development, traffic signals would be required at this intersection to accommodate the volumes generated by Stage II. Intersection widening to provide appropriate left-turn channelization may also be required. It is anticipated that this improvement would not be required until most of the Stage II development is constructed and occupied. Furthermore, if the County requires an additional east-west access connection, as recommended below, the signal would not be required at all for Stage II. It is therefore recommended that the applicant bond for the signal and that signal warrant studies be conducted at periodic occupancy intervals (i.e. at 50% and 75% occupancy of Stage II) to determine the timing for installation.

East-West Connections: As noted in the discussion of this alternative, the current Stage II plan includes one direct east-west connection to the project site via Mesa Road. This would result in significant loading of Mesa Road in the residential area in the downtown Nipomo area and would require traffic signals at the Tefft Road intersection. It is therefore recommended that a minimum of one additional east-west roadway connection be provided for the Stage II development. This could include the connection to Eucalyptus Road or development of Dawn Road or Camino Caballo as analyzed for the proposed project. These improvements would be required prior to occupancy of any of the Stage II developments.

Buildout Impacts. Buildout of the Revised Project Alternative would generate about the same level of traffic as buildout of the proposed project (slightly higher external traffic as shown in Table 4.2-25). External access for buildout would be expanded by adding a connection to Eucalyptus Road, with no direct access or improvements proposed for Dawn

Road, Camino Caballo and Viva Way. It is noted, however, that project-generated traffic would utilize the entire roadway system in the Nipomo area as buildout occurs, as some of the area roads will be paved as development occurs and some of the traffic generated by the Woodlands project would utilize unpaved roads. The impacts and mitigations for buildout of the Revised Project Alternative would generally be the same as those identified for the proposed project, with the exception of the heavier loading on Mesa Road and the need for signals at the Mesa Road/Tefft Road intersection as identified in the Stage II analysis.

Buildout Mitigations. Buildout impacts of the Revised Project Alternative would be the same as buildout of the proposed project and mitigations would therefore also be the same. In addition to these mitigations, the project would be required to contribute its fair share of the costs of the improvements of the area roadways that its traffic would use.

Study-Area Roadways: The project would be required to contribute a fair share of the costs required to improve the study-area roadways which will accommodate buildout traffic. These would include the off-site portions of Dawn Road, Camino Caballo, and Viva Way as well as the Dawn Road/Route 1 intersection.

4.3 AIR QUALITY

This section addresses the impacts of the proposed project on ambient air quality and the potential for exposure of people, especially sensitive individuals, to hazardous pollutant concentrations. Air pollutants of concern include carbon monoxide, reactive organic gases, particulate matter, and oxides of nitrogen. This section analyzes the quantity of emissions that would be produced during project construction and project operation.

4.3.1 ENVIRONMENTAL SETTING

4.3.1.1 Climate and Meteorology

Air quality is affected by both the rate and location of pollutant emissions and by meteorological conditions which influence movement and dispersal of pollutants. Atmospheric conditions such as wind speed, wind direction, and air temperature gradients, along with local topography, provide the link between air pollutant emissions and air quality.

The project area is located within the South Central Coast Air Basin, which covers an area of 5,538 square miles, encompassing the counties of San Luis Obispo, Santa Barbara, Ventura and the north-central portion of Los Angeles County. The climate can be generally characterized as Mediterranean with warm, dry summers and cooler, relatively damp winters. Along the coast, mild temperatures are the rule throughout the year due to the moderating influence of the Pacific Ocean. This effect is diminished inland in proportion to distance from the ocean or by major intervening terrain features, such as the coastal mountain ranges, or the Santa Lucia Range in the case of the proposed project area. As a result, inland areas are characterized by a considerably wider range of temperature conditions. Summertime temperatures average approximately 70 degrees Fahrenheit near the coast, while inland valleys are often in the high 90s. Average minimum winter temperatures range from the low 30s along the coast to the low 20s inland.¹

Airflow around the County plays an important role in the movement and dispersion of air pollutants. The speed and direction of local winds are controlled by the location and strength of the Pacific High pressure system and other global patterns, by topographical factors and by circulation patterns resulting from temperature differences between the land and sea. In spring

¹ San Luis Obispo County Air Pollution Control District, *Clean Air Plan of San Luis Obispo County*, December 1991.

and summer months, when the Pacific High attains its greatest strength, onshore winds from the northwest generally prevail during the day. At night, as the sea breeze dies, weak drainage winds flow down the coastal mountains and valleys to form a light, easterly land breeze. In the fall, onshore surface winds decline and the marine layer grows shallow, allowing an occasional reversal to a weak offshore flow. This, along with the diurnal alternation of land-sea breeze circulation, can sometime produce a "sloshing" effect. Under these conditions, air pollutants generated on the mainland may accumulate over the ocean for a period of one or more days and are subsequently carried back onshore with the return of the sea breeze. Strong inversions can form at this time, "trapping" air pollutants near the surface.²

This effect is intensified when the Pacific High weakens or moves inland to the east. This may produce a "Santa Ana" condition in which air, often pollutant-laden, is transported into the county from the east and southeast. This can occur over a period of several days until the high pressure system returns to its normal location, breaking the pattern. The breakup of a Santa Ana condition may result in relatively stagnant conditions and a buildup of pollutants offshore. The onset of the typical daytime sea breeze can bring these pollutants back onshore, where they combine with local emissions to cause high pollutant concentrations. Not all occurrences of the "post Santa Ana" condition lead to high ambient pollutant levels, but it does play an important role in the air pollution meteorology of the County.³

4.3.1.2 Air Quality Regulations, Plans and Policies

State and federal agencies have set ambient air quality standards for certain air pollutants. At the federal level, National Ambient Air Quality Standards (NAAQS) have been established for the following criteria pollutants: carbon monoxide (CO), ozone (O₃), sulfur dioxide (SO₂), nitrogen dioxide (NO₂), inhalable particulate matter (PM₁₀), and lead (Pb). The state standards for these criteria pollutants are more stringent than the corresponding federal standards.

Areas are classified under the Federal Clean Air Act as either "attainment" or "non-attainment" areas for each criteria pollutant, based on whether the NAAQS have been achieved or not. San Luis Obispo County is designated as an attainment area for all the criteria pollutants based on the

² Ibid.

³ Ibid.

NAAQS. At the more stringent state level, standards for O₃ and PM₁₀ are currently being exceeded in the County and the California Air Resources Board (ARB) has designated the County as a non-attainment area for these pollutants.

In California, the ARB, the State agency responsible for coordinating both state and federal air pollution control programs in the State, regulates mobile emission sources, and oversees the activities of county Air Pollution Control Districts (APCDs) and regional Air Quality Management Districts (AQMDs). The San Luis Obispo Air Pollution Control District is responsible for developing and enforcing regional regulations to control ambient air quality in the San Luis Obispo area.

In January 1992, the 1991 Clean Air Plan (CAP) was adopted by the Air Pollution Control District Board and was approved by the ARB in August 1992. The 1991 CAP contained 44 control measures designed to reduce ozone precursor emissions from a wide variety of stationary and mobile sources. The 1995 CAP is a comprehensive update of the 1991 CAP, but with fewer control strategies recommended for adoption. Implementation of the 1995 CAP is expected to bring the County into attainment of the state ozone standard by the end of 1997.⁴

4.3.1.3 Existing Air Quality

Applicable federal and state ambient air quality standards for the criteria pollutants are presented in Table 4.3-1. Currently, the County maintains air quality monitoring stations on the Nipomo Mesa. The closest station is located at 1300 Guadalupe Road, approximately one mile northwest of the project site across Highway 1.

A five-year summary (1991-1995) of data collected at the Nipomo station is shown in Table 4.3-2 to represent the existing ambient oxides of Nitrogen (NO_x), which is an O₃ precursor, and PM₁₀ concentrations in the project area. Presently, the County of San Luis Obispo is in non-attainment of the state standards for these two pollutants. Air samples are taken approximately 60 times per year at this station.

A summary of the sources and health effects of these criteria pollutants is presented below.

⁴ County of San Luis Obispo Air Pollution Control District, *1995 Clean Air Plan, San Luis Obispo County*, December 1995.

TABLE 4.3-1: FEDERAL AND CALIFORNIA AMBIENT AIR QUALITY STANDARDS

<u>Pollutant</u>	<u>Averaging Time</u>	<u>Federal Standard</u>	<u>California Standard</u>
Ozone (O ₃)	1-hour	0.12 ppm	0.09 ppm
Carbon Monoxide (CO)	1-hour	35.0 ppm	20.0 ppm
	8-hour	9.0 ppm	9.0 ppm
Nitrogen Dioxide (NO ₂)	1-hour	--	0.25 ppm
Sulfur Dioxide (SO ₂)	24-hour	0.14 ppm	0.045 ppm
Particulate Matter (PM ₁₀)	24-hour	150 µg/m ³	50 µg/m ³

ppm - parts per million; µg/m³ - micrograms per cubic meter.

SOURCE: California Air Resources Board, *Air Quality Data Summary*.

4.3.1.3.1 Ozone

Ozone is not directly emitted by a source but is a result of photochemical reactions involving oxides of nitrogen (NO_x), reactive organic gases (ROG) and sunlight. Emissions of NO_x and ROG are primarily a result of fuel combustion. In general, the largest contributor of these emissions is from mobile sources, which include automobile, trucks, trains, and aircraft. Other sources of NO_x and ROG include off-shore oil and gas seeps, pesticides, fires, paints and solvents, oil and gas extraction and processing facilities, residential fuel use and consumer products. Ozone is a pungent, colorless gas that is a strong irritant. In the upper atmosphere, ozone provides important protection against ultraviolet radiation. However, in the lower atmosphere, ozone causes eye and respiratory irritation, reduces resistance to lung infection, and may aggravate pulmonary conditions in persons with lung disease. It is also damaging to vegetation and untreated rubber. Two of the air samples taken exceeded the state one-hour ozone standard at the Nipomo Mesa station between 1991 and 1995.

4.3.1.3.2 Carbon Monoxide

Carbon Monoxide is a non-reactive pollutant emitted primarily by motor vehicles. Ambient CO concentrations generally follow the spatial and temporal distributions of vehicular traffic and are also influenced by meteorological factors such as wind speed and atmospheric mixing. When strong surface inversions formed on winter nights are coupled with near-calm winds, CO from

TABLE 4.3-2: PROJECT AREA AIR POLLUTANT SUMMARY, 1991-1995

Pollutant ^a	1991	1992	1993	1994	1995
<u>Ozone (O₃)</u>					
Highest 1-hr Average, ppm ^b	0.09	0.10	0.10	0.09	0.08
Number of days Federal standard is exceeded	0	0	0	0	0
Number of days State standard is exceeded	0	1	1	0	0
<u>Particulate Matter - 10 Micron (PM₁₀)</u>					
Highest 24-hr Average, µg/m ^{3b}	75	114	121	52	50
Number of days Federal standard is exceeded	0	0	0	0	0
Number of days state standard is exceeded	2	8	9	1	0
<u>Sulfur Dioxide (SO₂)</u>					
Highest 24-hr Average, µg/m ^{3b}	0.023	0.023	0.046	0.006	0.038
Number of days Federal standard is exceeded	0	0	0	0	0
Number of days state standard is exceeded	0	0	1	0	0

a. Data are taken from the County monitoring station located at 1300 Guadalupe Road, approximately one mile northwest of the project site. 1994 Sulfur Dioxide data not available from that station; the data presented for that year is from the Nipomo (Wilson) station. Air samples taken approximately 60 times per year.

b. ppm - parts per million; µg/m³ - micrograms per cubic meter.

Note: NO₂, an ozone precursor, is not monitored at the Nipomo station; however, the data presented in the *Air Quality Data Summaries* show that none of the monitoring stations in the South Central Coast Air Basin indicate any exceedances of the NO₂ standards.

SOURCE: California Air Resources Board, *Air Quality Data Summaries*, 1991-1995.

automobile exhaust becomes concentrated. The highest CO levels within the Air Basin are almost always measured during the winter. Carbon Monoxide interferes with the transfer of oxygen to the blood. It may cause dizziness and fatigue and can impair central nervous system functions. The one-hour and eight-hour average CO standards have not been exceeded in the County in the last five years.⁵

⁵ California Air Resources Board, *Air Quality Data Summaries*, 1991-1995.

4.3.1.3.3 Nitrogen Oxides

There are two oxides of nitrogen which are important in air pollution - nitric oxide (NO) and nitrogen dioxide (NO₂). Nitric oxide, along with some NO₂, is emitted from motor vehicle engines, power plants, refineries, industrial boilers, ships, aircraft and trains. Nitrogen dioxide is primarily formed when NO reacts with atmospheric oxygen in the presence of hydrocarbons and sunlight; the other product of this reaction is ozone. Nitrogen dioxide produces a brownish atmospheric discoloration, a "whiskey brown" colored gas that is readily observed during periods of heavy air pollution. Nitrogen dioxide can cause eye, nose and throat irritation and can affect the lungs leading to increased susceptibility to respiratory infections. Nitrogen oxides also contribute to the formation of acid fog and acid rain, which have been shown to cause detrimental effects on certain vegetation and wildlife. The federal and state standards for NO₂ has not been exceeded in the County in the last five years.⁶

4.3.1.3.4 Sulfur Dioxide

This contaminant is the natural combustion product of sulfur or sulfur-containing fuels. Fuel combustion is a major source, while chemical plants, sulfur recovery plants, and metal processing facilities are minor contributors to SO₂ contamination of the Air Basin. In humid atmospheres, sulfur oxides can react with water vapor to produce sulfuric acid, a component of acid rain. It can also form sulfate particulates, which reduce visibility. Sulfur dioxide is a lung irritant, and in combination with moisture and oxygen, SO₂ can damage vegetation and man-made materials. Sulfur dioxide levels are generally highest during the winter although no exceedances of ambient SO₂ standards have been recorded in the County in the last five years.⁷

4.3.1.3.5 Particulate Matter - 10 Microns

PM₁₀ refers to particulates of 10 microns in diameter or less. These particulates can be produced by many types of sources, including fuel combustion, agricultural operation, mineral extraction and processing, roads, and construction activities. Oxides of nitrogen and sulfur and ROG are precursors to the nitrate, sulfate, and organic fractions of PM₁₀, respectively. Very small particulates of certain substances can cause direct lung damage or can contain absorbed gases

⁶ Ibid.

⁷ Ibid.

that can adversely affect lung function. These particulates can also reduce visibility. The federal standard for PM₁₀, has not been exceeded in the Nipomo area since 1991; however, as shown in Table 4.3-2, the state standard has been exceeded 20 times between 1991 and 1995 at the Nipomo station on Guadalupe Road.⁸ In addition, there have been 77 exceedances since 1991 at the Ralcoa Way station, 3 exceedances at the station in downtown Nipomo, and 29 exceedances at the UCD1 station (located on the Unocal property).⁹

Twelve of the 61 PM10 samples taken at Ralcoa Way during 1994 exceeded the State 24-hour standard, with the highest sample registering close to twice the standard. On some of these days, samples taken at the Nipomo Mesa monitoring station also showed exceedances.¹⁰

4.3.1.4 Existing Emissions

The most recent available emissions inventory for the County is presented in Table 4.3-3. As shown in the table, the Pacific Gas and Electric plant in Morro Bay is the largest, single stationary source of NO_x emissions in the County. Industrial sources, particularly the Unocal complex on the Nipomo Mesa across the project site to the west (west of Highway 1), generate nearly all of the SO₂ emissions in the County.

The project site is currently undeveloped. Therefore, no sources of emissions exist on the project site.

4.3.1.5 Odors

On August 4, 1989, the County of San Luis Obispo Air Pollution Control District Hearing Board found that petroleum-related odors emitted during operation of the Unocal facility cause a nuisance for nearby residents, and issued an Order for Abatement to Unocal. Various requirements for odor control and other actions were made in the order, and further requirements were contained in a Stipulated Agreement between Unocal and the District which was

⁸ Ibid.

⁹ Draft South County Air Quality Fee Report, October 1997.

¹⁰ San Luis Obispo County, Air Pollution Control District, *TOSCA-Unocal Santa Maria Refinery and Carbon Plant Update*, October 22, 1997.

TABLE 4.3-3: 1991 ANNUAL EMISSIONS INVENTORY SUMMARY FOR THE COUNTY (tons per year)

<u>Emissions Sources</u>	<u>Organic Gases</u>		<u>Carbon Monoxide</u>	<u>Oxides of Nitrogen</u>	<u>Sulfur Dioxide</u>	<u>PM₁₀</u>
	<u>Total</u>	<u>Reactive</u>				
STATIONARY SOURCES						
Fuel Combustion:						
Agricultural	11.2	9.3	0.0	0.0	0.2	0.0
Oil and Gas Production	64.9	56.2	37.7	198.0	12.8	4.5
Petroleum Refining	30.8	24.7	53.3	227.9	118.1	16.2
Other Manuf./Industrial	146.9	111.7	4.1	99.9	3,246.8	37.2
Electric Utilities	27.8	22.8	609.0	3,455.8	121.6	16.4
Other Services and Commerce	56.8	47.5	41.0	249.4	21.8	9.6
Residential	526.4	235.8	3,601.5	226.2	10.2	510.7
Other	<u>15.5</u>	<u>13.2</u>	<u>12.2</u>	<u>66.1</u>	<u>0.5</u>	<u>3.9</u>
Subtotal	880.4	521.2	4,358.9	4,523.2	3,532.1	598.5
Waste Burning:						
Agricultural Debris	389.8	281.4	1,560.5	0.0	0.0	270.0
Ramge Management	42.2	30.5	237.2	0.0	0.0	37.1
Other	<u>1,129.7</u>	<u>437.7</u>	<u>6,254.3</u>	<u>5.6</u>	<u>1.0</u>	<u>762.5</u>
Subtotal	1,561.7	749.5	8,052.0	5.6	1.0	1,069.6
Organic Solvent Users:						
Dry Cleaning	7.8	7.8	0.0	0.0	0.0	0.0
Degreasing	691.6	287.4	0.0	0.0	0.0	0.0
Architectural Coatings	584.9	560.3	0.0	0.0	0.0	0.0
Other Surface Coating	627.5	625.7	0.0	0.0	0.0	0.0
Asphalt Paving	86.8	86.8	0.0	0.0	0.0	0.0
Printing	37.1	37.1	0.0	0.0	0.0	0.0
Consumer Products	735.1	735.1	0.0	0.0	0.0	0.0
Industrial Solvent Use	160.8	160.8	0.0	0.0	0.0	0.0
Other	<u>25.0</u>	<u>25.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
Subtotal	2,956.6	2,526.1	0.0	0.0	0.0	0.0
Petroleum Processing, Storage, and Transfer:						
Oil and Gas Extraction	244.0	129.6	0.0	0.0	0.0	0.0
Petroleum Refining	215.2	203.8	29.8	131.0	723.5	5.5
Petroleum Marketing	474.5	454.3	0.0	0.0	0.0	0.0
Other	<u>0.3</u>	<u>0.3</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
Subtotal	934.0	788.0	29.8	131.0	723.5	5.5
Industrial Processes:						
Chemical	4.6	4.6	0.0	0.0	0.0	0.0
Food and Agriculture	51.2	47.6	0.0	0.0	0.0	39.4
Mineral Processes	0.0	0.0	0.0	0.0	0.0	173.2
Metal Processes	0.0	0.0	0.0	0.0	0.0	0.0
Wood and Paper	0.0	0.0	0.0	0.0	0.0	0.0
Other	<u>32.9</u>	<u>16.4</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>34.9</u>
Subtotal	88.7	68.6	0.0	0.0	0.0	247.5

(Continued on the next page)

TABLE 4.3-3: 1991 ANNUAL EMISSIONS INVENTORY SUMMARY FOR THE COUNTY
(Continued)

Emissions Sources	Organic Gases		Carbon Monoxide	Oxides of Nitrogen	Sulfur Dioxide	PM ₁₀
	Total	Reactive				
Miscellaneous Processes:						
Pesticide Application	877.1	877.1	0.0	0.0	0.0	0.0
Farming Operation	0.0	0.0	0.0	0.0	0.0	4,302.9
Construction and Demolition	0.0	0.0	0.0	0.0	0.0	4,325.8
Entrained Road Dust, Paved	0.0	0.0	0.0	0.0	0.0	8,149.0
Entrained Road Dust, Unpaved	0.0	0.0	0.0	0.0	0.0	5,344.7
Unplanned Fires	73.2	52.9	751.8	11.6	0.0	105.4
Waste Disposal	126.3	86.9	0.0	0.0	0.0	0.0
Natural Sources	<u>49.6</u>	<u>16.2</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>1,001.4</u>
Subtotal	1,126.2	1,033.1	751.8	11.6	0.0	23,229.2
MOBILE SOURCES						
On-Road Vehicles:						
Light-Duty Vehicle Exhaust	3,431.6	3,136.1	24,388.2	2,468.6	63.6	158.1
Light and Medium-Duty Trucks	1,606.7	1,450.2	11,741.6	1,297.8	36.2	62.0
Heavy-Duty Gasoline Exhaust	200.6	190.1	3,315.6	524.0	11.4	16.1
Heavy-Duty Diesel Exhaust	229.4	223.9	891.2	1,965.8	61.3	343.1
Motorcycle	55.7	52.5	184.1	19.5	0.3	0.7
Heavy-Duty Diesel Urban Buses	<u>1.3</u>	<u>1.3</u>	<u>6.3</u>	<u>12.5</u>	<u>0.3</u>	<u>1.9</u>
Subtotal	5,525.3	5,053.9	40,527.0	6,288.2	173.1	581.9
Other Mobile:						
Off Road Vehicles	624.3	604.2	2,787.1	118.2	9.8	3.2
Trains	26.3	25.7	84.4	733.3	55.7	14.8
Ships	42.8	41.7	115.8	653.1	177.2	39.1
Government-Aircraft	10.6	9.3	16.7	4.6	0.7	0.0
Other-Aircraft	169.6	149.3	1,691.3	23.0	3.1	0.0
Other Mobile Equipment	400.8	389.8	5,159.2	2,494.9	322.3	145.6
Utility Equipment	<u>178.9</u>	<u>173.1</u>	<u>1,464.9</u>	<u>6.3</u>	<u>0.4</u>	<u>3.5</u>
Subtotal	1,453.3	1,392.9	11,319.4	4,033.4	569.2	206.2
Total Stationary Sources:	7,547.6	5,686.4	13,192.5	4,671.4	4,256.6	25,150.3
Total Mobile Sources:	6,978.6	6,446.9	51,846.4	10,321.6	742.3	788.1
TOTAL ALL SOURCES	14,526.2	12,133.3	65,038.9	14,993.0	4,998.9	25,938.4

SOURCE: San Luis Obispo County Air Pollution Control District, 1995 Clean Air Plan, adopted December 1995.

incorporated in the order. The order has been amended several times since its issuance; all requirements of the order and stipulated agreement have been met.¹¹

Table 4.3-4 presents the number of Unocal odor complaints which have been received by the APCD since 1989. Most of these complaints are from residents who live within a mile of Unocal facilities; however, some continue to come from other locations further from the facilities. As shown, the number of complaints substantially dropped following 1992.

Refinery upsets have been primarily responsible for most complaints. In 1996, 7 out of the 20 complaints were from one individual, living within a mile of the Refinery, who had not been previously reporting odor problems. Some of these individual's complaints were not verified as odor problems. Odors continue to appear related to wind direction and wind strength. Prevailing wind patterns are west to east.

District staff continue to regularly patrol the Nipomo Mesa and TOSCO/Unocal Refinery neighborhoods for odor surveillance. District permit renewal, source testing and compliance inspections have, for the most part, found TOSCO/Unocal in compliance with Rules and Regulations. Since 1993, an average of two inspections per month are conducted for permit renewal, source testing or for compliance investigation reasons. Since 1993, a total of 12 Notices of Violation have been issued.

In 1995-1996, the APCD reported problems with the coking water storage tanks. The District and the Refinery worked to resolve engineering and compliance issues with these tanks and the Permit to Operate was issued in April, 1996. Compliance checks and reviews of records kept by Refinery personnel have allowed the District to monitor conditions at these tanks. The Refinery is required to maintain the tanks with a minimum of floating oil.

Closure of Santa Barbara County's Battles Gas Plant prompted the Refinery to propose a co-generation project for the Refinery to use the "surplus" gas generated by the Refinery. A steam boiler and steam driven electric power generator is now on line, the Permit issued in December 1996. The heaters and boiler plant are currently being retrofitted to comply with new limits for oxides of nitrogen (District Rule 430). The Refinery is making further modifications to their oily

¹¹ San Luis Obispo County, Air Pollution Control District, *Status of Unocal Odor Abatement Action*, December 20, 1993.

TABLE 4.3-4 UNOCAL ODOR COMPLAINTS, 1989-1997*

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg
1989	6	11	26	17	19	25	58	23	27	35	22	39	26
1990	21	18	25	21	28	50	41	17	74	24	34	8	30
1991	11	19	32	6	8	14	11	19	22	43	25	21	19
1992	19	11	19	22	4	4	25	24	22	75	26	14	22
1993	3	4	4	4	4	4	3	2	14	16	9	3	5.8
1994	7	3	3	2	2	17	3	8	1	2	6	0	4.5
1995	1	1	4	2	0	0	3	1	2	2	8	4	2.3
1996	4	0	3	0	1	4	2	2	0	3	1	0	1.7
1997	0	1	0	1	5	1	6	2	7	10*			3.3*
Avg	8.0	7.6	12.9	8.3	7.9	13.2	16.9	10.9	18.8	23.3	16.4	11.5	

* to October 20, 1997

SOURCE: County of San Luis Obispo, Air Pollution Control District

water treatment system to install traps on drains and a second process water tank to minimize oil discharge through the wastewater system and fugitive emissions to the air.

Several evaluations of the odors generated by the Unocal facility have been prepared by Odor Science and Engineering, Inc. (OSE). Their September 17, 1993 report shows that odors from refinery sources are not as widespread in their impacts nor as intense following the completion of Unocal's odor mitigation projects. OSE found that changes at the refinery were effective at eliminating some odors altogether and reducing others below significance; some sources remain as intermittent or occasional potential odor sources. The APCD recognizes that an operation such as the refinery can never be expected to be completely odor free, but will work with Unocal to reduce offsite impacts of potential odor sources, such as the Wastewater Treatment Plant, Non-routine Operations and Upset/Breakdown Conditions. The APCD hopes to further reduce routine background odors and odor sources by working with TOSCO/Unocal in review of standard operating procedures, routine maintenance, flow rates, and discharge water analyses.¹²

¹² San Luis Obispo County, Air Pollution Control District, *Status of Unocal Odor Abatement Action*, December 20, 1993.

Recent measurements of SO₂ generated by the Unocal complex have been at or below the state standard. For 1996, the highest hourly average for SO₂ measured at Ralcoa Way was 0.251 ppm in July, 1996. This represents 100 percent of the state one-hour standard of 0.25 ppm, and exceeds the measured level of 0.245 ppm reported for Ralcoa Way in the 1996 staff report. In May, 1996, an hourly average of 0.119 ppm SO₂ was measured at the Nipomo Mesa monitoring station at 1300 Guadalupe Road. This is the highest value measured at any other monitoring station near the Unocal facility for 1996.

The September 1993 OSE report states that replacement of two 60-foot flares with one new 200-foot flare has "eliminated the potential" for offsite flaring odors. The APCD believes that odors from this source have been substantially reduced, but flaring events have been identified as causing and having the potential to cause some odor impacts offsite.¹³

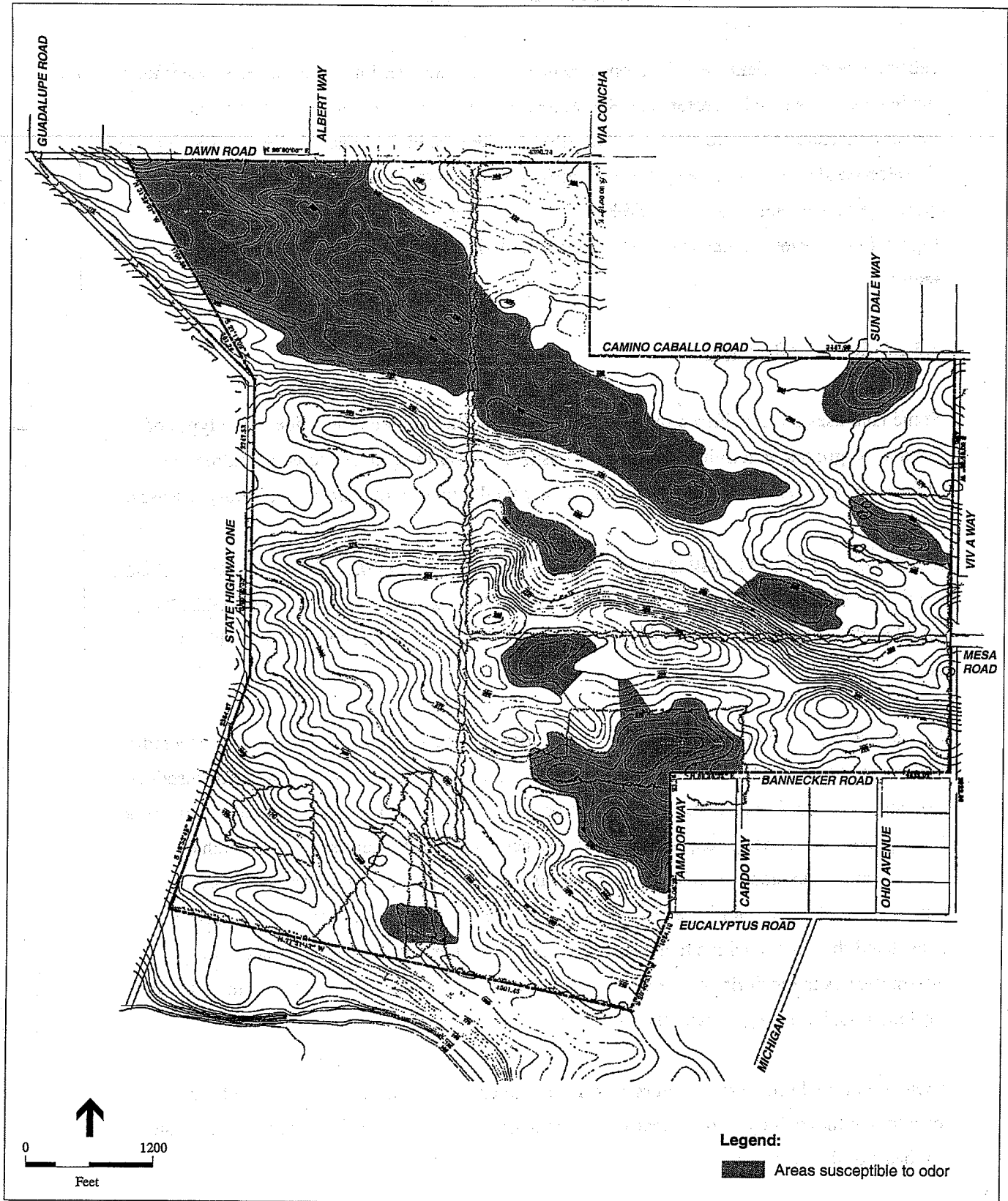
~~Twelve of the 61 PM10 samples taken at Ralcoa Way during 1994 exceeded the State 24-hour standard, with the highest sample registering close to twice the standard. On some of these days, samples taken at the Nipomo Mesa monitoring station also showed exceedances.¹⁴~~

4.3.1.5.1 Odor Effects on the Project Site

Most of the odors from refinery operations result from reduced sulfur compounds and odorous hydrocarbons emitted close to the ground. Emissions of these compounds have been significantly reduced, but not eliminated, as a result of the Abatement Order (AO). However, adverse weather conditions, such as surface inversions and/or ground fog, can limit vertical dispersion and allow odorous compounds to concentrate near the surface. The potential for this to create an odor problem that causes a nuisance to affected residents is directly related to the frequency and severity of adverse weather conditions and proximity to the refinery. Since the Woodlands site is in close proximity to the refinery, nuisance odor situations would be expected to occur periodically. Figure 4.3-1 shows low-lying areas of the site where odors would tend to settle. While site topography would be altered somewhat by the project, these same areas would continue to be low-lying and thus susceptible to odor. The odors discussed above are primarily a function of the presence of concentrations of

¹³ Ibid.

¹⁴ San Luis Obispo County, Air Pollution Control District, *TOSCA-Unocal Santa Maria Refinery and Carbon Plant Update*, October 22, 1997.



SOURCE: Environmental Science Associates

Woodlands Specific Plan / 950250 ■

Figure 4.3-1
Areas Susceptible to Odor from Unocal Facility

sulfur dioxide. As identified, the highest hourly average in recent measurements was less than the State standard, and therefore should not result in significant odors. However, in the event higher concentrations were released, the sulfur dioxide would tend to settle in sloughing areas on the Woodlands site, resulting in detectable odors in these areas; this effect would be accentuated on foggy days. Wind and sun would help dissipate odors and fog in other areas of the site. Figure 4.3-1 illustrates the areas of the site particularly susceptible to odors from the Unocal facility.

4.3.1.6 Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved. Sensitive population groups include children, the elderly, the acutely ill and the chronically ill, especially those with cardio-respiratory diseases.

The project would add sensitive receptors to the site including nearly 3,000 residents in the 1,320 residences and occupants of the potential school. Some residents and some schools occupants could be exposed to continuous (24-hour/day) exposure to any emissions or odors from the refinery.

Residential areas are also considered to be sensitive to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present. Recreational land uses are considered moderately sensitive to air pollution. Although exposure periods are generally short, exercise places a high demand on respiratory functions, which can be impaired by air pollution. In addition, noticeable air pollution can detract from the enjoyment of recreation. Industrial and commercial areas are considered the least sensitive to air pollution. Exposure periods are relatively short and intermittent as the majority of the workers tend to stay indoors most of the time. In addition, the working population is generally the healthiest segment of the public.

There are limited sensitive receptors surrounding the project area. The predominant sensitive receptors in the vicinity of the Specific Plan area are residences located to the north, east and southeast of the project area.

4.3.2 ENVIRONMENTAL IMPACTS

4.3.2.1 Thresholds of Significance¹⁵

Project Construction

Any construction activity which generates 185 pounds per day or more of ROG or NO_x, or 2.5 tons or more of PM₁₀ over a 3 month period would result in a significant air quality impact.

Project Operation

Any project which generates 25 pounds per day or more of ROG, NO_x, or PM₁₀ or 550 pounds per day or more of CO or 25 tons per year of all four pollutants would cause significant air quality impacts.

4.3.2.2 Impacts and Mitigation Measures

Impact 4.3-1: Construction of the proposed project or any of the alternatives considered would result in air pollutant emissions. Since these emissions would exceed the threshold of significance for NO_x and PM₁₀, impacts to air quality would be considered significant.

Project construction would generate short-term emissions of air pollutants. Construction-related emissions would be primarily dust generated from site clearance, earthmoving, excavation, and other construction activities.

Levels of fugitive dust caused by grading and other construction activities would vary according to the level and type of construction activity, silt content of soil, and prevailing weather. Most dust would settle on or near the project site, but smaller particles would tend to remain in the air, increasing particulate levels in the general area. Exhaust emissions during construction would result from vehicular traffic generated by the construction activities, equipment and machinery. Emission levels for construction activities would vary with the type of equipment, duration of use, operation schedules and number of construction workers. Emission factors of construction equipment that are typically used during construction activities are shown in Table 4.3-5.

¹⁵ County of San Luis Obispo Air Pollution Control District, *CEQA Air Quality Handbook*, August 1995.

TABLE 4.3-5: CONSTRUCTION EQUIPMENT EMISSION FACTORS

<u>Type of Equipment</u>	<u>POLLUTANT EMISSIONS (pounds per hour)</u>	
	<u>Reactive Organic Compounds</u>	<u>Oxides of Nitrogen</u>
Tracked Tractor (Diesel-Powered)	0.12	1.26
Wheeled Tractor (Diesel-Powered)	0.19	1.27
Wheeled Dozer (Diesel-Powered)	0.19	4.16
Scraper (Diesel-Powered)	0.28	3.83
Motor Grader (Diesel-Powered)	0.04	0.05
Wheeled Loader (Diesel-Powered)	0.25	1.89
Tracked Loader (Diesel-Powered)	0.10	0.83
Off-Highway Truck (Diesel-Powered)	0.19	4.16
Roller (Diesel-Powered)	0.07	0.87
Miscellaneous (Diesel-Powered)	0.15	1.69
Wheeled Tractor (Gasoline-Powered)	0.50	0.43
Motor Grader (Gasoline-Powered)	0.56	0.32
Wheeled Loader (Gasoline-Powered)	0.70	0.52
Roller (Gasoline-Powered)	0.79	0.36
Miscellaneous (Gasoline-Powered)	0.73	0.41

SOURCE: EPA-AP-42, Volume II, September 1985.

Proposed Project

Site Clearance

During site clearance, which would be anticipated to occur in one phase (worst-case scenario) at the onset of the project, approximately 640 acres of eucalyptus trees would be removed from the site. Tree trunks would be logged for transport, while slash (tree limbs and debris) and stumps would be chipped on-site. Approximately eight to ten million board-feet of eucalyptus would be

removed from the site, resulting in approximately 2,000 truckloads of logs and 500 truckloads of chipped material. These materials would be most likely hauled to a pulp mill, which would be located outside of the County.¹⁶ An estimated 19 truck loads or 38 daily truck trips each way would be required for the removal of trees from the site, over a one year period.¹⁷ Haul truck emissions (up to the County border) would be approximately 34.55 pounds per day (lbs/day) of CO, 7.48 lbs/day of ROG, 14.76 lbs/day of NO_x, and 8.54 lbs/day of PM₁₀; emissions generated by 19 round trip haul truck trips traveling the entire length to and from Sacramento would be approximately 184 lbs/day of CO, 39.91 lbs/day of ROG, 395.33 lbs/day of NO_x, and 45.53 lbs/day of PM₁₀.¹⁸ Alternatively, a two-year tree removal program could be implemented, which would involve an estimated 12 truck loads or 24 daily truck trips each way. Under this scenario, haul truck emissions (up to the County border) would be approximately 21.82 pounds per day (lbs/day) of CO, 4.72 lbs/day of ROG, 9.32 lbs/day of NO_x, and 5.39 lbs/day of PM₁₀; emissions generated by 19 round trip haul truck trips traveling the entire length to and from Sacramento would be approximately 116 lbs/day of CO, 25.20 lbs/day of ROG, 249.68 lbs/day of NO_x, and 28.76 lbs/day of PM₁₀.

Excavation and Grading

The proposed project would require extensive excavation and grading. A balanced cut-and-fill operation is proposed over various aspects of the 957-acre site, which would involve the excavation and replacement of 1.025 million cubic yards of earth.¹⁹ Under a worst-case scenario, this is anticipated to occur in one six-month phase following site clearance. An excavation and grading period of six months is equivalent to 130 working days, or two quarters. Based on the emission factor established by the San Luis Obispo Air Pollution Control District of 40 pounds

¹⁶ Mr. Tim Wilson, Planned Sierra Resources, telephone conversation, October 4, 1997. For the purposes of this analysis, it is assumed that logged and chipped material taken from the site will be transported to a pulp mill at the Port of Sacramento.

¹⁷ Although alternative transport of logs and chipped material, such as rail or boat, is available in the project vicinity, it would not be economically feasible to use these methods due to the low market value of eucalyptus. Further, as trucks would be required to transport the logs and chipped material to the trains or boats, this would not result in any substantial reduction in emissions within the County.

¹⁸ Estimates are based on 38 haul truck trips per day, 60 miles per trip up to the County border, and 320 miles per trip all the way to Sacramento, and EMFAC7F emission factors as established by Caltrans (see Appendix D).

¹⁹ Mr. Victor Montgomery, AIA, President, RRM Design Group, letter to John McKenzie, County of San Luis Obispo, dated September 10, 1997.

of PM₁₀ per day per acre (equivalent to 43,560 cubic feet) of disturbed soil, approximately 25,410 pounds of PM₁₀ would be emitted during the entire excavation and grading period, for an average of 195 pounds per day or 6.35 tons per quarter. This would exceed the APCD's threshold limit of 2.5 tons per quarter of PM₁₀ by approximately 3.85 tons per quarter and would create a significant impact on PM₁₀ levels in the project vicinity. The excavation and grading period would need to be extended to over five quarters (16 months) in order to avoid a significant impact on PM₁₀ levels.

In addition to fugitive dust emissions, diesel-powered construction equipment and construction workers' travel would result in localized exhaust emissions. Estimated total construction emissions for the entire construction period are shown in Table 4.3-6. Because the rate of market absorption cannot be accurately predicted, the scheduling and the extent and duration of construction activities are not known at this time; as a result, daily emissions associated with project construction cannot be estimated. However, assuming an average size of 3,000 gross square feet for a single-family home and an average duration of 260 working days, or one year, for construction, approximately 0.87 lbs/day of CO, 0.27 lbs/day of ROG, 4.01 lbs/day of NO_x, and 0.29 lbs/day of PM₁₀ would be emitted for the construction of one home.²⁰ Based on these factors, a maximum of 46 single-family homes could be constructed simultaneously without exceeding the County's threshold of 185 lbs/day of NO_x, assuming no other construction would be taking place. Under the worst-case scenario, emissions generated by simultaneous construction of all project components, including all residential units, commercial uses, business park, hotel, recreational uses, and the elementary school, would exceed the thresholds of 185 lbs/day of NO_x and 2.5 tons per quarter of PM₁₀. This would result in an unavoidable significant impact, which would cease at the completion of project construction.

Expanded Business Park Alternative

Impacts to air quality resulting from construction under the Expanded Business Park Alternative are anticipated to be similar to those generated by the proposed project as discussed above. Emissions during site clearance and excavation and grading would be the same as those generated by the proposed project. Estimated exhaust emissions during construction, as

²⁰ Based on emission factors for estimating total construction emissions using energy consumption values provided in *Energy and Labor in the Construction Section* by B. Hannon, R. Stein, and D. Serber (1978, 202:837-847) as presented in the South Coast Air Quality Management District's *CEQA Air Quality Handbook*, April 1993.

TABLE 4.3-6: ESTIMATED TOTAL CONSTRUCTION EMISSIONS (pounds)

Type of Development	Estimated Emissions ^a			
	CO	ROG	NO _x	PM ₁₀
Proposed Project (Buildout)	417,020	130,480	1,917,680	136,160
Expanded Business Park Alternative	481,860	150,775	2,215,870	157,335
Rural Village I	334,670	104,720	1,538,995	109,275
Rural Village II	399,515	125,010	1,837,180	130,450

- a. Based on emission factors for estimating total construction emissions using energy consumption values provided in *Energy and Labor in the Construction Section* by B. Hannon, R. Stein, and D. Serber (1978, 202:837-847) as presented in the South Coast Air Quality Management District's *CEQA Air Quality Handbook*, April 1993.

presented in Table 4.3-6, are slightly greater than those estimated for the proposed project and are anticipated to exceed the thresholds of 185 lbs/day of NO_x and 2.5 tons per quarter of PM₁₀. As with the proposed project, this would be considered a significant impact, which would cease after completion of construction activities.

Rural Village I

Impacts to air quality resulting from construction under the Rural Village I Alternative are not anticipated to exceed those anticipated from the proposed project as discussed above. Emissions during site clearance and excavation and grading would be the same as those generated by the proposed project. Estimated exhaust emissions during construction, as presented in Table 4.3-6, are lower than those estimated for the proposed project but are also anticipated to exceed the thresholds of 185 lbs/day of NO_x and 2.5 tons per quarter of PM₁₀. As with the proposed project, this would be considered a significant impact, which would cease after completion of construction activities.

Rural Village II

Impacts to air quality resulting from construction under the Rural Village II Alternative are not anticipated to exceed those anticipated from the proposed project as discussed above. Emissions during site clearance and excavation and grading would be the same as those generated by the proposed project. Estimated exhaust emissions during construction, as presented in Table 4.3-6, are slightly lower than those estimated for the proposed project but are also anticipated to exceed the thresholds of 185 lbs/day of NO_x and 2.5 tons per quarter of PM₁₀. As with the proposed project, this would be considered a significant impact, which would cease after completion of construction activities.

Revised Project Alternative

Air pollutant emissions associated with construction activities for the Revised Project Alternative are estimated based on the changes in the project design. Although NO_x emissions are estimated to be above the threshold of significance, the amounts of NO_x emissions would be reduced for the Revised Project, as shown in Table 4.3-6. Similar to the proposed project and the other alternatives, the PM₁₀ impacts of the Revised Project Alternative would also result in a temporary unavoidable significant impact, which would cease at the completion of project construction. The estimated impacts associated with the Revised Project indicates that the change from two Stages to four Stages of construction reduces construction impacts on air quality. Increased vehicle trips on Camino Caballo and Dawn Road would increase PM₁₀.

Similar to the proposed project, although NO_x emissions associated with construction impacts are estimated to be above the threshold of significance, the amount of NO_x emissions would be reduced under the Revised Project Alternative. The PM₁₀ impacts of the proposed project and the Revised Project Alternative would also result in a temporary unavoidable significant impact, which would cease at the completion of project construction. The estimated impacts associated with the Revised Project indicate that the change from two stages to four stages of construction reduces construction impacts on air quality.

Similar to the proposed project, the operational air quality impacts at project buildout would be significant under the Revised Project Alternative. Actual impacts could be less than those

predicted in this analysis since in preparing the analysis conservative assumptions were made (such as maximum potential trip generation). The project and Revised Project Alternative would include measures that would reduce project trip generation from those indicated in this analysis and thus air quality impacts. Such measures include constructing tunnels/underpass, bus turnouts, passenger benches, and transit stop shelters to encourage the use of mass transit. The project design for both the Revised Project Alternative and the proposed project include bicycle trails and pedestrian paths connected to the County Trail System. Similar to the proposed project, the project entails mixed land use: commercial, recreational and residential. The mixed land uses could reduce trip generation by encouraging internal project trips, resulting in less adverse air quality impacts. The Revised Project Alternative is anticipated to result in less total daily trips than the proposed project. However more external trips, are expected to result under this alternative. The increase in external trips is partially due to the increase school trips. There are no additional air quality mitigation measures available.

Mitigation Measures:

The following mitigation measures have been developed by the San Luis Obispo County APCD to mitigate combustion emissions from heavy-duty construction equipment. The following mitigation measures should be implemented to reduce emissions associated with construction activities:

Mitigation Measure 4.3-1a: The project applicant shall implement the following Best Available Control Technology (CBACT) for each piece (no less than six pieces overall) of diesel-fueled construction equipment estimated to cause the highest level of combustion emissions during construction. Implementation of a given CBACT technology or combination of technologies should always be preceded by an evaluation of the subject equipment to determine the most appropriate retrofit strategy. Other CBACT technologies with similar emissions reduction potential to the example below may also be considered if appropriate documentation is provided.

CBACT retrofit examples:

- I. _____ a. Injection timing retard of 2 degrees;
_____ b. Installation of high pressure injectors; and
_____ c. Use of reformulated diesel fuel.

- II. _____ a. Fuel injection timing retard of 2 degrees, and
_____ b. Coating of internal combustion chamber surfaces
_____ (cylinder head, pistons, and valves), and
_____ c. Use of reformulated diesel fuel

If the above cannot be implemented, the applicant shall implement an equivalent emission reduction methodology to achieve a 50 percent reduction in emissions to the equipment estimated to cause the highest level of combustion emissions. The following measures shall be used to achieve the specified reduction and incorporated into any contractor or subcontractor's contract, as well as shown on all applicable construction plans:

- d. Caterpillar pre-chamber diesel engines (or equivalent) shall be used together with proper maintenance and operation to reduce emissions of NO_x.
- e. General contractors shall maintain equipment engines in proper tune per manufacturer's specifications and operate construction equipment so as to minimize exhaust emissions.
- f. If available within the (sub)contractor's fleet, gasoline-powered equipment shall be substituted for diesel-fueled equipment.
- g. If available within the (sub)contractor's fleet, compressed natural gas (CNG) or propane-powered portable equipment (e.g., compressors, generators, etc.) shall be used on-site instead of diesel-powered equipment.

Prior to commencement of grading and construction activities, the applicant shall notify the Department of Planning and Building and the Air Pollution Control District, by letter, of the status of the above air quality mitigation measures, and shall clearly state the following: 1) which pieces of equipment have implemented measures a, b, and c; 2) the reasons why any measures not taken are infeasible; 3) what measures have been incorporated to substitute for these measures; and 4) when tree clearance and grading will be initiated to allow for APCD inspection of the above measures.

Mitigation Measure 4.3-1b: During construction, trucks and vehicles in loading or unloading queues should be kept with their engines off, when not in use, to reduce vehicle emissions. Signs with prominent lettering at such queuing areas shall be posted to remind drivers. Large Construction activities shall be phased and scheduled to avoid emissions peaks.

Mitigation Measure 4.3-1c: General contractors shall use reasonable and typical watering techniques to reduce fugitive dust emissions. All unpaved demolition and construction areas shall be wetted at least twice a day during excavation and construction, and temporary dust covers shall be used over stockpiled areas to reduce dust emissions. To keep moist, additional watering should be done as needed in the afternoons, when it is typically much more windy, or when winds of 15 mph or greater are predicted or are occurring at any given time.

Mitigation Measure 4.3-1d: To keep dust levels to a minimum, soil binders shall be spread where there will be regular construction vehicle usage such as unpaved roads and parking areas. These binders shall be applied immediately after area is ready for vehicle use.

Mitigation Measure 4.3-1e: Ground cover shall be re-established on the construction site through seeding and watering, as soon as is feasible or immediately following completion of grading, whichever occurs first. The following seed mix is recommended for areas that are adjacent to or within existing or future native areas (namely coastal sage scrub):

"CHAPARRAL/SAGE SCRUB" SEED MIX

<u>Species</u>	<u>lbs/ac</u>
<i>Adenostoma fasciculatum</i> (chamise)	0.50
<i>Artemisia californica</i> (California sagebrush)	0.25
<i>Ceanothus cuneatus</i> (buckbrush)	1.00
<i>Dendromecon rigida</i> (bush poppy)	0.25
<i>Eriogonum parvifolium</i> (buckwheat)	0.20
<i>Eriophyllum confertiflorum</i> (golden yarrow)	0.20
<i>Eschscholzia californica</i> (California Poppy)	0.50
<i>Heteromeles arbutifolia</i> (toyon)	0.20
<i>Lotus scoparius</i> (deerweed)	1.20
<i>Mimulus aurantiacus</i> (bush monkeyflower)	0.25
<i>Nasella (Stipa) pulchra</i> (purple needlegrass)	1.50
<i>Salvia mellifera</i> (black sage)	0.50

Mitigation Measure 4.3-1f: Trucks, prior to leaving the site, shall be washed off.

Mitigation Measure 4.3-1g: Prior to the initiation of any tree clearing activities, or approval for subdivision improvement plans or issuance of grading permits, the applicant shall submit to the county an APCD-approved Construction Activities Management Plan. This Plan should outline the following:

- Methods to minimize the amount of large construction equipment operating during any given time period; and
- Scheduling of construction truck trips during non-peak hours to reduce peak hour emissions.

Significance After Mitigation: Development of the project under any one of the development alternatives would have a significant adverse effect on NO_x concentration levels during project construction for the duration of construction activities. PM₁₀ levels would also be increased above significant levels. Construction of the proposed project, which would occur intermittently during a 10-to 12-year period, would have a short-term significant unavoidable impact on air quality, particularly on NO_x and PM₁₀ concentration levels. As a result, this would result in a short-term significant unavoidable impact, which would cease at the completion of construction activities.

Impact 4.3-2: Long-term operational emissions, which include both stationary-source and mobile-source emissions, would be generated by the project, as well as any of the alternatives considered. These emissions are estimated to exceed the thresholds of significance for all the criteria pollutants. As a result, emissions at project buildout would result in a significant impact to air quality.

Significant air quality impacts are identified for projects that would cause an excess of any ambient air quality standard, would contribute substantially to an existing or projected air quality standard excess, or would expose sensitive receptors to substantial pollutant concentrations.

Stationary-Source Emissions

Stationary on-site emissions are generated as a result of the combustion of natural gas and wood (wood burning by residences in the county) to meet the demand generated by the proposed project. In addition, stationary emissions resulting from electrical energy demand projected for the project will occur off-site at electrical power generating plants located throughout the utility's generating network. Power plant emission factors assume continued availability and use of natural gas in power plants, and an average amount of hydroelectricity per year. Emissions due to the natural gas and wood combustion and the use of electricity associated with the four development alternatives, including the proposed project, are shown in Table 4.3-7.

Mobile-Source Emissions

Motor vehicle emissions would be the largest sources of pollutants resulting from implementation of the proposed project under any one of the development alternatives.

Emissions generated by vehicle exhaust are shown in Table 4.3-8 for each of the four alternatives.

Total Operational Emissions

Total operational emissions resulting from both stationary sources and mobile sources are presented in Table 4.3-9 for each of the four alternatives. The County's thresholds of significance are also provided in the table for comparison.

TABLE 4.3-7: ESTIMATED STATIONARY-SOURCE EMISSIONS

Pollutant	Threshold of Significance	Estimated Emissions (lbs/day)				
		Stage I Development	Project Buildout	Expanded Business Park Alternative	Rural Village I Alternative	Rural Village II Alternative
CO	550	81.75	128.07	128.37	94.70	95.01
ROG	25	17.42	27.24	27.44	20.00	20.20
NO _x	25	63.84	91.68	103.26	80.60	92.18
PM ₁₀	25	15.58	23.59	25.54	18.07	20.02
SO _x	--	4.58	6.68	7.58	5.96	6.85

Note: A more detailed breakdown (by land use) of emissions are included in Appendix D of this report. There is no established APCD threshold for So_x emissions.

Source: County of San Luis Obispo Air Pollution Control District, *CEQA Air Quality Handbook*, August 1995; South Coast Air Quality Management District, *CEQA Air Quality Handbook*, April 1993.

Proposed Project

Stage I

As derived from Table 4.3-7, stationary-source emissions generated by Stage I development under the proposed project would exceed the thresholds of significance established by the County for ROG and NO_x. Therefore, stationary-source emissions under Stage I of the proposed project would result in a significant impact to air quality.

TABLE 4.3-8: ESTIMATED MOBILE-SOURCE EMISSIONS FROM PROJECT-GENERATED TRIPS

Pollutant	Thresholds of Significance	Estimated Emissions (lbs/day)				
		Stage I Development ^a	Project Buildout ^a	Expanded Business Park Alternative	Rural Village I Alternative	Rural Village II Alternative
CO	550	1,825.70	1,583.39	1,851.30	1,297.30	1,575.64
ROG	25	192.72	150.33	175.70	124.57	151.36
NO _x	25	265.20	293.45	343.21	241.18	292.40
PM ₁₀	25	11.28	14.56	17.04	11.89	14.40

- a. CO and ROG emissions for Stage I are higher than those emissions for project buildout because emission rates for the year 2005 for those pollutants are estimated to be higher than those for the year 2010.

Note: A more detailed breakdown (by land use) of emissions are included in Appendix D of this report.

Source: South Coast Air Quality Management District, *CEQA Air Quality Handbook*, April 1993; Associated Transportation Engineers, *Traffic Study for Woodlands Specific Plan*, September 1997.

Additionally, the proposed uses in Stage I (2005) are estimated to generate approximately 17,630 daily trips,²¹ which are equivalent to approximately 170,710 vehicle miles per day (VMD).

Mobile-source emissions would exceed the thresholds of significance established by the County for all pollutants. Therefore, mobile-source emissions would create a significant impact.

As presented in Table 4.3-9, total project-related emissions would exceed the thresholds of significance for CO, ROG, NO_x, and PM₁₀. As a result, the proposed project would result in a significant impact on air quality.

²¹ As indicated in Section 4.2, Traffic and Circulation, Stage I of the proposed project would generate approximately 22,256 trip ends, of which 9,258 would be internal trip ends. For the purposes of the air quality model, this figure would double-count the internal ends, since both ends would occur within the project site. Therefore, the internal trip ends are divided by two (4,629) and added to the external trip ends (12,998) in order to calculate the estimated number of trips generated for air quality modeling (17,627).

TABLE 4.3-9: TOTAL OPERATIONAL PROJECT EMISSIONS

<u>Air Pollutant</u>	<u>Total Operational Emissions</u>				<u>Thresholds of Significance (lbs/day)</u>
	<u>Proposed Project</u>	<u>Expanded Business Park Alternative</u>	<u>Rural Village I Alternative</u>	<u>Rural Village II Alternative</u>	
CO	1,711.46	1,979.67	1,392.00	1,670.65	550
ROG	177.57	203.14	144.57	171.56	25
NO _x	385.13	446.47	321.78	384.58	25
PM ₁₀	38.15	42.58	29.96	34.42	25

Note: Total operational emissions refer to the sum of stationary and mobile net emissions presented in Tables 4.3-6 and 4.3-7.

Additional PM₁₀ emissions could result from increased traffic along unpaved roads in the project vicinity. However, as discussed in Section 4.2, Traffic and Circulation, these roads would be required to be improved according to County standards in order to accommodate the projected increase in traffic. This would also serve to eliminate the potential for increased PM₁₀ resulting from the increased traffic.

Stage II

As with Stage I development, stationary-source emissions generated by the proposed project at full buildout would exceed the thresholds of significance established by the County for ROG and NO_x, which would result in a significant impact to air quality.

Additionally, the proposed uses at project buildout (2010) are estimated to generate approximately 23,570 daily trips, which are equivalent to approximately 220,340 VMD. As presented in Table 4.3-8, mobile-source emissions would exceed the thresholds of significance established by the County for all pollutants. Therefore, mobile-source emissions would create a significant impact.

Total project-related emissions would exceed the thresholds of significance for CO, ROG, NO_x, and PM₁₀. As with Stage I development, the proposed project would result in a significant impact on air quality.

Expanded Business Park Alternative

As with the proposed project, stationary-source emissions generated by the Expanded Business Park Alternative would exceed the thresholds of significance established by the County for ROG and NO_x, which would result in a significant impact to air quality.

This alternative is estimated to generate approximately 27,510 daily trips, which are equivalent to approximately 257,800 VMD. As presented in Table 4.3-8, mobile-source emissions would exceed the thresholds of significance established by the County for all pollutants. Therefore, mobile-source emissions would create a significant impact.

Total project-related emissions under this alternative would exceed the thresholds of significance for CO, ROG, NO_x, and PM₁₀. As with the proposed project, this alternative would result in a significant impact on air quality.

Rural Village I

While less than the proposed project, stationary-source emissions generated by the Rural Village I Alternative would exceed the thresholds of significance established by the County for ROG and NO_x, which would result in a significant impact to air quality.

This alternative is estimated to generate approximately 20,500 daily trips, which are equivalent to approximately 179,860 VMD. As presented in Table 4.3-8, mobile-source emissions would exceed the thresholds of significance established by the County for all pollutants. Therefore, mobile-source emissions would create a significant impact.

Total project-related emissions under this alternative would exceed the thresholds of significance for CO, ROG, NO_x, and PM₁₀. As with the proposed project, this alternative would result in a significant impact on air quality.

Rural Village II

Similar to the proposed project, stationary-source emissions generated by the Rural Village II Alternative would exceed the thresholds of significance established by the County for ROG and NO_x , which would result in a significant impact to air quality.

This alternative is estimated to generate approximately 24,940 daily trips, which are equivalent to approximately 217,860 VMD. As presented in Table 4.3-8, mobile-source emissions would exceed the thresholds of significance established by the County for all pollutants. Therefore, mobile-source emissions would create a significant impact.

Total project-related emissions under this alternative would exceed the thresholds of significance for CO, ROG, NO_x , and PM_{10} . As with the proposed project, this alternative would result in a significant impact on air quality.

South County Air Quality Mitigation Fee

On October 16, 1990 the County Board of Supervisors approved the South County Air Quality Mitigation Fee. This established a fee to apply to all new residential development in the South County planning area for specific programs to improve air quality. This program (updated in December, 1997) includes the acquisition of one new clean-fuel, full-size transit bus (already purchased and in use); two fully-improved regional bus stops (i.e., shelters, benches, bike lockers and signs); installation of a park-and-ride lot at the Los Berros Road/Highway 101 interchange; improvements at the Nipomo park-and-ride lot at the intersection of South Frontage Road and Hill Street; billboard advertisement for ridesharing; equipment for electronic communication at the new Nipomo library; expedited installation of Class II and Class III bikeways within Nipomo for commuters and school children; and the accelerated paving of several existing, unpaved road sections.

Based on the current fee of \$168 per unit, the proposed project or Expanded Business Park alternative would generate \$221,760 under the Air Quality Fee to help fund these programs; either of the Rural Village alternatives would generate \$160,776. While payment of this fee would reduce cumulative impacts to air quality in the South County area, project impacts would still be considered significant.

Mitigation Measures:

Mitigation Measure 4.3-2a: Prior to approval of discretionary development (e.g. map recordation, Development Plan approval), the project applicant shall coordinate with the South County Area Transit and Dial-a-Ride, which currently serve the Arroyo Grande community north of the Nipomo Mesa area to expand their route system to serve the project site and provide public transportation to this mixed use community.

Mitigation Measure 4.3-2b: Prior to approval of discretionary permits involving new roads or potentially providing access between existing roads/points of interest, pedestrian/bicycle linkages shall be considered to encourage bicycle and pedestrian travel.

Mitigation Measure 4.3-2c: Prior to submittal of discretionary plans for commercial development, showers and bicycle locker facilities shall be considered in the design of commercial facilities to encourage employees to bike and/or walk to work. Per the APCD county guidelines, the following general rule of thumb shall be used: 3 bike lockers and 1 shower for every 25 employees.

Mitigation Measure 4.3-2d: Prior to approval of discretionary permits, where appropriate, the applicant shall include the following as part of project design to reduce employee/visitor lunchtime trips: on-site food storage refrigeration; prepared food facilities within 5 minute walking distance; and access to comfortable, appropriately sized, and pleasant eating areas.

Mitigation Measure 4.3-2e: Prior to approval of discretionary permits, the applicant shall show, through project design, how the project will exceed, by 10 percent, the minimum energy conservation requirements set forth by the current Uniform Building Code.

Mitigation Measure 4.3-2f: Upon submittal of proposed subdivision, the applicant, where possible, shall configure lots to easily allow building footprints to maximize passive solar design.

Mitigation Measure 4.3-2g: Project residents will be discouraged from using unpaved roads within the boundaries of the subject property (which may also lead to other unpaved roads) through the use of gates and posted signs.

Mitigation Measure 4.3-2h: The project specific plan shall include a standard that will be required at the time of permit approval for any golf course where, only electric golf carts for rental or loan shall be allowed, as well as provide a mechanism to purchase subsidies and/or incentives to residents to encourage the use of personal electric carts.

Significance After Mitigation: Operational project emissions at project buildout associated with the proposed project, or any one of the alternatives considered, including both stationary and mobile source emissions, would have a significant adverse impact on CO, ROC, NO_x, and PM₁₀ levels. The project's contribution to exceedances of local standards after implementation of proposed mitigation measures is anticipated to remain a significant adverse impact. Sensitive

receptors in the project vicinity would be subject to adverse conditions resulting from increases in pollutants associated with the proposed project and pollutants projected for the area.

Impact 4.3-3: Project-generated traffic associated with the proposed project, or any one of the alternatives considered, is not anticipated to create a CO hot spot at any one of the modeled intersections. None of the project alternatives would cause the exceedance of the one-hour or the eight-hour average CO standard. No significant impacts are anticipated.

Curbside CO concentrations were estimated using the CALINE-4 dispersion model developed by the California Department of Transportation, using peak-hour traffic volumes and worst-case meteorological assumptions. Worst case meteorological conditions include low wind speed, stable atmospheric conditions, and the wind angle producing the highest CO concentrations for each case. CO concentrations were modeled for three intersections most affected by project-generated traffic under the following scenarios: existing (1997) conditions, future (2005) conditions without the proposed project, future (2005) conditions with Stage I development (2005), future (2010) conditions without the proposed project, future (2010) conditions with the proposed project, future (2010) conditions with the Expanded Business Park Alternative, future (2010) conditions with Rural Village I Alternative, and future (2010) conditions with Rural Village II Alternative.

While Impact 4.3-2, above, discusses the total emissions inventory generated by the proposed project and alternatives, this assessment evaluates the potential for project-related traffic to generate CO concentrations above federal and state standards at area intersections. As noted above, the three intersections most affected by project-generated traffic were selected for analysis; as discussed in Section 4.2, Traffic and Circulation, the status of the Willow Road Extension and Interchange would not substantially alter the traffic at these intersections or the potential impacts on CO concentrations.

Existing and projected worst-case CO concentrations are shown in Tables 4.3-9. The concentrations correspond to a location of approximately 50 feet from the center of a given intersection. Future CO concentrations are generally less than existing levels due to the on-going vehicle exhaust control programs that will produce a less-polluting vehicle fleet for 2005 and 2010 compared to that for 1997.

Proposed Project

The results of CO modeling, as shown in Table 4.3-10, indicate that traffic generated by the proposed project in either Stage I development in the year 2005 or project buildout in 2010 would not create a CO hot spot and would not have a significant impact on CO concentrations at any of the three modeled locations. Therefore, this would be considered a less than significant impact.

Alternatives

The results of CO modeling, as shown in Table 4.3-10, indicate that traffic generated under any one of the development alternatives would not create a CO hot spot and would not have a significant impact on CO concentrations at any of the three modeled locations. Therefore, this would be considered a less than significant impact.

Mitigation Measures: No mitigation measures are necessary.

Significance After Mitigation. No significant adverse impacts are anticipated.

Impact 4.3-4: Implementation of the proposed project or any of the project alternatives would introduce sensitive receptors in proximity to the Unocal Refinery, and would increase the population subject to intermittent odors generated by the facility. However, this is not anticipated to result in a significant impact. In addition the project could introduce odors associated with the on-site wastewater treatment plant. The plant will be sized and designed to efficiently process with minimal odors) the project's proposed effluent. The plant will be required to meet Basin Plan requirements and approval through RWQCB. This is not anticipated to be significant.

As discussed in the setting section, odors associated with the Unocal facility are primarily a function of the presence of concentrations of sulfur dioxide. As identified, the highest hourly average in recent measurements was less than the State standard, and therefore should not result in significant odors. However, under upset conditions higher concentrations may be periodically released, and the sulfur dioxide would tend to settle in sloughing areas on the Woodlands site, resulting in detectable odors in these areas. In such cases, the proposed business park, portions of the golf course and residential areas on the northern portion of the site would be most affected, along with some residences and the public park in the northeastern section of the site, and portions of the golf course and large-lot housing in the southeastern portion of the site.

TABLE 4.3-10: ESTIMATED EXISTING AND PROJECTED FUTURE MAXIMUM CARBON MONOXIDE CONCENTRATIONS, 1997, 2005, AND 2010

Modeled Intersection	Avg. Period	Existing (1997) ^b	CO Concentration (ppm) ^a						
			Future No Proj. Cond. (2005) ^c	Future with Stage I (2005) ^c	Future No Proj. Cond. (2010) ^c	Future w/ Proj. Buildout (2010) ^c	Future with Exp. Bus. Park Alt. ^c	Future w/ Rural Village I Alt. ^c	Future w/ Rural Village II Alt. ^c
1) Willow Road and Via Concha Road	1-hr.	6.3	5.7	7.1	5.6	6.1	6.2	6.0	6.1
	8-hr. ^d	2.8	2.5	3.5	2.7	3.0	3.1	2.9	3.0
2) Willow Road and Pomeroy Road	1-hr.	8.2	6.9	7.7	6.0	6.8	6.9	6.6	6.8
	8-hr. ^d	4.1	3.3	3.9	2.9	3.5	3.6	3.4	3.5
3) Calle Fresa and Pomeroy Road	1-hr.	7.9	6.4	6.8	5.5	6.0	6.1	6.0	6.0
	8-hr. ^d	3.9	3.0	3.3	2.6	2.9	3.0	2.9	2.9

Note: The state one-hour average CO standard is 20 ppm; the state and federal eight-hour average CO standard is 9.0 ppm. Underlined values are excesses of applicable standard. These estimated concentrations are based on the traffic impact analysis prepared by Associated Transportation Engineers, Inc.

- a. Modeled with the CALINE-4 dispersion model using EMFAC7F composite emission factors and assuming worst-case meteorological conditions. Concentrations correspond to a location between 50 to 70 feet from the edge of the given intersection.
- b. Existing levels refer to 1997 and include worst-case background concentrations of 6.3 ppm, one-hour average, and 2.8 ppm, eight-hour average. Background concentrations are based on a three-year running average of the second highest one-hour and eight-hour concentrations as presented in the *Air Quality Data Summaries* by the California Air Resources Board.
- c. These estimates refer to 2005 and include worst-case background concentrations of 5.7 ppm, one-hour average, and 2.5 ppm, eight-hour average. These projected backgrounds were based on future emission trends as presented in the County's CAP. "Future w/o Project" corresponds to future traffic volumes resulting from ambient growth and cumulative development, not including the project. "Future w/ project" levels include future growth and development as well as the project.
- d. These estimates refer to 2010 and include worst-case background concentrations of 5.1 ppm, one-hour average, and 2.3 ppm, eight-hour average. These projected backgrounds were based on future emission trends as presented in the County's CAP. "Future w/o Project" corresponds to future traffic volumes resulting from ambient growth and cumulative development, not including the project. "Future w/ project" levels include future growth and development as well as the project.
- e. Eight-hour average concentrations (calculated) are assumed to be 70% of local one-hour average concentrations.

Because the emissions of sulfur dioxide associated with the Unocal facility are within State standards, these emissions and odors are not anticipated to create an unacceptable level of health risk to the community. Therefore, no significant impacts are anticipated. The potential increase in complaints resulting from introducing up to 1,320 residential units, a resort, two golf courses and a business park into an area known to be subject to refinery odors may have an impact on APCD staffing, operations and resources. Compliance with the 1989 Abatement Order, requiring notification by attaching an advisory to title documents on each parcel stating that "... odors may occur due to refinery emissions" would reduce this potential impact.

Odors from the on-site wastewater treatment plant could also affect nearby residents (mostly on-site) under all alternatives. Odors associated with the proposed on-site wastewater treatment facility could affect residents of the project. As discussed in Section 4.3.1.1, Climate and Meteorology, local wind direction is influenced by location and strength of the Pacific High pressure system and other global patterns, topography, and circulation patterns resulting from temperature differences between the land and sea. Onshore winds from the northwest generally prevail during the day. Similar to emissions generated by the Unocal Oil Refinery, wind and sun would help dissipate odors generated by the treatment facility. Common methods of controlling odors at wastewater treatment facilities include chemical pretreatment to reduce the formation and evolution of hydrogen sulfur gas and other compounds associated with wastewater. Odors are also contained by covering tanks, sumps and wet wells that may produce odorous compounds, and by enclosing wastewater treatment equipment and processes which may contribute to the overall odor emissions. Hydrochloric (muriatic) acid may also be used periodically to clean the packing of the odor control scrubbers.

Mitigation Measures:

Mitigation Measure 4.3-4a: As required by the 1989 Order for Abatement, the applicant shall record an advisory to title documents on each parcel within the project stating that "... odors may occur due to refinery emissions. **The notice shall also indicate the possibility for exceedance of the state health standard for SO₂.**

Mitigation Measure 4.3-4b: The proposed wastewater treatment facility shall implement odor controlling measures, such as using ferric chloride in the headworks, covering all tanks, sumps and wet wells that may produce odorous compounds, and enclosing wastewater treatment equipment and processes which may contribute to the overall odor emissions."

Mitigation Measure 4.3-4c: The applicant (and/or property owners association(s)) shall work with APCD to designate a person, acceptable to APCD, to respond to and investigate odor complaints including source determination, compliant follow up, notification and/or reports to APCD staff of response summary received and prepare public notices, as appropriate.

Significance After Mitigation. No significant adverse impacts are anticipated.

Impact 4.3-5: The proposed project, as well as each of the alternatives considered, is not consistent with the County's Clean Air Plan. This would be considered a significant impact.

Consistency of a project with the 1995 Clean Air Plan (CAP) is evaluated based on the following criteria: 1) consistency with the population projections upon which the CAP was based, 2) the rate of increase in vehicle trips and miles as compared with the rate of population growth for the project area, and 3) inclusion of all applicable land use and transportation control measures from the CAP in the project.

Proposed Project

Implementation of the proposed development would not be consistent with the CAP as it would not meet all three criteria outlined above. The proposed project is located in the South County area of San Luis Obispo County. The South County Area Plan - Inland Portion, which is accounted for in the 1995 CAP, identifies the proposed project; however, its population projections are based on a much lower density land use. Therefore, the population associated with the proposed project is not accounted for in the 1995 CAP. As a result, the emissions reductions projected in the CAP may not be achieved, which could delay or preclude attainment of the state ozone standard.

However, the growth rates for vehicle trips and miles traveled are not projected to exceed the rate of population growth for the South County with the proposed project. According to the South County Area Plan – Inland Portion, the population of the South County is projected to grow from 16,200 in 1990 to 25,562 in 2020, an annual growth rate of approximately 1.54 percent. With the proposed project, vehicle trips in the South County are anticipated to increase from 80,240 to 108,740 upon buildout, an annual growth rate of approximately 1.02 percent. Vehicle miles traveled are anticipated to increase during the same period at the same rate.

Further, the project would be consistent with a number of policies and programs identified in the 1995 CAP. The following policies and programs are included in Appendix E of the 1995 CAP

and are applicable to the proposed project. A discussion of the project's potential consistency with each policy follows the policy under the "Comment" header.

L1-a Planning Compact Communities: Cities and unincorporated areas should be developed at densities that reduce trips and travel distances and encourage the use of alternate forms of transportation.

Comment: The implementation section for this policy states that a minimum of 7 dwellings per gross acre should be encouraged in low to medium density residential areas. The proposed project would include 1,320 units on 235 acres designated for residential uses, a density of approximately 5.6 units per acre. However, the project would be consistent with other components of this policy, including a variety of lot sizes, housing types, clustering of lots, and more intensive development within the village center area.

L1-b Planning Compact Communities: Urban growth should occur within the urban reserve lines of cities and unincorporated communities. Rural areas of the county should be maintained as open space, agricultural lands and very low density residential development (20 acres or larger parcel size).

Comment: The proposed project is located outside established urban and village reserve lines. However, the project will need to establish a village reserve line to allow for residential density greater than one unit per acre. Therefore, if the village reserve line is established, this could be considered consistent with this policy.

L1-c Planning Compact Communities: Local planning agencies should encourage walking and transit use by planning neighborhoods and commercial centers at densities to allow for convenient access to and use of local and regional transit systems.

Comment: The proposed project would include a network of pedestrian and bicycle trails, and could accommodate a transit stop in the proposed village center, to encourage walking and transit use. Approximately 160 of the 1,320 proposed housing units would be located within a ¼ mile radius of the village center, with the balance located within a ¾ mile radius. Therefore, the project would be consistent with this policy.

L-2 Providing for Mixed Land Use: The mixing of compatible commercial and residential land uses should be encouraged when it will reduce dependence on the automobile or improve the balance between jobs and housing without creating incompatible land use relationships.

Comment: The proposed project would combine commercial, business park, recreational, and residential uses on the site, and would improve the balance between jobs and housing, if the business park is developed as proposed. Therefore, the project would be potentially consistent with the policy. If the business park were not developed, the project would be inconsistent with this policy.

L-3 Balancing Jobs and Housing: Within cities and unincorporated communities, the gap between the availability of jobs and housing should be narrowed and should not be allowed to expand.

Comment: If the business park component of the project is developed as proposed, the project would introduce substantial employment-generating land uses into a predominantly residential area. Therefore, the project is potentially consistent with this policy.

L-4 Circulation Management Policies and Programs:

II.a. Promoting Walking and Bicycling: Local planning agencies should encourage walking by planning for existing and new residential and commercial areas to include a safe and interconnected street system with adequate sidewalks and/or pedestrian trails.

Comment: As discussed above, the proposed project would include a network of pedestrian and bicycle trails, in addition to an interconnected street system with sidewalks. Therefore, the project would be consistent with this policy.

II.b. Promoting Walking and Bicycling: Local planning agencies should develop pedestrian- and bicycle-friendly design standards that apply to all residential and commercial projects.

Comment: The proposed project would include pedestrian- and bicycle-friendly standards. Therefore, the project would be consistent with this policy.

III. Parking Management: Local planning agencies should endorse the concept of managing the supply of automobile parking as a means to support and promote the use of alternative transportation modes.

Comment: This policy suggests that no more than one off-street parking space per dwelling unit be required in low to medium density residential areas, as well as allowing on-street parking. The proposed project would require two off-street parking spaces per unit, and would not require on-street parking. Therefore, the project would be potentially inconsistent with this policy.

IV. Transportation Demand Management: Jurisdictions should support actions to reduce single occupant vehicle trips by adopting programs which encourage or require new commercial and industrial development projects to provide facilities and amenities which reduce reliance on private vehicle use and support the use of alternative transportation.

Comment: The proposed project would introduce employment-generating land uses into a predominantly residential area, which would contribute to a reduction in vehicle trips and miles traveled for the area. In addition, the proposed project could accommodate a transit stop in the proposed village center. Finally, the proposed project includes land use and transportation control measures from the CAP (see Section 4.2, Traffic and Circulation). Therefore, the project would be consistent with this policy.

Alternatives

Each one of the development alternatives would have similar uses as the proposed project. Although the Expanded Business Park and Rural Village II Alternatives would involve greater commercial development than the proposed project, these alternatives would remain consistent with the envisioned uses for the site as identified in the South County Area Plan - Inland Portion. However, development of any of the alternatives would exceed the population projections based on the South County Area Plan - Inland Portion, which is accounted for in the 1995 CAP. Therefore, as with the proposed project, implementation of any one of the development alternatives would not be consistent with the CAP, based on the same analysis presented above.

Mitigation Measures: No mitigation measures are necessary beyond those recommended for the proposed project.

Significance After Mitigation: No significant adverse impacts are anticipated.

4.4 BIOLOGICAL RESOURCES

The Woodlands Specific Plan area comprises 940 acres of sand hills, originally coastal dunes but now stabilized by an extensive plantation of eucalyptus trees and a few small fragments of grassland and regionally scarce coastal scrub. Elevation ranges from 125 to 325 feet above Mean Sea Level. The highest point, near the center of the site, possesses the unique combination of factors--light intensity, wind speeds, relative humidity, etc.--which create an ideal winter sanctuary for monarch butterflies. Raptor (bird of prey) nesting occurs in several areas where trees are adjacent to openings, but the balance of the site is somewhat scarce in native plants and animals, due mainly to the eucalyptus plantation.

4.4.1 METHODOLOGY

Sources used in the preparation of this section include information from: field surveys; records from the California Natural Diversity Data Base (CNDDDB, 1997); biological literature (Sawyer and Keeler-Woolf, 1995; Munz and Keck, 1970; Hickman, 1993; Holland, 1986; Skinner and Pavlik, 1994); previous and on-going biological reports of the site (Leong, 1995, 1997; Hanson, 1992; Holland, 1992); and technical reports from commercial database searches (Absearch 1995). Wildlife habitats were characterized on the basis of both records and field observations.

Environmental Science Associates (ESA) conducted two site reconnaissances of the project site in the Winter (January 3 and 4, 1996) and Spring (May 23, 1996) to gather information on vegetative communities, wildlife habitats and habitat use on and surrounding the project site, and to verify the results of previous biological reports.

Dr. Kingston Leong documented the movement and characteristics of the monarch butterfly population on-site beginning in November, 1995 and continuing through early spring, 1996.

In preparation for the vegetation and wildlife surveys, ESA reviewed a 1"=200' topographic map and aerial photograph of the property, local soil survey data, records from the California Natural Diversity Data Base (CNDDDB, 1996), and descriptions of species in recognized manuals and floras (Munz and Keck, 1970; Hickman, 1993) to note key distinguishing characteristics of similar species. ESA also made field copies of illustrations of species of concern, and studied specimens of species of concern at the Herbarium of the University of California at Berkeley. Plant surveys were conducted in accordance with current California Department of Fish and Game (CDFG) and U.S. Fish and Wildlife Service (USFWS) methodologies, using transects spaced approximately 20 feet apart.

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Each of the four open areas was thoroughly walked using a meandering pattern. Six parallel east-west line transects, approximately 0.25 miles apart, were used to characterize the eucalyptus forest. Bird use of the site was also evaluated at six stations (one in each of the open areas, one in burned and one in unburned eucalyptus stands), with observation periods of 30 minutes per station. At each station, habitat was assessed and all species observed or detected (e.g., call, scat, burrows, tracks) were recorded.

4.4.2 ENVIRONMENTAL SETTING

4.4.2.1 Regional Setting

The project site is within the California Floristic Province,¹ Central Western California Region. The San Luis Obispo coastal region has a Mediterranean climate with habitats including mosaics of upland oak and mixed evergreen forests, dune and strand communities, native and non-native grasslands, upland scrubs, marsh and wetland communities, and riparian scrubs and forests. The project is within a coastal zone landscape which is defined by two mountain ranges that form watersheds aligned on a predominantly northwest to southeast axis. These ranges are the Santa Lucia and San Luis Mountains. While neither is particularly high, they are effective climactic barriers between the coastal zone and inland portion of the County. Most urban and intensive agricultural uses in the county occur in the valleys of the coastal terraces of the western ranges.

In the vicinity of the project site, native vegetation consists of dune lakes, coastal dune and strand, coastal scrub, coast live oak woodland, chaparral and grassland communities. Agricultural, oil, and residential development, alteration of the natural landscape (e.g., plantations, grazing), and off road vehicle use are the primary factors limiting open space and natural communities in this area. North and east of the project site is mixed residential development; the valley plain, located south of the site, is planted in agricultural row crops. Coastal scrub, dune and strand, and dune lake communities occur west of the site.

¹ Geographic subdivisions are used to describe and predict features of the natural landscape. The system of geographic units is four-tiered: provinces, regions, subregions, and districts. The State of California is covered by three floristic provinces: California Floristic Province, Great Basin and Desert. The California Floristic Province is the largest, includes most of the state and small portions of Oregon, Nevada and Baja California, Mexico and is made up of six regions.

4.4.2.2 Project Setting

The project site is located on gently rolling sandhills of coastal dune origin, a landform typical of much of the Nipomo Mesa. Elevation ranges from approximately 125 feet near the southwest corner of the site to approximately 325 feet near the center. The site was planted in eucalyptus in the 1800s. Most of the site has been logged and burned more than once, and supports dense second or third growth eucalyptus. Before the trees were planted, the site was most likely dominated by coastal scrub and grassland communities intermixed with coast live oak woodland along the eastern boundary. Currently there are four limited open (non-eucalyptus dominated) areas on-site, supporting grassland and scrub vegetation.

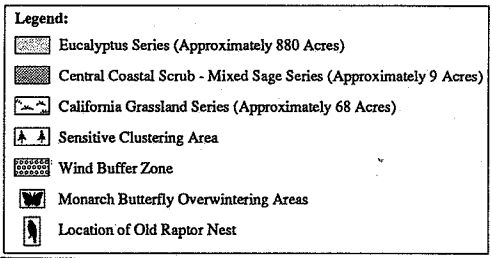
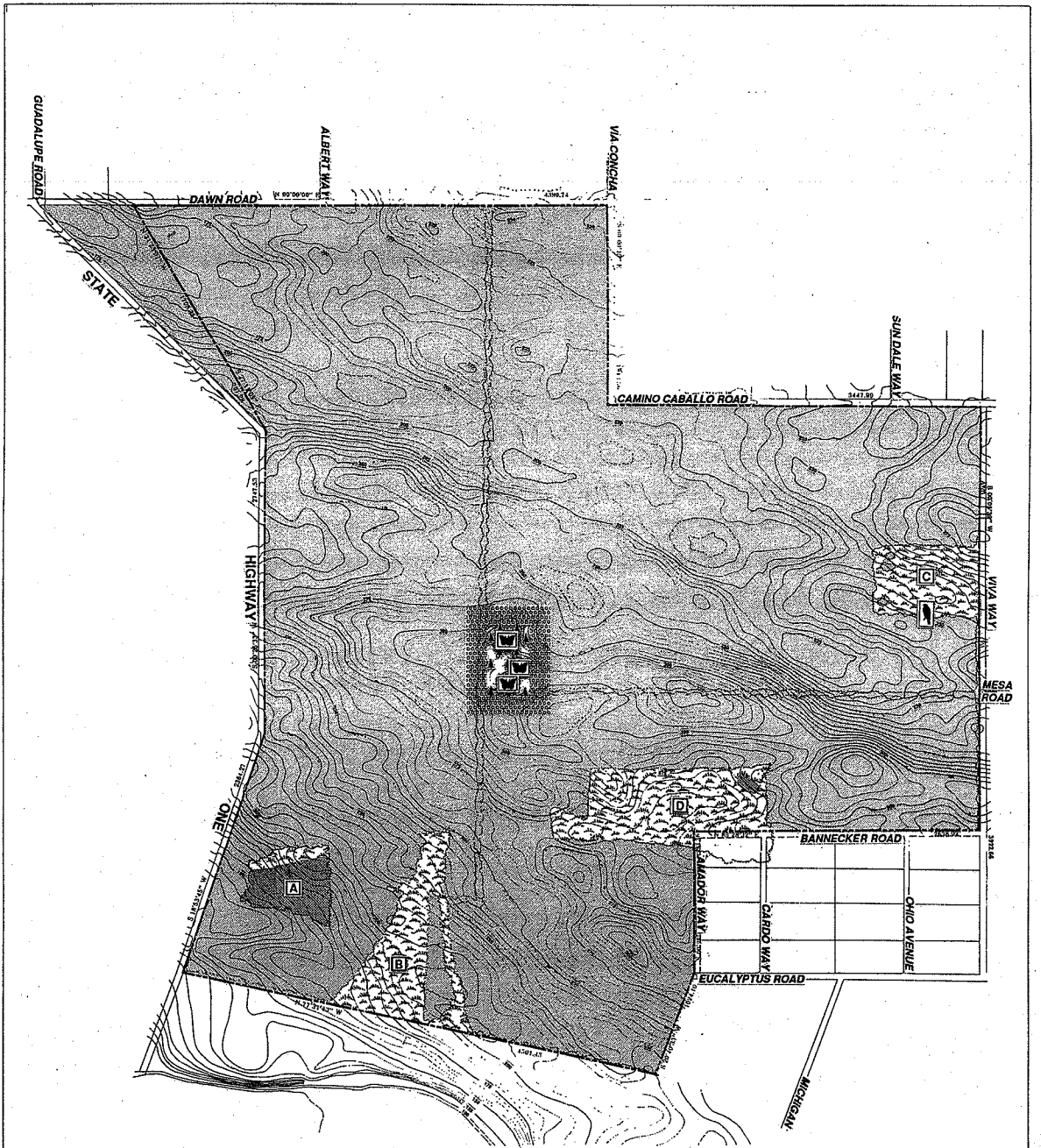
4.4.2.2.1 Plant Communities

The vegetation/habitat classification system for this project is based on Sawyer and Keeler-Woolf (1995) and influenced by the classification system of Holland (1986). The classification system is a hierarchical treatment of vegetation communities/wildlife habitats describes natural communities, naturalized communities, invasive plant associations, human-influenced and urban landscapes. The project site supports three vegetative series: eucalyptus (the majority of the site, over 800 acres), small patches of central coastal scrub - mixed sage (approximately 9 acres), and California grassland (approximately 68 acres). These series are described below (see also Figure 4.4-1).

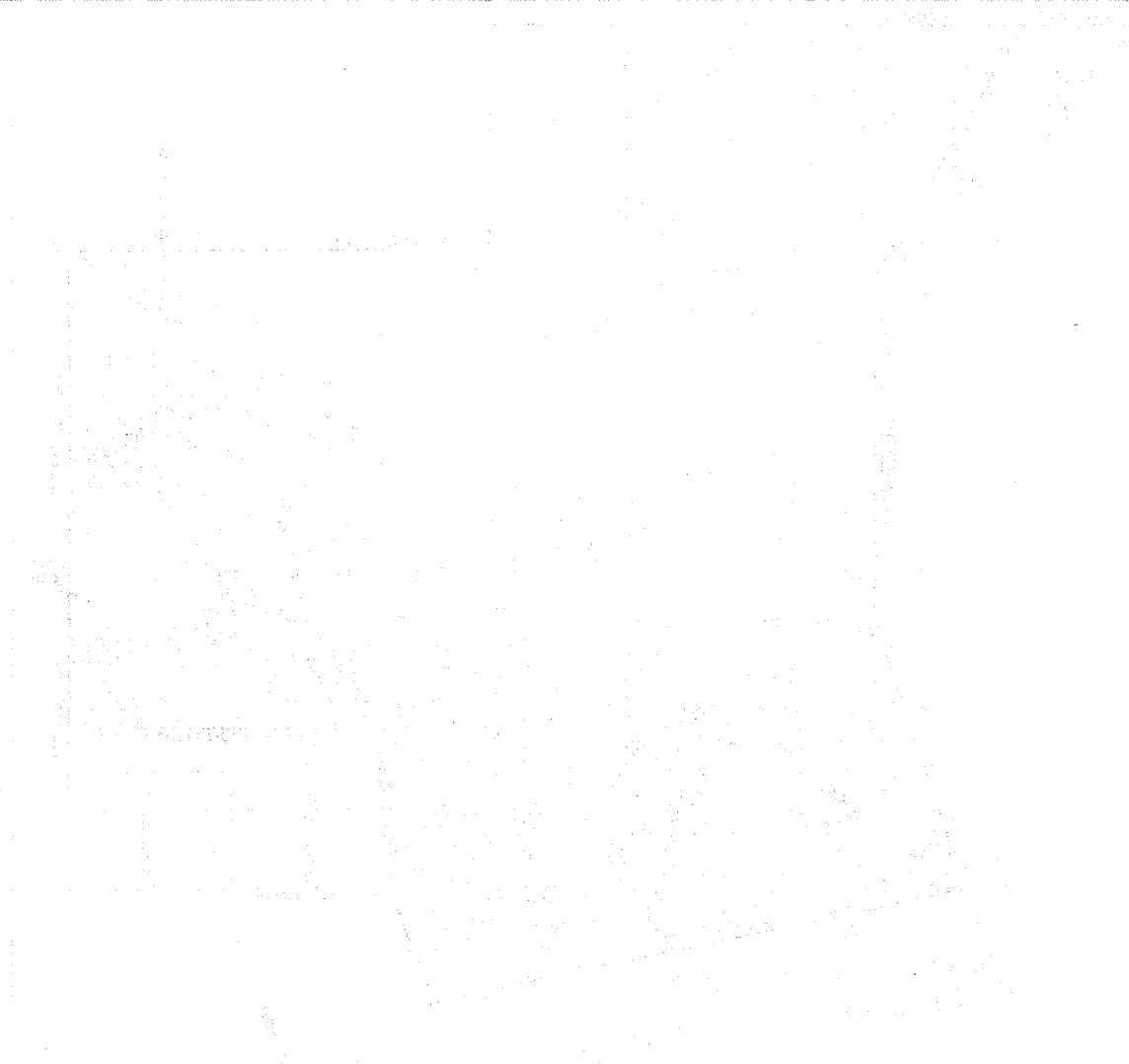
Eucalyptus. The site is dominated by pure, dense stands of eucalyptus (*Eucalyptus* sp.). The stand is about a hundred years old, and most of the site has been logged and/or burned and trees now on the site have sprouted from stumps or root systems. Most of the trees range between one and two feet in diameter at breast height (dbh) and attain heights between 70 and 120 feet. Portions of the forest have evenly spaced trees, while other areas are dense with immature trees, second and third growth, snags and deadfalls.

Understory vegetation is inhibited by low light conditions at the soil surface (due to a closed canopy) and thick tree litter (i.e., fallen branches, leaves, fruits, and bark) with allelopathic² properties which prevent the establishment of shrubs (McArthur, 1962). Consequently, the understory is sparse and relatively low in species diversity. Understory species include a mix of

² Allelopathy is the addition of a substance or chemical to an environment by a plant species that inhibits the growth, reproduction, or colonization by other plant species. Eucalyptus duff is high in alkaloids that inhibit the growth and colonization of many plant species.



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non-native grasses including veldt grass (*Ehrharta calycina*), riggut brome (*Bromus diandrus*), slender wild oats (*Avena barbata*), foxtail fescue (*Vulpia myuros* var. *myuros*) and various forbs such as pimpernel (*Anagallis arvensis*), Italian thistle (*Cardus pycnocephalus*), bedstraw (*Gallium aparine*), chickweed (*Stellaria media*), nightshade (*Solanum xanti*), Bermuda buttercup (*Oxalis pescaprae*), and telegraph weed (*Heterotheca grandiflora*).

Eucalyptus forests were originally planted in coastal California in 1856, with extensive silviculture beginning in 1870 (Howell, 1982) for railroad ties, telephone poles, timber, and for windbreaks and shade for grazing livestock. Other areas in coastal California that support significant stands of eucalyptus in similar coastal ecotypes include Natural Bridges State Park (Santa Cruz County), Ellwood Beach (Santa Barbara County), and Albany Hill (Alameda County).

Central Coastal Scrub - Mixed Sage Series. Central coastal scrub - mixed sage series occurs as scattered patches in three of the four open areas on-site and dominates the fourth, located near the southwest corner. This area is composed of an almost equal mixture of California sagebrush (*Artemisia californica*), coyote brush (*Baccharis pilularis*), silver bush lupine (*Lupinus chamissonis*), tree lupine (*Lupinus arboreus*), mock heather (*Ericameria ericoides*), coffee berry (*Rhamnus californica*), coast buckwheat (*Eriogonum parvifolium*), croton (*Croton californica*), and deerweed (*Lotus scoparius*). The understory and surrounding open area is dominated by veldt grass (*Ehrharta calycina*), a native of South Africa originally planted at Nipomo Mesa, Bodega Bay, and Casitas Pass for forage and erosion control (Hickman, 1993).

Most growth of characteristic species in this series occurs in late winter and spring, with flowering concentrated in late spring and early summer. Similar scrub habitat occurs south of the project site, along the Mesa's edge, and directly west of the site (Unocal property), with the scrub on-site most closely resembling the density of those portions of the Unocal property visible from Highway 1.

This community is restricted to the coast on stabilized backdune slopes, ridges, and flats (Holland, 1986). "Blowouts", or substantial erosion events, are often recolonized by foredune species or by herbaceous wetland species. The latter species group is dominant where the blowout reaches the groundwater table and forms a dune slack pond (Holland, 1986), as has occurred, for example, at Oso Flaco Lake and Pismo Dunes (located west-southwest of the site). Although historically extensive along coastal California, this community has been restricted to isolated stands and scattered patches from Point Conception south to Mexico (Holland, 1986).

The CDFG and the U.S. Fish and Wildlife Service (USFWS) may consider this a threatened community in California, due to similarities with coastal sage scrub types formally described in CDGF's list of rare natural communities in Southern California.

California Grassland Series. This series comprises a dense to sparse cover of introduced, naturalized grasses associated with numerous species of annual and perennial forbs. The presence of this assemblage of non-native grasses (of Mediterranean and South African origin) is a consequence of permanent alterations to the once widely distributed, pristine perennial grasslands of California. The conversion of native perennial grassland into non-native, predominantly annual species has resulted from a combination of (1) invasion by alien plant species, (2) changes in the kinds of animals and their grazing patterns, (3) cultivation, and (4) fire regime (Heady, 1988).

Three of the four open areas on site are dominated by grassland. The dominant species is veldt grass (*Ehrharta calycina*), an aggressive invasive species that prevents the re-establishment of native vegetation, especially in sandy soils where the original plant cover (e.g., coastal dune scrub) has been removed. On the project site, veldt grass completely dominates much of the open area in the eucalyptus forest. On the Chen property, to the south, veldt grass is spreading rapidly through the scrub community, inhibiting scrub reproduction and vigor.

Portions of the grassland not dominated by veldt grass (e.g., the open area along the southern boundary of the site, south of Gate 4 road) are a mix of slender wild oats (*Avena barbata*), ripgut brome (*Bromus diandrus*), foxtail fescue (*Vulpia myuros* var. *myuros*), filaree (*Erodium* ssp.), bur clover (*Medicago polymorpha*), starthistle (*Centaurea* ssp.), mustards (*Brassica* sp.), Italian thistle (*Cardus pycnocephalus*), sow thistle (*Sonchus* sp.), mallow (*Malva* sp.), and telegraph weed (*Heterotheca grandiflora*). Species richness is influenced by past and present disturbances, slope, and moisture availability. Coastal scrub species occur as scattered patches within these grasslands. An isolated area of non-native tree tobacco (*Nicotiana glauca*) occurs in an old corral in the open area along the southern boundary of the site, south of Gate 4 road.

Dominant grasses grow actively during winter and spring, remain dormant during summer and early fall, and persist only as seed until conditions are favorable for germination. California grassland series is common below 3,000 feet throughout most of California, except for the north coastal and desert regions (Holland, 1986).

4.4.2.2 Wildlife

Wildlife habitat classification for this report is based on CDFG's Wildlife Habitat Relationships (WHR) System (Mayer and Laudenslayer, 1988). This classification system has an emphasis on modeling the distribution, life history, and habitat needs for each individual species.

Wildlife habitats are not as well defined as vegetation communities, which are characterized by certain plant species adapted to specific environmental conditions. Wildlife habitats can include various vegetation communities, which create different areas for different life cycle needs, such as foraging, nesting, and shelter from predators. Within the project site three wildlife habitats occur: eucalyptus, coastal scrub and annual grassland. High quality wildlife habitat, as determined by the combination of a variety of healthy, stable vegetation communities, allowing for wildlife diversity, is not present on most of the project site due to the prevalence of eucalyptus trees. The coastal scrub area provides qualitatively more habitat because of the greater diversity of vegetation.

Eucalyptus forest. This habitat on site contains areas of evenly spaced trees with some sunlight reaching the ground in a few unburned areas, but the preponderance is dense with immature, second and third growth, closed canopy and fallen trees blocking most of the light at ground level. More habitat is provided for wildlife in the unburned areas, as sunlight allows grass to establish as a ground layer intermixed with sloughed bark and leaves. Within the burned area, the last fire on the site (1987) depleted the pool of accumulated litter around the individual trees, leaving the ground almost bare (Birk and Simpson 1980).

In California, eucalyptus forests can provide roosting and nesting habitat for birds, and microhabitats for some small invertebrates (Mayer and Laudenslayer, 1988). However, studies conducted on the top 30 cm of soils within eucalyptus plantations have demonstrated that organic carbon, total nitrogen, phosphorus and potassium are lower than equivalent plantations of broad-leaved trees (Bargali, Singh and Joshi 1993), a condition which somewhat impoverishes these sites ecologically. Moreover, because of the nature of the tannins found within eucalyptus leaves and bark, the species itself is of low palatability. Zim (1951) notes only two animals native to California will consume eucalyptus as food.

Native wildlife species of California, with a few exceptions, rarely use this type as preferred habitat, a conclusion supported by time-limited bird counts conducted for this analysis. Bird surveys within the eucalyptus forest revealed a higher species diversity and a greater abundance

within the unburned area (5 species, 20-30 individuals) than in the burned area (3 species, 5-10 individuals), but both eucalyptus observation stations were considerably less diverse than open grassland (11 species) and coastal scrub (6 species). There are several exceptions within the project site that are considered sensitive species, including the monarch butterfly (*Danaus plexippus*), nesting loggerhead shrike (*Lanius ludovicianus*) and raptors (birds of prey). Please refer to the Special Status Species section below for additional information on these animals.

Species observed within the unburned areas include coyote (*Canis latrans*), red-tailed hawk (*Buteo jamaicensis*), red-shouldered hawk (*Buteo lineatus*), American kestrel (*Falco sparverius*), great horned owl (*Bubo virginianus*), dark-eyed junco (*Junco hyemalis*), yellow-rumped warbler (*Dendroica auduboni*), chestnut-backed chickadee (*Parus rufescens*) and Anna's hummingbird (*Calypte anna*). Species observed within the burned area included yellow-rumped warbler, Anna's hummingbird and American goldfinch (*Carduelis domesticus*). Smaller vertebrate species, such as lizards, were not observed anywhere within the eucalyptus forest; no salamanders and few invertebrates, except slugs, were observed under fallen logs and branches.

Coastal scrub. This habitat contains wildlife species that are uniquely adapted, such as the coast horned lizard (*Phrynosoma coronatum*), and include species that are attracted to the ecotone or "edge" between this and other habitats, such as red-tailed hawk and loggerhead shrike. Coastal scrub is less vegetatively productive than adjacent chaparral habitats, but seems to support equivalent numbers of wildlife species (Mayer and Laudenslayer 1988). The leaf litter of sagebrush, coyote bush and mock heather provide habitat for small vertebrates, such as lizards and ground foraging bird species, e.g., rufous-sided towhee (*Pipilo crissalis*). The structure of the vegetation provides cover for mammals, such as cottontail (*Sylvilagus audubonii*), and California vole (*Microtis californicus*), while the flowers are food for insects and nectar feeders, such as Anna's hummingbird. Small mammals attract predators such as bobcat (*Felix rufus*). Species observed using the coastal scrub habitat on the project site include red-tailed hawk, Anna's hummingbird, yellow-rumped warbler, loggerhead shrike, scrub jay (*Aphelocoma coerulescens*), western flycatcher (*Empidonax difficilis*), brown towhee (*Pipilo fuscus*), American goldfinch (*Carduelis domesticus*), bushtit (*Psaltriparus minimus*), American house finch (*Carpodacus mexicanus*), cottontail, striped skunk (*Mephitis mephitis*) and bobcat .

Annual grassland: Annual grassland habitat is largely the result of cattle grazing, and has been previously discussed as a vegetation series. Grassland habitat supports avian seed eaters as well as insect eaters: mourning dove and meadowlarks are examples of the former group and scrub jays, barn swallows, and mockingbirds of the latter. Mammals such as the California vole, deer

mouse, broad-footed mole, and black-tailed jackrabbit forage and breed within the grassland. Mule deer will use grassland for grazing and for bedding at night. Small rodents attract raptors (birds of prey) such as red-tailed and red-shouldered hawks.

Other species observed within the grasslands on site include American badger (*Taxidea taxus*), black-tailed deer (*Odocoileus hemionus*), song sparrow (*Melospiza melodia*), golden crowned sparrow (*Zonotrichia atricapilla*) white-crowned sparrow (*Zonotrichia leucophrys*), American house finch (*Carpodacus mexicanus*), Anna's hummingbird and rufous-sided towhee.

4.4.2.2.3 Wetlands

Wetlands are defined by the U.S. Army Corps of Engineers (Corps) and the U.S. Environmental Protection Agency (EPA) as those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. The Corps Wetlands Delineation Manual (1987) establishes three criteria (wetland vegetation [hydrophytes], wetland [hydric] soils, and wetland hydrology) to determine whether an area may qualify as a wetland under the jurisdiction of the Corps. The property was assessed for the presence of potential jurisdictional wetlands by examining evidence of wetland hydrology and wetland vegetation (hydrophytes). No wetlands occur on the project site.

4.4.2.3 Special Status Species

As discussed in the following pages, several species known to occur on or in the vicinity of the project site are accorded "special status" designation because of their recognized rarity or vulnerability to various causes of habitat loss or population decline. Some of these receive specific protection defined in federal or State endangered species legislation. Others have been designated as "sensitive" on the basis of adopted policies and expertise of State resource agencies or organizations with acknowledged expertise, or policies adopted by local governmental agencies such as counties, cities, and special districts to meet local conservation objectives. These species are referred to collectively as "special status species" in this EIR, a collective term indicating some level of local, state or federal concern for populations or habitats. The various categories encompassed by the term, and the legal status of each, are summarized below.

4.4.2.4 Regulation of Special Status Species

Federal Endangered Species Act. Under the Federal Endangered Species Act (FESA), the Secretary of the Interior and the Secretary of Commerce, jointly have the authority to list a species as threatened or endangered (16 USC 1533(c)). Pursuant to the requirements of FESA, an agency reviewing a proposed project within its jurisdiction must determine whether any federally listed threatened or endangered species may be present in the project area and determine whether the proposed project will have a potentially significant impact on such species. In addition, the agency is required to determine whether the project is likely to jeopardize the continued existence of any species proposed to be listed under FESA or result in the destruction or adverse modification of critical habitat proposed to be designated for such species (16 USC 1536(3), (4)). Therefore, project-related impacts to these species or their habitats would be considered "significant".

The USFWS also publishes a list of candidate species. Species on this list receive "special attention" from federal agencies during environmental review, although they are not protected otherwise under the FESA. The candidate species are taxa for which the USFWS has sufficient biological information to support a proposal to list as Endangered or Threatened. Project impacts to such species would be considered "significant" in this EIR.

California Endangered Species Act. Under the California Endangered Species Act (CESA), CDFG has the responsibility for maintaining a list of threatened species and endangered species (Cal. Fish and Game Code 2070). The CDFG also maintains a list of "candidate species" which are species that the CDFG has formally noticed as under review for addition to the threatened or endangered species lists. The CDFG also maintains lists of "species of special concern" which serve as "watch lists." Pursuant to the requirements of CESA, an agency reviewing a proposed project within its jurisdiction must determine whether any State listed endangered or threatened species may be present in the project area and determine whether the proposed project will have a potentially significant impact on such species. In addition, the Department encourages informal consultation on any proposed project which may impact a candidate species. Project-related impacts to species on the CESA endangered list and threatened list would be considered "significant". Impacts to "species of special concern" would be considered "significant" under certain circumstances, discussed below.

CEQA Guidelines Section 15380. Although threatened and endangered species are protected by specific federal and State statutes, CEQA Guidelines section 15380(b) provides that a species not

listed on the federal or State list of protected species may be considered rare or endangered if the species can be shown to meet certain specified criteria. These criteria have been modeled after the definition in FESA and the section of the California Fish and Game Code dealing with rare or endangered plants or animals. This section was included in the Guidelines primarily to deal with situations in which a public agency is reviewing a project that may have a significant effect on, for example, a "candidate species" that has not yet been listed by either the USFWS or CDFG. Thus, CEQA provides the ability to protect a species from potential project impacts until the respective government agencies have an opportunity to designate the species as protected, if warranted.

Other Statutes, Codes, and Policies Affording Limited Species Protection. There are three additional situations that could trigger potentially significant impacts to biological resources. The first, the federal Migratory Bird Treaty Act (16 U.S.C., Sec. 703, Supp. I, 1989), prohibits killing, possessing, or trading in migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. This act encompasses whole birds, parts of birds, and bird nests and eggs. Birds of Prey are protected in California under the State Fish and Game Code, Section 3503.5, 1992). Section 3503.5 states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "taking" by the CDFG. Any loss of fertile eggs, nesting raptors, or any activities resulting in nest abandonment would constitute a significant impact. This approach applies to red-tailed hawks, American kestrels, burrowing owls, and other birds of prey. Project impacts to these species would not be considered "significant" unless they are known or have a high potential to nest on the site or rely on it for primary foraging.

The second, the federal Bald Eagle Protection Act, prohibits persons within the United States (or places subject to U.S. jurisdiction) from "possessing, selling, purchasing, offering to sell, transporting, exporting or importing any bald eagle or any golden eagle, alive or dead, or any part, nest, or egg thereof."

Lastly, vascular plants listed as rare or endangered by the California Native Plant Society (CNPS) (Skinner and Pavlik, 1995), but which have no designated status or protection under federal or State endangered species legislation, are defined as follows:

- List 1A Plants Believed Extinct.
- List 1B Plants Rare, Threatened, or Endangered in California and elsewhere.
- List 2 Plants Rare, Threatened, or Endangered in California, but more numerous elsewhere.
- List 3 Plants About Which More Information is Needed - A Review List.
- List 4 Plants of Limited Distribution - A Watch List.

In general, plants appearing on CNPS List 1 or 2 are considered to meet CEQA's Section 15380 criteria and impacts to these species are considered "significant" in this EIR.

4.4.2.5 Special Status Species at The Woodlands Specific Plan Area

A list of special status plant and wildlife species known to occur within the general region of the project site and potentially occurring within the project site itself was compiled from 1) analysis of previous studies conducted within the project site concerning special status plants and animals; 2) consultation with the California Natural Diversity Data Base (CNDDDB), the USFWS, and the CDFG; 3) review of pertinent scientific literature about the sensitive species of concern; 4) review of the most recent Notice of Review for federally-listed and candidate taxa; 5) review of the CDFG's most recent list of special animals and plants, which also includes federally-listed and candidate plants; 6) review of CNPS literature; and 7) recent field studies conducted as a part of this EIR. Refer to Table 4.4-1 for lists of 12 special status plant species and 13 special status wildlife species considered in this analysis, together with current federal and State listing status and, in the case of plants, the California Native Plant Society (CNPS) status.

Special status plants targeted in project-specific surveys included Pismo clarkia (*Clarkia speciosa* ssp. *immaculata*), Nipomo Mesa lupine (*Lupinus nipomensis*), beach spectaclepod (*Dithyrea maritima*), San Luis Obispo County lupine (*Lupinus ludovicianus*), crisp monardella (*Monardella crispera*), and short-lobed broomrape (*Orobancha parishii* ssp. *brachyloba*). No special status plant species were located during the surveys. Several common clarkia (*Clarkia purpurea* ssp. *quadrivulnera*) were located and a collection of the species was made for positive identification. No other species of mention were observed on the property.

ESA biologists and subcontractors recorded four special status animal species during site reconnaissance in January: monarch butterfly (*Danaus plexipus*), red-tailed hawk (*Buteo jamaicensis*), red-shouldered hawk (*Buteo lineatus*), and loggerhead shrike (*Lanius*

TABLE 4.4-1: SPECIAL STATUS SPECIES CONSIDERED IN THE EVALUATION OF THE WOODLAND SPECIFIC AREA

SPECIES THAT ARE LISTED OR PROPOSED FOR LISTING

Common Name	Scientific Name	USFWS/CDFG/CNPS	General Habitat	Nearest Reported Occurrence	Site Assessment
<u>ANIMALS</u> Western snowy plover	<i>Charadrius alexandrinus nivosus</i>	FT/ -	Sandy beaches on marine and estuarine shores - requires sandy, gravelly, or friable soils for nesting.	Pismo State Beach and Nipomo Dunes.	No Impact. The project area does not support adequate habitat for this species.
California least tern	<i>Sterna antillarum browni</i>	FE/CE	Nests along the coast from San Francisco Bay south to northern Baja California - colonial breeder on bare or sparsely vegetated flat substrates including sand beaches, alkali flats, land fills, or paved areas.	Oso Flaco Lake.	No Impact. The project area does not support adequate habitat for this species.
<u>PLANTS</u> Marsh sandwort	<i>Arenaria paludicola</i>	FE/CE/List 1B	Freshwater marshes and swamps.	Oso Flaco Lake, Black Lake, Black Lake Canyon, Small Twin Lake, and Jack Lake.	No Impact. The project area does not support adequate habitat for this species.
La Graciosa thistle	<i>Cirsium loncholepis</i>	FC/CT/List 1B	Coastal dunes, riparian scrubs, and brackish marshes.	Jack Lake and Mud Lake - Callender Dunes, Twin Lake, Celery Lake, Small Twin Lake, Bolsa Chica Lake, Guadeloupe Dunes, Oso Flaco Lake, Pismo State Beach, and Surprise Lake	No Impact. The project area does not support adequate habitat for this species.
Surf thistle	<i>Cirsium rithophyllum</i>	FC/CT/List 1B	Coastal dunes.	Dunes near Oso Flaco Lake.	No Impact. The project area does not support adequate habitat for this species.
Pismo Clarkia	<i>Clarkia speciosa</i> ssp. <i>immaculata</i>	FE/CR/List 1B	Ancient sand dunes near the coast that support chaparral and cismontane woodlands.	Arroyo Grande Cemetery and Nipomo Mesa.	Potential Impact. The project site supports adequate habitat for this species. Period of identification is May-June.
Beach spectacleropod	<i>Dithyrea maritima</i>	FSS/CT/List 1B	Coastal dunes and strand.	Dunes near Oso Flaco Lake and Pismo State Beach.	Potential Impact. The project site supports adequate habitat for this species. Period of identification is April - May.
Nipomo Mesa lupine	<i>Lupinus nnpomensis</i>	FC/CE/List 1B	Dry sandy flats - restricted to back dunes with central dune scrub habitat.	Near Jack Lake - Nipomo Mesa, near Black Lake, Unocal Road, and Union Oil Santa Maria Refinery.	Potential Impact. The project site supports adequate habitat for this species. Period of identification is March - May.

TABLE 4.4-1: SPECIAL STATUS SPECIES CONSIDERED IN THE EVALUATION OF THE WOODLAND SPECIFIC AREA (Continued)

SPECIES THAT ARE LISTED OR PROPOSED FOR LISTING (Continued)					
Common Name	Scientific Name	USFWS/CDFG/CNPS	General Habitat	Nearest Reported Occurrence	Site Assessment
<u>PLANTS (Continued)</u> Gambel's watercress	<i>Rorippa gambellii</i>	FE/CT/List 1B	Freshwater and brackish marshes at the margins of lakes and streams.	Oso Flaco Lake, Little Oso Flaco Lake, Small Twin Lake, and Black Lake Canyon.	No Impact. The project area does not support adequate habitat for this species.
SPECIES THAT ARE CANDIDATES FOR LISTING OR OF SPECIAL STATUS					
Common Name	Scientific Name	USFWS/CDFG/CNPS	General Habitat	Nearest Reported Occurrence	Site Assessment
<u>ANIMALS</u>					
<u>Birds</u>					
Cooper's hawk	<i>Accipiter cooperi</i>	-/CSC	Nests in dense forests, oak woodlands, and riparian habitats.	Unknown.	Potential Impact. The project site supports adequate nesting habitat for this species.
Red-tailed hawk	<i>Buteo jamaicensis</i>	-/CDFG 3503.5	Nests in dense forests, conifers and riparian areas.	Identified on-site during the January surveys by ESA.	Potential Impact. The project site supports adequate nesting habitat for this species. One old raptor nest was located in a 35" dbh eucalyptus tree adjacent to the grassland on the eastern boundary of the site. A red-tailed hawk was observed on-site during the January surveys.
Red-shouldered hawk	<i>Buteo lineatus</i>	-/CDFG 3503.5	Nests in dense forests, conifers and riparian areas.	Identified on-site during the January surveys by ESA.	Potential Impact. The project site supports adequate nesting habitat for this species. One old raptor nest was located in a 35" dbh eucalyptus tree adjacent to the grassland on the eastern boundary of the site. Red-shouldered hawk were heard on-site during the January surveys.
Merlin	<i>Falco columbarius</i>	-/CSC	Winter foraging habitat consists of open areas and large acres of shrublands. This species does not nest in California.	Unknown.	No Impact. The project area does not support adequate foraging habitat for this species.

TABLE 4.4-1: SPECIAL STATUS SPECIES CONSIDERED IN THE EVALUATION OF THE WOODLAND SPECIFIC AREA (Continued)

SPECIES THAT ARE CANDIDATES FOR LISTING OR OF SPECIAL STATUS

Common Name	Scientific Name	USFWS/CDFG/CNPS	General Habitat	Nearest Reported Occurrence	Site Assessment
<i>Birds (Continued)</i> Loggerhead shrike	<i>Lanius ludovicianus</i>	FSS/CSC	Nests in open grasslands.	Identified on-site during the January surveys by ESA.	Potential Impact. The project site supports adequate nesting habitat for this species. Loggerhead shrike were identified on-site during the January surveys.
<i>Reptiles</i> Southwestern pond turtle	<i>Clemmys marmorata pallida</i>	FSS/CSC	Slow moving streams with open areas for basking.	Oceano.	No Impact. The project area does not support adequate habitat for this species.
Silvery legless lizard	<i>Anneilla pulchra pulchra</i>	FSS/CSC	Loose friable soils for burrowing with heavy leaf litter adjacent to temporary or permanent streams.	Unknown.	No Impact. The project area does not support adequate habitat for this species.
<i>Insects and Invertebrates</i> Monarch butterfly	<i>Danaus plexippus</i>	* The overwintering colonies on the project are a "threatened Phenomenon" and qualify as "special status"	Dense, wind protected tree groves (eucalyptus, Monterey pine, Monterey cypress) near the coast from northern Medocino to Baja California.	Leong (1995) located a significant (approximately 80,000 butterflies) overwintering habitat near the center of the property.	Potential Impact. Overwintering monarchs occur near the center of the property.
<i>PLANTS</i> Shagbark (Sand Mesa) manzanita	<i>Arctostaphylos ruidis</i>	FSS/ - /List 1B	Chaparral and coastal scrub.	Nipomo Mesa.	No Impact. No manzanita were located on the property during the January surveys.
San Luis Obispo County lupine	<i>Lupinus ludovicianus</i>	FSS/ - /List 1B	Open areas in sandy soils supporting chaparral and cismontane woodlands.	Summit between Arroyo Grande and Huasna.	Potential Impact. The project site supports adequate habitat for this species. Period of identification is April - July.
Crisp monarchella	<i>Monardella crispera</i>	FSS/ - /List 1B	Boarders of open sand areas adjacent to backdune scrub vegetation.	Near Oso Flaco Lake, Jack Lake, Pismo/Oceano Dunes, Dune Lake, Black Lake, and Union Oil Santa Maria Refinery.	Potential Impact. The project site supports adequate habitat for this species. Period of identification is April - August.

TABLE 4.4-1: SPECIAL STATUS SPECIES CONSIDERED IN THE EVALUATION OF THE WOODLAND SPECIFIC AREA (Continued)

SPECIES THAT ARE CANDIDATES FOR LISTING OR OF SPECIAL STATUS (Continued)					
Common Name	Scientific Name	USFWS/CDFG/CNPS	General Habitat	Nearest Reported Occurrence	Site Assessment
PLANTS (Continued)					
San Luis Obispo monardella	<i>Monardella frutescens</i>	FSS/ - /List 1B	Stabilized sand of the immediate coast.	Black Lake, Oso Flaco Lake, Union Oil Santa Maria Refinery, Callender PG&E substation, and Oceano Station.	No Impact. The project area does not support adequate habitat for this species.
Short-lobed broomrape	<i>Orobancha parishii</i> ssp. <i>brachyloba</i>	FSS/ - /List 1B	Sandy soils supporting coastal bluff scrub, coastal dune, and coastal scrub vegetation.	Oso Flaco Lake.	Potential Impact. The project site supports adequate habitat for this species. Period of identification is May - August.
OTHER - SPECIES THAT MAY NOT QUALIFY AS SPECIAL STATUS					
Common Name	Scientific Name	USFWS/CDFG/CNPS	General Habitat	Nearest Reported Occurrence	Site Assessment
Mammals					
American badger	<i>Taxidea taxus</i>	- /*	Friable soils in most habitats.	Hanson (1992) reported a badger burrow at the southern boundary of the property.	Potential Impact. The project site supports adequate habitat for this species.
Insects and Invertebrates					
White sand scarab beetle	<i>Lichnanthe albipilosa</i>	FSS/ -	Coastal dunes of San Luis Obispo County in the vicinity of dune lakes.	Oso Flaco Lake.	No Impact. The project area does not support adequate habitat for this species.
Mimic tryonia	<i>Tryonia imitator</i>	FSS/ -	Coastal lagoons and salt marshes from Sonoma County south to San Diego County.	Mouth of lagoon at Oceano.	No Impact. The project area does not support adequate habitat for this species.

STATUS CODES:

FEDERAL: (U.S. Fish and Wildlife Service)

FE=Listed as Endangered by the Federal Government

FT=Listed as Threatened by the Federal Government

FPE=Proposed for Listing as Endangered

FC=Federal Candidate for listing as threatened or endangered

FSS=Former Category 2 Candidates for Federal listing.

Now unofficially considered federal sensitive species.

California Native Plant Society

List 1A=Plants presumed extinct in California

List 1B=Plants rare, threatened, or endangered in California and elsewhere

List 2=Plants rare, threatened, or endangered in California but more common elsewhere

List 3=Plants about which more information is needed

List 4=Plants of limited distribution

TABLE 4.4-1: SPECIAL STATUS SPECIES CONSIDERED IN THE EVALUATION OF THE WOODLAND SPECIFIC AREA (Continued)

STATE: (California Department of Fish and Game)
 CE=Listed as Endangered by the State of California
 CT=Listed as Threatened by the State of California
 CR=Listed as Rare by the State of California (plants only)
 CSC = California species of special concern
 * = Special Animals

3503.5=Protection for nesting species of
 Falconiformes (hawks) and Strigiformes (owls)

SOURCE: CNDDB, 1996; CNPS, 1994; Environmental Science Associates, 1996.

ludovicianus). An American badger (*Taxidea taxus*) burrow was reported along the southern boundary of the site in 1992 (Hanson, 1992). In addition, ESA has concluded that two species not observed during the reconnaissance--Cooper's hawk (*Accipiter cooperi*) and silvery legless lizard (*Aniella pulchra*)--have some potential to occur on the site. Additional information on those special status species most likely to incur significant impacts is given below.

Monarch butterfly overwintering area. Of all the sensitive species known or suspected on the site, only the monarch butterfly overwintering area ranks as a significant or "high" project constraint. While not a listed species, the monarch as a species is considered "Biologically rare, very restricted in distribution" in California (CDFG "Special Animals List"), and its overwintering sites are classed as a "Threatened Phenomenon" internationally (IUCN Invertebrate Red Data Book, 1983). The identified site within the project boundaries is centrally located near the higher knoll on the subject property. It contains a unique combination of favorable microclimatic attributes: solar energy, wind protection, availability of dewfall and extensive lower branching of trees.

Silvery legless lizard. The silvery legless lizard is a Federal Sensitive Species and California Species of Special Concern. It occurs in the central and southern parts of the state, from the desert-edge and foothills west to the coast. Silvery legless lizard is not expected to occur within the eucalyptus forest because of the limited detritus layer. This species may occur in the coastal scrub habitat because of the loose soils, south facing locations, and high leaf litter. Bush lupine, one of the plant species on site, often occurs in areas that are favorable for this species (Stebbins, 1985).

Cooper's hawk. This is a California Species of Special Concern. Cooper's hawks nest in riparian and dense upland woodlands (usually deciduous) and prey on birds and small mammals. This species will hunt on ground after cornering prey in thick bushes or thistles. Populations suffered serious decline as a result of DDT. Suitable habitat occurs on site.

Loggerhead shrike. The loggerhead shrike is a Federal Sensitive Species and California Species of Special Concern. It occurs throughout the lowlands and foothills of California. This species occurs in open habitats, such as grasslands or, occasionally, agricultural fields, using shrubs, trees, posts, fences, and utility lines for perching surfaces. Habitats with little to no human disturbance are preferred, such as open canopied valley, valley foothill hardwood, valley foothill hardwood conifer, valley foothill riparian, piñon-juniper, juniper, desert riparian, and Joshua tree

vegetation communities. Insecticides and habitat loss have caused population decreases in this species. Habitat for this species occurs at the project site.

4.4.2.6 Wildlife Movement Corridors

Wildlife movement corridors connect wildlife habitat separated by terrain or urban development. Especially in areas of urbanization, it is often important to counteract the effects of the fragmentation of natural habitat, which creates isolated "islands" of vegetation. These isolated islands cannot support sustainable populations and/or conditions of proper genetic and species diversity. Although the value and diversity of habitat at the Woodlands Specific Plan Area is reduced by the prevalence of eucalyptus on site, it currently allows animals to move easily between remaining coastal habitats in the vicinity, provides escape routes from fire, predators, and human disturbances and serves as travel paths for individual animals as they wander about or disperse from their home ranges in search of food, water, mates, and other needs.

4.4.2.7 Relevant General Plan Goals, Objectives and Policies

The Conservation Element of the San Luis Obispo County General Plan (San Luis Obispo County, 1974), provides general direction on the protection of native vegetation. The Plant Conservation section of this element recommends that each planning area be evaluated "to determine whether proposed densities and uses are compatible with existing vegetation", and where possible "development should be directed toward those areas where valuable natural communities have been obliterated". This issue was generally considered in the 1995 update of the South County Area Plan. This section also includes a reference where, "Specific Plans prepared by the County should include strict standards for protection of (native) vegetation. The recommendations of the Ecological Preserves section of the element are too general to be applicable to this project, but the Wildlife Conservation section of the Element is more specific: "Future County Planning efforts should include a greater emphasis on wildlife conservation. [Planning Areas] should be changed where necessary to protect important habitat in fringe and urban areas."

4.4.3 ENVIRONMENTAL IMPACTS

4.4.3.1 Thresholds of Significance

To determine the level of significance of an identified impact, the criteria outlined in the CEQA *Guidelines* were used. The following is a discussion of the criteria used to determine the significance of impacts to biological resources.

Significant Impacts. CEQA (Section 15206) specifies that a project shall be deemed to be of statewide, regional, or area-wide significance if it would substantially affect sensitive wildlife habitats including but not limited to riparian lands, wetlands, bays, estuaries, marshes, and habitats for rare and endangered species as defined by Fish and Game Code Section 903.

Appendix G of the CEQA *Guidelines* indicates that a project would have a significant effect on the environment if it would:

- interfere substantially with the movement of any resident or migratory fish or wildlife species;
- substantially diminish habitat for fish, wildlife or plants; or
- substantially affect a rare or endangered species of animal or plant or the habitat of the species.

CEQA Section 15380 further provides that a plant or animal species may be treated as "rare or endangered" even if not on one of the official lists if, for example, it is likely to become endangered in the foreseeable future.

Based on guidelines established by the USFWS and the CDFG, a project could be considered to have a significant adverse impact on biological resources if it would result in substantial disruption to, or destruction of, any special status species, their habitat, or breeding grounds. A project would also be considered to have a significant impact if it: would result in a substantial loss of important plant or animal species; would cause a change in species composition, abundance or diversity beyond that of normal variability; would result in the direct or indirect measurable degradation of sensitive habitats (e.g., wetlands, riparian corridors, vernal pools, oak woodlands); or would result in loss of a significant plant community.

CEQA Guidelines (Appendix G) specifies that a project will normally have a significant impact on the environment if it will physically impact communities or species protected by adopted environmental plans and goals of the community(ies) where it is located. Any action that would conflict with these policies might be considered a significant impact, unless measures are required that fully mitigate effects (avoidance, replanting vegetation, providing compensatory conservation areas off-site, etc.).

Less than Significant Impacts. Impacts are generally considered less than significant if the habitats and species affected are common and widespread in the region and the state.

Beneficial Impacts. Impacts are considered beneficial if the action causes no detrimental impacts and/or results in an increase of habitat quantity and quality.

For the purposes of this EIR, three principal components of the guidelines outlined above were considered:

- Magnitude of the impact (e.g., substantial/not substantial)
- Uniqueness of the affected resource (rarity)
- Susceptibility of the affected resource to disturbance (sensitivity)

The evaluation of significance must consider the interrelationship of these three components. For example, a relatively small magnitude impact to a State or federal listed species would be considered significant because the species is very rare and is believed to be very susceptible to disturbance. Conversely, a plant community such as California annual grassland is not necessarily rare or sensitive to disturbance. Therefore, a much larger magnitude of impact would be required to result in a significant impact.

4.4.3.2 Impact Overview

This EIR has identified significant or potentially significant and cumulative impacts to biological resources. The most evident direct impact of the proposed project will be the conversion of natural and, in the case of non-native grasslands and eucalyptus groves, "naturalized" areas to urban uses. This would comprise 60 percent of the project area, with the remainder left as natural open space.

The mitigation measures presented are designed to protect or provide suitable habitat quality and quantity to offset project losses to below the level of significance. The mitigation measures

presented in this report are based on requirements, recommendations, and guidelines established by San Luis Obispo County, the U.S. Fish and Wildlife Service, California Department of Fish and Game, U.S. Army Corps of Engineers, and Regional Water Quality Control Board. The term "qualified wildlife biologist" as used below indicates a person with at least an undergraduate degree in wildlife or a related field, and either professionally certified as a Wildlife Biologist by The Wildlife Society (C.W.B.), or working under the direct supervision of a C.W.B. The term "qualified botanist" as used below indicates a person with at least an undergraduate degree in botany, plant ecology or a related field, and with a minimum of three years professional field experience within the region or working under the direct supervision of a professional botanist with at least six years field experience in the region.

4.4.3.3 Impacts and Mitigation Measures

Impact 4.4-1: Implementation of the proposed project, or any of the alternatives considered, would result in significant direct impacts to approximately 9 acres of Central Coastal Scrub, potentially considered a sensitive native community in California (CDFG Sensitivity Ranking S2.1³). This would be considered a significant impact.

Coastal scrub is a habitat that supports a number of species which feed exclusively within this shrubby habitat and are absent from other vegetation types (Bewick's wren and wrentit are two examples). Destruction of this habitat on site would lead to further fragmentation of remnant patches on the Central California coast. As patches become isolated from each other, any individual stand has greater likelihood that dependent species will become locally extinct (Soule et al., 1988).

Mitigation Measures:

Mitigation Measure 4.4-1a: The potential loss of 9 acres of Central Coastal Scrub can be reduced to below the level of significance by one of the following:

- 1) Prior to the issuance of a tree removal or grading permit or approval of a subdivision, the project will be reconfigured to avoid Area A, as mapped in Figure 4.4-1 and surrounded by a buffer strip of native perennial grasses averaging 25 feet wide; or
- 2) Prior to the issuance of any permit, develop a program for the County's approval which will be prepared by a qualified biologist familiar with central coast scrub habitats and which will identify a site with the necessary characteristics to re-

³ State sensitivity ranking is a reflection of the overall habitat throughout its range. A rating of S2.1 indicates that the habitat is "very threatened" and less than 10,000 acres remain in the region.

establish coastal scrub in an acreage equivalent to that lost as a result of the project. The program shall include, at a minimum, the following items:

- a. transplanting any of the existing scrub to the new site, as practicable,
- b. a planting/propagation/seed collection program to establish key species,
- c. a weed eradication program to successfully remove any competing non-native plants,
- d. a temporary irrigation system, if appropriate, and
- e. a monitoring and maintenance program that will ensure the restored site is self-sustaining after 5 years.

Significance After Mitigation: Less than significant.

Impact 4.4-2: Implementation of the proposed project, or any of the alternatives, would result in the loss of approximately 68 acres of California annual (non-native) grassland within the project boundaries. This impact would not be considered significant.

The loss of this community does not constitute a significant impact to biotic resources due to its relative abundance locally and regionally, and to the degraded nature of much of this community and extensive presence of non-native species. This community is capable of supporting some of the habitat requirements for special species resident elsewhere--for example, loggerhead shrike. However, such species would continue to nest in remaining groves of trees, and ample foraging habitat would remain on the project site and surrounding areas.

Mitigation Measures: None required.

Significance After Mitigation: Less than significant.

Impact 4.4-3: The project, or any of the alternatives considered, has the potential to affect the following special status animal species: monarch butterfly, silvery legless lizard, and nesting raptors. This would be considered a significant impact.

Please see the discussion of the importance of the Woodlands area for wintering monarch butterflies presented at the beginning of this chapter. The grove sustaining the wintering monarchs represents a unique and incompletely understood micro-environment. This type of site has a number of sensitivities to impacts--chimney smoke, loss of nectar-producing plants, the loss of surrounding trees to maintain temperature, humidity and sunlight within a narrow range of parameters. For the silvery legless lizard, the amount of area in dense leaf letter would be reduced if there is a net loss of acreage in Coastal Scrub. For raptors, reduction of tree-nesting habitat or the loss of individual trees used every year may result in temporary reduction in locally breeding populations.

Mitigation Measures:

Mitigation Measure 4.4-3a: For the monarch butterfly overwintering area, implement the mitigation recommendations submitted by Dr. Kingston Leong (Leong, 1996; see Technical Appendix). Long-term maintenance mitigations should be supported through an endowment fund or other suitable financial instrument. As mitigations, these recommendations are interpreted to include the following:

1. Preserve the clustering area (approximately 300 feet by 500 feet) which occupies most of the high ground at the 320 ft knoll near the center of the project site. This is the core of the overwintering habitat for the butterfly. The core area shall be posted MONARCH BUTTERFLY OVERWINTERING AREA. AVOID APPROACHING WITHIN 20 FEET OF TREES WITH ROOSTING CLUSTERS.
2. Preserve as a buffer (against strong winds and for sunlight filtration) trees surrounding the cluster out to a distance of 200 feet from the outside boundary of the core.
3. Maintain the structure of the habitat by planting new trees as necessary. The grove and buffer may be thinned by 10 percent of its basal area annually, although no tree in current use by monarchs should be thinned without consulting a qualified entomologist. Based on data from Santa Barbara County, forest density should be maintained within the range of 300-350 trees/acre with a basal area in the range of 65-150 square feet/acre.⁴ Cut stumps will generally re-sprout; these should be trimmed to a single stem after five years. No branches of any healthy tree within the core area should be removed.
4. Support a program to restore the habitat and buffer area for a period of five years from the initial surrounding tree clearance activities (i.e., planting of new seedlings in strategic areas, selective tree trimming, and/or selective removal of trees). A qualified entomologist or a monarch butterfly specialist shall be consulted to develop and monitor the implementation of this program.
5. Ban the use of pesticides within 0.5 miles of the habitat between October and March.
6. Manage understory and public use of the area to minimize fire danger. Eucalyptus groves within 0.5 miles of the buffer should have fuel loading of less than 2 tons per acre of down and dead material. No open fires or smoking on pathways will be allowed, and spark arrestors will be required on all internal combustion equipment.
7. Minimize woodsmoke pollution by allowing no barbecues and only pellet stove fireplaces within 0.25 miles of the habitat.
8. Preserve sources of plant nectar by landscaping with species maintaining blossoms through winter, including the following (see also Table 4.4-3):

⁴ Environmental Science Associates, 1991, Ellwood Beach – Santa Barbara Shores Specific Plan Area Environmental Impact Report. Prepared for County of Santa Barbara, Resource Management Department.

<i>Ceanothus</i> - Deer brush	<i>Echium</i> - Pride of Madeira
<i>Leptospermum</i> - Australian tea	<i>Pittosporum</i> - Pittosporum
<i>Pyracantha</i> - Pryacantha	<i>Aster spp.</i> - Aster
<i>Calliuna vulgaris</i> - Scotch heather	<i>C. maximum</i> - Shasta daisy
<i>Cheiranthus erysimum</i> - Wallflower	<i>Cistus skanbergii</i> - Rock rose
<i>Chrysanthemum frutescens</i> - Marguerites	<i>Cosmos spp.</i> - Cosmos
<i>C. paludosum</i> - Miniature shasta daisy	<i>Salvia spp.</i> - Sages
<i>Coreopsis auriculata</i> - Coreopsis	<i>Hedera helix</i> - English ivy
<i>Ribes spp.</i> - Gooseberry, currant	<i>Sedum spp.</i> - Sedum
<i>Rosmarinus officinalis</i> - Rosemary	<i>Zinnia spp.</i> - Zinnia
<i>Iberis spp.</i> - Candytuft	

Mitigation Measure 4.4-3b: To avoid impacts to the silvery legless lizard, preserve coastal sage scrub as described in 'Mitigation Measure 4.4-1a'.

Mitigation Measure 4.4-3c: For areas which are scheduled for construction between March and July, a pre-construction survey shall be conducted for nesting raptors. Trees containing active raptor nests shall be identified by the project biologist. Destruction of such breeding sites shall be avoided for the duration of the breeding season by establishment of an appropriate setback as determined by consultation with California Department of Fish and Game and/or the U.S. Fish & Wildlife Service. An exclusion barrier shall be installed around the perimeter to prevent destruction of nest trees which would result in destruction of nests, eggs, and/or nestlings per Fish & Game Code Section 3503.5. ~~Construction activities shall, meanwhile, be allowed to continue outside the protected area and to minimize the effect of construction related noise and dust.~~ Prior to issuance of any construction permit, to avoid conflicts with nesting raptors, construction activities shall not be allowed during the nesting season (March to July), unless a qualified biologist has surveyed the impact zone and determined that no nesting activities will be adversely impacted. At such time, if any evidence of nesting activities are found, the biologist will determine if any construction activities can occur during the nesting period and to what extent. The project biologist shall also conduct periodic (monthly) surveys for raptors which move onto the site during construction. It is assumed that species using the site under these conditions will be somewhat resistant to construction-related disturbance; however, the results of the surveys will be passed immediately to the CDFG and the County, possibly with recommendations for variable buffer zones, as needed, around individual nests.

Significance After Mitigation: Implementation of mitigation measures outlined above will reduce the identified impact to special status wildlife species below the level of significance.

Impact 4.4-4: During the construction stage, the project or any of the alternatives could result in disturbance to, or direct mortality of, common and special-status wildlife species. This would be considered a significant impact.

Direct impacts to wildlife species include both harassment and mortality of resident species and habitat loss and degradation. Harassment includes noise, dust and vibration from construction equipment, and increases in human presence throughout the work area. Mortality would include

road kills and increases in predation from natural and feral predators as all portions of the Woodlands area become more open and accessible. Mortality can also occur due to destruction of burrows of such species as badgers. Temporary construction-related disturbances may include displacement of animals to habitat which is marginal for their needs or which is already fully occupied with animals of the same species. Such habitat losses may be permanent for certain burrowing mammals, whose populations could be eliminated due to habitat modification.

Mitigation Measures:

Mitigation Measure 4.4-4a: Prior to submittal of any construction or grading permit, a qualified biologist shall be retained to: 1) conduct a contractor education program; 2) identify and stake all biologically sensitive areas; 3) monitor all construction activities in areas supporting sensitive biological resources; 4) Scheduling and implement surveys for raptor nests; 5) inform the County, the project engineer and the project general contractor if there are construction activities that threaten significant biological resources for which no mitigation measures have been identified in this EIR; and 6) develop alternative and comparable mitigation measures, where possible, to significantly reduce new potential impacts not previously identified. The resident engineer and contractor shall then cease such construction activities until appropriate mitigation measures are implemented.

Mitigation Measure 4.4-4b: All sensitive habitat areas to be avoided shall be clearly marked on project maps and provided to the contractor by the project biologist. These areas shall be designated as "no construction" or "limited construction" zones. These areas shall be flagged by the project biologist prior to construction activities. In some cases, resources may need to be fenced or otherwise protected from direct or indirect impacts, as determined by the project biologist.

Mitigation Measure 4.4-4c: A pre-construction survey to locate loggerhead shrike nesting sites and active badger burrows shall be conducted prior to commencement of construction activities at a given area all grading activities involving vegetation removal. A preconstruction survey will also be conducted on a site that has not been disturbed more than 90 days. An appropriate setback, as determined by California Department of Fish and Game and/or the U.S. Fish and Wildlife Service, shall be established around active sites. An exclusion barrier shall be installed around the perimeter to prevent destruction of the nest site or burrow. Construction activities shall, meanwhile, be allowed to continue outside the protected area. When it is determined that an active site is no longer active, construction activities shall be permitted to resume at that site.

Significance after Mitigation: Construction-related impacts are temporary, and are considered to be below the level of significance after mitigation.

Impact 4.4-5: Golf course turfed areas require long-term landscape maintenance that include irrigation and the application of fertilizers and pesticides and the possible introduction of additional non-native species to the area. These operations have the

potential to adversely affect biological resources. This would be considered a significant impact.

A golf course alters the structure and composition of vegetation, and changes conditions to benefit some species over others. Brush or chaparral-adapted species tend to decrease, open-ground foragers to increase. Irrigation and the use of non-native species can eliminate certain drought-adapted plants. Certain micro-habitats, such as the leaf litter inhabited by the legless lizard, will disappear entirely. Although some studies (see for example Andrews, 1987) have shown high species diversity possible on golf courses, this is only true if the area is managed to minimize adverse effects.

About 50 different pesticides are currently in major use on golf courses. Many can affect reproduction of wildlife species by reducing egg production, lowering litter size and fledging rates (Balogh and Walker, 1992). Foraging habitat can be reduced for predators and raptors, through control of rodents for turf/grass protection. Gopher and ground squirrel poisoning can also lead to secondary toxicity for predators, when pesticides such as chlorophacinone are used.

Mitigation Measures:

Mitigation Measure 4.4-5a: The golf course shall be designed to intersperse areas of natural vegetation with turf areas by limiting intensive landscaping to primary play areas (greens, tees, fairways and short rough). Travel corridors of native vegetation shall be allowed to remain in strips at least 50 feet wide between holes. Species used in landscaping shall exclude those on Table 4.4-2 and include, to the extent possible, those preferred species on Table 4.4-3. Irrigation rates shall be matched to average evapotranspiration rates, to reduce groundwater infiltration by irrigation water.

Mitigation Measure 4.4-5b: Fertilizer will not be applied within 24 hours before a predicted rainfall to minimize leaching by rainwater, and soils will be tested and monitored for nutrient levels to insure fertilizer application rates match uptake rates by turf grasses. Such monitoring will be conducted annually by the course management and the results made available for County review. Alternatively, a simulation model may be used to estimate soil nutrient transport, such as LEACHM (Wagenet and Hutson, 1989; as cited in Balogh and Walker, 1992).

Mitigation Measure 4.4-5c: The County shall develop, or the applicant shall develop and the County shall approve, an Integrated Pest Management (IPM) program with specific guidelines on the use of pesticides. The IPM guidelines should include the following:

TABLE 4.4-2: PLANT SPECIES NOT TO BE USED IN PROJECT LANDSCAPING

Acacia (<i>Acacia</i> spp.)	Tree-of-heaven (<i>Ailanthus altissima</i>)
Giant reed (<i>Arundo donax</i>)	Bamboo (<i>Bambusa</i> spp., et al)
Pampas grass (<i>Cortaderia selloana</i>)	Cotoneaster (<i>Cotoneaster pannosa</i>)
French broom (<i>Cytisus monspessulanus</i>)	Scotch broom (<i>Cytisus scoparius</i>)
Blue gum (<i>Eucalyptus globulus</i>)	English ivy (<i>Hedera helix</i>)
Ice plant (<i>Mesembryanthemum chilensis</i>)	Mattress vine (<i>Muehlenbeckia complexa</i>)
Tree tobacco (<i>Nicotiana glauca</i>)	Fountain grass (<i>Pennisetum setaceum</i>)
Pyracantha (<i>Pyracantha angustifolia</i>)	Castor bean (<i>Ricinus communis</i>)
Black locust (<i>Robinia pseudoacacia</i>)	German ivy (<i>Senecio mikianoides</i>)
Spanish broom (<i>Sparteaum junceum</i>)	Tamarisk (<i>Tamarix</i> spp.)
Gorse (<i>Ulex europaeus</i>)	Periwinkle (<i>Vinca major</i>)

SOURCE: Environmental Science Associates

1. Because closely-mowed turf is more susceptible to environmental stresses (and hence disease), mowing heights will be at the highest portion of the ranges of heights consistent with play.
2. Antibacksiphoning devices will be used in application equipment to reduce the potential for pesticide contamination of groundwater or other water supplies during irrigation.
3. To act as a buffer between turf and either scrub areas or water hazards, a band of native perennial grass vegetation will be established averaging 25 feet wide adjacent to the short rough. Such buffer or filter strips are an accepted method of managing non-point source fertilizer runoff problems.
4. For vertebrate pests (e.g., pocket gopher [*Thomomys bottae*]), install nest boxes for barn owls and kestrels. Information provided by the University of California Cooperative Extension Program suggests that a family of barn owls can kill 4-5 gophers per week.
5. Slow-release, organic fertilizers will be used wherever possible, as an effective biological method to help suppress many turf pathogens, as well as reduce potential for contamination of ground and surface waters. The County shall consider the use of bacterial additives, as these become commercially available to enhance nitrogen uptake and improve turf disease resistance.
6. Any biological control methods shall be environmentally sound, where they will not result in any adverse impacts to coastal scrub wildlife or raptors. Use of non-chemical control measures shall be used before other alternatives are considered or applied, unless it is clearly shown to the County such measures would be ineffective.

TABLE 4.4-3: WOODLANDS PROPERTY NATIVE PLANT LANDSCAPING LIST

GRASSES AND FORBS (WILDFLOWERS)

- Achillea millefolium* - Yarrow
Perennial, yellow or white flowers, excellent dry borders
- Allium Haematociton* - Wild onion
Bulb, white to rose flowers with purple midvein, excellent dry borders
- Amsinckia intermedia* - Common fiddleneck
Annual, yellow recurved flowers, dry borders
- Aquilegia formosa* - Red columbine
Perennial, good border plant, woodland effect
- Clematis lasiantha* - Pipestem clematis
Climbing deciduous vine, showy white flowers
- Coreopsis gigantea* - Giant coreopsis
Perennial, fine-cut leaves, yellow daisy flower
- Coreopsis maritima* - Sea dahlia
Perennial, narrow-lobed leaves, striking yellow bloom - fast, reseeds
- Dichelostemma capitatum* - Wild hyacinth
Bulb, compact heads of lavender-blue flowers, good in mass
- Eriogonum fasciculatum* - Buckwheat
Woody perennial, tiny narrow leaves, pink-white flower heads
- Eschscholzia californica* - California poppy
Annual, showy yellow-orange flowers, easy, reseeds
- Iris douglasiana* - Douglas iris
Perennial, white to purple flowers, border or accent
- Lupinus bicolor* - Miniature lupine
Annual, white and violet to purple flowers, border or accent
- Mimulus cardinalis* - Scarlet monkeyflower
Perennial, soft green leaves, bright red flowers, underground rootstock
- Nassella lepida* - Foothill needle-grass
Perennial bunchgrass, fine leaves, graceful flower and seed heads
- Nassella pulchra* - Purple needle-grass
Perennial bunchgrass, deep green leaves, purple seed heads
- Penstemon spectabilis* - Showy penstemon
Perennial, tall flower spikes or lavender-purple
- Pentagramma triangularis* - Goldenback fern
Perennial fern with showy goldenback fronds
- Pteridium aquilinum* - Bracken fern
Perennial fern, good woodland accent
- Salvia sonomensis* - Creeping sage
Perennial, very low mat, blue-violet spikes
- Satureja chandleri* - San Miguel savory
Perennial, pubescent leaves, small white flowers
- Solanum xanthi* - Purple nightshade
Perennial, purple flowers, good accent
- Viola pedunculata* - Johnny jump-up
Annual purple and yellow flowers, small, compact

SHRUBS

- Adenostoma fasciculatum* - Chamise
Common shrub, dark green, narrow leaves, white flowers, attractive red bark
- Agave deserti* - Desert century plant
Succulent, roset, canary yellow bloom, blue-gray leaves
- Arctostaphylos edmundsii* - Little Sur manzanita
Petite groundcover, some shade, moisture
- Arctostaphylos manzanita* - Common manzanita
Large shrub to small tree, dramatic branch structure
- Arctostaphylos uva-ursi* - Point Reyes bearberry
Ground cover, lush green rounded leaves, slow-moderate, long-lived
- Artemisia californica* - California sage brush
Aromatic shrub, gray-green, soft-texture, good erosion control
- Atriplex canescens* - Fourwing saltbush
Spreading evergreen shrub, gray-green leaves, tolerates poor soil
- Baccharis pilularis* - Coyote brush
Common shrub, bright green leaves, very draught tolerant
- Carpenteria californica* - Bush anemone
Evergreen shrub, narrow, dark green leaves, fragrant white flowers
- Ceanothus crassifolius* - Hoaryleaf ceanothus
Much-branched medium shrub, thick olive green leaves

TABLE 4.4-3: WOODLANDS PROPERTY NATIVE PLANT LANDSCAPING LIST (Continued)

SHRUBS (Cont.)

- Ceanothus griseus* - **Ceanothus**
Medium shrub, large glossy leaves, light blue flowers
- Ceanothus maritimus* - **Maritime ceanothus**
Low shrub/groundcover, light blue flowers
- Ceanothus ramulosus* var. *fascicularis* - **Coast ceanothus**
Medium shrub, profuse pale blue-lavendar flowers
- Cercis occidentalis* - **Western red-bud**
Large shrub to small tree, deciduous, showy pink flowers, resistant to root fungus
- Cercocarpus betuloides* - **Mountain mahogany**
Evergreen large shrub to small tree, dark green leaves, unusual seed plume
- Dendromecon rigida* - **Bush poppy**
Large evergreen shrub, narrow glaucous leaves, yellow flowers
- Encelia californica* - **Coast sunflower**
Woody sub-shrub, bright green foliage, yellow flowers
- Eriogonum parvifolium* - **Coast buckwheat**
Woody subshrub, leaves green above, gray beneath, white-pink flower heads
- Fremontodendron californicum* - **Flannel bush**
Tall, evergreen shrub, olive green leaves, profuse bright yellow flowers
- Fremontodendron mexicanum* - **Flannel bush**
Large shrub, flowers yellow fading to orange, long season
- Garrya elliptica* - **Coast tassel bush**
Shrub to small tree, dark green leaves with long pendulous flowers
- Heteromeles arbutifolia* - **Toyon**
Large evergreen shrub, dark green leaves, white flowers and showy red berries

TREES

- Acer macrophyllum* - **Big-leaf maple**
Large deciduous multi-stem tree, open habit, nice fall color
- Aesculus californica* - **California buckeye**
Small deciduous tree, interesting structure, showy bloom and large seeds
- Alnus rhombifolia* - **White alder**
Deciduous streamside tree, backdrop, dark green leaves
- Arbutus menziesii* - **Madrone**
Evergreen tree with branching habit and peeling red bark, large white flowers
- Calocedrus decurrens* - **Incense cedar**
Large evergreen tree, reddish trunk, bright green foliage
- Cercidium floridum* ssp. *floridum* - **Blue Palo Verde**
Deciduous tree, blue-green leaves, yellow flowers, tollerant of heat and draught

- Lupinus arboreus* - **Tree lupine**
Large shrub with profuse yellow flowers
- Lupinus chamissonis* - **Silver bush lupine**
Large shrub, gray-green leaves with violet and white flowers
- Malcothamnus fasciculatus* - **Mesa bushmallow**
Medium shrub, dense, upright, many pink flowers
- Minulus aurantiacus* - **Sticky monkey-flower**
Woody subshrub, sticky light green leaves, buff to coral blooms
- Opuntia* spp. - **Pricky pear cactus**
Perennial cactus with showy reddish prickly pears
- Prunus ilicifolia* - **Holly-leaf cherry**
Evergreen shrub to small tree, clean glossy leaves, white flowers
- Rhamnus californica* - **Coffeberry**
Evergreen shrub, shiny leaves, creamy flowers, dark red fruit
- Rosa californica* - **California wild rose**
Mounding semi-decending shrub, fresh green leaves, small single pink flowers
- Rosa minutifolia* - **Baja California wild rose**
Mounding semi-decending shrub, tiny leaves, many single pink flowers
- Salvia mellifera* - **Black sage**
Woody subshrub, erect habit, dark green aromatic leaves, white flowers
- Sambucus mexicana* - **Blue elderberry**
Deciduous shrub to small tree, creamy flowers, bluish fruit
- Yucca whipplei* - **Yucca**
Succulent, glaucous leaves, magnificent creamy white bloom spike

TABLE 4.4-3: WOODLANDS PROPERTY NATIVE PLANT LANDSCAPING LIST (Continued)

TREES (Cont.)

<i>Cornus nuttallii</i> - Dogwood	
Small deciduous tree, lime green leaves, showy white flowers, good fall color	
<i>Cupressus arizonica</i> ssp. <i>arizonica</i> - Cuyamaca cypress	
Conifer, glaucous foliage, fine symmetrical form	
<i>Cupressus macrocarpa</i> - Monterey cypress	
Conifer, glaucous foliage, very fast growing	
<i>Juglans californica</i> - Southern California black walnut	
Deciduous tree, long-lived, tolerates heat and poor soil	
<i>Lithocarpus densiflora</i> - Tanbark oak	
Evergreen tree, leathery leaves, conical crown	
<i>Pinus radiata</i> - Monterey pine	
Large symmetrical conifer, long needles, very fast growing	
<i>Pinus sabiniana</i> - Foothill pine	
Large conifer, open airy form, long gray-green needles	
<i>Pinus torreyana</i> - Torrey pine	
Large conifer, open picturesque form, rapid growth	
<i>Platanus racemosa</i> - Sycamore	
Deciduous tree, large palmate leaves, mottled white bark	
<i>Populus fremontii</i> - Fremont cottonwood	
Deciduous tree, triangular yellow-green leaves	
<i>Populus trichocarpa</i> - Black cottonwood	
Deciduous tree, leaves shimmer in breeze	
<i>Pseudotsuga menziesii</i> - Douglas fir	
Large evergreen tree with small dark green needles	
<i>Quercus agrifolia</i> - Coast live oak	
Evergreen tree, spreading crown, cupped dark green oval, serrated leaves	
<i>Quercus chrysolepis</i> - Canyon live oak	
Evergreen tree, spreading crown, leaves variable	
<i>Quercus douglasii</i> - Blue oak	
Small deciduous tree with blue-green leaves	
<i>Quercus kelloggii</i> - California black oak	
Deciduous tree, black bark, spring and fall color	
<i>Quercus lobata</i> - Valley oak	
Deciduous tree, rounded crown, round-lobed leaves	
<i>Sequoia sempervirens</i> - Coast redwood	
Large majestic conifer, fast growth	
<i>Umbellularia californica</i> - California bay	
Large evergreen tree, aromatic shiny leaves	

Sources:

- California Native Plant Society. Native Plants: A Viable Option. Symposium. CNPS Special Publication No. 3, 1977
- Environmental Science Associates, 1996
- Hickman (editor). 1993. The Jepson manual of higher plants of California. University of California Press, Berkeley, California.
- Latting, June, Plant Communities of Southern California, California Native Plant Society Special Publication No. 2, 1976
- Madrone Associates dba ESA, Water Conserving Garden, 1978
- Tree of Life Nursery, Catalog and Planting Guide 1995 through 1996

7. All chemicals shall be applied by or under the supervision of a trained, licensed applicator.
8. Establish and use an employee education program to describe the pesticides and herbicides used and how to avoid potential human health risks as well as risks to sensitive habitats. As needed, non-English versions of this program shall be provided to employees/applicators.
9. Dispose of chemical rinsate in a manner that will not increase the potential for point or non-point source pollution.
10. Following all manufacturers' directions for proper chemical/fertilization application, and container disposal procedures.

Significance After Mitigation: Implementation of mitigation measures outlined above will reduce the identified impact to below the level of significance.

Impact 4.4-6: Fragmentation of the existing eucalyptus stands may increase the mortality of remaining trees, especially where maintained as narrow screens. This would be an adverse, but not a significant impact.

Typically, eucalyptus stands on the Woodlands Specific Plan area are multi-aged stand, with most of the trees ranging between one and two feet dbh and attaining heights between 70 and 120 feet. Portions of the forest have evenly spaced trees, while other areas are dense with immature trees, second and third growth, snags and deadfalls. Larger overstory trees may have been stressed due to drought or excess moisture, and show signs of tip dieback and reduced growth. Such trees, especially when at the interior of stands, may have lateral branching, shallow root structures, or other attributes which make them susceptible to blow-down when surrounding trees are removed. In addition, wind stress may leave exposed trees more vulnerable to such pests as eucalyptus longhorn beetle.⁵

Mitigation Measures:

Mitigation Measure 4.4-6a: The increased effects of wind throw and blow down may require additional silvicultural effort, including trimming of limbs (excepting in the monarch butterfly wintering area) and replanting. Stands should be monitored yearly, in winter or early spring, for signs of beetle activity. If infested trees are noted, the entire tree should be removed immediately and disposed of off-site. Exposed stands may also be more vulnerable to drought, and in the event of severe drought stress, irrigation may be necessary.

⁵ Environmental Science Associates, 1991, Ellwood Beach – Santa Barbara Shores Specific Plan Area Environmental Impact Report. Prepared for County of Santa Barbara, Resource Management Department.

Significance After Mitigation: Long-term impacts are not anticipated, as eucalyptus will stump-sprout from fallen trees (if stumps of fallen trees are left in the ground) and acquire adequate wind resistance as the sprouted tree matures.

4.5 NOISE

The purpose of this noise analysis is to identify, describe, and evaluate noise sources and potential noise conflicts associated with the proposed project. The section will analyze the noise impacts generated by the proposed project, including both stationary and transportation noise sources.

4.5.1 ENVIRONMENTAL SETTING

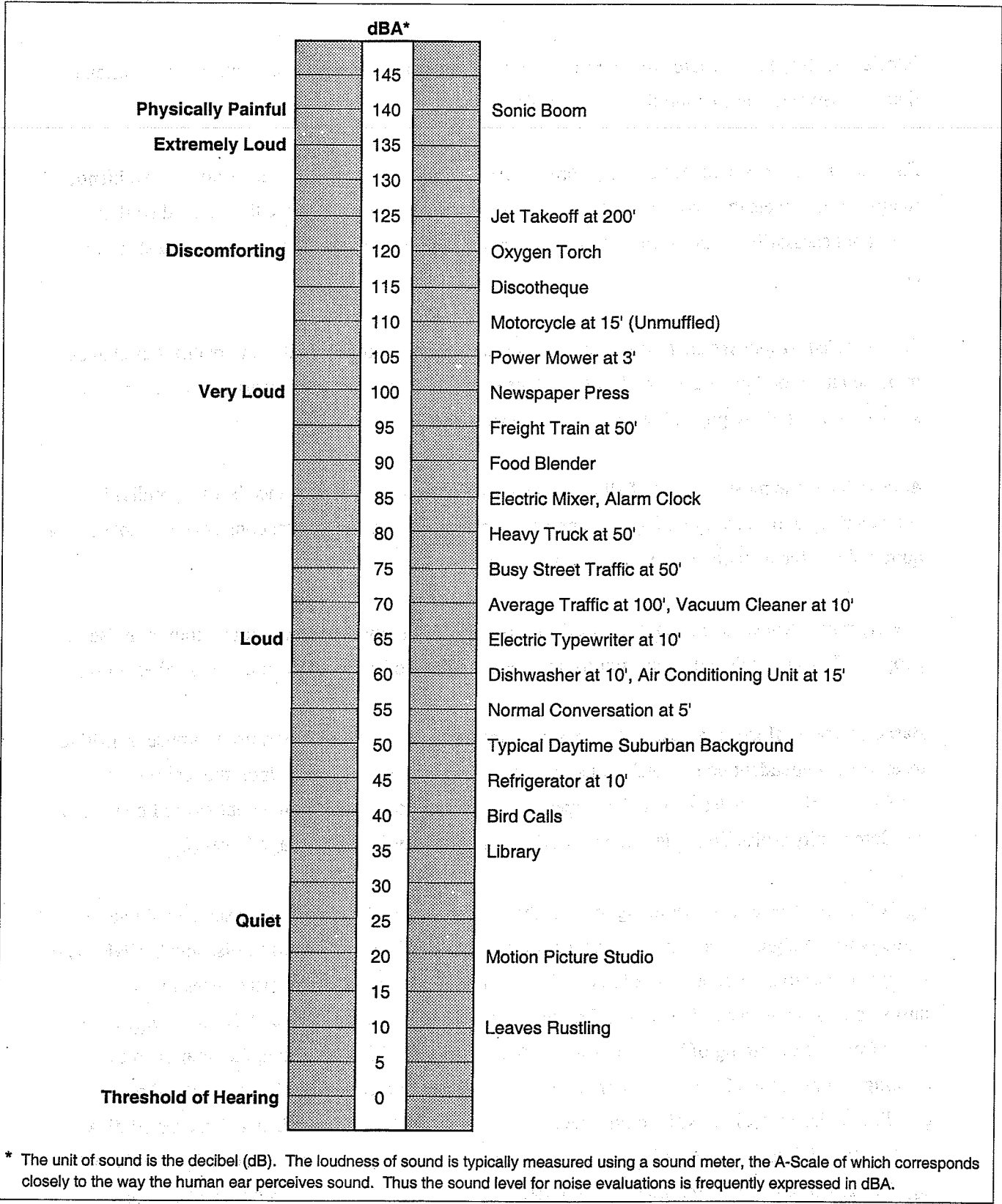
4.5.1.1 Acoustical Terminology

Environmental noise is usually measured in A-weighted decibels (dBA). A decibel (dB) is a logarithmic unit of sound energy intensity. Sound waves, traveling outward from a source, exert a sound pressure level (commonly called the "sound level"), measured in decibels. A dBA is a decibel corrected for the variation in frequency response of the typical human ear at commonly encountered noise levels. In general, people can readily perceive a three-dBA difference in noise levels; a difference of 10 dBA is perceived as a doubling of loudness. Some representative sounds and sound pressure levels are shown in Figure 4.5-1.

Noise, in the context of environmental analysis, is most often defined as unwanted sound. Noise is known to have several adverse effects on different receptors. From these known effects of noise, criteria have been established to help protect the public health and safety and prevent disruption of certain human activities. These criteria are based on such known impacts of noise on people as hearing loss, speech interference, sleep interference, physiological responses and annoyance. Each of these potential noise impacts on people are briefly discussed in the following narratives:

Hearing Loss is not a concern in community noise situations. The potential for noise induced hearing loss is more commonly associated with occupational noise exposures in heavy industry or very noisy work environments. Mining employees may experience this effect. Noise levels in neighborhoods, even in very noisy airport environs, are not sufficiently loud to cause hearing loss.

Speech interference is one of the primary concerns in environmental noise problems. Normal conversational speech is in the range of 60 to 65 dBA, and any noise in this range or louder may



* The unit of sound is the decibel (dB). The loudness of sound is typically measured using a sound meter, the A-Scale of which corresponds closely to the way the human ear perceives sound. Thus the sound level for noise evaluations is frequently expressed in dBA.

SOURCE: L.A. County Preliminary Noise Element, 1974.

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Figure 4.5-1
 Typical Noise Levels of
 Familiar Sources (Acoustical Scale)

interfere with speech. There are specific methods of describing speech interference as a function of distance between speaker and listener and voice level.

Sleep interference is a major noise concern for traffic noise. Sleep disturbance studies have identified interior noise levels that have the potential to cause sleep disturbance. Note that sleep disturbance does not necessarily mean awakening from sleep but can refer to altering the pattern and stages of sleep.

Physiological responses are those measurable effects of noise on people that are realized as changes in pulse rate, blood pressure, etc. While such effects can be induced and observed, the extent is not known to which these physiological responses cause harm or are a sign of harm.

Annoyance is the most difficult of all noise responses to describe. Annoyance is a very individual characteristic and can vary widely from person to person. What one person considers tolerable can be quite unbearable to another of equal hearing capability.

Several rating scales have been developed for the analysis of adverse effects of community noise on people. They are designed to account for the known effects of noise on people as described above.

Based on these effects, the observation has been made that the potential for noise to impact sensitive receptors is dependent on the total acoustical energy content of the noise. Upon this premise, a number of noise scales have been developed. These scales include the Equivalent Noise Level (L_{eq}), the Community Noise Equivalent Level (CNEL), and the Day-Night Average Level (L_{dn}).

L_{eq} is the sound level corresponding to a steady-state sound level containing the same total energy as a time-varying signal over a given sample period. L_{eq} is the "energy" average noise level. CNEL and L_{dn} are similar to L_{eq} but are noise indices that attempt to take into account differences in intrusiveness between daytime and nighttime noises within a 24-hour period. CNEL and L_{dn} values result from the averaging of L_{eq} values for a 24-hour period, with a weighting factor applied to evening and nighttime L_{eq} values. For CNEL, the evening time period (7:00 p.m. to 10:00 p.m.) penalizes noise by 5 dBA, while nighttime (10:00 p.m. to 7:00 a.m.) noise is penalized by 10 dBA. For L_{dn} , the nighttime period is between 10:00 p.m. to 7:00 a.m. and penalizes noise by 10 dB. All L_{eq} , CNEL and L_{dn} values reported herein reflect A-weighted decibels unless noted otherwise.

4.5.1.1.1 Basic Noise Principles

Each source of noise can be characterized as either a "line source" or a "point source." An example of a "line source" is a highway where noise sources (i.e., cars and trucks) are distributed along a line. "Point sources" are stationary sources such as boilers or pump stations. The distinction is made between these two general categories of noise sources because, while noise levels decrease as one moves away from either line sources or point sources, the rate at which noise levels decrease depends upon which type of source it is.

For a "line source" of noise, the noise level decreases by about three decibels for each doubling of distance between the noise source and the noise receptor when the ground over which the sound travels is hard (e.g., concrete or asphalt). In many cases, noise reduction is increased to 4.5 decibels and greater for each doubling of distance with the combined effects of environmental factors, such as wind conditions, temperature gradients, characteristics of the ground, the presence of vegetation and the absorption of sound energy in air.

In an area which is relatively flat and free of barriers, the sound level resulting from a single "point source" of noise decreases by about six decibels for each doubling of distance or 20 decibels for each factor of 10 in distance. This applies to fixed and mobile sources, which are temporarily stationary, such as an idling truck or other heavy-duty equipment. The medium in which the sound travels (e.g., air) also extracts energy from the sound wave which is in addition to the six dB per doubling of distance noted above.

4.5.1.2 Noise Standards, Policies and Limits

The Noise Element of the County of San Luis Obispo's General Plan presents policies and guidelines intended to mitigate noise conflicts where they presently exist and to minimize future noise conflicts. This study uses the Noise Element of the General Plan as its source for guidelines and noise limits.

One of the principal goals set forth in the County Noise Element is to avoid future noise problems by developing new land uses in areas which will be compatible with their future noise environment recognizing that some land uses can experience more noise than others without adverse effect. Figure 4.5-2 shows the County's compatibility guidelines that identify the level of noise deemed "acceptable," "conditionally acceptable," and "unacceptable" for new development of different types of land uses.

	Exterior Noise Exposure L _{dn} or CNEL, dB					
	55	60	65	70	75	80
<i>Residential (except temp. dwelling and res. acc. uses), Pub Assembly and Entertainment (except meeting halls)</i>	ACCEPTABLE	ACCEPTABLE	CONDITIONALLY ACCEPTABLE	UNACCEPTABLE	UNACCEPTABLE	UNACCEPTABLE
<i>Bed and Breakfast Facilities, Hotels and Motels</i>	ACCEPTABLE	ACCEPTABLE	CONDITIONALLY ACCEPTABLE	UNACCEPTABLE	UNACCEPTABLE	UNACCEPTABLE
<i>Schools - Preschools to Secondary, College and University, Specialized Education and Training; Libraries and Museums, Hospitals, Nursing and Personal Care, Meeting Halls, Churches</i>	ACCEPTABLE	ACCEPTABLE	CONDITIONALLY ACCEPTABLE	UNACCEPTABLE	UNACCEPTABLE	UNACCEPTABLE
<i>Outdoor Sports and Recreation</i>	ACCEPTABLE	ACCEPTABLE	ACCEPTABLE	CONDITIONALLY ACCEPTABLE	UNACCEPTABLE	UNACCEPTABLE
<i>Offices</i>	ACCEPTABLE	ACCEPTABLE	CONDITIONALLY ACCEPTABLE	UNACCEPTABLE	UNACCEPTABLE	UNACCEPTABLE

This figure indicates whether mitigation is required. See Table 4.5-2 for noise standards.

LEGEND:



ACCEPTABLE
(No Mitigation Required)
Specified land use is satisfactory.



CONDITIONALLY ACCEPTABLE
(Mitigation required)
Use should be permitted only after careful study and measures as needed to satisfy policies of the Noise Element.



UNACCEPTABLE
(Mitigation may not be feasible)
Development is usually not feasible in accordance with the goals of the Noise Element.

SOURCE: San Luis Obispo County Development of Planning and Building, Noise Element, May 1992.

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Figure 4.5-2
Land Use Compatibility for New Development
Near Transportation Noise Sources

To further the goals of the Noise Element, the County has adopted policies and implementation measures. The following specific policies that are pertinent to the proposed project are presented below (the policy numbers given below are the numbers identified in the Noise Element):

- Policy 3.3.1 The noise standards in the Policies Chapter of the Noise Element of the General Plan represent maximum acceptable noise levels. New development should minimize noise exposure and noise generation.
- Policy 3.3.2 New development of noise-sensitive land uses shall not be permitted in areas exposed to existing or projected future levels of noise from transportation noise sources which exceed 60 L_{dn} or CNEL (70 L_{dn} or CNEL for outdoor sports and recreation) unless the project design includes effective mitigation measures to reduce noise in outdoor activity areas and interior spaces to or below the levels specified for a given land use in Table 4.5-1.
- Policy 3.3.3 Noise created by new transportation noise sources, including roadway improvement projects, shall be mitigated so as not to exceed the levels specified in Table 4.5-1 within the outdoor activity area and interior spaces of existing noise-sensitive land uses.
- Policy 3.3.4 New development of noise-sensitive land uses shall not be permitted where the noise level due to existing stationary noise sources will exceed the noise level standards shown in Table 4.5-2 unless effective noise mitigation measures have been incorporated into the design of the development to reduce noise exposure to or below the levels specified in Table 4.5-2.
- Policy 3.3.5 Noise created by new proposed stationary noise sources or existing stationary noise sources which undergo modifications that may increase noise levels shall be mitigated as follows and shall be the responsibility of the developer of the stationary noise source:
- a) Noise from agricultural operations conducted in accordance with accepted standards and practices is not required to be mitigated.
 - b) Noise levels shall be reduced to or below the noise level standards in Table 4.5-2 where the stationary noise source will expose an existing noise-sensitive land use (which is listed in the Land Use Element as an allowable

TABLE 4.5-1: MAXIMUM ALLOWABLE NOISE EXPOSURE-TRANSPORTATION NOISE SOURCES

Land Use	Outdoor Activity Areas ^a	Interior Spaces	
	$L_{dn}/CNEL$	$L_{dn}/CNEL$	L_{eq} ^b
Residential (except temporary dwellings and accessory uses)	60 ^c	45	--
Bed and Breakfast Facilities, Hotels and Motels	60 ^c	45	--
Hospitals, Nursing and Personal Care	60 ^c	45	--
Public Assembly and Entertainment (except meeting halls)	--	--	35
Offices	60 ^c	--	45
Churches, Meeting Halls	--	--	45
Schools-Preschool to Secondary, College and University, Specialized Education and Training Libraries and Museums	--	--	45
Outdoor Sports and Recreation	70	--	--

- a. Where the location of outdoor activity areas is unknown, the exterior noise level standard shall be applied to the property line of the receiving land use.
- b. As determined for a typical worst-case hour during periods of use.
- c. For other than residential uses, where an outdoor activity area is not proposed, the standard shall not apply. Where it is not possible to reduce noise in outdoor activity areas to 60 $L_{dn}/CNEL$ or less using a practical application of the best-available noise reduction measures, an exterior noise level of up to 65 $L_{dn}/CNEL$ may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.

Source: Policy Document/Acoustical Design Manual, Noise Element, San Luis Obispo County General Plan. May 1992.

use within its existing land use category) to noise levels which exceed the standards in Table 4.5-2. When the affected noise-sensitive land use is Outdoor Sports and Recreation, the noise level standards in Table 4.5-2 shall be increased by 10 dB.

- c) Noise levels shall be reduced to or below the noise level standards in Table 4.5-2 where the stationary noise source will expose vacant land in the Agriculture, Rural Lands, Residential Rural, Residential Suburban, Residential Single-Family, Residential Multi-Family, Recreation, Office and

TABLE 4.5-2: MAXIMUM ALLOWABLE NOISE EXPOSURE-STATIONARY NOISE SOURCES^a

	Daytime (7:00 a.m. to 10:00 p.m.)	Nighttime ^b (10:00 p.m. to 7:00 a.m.)
Hourly L_{eq}	50	45
Maximum level, dBA	70	65
Maximum level, dB-Impulsive Noise	65	60

- a. As determined at the property line of the receiving land use. When determining the effectiveness of noise mitigation measures, the standards may be applied on the receptor side of noise barriers or other property line noise mitigation measures.
- b. Applies only where the receiving land use operates or is occupied during nighttime hours.

Source: Policy Document/Acoustical Design Manual, Noise Element, San Luis Obispo County General Plan. May 1992.

Professional, and Commercial Retail land use categories to noise levels which exceed the standards in Table 4.5-2.

Policy 3.3.6 San Luis Obispo County shall consider implementing measures where existing noise levels produce significant noise impacts to noise sensitive land uses or where new development may result in cumulative increases of noise upon noise-sensitive land uses.

Tables 4.5-1 and 4.5-2 present the prescribed noise limits for transportation and stationary noise sources, respectively. Table 4.5-1 presents exterior limits of 60 L_{dn} for residential properties, hospitals, nursing care homes, public assembly office buildings and churches. Interior noise limits are generally 45 L_{dn} for these categories of occupancies. Table 4.5-2 presents noise limits in terms of hourly L_{eq} , and maximum levels for steady state and impulsive sounds (noise of short duration, usually less than one second, with an abrupt onset and rapid decay, such as explosions, hammering and discharge of firearms).

However, according to the San Luis Obispo County Noise Ordinance (Ordinance No. 2545), the noise limits listed in Tables 4.5-1 and 4.5-2 are not applicable to noise from the following sources:¹

- Activities conducted in public parks, public playgrounds and public or private school grounds, including but not limited to school athletic and school entertainment events;
- The use of any mechanical device, apparatus or equipment related to or connected with emergency activities or emergency work to protect life or property;
- Safety signals, warning devices, and emergency pressure relief valves;
- Noise sources associated with construction, provided that such activities do not take place before 7:00 a.m. or after 9:00 p.m. on any day except Saturday or Sunday, or before 8:00 a.m. or after 5:00 p.m. on Saturday or Sunday;
- Noise sources associated with the maintenance of a residential use, provided that such activities take place between the hours of 7:00 a.m. and 9:00 p.m.;
- Noise sources associated with agricultural land uses, including but not limited to wind machines used for direct climate control, water well pumps and pest-repelling devices, provided that such pest-repelling devices are used in accordance with accepted standards and practices; and
- Noise sources associated with work performed by private or public utilities in the maintenance or modification of its facilities.

4.5.1.3 Sensitive Receptors

Some land uses are considered more sensitive to ambient noise levels than others, due to the amount of noise exposure (in terms of both exposure time and "insulation" from noise) and the types of activities typically involved. Residences, motels and hotels, schools, libraries, churches, hospitals, nursing homes, auditoriums, parks and outdoor recreation areas are generally more sensitive to noise than are commercial and industrial land uses.

Noise-sensitive land uses in the vicinity of the Specific Plan area include residences located to the north, east and south of the project area. The project itself would introduce noise-sensitive uses to the site, including residences, an elementary school, a resort, a public park and golf courses.

¹ San Luis Obispo County, Noise Ordinance (Ordinance No. 2545), Amended in 1992.

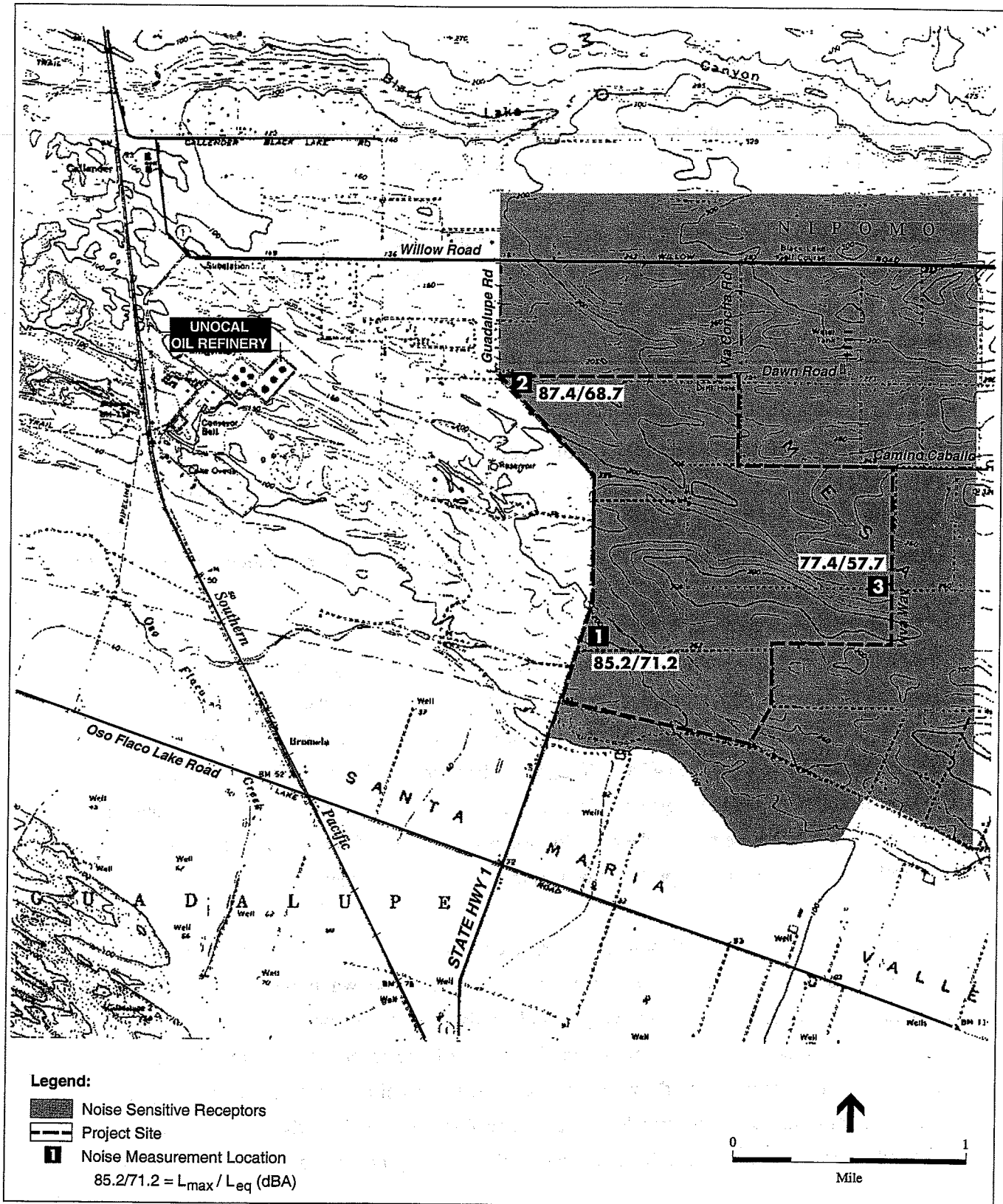
4.5.1.4 Existing Noise Environment

The ambient noise environment in the project vicinity is influenced mostly by motor vehicle traffic on State Route 1, but also by industrial noise sources associated with the Unocal Oil Refinery, which is located approximately one mile west of the eastern edge of the project site. State Route 1 supports 2,800 vehicles per day on the portion of that roadway that borders the project site. The vehicle mix on that segment of State Route 1 includes 6 to 7% trucks (California Department of Transportation, 1996). On-site noise levels generally diminish from west to east with increasing distance from State Route 1.

The County Noise Element indicates that traffic noise levels along that portion of State Route 1 that lies in the project vicinity exceed $60 L_{dn}$ within approximately 100 feet of the roadway centerline. Using the Federal Highway Administration's Highway Traffic Noise Prediction Model and traffic data provided by Associated Transportation Engineers for this report, the existing $60 L_{dn}$ contour is estimated to be approximately 130 feet from the centerline of State Route 1, which is similar to the Noise Element estimate.

The Noise Element also provides a contour map that illustrates noise generated by the refinery. Based on that information, refinery noise is typically $50 L_{eq}$ at a distance of 3,900 feet and $45 L_{eq}$ at a distance of 7,000 feet. The Noise Element contour map indicates that most of the project site is exposed to noise levels between 45 and $50 L_{eq}$ from the refinery. However, the actual distance between the refinery and the project site is greater than that shown on the Noise Element contour map. Using a USGS base map as the basis for re-positioning the refinery in relation to the project site, refinery noise would be expected to be less than $45 L_{eq}$ at the project site.

To further characterize the ambient noise environment, three short-term (15-minute) noise measurements were taken at locations around the project site, as shown in Figure 4.5-3. The average noise levels measured around the site vary from 71.2 dBA near State Route 1 to 57.5 dBA near the eastern border of the project site. Away from State Route 1, the primary sources of noise on the project site were observed to be the wind, rustling of trees and chirping of birds. Periodic operations of farm equipment in adjacent agricultural areas, as well as automobiles and trucks traveling on surrounding unpaved roads result in high noise levels occurring intermittently.



SOURCE: USGS 7.5' Oceano Quadrangle. Environmental Science Associates.

Woodlands Specific Plan / 950250 ■

Figure 4.5-3
Noise Measurement Locations

4.5.2 ENVIRONMENTAL IMPACTS

4.5.2.1 Thresholds of Significance

A project may be deemed to have a significant effect on the environment if it would increase substantially the ambient noise level for adjoining areas. For temporary impacts, such as those related to construction activities, a "substantial increase" is not determined with reference to a simple formula but rather is determined with reference to the increase over ambient conditions, the duration of the impact, and nature of the land uses that would be affected.

For long-term changes in the ambient noise environment experienced by noise-sensitive land uses, a "substantial increase" is defined as an increase of 5.0 L_{dn} or more where the resulting noise level would be less than 60 L_{dn} , an increase of 3.0 L_{dn} or more where the resulting noise level would be between 60 and 65 L_{dn} , or an increase of 1.5 L_{dn} or more where the resulting noise level would exceed 65 L_{dn} .

4.5.2.2 Impacts and Mitigation Measures

Impact 4.5-1: Development of the proposed project under any one of the development alternatives would generate high noise levels intermittently during construction. This would be a significant impact for the residences located near the project boundary.

Proposed Project

Project construction would proceed in two stages. The western portion of the site would be developed first (Stage I) and the eastern portion would be developed later (Stage II). It is expected that buildout of both stages would occur over a period of 10 to 12 years. During that period, construction activities would generate intermittent high noise levels on and adjacent to the development site. The first stage of the project construction would begin with the clearing and removal of large stands of trees followed by further site preparation and then building construction. Within a 100-foot-wide swath along the northern, eastern, and southern borders of the site, trees would be selectively cleared rather than clear cut.

Construction noise would vary among the various phases of construction within each stage since each phase would be characterized by a different set of activities and equipment. During the initial tree clearing phase, noise levels would be dominated by such equipment as chain saws and wood chippers and would be higher than those normally associated with the construction activities that would

follow. Chain saws can generate approximately 110 dBA at 50 feet (Golden, 1979); wood chippers typically generate 20 dBA less than chain saws at an equal distance. Once the tree-clearing phase is over, construction noise levels would be lower and would be similar to the reference noise levels shown in Table 4.5-3.

As a general matter, there are few residences in the project vicinity to be affected by on-site construction noise. There are approximately 6 residences near the project boundary where Via Concha Road meets Camino Caballo and several other residences near the southern boundary of the project site. During Stage I, temporary noise impacts associated with project construction would be limited to those few residences; however, during Stage II, project residences developed and occupied during Stage I would become additional noise-sensitive uses that would be affected by construction noise during the latter stage.

During the initial tree clearing phase, noise from chain saws at any one residence would vary over the course of that six month period depending upon the distance between tree clearing and thinning activities and the given residence. Where tree-clearing activities would occur near the site boundary, chain saw noise could reach 104 to 110 dBA at the closest residences. Such noise levels would not be expected to occur over more than a day or two at any given residence. More typically, chain saw noise would be approximately 86 to 74 dBA with tree clearing activities at distances of 800 to 3,200 feet away, respectively. The County Noise Ordinance would not allow such activities to occur during the noise-sensitive nighttime period; nevertheless, chain saw noise would be substantially higher than existing daytime noise levels (which are in the 50 to 60 dBA range) and may substantially interfere with normal daytime residential activity, and thus, the associated temporary impact would be significant.

Also during this initial phase, trees would be hauled away from the project site. It is estimated that it would require a total of 2,500 truckloads of logs and chip material over a six month-period to clear the trees from the project site. On an average day, the number of truck loads leaving the site would be 19 for a total number of truck trips of 38 (total "to" and "from" trips). These trucks are expected to travel north using U.S. Route 101. They would likely access U.S. Route 101 from the project site by heading north on State Route 1, then east on Willow Road and north on Pomeroy Road to Los Berros Road and the Los Berros/Highway 101 interchange.

The impact of 38 heavy trucks traveling 45 miles per hour on a given segment of roadway would be approximately 55 L_{dn} at a distance of 50 feet from the centerline. State Route 1, Willow Road and Pomeroy Road currently support average daily traffic volumes of approximately 2,800,

TABLE 4.5-3: TYPICAL RESIDENTIAL CONSTRUCTION NOISE LEVELS

<u>Construction Phase</u>	<u>Noise Level(L_{eq})^a</u>
Ground Clearing ^b	83
Excavation	88
Foundations	81
Erection	81
Finishing	88

a. Noise levels at 50 feet from the source.

b. Does not include chain saws or wood chippers that can generate 110 and 90 dBA, respectively, from a distance of 50 feet.

SOURCE: Bolt, Beranek, and Newman, *Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances, prepared for the U.S. Environmental Protection Agency, 1971.*

2,600, and 1,300 vehicles, respectively. The greatest noise impact of haul truck traffic would be expected along Pomeroy Road where the existing traffic noise is the lowest. Along Pomeroy Road, the effect of haul trucks would be approximately 3 L_{dn} with a resultant noise level of approximately 58 L_{dn}. This predicted increase in traffic noise would not be significant.

Once the initial tree clearing phase is completed, noise from construction would be similar to those shown in Table 4.5-3. As with tree clearing (chain saw) noise, building construction noise would vary depending upon the distance between construction sites and residences. Existing residences would be approximately 400 feet from the nearest building construction site. At 400 feet, construction noise levels would be 63 to 70 L_{eq}. Construction noise of this magnitude would occur over the course of several months to a year at any one existing residence. More typically, construction activities would occur at distances of 800 feet or more from the nearest residences. At 800 feet, construction noise would be 57 to 63 L_{eq}. Construction noise of this magnitude would be expected intermittently over the course of a period spanning several years. As described above for tree clearing, building construction would not be allowed during the nighttime period under the County Noise Ordinance.

Since building construction activities would generate substantially less noise than tree clearing activities, a distinction between the significance of the associated effects is reasonable. Since building construction would not occur during the nighttime period and would be only moderately higher than existing daytime levels, the associated impact would not be significant.

Following the tree clearing phase, site grading and excavation would occur. These particular activities would not generate off-site truck trips because excavated materials would be moved to other locations on the site rather than transported off-site. Following site grading and excavation, building construction itself would generate truck trips hauling construction materials to the site. The number of such trucks trips would not be expected to be more numerous than that described for tree hauling, and since tree hauling trucks would not generate significant noise impacts along the local road network, neither would delivery trucks.

Alternatives

Noise levels resulting from construction of any one of the development alternatives are not anticipated to exceed those anticipated from the proposed project as discussed above. Similar to the proposed project, noise levels from use of chain saws during the initial tree clearing phase would significantly impact the nearest residences, which could experience noise levels as high as 104 to 110 dBA. The initial tree clearing phase would be completed in approximately six months.

Mitigation Measures:

Mitigation Measure 4.5-1a: Prior to approval of construction plans, all applicable plans shall show that construction work will be limited to between 7:00 a.m. and 6:00 p.m. for Monday through Friday, between 8:00 a.m. and 5:00 p.m. on Saturday, with no work allowed on Sunday. The applicant shall notify all employees, contractor and/or subcontractors of this condition prior to their initiating work at the project site.

Mitigation Measure 4.5-1b: The project sponsor shall notify all residences within 1,000 feet of the site boundary concerning the project construction schedule, particularly with respect to tree clearing.

Significance After Mitigation: While the notification measure described above would provide an opportunity for nearby residents to plan around the noisiest construction activities, the actual noise levels from the use of chain saws would be unaffected. Therefore, the noise from chain saws during the initial six-month tree clearing phase would be a significant unavoidable impact under all of the development alternatives.

Impact 4.5-2: Development of the project under any one of the development alternatives would result in higher noise levels along local roadways. The increase in roadside noise would be significant and unavoidable along some road segments. In some cases, the significant impact would be project-specific, while along others, the significant impact would be cumulative.

With or without the project, noise along local roads in the project vicinity would change relative to existing conditions due to increases in local traffic volumes and due to the redistributive effect of planned improvements for Willow Road. Over the long term, the project would gradually contribute traffic to the local road network, magnifying the changes that would occur in any event.

The various expected changes in roadside noise levels are summarized in the following three tables. Table 4.5-4 shows existing noise levels along the ten road segments most affected by project traffic and shows the net increase over existing levels under various future scenarios. Table 4.5-5 derives from Table 4.5-4 and shows the estimated distances to the 60 L_{dn} contour from the centerline of the ten road segments, once again, under existing and various future scenarios. Table 4.5-6 provides a comparison of project conditions in 2005 with and without the extension of Willow Road to U.S. Route 101 and a comparison of project conditions in 2010 with a half-diamond interchange or, alternatively, with a full-diamond interchange between Willow Road (as extended) and U.S. Route 101.

Proposed Project

State Route 1 (south of Willow Road). Based on the estimates shown in Table 4.5-4, traffic noise would increase along this road segment under No Project conditions but the increase would not be significant. Project-related traffic would add to traffic noise levels along this road, but the project-specific increase, defined as the difference between noise levels under Project conditions and those under No Project conditions, would be less than significant. However, the cumulative impact, which is based on the difference between noise levels under Project conditions and those under existing conditions, would be significant along this road segment. With cumulative traffic volumes (including the project), the increase in traffic noise would be significant for noise-

TABLE 4.5-4: MODELED EXISTING AND PROJECTED AFTERNOON PEAK HOUR NOISE LEVELS IN THE PROJECT VICINITY, 1997, 2005 and 2010

Road Segment	Change Over Existing Noise Levels (L_{eq}) ^a								
	Existing Noise Level	YEAR 2005			YEAR 2010				
		Future w/o Project	Future w/ Stage I Project	Future w/o Project	Future w/ Project Buildout	Future w/ Exp. Bus. Park	Future w/ Rural Village I	Future w/ Rural Village II	Future w/ Revised Project
State Route 1 / South of Willow Rd.	66.1	+0.8	+1.7	+1.2	+2.2	+2.3	+2.0	+2.2	+2
Via Concha Road / South of Willow Rd.	50.0	+2.6	+13.1	+4.7	+14.4	+15.0	+13.6	+14.4	+12
Willow Road / East of Via Concha Rd.	63.2	+2.8	+6.4	+4.2	+7.6	+8.0	+7.1	+7.6	+7
Pomeroy Road / North of Willow Rd.	59.7	-0.4	+3.6	+0.8	+0.8	+0.8	+0.8	+0.8	+1
Calle Fresa / West of Pomeroy Rd.	53.6	+1.1	+9.6	+2.7	+10.7	+11.3	+9.9	+10.7	+2.7
Camino Caballo / West of Pomeroy Rd.	50.9	+0.6	+7.8	+0.6	+8.9	+8.9	+8.9	+8.9	+0.6
West Tefft St. / b/w Mesa and Orchard	65.3	+0.9	+1.9	+1.3	+2.5	+2.7	+2.3	+2.5	+5
West Tefft St. / b/w Eucalyptus and Mesa	63.9	+1.1	+1.7	+1.6	+2.3	+2.4	+2.2	+2.3	+4
Mesa Road / West of West Tefft St.	57.4	+0.8	+3.4	+1.2	+4.1	+4.5	+3.7	+4.1	+11
Eucalyptus Road / West of West Tefft St.	55.9	+1.4	+4.0	+2.1	+5.0	+5.4	+4.6	+5.0	+10
Albert Way / South of Willow	--	--	--	--	--	--	--	--	+11

- a. Noise level estimates correspond to a distance of 50 feet from the centerline of a given road segment and were made using the U.S. Department of Transportation's *FHWA Highway Traffic Noise Prediction Model* adjusted to reflect California Vehicle Noise (Calveno) Emission Levels. Input to the model includes traffic volumes, vehicle speeds and vehicle mix. Traffic data used as input for the model was provided by Associated Transportation Engineers, and they reflect a local road network that includes a half-diamond interchange between Willow Road and U.S. Route 101 in 2005 and a full-diamond interchange at that location in 2010. Average speeds were assumed to be 55 miles per hour on State Route 1, 45 miles per hour on (existing) Willow Road, and 40 miles per hour on the other road segments. The average speed on Willow Road is assumed to increase to 55 miles per hour as that road is improved and extended to U.S. Route 101 under the above future scenarios (with or without the project). The vehicle mix on State Route 1 was assumed to be approximately 94% autos, 4% medium trucks, and 2% heavy trucks based on Caltrans' data. The vehicle mix on Willow Road was assumed to be 95% autos, 3% medium trucks, and 2% heavy trucks. The vehicle mix on Pomeroy Road and West Tefft Street was assumed to be 97% autos, 2% medium trucks, and 1% heavy trucks. All other roads assumed to be 98% autos and 2% medium trucks. The percentage of trucks was not changed under project conditions since the vast majority of vehicle trips generated by the project would be related to residential development (i.e., autos and light duty trucks) and since the business park is expected to be developed with office uses (research and development, commercial and professional) that are not associated with substantial truck generation.

NOTE: Values shown in **bold** and **bold/italicized** type exceed their respective significance criteria based on the assumptions identified under the subsection titled "Thresholds of Significance," above. The **bold** type highlights segments and scenarios that would experience significant project-specific impacts; the **bold/italicized** type highlights segments and scenarios that would experience less-than-significant project impacts, but significant cumulative impacts.

SOURCE: Environmental Science Associates.

TABLE 4.5-5: ESTIMATED DISTANCE TO 60 L_{dn} CONTOUR UNDER VARIOUS FUTURE SCENARIOS, 1997, 2005 and 2010

Road Segment	Distance to 60 L _{dn} Contour from Centerline (feet) ^a								
	YEAR 2005			YEAR 2010					
	Existing (1997)	Future w/o Project	Future w/ Stage I Project	Future w/o Project	Future w/ Project Buildout	Future w/ Exp. Bus. Park	Future w/ Rural Village I	Future w/ Rural Village II	Future w/ Revised Project
State Route 1 / South of Willow Rd.	130	140	160	150	180	180	170	180	315
Via Concha Road / South of Willow Rd.	< 30	< 30	80	< 30	100	110	90	100	80
Willow Road / East of Via Concha Rd.	80	130	220	150	260	280	240	260	790
Pomeroy Road / North of Willow Rd.	50	40	80	50	50	50	50	50	<50
Calle Fresa / West of Pomeroy Rd.	< 30	< 30	80	< 30	100	100	90	100	--
Camino Caballo / West of Pomeroy Rd.	< 30	< 30	40	< 30	50	50	50	50	--
West Tefft St. / b/w Mesa and Orchard	110	130	150	140	160	170	160	160	250
West Tefft St. / b/w Eucalyptus and Mesa	90	110	120	110	130	130	120	130	100
Mesa Road / West of West Tefft St.	30	40	60	40	60	70	60	60	65
Eucalyptus Road / West of West Tefft St.	< 30	30	50	40	60	60	50	60	50
Albert Way / South of Willow Rd	--	--	--	--	--	--	--	--	<50

- a. Estimates of the distance from the centerline to the 60 L_{dn} contour are based on the results shown in Table 4.5-4 and the assumption that the p.m. peak-hour traffic noise level is equivalent to the 24-hour L_{dn} at a given location.

SOURCE: Environmental Science Associates.

sensitive uses located within approximately 80 feet of the centerline.² Beyond 80 feet from the centerline, the cumulative increase would be less than significant. Table 4.5-5 indicates that the 60 L_{dn} contour would shift from approximately 130 feet from the centerline to approximately 150 feet by

² A distance of 80 feet from the centerline represents the future 65 L_{dn} contour under future project conditions in 2010; the most stringent significance threshold of 1.5-dBA change corresponds to the 65 L_{dn} contour.

TABLE 4.5-6: COMPARISON OF NOISE LEVEL ESTIMATES UNDER VARIOUS WILLOW ROAD INTERCHANGE ALTERNATIVES, 2005 and 2010

<u>Road Segment</u>	<u>Change Over Existing Noise Levels (L_{eq})^a</u>			
	<u>YEAR 2005</u>		<u>YEAR 2010</u>	
	<u>Stage I No Willow Road Extension</u>	<u>Stage I Half Diamond Interchange at Willow Road & U.S. Route 101</u>	<u>Stage II Half Diamond Interchange at Willow Road & U.S. Route 101</u>	<u>Stage II Full Diamond Interchange at Willow Road & U.S. Route 101</u>
State Route 1 / South of Willow Rd.	+1.8	+1.7	+2.0	+2.2
Via Concha Road / South of Willow Rd.	+12.4	+13.1	+14.4	+14.4
Willow Road / East of Via Concha Rd.	+3.9	+6.4	+7.6	+7.6
Pomeroy Road / North of Willow Rd.	+6.1	+3.6	+4.5	+0.8
Calle Fresa / West of Pomeroy Rd.	+9.6	+9.6	+11.0	+10.7
Camino Caballo / West of Pomeroy Rd.	+7.8	+7.8	+8.9	+8.9
West Tefft St. / b/w Mesa and Orchard	+1.9	+1.9	+2.5	+2.5
West Tefft St. / b/w Eucalyptus and Mesa	+1.7	+1.7	+2.3	+2.3
Mesa Road / West of West Tefft St.	+3.4	+3.4	+4.1	+4.1
Eucalyptus Road / West of West Tefft St.	+4.0	+4.0	+5.0	+5.0

a. Assumptions used to develop these estimates are described in the footnote to Table 4.5-4.

SOURCE: Environmental Science Associates.

2010 under No Project conditions or to approximately 180 feet by 2010 under Project conditions. Approximately six residences would lie within the future (with project) 60 L_{dn} contour. Table 4.5-6 indicates that Willow Road extension would have little effect on traffic noise levels along this particular road segment.

Via Concha Road (south of Willow Road). Table 4.5-4 shows that traffic noise would increase along this road segment under No Project conditions but that the increase would not be significant. With the additional traffic generated by the project, however, the increase in traffic noise would be

substantially above No Project conditions (10 to 11 dBA higher) and would be significant for noise-sensitive uses along that segment. The cumulative (with Project) increase would be 14 to 15 dBA relative to existing conditions. Table 4.5-5 indicates that the 60 L_{dn} contour would shift from less than 30 feet from the centerline to approximately 100 feet under Project conditions in 2010. There is one existing residence along this road segment. Table 4.5-6 indicates that Willow Road extension would have little effect on traffic noise levels along this particular road segment.

Willow Road (east of Via Concha Road). Table 4.5-4 shows that traffic noise would increase significantly along this road segment under both No Project and cumulative (with Project) conditions; however, the increase would be substantially greater under cumulative (with Project) conditions than under No Project conditions. Table 4.5-5 indicates that the 60 L_{dn} contour would shift from approximately 80 feet from the centerline to approximately 260 feet under cumulative (with Project) conditions in 2010. A residential subdivision is located along this road segment. Table 4.5-6 indicates that Willow Road extension would have a substantial effect on traffic noise levels along this particular road segment. Once Willow Road is extended to U.S. Route 101, there would be little change in noise levels along this road segment due to construction of a full interchange as compared to the noise levels associated with a half-diamond interchange.

Pomeroy Road (north of Willow Road). Table 4.5-4 shows that traffic noise would increase along this road segment under No Project conditions but that the increase would not be significant. With the added traffic associated with the Project, the increase would be significant assuming a half-diamond interchange between Willow Road (as extended) and U.S. Route 101. Table 4.5-6 shows that the significant increase in noise along this segment would be reduced to less than significant with construction of a full interchange. Table 4.5-5 indicates that the 60 L_{dn} contour would shift from approximately 50 feet from the centerline to 80 feet under project conditions assuming a half-diamond interchange. With a half-diamond interchange in 2010, the 60 L_{dn} contour would be approximately 90 feet under cumulative (with Project) conditions. With a full interchange, the 60 L_{dn} contour would shift back to existing conditions (i.e., approximately 50 feet from the centerline). Approximately four residences are located along this segment. Table 4.5-6 indicates that the highest traffic noise levels along this road segment would be associated with project development in 2005 assuming no extension of Willow Road.

Calle Fresa (west of Pomeroy Road). Table 4.5-4 shows that traffic noise would increase along this road segment under No Project conditions but that the increase would not be significant. With the added traffic associated with the Project, roadside noise levels along this segment would be significantly higher than under existing conditions or those that would occur under No Project

conditions. Table 4.5-5 indicates that the 60 L_{dn} contour would shift from less than 30 feet from the centerline to approximately 100 feet under cumulative (with Project) conditions in 2010.

Approximately six residences are located within 200 feet of the centerline along this road segment. Table 4.5-6 indicates that neither the extension of Willow Road itself nor the particular type of interchange constructed at U.S. Route 101 would have a substantial effect on roadside noise levels along this road segment.

Camino Caballo (west of Pomeroy Road). Table 4.5-4 shows that traffic noise would increase along this road segment under No Project conditions but that the increase would not be significant. With the added traffic associated with the Project, roadside noise levels along this segment would be significantly higher than under existing conditions or those that would occur under No Project conditions. Table 4.5-5 indicates that the 60 L_{dn} contour would shift from less than 30 feet of the centerline to approximately 50 feet under cumulative (with Project) conditions in 2010. Approximately five residences are located within 200 feet of the centerline along this road segment. Table 4.5-6 indicates that neither the extension of Willow Road itself nor the particular type of interchange constructed at U.S. Route 101 would affect roadside noise levels along this road segment.

West Tefft Street (between Mesa Road and Orchard Road). Table 4.5-4 shows that traffic noise would increase along this road segment under No Project conditions but that the increase would not be significant. While the project-specific increase would not be significant along this segment (+1.2 dBA over No Project conditions), the cumulative increase by 2010 would be significant (+2.5 dBA over existing conditions). Table 4.5-5 indicates that the 60 L_{dn} contour would shift from approximately 110 feet from the centerline to approximately 160 feet under cumulative (with Project) conditions in 2010. One residence and one school are located within 100 to 200 feet of the centerline along this road segment. Table 4.5-6 indicates that neither the extension of Willow Road itself nor the particular type of interchange constructed at U.S. Route 101 would affect roadside noise levels along this road segment.

West Tefft Street (between Eucalyptus Road and Mesa Road). Table 4.5-4 shows that traffic noise would increase significantly along this road segment by 2010 under No Project conditions. While the project-specific increase would not be significant along this segment (+0.7 dBA over No Project conditions), the cumulative increase by 2010 would be significant (+2.3 dBA over existing conditions). Table 4.5-5 indicates that the 60 L_{dn} contour would shift from approximately 90 feet from the centerline to approximately 130 feet under cumulative (with Project) conditions in 2010. Approximately three residences are located within 150 feet of the centerline along this road segment.

Table 4.5-6 indicates that neither the extension of Willow Road itself nor the particular type of interchange constructed at U.S. Route 101 would affect roadside noise levels along this road segment.

Mesa Road (west of West Tefft Street). Table 4.5-4 shows that traffic noise would increase along this road segment under No Project conditions but that the increase would not be significant. While the project-specific increase would not be significant along this segment (+2.9 dBA over No Project conditions), the cumulative increase by 2010 would be significant (+4.1 dBA over existing conditions). Table 4.5-5 indicates that the 60 L_{dn} contour would shift from 30 feet from the centerline to approximately 60 feet under cumulative (with Project) conditions in 2010. Approximately three residences are located within 200 feet of the centerline along this road segment. Table 4.5-6 indicates that neither the extension of Willow Road itself nor the particular type of interchange constructed at U.S. Route 101 would affect roadside noise levels along this road segment.

Eucalyptus Road (west of West Tefft Street). Table 4.5-4 shows that traffic noise would increase along this road segment under No Project conditions but that the increase would not be significant. While the project-specific increase would not be significant along this segment (+2.9 dBA over No Project conditions), the cumulative increase by 2010 would be significant (+5.0 dBA over existing conditions). Table 4.5-5 indicates that the 60 L_{dn} contour would shift from less than 30 feet from the centerline to approximately 60 feet under cumulative (with Project) conditions in 2010. Approximately four residences are located within 200 feet of the centerline along this road segment. Table 4.5-6 indicates that neither the extension of Willow Road itself nor the particular type of interchange constructed at U.S. Route 101 would affect roadside noise levels along this road segment.

Expanded Business Park Alternative

As shown in Table 4.5-4, project-generated traffic as a result of development of the Expanded Business Park Alternative would increase local traffic noise levels to a slightly greater extent than under the Project. For example, traffic noise levels along Via Concha Road and Calle Fresa would be expected to be 0.6 L_{eq} higher by 2010 under this Alternative than under the project. The difference between this Alternative and the project would be less along the other road segments. The only substantial difference between traffic noise levels under this alternative and the Project would be along Mesa Road and Eucalyptus Road. Along these two roads, the project-specific impact would be significant under this alternative but would not be significant under the Project. Under either this alternative or the Project, however, the cumulative impact would be significant along these two road segments.

Rural Village I Alternative

As shown in Table 4.5-4, project-generated traffic as a result of development of the Rural Village I Alternative would increase local traffic noise levels to a slightly lesser extent than under the Project. For example, traffic noise levels along Via Concha Road and Calle Fresa would be expected to be 0.8 L_{eq} less by 2010 under this Alternative than under the project. The difference between this Alternative and the project would be less along the other road segments. The difference between traffic noise levels under this alternative and the Project would not be significant.

Rural Village II Alternative

As shown in Table 4.5-4, project-generated traffic as a result of development of the Rural Village II Alternative would increase local traffic noise levels to the same extent as under the Project.

Mitigation Measures: The Noise Element states that mitigation measures should be included as appropriate where the standards shown in Table 4.5-1 would be exceeded. In this instance, the traffic generated by the project would result in an increase in noise such that a small number of residences would fall within the 60 L_{dn} contour that otherwise would be exposed to less than 60 L_{dn} .

Transportation noise impacts can be reduced by reducing vehicle speeds, by re-routing trucks, by constructing noise barriers, or by retrofitting residences with acoustical insulation. Reducing vehicle speeds is not considered feasible for this project since enforceability can not be assumed and since improvements on Willow Road would accommodate higher vehicle speeds making enforcement of lower speeds even less likely. Re-routing trucks would not be effective in reducing the identified impact since the project would not be expected to generate substantial truck traffic nor is there substantial truck traffic in the area.

Noise barriers may be effective to reduce exterior noise levels to 60 L_{dn} , but would need to be reviewed on a case-by-case basis. A major determining factor for considering the feasibility of such a barrier is the amount of noise to be reduced. Noise barriers, such as berming or block walls, typically can reduce noise levels between 5 to 10 L_{dn} . Thus, in areas where it would exceed 70 L_{dn} , this approach may not completely reduce levels to the acceptable threshold of 60 L_{dn} .

The County Noise Element does not specifically define that all exterior areas need to be mitigated, but mitigation needs to extend to sufficient usable area(s) to provide for outside activities. One technique that has proved to be effective and feasible in some instances where noise levels would be

less than 70 L_{dn} is to construct solid block "wing" walls that connect with the structure. This can be cost effective, is not visually obtrusive and can often provide adequate usable areas for most exterior activities.

For areas resulting in greater than 70 L_{dn} , it is unknown if there would be feasible measures to mitigate the impacts. Based on Table 4.5-4, it is expected that this situation could occur for portions of Willow Road (east of Via Concha) at project buildout (year 2010).

Revised Project Alternative

Construction noise impacts would be similar to that of the proposed project. Similar to the proposed project, operational noise impacts of the Revised Project Alternative would be potentially significant on several residences in the vicinity of the project site, as shown in Table 4.5-4. Noise levels would be slightly greater at intersections in the project vicinity. Vehicle traffic and travel speeds and thus resultant traffic-related noise are expected to increase as roads are improved. An increase in traffic related noise from 0.6 to 12 dBA is anticipated as a result of the Revised Project Alternative traffic along local roads. Sound level variations of less than 3 dBA are not considered to be significant because a less than three decibel variation is not typically 'noticeable' by the human ear. Noise impacts identified along Camino Caballo and Calle Fresa would be insignificant under the Revised Project because Camino Caballo would not be built and Calle Fresa would carry very little project traffic.

The feasibility of mitigating noise levels to below the 60 dBA (L_{dn}) level of significance at affected receptors was evaluated. Noise impacts may be influenced by grade variations, intervening topography, reduced speeds at curves and noise barriers. Mitigation Measure 4.5-2c in the EIR requires the construction of a 6-foot high noise barrier, which is estimated to provide 6 to 10 dBA of noise attenuation. If such barriers were constructed for existing homes close to the road edge, no significant noise impacts associated with long-term road traffic would result from the revised project. A site specific acoustical analyses should still be required prior to obtaining building permits to determine if such a barrier or other noise attenuating measures would be warranted.

The following measure is proposed to mitigate exterior noise:

Mitigation Measure 4.5-2a: The project sponsor shall provide proportional funding to install noise barriers (e.g., solid block walls) for residential outdoor use areas that would experience

significant increases in future cumulative noise levels and that would experience exterior noise levels greater than $60 L_{dn}$. The proportional share could be based on the percentage of cumulative traffic that would be related to the project.

For the other significantly affected residences, the following measure shall be implemented:

Mitigation Measure 4.5-2b: The project sponsor shall provide proportional funding to install acoustical insulation (i.e., double-paned windows, hardwood doors, etc.) to those residents whose residential interior noise levels would be significantly affected under future cumulative (with Project) conditions (i.e., significant increase and resulting interior noise level over $45 L_{dn}$). The proportional share could be based on the percentage of cumulative traffic that would be related to the project.

Mitigation Measure 4.5-2c: The project sponsor shall construct a 6-foot high noise barrier or other appropriate device to reduce excessive noise below county thresholds for sensitive receptors significantly affected by the Project development. The placement of noise barriers shall be in accordance with the acoustical analyses.

Mitigation Measure 4.5-2d: A site specific acoustical analyses shall be required to account for project and cumulative noise impacts for all residences along potentially affected roads. The analyses shall be conducted prior to obtaining any discretionary permits and reviewed as necessary throughout the development of the project.

Significance After Mitigation: For those existing residences that would experience a significant increase in traffic noise where the resultant exterior future noise levels would be greater than $70 L_{dn}$ (e.g., those along Camino Caballo), no mitigation is considered feasible; thus, the associated impact would be significant and unavoidable. For those residences that would experience an increase in noise but located where the resultant exterior future noise levels would be less than $70 L_{dn}$, noise barriers and/or acoustical insulation could reduce their exterior or interior noise levels to less than significant levels.

Impact 4.5-3: The project would introduce noise-sensitive uses into an area subject to noise from both transportation and stationary sources and would introduce commercial noise sources onto the project site. This would be a significant impact.

Proposed Project

The project would be developed on a site that is exposed to both transportation and stationary noise sources. As discussed below, the project site plan adequately protects future noise-sensitive uses from transportation noise by providing a minimum 200-foot buffer along State Route 1 and the project would be exposed to stationary noise that would be less than Noise Element standards. However, commercial land uses developed on the project site could include noise sources that would

annoy future project residents but implementation of performance standards derived from the County Noise Ordinance would avoid significant future incompatibility problems. Finally, the wastewater treatment plant that is slated for the southwest corner of the site may include stationary noise sources that have the potential to annoy project residents as well as those that would occupy the subdivision to be developed directly south of the project site. As with commercial land use development, implementation of appropriate performance standards for wastewater treatment plant equipment would reduce the potential impact to less than significant. Traffic noise modeling results are shown in Table 4.5-4. The results for State Route 1 (south of Willow Road) provide the basis for evaluating future compatibility of noise-sensitive uses on the site with the future transportation noise environment. Based on Table 4.5-4, the future 60 L_{dn} contour along the portion of State Route 1 that lies adjacent to the site would be approximately 180 feet from the centerline. Since the closest proposed residences would be approximately 300 feet from the roadway, they would be located in areas where transportation-related noise would be considered acceptable for such uses.

As discussed in the setting section, the project site is also exposed to stationary noise source associated with the Unocal refinery. Based on estimates of refinery noise contained in the Noise Element and the distance between the refinery and the project site, the western-most proposed residences would experience refinery-generated noise levels of less than 45 L_{eq} and thus would be consistent with stationary noise standards set forth in the Noise Element (and shown in Table 4.5-2).

In addition to existing stationary noise from off-site activities, the project itself would introduce new stationary noise sources onto the site. The project, for instance, identifies areas within its boundaries for future development of business park uses. Such uses can include noise sources that may annoy nearby residents. These noise sources vary from business to business but may include large heating, ventilating and air conditioning (HVAC) equipment, compactors, and truck loading and unloading activity. The Noise Element includes noise standards that can be used as a guide to ensure that annoyance between commercial development and nearby residences are minimized. These standards are shown in Table 4.5-2. With implementation of these standards, the potential impact would be less than significant.

The project would also include development of a wastewater treatment facility. Such facilities can include a variety of stationary noise sources, such as pumps and generators. These noise sources may be substantial and could annoy future residents of the project site and future residents of a subdivision planned for a parcel directly south of the project site. As with commercial uses, the Noise Element standards can be used as a guide to prevent the proposed facility from significantly affecting future nearby residents.

Alternatives

The same potential noise / land use compatibility issues would occur under the alternatives as would occur under the project. Namely, the noise sources associated with business park development and the wastewater treatment facility may annoy future adjacent residences.

Mitigation Measures:

Mitigation Measure 4.5-3a: Project-related commercial uses and wastewater treatment facilities shall be designed to meet or exceed the standards set forth in Table 4.5-2. These performance standards can be achieved in a number of different ways, including (but not limited to) the following:

- Noise-generating equipment and activities shall be located on an individual parcel such that the distance between the equipment and activities and nearby noise-sensitive uses would be maximized.
- Noise sources, which are directional in nature, shall be positioned in such a way as to direct the noise away from noise-sensitive uses.
- Noise sources shall be muffled or installed within acoustically-treated enclosures or buildings.
- Noise barriers shall be constructed where other noise reducing strategies prove infeasible.

Significance After Mitigation: Less than significant.

4.6 AESTHETICS

The purpose of this section is to identify and evaluate key visual and aesthetic resources in the project area, and to determine the degree of visual and aesthetic impacts that would be attributable to the proposed project or any of the alternatives considered. The analysis describes the potential aesthetic effects of the alternatives on the existing landscape and built environment, focusing on the compatibility of the project with existing conditions and the project's effects on visual resources.

4.6.1 ENVIRONMENTAL SETTING

The assessment of the visual attributes and features on the property in this section is organized according to the following general descriptive categories: location, land form; spatial organization; vegetation; and views. The determination of visual impacts will be based on views from public roadways at various viewing distances (short-range, medium-range, and long-range). Views from within the Woodlands property are discussed for use in evaluating site plans or other proposals for use of the property, or in case views from the site become publicly available at some point in the future.

4.6.1.1 Location, Landform, and Spatial Organization

The project site is located on gently rolling sandhills of coastal dune origin, a landform typical of much of the Nipomo Mesa. Elevation ranges from approximately 125 feet near the southwest corner of the site to approximately 325 feet near the center. Immediately south of the subject is the southern face of the Nipomo Mesa bluffs.

4.6.1.2 Vegetation

The project site is dominated by pure, dense stands of eucalyptus, which were planted in the 1800's. Most of the site has been logged and burned more than once, and supports dense second or third growth eucalyptus. The existing stands are about a hundred years old; most of the trees range between one and two feet in diameter at breast height (dbh) and attain heights between 70 and 120 feet. Portions of the forest have evenly spaced trees, while other areas are dense with immature trees, second and third growth, and deadfalls. The are planted approximately 15 feet on center.

4.6.1.3 Views

Figure 4.6-1 presents a viewpoint location map; Figures 4.6-2 through 4.6-7 present views of the project site and surrounding area. As shown, short-range, mid-range, and long-range views of the project site from all directions consist of a massing of eucalyptus trees near the edge of the Mesa, contributing to the rural appearance of the area. Surrounding uses include a variety of residences and a wholesale nursery to the north, and agricultural uses to the west and south. The Unocal Santa Maria Refinery and Unocal Chemicals Division facility is located approximately two miles northwest of the site; several of the larger structures at that facility, including a 200-foot flare, are visible from the site.

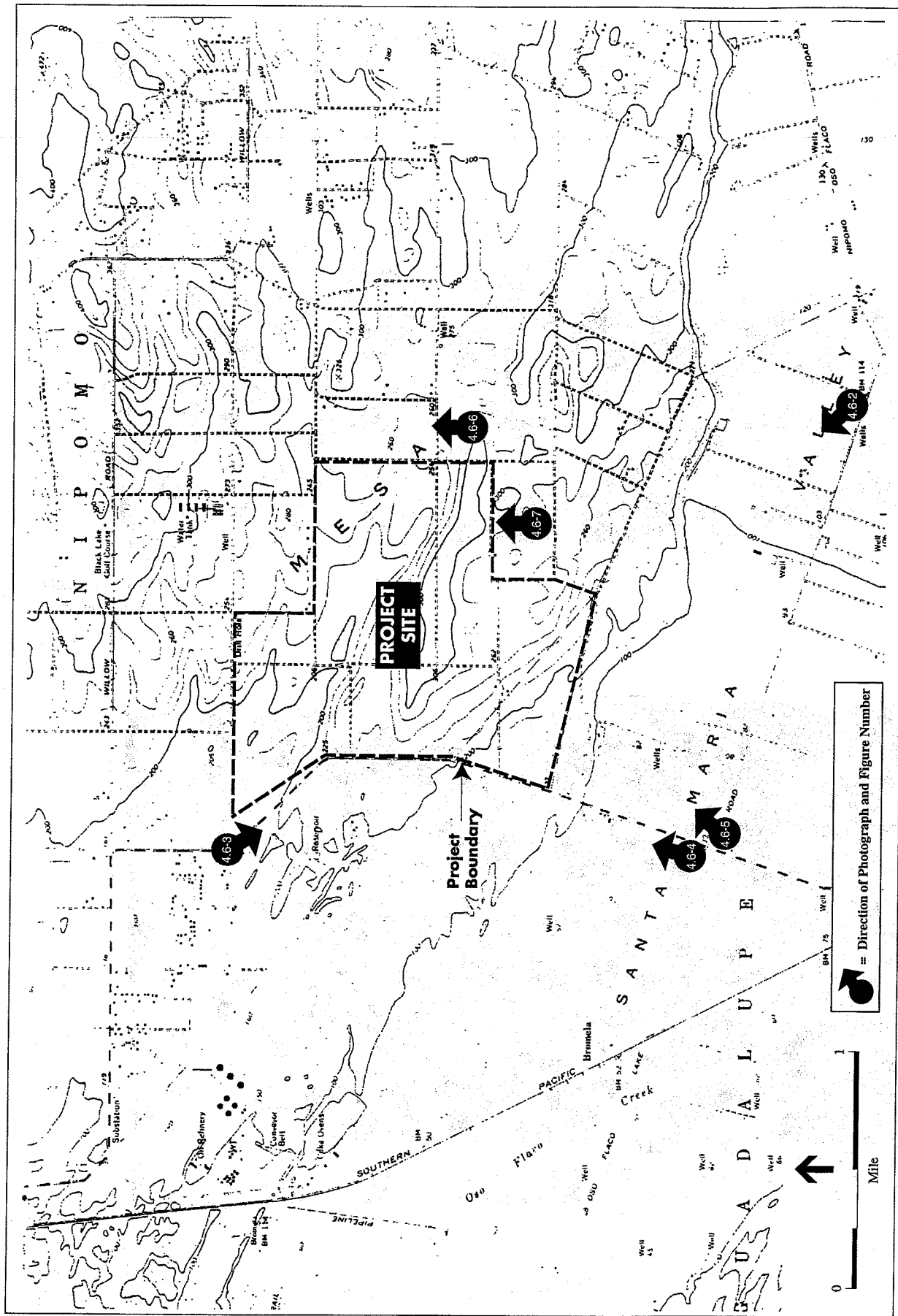
The massing of eucalyptus trees does not permit views of the interior of the site from the north, east, or west; however, as shown in Figures 4.6-3 and 4.6-4, the interior of the site south of the central ridge is visible to traffic traveling northbound on Highway 1, approaching from the south.

Figure 4.6-8 shows a summary of the aesthetic resources of the site. These resources primarily consist of the areas visible from public roads off-site, including the perimeter eucalyptus stands, the central ridge, and the area to the south of the ridge, which is visible to the public from viewsheds to the south and southwest of the property.

4.6.1.4 Plans and Policies

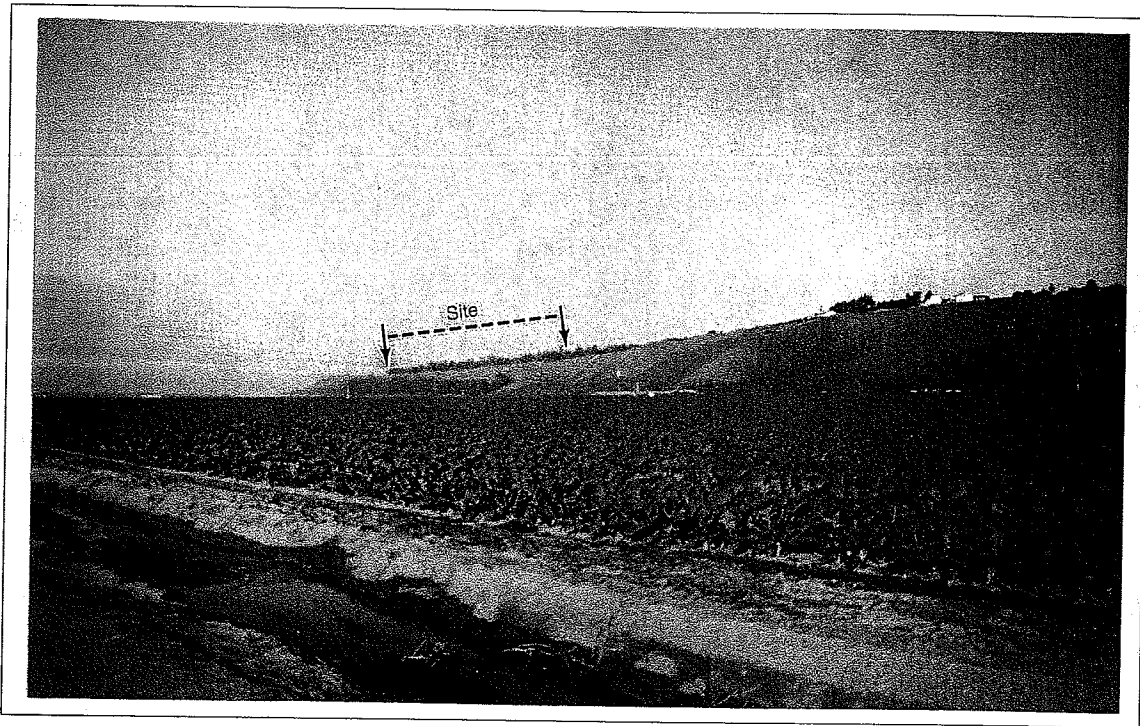
The vision of the County's Land Use Element of the South County Area Plan - Inland Area includes the protection of the rural character of the areas between Santa Maria, Nipomo, and Arroyo Grande. The promotion of the rural character and heritage of the South County area, with a strong sense of identity and place, is a primary goal of the Area Plan. The separation of these communities by open countryside, along with large agricultural areas, contributes to this rural identity. Rural character may also be achieved by development with the appearance of a rural residential density and standard and clustered subdivision design that provides structural setbacks from public roadways. Site-sensitive treatment in scenic and immediately visible areas further enhances these rural qualities.

The Nipomo Mesa and its environs provide an appeal for recreational development, destination resorts, and rural residential living. The South County Area Plan envisions a major recreational resort offering championship golfing west of Nipomo, appealing to visitors from urban areas both within California and out of state.



Woodlands Specific Plan / 950250
Figure 4.6-1
 Viewpoint Location Map

SOURCE: USGS, 7.5' Oceano Quadrangle and Environmental Science Associates

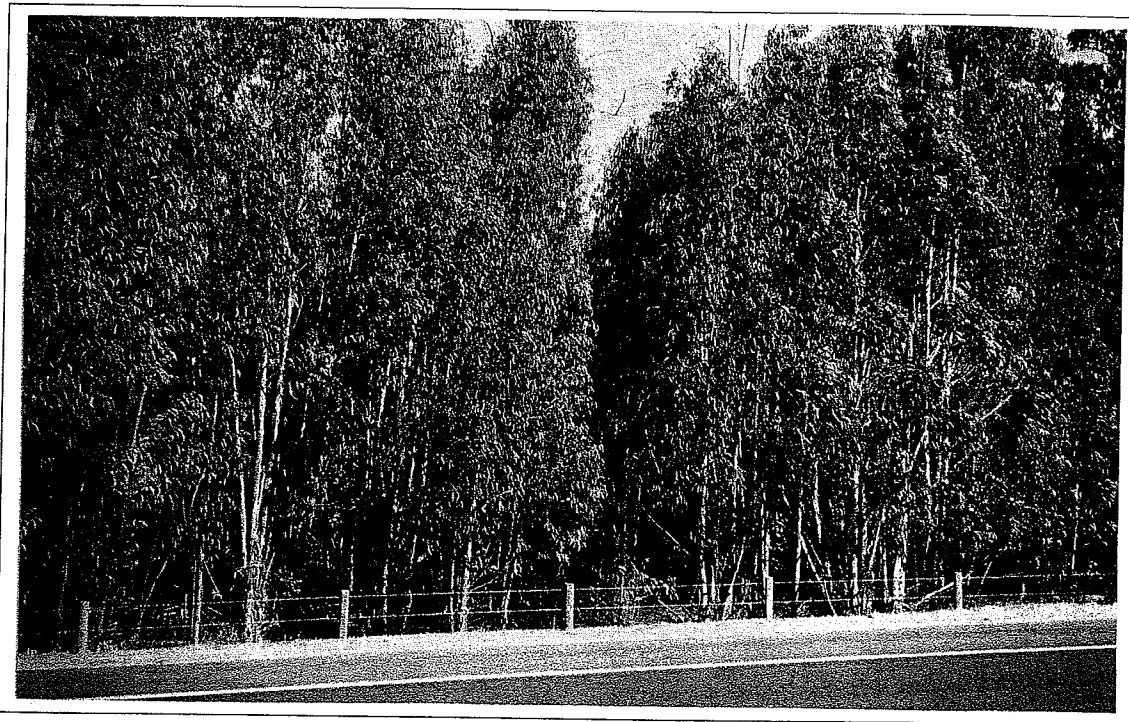


SOURCE: Environmental Science Associates

Woodlands Specific Plan / 950250 ■

Figure 4.6-2

View of Site from Oso Flaco Road Looking Northwest

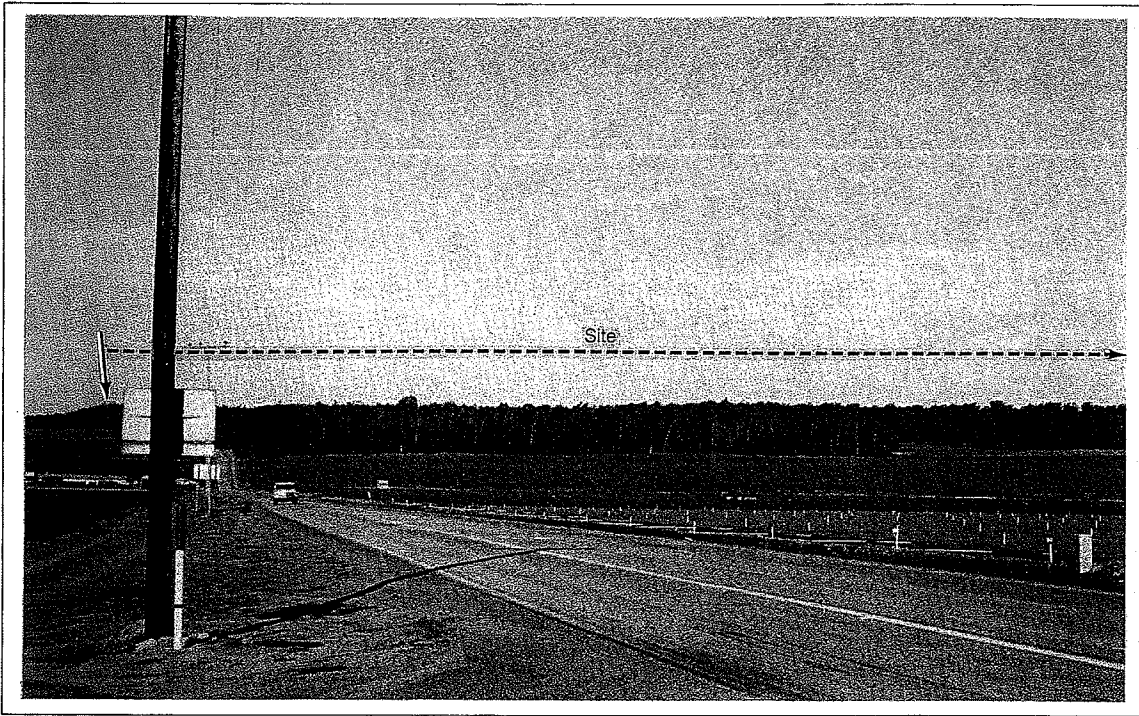


SOURCE: Environmental Science Associates

Woodlands Specific Plan / 950250 ■

Figure 4.6-3

View of Site Along Pacific Coast Highway Looking South



SOURCE: Environmental Science Associates

Woodlands Specific Plan / 950250 ■

Figure 4.6-4

View of Site Along Pacific Coast Highway Looking North

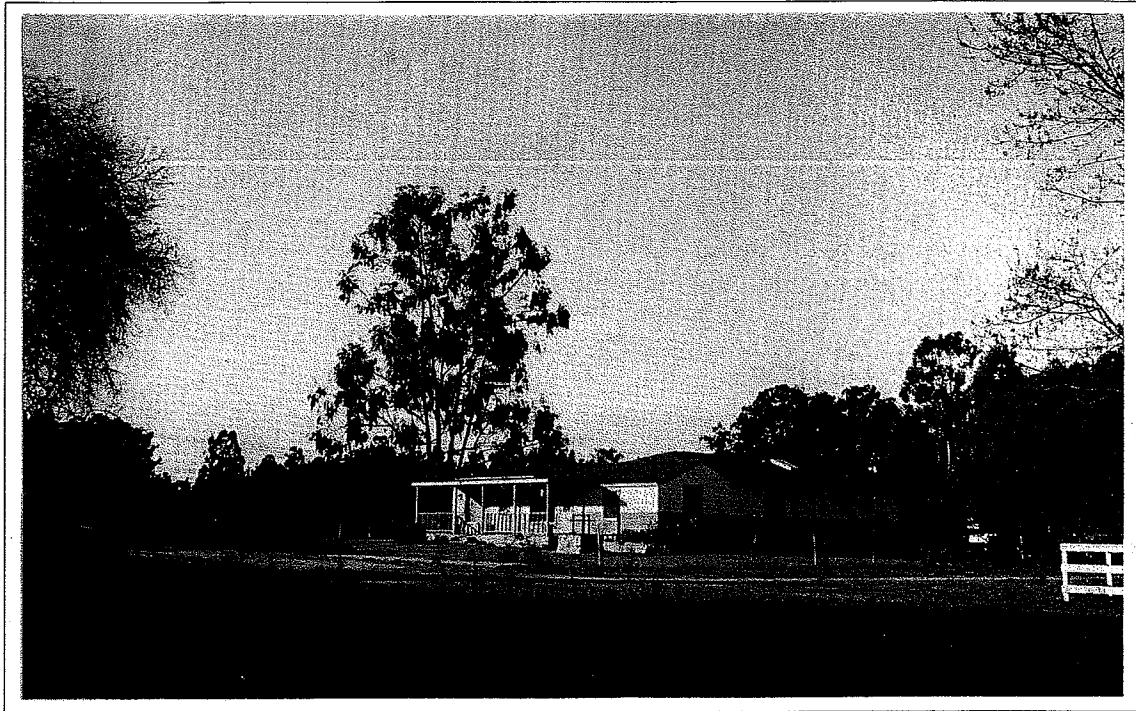


SOURCE: Environmental Science Associates

Woodlands Specific Plan / 950250 ■

Figure 4.6-5

View of Site from Pacific Coast Highway /
Oso Flaco Road Looking Northeast



SOURCE: Environmental Science Associates

Woodlands Specific Plan / 950250 ■

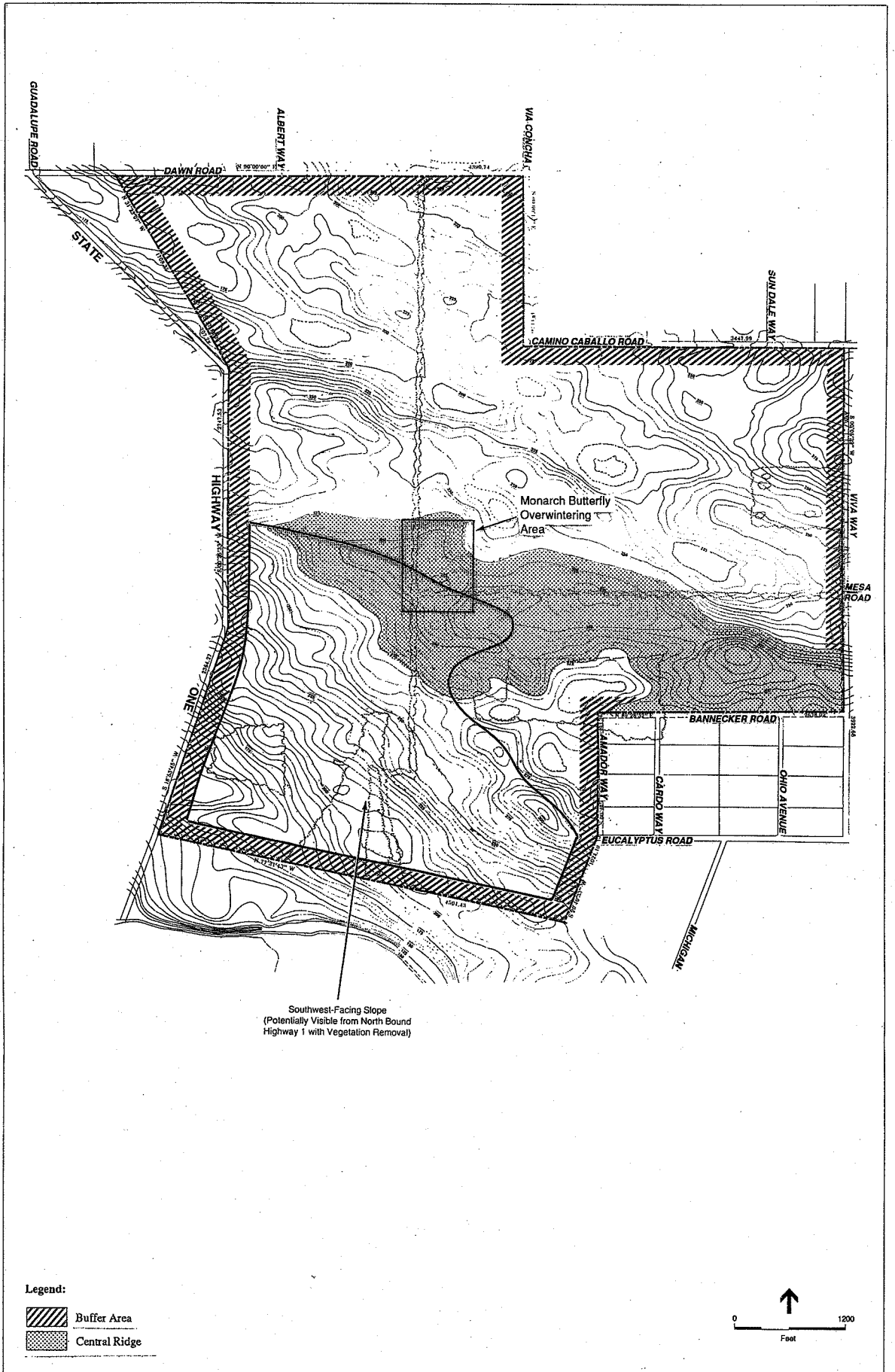
Figure 4.6-6
Typical Residence Adjacent to Project Site to the East



SOURCE: Environmental Science Associates

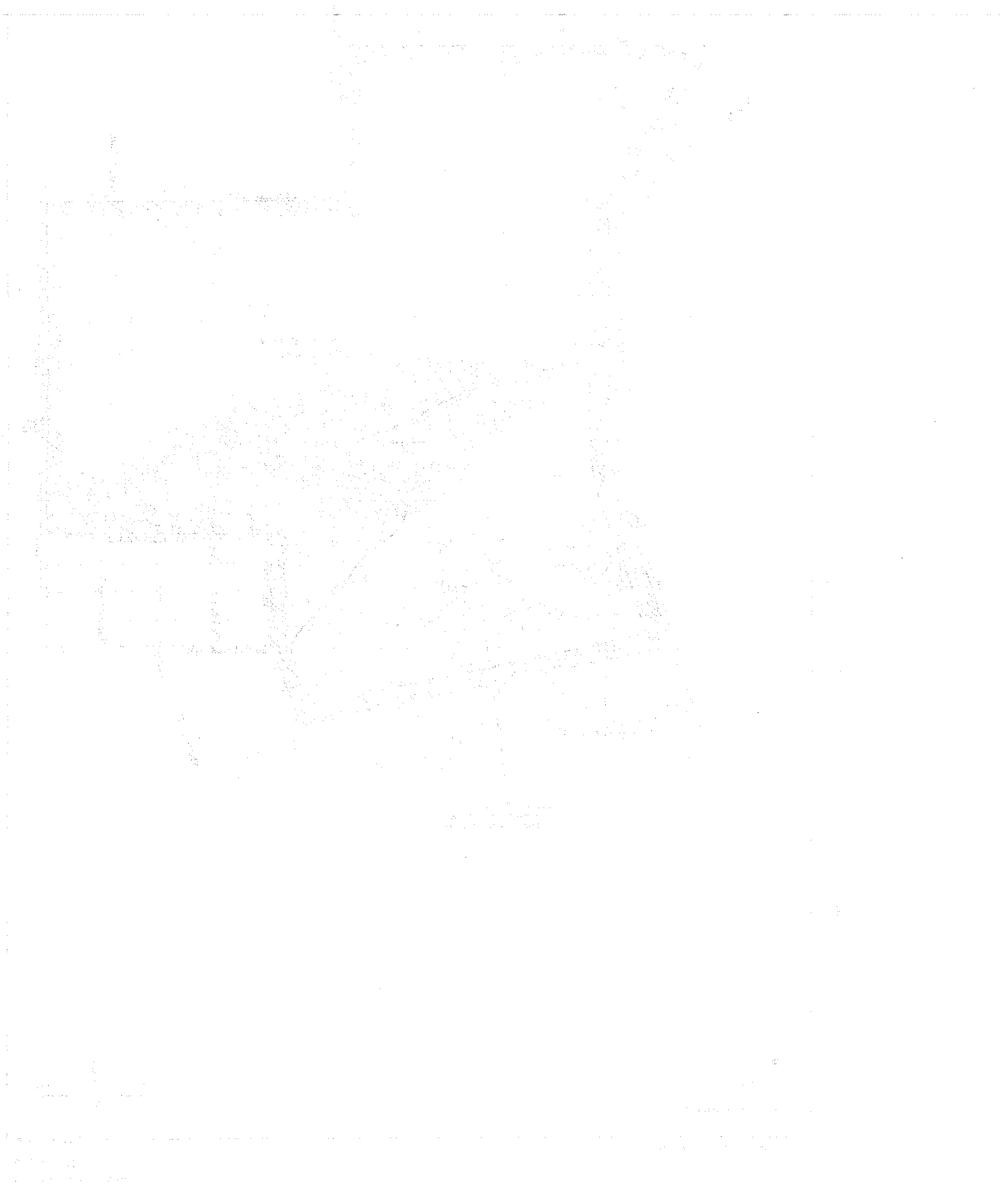
Woodlands Specific Plan / 950250 ■

Figure 4.6-7
View of Project Site Looking North from Bannecker Road



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Figure 4.6-8
Aesthetic Resources



The dominant land use on the Nipomo Mesa between the village areas is rural residences at about a five-acre density. As discussed in the area plan, a combination of this overall low density, coupled with methods to enhance the rural ambiance could include some of the following strategies: 1) clustered subdivisions within open space areas, 2) the use of deep setbacks on five-acre sites to locate development away from road corridors, 3) a potential transfer of development rights program to protect areas that the community identifies as important, and 4) the continued support of agricultural activities.

Chapter 7 of the County's Land Use Element of the South County Area Plan - Inland Area contains special standards for the area which apply to the planning and development of new land uses, and must be satisfied before a land use permit can be approved. The following standards are identified in Chapter 7 which specifically apply to the Woodlands site:

Open Spaces and Recreation. The specific plan shall provide for permanent open space areas that will retain the rural character of the site as seen from Highway 1. A landscaped open space buffer shall be provided around the perimeter of the Woodlands site. Open spaces shall be emphasized in the plan for active and passive public recreation, for informal social activity and to reinforce the identity of neighborhoods and focal points with the use of spatially defined squares and parks. Provide for public recreational uses such as golfing, walking and horse riding around and through the development areas.

The Land Division Requirements for the property further specify the following standard for open space:

Open Space Uses. Open space uses other than agriculture and golf course fairways shall retain vegetation near Highway 1. Provide for Recreational Open Space uses such as walking, bicycle and horse riding. Trails should be provided around and through the residential clusters.

4.6.2 ENVIRONMENTAL IMPACTS

4.6.2.1 Thresholds of Significance

According to the CEQA Guidelines, potentially significant aesthetic effects include substantial or potentially substantial adverse changes in objects having aesthetic significance, and substantial or potentially substantial, demonstrable negative aesthetic effects. Guidance in identifying adverse and potentially significant aesthetic effects is provided in several sections of the Guidelines.

Appendix G and Appendix I of the CEQA Guidelines contain criteria for identifying aesthetic impacts include the following: obstruction of a scenic vista or view open to the public; creation

of an aesthetically offensive site open to public view; degradation of an object having historic or aesthetic significance; division or disruption of the physical arrangement of an established community; production of new light and glare; and conflict with adopted environmental plans and goals of the community where the project would be located.

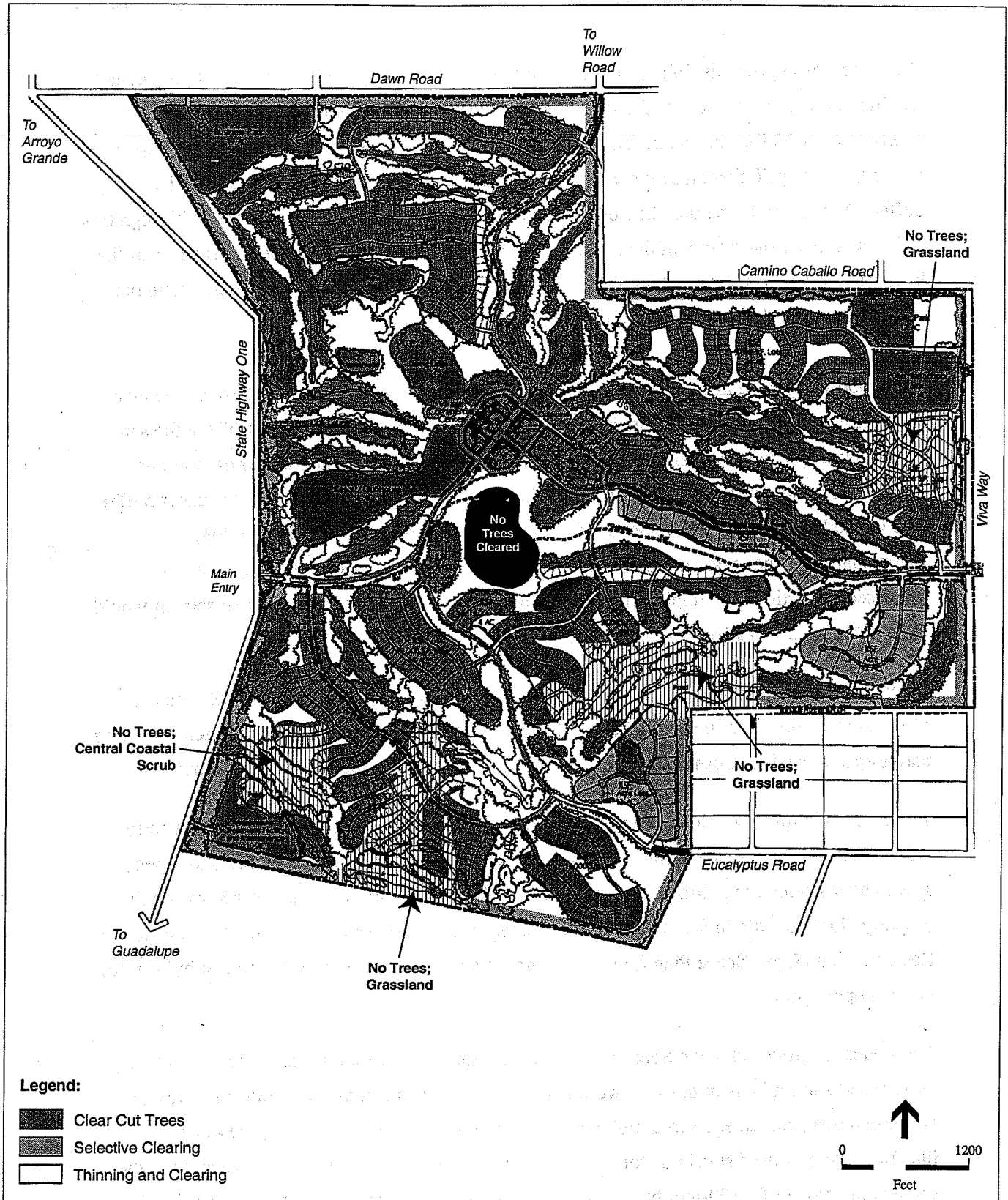
4.6.2.2 Impacts and Mitigation Measures

Impact 4.6-1: Development of the proposed project, or any of the alternatives considered, would change the natural visual character and form of the site. This would be a significant impact.

Proposed Project

Development of the proposed project would alter the rural character of the site and the surrounding area. The proposed project would involve the removal of over 70 percent (640 acres) of the existing eucalyptus trees on-site and would introduce 1,320 housing units, 27 acres of commercial space and 22 acres of Business Park into the predominantly rural area. Other uses would include 300 acres designated for two golf courses, a 12-acre public park, 10-acre school, 30 acres of neighborhood play area and open space between residential lots, 11 acres set aside for Monarch Butterfly overwintering, and 76 acres designated for open space buffers. The proposed Village Center, comprised of multi-family residential units and commercial areas, would be located in the center of the proposed development, and would not be visible off-site. The 235-acre residential component of the proposed project would consist of several density types ranging from single-family residential to multi-family developments, and would be one or two-story structures. The residential neighborhoods would be clustered throughout the site, surrounded by either golf courses, meadows or woodland open space areas.

Figure 4.6-9 illustrates the proposed tree removal plan. The trees located in the perimeter area are proposed to be thinned to yield a tree spacing of approximately 30 feet on center between individual trees, including tree removal and removal of deadwood and branches which could interfere with pathway alignments. Other internal open space may have tree removal ratios that will vary from none (at the butterfly habitat area) to 50% depending upon the function of the buffer. Within the dedicated State and County road right-of-way at the perimeter of the project, as well as rights-of-way for proposed streets, existing trees would be removed in order to accommodate required improvements. The entire right-of-way would not be cleared.



SOURCE: RRM Design Group, 1997.

Woodlands Specific Plan / 950250 ■

Figure 4.6-9
Proposed Tree Removal Plan

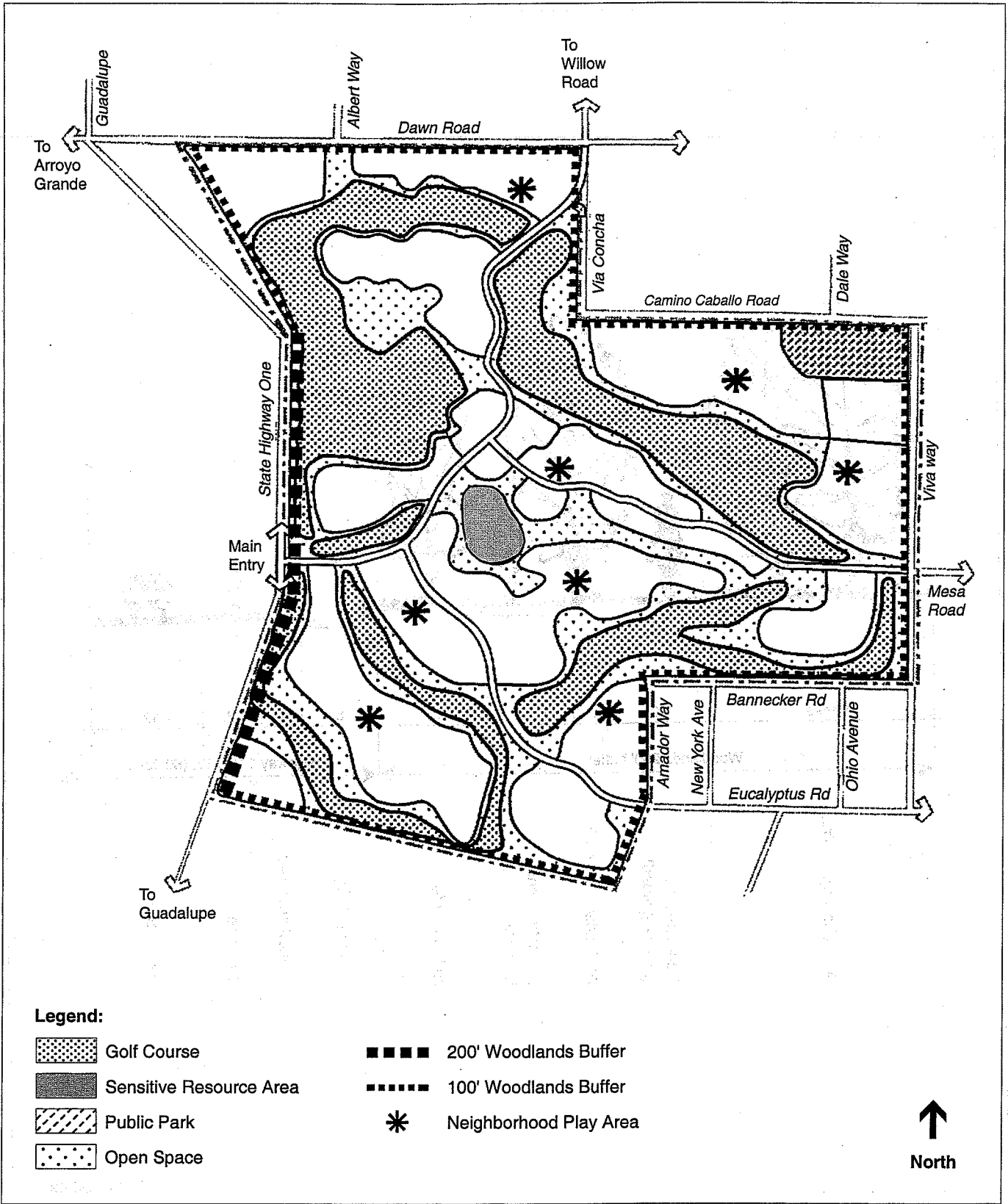
Due to harvesting over the life of the stands, many of the existing trees are relatively young, and would not provide a dense visual buffer (see Figure 4.6-3). These trees are currently planted approximately 15 feet on center. The applicant's proposal to thin the trees to yield a tree spacing of approximately 30 feet on center would further degrade the value of these trees as a visual buffer. As these trees mature, their effectiveness as a visual buffer would increase. Although this buffer would consist mainly of the trunks, as eucalyptus trees have few branches/leaves near the base, maintaining a substantial number of the trees within the perimeter areas would retain the rural character of the area as viewed at street level.

The proposed spacing arrangement is intended to allow the remaining trees to have ample area and access to light so they can remain healthy and grow to their natural shape while at the same time providing a dense visual buffer. However, with the substantial numbers of trees removed throughout the site in areas to be developed, the existing spacing of trees in the perimeter buffer area would be adequate, with removal of unhealthy trees and deadwood. In addition, fragmentation of the existing stands may increase the mortality rate of remaining trees, as discussed in Section 4.4. Implementation of mitigation measures identified in that section would reduce this impact to a less than significant level.

Retention of the existing tree spacing in the perimeter buffer area would provide the greatest visual buffer, and would maintain the existing rural character of the area. In some areas, planting native species such as Coast Live Oak, Cypress and Redwood would enhance this buffer.

The proposed project would contain a variety of open space features such as landscaped entry medians and an open space buffer. The open buffer would reserve close to 76 acres for open space buffers along the perimeter of the site, and 158 acres of additional open space within the property would remain in natural condition (except for maintenance). Figure 4.6-10 presents the Recreation and Open Space Plan for the site, and illustrates the locations of perimeter buffers and internal open space.

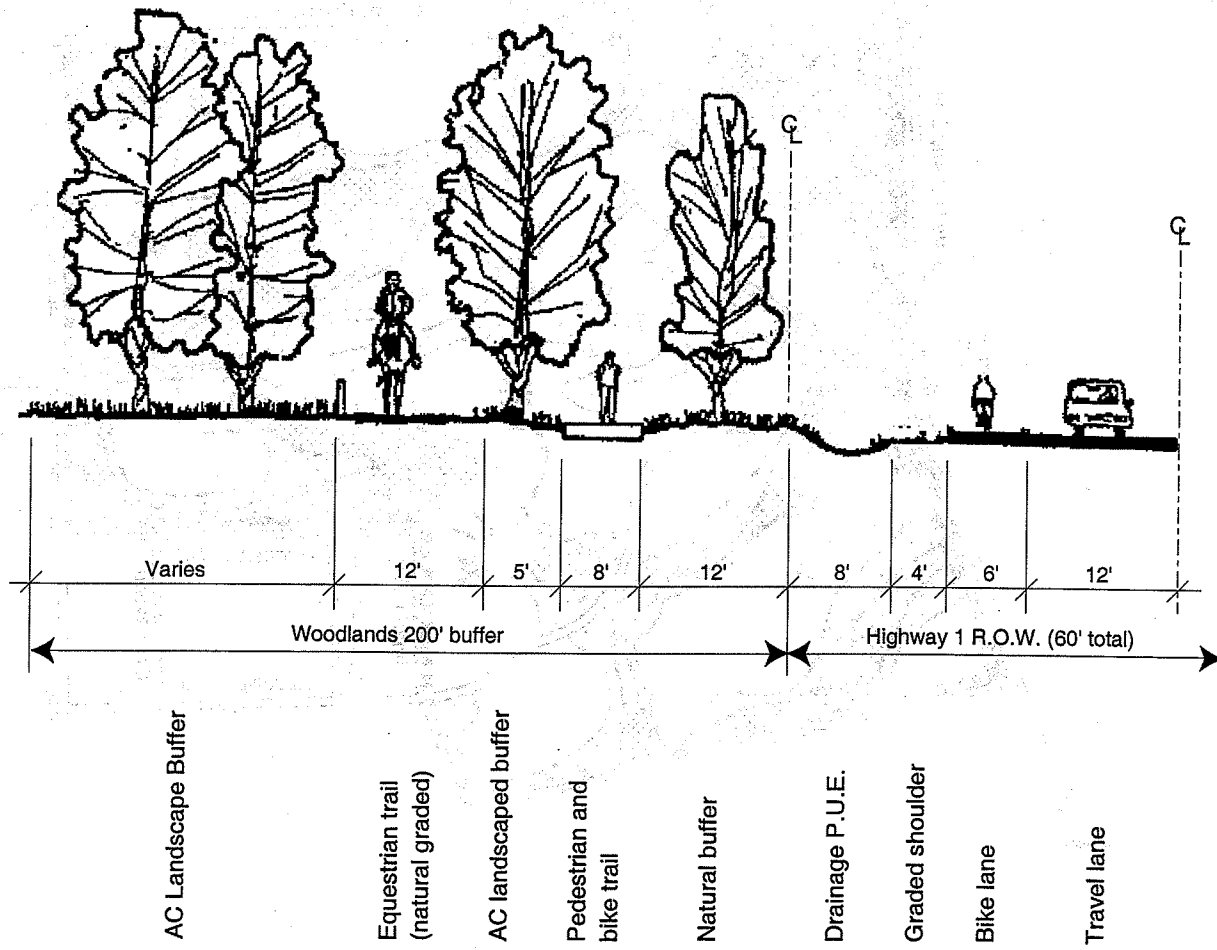
The standards proposed in the Specific Plan would require a 200-foot buffer along Highway 1. Dead wood and saplings in this area would be thinned. Portions of the golf course fairways, a pedestrian path, and an equestrian trail would meander through this buffer. Figure 4.6-11 illustrates the proposed standards for the Highway 1 buffer. The remaining perimeter along the site would consist of a 100-foot buffer. As with the Highway 1 buffer, this buffer would maintain the existing Eucalyptus groves and require the removal of dead wood for fire safety purposes. The County Trails Plan calls for a trail along Viva Way, turning onto Camino Caballo,



SOURCE: The Woodlands Specific Plan

Woodlands Specific Plan / 950250 ■

Figure 4.6-10
Recreation and Open Space Plan



Not to Scale

SOURCE: The Woodlands Specific Plan

Woodlands Specific Plan / 950250 ■

Figure 4.6-11
200-ft Buffer at Highway One

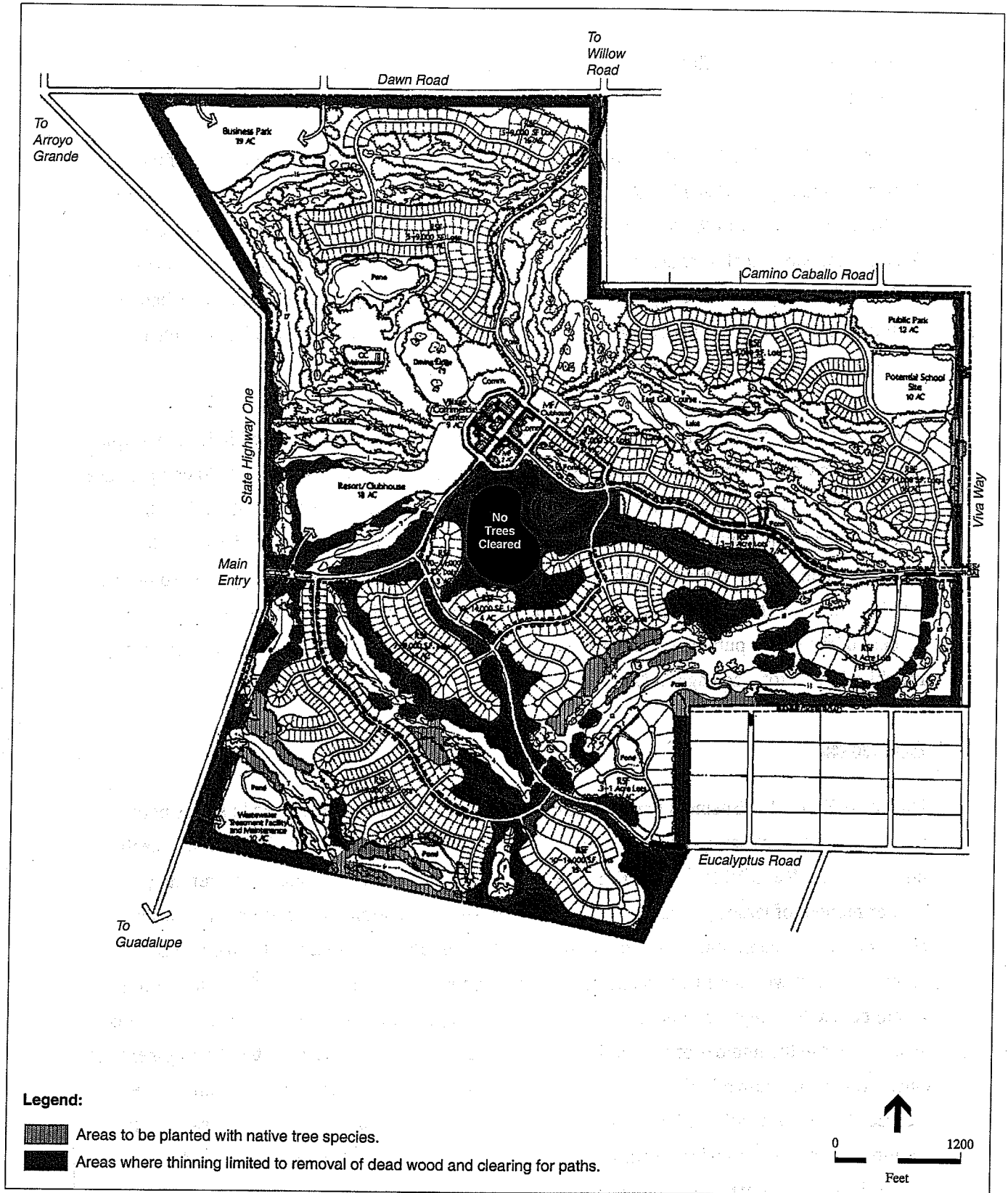
located east of the site. This trail would be included in the 100-foot buffer area of the Woodlands planning area.

The proposed Specific Plan also addresses the protection of the overwintering habitat of the Monarch butterfly. A Sensitive Resource Area, consisting of 11 acres, is planned to protect the overwintering habitat of the Monarch butterfly. No thinning would take place in this area (see Section 4.4, Biological Resources). This area maintains the highest elevation on the property, and therefore, the most visible point from distant viewpoints in the planning area. This habitat would be protected in permanent open space with only passive uses accommodated, such as walking and horse back riding around the perimeter of the habitat.



The open space buffers included in the proposed project would be consistent with those described in the South County Area Plan - Inland Portion. However, excessive thinning would compromise the rural character of the area. As required by the County's Land Use Element of the South County Area Plan-Inland Area, the proposed project would include a network of pedestrian, equestrian and bicycle trails throughout the proposed project. Additionally, the proposed project would conform to the requirement of clustering residential development, reserving at least 60 percent of the site to public and/or private open space. The proposed project would designate roughly 61% of total acreage (587 out of 957 acres) for open space purposes.

Alternatives

Under the Expanded Business Park and Rural Village II alternatives, increased business park acreage would be offset by a corresponding decrease in residential acreage. Residential densities under both the Rural Village I and Rural Village II alternatives would decrease; therefore, a greater number of large lots would be developed under these alternatives, resulting in greater potential for tree retention. Under the Expanded Business Park Alternative, the maximum number of units would remain unchanged, increasing the residential density. The result of this would be a reduction or elimination of larger lots on site, replaced with higher density lots. This would increase the number of trees to be removed in the interior of the site; if the development cluster footprints shown in Figure 4.6-12 were to remain for the southern portion of the project, the trees to remain would still provide equal visual protection from any increased densities. In addition, the perimeter buffers would remain unaffected by the changed densities. **Under the Revised Project Alternative project components, specifically residential units, acreage of business park, resort rooms and active irrigated open space would remain the same as the original proposed project. However, their location would change. Residential uses would**



Legend:

-  Areas to be planted with native tree species.
-  Areas where thinning limited to removal of dead wood and clearing for paths.

SOURCE: Environmental Science Associates

Woodlands Specific Plan / 950250 ■

Figure 4.6-12
Recommended Modification
to Tree Removal Plan

be located along the bluff along the western property line. Although trees would break up this view, travelers along Highway 1 could perceive a line of houses along the ridge. The business park would be moved to the southwest portion of the property parallel to Highway 1. The resort would be repositioned directly south of the Monarch butterfly habitat. Mitigation measures that would reduce visual impacts to less than significant levels under the proposed project would also reduce such impacts under the Revised Project Alternative. Therefore, changes to the natural visual character and form of the site for any alternative would be similar to those anticipated from the proposed project.

Mitigation Measures:

Mitigation Measure 4.6-1a: In the perimeter buffer areas and visually sensitive areas on the southern portion of the site, as shown in Figure 4.6-12, thinning shall be limited to the removal of deadwood and clearing for proposed trails. As with the Monarch Butterfly sensitive resource area, forest density shall be maintained within the range of 300-350 trees/acre (12 to 15 feet between trees) with a basal area in the range of 65-150 square feet/acre (see Section 4.4, Biological Resources). Cut stumps will generally re-sprout; these trees should be trimmed to a single stem after five years. No branches of any healthy tree within the perimeter buffer shall be removed.

Mitigation Measure 4.6-1b: In the perimeter grassland areas, as shown in Figure 4.6-12, and along the golf course fairways, native species such as Coast Live Oak, Cypress or Redwood shall be planted to provide additional screening and enhance the visual buffer.

Mitigation Measure 4.6-1c: Any changes in land uses, densities, or design of the southern portion of the property (south of the central ridge) shall be remain within the footprints as shown in Figure 4.6-12.

Mitigation Measure 4.6-1d: Landscaping shall be planted in conformance with the Fire Safety Plan to provide additional screening of structures.

Level of Significance After Mitigation: Implementation of measures recommended in this section would reduce visual impacts to less-than-significant levels.

Impact 4.6-2: Development of the project or any of the alternatives considered may intensify and introduce new sources of illumination on the site. Proposed buildings could introduce glare from the site. These could impact adjacent uses and alter the rural character of the area. This would be a potentially significant impact.

The proposed resort, business park and commercial areas could include buildings with highly-reflective materials, such as glass; therefore daytime glare could increase. The intensity of glare would depend on the types of building materials used, the ultimate design of the project, and the amount and angle of the sun hitting the reflective material. Certain types of glass are more highly

reflective than other types. Stone material is less reflective than glass. These uses are located in the less visible north half of the property. The perimeter tree buffer along Highway 1 and the 100-foot buffer around the site would effectively minimize the amount of glare perceptible from off-site.

Nighttime lighting associated with the proposed project could increase ambient lighting in the rural area. Nighttime lighting would be provided for a variety of purposes throughout the project, including streets, security and parking areas. Nighttime lighting is not proposed for the driving range. This lighting would be minimized through the retention of the perimeter buffer areas and other open space areas within the site. With sensitive design treatment, this impact could be reduced to a less than significant level.

Mitigation Measures:

Mitigation Measure 4.6-2a: The following measures would serve to mitigate light and glare impacts associated with the proposed project:

- Project exterior lighting shall be designed to direct light and glare away from neighboring properties.
- To minimize excessive lighting and glare, building exteriors and roofs shall utilize low reflectance materials. Mirrored glass and other highly reflective building materials shall not be utilized on the exterior of the buildings.
- All outdoor lighting other than identification signage shall be directed from the perimeter of the property toward building entrances and parking areas utilizing cut-off fixtures to prevent nighttime illumination to spill onto properties and residential uses on-site.
- Exterior building courts and corridors illumination shall be designed to minimize intrusive glare on residential buildings and on adjacent land uses. Low level security lights shall be used along driveway entrances.
- Plant materials, shade structures, and other architectural features shall be used, where appropriate, to decrease reflectivity of landscape and light and glare toward adjacent land uses.

Level of Significance After Mitigation: Implementation of measures recommended in this section would reduce impacts of light and glare to less-than-significant levels.

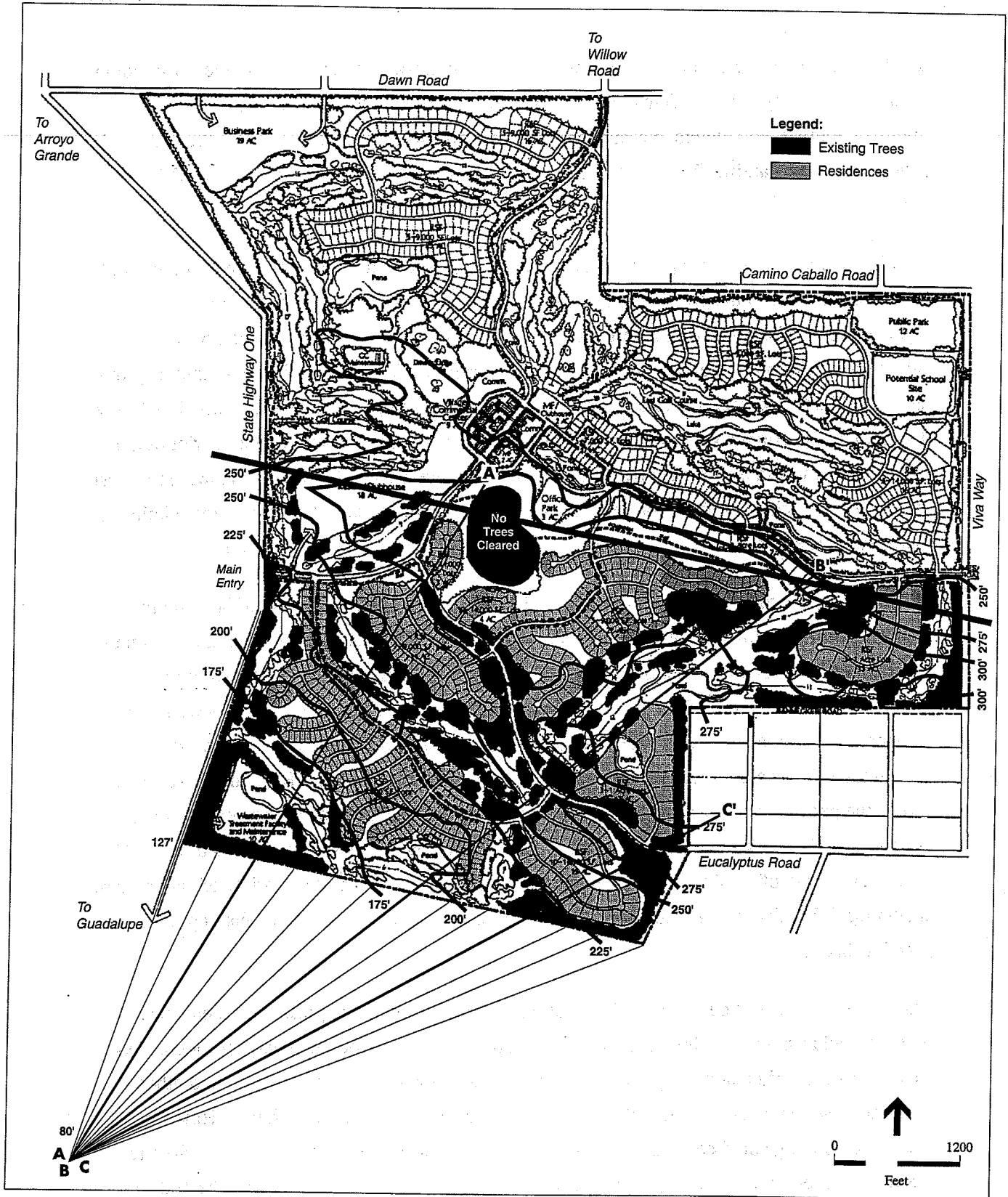
Impact 4.6-3: Development of the proposed project or any of the alternatives considered would alter views from Highway 1, located west of the project site. Views from surrounding residential areas would also be affected. This would be a significant impact.

Highway 1 is one of the major regional arterials providing access to and through the surrounding area. On Highway 1, traffic demand is comprised of a variety of users including businesses, industry, tourists, commuters, pleasure drivers and bicyclists. The highway is also the proposed site for the Juan Bautista De Anza National Historic Trail, as well as the Pacific Coast Bike Route.

Southbound views of the property from Highway 1 adjacent to the site are limited to foreground views; the interior of the property is not visible due to the existing dense vegetation. As one approaches the site from northbound Highway 1, as shown in Figures 4.6-13 and 4.6-14, the southern interior portion of the site (south of the central ridge) is visible. Without screening, this area would have exposed views of the golf course and some higher density residential lots. Once the northbound Highway 1 traveler is adjacent to the property, their views to the interior of the development would be screened by the remaining perimeter eucalyptus stands. Views from most of the other existing and future perimeter roads would be fully screened by vegetation within the perimeter buffer areas.

Although houses to be located south of the main entry (along Highway 1) would be partially visible, screening provided by the eucalyptus stands and golf course fairways would maintain the rural character of the area. Planting native species such as Oaks, Cypress and Redwood in perimeter grassland areas of the site would enhance the visual buffer. These species would be planted along golf course areas where houses and other structures would be visible from surrounding roadways. There are two areas, along portions of Bannecker Road and Viva Way, where the perimeter buffer is made up of grassland and does not provide full screening of the proposed project. As shown in Figure 4.6-9, these areas would have exposed views of the golf course and a mix of medium and higher density residential lots. Planting a variety of native trees, including Oaks, Cypress and Redwood, in these perimeter areas would reduce this impact to a less than significant level.

The Woodlands Specific Plan identifies goals and policies intended to preserve and enhance views to and from the Specific Plan area, from Highway 1 and surrounding neighborhoods. As stated earlier, a buffer along Highway 1 would consist of a 200-foot buffer of trees and other vegetation, which would maintain the existing visual character along the highway. However, excessive thinning could compromise this character. Similarly, the visual character of the site viewed from residential areas located east of the project would be maintained with the 100-foot buffer along the perimeter of the site. The recommended modifications to the Tree Removal Plan illustrated in Figure 4.6-12 would minimize potential impacts to aesthetic resources.

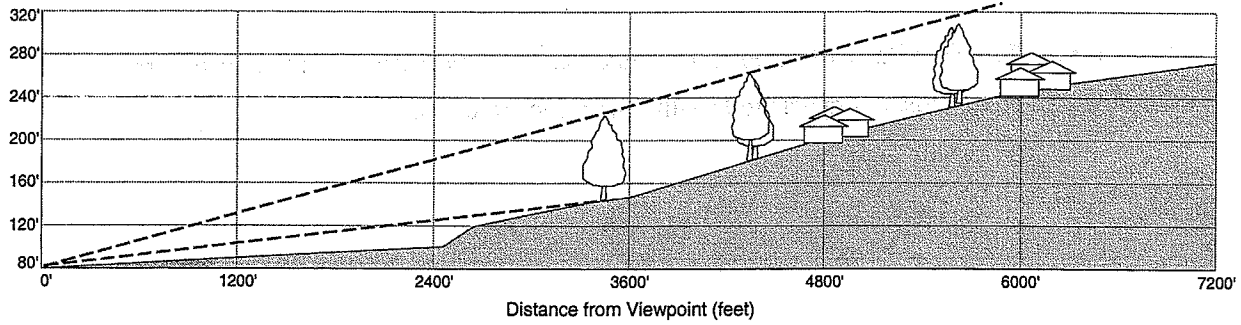


SOURCE: Environmental Science Associates

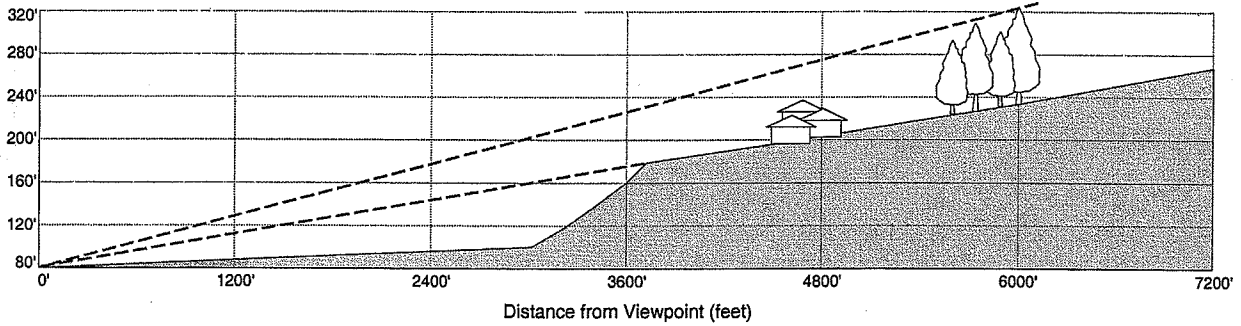
Woodlands Specific Plan / 950250 ■

Figure 4.6-13
Views of Site from
Northbound Highway One

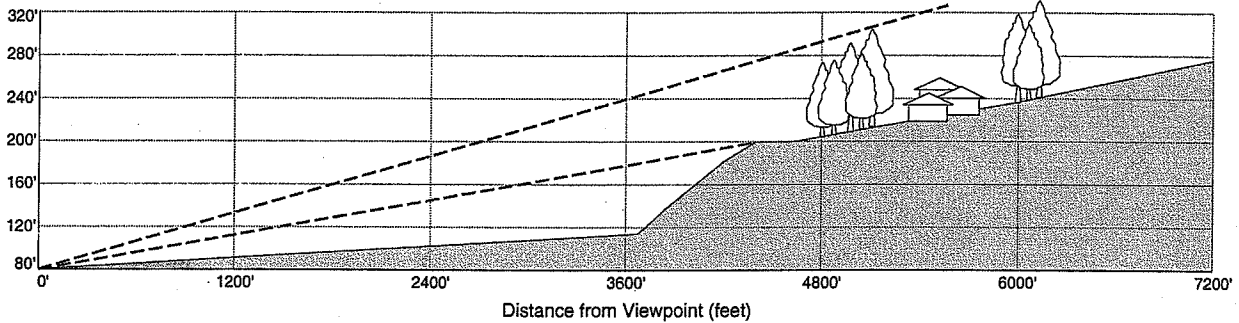
A - A'



B - B'



C - C'



Note: See Figure 4.6-13 for Sections

SOURCE: Environmental Science Associates

Woodlands Specific Plan / 950250 ■

Figure 4.6-14
Section Views from Northbound
Highway One

Mitigation Measures:

Mitigation Measure 4.6-3: Mitigation Measures 4.6-1a and 4.6-1b would also serve to mitigate this impact.

Level of Significance After Mitigation: Implementation of measures recommended in this section would reduce visual impacts to less-than-significant levels.

4.7 PUBLIC SERVICES AND UTILITIES

The Public Services and Utilities Section assesses the impacts of the proposed project on fire protection, police services, schools, water services, sanitary sewers, and solid waste services. This analysis is based on comparisons of projected service needs to the existing or anticipated levels of service.

4.7.1 Fire/Life Safety Protection

4.7.1.1 ENVIRONMENTAL SETTING

Fire protection and emergency services for the project site are provided by the California Department of Forestry **and Fire Protection** (CDFFP) / San Luis Obispo (SLO) County Fire Department.¹ CDFFP/SLO County Fire Department services approximately 2.1 million acres. Their principal responsibilities are fire protection and basic life support for unincorporated areas of the County.² The local CDFFP/SLO County Fire Department is comprised of 14 paid call companies, 14 engines (plus two reserves), one (1) OES engine, three (3) water tenders, one (1) aircraft crash/rescue, one (1) heavy rescue, five (5) squads (plus one reserve), one (1) communications unit, two (2) fire boats, and one (1) patrol.³

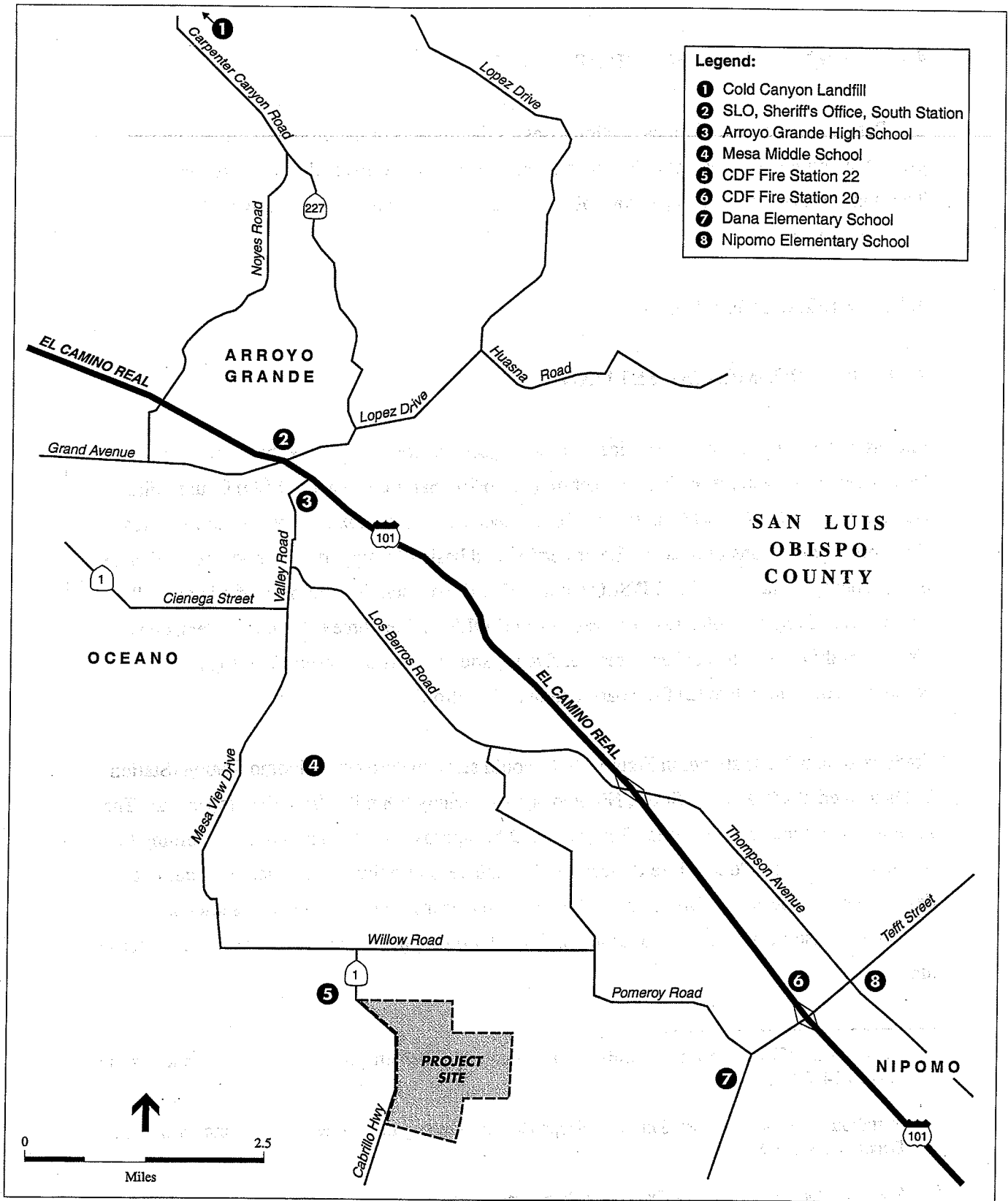
Stations 20 and 22, as shown in Figure 4.7-1, would serve the project. Nipomo Station (Station 20) is located at 450 Pioneer Street, Nipomo, approximately 6-8 miles from the project site. The response time for a call for service from Station 20 is approximately 10 minutes. According to the San Luis Obispo County Fire Protection Plan, this response time is acceptable for current development in the area.⁴ One permanent person on a year-round basis and one seasonal permanent person currently staff Station 20. This station supports one fire engine and one rescue unit.

¹ Battalion Chief Ben Stewart, San Luis Obispo County Fire Department, telephone communication on August 14, 1997.

² Battalion Chief Ben Stewart, San Luis Obispo County Fire Department, telephone communication on December 30, 1997.

³ *San Luis Obispo County Fire Protection Plan*, January 1997.

⁴ Battalion Chief Ben Stewart, San Luis Obispo County Fire Department, telephone communication on August 14, 1997.



SOURCE: Environmental Science Associates

Woodlands Specific Plan / 950250 ■

Figure 4.7-1
Location of Public Service Agencies
Servicing the Project Site

The Mesa Station (Station 22) is located at 2391 Willow Road, Arroyo Grande, west of the intersection of Highway 1 and Willow Road, approximately 3 miles from the project site.

Response time for a call for service from Station 22 is approximately 5 minutes. According to CDF/SLO County Fire, this is an acceptable response time for current development in the area.⁵ Station 22 is currently staffed with one, full-time person on a year-round basis. This station is equipped with one fire engine. Both Stations 20 and 22 are supplemented with 15 CDF/SLO County Fire Department volunteer fire fighters.⁶

According to CDF/SLO Fire Department, a site has been dedicated for a Black Lake Fire Station approximately one and a half miles from the project site. There are no plans at this time, or in the near future, to develop this parcel.⁷

Response time and available fire flow determine the adequacy of service in the County. According to CDF/SLO, the project site is located within an area designated as having a "high" fire hazard severity rating primarily because of the stands of eucalyptus.⁸ The target response time for an urban type development located within a "high" fire hazard area is 3-5 minutes. A response time of 6-8 minutes from the time an emergency is called in to the Fire Department and arrival at the event is considered standard. Based on existing staffing, the current state of the project site, and response distance from the existing fire stations mentioned above, fire protection to the project site is considered adequate for current development in the area.⁹ Additionally, although acceptable response times may vary, the CDF/SLO County Fire Department staff has indicated that the existing Public Facility Fee will be sufficient to insure adequate fire protection and response times to emergency calls to serve the project site.¹⁰

⁵ Ibid.

⁶ Ibid.

⁷ Battalion Chief Ben Stewart, San Luis Obispo County Fire Department, telephone communication on November 3, 1997.

⁸ Battalion Chief Ben Stewart, San Luis Obispo County Fire Department, telephone communication on September 4, 1997.

⁹ Ibid.

¹⁰ Ibid.

Private ambulance/paramedic transportation companies provide emergency ambulance services. According to the San Luis Obispo County Administrators Office, one ambulance service company, Five City Ambulance Company, would serve the project site. There have been no problems associated with private ambulance/paramedic transportation service companies assisting the CDF/SLO County Fire Department.¹¹ Emergency ambulance services from Santa Maria may respond to emergencies upon request by the Fire Department, however, the project site is outside their service area.

4.7.1.2 ENVIRONMENTAL IMPACTS

4.7.1.2.1 Thresholds of Significance

Impacts on fire/life safety protection are considered significant if they result in a substantial need for new or expanded fire/life safety services, or the project design would result in a high fire risk to new or existing structures. Evaluation of the significance of project impacts in relation to these criteria is provided in the following discussion.

4.7.1.2.2 Impacts and Mitigations

Impact 4.7-1: Implementation of the proposed project, or any of the alternatives considered, would place residential and commercial buildings in close proximity to stands of eucalyptus, creating a fire hazard. Additional staffing, hydrants and/or fire fighting systems (fire flow) may be required. This would contribute to cumulative impacts associated with several large developments in the Nipomo area and would be considered a significant impact.

The adequacy of fire protection for a given area is based on required fire flow, response distance from existing fire stations, and Fire Department's judgment for needs in the area. In general, the required fire flow is closely related to land use. The quantity of water necessary for fire protection varies with the type of development, life hazard, occupancy and the degree of fire hazard.

According to the County, since the project site is currently undeveloped, additional hydrants and fire-fighting systems would be required under the proposed project or any of the alternatives.

¹¹ Mr. Jeff Ham, County of San Luis Obispo, Administrators Office, telephone communication January 12, 1998.

The additional hydrants and fire fighting systems that would be required would be determined subsequent to the submittal of development plans to the Fire Department.¹² Any development would be required to meet all applicable fire codes, including street width, water supply, alarm systems, etc., during the plan check phase.

A substantial portion of the capital required for capital improvements would be derived through monies collected through the Public Facility Fee program. These funds can only be used for one time capital improvements and cannot be used for operating expenses (e.g., the maintenance of existing equipment and facilities or the employment of personnel required to operate facilities).¹³ The need for staff would be based in part on the number of emergency calls received by the Department. This project has the potential for substantially increasing the number of these calls received by CDF/SLO. CDF/SLO anticipates the proposed development would require the addition of one full-time staff to each station serving the project site, Stations 20 and 22. Funds required for operating and staffing expenses are derived from the General Fund and are a budgetary matter to be determined by the Board of Supervisors. Due to a continuing shrinking county budget and greater demand for available monies to provide for staffing and operating costs, CDF/SLO County Fire Department has determined that this project, in addition to the impacts associated with several large projects proposed in the Nipomo area, may significantly impact Fire Department staffing abilities.

Commercial and residential uses would be distributed throughout the project area. For the proposed project or any of the alternatives considered, the residential units less than 3,500 square feet would be required to have a minimum fire flow of 1,000 gallons per minute (gpm) for a minimum of 2 hours, or 120,000 gallons. Houses greater than 3,500 square feet would be required to have a minimum fire flow of 1,500 gpm for a minimum of 2 hours, or 180,000 gallons. Fire hydrants must be located no more than 250 feet from any residence. The required fire flow for commercial and industrial building uses would be 1,500 gpm for a minimum of 3 hours, or 270,000 gallons. Fire hydrants must be located no more than 150 feet from any commercial or industrial use. Additional fire hydrants may be required depending on building size.¹⁴ According to the CDF/SLO Fire Department, although minimum fire flow storage is

¹² Battalion Chief Ben Stewart, San Luis Obispo County Fire Department, telephone communication on August 14, 1997.

¹³ Ibid.

¹⁴ Ibid.

proposed (270,000 gallons), the exact amount of required water storage for this project is contingent on the square footage of commercial and business buildings proposed throughout the project site. A minimum fire flow of 1,500 gpm is required to be available at all times.¹⁵

The total water storage required would be 1.415 million gallons. The applicant proposes three 500,000-gallon water tanks to serve the project. The calculated capacity is broken down as follows: 270,000 gallons would be designated for fire flow storage; 1.1 million gallons for normal daily use, which is based on one average day's demand; plus 45,000 gallons for the business park and the commercial sites. Given the acreages and locations of commercial and business park uses, the required fire flow reserves may be greater than that proposed. However, according to the CDF/SLO Fire Department and the County of San Luis Obispo, Department of Environmental Health, the proposed water supply combined with the required fire safety plans are considered adequate to meet fire flow requirements.¹⁶

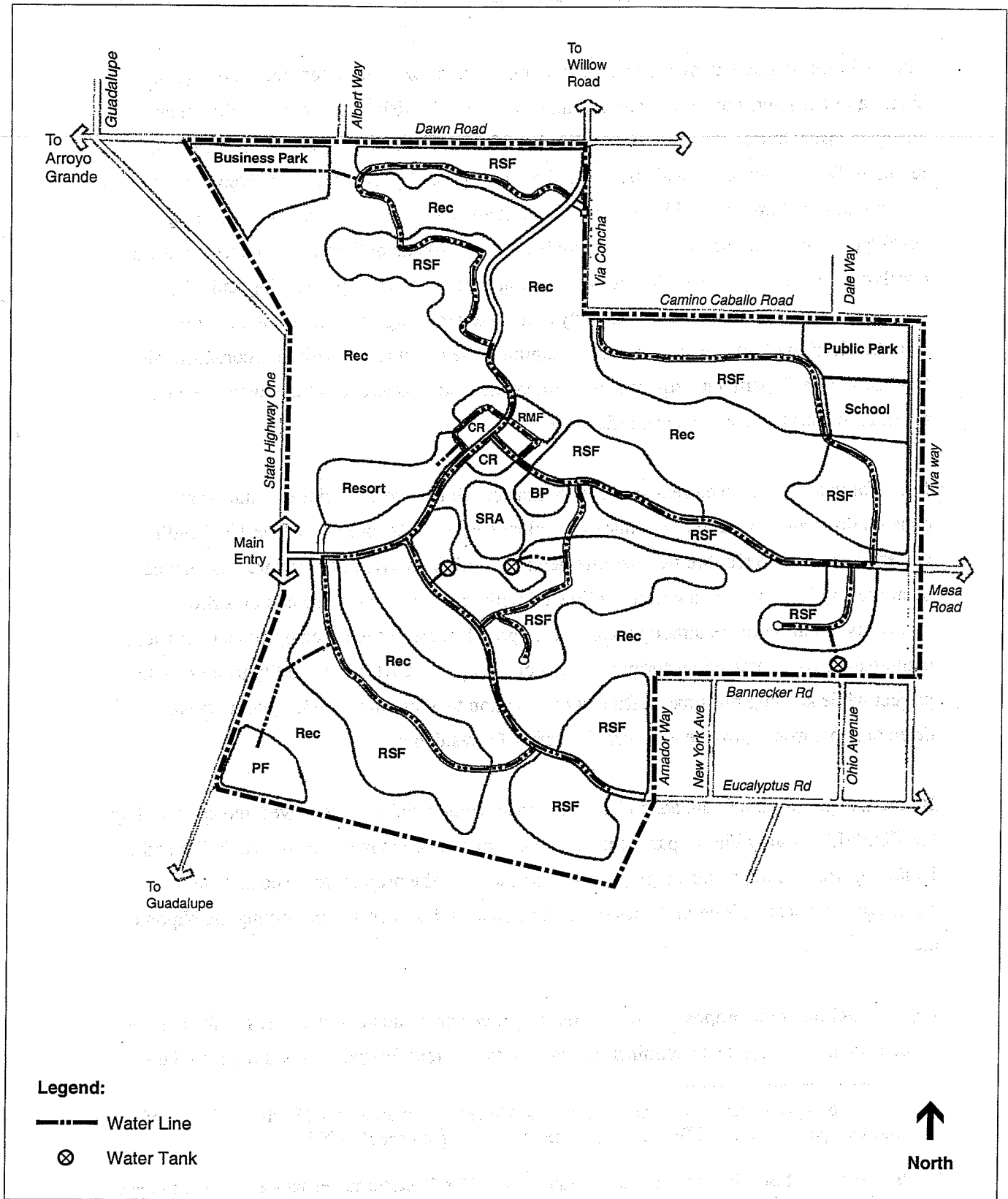
The project proposes to obtain water from four existing on-site groundwater wells. Figure 4.1-7 shows the location of the project site. Figure 4.7-2 shows the proposed water supply and distribution facilities for the site. The applicant proposes the potable water system routing would cover the entire development with one connected pipe network. Additionally, the wells and the aboveground storage tanks would connect to this network so that they may be utilized as needed.¹⁷ See Water Services, Section 4.7.4, for further discussion.

According to the CDF/SLO Fire Department, the close proximity of residential and commercial buildings to the proposed perimeter buffer, green belts, and Monarch Butterfly habitat restoration area, which would consist of stands of eucalyptus, could pose a fire hazard and, therefore, may result in a significant impact. Eucalyptus trees are considered a "high" fire risk.

¹⁵ Battalion Chief Ben Stewart, San Luis Obispo County Fire Department, telephone communication on November 13, 1997.

¹⁶ Battalion Chief Ben Stewart, San Luis Obispo County Fire Department, telephone communication on December 31, 1997; Mr. Richard Lichtenfels, Land Use Specialist, County of San Luis Obispo, Department of Environmental Health, telephone communication on September 26, 1997; Mr. Spencer Harris, Cleath and Associates, telephone communication on September 12, 1997.

¹⁷ Mr. Spencer Harris, Cleath and Associates, telephone communication on September 12, 1997.



SOURCE: The Woodlands Specific Plan

Woodlands Specific Plan / 950250 ■

Figure 4.7-2
Water Service

The applicant proposes to maintain a 30-foot minimum distance between trees and regular clearing of eucalyptus understory to minimize potential fire risk.¹⁸ In order to maintain an adequate visual buffer, the existing tree spacing of approximately 15 feet on center may be required (See Section 4.6, Aesthetics). Further, as required by CDF/SLO Fire Department, a 100-foot rural/urban buffer would be retained between all developed areas and the remaining eucalyptus stands. Implementation of a Vegetation Management Plan would manage the existing eucalyptus stands to provide windbreaks, landscape features, privacy screening and wildlife habitat, primarily for the monarch butterfly at its overwintering site, and for birds of prey. Regular clearing of tree understory would minimize the potential fire risk in accordance with CDF/SLO Fire Department requirements. Adequate water flows and storage would reduce potential impacts to a less than significant level.¹⁹

In conformance with the current sprinkler ordinance, all new commercial and industrial construction would be required to install sprinkler systems. According to Title 19, Building and Construction Ordinance, fire flow requirements for buildings over 5,000 square feet may be decreased by 75 percent to a minimum flow of 1,500 gpm, if the building contains fire sprinklers.²⁰ Furthermore, although residential sprinklers are not required by code, their use, in combination with commercial sprinkler use, would improve CDF/SLO's ability to service the project while keeping full-time staffing at each station to a minimum. Along with smoke detectors, this would provide adequate fire safety for residents.

Before any permits are finalized, a Fire Safety Plan would need to be reviewed and approved by the CDF/SLO County Fire Department. The Plan would need to meet all applicable fire codes, including street width, water supply, and alarm systems. The project would contribute to a cumulative impact resulting in the need for additional staff at each station serving the Nipomo area.

Implementation of the proposed project would remove approximately two-thirds of the current vegetation on the project site, eliminating much of the current fire hazard conditions on the site.

¹⁸ Mr. Victor Montgomery, AIA, letter to Mr. John McKenzie, Environmental Division, County of San Luis Obispo, Planning and Building Department, dated September 10, 1997.

¹⁹ Battalion Chief Ben Stewart, San Luis Obispo County Fire Department, telephone communication on September 4, 1997.

²⁰ Battalion Chief Ben Stewart, San Luis Obispo County Fire Department, telephone communication on December 31, 1997.

Transition of the area into more urban environment would likely result in a redesignation as a "moderate" fire hazard area in the future. Nevertheless, the urban setting resulting from project implementation would increase the number calls requesting fire protection and emergency medical services in the area. This would be considered a significant impact on fire protection and emergency services.

Mitigation Measures:

Mitigation Measure 4.7-1a: The proposed project must comply with Title 19 (Building and Construction Ordinance), which includes requirements for automatic fire extinguishing devices being installed in commercial structures.

Mitigation Measure 4.7-1b: The residential component of the proposed project shall install automatic sprinkler systems as part of a fire/safety plan in accordance with Building and Fire Department standards.

Mitigation Measure 4.7-1c: Plans shall be submitted to the CDF/SLO Fire Department during the plan check phase; the project shall be required to meet all the applicable codes, including street width, water supply, alarm systems and others.

Mitigation Measure 4.7-1d: Prior to issuance of grading/construction permits and approval of tract map improvements, the applicant shall show a minimum distance of 30 feet between eucalyptus trees and any structure, with regular clearing of tree understory to minimize potential fire risk in accordance with CDF/SLO Fire Department requirements.

Mitigation Measure 4.7-1e: During the construction phase, surrounding streets shall be kept clear and unobstructed during tree removal and construction. Prior to issuance of tract map improvements, the applicant shall submit the construction equipment circulation plan, which identified key routes to remain clear at all times for fire equipment access. All stored and parked construction equipment and materials shall be kept on the project site in such a way to avoid obstruction of traffic circulation, especially during traffic peak hours.

Mitigation Measure 4.7-1f: As required by the County of San Luis Obispo Fire Department, access for fire equipment shall be maintained during construction.

Mitigation Measure 4.7-1g: During tree removal and construction, adequate water supplies for fire flow must be identified and immediately available.

Mitigation Measure 4.7-1h: In order to reduce the fire hazard conditions of the stands of eucalyptus, the applicant shall implement a Vegetation Management Plan, found in Appendix F. Specifically, the project shall conform to the following measures which will reduce the risk of fire:

- Conduct all forest management activities in accordance with Best Management Practices specified by the California Forest Practices Rules (Title 14 CCR) in order to minimize acceleration of erosion and sedimentation rates. Manage eucalyptus

woodlands to maintain healthy, vigorous stands with a multiplicity of age and size classes. Remove dead and diseased trees. All such efforts shall consider the measures recommended in Section 4.6, Aesthetics.

- Stands should be maintained within the areas designated for them in the final site design. Eucalyptus can be controlled in early stages of growth but is able to re-sprout from roots once established. There will be extensive **root-stump** sprouting after existing stands are removed, which will compete with new woody plantings and other landscaping such as lawns. Remove new seedlings around the perimeter of retained stands as soon as possible to control spread.
- Where groves are >100 feet in width, manage to maintain a range of stem diameter classes, with approximately five percent of the stand <5 inches dbh and five percent of the stand in trees >35 inches dbh.
- Stands should be monitored yearly, in winter or early spring, for signs of beetle activity. If infested trees are noted, the entire tree should be removed immediately and disposed of off-site. Exposed (narrow) stands may also be more vulnerable to drought, and in the event of severe drought stress, irrigation may be necessary. The increased effects of wind throw and blow down may require additional silvicultural effort, including trimming of limbs (excepting in the monarch butterfly wintering area) and replanting.
- All eucalyptus groves to remain shall have fuel loading of less than 2 tons per acre of down and dead material, and shall be managed to prevent the formation of vertical fuel ladders, where bark and dead limbs form a fuel continuum from the ground to tree crowns.
- The trees comprising the sensitive monarch overwintering and buffer zone areas shall be actively managed to maintain conditions suitable for winter aggregations of butterflies. After completion of the tree removal activities surrounding the sensitive monarch habitat, grove enhancement activities should be implemented for a period of five years to restore conditions favorable for winter aggregations of butterflies. Enhancement activities should include the planting of seedlings and selective trimming and removal of established trees to provide wind protection (buffer zone) and/or greater access to winter sunlight for the butterflies. To ensure maintenance of favorable conditions for the butterflies, the habitat shall be periodically evaluated via the monitoring of microclimatic conditions and the location and movement of the butterfly's clusters within the grove. If necessary, grove enhancement or modifications shall be implemented to restore conditions favorable for winter aggregations. Good forest management practices of the eucalyptus groves (removal of fallen or hazardous branches, fallen trees, etc.) shall be practiced where possible and shall be in agreement with a qualified habitat restoration monarch specialist.

Mitigation Measure 4.7-1i: Prior to issuance of a building permit, hydrant flow testing of all hydrants in the project area must be done to determine if the water lines can meet the necessary fire flow.

Significance After Mitigation. Project-related impacts to fire protection would be mitigated to less-than-significant levels. The cumulative impacts of the proposed project, along with other developments in the area, to fire protection and emergency services would remain significant.

4.7.2 Sheriff/Police Protection

4.7.2.1 ENVIRONMENTAL SETTING

The project site would be served primarily by the County of San Luis Obispo Sheriff's Office, South Station, located at 810 West Branch Street, Arroyo Grande, approximately 15 miles north of the site, as shown in Figure 4.7-1. This station also serves the communities of Oceano, Huasna, Nipomo, rural Arroyo Grande, New Cuyama, and Lopez Lake, totaling 950 square miles.²¹ Total staff at South Station is 21 patrol deputies and one sergeant. The number of cars and officers on patrol varies. A typical shift at this patrol station includes two to five deputies on patrol.²²

The California Highway Patrol (CHP) is primarily responsible for traffic related calls along highways and streets in unincorporated areas of the County. Unlike the Sheriff's Department, they will not investigate, take action, or respond to crimes in progress in residential, commercial, or industrial areas. They may respond upon request as backup to the Sheriff, if available; however, the CHP does not normally provide police protection services. Their primary role is to enforce traffic laws.²³

Emergency response times for Arroyo Grande South Station are dependent on where the patrol vehicles are in relation to a call, as well as the nature of the call. Estimated response time to the project site is 30 minutes. Currently, the Sheriff's Office is understaffed, with calls for service

²¹ Lieutenant James F. Mulhall, County of San Luis Obispo Sheriff's Office, Administrative Services Division, letter dated September 9, 1997.

²² Sgt. Robin Weckerly, Watch Commander, Sheriff's Office South Station, telephone communication on September 10, 1997.

²³ Lieutenant James F. Mulhall, County of San Luis Obispo Sheriff's Office, Administrative Services Division, , telephone communication on November 12, 1997.

increasing daily. The objective is to have one to two shared patrol cars, or two units, in the vicinity most of the time. The project site is located in a rural area, away from other population concentrations which results in less regular patrols and contributes to increased response times.²⁴

According to the Sheriff's Office, the ratio of deputies to population has not kept pace with population growth for many years. The current ratio is one deputy to 1,140 citizens. Based on information provided by the Sheriff's Office during the Area Plan updates for Salinas River, North Coast, and San Luis Obispo, a ratio of one deputy per 1,000 people was identified to provide adequate level of service. More recently, the Sheriff's Office has identified the need for a ratio of one deputy per 750 citizens.²⁵

In comparison, the County of San Bernardino Sheriff Department's level of service varies from area to area. The average ratio of deputy to population is one deputy to 1,700 citizens.²⁶ Similarly, the County of Santa Barbara Sheriff Department's ratio of deputy to population is one deputy to 1,600 citizens.²⁷ Factors influencing response times to calls for Sheriff services are similar to those mentioned for the San Luis Obispo Sheriff's Office.

4.7.2.2 ENVIRONMENTAL IMPACTS

4.7.2.2.1 Thresholds of Significance

Impacts to sheriff protection are considered significant if they result in a substantial need for new or expanded sheriff services. Evaluation of the significance of project impacts in relation to this criteria is provided in the following discussions.

²⁴ Ibid.

²⁵ Lieutenant James F. Mulhall, County of San Luis Obispo Sheriff's Office, Administrative Services Division, letter dated September 9, 1997.

²⁶ Mr. Chip Patterson, County of San Bernardino Sheriff's Department, Organizational Information Service Officer, telephone communication on November 21, 1997.

²⁷ Sergeant Jim Peterson, County of Santa Barbara Sheriff's Department, Public Relations Officer, telephone communication on December 2, 1997.

4.7.2.2.2 Impacts and Mitigation Measures

Impact 4.7-2: Implementation of the proposed project, or any of the alternatives considered, would increase the population concentration, significantly impacting law enforcement services and resources.

As mentioned above, the current ratio is one deputy to 1,140 citizens, which exceeds the Sheriff's optimum ratio. The current ratio is more than both the one deputy to 750 citizens or one to 1,000 citizen's ratio. The Sheriff's Office estimates that the project would add between 5,000 to 6,000 persons to the Nipomo area. Due to the remote location of the site from other populated concentrations, the added distance would contribute to increased response times and the irregularity of patrols in the area.

The Sheriff's Office anticipates a significant impact to law enforcement services under any of the alternatives considered. Although development densities and land uses may vary with each alternative, the Sheriff's Office anticipates this project alone would result in the need for 5-10 additional deputies, approximately three patrol vehicles, and associated equipment for deputies. The Sheriff's Office anticipates that this project would require approximately \$625,000 to employ 10 deputies annually and approximately \$54,000 for vehicular and associated equipment for the deputies, which would be derived from the General Fund.²⁸

Funds required for operating and staffing expenses for the Sheriff's Office are derived from the General Fund and are a budgetary matter to be determined by the Board of Supervisors on an annual basis. The Sheriff's Office, like other County services (i.e., Fire, Engineering), must petition for funding new personnel positions. Therefore, the specific number of deputies and associated equipment and funding for staff servicing specific project alternatives cannot be estimated until the Sheriff's Office conducts further review.²⁹

Public Facility Fees would fund the capital costs associated with this development. Similar to the CDF/SLO County Fire Department, Public Facility Fees distributed to the Sheriff's Department may only be used for one time capital improvements and cannot be used for operating expenses (e.g., the maintenance of existing equipment and facilities or the employment of personnel

²⁸ Lieutenant James F. Mulhall, County of San Luis Obispo Sheriff's Office, Administrative Services Division, telephone communication on September 9, 1997.

²⁹ Lieutenant James F. Mulhall, County of San Luis Obispo Sheriff's Office, Administrative Services Division, telephone communication on September 25, 1997.

required to operate facilities).³⁰ Table 4.7-1 shows Public Facility Fees for development projects located in unincorporated areas of the County. Fees are calculated on a per dwelling unit basis for residential development, and on a square footage basis for non-residential development.³¹ The Public Facility Fees designated for the Sheriff's Department as a result of this project varies with each alternative between \$167,339 (Rural Village I) to \$262,651 (Expanded Commercial/Business Park).

In order to provide the appropriate level of service in the Nipomo area, an additional Sheriff's station would be necessary. These funds would be derived from the County's Public Facility Fees collected from the developer. The capital costs associated with a new Sheriff's substation building in the Nipomo area would be approximately \$700,000 to 800,000.³² Thus, the unfunded capital costs necessary for a new substation could amount up to \$579,875. This would be considered a significant cumulative impact.

Land costs are not included in this estimate, due to the fact that a new station may be located on County property, and therefore, there may be no need to acquire land. A dedication of land by the developer for a Sheriff's Substation would assist the Sheriff's Office in serving the project site and surrounding area. The availability of funding for capital and operational costs associated with a new substation or any of the existing substations as a result of the proposed project under any of the alternatives considered may have a significant impact on the level of service provided by the Sheriff's Department.

Mitigation Measures:

Mitigation Measure 4.7-2a: Prior to issuance of any construction permits for commercial development or approval of tentative map(s), the applicant shall submit project site plans that will be reviewed by the County of San Luis Obispo Sheriff Office to ensure public safety and enhance site security.

³⁰ *Sheriff's Patrol and Investigation Public Facilities Financing Plan*, Revised January 20, 1996.

³¹ *Sheriff's Patrol and Investigation Public Facilities Financing Plan*, Revised January 20, 1996.

³² Mr. Wayne Hall, County of San Luis Obispo Sheriff's Office, Administrative Services Division, telephone conversation on November 17, 1997.

TABLE 4.7-1 SAN LUIS OBISPO COUNTY SHERIFF'S DEPARTMENT PUBLIC FACILITY FEES FOR UNINCORPORATED AREAS

<u>Land Use</u>	<u>Fee Per Unit</u>	<u>Estimated Capital Cost</u>
Proposed Project		
Residential Units (1,320 units)		
1,240 single family	\$122/du	\$151,280
80 multi-family	\$69/du	<u>\$5,520</u>
Subtotal		\$156,800
Commercial Land Uses^a		
Retail (140,000 sq. ft.)	\$91/sq. ft.	\$12,740
Prof. Office (335,000 sq.ft.)	\$151/sq. ft.	<u>\$50,585</u>
Subtotal		\$63,325
Total		\$220,125
Expanded Commercial/Business Park		
Residential Units (1,320 units)		
1,240 single family	\$122/du	\$151,280
80 multi-family	\$69/du	<u>\$5,520</u>
Subtotal		\$156,800
Commercial Land Uses^a		
Retail/ Prof. Office (701,000 sq.ft.)	\$151/sq. ft.	<u>\$105,851</u>
Total		\$262,651
Rural Village I		
Residential Units (957 units)		
Residential Units (957 units)	\$122/du	\$116,754
Commercial Uses (335,000 sq.ft.) ^a	\$151/sq. ft.	<u>\$50,585</u>
Total		\$167,339

TABLE 4.7-1 SAN LUIS OBISPO COUNTY SHERIFF'S DEPARTMENT PUBLIC FACILITY FEES FOR UNINCORPORATED AREAS (CONTINUED)

<u>Land Use</u>	<u>Fee Per Unit</u>	<u>Estimated Capital Cost</u>
Rural Village II		
Residential Units (957 units)	\$122/du	\$116,754
Commercial Uses (701,000 sq.ft.) ^a	\$151/sq. ft.	<u>\$105,851</u>
Total		\$222,605

a. All commercial and industrial development per 1,000 square feet.

SOURCE: *Public Facilities Financing Plan For Unincorporated Area Facilities*, December 10, 1996.

Mitigation Measure 4.7-2b: The applicant shall consult with the Sheriff's Office on design and implementation of a security plan for the project. The security plan may include, but are not limited to, the following:

- Entryways and parking areas shall be well illuminated and designed with minimum dead space to eliminate areas of concealment.
- Preventive measures such as easy access for patrol cars and deputies on foot, as well as well-lit sites shall be a part of all site designs.
- Private security guards shall be employed to monitor access to and patrol the Specific Plan Area during construction and operation.
- Doors leading to residential units shall be composed of solid core construction with deadbolt locks.

Significance After Mitigation. Implementation of the mitigation measures recommended in this section would reduce the potential increase in crime in the area as a result of the project. Public Facility Fees as required to be paid by the developer would not sufficiently cover capital costs associated with a new Sheriff Substation in the Nipomo area. Additionally, the Board of Supervisors would determine the availability of General Fund monies for Sheriff services. Implementation of private security services on-site could deter potential criminal activities,

reducing the demand for additional deputies. However, the project-related impacts would result in the need to provide capital for personnel, which would remain a potentially significant impact.

4.7.3 Schools

4.7.3.1 ENVIRONMENTAL SETTING

The proposed project site is within the Lucia Mar Unified School District (LMUSD). The schools within the District serving the area of Woodlands residential project include Arroyo Grande High School (approximately 9 miles from the project site), Mesa Middle School (approximately 6 miles from the project site), Dana Elementary School (approximately 3 miles from the project site), and Nipomo Elementary School (approximately 5 miles from the project site), as shown in Figure 4.7-1.³³

The LMUSD operates 15 schools; current enrollment for the District is 10,703 students.³⁴ The LMUSD has indicated that existing schools serving the project area are already overcrowded, as shown in Table 4.7-2. One mechanism, recommended by the District, to offset new development impacts is the collection of "new development" fees from new residential and commercial projects.

The LMUSD indicates that acceptance of additional students in the LMUSD, at the previously referenced four schools, would be very difficult for the following reasons: 1) the schools identified above are currently at or exceed capacity; 2) due to the shortfall in state and other funding sources, structural improvements are not planned for these schools; and 3) state mandated developer fees would not fully mitigate the impacts of additional students entering the LMUSD.³⁵ According to the LMUSD Long Range Facilities Plan 1995-2005, as a result of the existing overcrowded conditions, the expansion of schools would be necessary at an estimated cost of \$2.5 million.³⁶

³³ Mr. Perry Judd, Director of Facilities, Lucia Mar Unified School District, letter dated August 21, 1997.

³⁴ Mr. Perry Judd, Director of Facilities, Lucia Mar Unified School District, letter dated August 21, 1997; Lucia Mar Unified School District, *Long Range Facilities Plan 1995-2005*, August 21, 1996.

³⁵ Mr. Scott Lanthrop, Director of Facilities/ Asset and Risk Management, comments to Mr. John McKenzie dated October 31, 1997.

³⁶ Lucia Mar Unified School District, *Long Range Facilities Plan 1995-2005*, August 21, 1996.

The LMUSD proposes to develop a new high school on a 78-acre parcel within the Nipomo area, approximately 2 miles from the project site. The high school would include academic buildings, administrative office buildings, gym facilities, and playing fields. At buildout, the site would accommodate approximately 1,800 students. The LMUSD will be using proceeds of a General Obligation Bond to develop this high school. The voters within the LMUSD approved these funds in March 1997. The high school is scheduled to open for the 2001/2002 school year.

The LMUSD is eligible for state aid, however, this source is not considered to meet most of the District's needs. According to the LMUSD Long Range Facilities Plan 1995-2005, the state is heading towards a less important role in financing of local school projects. In 1992, the California Legislature and the Governor approved a policy stating that the primary responsibility for school facilities should rest with the school districts. Districts thus must raise a sufficient amount of revenue locally to finance a majority of their school facility needs. Development impact fees are expected to bring in significant revenue during the next ten years if new development pays more than the basic state rate.

State funding is expected to be limited due to shortages at the state level and requirements that the District change its instructional program to conform to state rules as a condition of receiving state funds for construction projects. Even rapidly growing communities have found that the state cannot meet their school building needs. The state's role is limited to supplementing local revenues of those school districts having low assessed valuation; financing needed school facilities for school districts that have met or exceeded their debt capacity; and/or providing interim school facilities for those school districts that are unable to supply the expected level of local revenue.³⁷

State law authorizes school districts to levy fees on new residential and non-residential construction to offset school facility impacts from new housing and jobs. It is estimated that \$28 million of the total facilities cost may properly be apportioned to new development. Currently, the mandatory state development fee is \$1.84 per square foot for residential units, and \$0.30 per square foot of commercial. Payment of this fee is a standard condition of approval that is levied by the County prior to issuance of building permits for all construction.

³⁷ Lucia Mar Unified School District, *Long Range Facilities Plan 1995-2005*, August 21, 1996.

TABLE 4.7-2 SCHOOL CAPACITY

<u>Name/Address</u>	<u>Capacity^a</u>	<u>Current Enrollment</u>	<u>Percent of Capacity</u>
Nipomo Elementary School 190 East Price Street	672	686	102%
Dana Elementary School 920 West Tefft Street	796	693	98%
Mesa Middle School 255 Halcyon Road	559	765	136%
Arroyo Grande High School 495 Valley Road	1,950	2,744	140%

a. Number indicates capacity in which modular classrooms have been added.

SOURCE: Mr. Perry Judd, Director of Facilities, Lucia Mar Unified School District, letter dated August 21, 1997.

It is common among school districts in the State of California to negotiate with developers for additional administrative funds to be applied to capital improvements within the District. Based on the District's November, 1997 Documentation Update, a total of \$2.92 per square foot for residential units is needed to meet the District's growth needs, or \$5,254 per unit.³⁸ Less the mandatory state development fee, either a per unit amount of \$1,942 or \$1.08 per square foot of residential development is needed to accommodate the students from new homes and workplaces through 2010. The District would still need some form of voter approved measure to meet all its future facility needs.³⁹

Other funding sources include General Obligation bonds and voted Mello-Roos Community Facility District bonds. General Obligation bonds are approved by two-thirds of the voters participating in a general or special election and are repaid by an additional property tax that

³⁸ Lucia Mar Unified School District, *Documentation Update*, November 11, 1997.

³⁹ Lucia Mar Unified School District, *Long Range Facilities Plan 1995-2005*, August 21, 1996.

applies equally to all properties in the District on the basis of tax rate times amount of Assessed Value. Voter approved Mello-Roos bonds, are more like parcel taxes and need not apply to every property in the District. Taxes to repay Mello-Roos bonds may be levied on any basis other than Assessed Valuation, most commonly on a per-parcel flat annual tax.⁴⁰

4.7.3.2 ENVIRONMENTAL IMPACTS

4.7.3.2.1 Thresholds of Significance

Impacts to schools are considered significant if they result in a substantial need for new or expanded school services. Evaluation of the significance of project impacts in relation to this criteria is provided in the following discussions.

4.7.3.2.2 Impacts and Mitigation Measures

Impact 4.7-3: The proposed project, or any alternative considered, would generate new students in the LMUSD. Therefore, significant impacts are anticipated for all alternatives.

Generally, growth resulting from residential and commercial development would further impact the LMUSD, as indicated by Table 4.7-1. As identified in Table 3-2 there are other residential and commercial projects planned, or in process, in the Nipomo area. These other developments will exacerbate the overcrowded conditions. The proposed project and the Expanded Commercial/Business Park Alternative would impact the District more than the Rural Village Alternatives. According to the LMUSD, it would be difficult to accommodate the new students that would be generated by any of the scenarios.

Overcrowding of schools would influence the students in terms of quality of education that they would receive, the effectiveness of the student-teacher relationship, in addition to the health, safety, and related concerns.⁴¹ In order to assess the impact of the proposed project, the student generation factor and the rate of cost to the LMUSD were taken from the LMUSD School Facility Fee Study and applied to the proposed development. The School Fees identified below are a legislative action mandated by the State of California for developers to pay for its physical educational facilities impacts on schools in the District. The LMUSD collects fees from both

⁴⁰ Ibid.

⁴¹ Mr. Scott Lanthrop, Director of Facilities/Asset and Risk Management, comments to Mr. John McKenzie dated October 31, 1997.

residential and commercial developments. These fees are supposed to address all project impacts. In this study, the following assumptions were made in projecting the number of students that would be generated by new development.⁴²

Residential Development

- 0.418 pupils per dwelling unit; and
- Average cost for capital facilities improvements is \$14,244 per pupil.

Commercial Development

- An average worker per square foot is 0.0029;
- 33 percent of employees generated by new commercial development would reside in the City;
- 0.67 dwelling units per resident employee;
- 0.418 pupils per dwelling unit; and
- Average cost for capital facilities improvements is \$14,244 per pupil.

4.7.3.2.3 Proposed Project

Based on the LMUSD's methodology discussed above, the residential component of the proposed project would generate approximately 303 additional students in the K-6 range; 102 students for the 7-8 middle school range; and 138 students to the high school. Based on the LMUSD Study, these 543 additional students would require approximately \$7.7 million in capital improvements. The 475,000 square foot commercial element of the proposed project would generate approximately 127 new students to the LMUSD, requiring approximately \$1.8 million in capital improvements. Based on the study, the total impact of the proposed project would be the addition of approximately 670 students, requiring approximately \$9.5 million in additional funds. As shown in Table 4.7-3, it is estimated that the proposed project would generate approximately \$7.4 million in development impact fees to the District. Therefore, a total of approximately \$2.1 million in additional funds would be needed to sufficiently cover capital improvement costs as a result of the proposed project. Based on the District's November, 1997 Documentation Update, payment of \$1,942 per unit (\$2.56 million) or \$1.08 per square foot of residential development beyond the mandatory state legislated fee would cover the

⁴² Lucia Mar Unified School District, *Long Range Facilities Plan 1995-2005*, August 21, 1996.

TABLE 4.7-3 LUCIA MAR UNIFIED SCHOOL DISTRICT DEVELOPMENT IMPACT FEES

<u>Land Use</u>	<u>Fee Per Unit</u>	<u>Estimated Development Impact Fee</u>
Proposed Project		
Residential Units (1,320 units)		
1,240 single family	\$1.84/sq. ft.	\$6,844,800 ^a
80 multi-family	\$1.84/sq. ft.	\$441,600 ^a
Subtotal		\$7,286,400
Commercial Land Uses		
Retail (140,000 sq. ft.)	\$.30/sq. ft.	\$42,000
Prof. Office (335,000 sq.ft.)	\$.30/sq. ft.	\$100,500
Subtotal		\$142,500
Total		\$7,428,900
Expanded Commercial/Business Park		
Residential Units (1,320 units)		
1,240 single family	\$1.84/sq. ft.	\$6,844,800 ^a
80 multi-family	\$1.84/sq. ft.	\$441,600 ^a
Subtotal		\$7,286,400
Commercial Land Uses		
Retail (140,000 sq. ft.)	\$.30/sq. ft.	\$42,000
Retail/ Prof. Office (701,000 sq.ft.)	\$.30/sq. ft.	\$210,300
Subtotal		\$252,300
Total		\$7,538,700
Rural Village I		
Residential Units (957 units)		
	\$1.84/sq. ft.	\$5,282,640 ^a
Commercial Land Uses		
Retail (140,000 sq. ft.)	\$.30/sq. ft.	\$42,000
Prof. Office (335,000 sq.ft.)	\$.30/sq. ft.	\$100,500
Subtotal		\$142,500
Total		\$5,425,140

TABLE 4.7-3 LUCIA MAR UNIFIED SCHOOL DISTRICT DEVELOPMENT IMPACT FEES (CONTINUED)

<u>Land Use</u>	<u>Fee Per Unit</u>	<u>Estimated Development Impact Fee</u>
Rural Village II		
Residential Units (957 units)	\$1.84/sq. ft.	\$5,282,640 ^a
Commercial Land Uses		
Retail (140,000 sq. ft.)	\$.30/sq. ft.	\$42,000
Retail/ Prof. Office (701,000 sq.ft.)	\$.30/sq. ft.	<u>\$210,300</u>
Subtotal		\$252,300
Total		\$5,534,940

a. Assumes 3,000 square foot average for residential units.

SOURCE: *Public Facilities Financing Plan For Unincorporated Area Facilities*, December 10, 1996.

project's contribution to the unfunded gap in capital costs. This would be considered a significant impact to the LMUSD.⁴³

According to the LMUSD, all four schools expected to serve the project are currently operating at or over design capacities. Overcrowding has caused shortages in restrooms, as well as impacting cafeteria and library services, playground and parking space. In addition, traffic and related concerns is increased around the schools and surrounding neighborhoods.⁴⁴ The additional demands placed on these schools by the project, therefore, would be considered a significant impact.

⁴³ Mr. Perry Judd, Director of Facilities, Lucia Mar Unified School District, letter dated August 21, 1997.

⁴⁴ Mr. Scott Lanthrop, Director of Facilities/Asset and Risk Management, comments to Mr. John McKenzie dated October 31, 1997.

A ten-acre parcel within the project area has been identified for a proposed school. The size of this site would be consistent with State standards for an elementary school, accommodating approximately 600 students. If developed, this proposed school site would adequately serve the elementary students generated by the project. The applicant does not propose to develop this site at this time; future development of the school would be negotiated with LMUSD. Consequently, impacts to existing schools serving the proposed site would be significant.

According to the LMUSD Long Range Facilities Plan, a new elementary school would cost approximately \$7.5 million.⁴⁵ The value for ten-acre unimproved parcel in the Nipomo area is approximately \$1.9 million.⁴⁶ The estimated total fiscal impact of the proposed project, which would include the cost of capital improvements for an elementary school and land, should the District not accept the proposed elementary school site would be approximately \$9.4 million. This is roughly equivalent to the \$9.5 million identified previously for capital improvements resulting from the proposed project to adequately address elementary school needs.

As indicated above, a new high school site in the Nipomo area is proposed, and scheduled to be open for the 2001/2002 school year. This would relieve existing overcrowded conditions and should accommodate the increased enrollment generated as a result of this project and other developments in the area. Impacts to middle school infrastructure inadequacies would not be addressed by either the proposed high school or a new elementary school. Therefore, the generation of additional students resulting from the proposed project would have a significant adverse impact on the District's physical school facilities and educational environment.

Should the construction of a permanent school facility not be developed within the project area, the School Fees collected from the developer must be used to serve the students generated by such development. This may include remodeling existing facilities to add classrooms and acquiring and installing additional relocatable classrooms.

4.7.3.2.4 Expanded Commercial/Business Park

Similar to the proposed project, the residential component of the Expanded Commercial/Business Park Alternative would add approximately 543 students to the LMUSD, and require

⁴⁵ Lucia Mar Unified School District, *Long Range Facilities Plan 1995-2005*, August 21, 1996.

⁴⁶ Ms. Marina Matthews, Realtor, Karla Cool Realty, December 11, 1997.

approximately \$7.7 million in additional funds. The 701,000 square foot commercial element of this alternative would further contribute approximately 188 students, and require approximately \$2.7 million in additional funds, based on the LMUSD's methodology. The total impact of the Expanded Project Alternative would be the addition of approximately 731 students, requiring approximately \$10.4 million in additional funds. This would be 9 percent more students than the proposed project. As indicated by Table 4.7-3, under this alternative the developer would pay approximately \$7.5 in development impact fees. Therefore, a total of approximately \$2.9 million in additional funds would be needed to sufficiently cover capital improvement costs as a result of the proposed project. As with the proposed project, payment of \$1,942 per unit (\$2.56 million) or \$1.08 per square foot of residential development beyond the mandatory state legislated fee would cover the project's contribution to the unfunded gap in capital costs. The additional demands placed on schools by this alternative, therefore, would also be considered a significant impact.

Similar to the proposed project, the Expanded Alternative would exacerbate the already overcrowded conditions in the four schools expected to serve the project site. A ten-acre parcel has been identified for a proposed school. If developed, this proposed school site would adequately serve the elementary students generated by this alternative. Future development of this site would be negotiated with LMUSD.

As indicated in the proposed project discussion, impacts to the middle schools would not be addressed, therefore, remain significant. Impacts to high schools would also remain significant until the new high school in the Nipomo area is constructed. As previously mentioned, this would relieve existing overcrowded conditions and should accommodate the increased enrollment generated as a result of this project and other developments in the area.

As with the proposed project, should the proposed school site not be developed, the additional demand of this Alternative on existing schools would further strain District resources. The total fiscal impact as a result of this project alternative would be approximately \$9.4 million (cost of a new elementary school and the cost of a ten-acre parcel). Based on the LMUSD Study, the \$10.4 million required for capital improvements resulting from the Expanded Commercial Alternative would adequately address elementary school impacts. The fiscal impacts of a new middle school and high school may require additional funds. The generation of additional students resulting from this alternative would have a significant adverse impact on the District's physical school facilities and educational environment.

4.7.3.2.5 Rural Village I

The residential component of the Rural Village I Alternative would be reduced from 1,320 to 957. Approximately 400 students would be generated from the residential component of this alternative, requiring approximately \$5.7 million for capital improvements. Additionally, the commercial element would be reduced from 475,000 square feet in the proposed project to 335,000 square feet. This would contribute an additional 90 students and require \$1.3 million in capital improvements, based on the LMUSD's methodology. The total impact of the Rural Village I Alternative would be the addition of approximately 490 students, requiring approximately \$7 million in additional funds. The anticipated number of students would be 26 percent less than under the Proposed project Alternative. As shown in Table 4.7-3, under this alternative the developer would pay approximately \$5.4 million in development impact fees. Therefore, a total of approximately \$1.6 million in additional funds would be needed to sufficiently cover capital improvement costs as a result of the proposed project. As with the proposed project, payment of \$1,942 per unit (\$1.86 million) or \$1.08 per square foot of residential development beyond the mandatory state legislated fee would cover the project's contribution to the unfunded gap in capital costs. Although this alternative would have the least impact of any of the alternatives considered, the additional demands placed on schools by this alternative would still be considered a significant impact.

Similar to the proposed project and Expanded Commercial Alternative, the designated ten-acre school-site parcel would adequately serve the elementary students generated by this proposal. Future development of the school would be negotiated with LMUSD. Should the proposed school site not be developed, the additional demand of this Alternative on existing schools would further strain District resources. The total fiscal impact as a result of this project alternative would be approximately \$9.4 million (cost of a new elementary school and the cost of a ten-acre parcel). Based on the LMUSD Study, the \$7 million required for capital improvements resulting from the Rural Village I Alternative would not adequately address elementary school impacts. An additional \$2.4 million would be necessary to construct an elementary school. Additionally, the fiscal impacts of a new middle school and high school may require additional funds. The proposed high school in the Nipomo area would relieve some overcrowding in the District. Nonetheless, the generation of additional students resulting from the Rural Village I Alternative would have a significant adverse impact on the District's physical school facilities and educational environment.

Should the construction of a permanent school facility not be developed within the project area, the School Fees collected from the developer must be used to serve the students generated by such development. This may include remodeling existing facilities by acquiring and installing additional relocatable classrooms.

4.7.3.2.6 Rural Village II

The residential impacts of the Rural Village II Alternative to the LMUSD would be similar to the Village I Alternative. The commercial element would be increased from 335,000 square feet to 701,000 square feet. This would contribute an additional 188 students, requiring \$2.7 million for capital improvements, based on the LMUSD's methodology. The total impact of the Rural Village II Alternative would be the addition of approximately 588 students, requiring approximately \$8.4 million in total funds. The anticipated number of students would be 12 percent less than under the proposed project. As shown in Table 4.7-3, under this alternative the developer would pay approximately \$5.5 million in development impact fees. Therefore, a total of approximately \$2.9 million in additional funds would be needed to sufficiently cover capital improvement costs as a result of the proposed project. As with the proposed project, payment of \$1,942 per unit (\$1.86 million) or \$1.08 per square foot of residential development beyond the mandatory state legislated fee would cover the project's contribution to the unfunded gap in capital costs. The additional demands placed on schools by this alternative would still be considered a significant impact.

As with the other Alternatives being considered, the designated ten-acre school-site parcel would adequately serve the elementary students generated by this proposal and its development would be negotiated with LMUSD. Should the proposed school site not be developed, the additional demand of this Alternative on existing schools would further strain District resources. The total fiscal impact as a result of this project alternative would be approximately \$9.4 million (cost of a new elementary school and the cost of a ten-acre parcel). Based on the LMUSD Study, the \$8.4 million required for capital improvements resulting from the Rural Village II Alternative would not adequately address elementary school impacts. An additional \$1.0 million would be necessary to construct an elementary school. Additionally, the fiscal impacts of a new middle school and high school may require additional funds. The proposed high school in the Nipomo area would relieve overcrowding in the District. Nonetheless, the generation of additional students resulting from the Rural Village II Alternative would have a significant adverse impact on the District's physical school facilities and educational environment.

Should the construction of a permanent school facility not be developed within the project area, the School Fees collected from the developer must be used to serve the students generated by such development. This may include remodeling existing facilities by acquiring and installing additional relocatable classrooms. **Under the Revised Project Alternative, the school site would be eliminated and the applicant would pay in-lieu of fees.**

Mitigation Measures:

Mitigation Measure 4.7-3a: Prior to approval of the first subdivision or discretionary permit, the applicant or any successor in interest shall have reached a binding agreement with the appropriate public school district (currently LMUSD) that will be applicable to all development within the Specific Plan for full mitigation of school facilities impacts. Such mitigation agreement may include, but not be limited to: (i) alternatives for full financial mitigation of school facilities; (ii) requiring the applicant to participate in a financing mechanism (such as a Mello Roos community facilities district) to mitigate school facilities impacts; (iii) requiring the project to be phased in a manner which allows the school districts to accommodate students as the project is built out; and /or (iv) supplemental fair-share fees above the state-mandated amount currently collected to cover actual costs.

Level of Significance after Mitigation: Implementation of the mitigation measure recommended in this section would reduce the project impacts related to the adequacy of school facilities to a less-than-significant level.

4.7.4 Water Services

4.7.4.1 ENVIRONMENTAL SETTING

Groundwater is the principal source of water for the Nipomo Mesa and adjacent areas. The proposed project is located in the Nipomo Mesa subarea of the Santa Maria groundwater basin. Water supply for this project would come from the Nipomo subarea of the Santa Maria Groundwater Basin. The groundwater condition underlying the project site and the project's potential impacts to groundwater resources are discussed in Section 4.1, Water Resources. Currently the site is undeveloped and there is no potable infrastructure serving the project site.

There are four existing wells on the Woodlands site, as shown in Figure 4.1-10. Data on these wells is described in Water Resources, Section 4.1 of this report, as well as in the *Water*

Resources Management Study for The Woodlands, by Cleath and Associates, April 1996.⁴⁷ The quality of the groundwater from these wells would meet state and federal drinking water regulations and would not require treatment. Other water facilities in the area include a 16-inch water line in Via Concha Street and a 16-inch water line in Camino Caballo controlled by the Nipomo Community Services District (NCSD).⁴⁸

4.7.4.2 ENVIRONMENTAL IMPACTS

4.7.4.2.1 Thresholds of Significance

Impacts on water services are considered significant if they result in demand for potable water beyond that which could be accommodated by the local water district's planned facilities.

Evaluation of the significance of project impacts in relation to this criteria is provided in the following discussions.

4.7.4.2.2 Impacts and Mitigation Measures

Impact 4.7-4: Implementation of the proposed project, or any of the alternatives considered, would require the development of infrastructure to provide water services to the proposed urban land uses. As the project would provide its own water service, no adverse impacts to water service are anticipated.

The general location of potable water lines servicing the proposed project would cover the entire development with one connected pipe network. The wells and the above-ground storage tanks would be connected to this network so that they may be utilized as needed.⁴⁹ The construction of this network would be phased into the development process.

4.7.4.2.3 Proposed Project

Section 4.1, Water Resources, presents a summary of the project water demand at total buildout in Cleath and Associates' *Water Resources Management Study for The Woodlands*.⁵⁰ Table 4.1-4

⁴⁷ *Water Resources Management Study for The Woodlands*, by Cleath and Associates, April 1996.

⁴⁸ Mr. Doug Jones, General Manager, Nipomo Community Services District, letter dated July 28, 1997.

⁴⁹ County of San Luis Obispo Planning Department, *The Woodlands Specific Plan, Administrative Draft*, December 1996.

⁵⁰ *Water Resources Management Study for The Woodlands*, by Cleath and Associates, April 1996.

lists the types of water consuming elements, the number of units for each element in the proposed development and the water duty factors for each element. Water demand for the proposed project are shown in Table 4.1-7.

The project site proposes to obtain water from four existing groundwater wells at the site. Figure 4.1-10 shows the location of the four production wells on the project site. Figure 4.7-2 shows the proposed water supply and distribution facilities for the site. In addition to the potable water system illustrated in this Figure, the applicant also proposes a separate system to convey reclaimed water from the proposed wastewater treatment plant to the golf courses. The total water storage proposed would be 1.415 million gallons. The calculated capacity is broken down as follows: 1.1 million gallons for normal daily use, which is based on one average day's demand; plus 45,000 gallons for the business park and the commercial sites. Minimum fire storage would be 270,000 gallons.⁵¹ Additional fire storage capacity may be required given the location and amount of proposed commercial acreage. The applicant proposes three 500,000-gallon water tanks to serve the project.

As mentioned in Section 4.7.1, Fire/Life Safety Protection, the CDF Fire Department has indicated that the minimum fire flow storage would be 270,000 gallons and could adequately serve the project site. However, additional reserves may be necessary, depending on the location and size of commercial development. The subject property appears to have ample size to accommodate additional storage facilities. Therefore, impacts to water services related to CDF/SLO County Fire Department requirements would not be considered significant.⁵²

Additionally, in conformance with the current sprinkler ordinance, all new commercial and industrial construction would be required to install sprinkler systems. This project is considered by CDF/SLO as urban development, and thus would require urban development fire services. Although residential sprinklers are not required by code, their use would improve CDF/SLO's ability to service the project while keeping full-time staffing to a minimum.

⁵¹ County of San Luis Obispo Planning Department, *The Woodlands Specific Plan, Administrative Draft*, December 1996.

⁵² Battalion Chief Ben Stewart, San Luis Obispo County Fire Department, telephone communication on December 24, 1997.

According to San Luis Obispo County Department of Environmental Health, the project site would be adequately served by the proposed water supply.⁵³ See Water Resources, Section 4.1 for further discussion of water consumption and groundwater impacts. No significant impacts on water service are anticipated.

Ownership and operation and maintenance responsibility of the water conveyance, treatment, and disposal facilities has not been determined at this time. Public water systems would be subject to San Luis Obispo County's Building and Construction Ordinance, Section 19.20.224. According to the Ordinance, community sewage disposal systems are reviewed by the County Health and Engineering Departments only after the proposed system meets certain criteria set forth and is approved by the California Regional Water Quality Control Board (RWQCB). The sewerage facilities must be operated by a public agency unless such an agency is unavailable or the formation of such an agency is unreasonable. In such a case, a private entity may be established to provide sewage disposal services having proved to have adequate financial, legal, and institutional resources to assume responsibility for waste discharges. These criteria would presumably apply to the project's water supply system. The County may encourage the applicant to assign these responsibilities to the project's homeowner's association, join the Nipomo Community Services District (NCSD), or form a new CSD. Final disposition of the facilities would be decided in negotiations between the applicant, the County, and potentially a local water District.

The Nipomo Community Services District (NCSD) may be contracted to serve the area. Currently, the NCSD area boundary is approximately one mile from the development site. NCSD is an established water and sewage service provider in the Nipomo area and has the maintenance personnel and equipment to adequately serve the needs of project. The quality of service and quality assurance of Service Districts, like that of NCSD with over 200 service connections, is regulated by the State Health Department.⁵⁴ Currently there is a 16-inch water line in Via Concha Street and a 16-inch water line in Camino Caballo controlled by NCSD. NCSD's expansion to incorporate the project site would ensure compliance with State water and sewage standards. NCSD has indicated that no problems are anticipated in expanding its water infrastructure should

⁵³ Mr. Richard Lichtenfels, Land Use Specialist, County of San Luis Obispo, Department of Environmental Health, telephone communication on September 26, 1997.

⁵⁴ Mr. Richard Lichtenfels, Land Use Specialist, County of San Luis Obispo, Department of Environmental Health, telephone communication on December 4, 1997.

they serve the project site.⁵⁵ If this project were to receive services from the NCSD, annexation approval would be needed by the NCSD Board of Directors and the Local Agency Formation Commission (LAFCO).⁵⁶

The actual size of the lines required to adequately serve the proposed project has yet to be determined. According to the *San Luis Obispo County Engineering Department's Standard Improvement Specifications and Drawings Manual*, water lines may be no less than 6-inches in diameter.⁵⁷ According to the San Luis Obispo County Engineering Department water line sizes would be based on water flow testing and simulations.⁵⁸

4.7.4.2.4 Alternatives

The water demand for the project alternatives are shown in Table 4.1-7 of the Water Resources Section. The water infrastructure requirements for the alternatives would be similar in concept to the requirements of the proposed project. As with the proposed project, the infrastructure servicing each alternative has yet to be designed.

As discussed under the proposed project, each alternative anticipates obtaining water from four existing groundwater wells at the site as well as from recycling wastewater produced at the proposed community treatment plant. Similar to the Proposed project, each alternative would be required to conform to state and local standards for maintaining the public water conveyance, treatment and disposal system. Additionally, 270,000 gallons of water storage must be available at all times for fire flow for each alternative. As with the proposed project, the impacts on water services for the alternative projects is anticipated to be less than significant.

Mitigation Measures: Although no significant impacts are anticipated, the following measures are recommended to minimize impacts on water service:

⁵⁵ Mr. Doug Jones, General Manager, Nipomo Community Service District, telephone communication on August 6, 1997.

⁵⁶ Mr. Doug Jones, General Manager, Nipomo Community Service District, letter dated July 28, 1997.

⁵⁷ *San Luis Obispo County Engineering Department Standards Improvement Specifications and Drawings*, revised June 1984.

⁵⁸ Mr. Pete Newel, Project Engineer, San Luis Obispo County, telephone communication December 4, 1997.

Mitigation Measure 4.7-4a: Prior to issuance of construction permits, plans for the golf course will identify that reclaimed water will be utilized as a source to irrigate large landscaped areas. Prior to issuance of construction permits, plans will show that a dual-piping system will be installed, to the satisfaction of the County, to accommodate the future use of reclaimed water. Pipelines for reclaimed water shall be clearly identified and shall meet Health and Safety Code Title 22 requirements.

Mitigation Measure 4.7-4b: The project applicant shall prepare a Water and Reclaimed Water Master Plan that will address the water and reclaimed water pumping storage conveyance system design and operation for the entire project. The system shall be in conformance with the requirements of the County Engineering and Health Departments and the Central Coast Regional Water Quality Control Board. The Master Plan shall identify a phasing program for development of the system concurrent with project site development, and shall identify a financing mechanism for installation, operation, and maintenance of the system.

Significance After Mitigation. Implementation of the mitigation measures suggested in this section, would further reduce potential impacts to water services.

4.7.5 Sanitary Sewer Services

4.7.5.1 ENVIRONMENTAL SETTING

The site is currently undeveloped and there is no existing wastewater infrastructure serving the project site. Typically, sewage disposal in the Nipomo urban area has been provided primarily by individual septic tank systems. Sewage disposal in most of the rural and village areas of the mesa is also primarily by individual septic tank systems. The Nipomo Mesa Subarea has unique topography and sandy surface deposits which allow for a higher infiltration and percolation rate. The rapid infiltration rate and the distance between surface and groundwater are favorable conditions for septic systems.

A primary wastewater treatment facility operated by the Nipomo Community Services District (NCSD) is located approximately 5 miles from the project area. The current capacity of the plant is 400,000 gallons per day. The facility will be expanded to accept up to 900,000 gallons per day.⁵⁹ Construction is scheduled to begin January 1998.

⁵⁹ Mr. Doug Jones, General Manager, Nipomo Community Service District, telephone conversation on November 17, 1998.

4.7.5.2 ENVIRONMENTAL IMPACTS

4.7.5.2.1 Thresholds of Significance

Impacts on sanitary sewer services are considered significant if they result in generation of wastewater beyond that which could be accommodated by planned wastewater treatment and collection facilities. Evaluation of the significance of project impacts in relation to this criteria is provided in the following discussions.

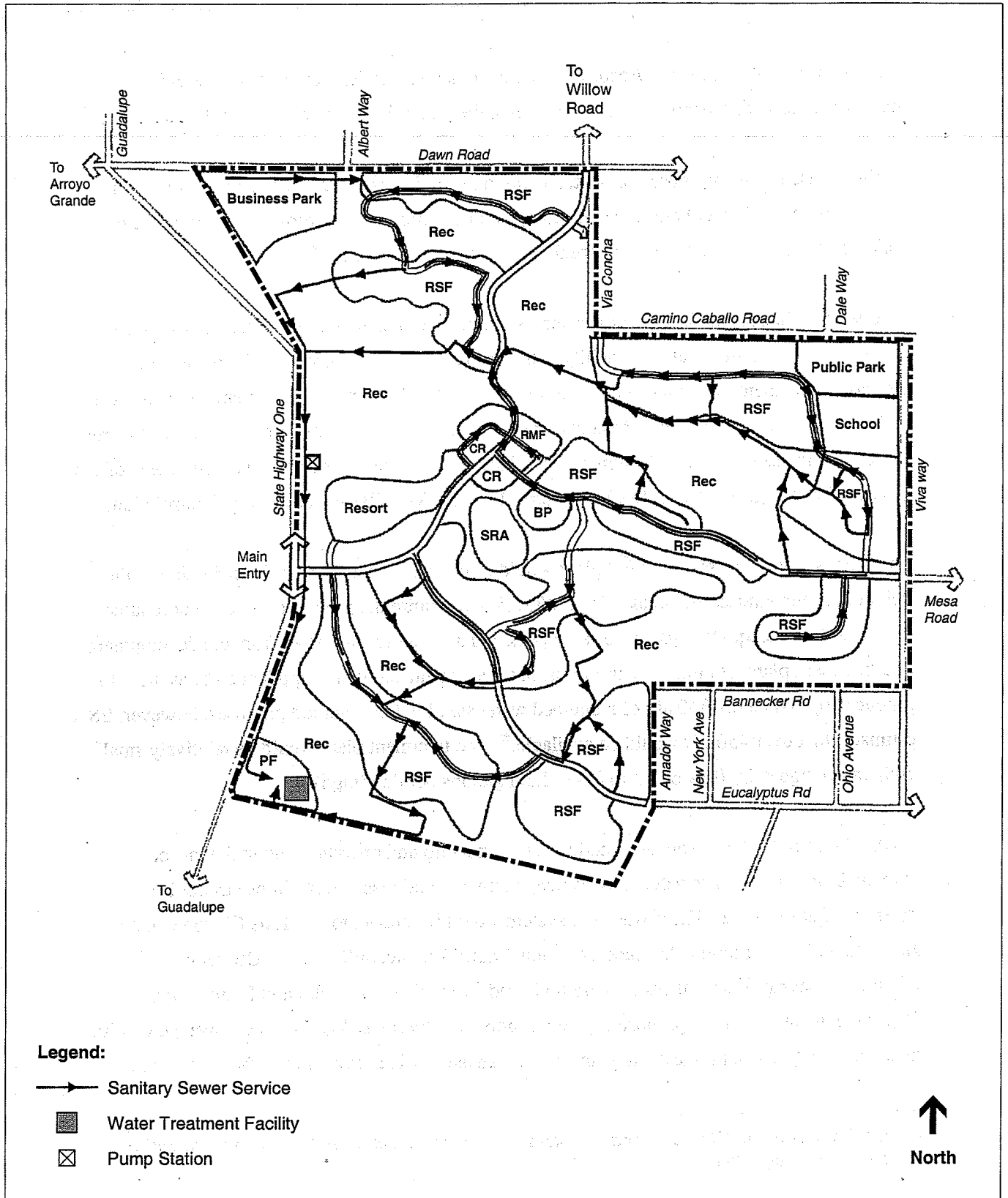
4.7.5.2.2 Impacts and Mitigation Measures

Impact 4.7-5: Implementation of the proposed project or project alternatives would increase wastewater flow over existing conditions. The developer proposes to construct wastewater collection, treatment and disposal facilities within the project site. Because the proposed project would adequately manage its own wastewater, this would not be considered a significant impact.

The project would establish a stand-alone wastewater collection, treatment and disposal system. As discussed above, sewage from domestic sources in the surrounding area is currently treated and disposed of by individual septic tank systems. With groundwater levels fairly deep, these systems have generally worked well in the sandy soils of the area. As described in Section 4.1, the use of individual septic systems for any proposed development at the site would be constrained by the minimum lot size allowed by the County Land Use Ordinance (Section 22.04.032, County Building and Construction Ordinance (Title 19, Section 19.20.222), by criteria established by the Central Coast Regional Water Control Board, and by the state Health and Safety Code.

As shown in Figure 4.7-3, the proposed project would include a sewer system to provide collection of wastewater from residential, commercial, and other uses. The developer proposes to install 4-inch lateral lines to each residential unit, 8-inch pipes for the collector lines, and 10-12-inch pipes for the trunk lines.

The northerly trunk lines, which would collect sewage discharge from the northerly and northeasterly sections of the site, would run along the westerly boundary, along Highway 1, and discharge into the treatment plant. The southerly trunk line, which would collect the remainder of the site's sewage, is proposed to be placed along the southerly boundary and would discharge



SOURCE: The Woodlands Specific Plan

Woodlands Specific Plan / 950250 ■

Figure 4.7-3
Sanitary Sewer Service

at the treatment plant as well. According to the applicant, the site's topography should provide the sewer lines with a steep enough slope so that the velocities in the pipes would be adequate.⁶⁰

During Phase I of the proposed project, a temporary septic system may be used to collect waste water from the main clubhouse. At buildout, a pump station may be provided to convey the collected sewage from the northerly trunk line to the treatment plant.⁶¹

As discussed in Section 4.1, Water Resources, wastewater generated by the project would be conveyed to an on-site treatment facility, where it would undergo physical, chemical, and biological treatment processes to remove contaminants from the flow. The treatment plant would be required to provide treatment in accordance with the applicable standards from the California Code of Regulations Title 22 (Environmental Health) and meet the discharge requirements of the Central Coast Regional Water Quality Control Board (RWQCB) Water Quality Control Plan.

The proposed wastewater treatment plant would provide a source of water for irrigation of the golf course and landscaped areas. The RWQCB will require the proposed wastewater treatment facility to have adequate capacity to serve peak and average annual flows from the development. The treatment plant, at buildout conditions, has been estimated by the applicant's consultant to produce approximately 350 afy of reclaimed water suitable for irrigation purposes, however, ESA estimates that over 450 afy would be available.⁶² The treatment plant would be relatively small, with an average daily flow of 0.3 to 0.4 million gallons per day (mgd).

As discussed in Water Resources, Section 4.1, ownership and operation and maintenance responsibility of the wastewater conveyance, treatment, and disposal facilities has not been determined at this time. The wastewater system would be subject to San Luis Obispo County's Building and Construction Ordinance, Section 19.20.224. According to the Ordinance, community sewage disposal systems are reviewed by the County Health and Engineering Departments only after the proposed system is approved by the RWQCB. The sewerage facilities must be operated by a public agency unless such an agency is unavailable or the formation of

⁶⁰ County of San Luis Obispo Planning Department, *The Woodlands Specific Plan, Administrative Draft*, December 1996.

⁶¹ County of San Luis Obispo Planning Department, *The Woodlands Specific Plan, Administrative Draft*, December 1996.

⁶² Cleath and Associates, *Water Resources Management Study for The Woodlands*, April 1996.

such an agency is unreasonable. In such a case, a private entity may be established to provide sewage disposal services having proved to have adequate financial, legal, and institutional resources to assume responsibility for waste discharges. These criteria would presumably apply to the projects water supply system. The County may encourage the applicant to assign these responsibilities to the project's homeowner's association, join the Nipomo Community Services District (NCSD), or form a new CSD. Final disposition of the facilities would be decided in negotiations between the applicant, the County, and potentially a local water District.

The use of reclaimed water from the wastewater treatment facility for irrigation of the golf course and open space areas is encouraged by State, Regional, and County governing agencies. A dual piping system to separately convey potable water and reclaimed water must meet specific requirements administered by the County Engineer, County Environmental Health Department, State Health Department, and the RWQCB.

Sewage sludge from the wastewater treatment facility may be transported to Tajiguas Landfill in Santa Barbara County. This landfill is located at 14470 Calle Real Road, Goleta, approximately 70 miles south of the project site. Sludge must contain less than 50 percent moisture and is only accepted in dry weather.⁶³ Cold Canyon Landfill, approximately 15 miles north of the site, is planning to accept wastewater treatment sludge in approximately 3 to 4 years.⁶⁴ The quality of wastewater sludge is regulated by the RWQCB Waste Discharge Requirements 93-51, and federal requirements (40 CFR 503).⁶⁵

The plant would be expected to generate up to 400 pounds per day of sludge for disposal. Because the proposed project would be required to collect, treat and dispose of wastewater and wastewater sludge in accordance with state and federal regulations and under specific permit conditions issued by the RWQCB, no significant impacts to sewer services are anticipated from the project or any of the alternatives considered.

⁶³ Mr. Brian Chaney, Field Manager, Tajiguas Landfill, telephone communication on December 5, 1997.

⁶⁴ Mr. Bill Rizzoli, Cold Canyon Landfill, telephone communication November 26, 1997.

⁶⁵ California Regional Water Quality Control Board, Waste Discharge Requirements, Order No. 93-51, July 9, 1993.

Mitigation Measures:

Mitigation Measure 4.7-5a: The project applicant shall prepare a Wastewater Master Plan that addresses the wastewater conveyance, treatment and disposal for the entire project. The system shall be in conformance with the requirements of the County Engineering Department and the Central Coast Regional Water Quality Control Board. The Master Plan shall identify a phasing program for development of the system concurrent with project site development, and shall identify a financing mechanism for installation, operation, and maintenance of the system.

Significance After Mitigation. No significant wastewater impacts are anticipated.

4.7.6 Solid Waste**4.7.6.1 ENVIRONMENTAL SETTING**

Nipomo Garbage, a subsidiary of South County Sanitary Services, collects solid waste generated from the project area and disposed of at the Cold Canyon Landfill in the County of San Luis Obispo, which is owned and operated by companies related to Nipomo Garbage.⁶⁶ San Luis Obispo County Recycles (SLOCO), the parent company of South County Sanitary Services, collects solid waste generated by the South County area, which includes the project site. Branches of this service include Tri-City Disposal, Nipomo Garbage, and San Luis Garbage Company. Solid waste generated from the project area is collected by San Luis Garbage Company and disposed of at the Cold Canyon Landfill in the County of San Luis Obispo, which is owned and operated by South County Sanitary Services.⁶⁷ Cold Canyon is located at 2268 Carpenter Canyon Road, approximately 15 miles north of the project site. The Cold Canyon Landfill serves the cities of San Luis Obispo, Morro Bay, Grover Beach, Pismo Beach, and Arroyo Grande, and the unincorporated areas of the north coast, and south county, in which the project site is located. **Recyclable materials are collected by San Luis Obispo County Recycles and hauled to their processing yard in San Luis Obispo. They may also haul and grind green waste for composting. Waste from the project area may also be disposed of at the Santa Maria Landfill, located approximately 20 miles southeast of the project site.** -

Waste from the project area is also disposed of at the Santa Maria Landfill, located approximately 20 miles southeast of the project site. It is unlikely refuse would be brought to the Santa Maria

⁶⁶ Mr. John Ryan, General Manager, SLOCO, telephone communication November 24, 1997.

⁶⁷ Mr. John Ryan, General Manager, SLOCO, telephone communication November 24, 1997.

Landfill due to the fact that collection fees are \$65 per ton, as opposed to \$24.55 per ton at Cold Canyon.⁶⁸ Additionally, solid waste is typically disposed of within the County in which it is generated.⁶⁹

A transfer station is proposed at the intersection of Highway 166 and Highway 101, three (3) miles north of the Santa Maria Landfill. Collection fees at this station would be similar to Santa Maria's fees, and therefore, the disposal of project refuse at this station would not be financially viable.⁷⁰

The San Luis Obispo County Integrated Waste Management Plan, Summary Plan, 1995, states that Cold Canyon Landfill is permitted to dispose of a maximum of 750 tons of solid waste per day, and 270,000 tons per year. Cold Canyon currently accepts less than 400 tons per day; two million tons of capacity remains. It is estimated in the Summary Plan that, as of January 1995, the remaining permitted disposal capacity in the landfill is 20 years. These projections are based on County of San Luis Obispo General Plan population growth rate estimates, as well as continued successful implementation of policies and goals of the County's Source Reduction and Recycling Element, Household Hazardous Waste Element, Non-Disposal Facility Element, and Siting Element. Implementation of these plans would result in reduction of waste sent to landfills by 50 percent by the year 2000 (in accordance with California Assembly Bill 939).⁷¹

Voluntary recycling is encouraged for all land uses. Drop-off and buy-back centers for unincorporated areas of the County, which includes the proposed project area, are owned and operated by either RALCCO or SLOCO. RALCCO offers curbside pick-up service and owns and operates two buy-back centers adjacent to the project site. They are located at 801 Ralcco Way, Nipomo (approximately one-quarter mile from the project site) and 1291 Mesa View Drive, Arroyo Grande (approximately one mile from the project site). Types of residential items recycled by RALCCO include, but are not limited to, aluminum, tin, paper, plastics, newspaper,

⁶⁸ Mr. Tom Martin, Manager, ~~San Luis Garbage Company~~ **Nipomo Garbage**, telephone communication on November 24, 1997.

⁶⁹ Mr. Tom Martin, Manager, ~~San Luis Garbage Company~~ **Nipomo Garbage**, telephone communication on November 24, 1997.

⁷⁰ Ibid.

⁷¹ Mr. Tom Martin, Manager, ~~San Luis Garbage Company~~ **Nipomo Garbage**, telephone communication on July 24, 1997.

glass, car batteries, motor oil, and greenwaste.⁷² RALCCO also services commercial uses, recycling office paper and cardboard in addition to glass, aluminum, and plastic.

Similar to that of RALCCO, SLOCO also offers curbside pick-up recycling services to residential units and commercial/office uses. SLOCO currently operates a buy-back center approximately 3.5 miles from the project site at the intersection of Highway 101/Tefft. Cold Canyon has received approval from the California Integrated Waste Management Board and the County to develop an additional ~~80-88~~ acres adjacent to the existing facility. This area will primarily be used to process recyclable materials and greenwaste. At buildout, approximately 2,200 tons per month of recyclable materials would be processed at this location.⁷³ Upon completion (June ~~1998~~1999), recyclable items collected from buy-back centers and curbside services would be processed at Cold Canyon. RALCCO and SLOCO both coordinate with the County Integrated Waste Management Board in order to fulfill the goals of AB 939.

4.7.6.2 ENVIRONMENTAL IMPACTS

4.7.6.2.1 Thresholds of Significance

Impacts on solid waste are considered significant if they result in the need for a new landfill or a substantial expansion of existing facilities. Evaluation of the significance of project impacts in relation to this criteria is provided in the following discussions **ofr if the project will breach published national, state, or local standards relating to solid waste or litter control.**

4.7.6.2.2 Impacts and Mitigation Measures

Impact 4.7-6: Implementation of the proposed project or any of the alternatives considered would result in increased waste generation. This would contribute to the exhaustion of the remaining capacity at the Cold Canyon Landfill, therefore, this would be considered a significant impact.

Solid waste generated by the project site would be collected by ~~San Luis Garbage Company~~ Nipomo Garbage and brought to Cold Canyon for disposal. Table 4.7-4 shows the anticipated solid waste that would be generated by the building components of various project

⁷² Ms. Ana Asknidis, Owner, RALCCO, telephone communication on November 18, 1997.

⁷³ Mr. John Ryan, General Manager, SLOCO, telephone communication December 4, 1997.

TABLE 4.7-4 WOODLANDS SOLID WASTE GENERATION

<u>Land Use</u>	<u>Solid Waste Generation Rate (pounds/unit)</u>	<u>Estimated Daily Generation (pounds/day)</u>	<u>Estimated Annual Generation (tons/year)</u>
Proposed Project			
Residential Units (1,320 units)			
1,240 single family	10/du	12,400	2,263.00
80 multi-family	4/du	<u>320</u>	<u>58.40</u>
Subtotal		12,720	2,321.40
Commercial Land Uses			
Retail (140,000 sq. ft.) ^a	5/1,000 sf	700	127.75
School (600 students)	240/student/yr.	800	72.00 ^b
Resort Hotel (500-room)	2 lb/room/day	1,000	182.50 ^c
Business Park (335,000 sq.ft.)	5/1,000 sf	<u>1,675</u>	<u>305.70</u>
Subtotal		24,175	687.95
Open Space/Recreation (418 acres)	8 tons/acre/yr	18,323	3,344.00
Total		35,218	6,353.35
Expanded Commercial/Business Park			
Residential Units (1,320 units)			
1,240 single family	10/du	12,400	2,263.00
80 multi-family	4/du	<u>320</u>	<u>58.40</u>
Subtotal		12,720	2,321.40
Commercial Land Uses			
Retail/Business Park (701,000 sq.ft.) ^a	5/1,000 sf	3,505	639.66
School (600 students)	240/student/yr.	800	72.00 ^b
Resort Hotel (500-room)	2 lb/room/day	<u>1,000</u>	<u>182.50^c</u>
Subtotal		5,305	894.16
Open Space/Recreation (418 acres)	8 tons/acre/yr	18,323	3,344.00
Total		36,348	6,559.56
Rural Village I			
Residential Units (957 units)			
Retail/Business Park (335,000 sq.ft.) ^a	5/1,000 sf	1,675	305.70
School (600 students)	240/student/yr.	800	72.00 ^b
Resort Hotel (500-room)	2 lb/room/day	1,000	182.50 ^c
Open Space/Recreation (418 acres)	8 tons/acre/yr	<u>18,323</u>	<u>3,344.00</u>
Total		31,368	5,650.70

TABLE 4.7-4 WOODLANDS SOLID WASTE GENERATION (CONTINUED)

Land Use	Solid Waste Generation Rate (pounds/unit)	Estimated Daily Generation (pounds/day)	Estimated Annual Generation (tons/year)
Rural Village II			
Residential Units (957 units)	10/du	9,570	1,746.50
Retail/Business Park (701,000 sq.ft.) ^a	5/1,000 sf	3,505	639.66
School (600 students)	240/student/yr.	800	72.00 ^b
Resort Hotel (500-room)	2 lb/room/day	1,000	182.50 ^c
Open Space/Recreation (418 acres)	8 tons/acre/yr	<u>18,323</u>	<u>3,344.00</u>
Total		33,198	5,984.66
Solid Waste	Estimated Daily Generation	Estimated Annual Generation	Generation Rate
	(pounds/day)	(tons/year)	(pounds/unit)
(1,320 units)		Revised Project Alternative	Residential Units
			1,240 single family
80 multi-family	10/du	12,400	2,263.00
Subtotal	4/du	<u>320</u>	<u>58.40</u>
		12,720	2,321.40
Commercial Land Uses			
Retail (140,000 sq. ft.) ^a	5/1,000 sf	700	127.75
Resort Hotel (500-room)	2 lb/room/day	1,000	182.50 ^c
Business Park (335,000 sq.ft.)	5/1,000 sf	<u>1,675</u>	<u>305.70</u>
Subtotal		23,375	615.95
Open Space/Recreation (418 acres)	8 tons/acre/yr	18,323	3,344.00
Total		34,418	6,281.35

a. Golf course clubhouse uses included.

b. Assumes 180-day school year.

c. Assumes 800 square feet per room.

SOURCE: California Integrated Waste Management Board, *Resources Manual*, May 1989; Environmental Sciences Associates, 1997.

alternatives. The solid waste stream resulting from the operational phase of the project would consist primarily of household waste and biomass/green waste. The recyclable portion of

household waste, which may consist of a combination of cardboard, paper, newspaper, glass, tin, aluminum and a variety of plastics, would be collected either by SLOCO or RALCCO.

Biomass/green waste consists of yard waste and other compostable organic materials generated by a typical household or project. Countywide, compostable organic material comprises approximately 17.5 percent of the total waste stream.⁷⁴ It is estimated that turf maintenance at a golf course generates an average of 8 to 9 tons/acre/year of grass clippings.⁷⁵ Of the proposed project's 587 acres of recreation and open space areas, approximately 418 acres (300 acres of golf courses, 12 acres of public park, 30 acres of play areas, and 76 acres of open space buffers) would be landscaped and maintained on a regular basis. Based on a conservative estimate of 8 tons/acre/year of grass clippings generated by open space maintenance, these uses would generate approximately 3,344 tons of green waste per year. This is a significant quantity of compostable organic material that could result in significant long-term impacts to available landfill space.

This impact can be mitigated to a level of insignificance through implementation of an on-site golf course maintenance compost program. Such a program would require approximately one acre of land for each 1,000 tons of green waste. The materials needed would include a combination of grass clippings (nitrogen), leaves, and wood debris (carbon). The organic composting process is influenced by oxygen levels, temperature, moisture, and the carbon/nitrogen ratio. The process would require approximately two to three months.⁷⁶ On-site grass clipping organic compost management programs are common statewide and have been implemented at a variety of golf courses, including several in Pebble Beach. Compost can be used as mulch, used in preference to peat to preserve wetlands, or used on agriculture crop fields.

~~San Luis Garbage Company~~ **Nipomo Garbage** may also be contracted to collect greenwaste from the golf courses, open space areas, and residential units. Greenwaste collected by San Luis Garbage would be brought to Cold Canyon for processing. Cold Canyon has been certified by the California Integrated Waste Management Board and the County Integrated Waste Management Agency to accept and process recyclable materials, including greenwaste.⁷⁷

⁷⁴ Mr. Tom Martin, Manager, ~~San Luis Garbage Company~~ **Nipomo Garbage**, telephone communication on September 11, 1997.

⁷⁵ Environmental Science Associates, *Hill Canyon Recreational Facility EIR*, August 1997.

⁷⁶ Mr. Edward C. Horton, Vice President, Pebble Beach Company, Environmental Enhancement Program, telephone communication November 26, 1997.

⁷⁷ Mr. John Ryan, General Manager, SLOCO, telephone communication December 4, 1997.

Hazardous materials could be used in research and development activities in the business park, for golf course operation and maintenance, and at the wastewater treatment plant. Improper handling of hazardous materials could have adverse impacts upon humans or the environment. These issues and their disposal are examined in Hazardous Materials, Section 4.10.

Currently, the Cold Canyon Landfill site is unlined and will only accept sewage screenings and dry grit in accordance with the perimeters discussed in Sanitary Sewage Services, Section 4.7.5. Sewage sludge would be accepted in approximately 3-4 years when the new lined cells are opened.

Mitigation Measures:

Mitigation Measure 4.7-6a: Prior to issuance of building permits, the applicant shall submit to the County Environmental Health Department a compost management plan for the project site which, by the year 2000, would handle 50-100 percent of the greenwaste generated by the entire project site. **The project shall use all compost generated on-site. The plan shall address management of residential green waste as well as commercial and recreational uses. One hundred percent (100%) of the green waste generated by the golf courses and fifty percent (50%) of the balance of the green waste material generated by the project shall be managed on the project site. The compost management plan shall be submitted for approval to the County Engineer with permits contingent on that approval.**

Mitigation Measure 4.7-6b: The applicant shall submit a recycling plan to the County Engineering Department and the ~~County Integrated Waste Management Agency~~ San Luis Obispo Integrated Waste Management Authority prior to issuance of a building permit. **Garbage and recycling collection fees shall be collected in the garbage bill and service shall be provided on a weekly basis.** The recycling plan shall apply to all land uses and shall include, but not be limited to: 1) lists of recyclable materials, such as white paper, computer paper, newspaper, metal cans, aluminum, motor oil, chipboard and glass; 2) location of recycling and waste bins; 3) designated recycling coordinator, 4) a plan stating the nature and extent of internal and external pick-up services; pick-up schedule; and 5) a plan to inform tenants/occupants of recycling services; and (6) **the use of mulching mowers for public, residential and commercial properties.**

The plan shall be designed to capture and recycle 98% of the recyclables set out for collection. The required recycling plan shall also include a waste reduction plan that shall articulate the steps the developer must take to minimize waste generation during construction. These steps shall include, the purchasing practices that will assure that excess materials are not delivered to the site, that any materials and packaging that are delivered are recycled locally, and that proper separation of discarded materials

(e.g., sheet rock, conduit, metal flashing, corrugated cardboard, scrap dimension lumber, etc.) will assure maximum recycling.

Mitigation Measure 4.7-6c: Prior to Map Recordation or Development Plan approval, the applicant shall develop an educational brochure that will inform the property owners within the project site about the recycling services in the area. Drop-off, buy-back centers and other possible markets from recyclables in the area shall be identified. Recycling glass, metal, paper, cardboard, and other materials to the maximum extent feasible shall be suggested to residents and business.

Mitigation Measure 4.7-6d: Prior to issuance of a construction permit, plans shall show that adequate space has been provided per current County specifications for on-site trash and recyclable collection/separation.

Mitigation Measure 4.7-6e: The applicant shall ensure through CC&R's or other mechanisms, that proper disposal and recycling collection and green waste collection will be required for all project occupants, that mulching mowers are encouraged for on-site properties and the use of recycled building materials are encouraged.

The use of recycled building materials is encouraged in building projects. Development plan applications shall include in the project description methods to ensure that the project use recycled content materials during construction to the extent economically feasible. Recycled construction material shall include, but not be limited to, flooring, roofing materials, block, glass, plastics, tile, carpet, and paint in any public, residential and commercial buildings. When possible and economically feasible, public structures, including the resort, golf course, and business park, shall incorporate rubberized asphalt, recycled content plastic signs, posts and wheel stops.

Significance After Mitigation. No significant unavoidable adverse impacts are anticipated.

4.8 ARCHAEOLOGY

The purpose of this section is to identify the existence of any key cultural resources located within the project area, and to determine the impacts to such resources that would be attributable to the proposed project and alternatives. The analysis specifically describes prehistoric and historic resources in the project area and the potential effects of the project alternatives on these resources.

4.8.1 ENVIRONMENTAL SETTING

From January 2 through 11, 1996, an archaeological archival records search and stage one archaeological surface survey were conducted on the project site. The purpose of the survey was to determine whether any archaeological/cultural resources were present within the project area, to map their extent based on surface examination, and to determine the nature and significance of any resources discovered on a preliminary level. The following work was conducted to identify and evaluate any cultural resources in the project area.

1. Archaeological records were checked at the Central Coast Archaeological Information Center at the University of California, Santa Barbara. All surveys and archaeological sites within 1/2 mile of the project area were reviewed. The previous surveys were reviewed for field conditions, qualifications of field personnel, completeness and accuracy of recording, and assessment of nature and significance of cultural resources identified within or immediately adjacent to the project area.
2. A stage one surface survey examined portions of the property to identify new archaeological sites in areas not surveyed or where previous surveys were determined to be inadequate (due to poor surface visibility, or poorly qualified field personnel, etc.). Most of the project area is currently in eucalyptus forest and surface visibility is limited by fallen leaves and bark from these trees.
3. All new archaeological sites located during the survey were plotted on project maps. State archaeological site records were completed for all new sites and isolated artifacts and

submitted to the Central Coast Archaeological Information Center at the University of California, Santa Barbara.

4. Based on the records check and initial stage one surface survey, the analysis assessed the nature and significance of the identified cultural resources. Recommended treatment for cultural resources discovered was identified, including mitigation for subsequent phases of the project.

Previous surveys of the rim of Nipomo Mesa have shown it to be a sensitive archaeological area. Projects that are in the Nipomo Mesa area are required to have a surface survey in order to identify any significant cultural resources that may be affected by a proposed development.

4.8.1.1 Archival Records Search

An archival records search was conducted at the Central Coast Archaeological Information Center located at the University of California, Santa Barbara (this survey can be found in Appendix 1 of the Archaeological Survey which is on file with the County of San Luis Obispo Department of Planning and Building). The Central Coast Information Center is the official repository and clearinghouse for all archaeological information on San Luis Obispo County. The archival search yielded information on:

- Previously surveyed tracts within or near the project area
- Intensity of previous survey efforts
- Previously recorded properties/resources within or near the project area
- Characteristics of previously recorded properties/resources
- Dates of previous survey and excavation programs, technical reports and authors.

The records search on the Oceano USGS 7.5' Quad was conducted for all projects within 1/2 mile of the Woodlands site. Since the 1950's there have been at least 25 archaeological surveys done within this region and six archaeological sites have been recorded within this area. The entire area along the southern edge of the Nipomo Mesa, south of the Woodlands property contains a

series of prehistoric cultural sites. Also, a large historic site is located on the west side of Highway 1 due west of the Woodlands property. The nearest recorded archaeological sites north of the Woodlands property are on the north side of Black Lake Canyon. A number of large archaeological sites are recorded several miles east near Highway 101. No archaeological sites have been previously recorded within the boundaries of the Woodlands site.

4.8.1.2 Results of Archaeological Surface Survey

The project site is bounded on the west by Highway 1, by dirt roads on the north and east and by a barbed wire fence on the south, near the bluffs. The southern boundary of the site varies from 660 feet to 1,650 feet north of the southern edge of the Nipomo Mesa. For the most part, the Woodlands parcel is covered with a eucalyptus forest usually with no understory. In some areas, the forest has been cleared and soft sage scrub and grasses are present. Soil is uniform and consists of a loose, tan to orange sandy soil with no natural gravel. Due to vegetation, some lower areas contain more organic materials and the soil is light tan to light brown colored. No rock outcrops, springs, or intermittent creeks are located on the site.

The archaeological surface survey consisted of two to four surveyors zigzagging back and forth examining the surface and road cuts for any signs of prehistoric cultural materials (including small weathered seashell fragments, stone tools and fragments, stone flakes, bone, burnt rock, etc.) or significant historic structures or cultural materials (including historic shell, square nails, purple glass, etc.). The often dense forest prevented the traditional survey transects from being used. Existing roads and trails formed the bases of the transects. All larger cleared areas were surveyed using standard parallel transects.

Five graded primary dirt roads that extend across the entire parcel were carefully examined. Both road surfaces and berms adjacent to the roads were examined. Four large cleared areas, 15 to 30 acres in size were carefully examined in 10 to 20 meter (33 to 66 foot) transects. A series of secondary dirt roads were also used for survey transects. Open, cleared areas adjacent to these roads were also surveyed. Based on a total of 12 survey days, all portions of the site were sampled. A pattern of cultural materials along existing and abandoned roads and trails in the forest was identified.

One prehistoric (and historic) archaeological site, one prehistoric isolated artifact, and five historic sites were identified and recorded. In addition, modern cultural materials spanning the past 20 to 30 years were located in about 50 areas but were not recorded as historic sites. Formal archaeological site records for those archaeological sites older than 50 years have been submitted to the Central Coast Archaeological Information Center located at the University of California, Santa Barbara. The recorded sites are generally described below. Photos of the sites can be found in the Archaeological Survey.

4.8.1.2.1 Woodlands Prehistoric/Historic Site 1

This site is located on the western portion of the 957-acre parcel. The prehistoric site consists of a green Franciscan chert projectile point tip and about a dozen Monterey chert primary and secondary flakes (see Figure 4.8-1a-f) located in the cut road and in the berm adjacent to the dirt road. At least one flake (Figure 4.8-1b) was a thin biface thinning flake and is the by-product of finishing large biface knives or points. The road area has been graded from one to two feet deep below natural grade. The prehistoric materials were identified for a linear distance of about 500 feet. No prehistoric cultural materials were identified east or west of the road cut area. Surface visibility was poor in these adjacent areas. This site probably occupies much of the terrace; only subsurface testing can define the actual boundaries of this cultural site.

Also present at this site, but extending over a larger area than the prehistoric artifacts were historic cultural materials including porcelain, glass, red brick, medium to large sized Pismo Clam (*Tivela stultorum*) shells, some mussel (*Mytilus sp.*) shell, and a fragment of black abalone (*Haliotis cracherodii*). These cultural materials were either in the road, road berm, on the east side of the road, often in one to two meter concentrations. These piles appear to represent discrete deposition units. A total of 825 feet along the dirt road contained these historic materials although most of them were concentrated on the east side of the road. The few fragments of mussel and abalone shells were in the road in the center of the prehistoric area and could be prehistoric rather than historic.

Four pieces of porcelain were collected and submitted to a historic archaeologist for identification. The design of the first piece (SLO-B-1 #1) was identified as late Victorian; a comparable plate was shown in an 1897 advertisement, but such wares had a market well into the

twentieth century. The design of the second (SLO-B-1 #2) is reminiscent of the 1920s or possibly the early 1930s. The third piece (SLO-B-1 #3) dates from approximately 1920 to 1935. The fourth piece (SLO-B-1 #4) was a popular design of Japanese pottery in the period 1920-1940.

4.8.1.2.2 Woodlands Prehistoric Isolate 1

A single white/tan banded Monterey chert flake was found in the road area south of the main dirt road intersection. It measures about 30.0 mm long, 12.0 mm wide and appears to be the edge of biface tool or biface blank (in stages of manufacture) (see Figure 4.8-1g). An area about 100 feet in diameter around the flake was carefully examined but no additional artifacts were observed. The road in this area follows natural grade and has not been graded down. Surface visibility in this area is poor. Substantial vegetation clearing will be needed, and possibly subsurface work, before it can be known if any additional cultural materials are present in this area.

4.8.1.2.3 Woodlands Historic Site 1

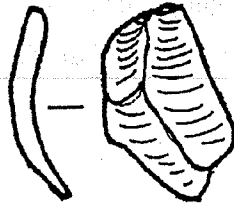
This historic site consists of the northern portion of a large open space overlooking the Santa Maria Valley to the south. It appears as if at least three separate building areas are present in this historic site.

A deep cement basement, located just north of the dirt road but not shown on the 1965 USGS topographic map, suggests that a pre-1965 residential site was located here. This structure was not present in 1965, but another structure was located south of the road. Several blocks of concrete and a burned cleared area are currently located here. A make shift corral is located south of the second building area. This second area may have been a residential dwelling or agriculture buildings. After 1965, a single wide trailer was located at the northeastern part of the clearing. This shows up on the 1979 map but is largely destroyed today.

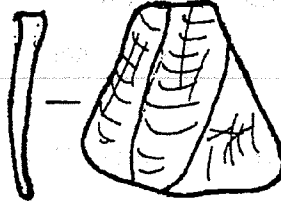
Several rusted cars and miscellaneous metal pieces are located north of the road and include a possible 1930 to 1940 automobile and some 1960-1970's cars. Over the entire open area are occasional pieces of Pismo Clam shell, glass, domestic animal bone, and some porcelain



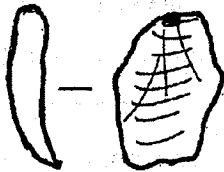
a. Green Franciscan chert biface tip



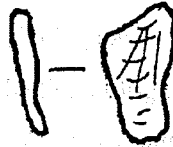
b. Brown chert biface thinning flake, burnt



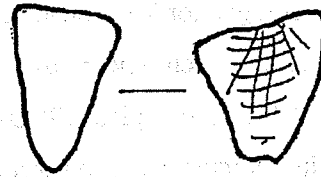
c. Brown chert secondary flake



d. Brown/white chert primary flake



e. Grey chert primary flake



f. brown chert primary flake



g. Brown chert biface edge or flake

Artifacts a - f are from Woodlands Prehistoric/Historic Site 1

Artifact g is from Woodland Prehistoric Isolate 1

All are Monterey chert except a which is Franciscan chert

(All exact size from field sketches)

fragments. A few pieces of glass were slightly tinted purple and a few pieces of white and blue print porcelain were noted near the older car north of the dirt road.

4.8.1.2.4 Woodlands Historic Site 2

This site is located at the southeastern portion of the Woodlands property. It consists of a 30 meter diameter area that contains a few pieces of porcelain, clear and light purple colored glass, and a few small fragments of legal sized Pismo Clam. The concentration is located about 165 feet north of the dirt road and 725 feet west of a gate at the east side of property.

Three pieces of porcelain and two fragments of glass were collected and submitted to an historic archaeologist for identification. The first piece (SLO-F-1 #1), a beaded edge saucer, rim fragment, polychrome transfer print decorated on very finely crazed whiteware, dates to 1890-1920. The second piece (SLO-F-1 #2), a matte gold band white ware with a large pattern of crazing (minute cracks on surface), rim fragment, was made in the first quarter of the twentieth century. The third piece (SLO-F-1 #3), a Chinese porcelain base sherd with a faintly bluish white glaze, dates to between 1875-1930. The fourth piece (SLO-F-1 #4) is a clear glass median sherd of a bottle shape variously referred to as "Excelsior", "Windsor Oval" or "Round Cornered Blake". This piece dates to the last quarter of the nineteenth to the first third of the twentieth century. The fifth piece (SLO-F-1 #5), a small fragment of glass colored purple by exposure to sun light, dates to the 1930s-1940s or more recently.

No evidence of a structure or building site was noted on the crest of the hill just north of these materials. It is probably a dump site dating to the 1920-1940s.

4.8.1.2.5 Woodland Historic Site 3

This concentration of historic materials is located west of the main road (west of the Prehistoric/Historic Site 1). It consists of a 100-foot diameter concentration of historic materials containing blue print (with flowers) porcelain bowl fragments, slight purple tint glass, clear glass, rusted metal fragments, some legal sized fragments of Pismo Clam. The materials are centered at the intersection of two dirt roads in the eucalyptus forest. No evidence of a building or any residential use was noted in this site. It is probably a dump site dating to the 1920s-1940s.

4.2.1.2.6 Woodland Historic Site 4

This site is located south of the Historic Site 3 along a small dirt road. In an area about 165 by 165 feet were identified a small corral area (made with eucalyptus sticks), some 50 gallon metal drums, the frame of a small table, a couch, some rolls of plastic bags from carrots and other vegetables, a wooden door and some pop top aluminum cans tabs. No porcelain or Pismo Clam shell was noted. The area appears to have been a temporary residential area probably dating to the 1960's to 1980's. This was recorded only as a dated example of modern cultural activity on the Woodlands property.

4.2.1.2.7 Woodland Historic Site 5

This area is located at the east side of a clearing where Historic Site 3 was located. It consists of a 30 meter by 50 meter area that contains car tires, plywood, clear and brown glass bottles (probably beer) and evidence of small bonfires. Two pennies (1965 and 1985) and a 1989 quarter were noted around the fire areas. No Pismo Clam shell or porcelain were noted in this area. This location represents temporary used areas dating to recent times.

This was recorded only as a dated example of modern cultural activity on the Woodlands property.

4.2.1.2.8 Other Cultural Materials

As many as 50 other locations contained a variety of modern cultural materials including abandoned cars and trucks usually dating to the 1970s to 1980s. Often these abandoned cars were closer to the periphery of the property (usually within 330 to 660 feet). On the west portion of the property (usually within 660 feet of Highway One) were many dump areas containing appliances (washing machines, refrigerator, stoves, water heaters), worn tires, couches, chairs, and more rarely bottles and cans. No Pismo Clam, porcelain or other ceramics were present in these areas.

The pattern of these modern cultural materials, as well as the older historic cultural materials, all indicate that narrow roads were used by vehicles to dump the materials. No cultural materials were noted in areas away from roads.

4.8.1.3 Cultural Resources on Nipomo Mesa

4.8.1.3.1 Prehistoric Cultural Resources

This project is within the territory historically occupied by the Obispeño Chumash, the northernmost of the Chumashian speaking peoples of California. Archaeological evidence has revealed that the ancestors of the Obispeño settled in northern Santa Barbara County and San Luis Obispo County more than 9,000 years ago. The Arroyo Grande, Oceano and Nipomo areas have a number of archaeological sites extending back over 5,000 years.

Following an annual cycle of hunting, fishing, fowling and harvesting, the Chumash peoples adapted to changing environmental and social conditions and grew into a large complex society which persists today. Aboriginal society underwent major changes soon after Spanish contact in A.D. 1769, primarily due to the introduction of epidemic European diseases and the consequent high mortality rate. After the establishment of the mission at San Luis Obispo in September of 1772, baptisms from the Arroyo Grande to Nipomo area began within a year and continued until about 1804 when villages in the area were abandoned and the inhabitants were moved and living at the mission or on outposts.

The nearest Late period (post 1000 A.D.) settlement was probably at the town of Nipomo (Lachito), east of the Woodlands project. The name Nipomo was reported by the Chumash consultant Fernando as the Purisimeño Chumash word, *anipomo*, meaning "promontory". It may have been one large permanent village of about 50 people, and in the Middle period, smaller seasonal camps may have been the settlement pattern. The population may have moved west to the lake/dune areas then returned to the Nipomo area and possibly east into the foothills for hunting and gathering additional plant resources. There are many small temporary or day use sites in the sand dunes west of Nipomo Mesa. A similar pattern of use has been defined for the village of Lompoc and Lompoc Mesa just south of the Santa Ynez River.

Archaeological surveys done during the past 40 years on the south, east, west and north sides of Nipomo Mesa have recorded many archaeological sites along the edges of the mesa but very few in the interior. Middle and Late period sites are common (post 3,000 years B.C.). West of the mesa are a number of fresh water lakes and a series of low sand dunes. Many small seasonal sites have been recorded in these dunes. They usually contain a sparse to low density of Pismo clam shells and chert flakes with rare tools and burnt rock. The edge of the mesa directly south of the Woodlands project contains a number of archaeological sites, some of which extend near the southern boundary of the project property.

Table 4.8-1 summarizes some of the attributes of prehistoric archaeological sites on the Nipomo Mesa.

Overall, it appears as if many sites were probably semi-permanent camps or permanent villages occupied during at least the last 2,000 to 3,000 years. Based on this data, it appears as if sites on the Nipomo Mesa contain at least two general types of activities. The first is female dominated food preparation involving grinding tools, manos (hand stones) and metates (grinding slabs) and/or pestle and mortars, burnt rock from ovens, shellfish and bone remains. The other is characterized by cobble flaking hammers, chert biface blanks (the intermediate stage of manufacturing a tool), biface knives and chert (flint) flakes and probably reflects male dominated stone tool manufacturing. Most of these sites have been damaged or destroyed in the past 30 years. Almost nothing is known about their antiquity, internal organization, relationship to the ancient Halycon bay or other sites in the Arroyo Grande/Nipomo Mesa region.

With respect to the large prehistoric site, Woodland Prehistoric Site 1, useful comparative information can be obtained from several sites located on the north side of Black Lake Canyon which is about 1-1/2 miles north of the Woodland property. In 1984, a survey of 384 acres identified three prehistoric sites and one isolated artifact. These three sites are included in Table 4.8-2. Later, a small scale subsurface testing program was conducted at these sites. These sites appear similar in content, antiquity, and geographical setting with the Woodland property sites.

Because of the antiquity of the cultural deposits at the Black Lake complex, most of the cultural materials have settled down in the soil profile to depths of 60 cm to 1 meter. Surface indicators of these types of sites at Black Lake and elsewhere are sparse and cannot be relied upon for

TABLE 4.8-1: SUMMARY OF DATA ON SOME SITES ON NIPOMO MESA

<u>SITE #</u>	<u>AREA (METER²)</u>	<u>GROUND STONE</u>	<u>CHIPPED STONE</u>	<u>POINTS</u>	<u>SHELLS</u>	<u>BURNT ROCK</u>	<u>SOURCE/ OTHER</u>
SLO-364	2000	pestle	yes	stemmed	yes	yes	Ford 1974
SLO-398	40,000	manos, metates	yes	yes	yes	??	Wallace 1962
SLO-402	33,300	manos, mortars	yes	yes	yes	yes	Greenwood 1979; burials, 380 year old C- 14 date
SLO-403	176,000	manos, mortars	yes	yes	yes	??	Wallace 1962
SLO-404	7,500	manos, pestle	yes	yes	yes	yes	Wallace 1962
SLO-405	11,550	no	yes	stemmed	yes	yes	Wallace 1962
SLO-804	420,000	pestles, mortars	yes	yes	yes	yes	Spanne 1977
SLO-930	50,000	mano	yes	yes	no??	yes	Gibson 1984
SLO-1111	20,000	no?	yes	stemmed	yes	yes	Gibson 1984

Note: 1 meter = 3.28 feet

SOURCE: Gibson's Archaeological Consulting

boundaries or densities of cultural materials. Table 4.8-2 shows the estimated densities of chert artifacts in the Black Lake sites.

Preliminary assessment is that these three sites at Black Lake Canyon were at least seasonal residential sites and included the production of stone tools including biface tools. Only small amounts of burnt rock or fauna materials were identified in the subsurface sample. Based on limited subsurface testing conducted in 1989, it is possible that all sites date to the 2,000 to 4,000

TABLE 4.8-2: SUMMARY OF ARTIFACT DENSITIES FROM BLACK LAKE COMPLEX

<u>Site Number</u>	<u>Dimensions</u>	<u>Area M²</u>	<u>Density of Flakes/ M³</u>	<u>Estimated Total Flakes in Site</u>
SLO-1111	120 x 140 meters	16,800	100	1.68 million
SLO-1112	30 x 60 meters	1,800	50	90,000
SLO-1270	50 x 100 meters	5,000	50	250,000

Note: 1 meter = 3.28 feet

Source: Gibson's Archaeological Consulting

year old period. It is also conceivable that all three sites are one and the same and merely represent separate locations reflecting a socio-geographical pattern organized along lines of kinship. As reflected by the predominance of lithic detritus and biface thinning flakes in all three assemblages, each location could in fact represent a separate clan group involved in the production and maintenance of stone tools. It is also possible that female activities (food processing and maintenance) may coexist with each of these lithic workshops.

The Prehistoric/Historic Site 1 on the central high terrace on the Woodlands property was only identified in the graded road area. However, it is similar in content and setting with the SLO-1111 site complex at the north side of Black Lake Canyon. No natural chert rock exists on the Nipomo Mesa and all stone for tools or ovens had to be imported. The Franciscan biface knife or point tip is a form that probably dates to the Middle or Early period (1,000 to 4,000 years old) in the Chumash sequence. At least one large biface thinning flake suggests males were manufacturing and finishing large bifaces at this site. The Woodlands Prehistoric/Historic Site 1 could contain similar densities of cultural materials.

The shell in the road area in the center of the prehistoric component of Site 1 could be prehistoric and if so, would be the main residential part of the site. Radiocarbon dating of some of these shells would clarify the antiquity of the shell and if prehistoric would also date the overall occupation of this site. At least three of the large prehistoric sites located within 1/2 to 1 mile south of the Woodlands project (along the edge of the mesa) have stemmed style projectile points which suggest Middle to Early period occupation.

The Woodlands Prehistoric Isolate #1 may contain additional cultural materials that can only be recovered during subsurface testing. Originally during the 1984 preliminary surface survey at Black Lake Canyon, SLO-1270 was only identified by an isolated piece of burnt sandstone.

Subsequent subsurface testing in 1989, indicated a site of 165 feet by 330 feet with an estimated 250,000 chert flakes. It is unknown if the isolated biface fragment/flake at Prehistoric Isolate 1 location was pushed west several hundred meters during grading of the road through Prehistoric/Historic Site 1, or if it is a true isolated artifact (in its original location), or if it is the surface indicator of a subsurface deposit.

The presence of three non residential concentrations of historic materials (Historic sites 2 and 3 and the historic part of Woodland Prehistoric/Historic site 1) all are similar in contents which include medium to large (legal) sized Pismo Clam, good quality porcelain and glass. These materials could date anywhere from the early 1900s up to 1940.

During a 1985 survey conducted on the area west of Highway One adjacent to the Woodlands property, one large historic site, SLO-1194H was recorded (Gibson 1985). The site started on the west side of the highway and extended west along the crest of a terrace for about 1,650 feet with an estimated area of 1.1 million square feet. The site consisted of 100 or more discreet trash concentrations (10 to 33 feet in diameter) typically containing slightly weathered legal sized Pismo Clam shells, occasional red and black abalone, mussel and turban (*Tegula* sp.), various colored glass bottles, porcelain, cups, glasses, rusted metal items, shoe holes and four car license plates dating between 1933 to 1940. No obvious purple glass was noted. Two local residents have knowledge about Santa Maria Valley locals who used to dump trash along the old road to the beach.

The historic component of the Woodlands Prehistoric/Historic site 1 and Historic Site 2 and Site 3 date to this time period and contents and pattern of deposition is similar to the SLO-1194H site. The Woodlands Historic Site 1 was probably a residence during this period.

4.8.2 ENVIRONMENTAL IMPACTS

4.8.2.1 Thresholds of Significance

In accordance with CEQA, the effects of a project are evaluated to determine if they will result in a significant adverse impact on the environment. An EIR is required to focus on these effects and offer mitigation measures to reduce or avoid any significant impacts which are identified. The criteria, or standards, used to determine the significance of impacts may vary depending on the nature of the project. The standards listed below have been used to determine the significance of the proposed project's impacts related to Cultural Resources. Impacts on cultural resources are considered significant if they disrupt or adversely affect:

- 1) A prehistoric or historic archaeological site;
- 2) A property of historic or cultural significance to a community or ethnic or social group,
- 3) Cultural resources as a result of direct impacts (e.g., ground-disturbance and construction activities) or indirect impacts (e.g., vandalism, increase erosion, or vibration during heavy grading);
- 4) A landmark of local cultural/historical importance; or
- 5) Existing religious or sacred uses within the potential impact area.

Based on these standards, the effects of the proposed project have been categorized as either "less-than-significant" or "significant." Mitigation measures are recommended for potentially significant impacts. If a potentially significant impact cannot be reduced to a less-than-significant level through the application of mitigation, it is categorized as a significant and unavoidable impact. The standards used to evaluate the significance of impacts are often qualitative rather than quantitative because appropriate quantitative standards are either not available for many types of impacts or are not applicable for some types of projects.

4.8.2.2 Impacts and Mitigation Measures

Impact 4.8-1: Known prehistoric and historic cultural resources, as well as previously undiscovered prehistoric and historic cultural resources, could be disturbed and/or destroyed during construction or operation of the project. This would be a significant impact.

As discussed above, the Stage I Archaeological Surface Survey for the project identified one prehistoric isolate, one prehistoric site, and five historic sites located in the project area. The survey determined that Historic Sites 4 and 5 would not pose constraints to the development of the project since both sites date from the 1960's to the 1980's. However, Prehistoric Site 1 is located in a sensitive prehistoric archaeological area, a territory historically occupied by the Obispeño Chumash. This site is located on the western portion of the 957-acre parcel. Other prehistoric sites located in the vicinity of the proposed project provide useful comparative information regarding Prehistoric Site 1. Additionally, since several portions of the southern portion of the site are similar in geographical setting as Historic Site 1, they should be considered sensitive areas until further subsurface testing is conducted.

Mitigation Measures:

Mitigation Measure 4.8-1a: Subsequent to tree removal activities, and prior to the finalization of project designs, subsurface testing shall be required for Prehistoric Site 1 and Prehistoric Isolate 1 to define the actual boundaries, content, antiquity and significance of the sites. A series of sixty or less shovel test pits (40 cm diameter) and four to six 1x1 meter test units shall be utilized to map Prehistoric Site 1. A series of ten to twenty shovel test pits and one or two 1x1 meter test units shall be utilized to map Prehistoric Isolate 1. If cultural materials are present on site, a data recovery stage shall be undertaken for areas which cannot be avoided by design or capping.

Mitigation Measure 4.8-1b: An archaeological monitor shall be present during all earthmoving activities on the site. If human remains of native American origins are encountered during development, project construction shall be immediately suspended, and the County Coroners office and the Native American Heritage Commission shall be contacted to determine necessary procedures for protection and preservation of remains, including reburial at applicant's expense, as provided in the State CEQA Guidelines, Appendix J.

Mitigation Measure 4.8-1c: In accordance with the County Land Use Ordinance, Section 22.05.140, in the event archaeological resources are unearthed or discovered during any construction activities, the following standards apply:

Construction activities shall cease **within 50 yards of the archaeologically sensitive area**, and the Environmental Coordinator and Planning Department shall be notified so that the extent and location of discovered materials may be recorded by a qualified archaeologist, and disposition of artifacts may be accomplished in accordance with state and federal law.

In the event archaeological resources are found to include human remains, or in any other case where human remains are discovered during construction, the County Coroner is to be notified in addition to the Planning Department and Environmental Coordinator so proper disposition may be accomplished.

Mitigation Measure 4.8-1d: If archaeological resources encountered are found to be important, the applicant shall provide reasonable funding and adequate time for recovery of such resource, or the equivalent avoidance measure as approved by the County.

Significance after Mitigation: Less than significant.

4.9 AGRICULTURAL COMPATIBILITY

4.9.1 ENVIRONMENTAL SETTING

4.9.1.1 Existing Conditions

The Woodlands site consists mostly of Class IV irrigated and Class VI non-irrigated soil. The storie index (49) rates the soil as fair. This soil's type is not highly suited for most crops due to low water holding capacity, low fertility and wind erosion. Most cropland uses would require careful management. However, the soil is suited and used for avocados, lemons, strawberries and some vegetable crops in scattered locations throughout the Nipomo Mesa. The soil type is well suited and used extensively for wholesale nursery production. This soil's characteristics, along with a moderate coastal climate and the availability of high quality irrigation water, combine to make the Nipomo Mesa well suited for nursery and greenhouse operations.

Agricultural uses adjacent to the site are limited. A wholesale nursery is located north of the site, within the Residential Rural land use category. Property used on a rotational basis for vegetable crops and strawberries exists west of the site and is in the Agricultural land use category. Additionally, intensely farmed vegetable cropland exists to the south of the site in the Santa Maria Valley, separated from the site by an intervening parcel and a sharp drop in elevation of over 100 feet.

4.9.1.2 Land Use Compatibility

The County of San Luis Obispo Agricultural Commissioner is charged with promoting and protecting agriculture, protecting the public's health and safety, and providing the Board of Supervisors and City Councils with technical information and assistance in dealing with land use compatibility and capability issues affecting agriculture. This is accomplished through the review of land use proposals in or near agricultural areas and providing recommended measures where necessary. As appropriate, the Department of Agriculture makes a determination of "significant land use conflict" on project referrals, also providing the basis for the determination. Recommended mitigation measures are provided if a significant land use conflict determination is made.

Land use compatibility issues include, but are not limited to: pesticide use, noise, dust, trespassing, vandalism, theft, litter, liability issues, rodent control, agricultural burns, and erosion.

The most effective mitigation measures for these issues are open space buffers between the land uses. The margin of safety and probability of conflicts are considered in determining setback distances. Since production practices vary considerably by type of crop, buffer distances may vary accordingly. Table 4.9-1 presents the Agricultural Commissioner's recommended buffer distance ranges by type of agricultural use.

Site specific non-crop factors and proposal specifications often affect the final buffer distance recommendations within the ranges presented in Table 4.9-1. Other mitigation measures, such as screening, may also affect buffer distance recommendations. Significant overriding factors would be necessary to justify buffers less than the indicated ranges.

The zoning on parcels in agricultural use adjacent to the proposed land use may also affect buffer determinations. If the adjacent parcel is zoned for agriculture and is either in production or has prime soils, buffers may be recommended and development entitlement could possibly be affected. If the parcel is not in production, entitlement may not be affected. If the adjacent parcel is in a non-agricultural zone, buffers would only be recommended if the parcel is in production.

Based on these factors, a buffer of 200 to 500 feet would be recommended between development on the Woodlands site and the agricultural use to the west, and a buffer of 100 to 500 feet between the site and the wholesale nursery to the north. As discussed in Section 4.6, Aesthetics, the South County Area Plan specifies a minimum 200-foot wide open space buffer shall be provided adjacent to all arterial and collector perimeter roads and be landscaped to shield the improved village area, as well as permanent open space areas that will retain the rural character of the site as seen from Highway 1, and a landscaped open space buffer around the perimeter of the site.¹ These buffers should also serve to reduce potential land use conflicts with the adjacent wholesale nursery and agricultural uses.

4.9.2 ENVIRONMENTAL IMPACTS

4.9.2.1 Thresholds of Significance

Appendix G of the CEQA *Guidelines* states that a project will normally have a significant effect on the environment if it will convert prime agricultural land to non-agricultural use or impair the agricultural productivity of prime agricultural land. "Prime" agricultural land is defined as land

¹ San Luis Obispo County, South County Area Plan – Inland Portion, page 7-19.

TABLE 4.9-1: AGRICULTURAL BUFFER DISTANCE RANGES

<u>Type of Agricultural Use</u>	<u>Buffer Distance Range</u>
Vineyard	400 - 800 feet
Irrigated Orchard	300 - 800 feet
Irrigated vegetables and berries	200 - 500 feet
Field Crops	100 - 400 feet
Dry farm almonds	100 - 200 feet
Rangeland/pasture	50 - 200 feet
Wholesale nurseries outdoor grown	100 - 500 feet
Greenhouse	50 - 250 feet
Animal Husbandry	See Land Use Element

SOURCE: San Luis Obispo County Agricultural Commissioner

which contains productive soils rated as Class I and II by the Soil Conservation Service. Appendix G of the CEQA *Guidelines* also establishes that a project would normally have a significant effect on existing land uses if it would conflict with adopted environmental plans and goals of the community where it is located. Appendix I of the CEQA *Guidelines* indicates that a project would have a significant effect of the environment if it would result in a substantial alteration of the present or planned land use of an area.

4.9.2.2 Impacts and Mitigation Measures

Impact 4.9-1: Implementation of the proposed project would result in the conversion of the site from open space to non-agricultural uses; however, as the site consists of Class IV irrigated and Class VI non-irrigated soil, this would not be considered significant. In addition, the project would incorporate substantial open space buffers between its proposed residential uses and adjacent agricultural uses.

As discussed above, the County Agricultural Commissioner has established recommended buffer distance ranges by type of agricultural use. Due to the potential use of methyl bromide, a buffer distance of 200 feet is recommended to separate the wholesale nursery on the parcel to the north of the property from the project. This buffer could include open space, portions of the golf course, and parking areas for the proposed Business Park. Similarly, a buffer distance of 500 feet

is recommended to separate the farm located to the west of the property from any proposed structures.²

The proposed project would incorporate a 200-foot open space buffer along Highway 1 and a 100-foot buffer along the remaining perimeter of the site. These buffers would consist of existing eucalyptus trees and pedestrian, equestrian and bicycle trails. Along with the right-of-way for Highway 1, the proposed width of the buffers would meet the buffer requirements recommended by the County Agricultural Commissioner; further, the remaining eucalyptus trees would provide additional screening between the adjacent land uses. Therefore, the proposed site plan and lot layouts would be consistent with the buffer requirements; no modifications would be necessary.

Mitigation Measures:

Mitigation Measure 4.9-1a: Prior to recordation of the final map or Development Plan approval, the applicant shall submit a tentative map to the County Agricultural Commissioner for review and approval, indicating compliance with the required buffers.

Significance After Mitigation: No significant impacts are anticipated.

² Mr. Robert Hopkins, San Luis Obispo County Agricultural Commissioner, telephone conversation, December 23, 1997.

4.10 HAZARDOUS MATERIALS

The proposed project raises potential health and safety issues related to the handling and management of hazardous materials. Hazardous materials could be used in research and development activities in the business park, for golf course operation and maintenance, and at the wastewater treatment plant. Improper handling of hazardous materials could have adverse impacts upon humans or the environment. This section examines the potential of the proposed project to create public health hazards, to expose workers to situations that pose health threats, or to contribute conditions capable of harming the environment.

4.10.1 ENVIRONMENTAL SETTING

4.10.1.1 Definitions

Certain chemical and physical properties of a substance may cause it to be considered hazardous. Under Title 22, Section 66261.10 of the California Code of Regulations (CCR), a hazardous material is defined as a substance or combination of substances, which because of quantity, concentration, or physical, chemical or infectious characteristics, may either:

- (1) cause or significantly contribute to an increase in mortality or an increase in serious, irreversible, or incapacitating, illness; or
- (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of, or otherwise managed (California Code of Regulations, Title 22, Division 4.5, Chapter 11, Article 2, Section 66261.10).

Hazardous wastes are defined in the same manner. Hazardous wastes are hazardous substances that no longer have practical use, such as materials that have been discarded, discharged, spilled, contaminated, or are being stored prior to proper disposal. According to Title 22 of the California Code of Regulations (CCR), hazardous materials and hazardous wastes are classified according to four properties: toxic, ignitable, corrosive, and reactive (California Code of Regulations, Title 22, Division 4.5, Chapter 11, Article 3).

Toxic substances may cause short-term or long-lasting health effects, ranging from temporary effects to permanent disability, or even death. For example, toxic substances can cause eye or skin irritation, disorientation, headache, nausea, allergic reactions, acute poisoning, chronic illness, or other adverse health effects if human exposure exceeds certain levels (the level

depends on the substance involved). Carcinogens (substances known to cause cancer) are a special class of toxic substances. Pesticides are an example of toxic substances. *Ignitable substances* are hazardous because of their flammable properties. Gasoline and diesel fuel are examples of ignitable substances. *Corrosive substances* can damage other materials or cause severe burns upon contact. Examples include strong acids and bases such as sulfuric (battery) acid or lye. *Reactive substances* may cause explosions or generate gases or fumes. Explosives and pressurized canisters are examples of reactive materials. Properties of many specific hazardous chemical are described in standard references (Budavari, 1989; Sax, 1989; Sittig, 1985; State of California, 1994).

Storage, use, and handling of hazardous materials and wastes are regulated by various federal, state, and local laws and regulations aimed at the protection of public health and the environment. The major laws and regulations are mentioned below.

4.10.1.2 Exposure to Hazardous Materials

4.10.1.2.1 Hazard vs. Risk

Worker safety and public health are potentially at risk whenever hazardous materials are used. It is necessary to differentiate between the "hazard" of these materials and the "risk" they pose to human health or the environment. A hazardous situation is one that has the potential to cause damage upon upset or exposure. The risk of an event is determined by a combination of (1) the probability of exposure to the hazardous material and (2) the severity of consequences should exposure occur (California Office of Emergency Services, 1989). In other words, the likelihood of exposure to the hazardous material coupled with its inherent hazardous properties determine the degree of risk to health or the environment. To be of high risk, exposure to a hazardous material must be both likely and consequential.

4.10.1.2.2 Means of Exposure

Exposure of the public to hazardous materials or wastes could occur in several ways:

- improper handling or use of hazardous materials during the course of business,
- failure of storage containment systems,
- fire, explosion, or other emergencies,
- unsound disposal / treatment methods, or
- upsets during transport.

4.10.1.2.3 Pathways of Exposure

Pathways of exposure to hazardous waste depend on the chemical and physical properties of the waste and the type of accident that released it. The four common exposure pathways are inhalation, ingestion, direct contact (with skin or eyes), and injection (skin puncture or cut):

- Inhalation (breathing the hazardous substance) is the primary route of exposure for toxic fumes or vapors and is the primary exposure pathway at a distance.
- Ingestion (swallowing the hazardous substance) would not be expected to occur at an industrial facility unless persons practiced poor personal hygiene. Ingestion also can occur by eating contaminated crops or other foods, and by drinking contaminated water.
- Direct bodily contact requires immediate proximity to the hazardous solid or liquid. Skin or eye contact with hazardous fumes or vapors can also occur over distance.
- Injection (puncturing the skin with a sharp, contaminated object) typically is a threat only to persons handling unpackaged or improperly packaged hazardous wastes.

Factors that influence the health effects of exposure to hazardous material include the dose to which the person is exposed, the frequency of exposure, the exposure pathway, and individual susceptibility. A material may be hazardous by one exposure pathway but not another; for example, a chemical might be toxic if ingested but not if touched.

4.10.1.2.4 Effects of Exposure

Health effects of exposure to hazardous chemicals vary considerably and are specific to each chemical. Possible health effects of exposure may be acute (immediate, or of short-term severity) or chronic (long-term, recurring, or resulting from repeated exposure). Acute effects, usually resulting from a single exposure, might include burns or injury to body organs or systems such as from exposure to corrosive, reactive, or ignitable materials. Accidental worker exposure to chlorine or sulfur dioxide could result in acute injury.

Chronic effects, usually resulting from repeated or long-term exposure to a toxic material (as a contaminant of food or drinking water, for example, or bad air in a poorly ventilated work place), could also include systemic or organ damage. Repeated ingestion of low concentrations of lead over time would be an example of a chronic exposure. Chronic toxic effects of particular concern are birth defects and cancer.

Effects of exposure to specific hazardous materials are described in detail in standard library references (Budavari, 1989; Sax, 1989; Sittig, 1985).

4.10.1.3 Regulatory Setting

Hazardous materials handling and hazardous waste management are subject to many laws and regulations at all levels of government. A brief summary of these regulations is provided here.

4.10.1.3.1 Hazardous Materials Management

The United States Environmental Protection Agency (US EPA) is responsible for enforcing regulations at the federal level pertaining to hazardous materials. The US EPA has delegated much of its regulatory authority to individual states wherever adequate state regulatory programs exist. California hazardous materials laws incorporate federal standards, but are stricter in many respects. The Department of Toxic Substances Control (DTSC), within the California Environmental Protection Agency, enforces statewide hazardous materials regulations in California in cooperation with the US EPA.

State laws require detailed planning to ensure that hazardous materials are properly handled, used, stored, and disposed of, and, in the event that such materials are accidentally released, to prevent or to mitigate injury to health or the environment. These laws require hazardous materials users to prepare written plans such as Hazardous Materials Business Plans, Hazardous Materials Inventories, and Risk Management and Prevention Programs. Laws and regulations require hazardous materials users to store hazardous materials appropriately and to train employees to manage these materials safely. State hazardous materials and waste laws are contained in the CCR, Title 22.

The San Luis Obispo County Health Agency, Environmental Health Division, is the primary agency responsible for the management of hazardous materials and wastes in San Luis Obispo County.

4.10.1.3.2 Pesticides

The use of pesticides is regulated at federal, state, and local levels of government to protect the health and safety of the public. The *Federal Insecticide, Fungicide and Rodenticide Act of 1972* (FIFRA), administered by the Environmental Protection Agency (EPA), is responsible for

ensuring that the benefits of pesticide use outweigh the risks. A pesticide, as defined by FIFRA, includes any substance or mixture of substances intended for preventing, destroying repelling or mitigating any pest, and any substance or mixture of substances intended for use as a plant regulator, defoliant or desiccant. Under FIFRA, all pesticides must be registered before they can be sold or distributed in interstate or intrastate commerce. Test data provided by the manufacturer is evaluated by the EPA. Required studies include testing to show whether a pesticide has the potential to cause adverse effects in humans, fish, wildlife, and endangered species. Potential human risks studies include acute reactions, such as toxic poisoning and skin irritation, and long-term effects like cancer, birth defects, or reproductive system disorders.

Each pesticide is assigned a classification as either a general use chemical or restricted use chemical during the registration process. "General use" chemicals may be purchased and applied by any person. "Restricted use" chemicals may be purchased and applied only by certified applicators; that is, only those persons having received special training and testing in their use, handling, safety and application of the particular material. Restricted pesticides are further classified as Category I, II, or III on the basis of potential problems that might occur upon mishandling (such as eye irritation or toxicity to house pets, for example), with Category I requiring the greatest caution. The list of restricted chemicals is constantly changing as new chemicals come on the market and as new information is developed on chemicals already on the market.

FIFRA also requires registration of pesticide production establishments and annual reporting of production, as well as certification of applicators of restricted use chemicals.

At the state level, California has regulated the use of pesticides under the California Food and Agriculture Code since 1967. California has some of the most restrictive pesticide regulations in the country. The *Pesticide Contamination Prevention Act of 1985* required the California Department of Food and Agriculture to obtain product chemical and environmental data for all active ingredients of agricultural use pesticides under EPA Guidelines. Since 1991, the *Act* has been administered by the Department of Pesticide Regulation within the California Environmental Protection Agency.

Under state law, each local County Agricultural Commissioner regulates the use and purchase of pesticides by applicators licensed by the state. The San Luis Obispo County Agricultural Commissioner enforces all laws and regulations concerning restricted pesticides, licensed pest control operators, pesticide dealers, pesticide advisors, growers and others in San Luis Obispo

County. Restricted pesticides can be applied only by persons holding a California "Qualified Applicators License," who are typically private contractors with permits to store and apply them. The Agricultural Commissioner evaluates requests for restricted material permits, supervises application, inspects equipment and safety devices and oversees proper disposal of pesticide containers. Licensed applicators must report all applications of pesticides to the County on a monthly basis. Records of pesticide use submitted by dealers, agricultural pest control advisors, pest control operators, growers and others, and are maintained by the Agricultural Commissioner. Large numbers of herbicides, insecticides, and fungicides are appropriate for use on golf courses. Basically, any pesticide on the market is approved for use according to the manufacturer's instructions on the label.

4.10.1.3.3 Hazardous Materials Transportation

The U.S. Department of Transportation regulates hazardous materials transportation between states. Within California, the state agencies with primary responsibility for enforcing federal and state regulations and responding to hazardous materials transportation emergencies are the California Highway Patrol and the California Department of Transportation. Together, federal and state agencies determine driver training requirements, load labeling procedures, and specifications for container types to be used. While special requirements apply to transporting hazardous materials, requirements for transporting hazardous waste are much more stringent, and hazardous waste haulers must be licensed to transport hazardous waste on public roads.

4.10.1.3.4 Worker Safety

Occupational safety standards exist in federal and state laws to minimize worker safety risks from both physical and chemical hazards in the work place. The California Division of Occupational Safety and Health (Cal-OSHA) and the federal Occupational Safety and Health Administration (OSHA) are the agencies responsible for assuring worker safety in the handling and use of chemicals in the workplace. Cal-OSHA assumes primary responsibility for developing and enforcing standards for safe workplaces and work practices. Because California has a federally approved OSHA program, it is required to adopt regulations that are at least as stringent as those found in 29 CFR. Cal-OSHA standards are generally more stringent than federal regulations.

Cal-OSHA regulations concerning the use of hazardous materials in the workplace, as detailed in Title 8 of the California Code of Regulations, include requirements for safety training, availability of safety equipment, accident and illness prevention programs, hazardous substance

exposure warnings, and emergency action and fire prevention plan preparation. Cal-OSHA enforces hazard communication program regulations that contain training and information requirements, including procedures for identifying and labeling hazardous substances, communicating hazard information related to hazardous substances and their handling, and preparation of health and safety plans to protect workers and employees at hazardous waste sites.

4.10.1.3.5 Hazardous Waste Handling

The primary federal hazardous waste and substance laws are contained in Subtitle C of the *Resource Conservation and Recovery Act of 1976 (RCRA)*, and in the *Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA)*. RCRA gives EPA the authority to regulate the generation, transportation, treatment, storage, and disposal of hazardous waste. Regulations contain specific guidelines for determining whether a waste is hazardous, based on either the source of generation or the properties of the waste. While disposal of empty pesticide containers is mandated by FIFRA, the disposal of residues, rinsates and other pesticide wastes along with industrially generated hazardous waste is regulated under RCRA.

The California Environmental Protection Agency Department of Toxic Substances Control regulates the generation, transportation, treatment, storage, and disposal of hazardous waste. Laws impose "cradle to grave" regulatory systems for handling hazardous waste in a manner that protects human health and the environment. The San Luis Obispo County Environmental Health Division enforces on-site waste management requirements that apply to all hazardous waste generators, such as requirements for secondary containment around stored wastes to prevent environmental contamination in the event of a spill. The California Department of Toxic Substances Control permits and oversees all hazardous waste treatment, long-term storage, and disposal activities.

Detailed and pertinent information on hazardous waste management can be found in the *San Luis Obispo County Hazardous Waste Management Plan* (San Luis Obispo County Health Agency, 1988). The document was developed to provide comprehensive planning for management of hazardous wastes in the County. The County Environmental Health Division is the primary agency responsible for the management of hazardous wastes in San Luis Obispo County. The Department is responsible for hazardous waste generator requirements, emergency response, and hazardous site cleanup. Additional information on hazardous waste management in San Luis Obispo County can be found in the *County Hazardous Waste Management Plan*.

4.10.1.3.6 Emergency Response to Hazardous Materials Incidents

California has developed an Emergency Response Plan to coordinate emergency services provided by federal, state, and local government and private agencies. Response to hazardous materials incidents is one part of this plan. The plan is administered by the State Office of Emergency Services, which coordinates the responses of other agencies including the California Environmental Protection Agency, the California Highway Patrol, the Department of Fish and Game, the San Francisco Bay Area Regional Water Quality Control Board, and the San Luis Obispo County Environmental Health Division, and local Fire Departments, which provide hazardous materials emergency response services.

San Luis Obispo County has a *Hazardous Materials Emergency Response Plan*, which was developed by the County Office of Emergency Services and adopted by the County (1985). The Plan identifies local, state, and federal responsibilities designed to minimize damage to human health, natural systems, and property caused by the accidental release of hazardous materials.

4.10.1.4 Existing Site Conditions

The project site is in a predominately rural area of San Luis Obispo County, approximately two miles west of the community of Nipomo. The site includes approximately 957 acres. Land adjacent to the proposed project includes rural residential development, a commercial nursery, limited row crops, and undeveloped areas.

One property in the community of Nipomo (Hemerick, 600 Hill St.) is listed on the State Hazardous Waste Sites and Substances List (California Environmental Protection Agency, 1994). The listed property is not near the project area. No other Nipomo sites were mentioned on the State list.

4.10.2 ENVIRONMENTAL IMPACTS

4.10.2.1 Thresholds of Significance

State guidelines regarding the California Environmental Quality Act (CEQA) suggest standards by which to determine whether the effects of a potential impact should be considered significant (Office of Planning and Research, 1992). Appendix G of the CEQA guidelines states that a project would normally have a significant impact if it would create a potential health hazard or

involve use, production, or disposal of materials that pose a hazard to people or animal or plant populations in the area affected. This EIR adopts those standards as related to the impacts discussed in this section as follows:

- An impact would be considered significant if the project would involve the use, production, or disposal of materials in a manner that poses a hazard to people, or to animal or plant populations.
- An impact would be considered significant if the project would expose employees to working situations that exceed accepted state or federal guidelines for chemical exposure or hazardous waste disposal.
- An impact would be considered significant if the project would involve violating applicable occupational health and safety laws.

Approach to the Analysis

This impact analysis focuses on potential health and safety effects of the project, particularly effects related to handling of hazardous materials and waste by the new installations that are planned as part of the project. The evaluation considers project plans insofar as they are known, current conditions at the project site, applicable regulations and guidelines, and the effectiveness of available mitigation measures.

4.10.2.2 Impacts and Mitigation Measures

Impact 4.10-1: Under the proposed project or any alternative, improper handling or storage of hazardous materials by new businesses within the project area, especially those involved with research and development, could expose workers, the public, or the environment to toxic materials. With adherence to existing laws and regulations, no significant impacts are anticipated.

Project plans include development of a new business park that would have up to 335,000 square feet of research and development space. These new installations would likely result in an increase in the handling of hazardous materials in the project area. If new facilities were to be developed near sensitive land uses, such as schools, hospitals and residences, a potential hazard could result. However, the business park would be relatively isolated in the northwestern portion of the project site. In accordance with Title 22 of the California Code of Regulations, sufficient buffer distances or containment structures would be required for each use involving hazardous materials. Therefore, this is not expected to be a significant effect.

Storage and use of commonly used hazardous materials, such as fuels, oils, and solvents, would be the primary source of concern at the new facilities. Allowable uses for the business park that might handle hazardous materials would include apparel manufacturing, electronic and scientific instruments, printing and publishing, small scale manufacturing, construction contractors, health care services, dry cleaning plant, storage yards, business support services, and consumer repair services. These potential uses are typical of other communities and would pose no unusual or unwarranted hazards. Major hazards, such as industrial explosions, would not be expected as a risk of the project, because heavy industrial hazardous materials users are not proposed as part of the project. Many common hazardous materials are used in research and commerce. Most commercial hazardous materials in common use pose no unwarranted risks with proper handling and storage. With the types of businesses anticipated for the project, hazardous materials typically encountered can be identified and discussed in a generic manner to describe, via example, their range of hazards. As was discussed in the setting, hazardous properties are categorized into four types: toxic, ignitable, corrosive and reactive; many hazardous chemicals have properties that cause them to qualify for more than one category. Within the hazard categories, many chemicals pose special dangers due to tendencies to bioaccumulate in living tissue, or to generate toxic fumes when exposed to fire, or to cause cancer and birth defects.

Examples of typical hazardous substances that might be found in the project area include common solvents that may be ignitable or toxic such as acetone, toluene, and chlorinated hydrocarbons; fuels and other petroleum products, reactive pressurized gas canisters, corrosive acids and bases such as sulfuric acid and sodium hydroxide; and toxic wood preservatives such as pentachlorophenol or other chlorinated phenols.

Dangerous properties of some common hazardous materials are summarized in Table 4.10-1. Information was compiled from standard library references (Budavari, 1989; Sax, 1989; Sittig, 1985). The hazardous chemicals listed in Table 4.10-1 are not intended to be definitive for hazardous materials to be used in the project area, but rather are meant to provide representative examples of the range of hazardous materials possible, and their effects. Additional information on hazardous properties of these and other industrial chemicals can be found in the references.

Hazardous materials used in the developed project area would not be expected to create hazardous conditions demonstrably different from conditions already existing in other areas of the County where hazardous materials are used currently. Use of hazardous materials in the project area would be done in accordance with federal, state, and local laws and regulations that are summarized in the setting.

TABLE 4.10-1: DANGEROUS PROPERTIES OF SOME COMMON HAZARDOUS MATERIALS

Hazardous Material	T	C	F	R	D	B	G
Acetone	√		√				
Benzene	√		√				√
Carbon tetrachloride	√				√		√
Chloroform	√				√		√
Ethylene glycol			√		√		
Fuels and lubricants	√		√		√		
Lead compounds	√					√	√
Methylene chloride	√				√		
Pentachlorophenol	√				√		√
Propane canisters			√	√			
Sodium hydroxide	√	√		√	√		
Sodium hypochlorite solution	√	√		√			
Sulfuric acid	√	√		√	√		
Tetrachloroethylene	√				√	√	√
Toluene	√		√		√	√	
1,1,2-Trichloroethane (TCA)	√				√		√
Trichloroethylene (TCE)	√		√		√	√	√
2,4,6-Trichlorophenol	√				√	√	√
Xylenes (3 isomers)	√		√		√		

Key to dangerous properties:

- B = Bioaccumulates in living tissue.
- C = Corrosive; chemically hazardous upon contact.
- D = Decomposes or reacts upon exposure to heat or fire to form toxic fumes.
- F = Flammable; fire or explosion hazard.
- G = Carcinogen; known to cause cancer or birth defects.
- R = Reactive; can cause immediate physical damage if improperly handled.
- T = Toxic; poisonous; effects may be acute or cumulative.

SOURCE: Environmental Science Associates

The existing laws and regulations promote proper control and handling of hazardous materials. The laws and regulations are designed to protect the health and welfare of the public through proper management and regulation of hazardous materials in a manner that focuses on preventing problems. The regulations call for proper storage of hazardous materials (and disposal of hazardous wastes), public disclosure, and coordination among agencies to support and strengthen safety requirements.

In compliance with State law (SB 14), new businesses that handle enough hazardous materials to generate wastes in reportable quantities (12,000 kilograms of hazardous waste per year or 12 kg of extremely hazardous waste per year) are required to have an approved Source Reduction Evaluation and Review Plan on file with the Department of Toxic Substances Control.

Qualifying new industries will have to prepare such plans and file a copy with the San Luis Obispo County Health Agency.

The County Health Agency implements its Risk Management and Prevention Program in the County by requiring businesses that handle acutely hazardous materials to prepare a written Risk Management and Prevention Program (RMPP) and file it with the County.

The County Environmental Health Division issues permits to businesses for handling hazardous materials and for installation of underground storage tanks, and requires affected businesses to prepare Hazardous Materials Management Plans that detail hazards inventories, site layouts, training and monitoring procedures, and emergency response plans, all in conformance with State law.

Given these existing provisions, which will be enforced as part of project implementation, the project would not pose a hazard to people or to animal or plant populations in the area, would not expose employees to unsafe working conditions or situations that exceed chemical exposure standards, and would not violate laws intended to protect health and safety.

Mitigation Measures: The provisions discussed above will be enforced as part of project implementation. Specifically, the following measures required under existing laws will reduce these impacts to less than significant levels:

Mitigation Measure 4.10-1a: Business Park uses that handle enough hazardous materials to generate wastes in reportable quantities (12,000 kilograms of hazardous waste per year or 12 kg of extremely hazardous waste per year) shall submit a Source Reduction Evaluation and Review Plan with the San Luis Obispo County Health Agency and the Department of Toxic Substances Control for review and approval.

Mitigation Measure 4.10-1b: Business Park uses handling acutely hazardous materials shall prepare a written Risk Management and Prevention Program (RMPP) and file it with the County Health Agency for review and approval.

Mitigation Measure 4.10-1c: Business Park uses handling hazardous materials and/or using underground storage tanks shall prepare a Hazardous Materials Management Plan that details

hazards inventories, site layouts, training and monitoring procedures, and emergency response plans, all in conformance with State law.

No additional mitigation measures are required.

Significance After Mitigation: No significant impacts are anticipated.

Impact 4.10-2: Under the proposed project or any alternative, improper application or handling of agricultural chemicals used for turf maintenance at the proposed golf course could expose the applicators, golfers, nearby residents, or the environment to toxic materials. This would be a significant impact.

Agricultural chemicals are used routinely on golf courses to keep the fairways and greens in good playing condition. Agricultural chemicals applied as needed include pesticides (herbicides, insecticides, fungicides) and fertilizers. Herbicides are necessary to control weeds such as bluegrass and crabgrass. Insecticides are used to kill grubs and insect pests. Fungicides are used to control plant diseases that cause grasses to spot or wither. Fertilizers are used to promote healthy turf and fairway plantings.

A number of pesticides are available commercially that could be used at the proposed golf course. Specific chemicals used would depend upon actual pest conditions and turf management practices. At this stage of project design, the project proponent is not able to provide a specific list of chemicals to be used at the course, but representative pesticides approved for use include a variety of insecticides, herbicides, and fungicides. Typical herbicides used in this part of California include Balan (benfluralin) and Trimec. A commonly used turf insecticide is Dursban (chlorpyrifos). Typical fungicides include benomyl and Daconyl (chlorothalonil). These and many other approved pesticides are available and could be applied at the new golf course; a list of common pesticides used for turf maintenance is presented in Appendix E.

By design, chemical pesticides are toxic and hazardous. If improperly stored, handled, or applied, pesticides could pose direct health and safety threats to workers, golfers, and the environment. If pesticides are allowed to enter surface or groundwaters, they also could pose a threat to water resources or biota. Pesticides formulated in years past had a tendency to be overly persistent in the environment and to cause serious problems for nontarget organisms. The most dangerous pesticides -- those that decomposed very slowly and tended to bioaccumulate in living tissue -- have been banned from manufacture and use in the United States. All currently approved pesticides degrade naturally in the environment. Information on natural degradation rates and environmental mobility of selected pesticides is included in Appendix E.

Common fertilizers used to promote plant growth are formulated from nitrogen, phosphorus, and potassium compounds. Fertilizers generally are non-toxic and pose much less of a hazard than do pesticides. When applied properly, fertilizers such as nitrates, phosphates, and potassium salts are nonhazardous to humans and wildlife. Application of slow-release fertilizers minimizes potential risks from fertilizers even further. Fertilizers could affect aquatic resources adversely if used to excess. Excessive nitrates and phosphates in runoff could stimulate aquatic plant growth in downstream surface water bodies. Very high levels of nitrates in drinking water supplies can be toxic (the nitrate anion is implicated in methemoglobinemia, an infant blood disease; the drinking water standard is 45 mg/l), but nitrate toxicity in the domestic water supply is not an issue at the proposed golf course site.

Many agricultural chemicals are on the market that can be used for turf management. Golf course managers have many herbicides, fungicides, and insecticides to choose from, and actual effectiveness of each chemical can vary with specific environmental conditions at different locations. Pesticide applicators typically prefer to use materials they are familiar with and that have worked successfully for them in the past.

The laws and policies that regulate handling and application of pesticides were summarized in the EIR Setting. To mitigate potential impacts of agricultural chemical use, golf course operators incorporate all appropriate regulations into design and management of their courses. Prudent and legally required elements of proper course management include strict adherence to manufacturers' recommendations and procedures regarding chemical application, use of chemicals approved by the County Agricultural Commissioner, use of non-persistent pesticides only, application of pesticides by trained and licensed personnel only, and proper storage and disposal of maintenance chemicals. The operator of the proposed golf course would use only licensed pesticide applicators for the application of restricted use pesticides; this is a legal requirement under FIFRA and enforced by the County Agricultural Commissioner's Office.

Mitigation Measures: Three mitigation measures are proposed as part of the project.

Mitigation Measure 4.10-2a: Upon submittal of any golf course application, the applicant shall have consulted with a qualified landscape architect to ensure that the golf course is designed in accordance with standard and accepted course design, and is landscaped with species adapted to the local climate. Plantings adapted to the local climate would be more resistant to pests and drought, and less likely to require intensive application of chemicals. Landscape design should also include:

- consideration of typical plant pests in this part of the State and types of pesticides effective in this region;
- nonchemical control procedures that would help reduce dependence on agricultural chemicals, such as cultivation of turf areas to maximize absorption of rainfall, provisions for hand weeding, and preventative mowing of greens to minimize dew and fungus;
- irrigation rates appropriate for minimizing runoff;
- an adequate buffer around any wetlands and water bodies that are constructed as part of the golf course to minimize chemical transport of fertilizers and pesticides to surface water (Balogh and Walker, 1992, p. 470, Lagin, 1993 p. 28, and Love, 1992, p. 36); and
- design of a drainage system to minimize chemical transport to groundwater.

All of these potential design issues would be addressed and evaluated by the qualified landscape architect at the time of golf course design; they cannot be elaborated further in this EIR. The full golf course design would need to be submitted to the County for approval as part of the golf course application.

Mitigation Measure 4.10-2b: Prior to application of pesticides or fertilizers, samples and measurements shall be taken for plant and insect pests on the course, and a narrow spectrum of pesticides selected from those specified in the IPM Program to control the specific problems indicated by the test samples.

Mitigation Measure 4.10-2c: The applicant shall have its pest control contractor prepare an Integrated Pest Management (IPM) Program that would be submitted to the County Agricultural Commissioner and the County Environmental Health Division prior to approval of any golf course. The IPM Program would be prepared prior to project approval by an experienced applicator of pesticides and fertilizers licensed by the State of California. At minimum, the following elements should be included:

- Recommendations for each herbicide, insecticide, and fungicide that could be used as part of golf course maintenance activities.
- Restrictions regarding use of each recommended pesticide and procedures for its application clearly specified. Safety data sheets for each product should be included.
- Guidelines for fertilizer application rates that would encourage absorption of chemical fertilizers through plant growth. Runoff contamination could be minimized by use of slow-release fertilizers and an application schedule that takes seasonal runoff patterns and the course irrigation schedule into consideration.
- Identification of soluble, fast-leaching products that should be avoided.

- An agricultural chemical storage plan requiring that the golf course operator store agricultural chemicals only in properly secured structures with spill containment features that conform with hazardous materials storage requirements (this is a legal requirement under FIFRA).
- Provisions for alternative nonchemical or advanced pest control procedures under development to supplement application of agricultural chemicals (City of San Jose, 1993).

Significance After Mitigation: Implementation of these mitigation measures would render this impact less than significant.

Impact 4.10-3: Under the proposed project or any alternative, improper storage or use of fuels, solvents, or other hazardous materials used for vehicle or building maintenance at the golf course could expose employees, golfers, nearby residents, or the public to health or safety hazards from accidental upsets. This would be a significant impact.

Golf courses use hazardous materials for building, equipment, and vehicle maintenance. Common maintenance chemicals include flammable or corrosive chemicals that could pose health and safety threats to their handlers. The storage of fuel and the use and storage of building and vehicle maintenance chemicals could expose workers, golfers, nearby residents, or the public to hazardous materials. The project sponsor has not yet described a particular means of fuel storage for on-site equipment and materials. Improper storage of incompatible chemicals in the same structure could create potential fire and explosion hazards, as some golf course chemicals are flammable while others such as ammonium nitrate are oxidizers. If an underground storage tank is used to store fuel at the site, it could develop a leak, and the fuel could contaminate the soil and groundwater around the tank. Spills, upsets, and other accidents are feasible, which could pose injury to workers or others in the vicinity. Types of accidents possible include (Santa Barbara County, 1990):

- vehicle accident, either when applying chemicals or when entering or exiting the site;
- leak of materials in the storage area;
- fire in the chemical storage area;
- fire in the fuel storage area;
- leakage of chemicals from a dry spreader; and
- leakage or upset of chemicals from a sprayer tank.

In general, the potential hazards do not pose threats that cannot be controlled by appropriate facility design and operation. Accidents are best mitigated by accident prevention, which can be accomplished in great part by using proper procedures and practices for handling hazardous materials and by complying with hazardous materials and safety regulations. Typically, a golf

course will store and segregate its maintenance chemicals according to their physical properties. Liquid chemicals and solvents are stored in one area and dry or solid chemicals are stored in a separate compartment. Proper handling practices for golf course chemicals must be part of the facility's environmental compliance and safety programs.

Mitigation Measures: Several mitigating actions are required by law. The applicant would have to prepare and submit a Hazardous Materials Management Plan to the San Luis Obispo County Department of Environmental Health. The Hazardous Materials Management Plan is required to include the inventory of hazardous materials handled, diagrams showing where hazardous materials are stored, an emergency response plan, and provisions for employee training in safety and emergency response procedures (California Health and Safety Code, Division 20, Chapter 6.95). These elements are required by State law under the Business Plan Act. The Hazardous Materials Management Plan and the hazardous materials inventory require annual updating.

The applicant would be required to provide health and safety training to all personnel working with hazardous chemicals. This is a legal OSHA requirement under the Worker Right to Know regulations in the Federal Code of Regulations, Title 29. The training would include, at minimum, the proper use of safety equipment, hazard identifications, and proper handling and disposal of spilled hazardous materials.

The applicant would be required to ensure that any new underground storage tank meets all federal and state standards, including secondary containment, automatic leak detection, routine monitoring, and cathodic protection. This mitigation is required by law.

Two additional mitigation measures are proposed in this report.

Mitigation Measure 4.10-3a: The golf course shall be designed to include storage of hazardous materials only in properly secured structures, with secondary spill containment features to prevent spills from escaping, such as concrete floors and berms. The containment features shall provide the following:

- 100-percent containment of all stored liquids. Minor spills should be contained by the structure.
- Sprinklers for fire suppression to provide 20 minutes of fire protection sprinkler water flow.

- Flammable solvents shall be stored in safety cans or cabinets and away from any source of ignitions.
- Incompatible materials should be kept separated.

Prior to final inspection of the golf course operation, the local Fire Department shall inspect the structure to assure that there is adequate sprinkler water containment in the event of a fire. The project sponsor will also be required to obtain a hazardous materials storage permit from San Luis Obispo County.

Mitigation Measure 4.10-3b: In order to promote proper handling and storage of hazardous materials, the applicant shall implement the procedures itemized below:

1. Fertilizers and pesticide storage will be limited to available covered space only. Outdoor storage of excess quantities will not be allowed.
2. Only chemicals currently approved for use on the course will be stored in the maintenance facility at any time. Leftover chemicals from any one-time application would not be stored, but would be disposed of properly in a timely manner.
3. Maintenance vehicles will transport only sufficient quantities of fertilizers and pesticides to complete the current day's work. All leftover chemicals and application equipment would be returned to the maintenance facility when not in use at the end of every workday.
4. Herbicides or other pesticides will be applied with hand-trigger, manual equipment only. No fogger or truck-mounted hose-end applications will be acceptable.
5. Records will be kept of all chemical applications in accordance with California Department of Agriculture requirements.
6. No applicator rinse waters or any other waters known to contain fertilizer or pesticides shall be allowed to enter surface waters, including any storm drains or other conveyances that drain to surface waters, at any time. Fertilizer rinse waters may be drained to a sewage line or retained and reapplied to turf.
7. Prior to Development Plan approval of the golf course, the golf course superintendent shall develop and implement a chemical spill response plan. The plan shall include at a minimum:
 - a) posting of a requirement for immediate notification of the County Environmental Health Division;
 - b) specifications for spill cleanup equipment to be maintained, adequate to contain and clean up any solid or liquid spill; and
 - c) descriptions of procedures to be followed in the event of a solid or liquid spill, including procedures to prevent spilled material from entering a storm drain, wetland, or waterway.

Significance After Mitigation: Implementation of these mitigation measures would render this impact less than significant.

Impact 4.10-4. Under the proposed project or any alternative, development and operation of the proposed Wastewater Treatment Plant would involve storage, handling, and use of hazardous materials that could pose health threats to workers or to the public. With adherence to existing laws and regulations, no significant impacts are anticipated.

The wastewater treatment facility would cover approximately ten acres and include the treatment plant, offices, storage basins, maintenance vehicle storage, and maintenance buildings. Plant operation would take place in a controlled, industrial environment, and accidental exposure to hazardous materials would be minimized by compliance with applicable laws and regulations.

As described in the Setting, safety in workplaces using hazardous materials is regulated by both federal and state agencies and includes controls on materials storage, handling, and disposal to protect employees from unhealthy workplace exposure as well as from hazardous materials accidents.

At this stage of the project, the project sponsor has not yet described the water treatment chemicals to be used at the plant. However, water treatment plants typically use chemicals such as chlorine gas, alum, lime, polymers, and zinc orthophosphate.

Chlorine could be used at the plant as a disinfectant. Use of chlorine would meet current EPA and DHS regulations. Chlorine is a greenish-yellow gas with a pungent odor. It is toxic and corrosive, and is one of the most chemically reactive of all elements. It effectively kills bacteria and other pathogens, and is commonly used as a disinfectant for water supplies. Chlorine gas is extremely irritating to skin, eyes, and mucous membranes. The primary routes of exposure would be direct skin contact or inhalation. Inhalation of chlorine gas could cause lung damage, acute respiratory distress, and asphyxiation. Because of its toxicity and gaseous physical state, chlorine is considered an acutely hazardous material by regulatory agencies. Personal protective equipment and training are necessary when working with chlorine.

An accidental release of chlorine gas at the plant would be hazardous to plant workers. Such a hazard might be caused by rupture of a chlorine tank or a breakdown elsewhere in the chlorine delivery system. Such an upset is not likely to occur. Effective mitigating measures -- both

standard operating procedures and engineering design -- are available to prevent a release of chlorine gas.

Alum, or hydrated potassium aluminum sulfate ($KAl(SO_4)_2 \cdot 12H_2O$), could be used at the treatment plant as a water coagulant. Alum is a colorless or white powdery solid that occurs naturally as the mineral kalinite. It is an astringent. When alum is added to water it precipitates from solution, forming fine particles that strongly attract organic impurities. The mixture quickly coagulates to form a sludge that settles out and can be removed by filtration, taking the water impurities with it. Alum is nontoxic and is not a hazardous material when handled properly. Alum filter cakes might contain hazardous contaminants that must be disposed of properly.

Lime, or calcium oxide (CaO) is a white granular or powdery solid with many industrial uses. It is a caustic (basic) material that dissolves in water and reacts with acids to generate heat. Lime could be used at the treatment plant to control the pH or to help control corrosion. Lime is irritating to the skin, eyes and mucous membranes, and may produce redness, rashes, eye damage, or other local injury upon contact. Direct contact would be the primary route of exposure. Inhalation of lime dust would cause respiratory distress and possible lung damage. Personal protective equipment for workers is recommended if there is a reasonable chance of bodily exposure to lime.

Other water treatment chemicals used at the plant might include solutions of zinc orthophosphate used for corrosion control, and cationic and nonionic polymers used to assist coagulation and filtration during water treatment. Those materials are nonhazardous.

Machinery and equipment used during project construction would require use of fuels, solvents, and lubricants. These and other materials such as paints may be stored on site temporarily and have the potential for leaking or spilling.

Miscellaneous chemicals to be used at the plant might be relatively small quantities of cleansers used for housekeeping, and oils, lubricants, solvents, and related chemicals used for plant maintenance. Some of these materials contain hazardous chemicals but they would be used in minor quantities and would be handled by persons trained in their use. Safety precautions would include proper ventilation and use of protective equipment such as gloves, goggles, and aprons. The routine use of cleaning and maintenance chemicals is not considered to be an issue.

As described in the Setting, federal, state, and local agencies regulate use, handling, transport of hazardous materials. The wastewater treatment plant will be required to adopt all of the applicable regulations to ensure proper handling of hazardous materials and prevent an uncontrolled chemical spill.

If chlorine gas is used at the plant, the chlorine storage and delivery system would have, at minimum, the following standard safety and design features: a) Chlorine would be delivered and stored in pressurized tanks designed and handled in accordance with all applicable engineering and regulatory guidelines; b) the chlorine handling system and all attached piping would be pressure-tested at pressures exceeding the maximum operating pressure; c) a leak detection system for detecting and monitoring the ambient concentration of chlorine in the air would be provided in the chlorine handling area; and d) an emergency chlorine gas scrubbing and containment system would be provided to neutralize chlorine gas and to prevent escape of chlorine should a leak occur.

All storage tanks in the chemical storage and handling areas would have sufficient secondary containment to hold the entire contents of the full tank.

For the protection of plant workers, the plant will be required by law to have a written hazardous materials management plan, general plant safety procedures, and emergency response procedures that would cover spills, upsets, fires, equipment malfunctions, or a catastrophic event such as an earthquake. Training sessions for personnel would be conducted to make employees aware of plant procedures, help prevent operator errors, and inform workers how to proceed in the case of an accident or emergency involving hazardous materials. Periodic inspection of all chemical handling systems would be performed according to the American National Standards Institute or the American Society of Mechanical Engineers. Periodic inspection would assure that all systems are in operating order.

This impact is considered less than significant because the project would not pose a hazard to people or to animal or plant populations in the area, would not expose employees to unsafe working conditions or situations that exceed chemical exposure standards, and would not violate laws intended to protect health and safety.

Mitigation Measures: The standard provisions discussed above will be enforced as part of project implementation. No additional mitigation measures are required.

Significance After Mitigation: No significant impacts are anticipated.

Impact 4.10-5: Under the proposed project or any alternative, the golf course and other new installations in the project area would generate hazardous waste that could pose health and safety threats to workers or the environment unless disposed of properly. With adherence to existing laws and regulations, no significant impacts are anticipated.

During routine and normal operations, businesses, golf courses, and water treatment plants generate hazardous wastes that have to be disposed of. Hazardous waste generated by business might include leftover or unwanted research chemicals and waste products. Hazardous waste at the golf course would be generated by routine maintenance of vehicles and grounds, and might include pesticide wastes, spent solvents, spent batteries, and used motor oil. Hazardous waste generated at the wastewater treatment plant might include treatment chemical waste and contaminated sludge. If not stored and disposed of properly, hazardous waste could pose threats to workers or to the environment.

Development in the project area would be subject to all existing state, federal, and local rules, regulations, and ordinances pertaining to hazardous wastes. California has taken steps to reduce commercial hazardous waste generation by passage of the Hazardous Waste Source Reduction and Management Review Act of 1989 (SB 14) (CCR, Title 22, Chapter 30, Article 6.1). SB 14 contains provisions designed to reduce generation of hazardous waste at its source, reduce release of chemical constituents to the environment, and provide documentation of hazardous waste management information for use by State and local governments. Hazardous waste generators meet those goals by preparation of source reduction evaluation plans and hazardous waste management performance reports. New businesses in the project area would be required to comply with provisions of SB 14, as applicable, to minimize commercial waste generation.

The majority of hazardous wastes generated by industry are disposed of legally and properly. Common disposal/treatment options include oil recovery, solvent recovery, other types of recycling, solids stabilization, aqueous treatment such as precipitation and neutralization, or incineration. Recycling of hazardous wastes is favored by regulatory agencies.

San Luis Obispo County will continue to enforce proper handling and disposal of hazardous wastes according to Federal, State, and local laws and regulations, which would help to promote the proper handling of hazardous wastes and reduce the amounts of wastes generated.

According to California law, new businesses that generate hazardous wastes in reportable quantities (12,000 kilograms of hazardous waste per year or 12 kg of extremely hazardous waste per year) must have an approved Source Reduction Evaluation and Review Plan on file.

Qualifying new industries must prepare such plans and file them with the San Luis Obispo County Environmental Health Division following the startup of business operations. The amounts of hazardous waste that might be generated by new industries as a result of the project cannot be quantified at this time, but it is unlikely that any new business in the project area would exceed these levels.

The golf course, the treatment plant, and all businesses in the project area that generate hazardous waste will obtain EPA Hazardous Waste Generator Identification Numbers and properly dispose any hazardous wastes they generate. Unused or damaged pesticides must be disposed of as hazardous waste. All transport of hazardous waste must be done by a licensed hazardous waste contractor. Legal requirements mandate the generator to complete a hazardous waste manifest and ship the waste via a permitted hazardous waste transporter to a licensed hazardous waste disposal or treatment facility. These hazardous waste handling and disposal requirements are enforced by California EPA.

Mitigation Measures: The provisions discussed above will be enforced as part of project implementation. No additional mitigation measures are required.

Significance After Mitigation: No significant impacts are anticipated.

Impact 4.10-6: Under the proposed project or any alternative, transportation of hazardous materials or hazardous waste could result indirectly in greater potential for accidents involving hazardous materials and pose potential threats to receptors along transportation routes. This would be a significant impact.

Trucking on highways and local streets will be the main method of transporting hazardous materials and waste. An accident involving hazardous materials or wastes during vehicular transport could result in any of the following impacts:

- (1) Direct exposure of motorists and emergency responders; i.e. firefighters, highway patrolmen, ambulance workers, paramedics, Caltrans workers etc. to hazardous materials resulting in acute and chronic health effects.
- (2) Contamination of the roadway and surrounding environment due to uncontained runoff from the incident.

- (3) Exposure of residents and other occupants of surrounding areas to increased health risks as a result of a gaseous materials release.
- (4) Damage to the environment or structures and injury to humans as a result of a fire associated with a hazardous materials release.

The probability of a damaging accident in transport, however, is low. This probability can be evaluated by reviewing data consolidated by the California Department of Transportation (Caltrans) for accidents occurring on state highways and published annually. Caltrans accident rates are reported as accidents per million vehicle miles traveled. Typically, approximately four accidents occur per million miles traveled by vehicles carrying hazardous materials and wastes (California Department of Transportation).

Furthermore, only a fraction of the potential accidents involving vehicles carrying hazardous materials would be expected to affect the integrity of the containers of hazardous materials on board. The potential for an accident involving release of hazardous waste, transported by a licensed hauler and packaged in breakage-resistant containers approved by the Department of Transportation, is lower still. Waste transporters are required to follow Department of Transportation regulations for packaging and handling. Since hazardous material packaging and transportation requirements are stringent, and since accident rates involving hazardous materials are very low, the risks associated with such transport are low and, therefore, not considered undue.

Because the project area is largely undeveloped at present, project implementation might increase the probability of an accident occurring. Hazardous materials would be transported on roads where little such materials are transported at present. The main access route to the business park, Dawn Road, currently has poor geometrics; however, as discussed in Section 4.2, Traffic, the project would be required to improve the intersection to accommodate a standard four-way intersection design, with the Dawn Road-Olivera Avenue approaches controlled by stop signs. The intersection design would need to accommodate truck movements given the location of the business park within the Woodlands Specific Plan area. Accidents involving the transportation of hazardous materials or wastes would be unlikely and the release of hazardous materials or waste associated with such an accident is also unlikely, so the increase in the risk of transportation accidents associated with the project is considered low. One mitigation measure is proposed to further reduce potential concerns about hazardous materials transport.

Mitigation Measures:

Mitigation Measure 4.10.6-a: Prior to approval of a construction plan for each project facility, the project sponsor shall prepare a hazardous material transportation plan as part of project design.

The hazardous material transportation plan shall identify the location of the facility and designate either (1) specific routes to be used for transport of hazardous materials and wastes to and from the facility, or (2) specific routes to be avoided during transport of hazardous materials and wastes to and from the facility. Routes would be selected to minimize proximity to sensitive receptors to the greatest practical degree. Passage through residential neighborhoods should be minimized, and parking of waste haulers on residential streets should be prohibited. All concerns expressed by local residents and other concerned persons regarding the safety of hazardous materials transport shall be addressed in the hazardous materials transportation plan. The County would review and approve the applicant's hazardous material transportation plan or, working with the applicant, modify it to the satisfaction of all parties.

Significance After Mitigation: Implementation of the mitigation measure would reduce this impact to a less than significant level.

Impact 4.10-7: An accidental release of hazardous materials at the Tosco facility could result in a potential health risk to residents.”

Hazardous substances are routinely handled at the Tosco facility. In the unlikely but possible occurrence of an accidental release at the Tosco facility project residents could be exposed to a serious health risk. Such an event could require evacuation of the site.

Mitigation Measure 4.10-7a: The County's Hazardous Material Emergency Response Plan addresses potential evacuation of County residents.

Significance after Mitigation: No significant impacts are anticipated.

4.11 DRAINAGE, EROSION, AND SEDIMENTATION

This section evaluates the project's impacts on stormwater drainage conditions and the potential for erosion and sedimentation from rainwater runoff.

4.11.1 ENVIRONMENTAL SETTING

The project site is within an area of gently rolling hills covered by dense groves of eucalyptus. There is a ridgeline traversing the property roughly in an east-west direction. The highest elevation of the property is approximately 325 feet on the ridge near the center of the property and the lowest elevation is approximately 130 feet in the southwest corner of the property. Although the site does not exhibit dramatic topographic variability, portions of the site exceed 10% slope as shown in Figure 4.11-1. The southern boundary of the project is within 500-800 feet of the Nipomo bluff face, which steeply slopes down the mesa to the Santa Maria Valley.

The project site is not considered to be in a major watershed area. Surface runoff is not excessive due to the sandy nature of the soils which tend to percolate rainfall to the groundwater basin, although some areas have subsurface fine grain material that locally reduce infiltration rates. The relatively flat terrain and the dense vegetation on site also greatly reduce rainfall runoff. No prominent drainage courses are located within the site. Stormwater drainage generally flows from east to west across the site and through the sand dunes area west of Highway 1 to the Pacific Ocean. The direction of flows is shown in Figure 4.11-1. Runoff from the north side of the above mentioned ridge generally flows northwesterly. The southern portion of the site generally drains southwest toward the Nipomo bluff edge and down to the Santa Maria Valley. Some runoff is naturally retained in a number of topographic "closed" depressions on the site.

The site is not within an area of potential flooding as identified on the Combining Designations maps included in the South County Area Plan.

4.11.1.1 PLANS AND POLICIES

4.11.1.1.1 County General Plan

The Rural Area Land Use Standards in the South County Area Plan includes a section on drainage standards. The standard requires development in the vicinity of undrained depressions to be above the spill elevation of the depression or to cluster development in accordance with the Land Use Ordinance so that parcels and building sites are out of areas subject to flooding.

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes the need for transparency and accountability in financial reporting.

2. The second part of the document outlines the various methods and techniques used to collect and analyze data. It includes a detailed description of the experimental procedures and the statistical tools employed.

3. The third part of the document presents the results of the study, showing the trends and patterns observed in the data. It includes several tables and graphs to illustrate the findings.

4. The fourth part of the document discusses the implications of the results and the potential applications of the findings. It also addresses the limitations of the study and suggests areas for future research.

5. The fifth part of the document provides a conclusion and summarizes the key points of the study. It reiterates the importance of the research and the value of the findings.

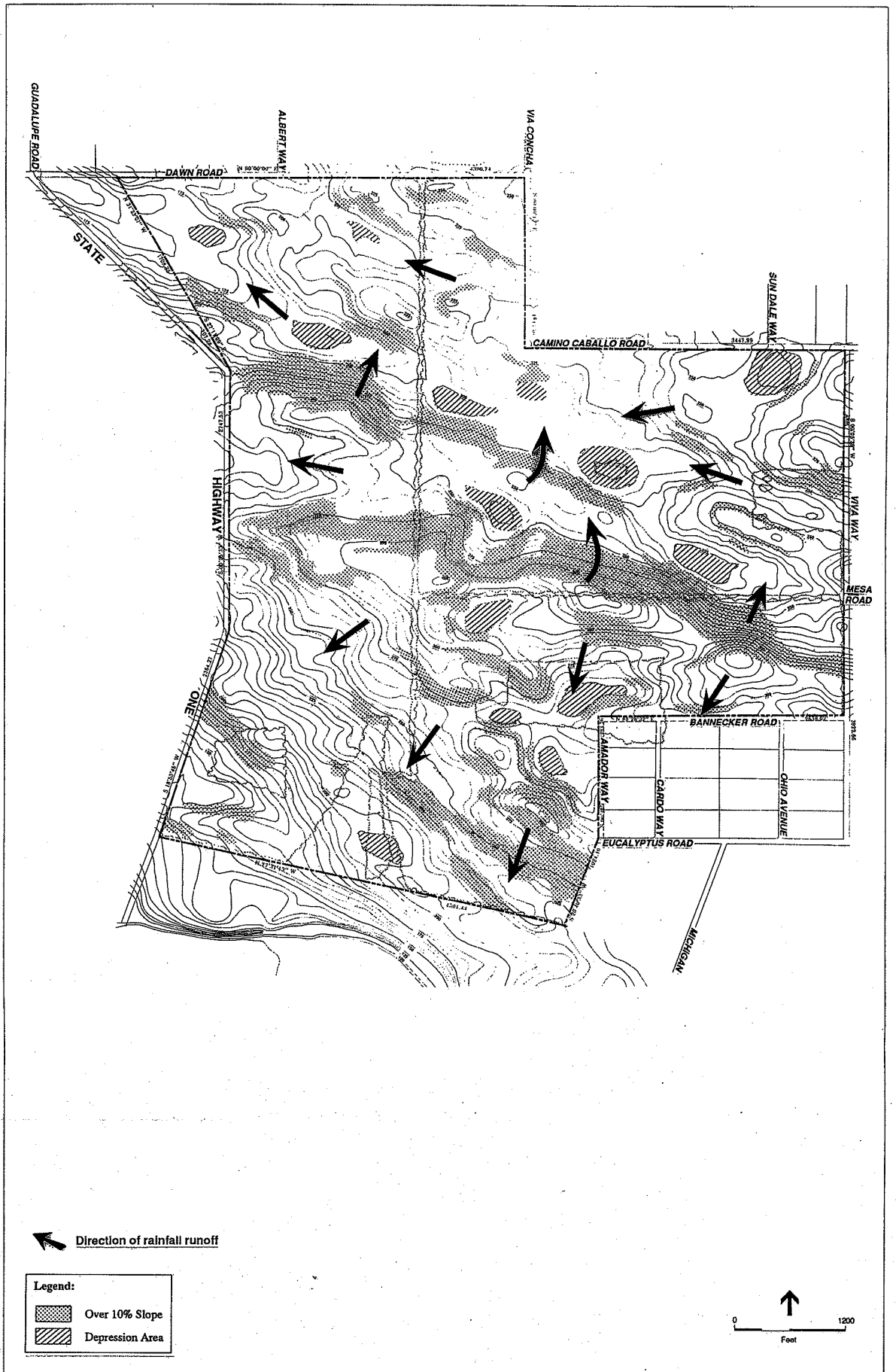
6. The sixth part of the document includes a list of references and a bibliography, citing the sources used in the study. It also includes a list of figures and tables.

7. The seventh part of the document contains a list of appendices and supplementary materials, providing additional information and data related to the study.


8. The eighth part of the document includes a list of acknowledgments and a list of authors, recognizing the contributions of individuals and organizations to the study.

9. The ninth part of the document contains a list of footnotes and a list of references, providing further details and sources for the study.



10. The tenth part of the document includes a list of figures and tables, providing visual representations of the data and results.

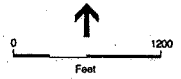


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 **Direction of rainfall runoff**

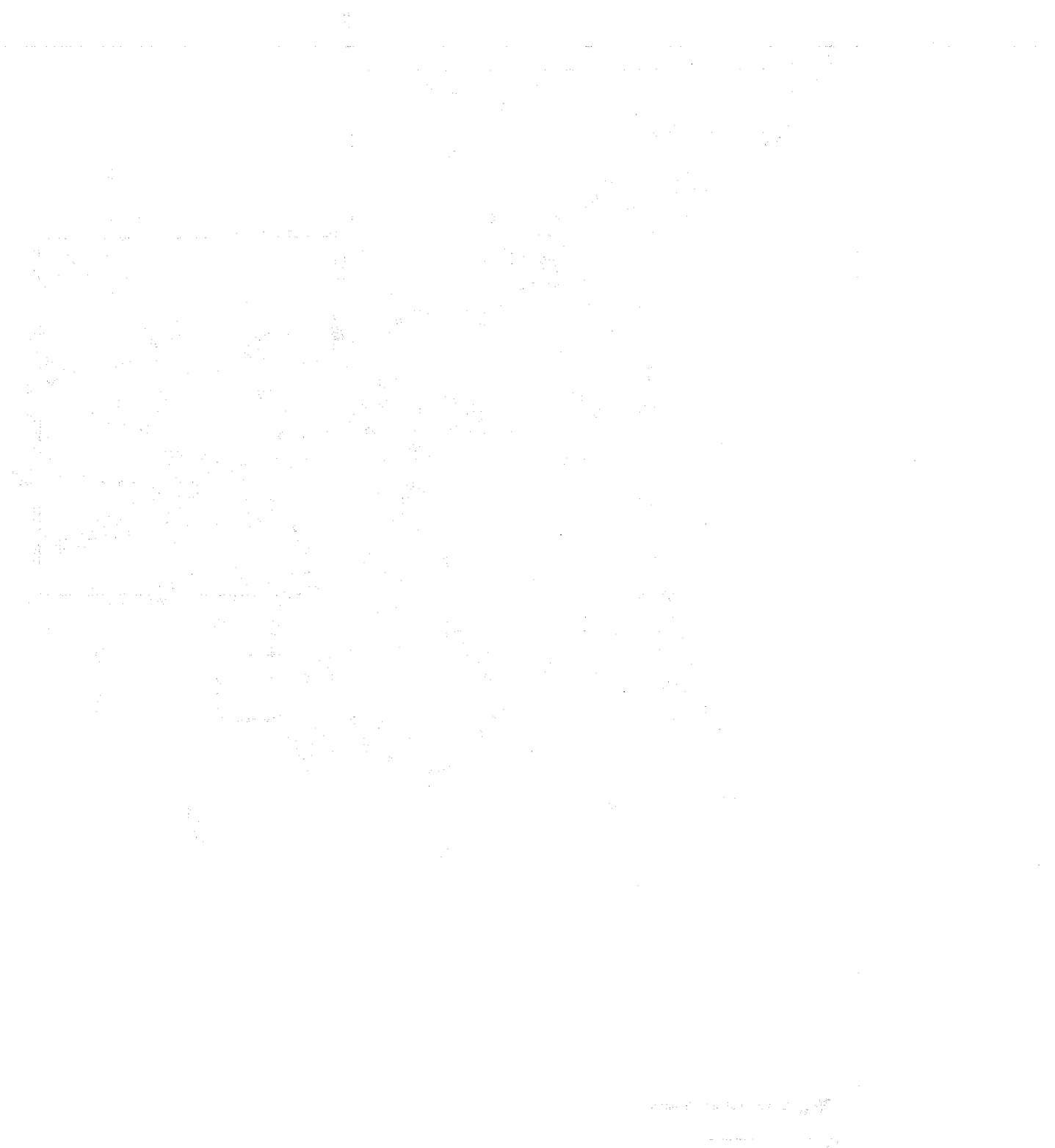
Legend:

-  Over 10% Slope
-  Depression Area



SOURCE: RRM Design & Environmental Science Associates.

Woodlands Specific Plan 1950250 ■
Figure 4.11-1
 Site Topographic Features



The topographic features
 Figure 41-1

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16

The map shows the location of the...

4.11.1.1.2 County Land Use Ordinance

Chapter 5 of the County's Land Use Ordinance (Title 22 of the County Code) contains site development standards for the County, including drainage, grading, and sedimentation and erosion control.

Section 22.05.039 of the Ordinance states that standards for the control of drainage and drainage facilities are designed to minimize harmful effects of storm water runoff and resulting inundation and erosion on proposed projects, and to protect neighboring and downstream properties from drainage problems resulting from new development. The applicant would be required by this ordinance to develop a drainage plan for the project. The plan would include finished contours of the project, the location and design of any proposed facilities for storage or conveyance of runoff into drainage channels, including sumps, basins, channels, culverts, ponds, storm drains, and drop inlets, estimates of existing and increased runoff resulting from the proposed improvements, identification of existing and proposed drainage channels, facilities for storage or conveyance of runoff, erosion and sedimentation control measures, and proposed flood proofing measures.

Section 22.05.020 states that the County's standards for grading and excavation are to minimize hazards to life and property; protect against erosion and the sedimentation of water courses; and protect the safety, use, and stability of public rights of way and drainage channels. The project would require a grading plan and approval of the plan is based on the following criteria (Section 22.05.030(d):

1. The extent and nature of the grading is appropriate for the proposed use and will not create site disturbance greater than required for that use;
2. The grading will not result in erosion, stream sedimentation, or other adverse off-site effects or hazards;
3. The grading will not create substantial long-term adverse effects visible from off-site.

Grading must follow the standards of the Uniform Building Code and the following standards (Section 22.05.034):

1. Areas of cut and fill are to be limited to the minimal amount necessary.

2. Grading for a building site is prohibited on slopes of 30% or greater.
3. Contours are to be blended with the natural terrain.
4. Grading may not alter watercourses except as permitted through the Department of Fish and Game and various watercourse protection methods shall be followed.
5. Areas where natural vegetation has been removed must be replanted by various approved methods.

Sedimentation and erosion control to protect damaging effects on-site and on adjoining properties is discussed in Section 22.05.036 of the Ordinance. A sedimentation and erosion control plan would be required for the project. The plan must include:

1. Slope surface stabilization including temporary mulching or other stabilization measures to protect exposed areas of high erosion potential during construction and interceptors and diversions at the top of slopes to redirect runoff.
2. Erosion and sedimentation control devices such as absorbing structures or devices to reduce the velocity of runoff,
3. Final erosion control measures including mechanical or vegetative measures.

4.11.1.1.3 Federal Stormwater Quality Management Policies

The U.S. Environmental Protection Agency (U.S. EPA) developed the National Pollutant Discharge Elimination System (NPDES) in response to the amended Clean Water Act. In California, the Regional Water Quality Control Boards (RWQCB) implement the NPDES system. The designated authority responsible for managing water quality in the project area is the Central Coast Regional Water Quality Control Board. The RWQCB grants stormwater NPDES permits on an individual, system-wide, or jurisdictional basis for industries, municipalities, and construction sites. The NPDES Municipal stormwater permit is required for certain large municipalities and would not be applicable to the project. However, construction of the project will require a General Construction Activity Storm Water NPDES permit from the RWQCB. This permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP) with stormwater quality control Best Management Practices (BMPs) for

construction activities. The BMPs are to cover erosion and sedimentation controls and also governs contractor activities to minimize the potential for spills and other means of contamination. A monitoring program is also included.

4.11.2 ENVIRONMENTAL IMPACTS

4.11.2.1 Thresholds of Significance

The project would have a significant effect on the environment if it would result in any of the following, adapted from CEQA guidelines, Appendix G:

- Cause substantial flooding, erosion, or siltation,
- Expose people or structures to flood hazards,
- Generate substantial storm water runoff,
- Contaminate a public water supply,
- Substantially degrade water quality,
- Substantially degrade or deplete groundwater resources.

4.11.2.2 Impacts and Mitigation Measures

Impact 4.11-1: The proposed project, or any of the alternatives considered, may increase the volume of surface water runoff. Stormwater infiltration facilities and containment of runoff within certain areas of the development are conceptually included in the project. No significant impacts are anticipated.

Construction of buildings, roads, and parking lots and the removal of vegetation would increase the area of impervious surfaces. The current amount of impervious surface at the project site is essentially 0 percent. At a conceptual level, development of the project has been estimated to result in impervious surfaces covering approximately 30% of the land (Table 4.11-1). With this estimate, the total increase in impervious surface due to development of the project site would be approximately 290 acres. The Expanded Business Park alternative would have about 20 acres more impermeable surface than the other alternatives

The increased area of impervious surfaces would decrease the natural recharge of groundwater and create higher runoff volumes. This would increase the likelihood and magnitude of downstream flooding. However, the Specific Plan includes a storm drainage system with infiltration basins to control and contain runoff on site and percolate runoff to groundwater as

TABLE 4.11-1: ESTIMATED IMPERVIOUS SURFACES FROM THE PROJECT

Planned Land Use	Gross Acres	Percent Impervious Surface/a/
Residential	235	35
Commercial	49	85
Schools	10	50
Parks/Open Space	587	15
Right-of-Way	66	95/b/
TOTAL	957	
WEIGHTED AVERAGE		29.2/c/

/a/ Based on Marsh, William M. 1991. Landscape Planning, Environmental Applications

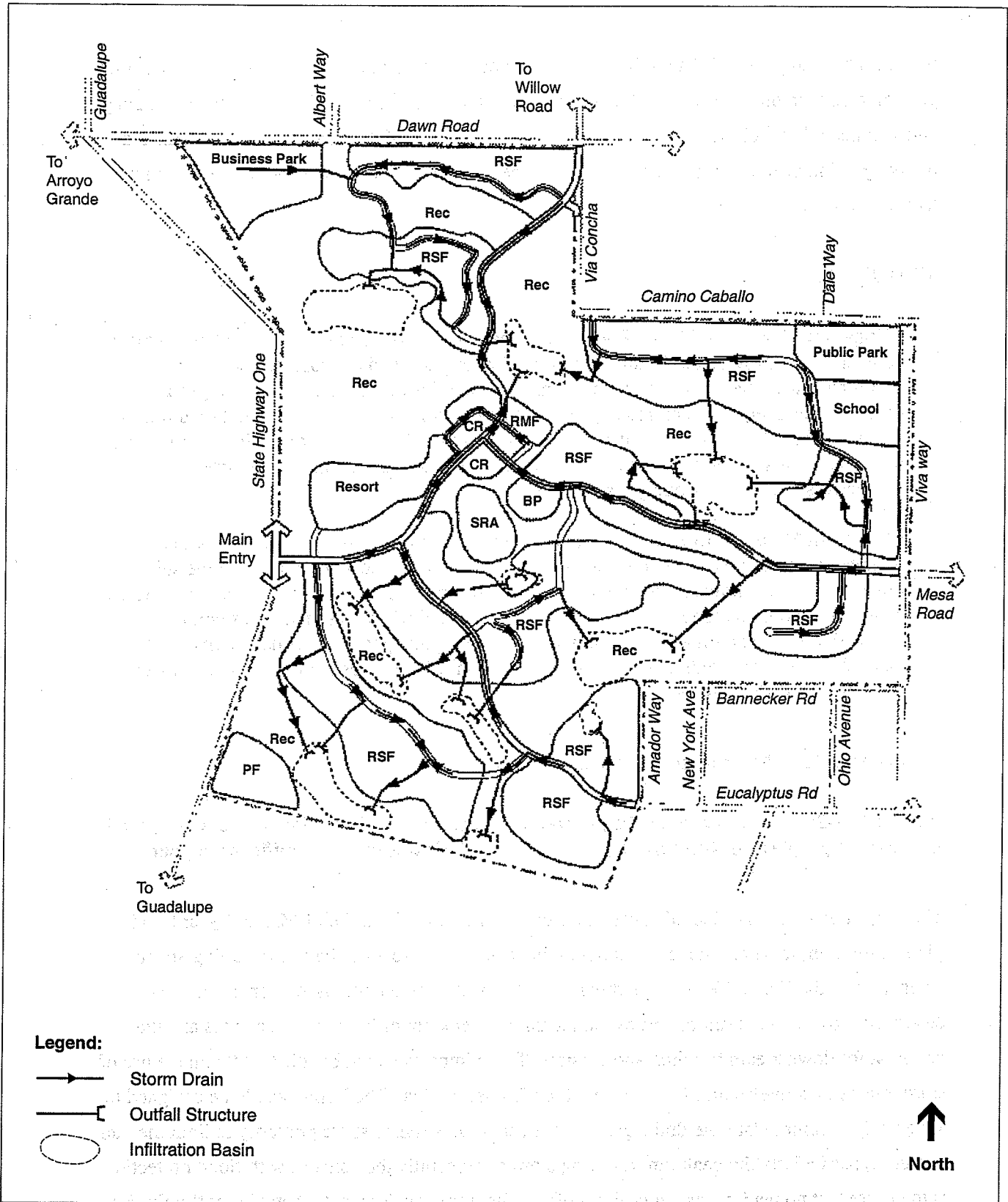
/b/ Estimate by ESA

/c/ The project also includes parking areas for the clubhouse and a wastewater treatment plant which would add to the overall project impervious surface estimate. Therefore, weighted average should be rounded up to 30%.

SOURCE: Environmental Science Associates

shown in Figure 4.11-2. The infiltration system would be designed to San Luis Obispo County standards as to retain the 50-year, 10-hour intensity and duration storm event. All of the drainage system components will convey flows to these infiltration basins; no drainage facilities will convey flows off-site. The drainage system includes open, unlined channels along the side of major roads and in lots greater than 15,000 square feet. The Specific Plan includes several permanent ornamental lakes and ponds which will also function as infiltration basins for stormwater runoff. The lakes will be lined with an impermeable material to retain water, however, the area around the lakes will be designed to temporarily store and percolate water in accordance with County requirements. Additionally, the golf course areas and other open spaces that ring the development would percolate substantial quantities of rainfall and will serve as barriers for runoff from many of the impervious areas.

The project proposes to use some of the existing natural closed depressions as a part of the drainage infiltration system. The remainder of the runoff, including much of the southwestern portion of the site would be directed to newly created infiltration basins. The highly-erosive, steep slope of the Nipomo Mesa bluff is within 500-800 feet of the southern property line of the



SOURCE: The Woodlands Specific Plan

Woodlands Specific Plan / 950250 ■

Figure 4.11-2
Storm Drain

project. To avoid potentially significant erosion impacts during the tree removal and construction grading phases in this area, detailed plans will need to be prepared to show that adequate drainage and sedimentation facilities will be constructed prior to either of these activities occurring. No project grading or removal of trees would occur between the project property line and the bluff face as a result of this project.

Mitigation Measures:

Mitigation Measure 4.11-1a: Prior to final map or development plan approval, the project applicant shall provide the County with final design plans and a Hydrology Report in accordance with the County's Standard Improvement Specifications and Drawings that demonstrates adequate retention and percolation of stormwater. With the additional runoff generated from the Expanded Business Park alternative, the capacity of the infiltration basin in the business park drainage subarea would require additional capacity than other alternatives to meet the County's standards.

Mitigation Measure 4.11-1b: Prior to the first development activity (e.g., vegetation removal, grading, final map, development plan, etc.) within the southern half of the subject property, detailed drainage, sedimentation and erosion control plans shall be submitted to the county for approval along with a description of how and when these measures will be installed to insure no off-site erosion will occur during any phase of the development. All plans shall show that sedimentation and erosion control measures are installed prior to any other ground disturbing work.

Significance After Mitigation: Less than significant.

Impact 4.11-2: Development at the proposed project, or any of the alternatives considered, may expose people and structures to flood hazards. This would be a significant impact.

The project plan does not include developed areas which are within the FEMA 100-year flood plain. However, there are numerous topographic depression areas on the site including an area designated in the General Plan Amendment EIR as an "undrained or closed depression." As described previously, development would increase the amount of impervious surfaces and the potential for downstream flooding and erosion. These impacts would be mitigated with the use of storm drains to convey storm flows and with infiltration basins. The basins would be designed to adequately accommodate site drainage. On-site detention systems serve primarily to limit the rate of runoff, particularly the peak runoff during storms. Generally the concern with flood protection is to ensure that no net increase in peak runoff results from development. Actual runoff volumes would be determined during project design and would be incorporated into the drainage plan.

Infiltration of rainfall and runoff at the broad, grassy golf course fairways could greatly reduce runoff from the proposed development.

Ownership and operation and maintenance responsibility of the stormwater conveyance facilities has not been determined at this time. For these types of projects, the County encourages developers to assign these responsibilities to: the project's Master Homeowners Association, an existing or newly formed County Service Area, or a nearby Community Services District (CSD) such as the Nipomo CSD, or through a new CSD. A fee would be collected from homeowners and commercial operations and the facility owners may contract with a professional operation and maintenance firm. Final disposition of the facilities would be decided in negotiations between the developer and the County.

Mitigation Measures:

Mitigation Measure 4.11-2a: Prior to final map or development plan approval, the project applicant shall provide the County with final design plans and a Hydrology Report in accordance with the County's Standard Improvement Specifications and Drawings that demonstrates adequate flood protection.

Mitigation Measure 4.11-2b: Prior to development plan or other discretionary permit approval, the project applicant shall provide the County with schematic design plans that demonstrates adequate flood protection.

Significance After Mitigation: Less than significant.

Impact 4.11-3: Construction activities associated with the proposed project or any of the alternatives considered would increase soil erosion and may transport other contaminants to downstream receiving waters. This would be a significant impact.

Grading and construction activities at the project site would expose soils to erosion and may result in the transportation of sediment downstream where deposition would occur. Although the applicant has not submitted a grading plan, the applicant's engineers estimate that site grading will move approximately 1,025,000 cubic yards of soil (RRM Design Group, 1997). Cut and fill quantities are intended to balance on site. The erosion potential from movement of this much material during construction is substantial. The sandy soils in the area are highly erodible, especially on long slopes in excess of 10% grade. Eroding soils can also transport fuels, solvents and/or other chemicals used in construction activities that are spilled, dumped, or discarded.

Mitigation Measures:

Mitigation Measure 4.11-3: The project applicant shall employ construction stormwater quality management practices.

The project applicant shall prepare a Stormwater Pollution Prevention Plan as part of the construction activities NPDES stormwater permit required by the Regional Water Quality Control Board. In addition to retention basins, other stormwater Best Management Practices (BMPs) would need to be employed at the site to comply with the NPDES requirements for construction activities. These BMPs may include temporary berms, straw bales, hydroseeding, and phased grading practices to reduce soil erosion. Permanent landscaping plans would not eliminate the need for temporary erosion control measures, especially for construction activities in the winter months. At a minimum, the Stormwater Pollution Prevention Plan shall include the following requirements:

1. Plan grading and tree removal activities for only the dry season (April 15 to October 31) to the extent possible. Extensions may be granted by the County Environmental Division if the applicant can clearly show, through erosion control plans prepared by a Registered Civil Engineer, that no erosion will occur to the Nipomo bluff face. This reduces the chance of severe erosion from intense rainfall and surface runoff, as well as the potential for soil saturation in swale areas.
2. If excavation occurs during the rainy season, the plans shall address storm runoff from the construction area. Measures that should be considered are temporary on-site silt traps; basins with multiple discharge points to natural drainages; energy dissipaters; covering stockpiles of loose material; diverting runoff away from exposed soil material; providing a positive grading away from slopes if work is stopped due to rain to carry the surface runoff to areas to where flow can be controlled, such as the temporary silt basins; locating and operating sediment basin/traps to prevent offsite sediment transport. Any trapped sediment shall be removed from the basin or trap and placed at a suitable location on-site away from concentrated flows, or removed to an approved disposal site.
3. Temporary erosion control measures shall be provided until final revegetation or landscaping is established. Properly trenched and staked silt fences with any necessary supports shall be placed on steep areas along the toe of cut or fill slopes.
4. After completion of grading, erosion protection shall be provided on all cut and fill slopes. Revegetation shall be facilitated by mulching, hydroseeding or other methods, and should be initiated as soon as possible after completion of grading, and prior to the onset of the rainy season (by November 1).
5. Permanent revegetation/landscaping shall emphasize drought-tolerant perennial ground coverings, shrubs, and trees, to improve the probability of

slope and soil stabilization without adverse impacts to slope stability due to irrigation infiltration and long-term root development.

6. Best Management Practices selected and implemented for the project shall be in place and operational prior to the onset of major earthwork on the site. The construction stage facilities shall be maintained regularly and cleared of accumulated sediment as necessary to preserve the siltation basins storage volumes and permit adequate conveyance.

In addition, the applicant shall follow all provisions of the Land Use Ordinance pertaining to grading, erosion, and sedimentation control.

Significance After Mitigation: Less than significant.

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5.0 SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

Section 15216 of the *State CEQA Guidelines* requires a discussion of any significant irreversible environmental changes which would be involved with the implementation of a proposed action.

The proposed project, or any of the alternatives considered, would generate short-term emissions of air pollutants from tree removal, grading and construction activities. This is considered a short-term significant impact, which would cease at the completion of construction activities.

Long-term operational project emissions at project buildout associated with the proposed project, or any one of the alternatives considered, including both stationary and mobile source emissions, are estimated to exceed the thresholds of significance for all the criteria pollutants, which would have a significant adverse impact on CO, ROG, NO_x, and PM₁₀ levels. The project's contribution to exceedances of local standards after implementation of proposed mitigation measures is anticipated to remain a significant adverse impact. Sensitive receptors in the project vicinity would be subject to adverse conditions resulting from increases in pollutant concentrations associated with the proposed project and pollutant concentrations projected for the area. As a result, emissions at project buildout would result in a significant unmitigatable impact to air quality.

Construction of the project under any one of the development alternatives would increase noise levels in the project vicinity to unacceptable levels intermittently, depending on the construction activity and the types of equipment used. Implementation of recommended mitigation measures would reduce noise levels in the project vicinity, but not to acceptable levels for residential uses, particularly those across from the project site. Therefore, construction noise would be considered a significant impact, which would cease at project buildout. Long-term operation of the project under any one of the development alternatives would increase noise levels in the project vicinity to unacceptable levels. No feasible mitigation measures are recommended at this time. As a result, impact to noise levels associated with project-generated traffic would be considered a significant unavoidable impact.

Implementation of the recommended mitigation measures would reduce the potential increase in crime in the area as result of the project. Public Facility Fees as required to be paid by the developer would not sufficiently cover capital costs associated with a new Sheriff Substation in

the Nipomo area. Additionally, the Board of Supervisors would determine the availability of General Fund monies for Sheriff services. Implementation of private security services on-site could deter potential criminal activities, reducing the demand for additional deputies. However, the project-related impacts would result in the need to provide capital for personnel, which would remain a potentially significant impact.

No other impacts associated with the proposed Specific Plan would be anticipated to result in any significant unmitigated impacts.

6.0 LONG-TERM IMPLICATIONS OF THE PROPOSED PROJECT

6.1 GROWTH-INDUCING IMPACTS

CEQA Section 15126(g) requires that an EIR consider growth-inducing impacts and "discuss ways in which the proposed project could foster economic or population growth or the construction of additional housing, either directly or indirectly..." in the area.

The South County Area Plan allows clustered residential development at the Residential Rural density on the project site, without preparation of a specific plan. Under these standards, a five acre density minimum would be required, or up to 190 residential units. With the preparation of a specific plan, development of the site would be subject to the standards set forth for the Recreation category, which would allow a density of up to one unit per acre outside urban and village reserve lines, and one unit per 6,000 sq. ft. within reserve lines. Thus, with the proposed Specific Plan, a total of 957 residential units could be developed on the site, under a "rural" Recreation land use (outside Village Reserve Lines). Any greater densities, such as the proposed 1,320 residential units, would require a new Village Reserve Line (VRL) to be adopted along with the project.

The establishment of a new VRL could potentially increase development to surrounding areas in Residential Rural categories, due to one of the Land Use Ordinance "tests" to reduce minimum parcel sizes that relates to the distance from VRLs. However, because of existing villages (Palo Mesa, Callender-Garrett, Blake Lake Specific Plan (proposed), and urban area (Nipomo)), no additional Residential Rural areas would be affected by the proposed project's VRL.

The establishment of a VRL would make it easier for surrounding properties in the future to add themselves to this village and intensify development potential (e.g., change from Residential Rural to Residential Suburban). In addition, the number and location of other villages (Palo Mesa, Callender-Garrett, and Black Lake (proposed)), Nipomo and "rural village prototype" (if the project is not identified as such) are conducive to the urbanization of existing rural development.

The project would include 1,320 housing units, up to 140,000 sq. ft. of shops, restaurants, and offices, a 500-room hotel, two golf courses, up to 335,000 sq. ft. of research and development,

commercial and professional offices and an elementary school site upon completion. If the commercial and business park components of the project were fully leased, all the homes in the Specific Plan Area sold and occupied, and permanent vacancies were not created in other County locations, the total residential population in the Nipomo area would increase by approximately 4,130 persons, and employment would increase by approximately 2,100 persons.¹ **Project construction could extend over ten years or more, thus generating substantial construction employment.**

Implementation of the proposed project would introduce a substantial employment base into the predominantly residential Nipomo area. However, approximately half of the employment generated by the proposed project would be relatively low-paying clerical and service positions, as shown in Table 6-1. Additionally, with 1,320 housing units also proposed, the project would not improve the existing jobs/housing balance conditions in the Nipomo area.

Under the Expanded Business Park alternative, the increase in residential population would be the same as the proposed project, but employment would increase by approximately 3,319 persons. As a result, this alternative would have a greater positive impact on the existing jobs/housing imbalance in Nipomo than the proposed project. For the Rural Village I and II alternatives, residential population in the Nipomo area would increase by approximately 2,995 persons, and employment would increase by approximately 2,100 and 3,319 persons, respectively. The Rural Village II alternative, with its lower population increase and higher employment generation potential, would have the greatest positive impact on jobs/housing conditions.

The project would respond to a demand for housing and office/light industrial space in the Nipomo area that is independent of the project. The demand reflects the long-term trend of growth in the service sector, office activities, and employment in the San Luis Obispo area. The introduction of the proposed resort hotel, golf course, office/light industrial space and employment to the area would contribute to continued growth of local and regional markets for

¹ Population estimate is based on the figure of 3.13 persons/occupied housing unit for the South County (South County Area Plan, Appendix A); commercial employment is estimated at 1 employee per 300 sq. ft. (Central Coast Average; Crawford, Multari & Clark); hotel employment is estimated at 0.9 employees per room (industry standard; ESA); golf course average daily employment is estimated at 33 employees per 18-holes (ESA; Golf Dimensions).

TABLE 6-1: ESTIMATED OCCUPATIONAL BREAKDOWN

<u>Occupation</u>	<u>Business Park Employment</u>	Percentage of: <u>Village Employment</u>	<u>Hotel Employment</u>	<u>Number of Employees</u>
Management/Professional	28%	12%	16%	441
Technical/Sales	25%	11%	3%	344
Clerical	40%	10%	15%	561
Service/Sales	4%	48%	59%	534
Craft	0%	8%	3%	51
Operations/Labor	0%	11%	4%	69
Other	3%	0%	0%	34
Total	100%	100%	100%	2,034

Note: Does not include an estimated 66 golf course employees.

SOURCE: U.S. Department of Labor & California Employment Development Department

housing, goods, and services. In response to these effects, the demand for existing and new commercial retail and office space and housing would increase. Expansion of the municipal infrastructure could be required to accommodate new development and increased population and employment induced by the proposed project. The growth and development induced by the proposed project may result in further impacts on the environment, which would be similar in nature to those discussed below under Section 6.2, Cumulative Impacts.

6.2 CUMULATIVE IMPACTS

The cumulative impacts section of this EIR is prepared in accordance with *State CEQA Guidelines Section 15130 and 15355*, which require that cumulative impacts be discussed when they are significant. Cumulative impacts are defined as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts" in the *State CEQA Guidelines (Section 15355)*. Individual effects include the various changes related to a single project, as well as the changes resulting from closely related projects which are either planned, under construction, or recently completed. The analysis need not be as

in-depth as the project alone, "...but be guided by the standards of practicality and reasonableness..." (CEQA Section 15130).

The following discussions analyze the cumulative impacts of the proposed project and the related projects. Mitigation measures outlined in Section 4.0 of this document serve to reduce the proposed project's contribution to these cumulative impacts; the proposed project is not responsible for mitigating the impacts resulting from cumulative development in the area.

As summarized in Table 3-2 (Section 3.0, Overview of Environmental Setting), a total of 660 units of housing are currently proposed, along with a 27-hole golf course, three greenhouses totaling 770,000 sq. ft., and a mini-storage facility. The most prominent project on the list is the proposed Cypress Ridge Tract Map and Development Plan, which includes 386 housing units and the 27-hole golf course located within the Palo Mesa Village to the northwest of the project site. The other project of note is the Chen Ting-Fong Tract Map, a 37-lot subdivision located immediately south of the Woodlands property.

As discussed in Section 4.1, Water Resources/Wastewater, it is anticipated that cumulative development would lower groundwater levels, decrease groundwater quantities in storage, and affect the ability of some wells in the area to economically pump groundwater. This could result in adverse groundwater effects over the long term in the region, and would be a potentially significant cumulative impact.

With cumulative development, all roadways within the study-area are forecast to operate at LOS A with 2005 volumes (with or without the Willow Road extension), except for the LOS C forecast for Highway 101. All study-area intersections are forecast to operate at LOS C or better during the P.M. peak hour period with 2005 traffic volumes. By the year 2010, all roadways within the study-area are forecast to operate at LOS A (due to the completion of the Willow Road extension and the interchange at Willow/Highway 101), except for the LOS D forecast for U.S. Highway 101, which is considered acceptable for state facilities. Without full completion of the Willow Road extension and the interchange at Willow/Highway 101, all roadways within the study-area are forecast to operate at LOS C or better. Most study-area intersections are forecast to operate at LOS C or better during the P.M. peak hour period; the Pomeroy Road/Willow Road intersection is forecast to degrade to LOS F, assuming the two-way stop control.

Along with the proposed project, cumulative development would contribute to the continued exceedances of state and federal air quality standards. Sensitive receptors in the project vicinity

would be subject to adverse conditions resulting from increases in pollutant concentrations associated with the proposed project and pollutant concentrations projected for the area. Along with the proposed project, the Chen Ting-Fong Tract Map would introduce new sensitive receptors subject to odors emitted by the Unocal facility to the west of the project site.

The project could also contribute to the cumulative loss of natural communities and habitat in the region, including the loss of approximately 9 acres of Coastal Sage Scrub, and would have the potential to affect several special status animal species, including the monarch butterfly, silvery legless lizard, and nesting raptors. However, implementation of mitigation measures would reduce this impact to less than significant levels.

Cumulative development would increase noise levels along roads in the project vicinity through the generation of additional motor vehicle trips. Including the proposed project, cumulative development would increase noise levels along major arterials in the project vicinity, and would result in significant impacts along seven of 10 roadway segments analyzed. In addition, the Chen Ting-Fong Tract Map and the proposed project would introduce new sensitive receptors subject to noise generated by the Unocal facility to the west of the project site.

The project would contribute to the cumulative transition of the area from rural to more urban land uses. This includes the conversion of open space to residential uses, the development of commercial, recreational, and residential uses in the Nipomo area, and the removal of existing trees and other vegetation. Cumulative visual impacts to the rural character would be accelerated by surrounding development, such as the 37-unit Chen Ting-Fong Tract Map located on the southern edge of the Mesa.

Cumulative development in the project area would increase the demand for public services, including fire protection, police protection, and schools, as well as additional demands for water, wastewater treatment, and solid waste disposal. This would result in the need for additional personnel and facilities. As long as satisfactory levels of service are maintained, these impacts would not be significant. However, as discussed in Section 4.7, the increased burden placed on these facilities by cumulative development in the area would result in significant cumulative impacts on fire protection, police protection, and schools.

Cumulative development could permanently cover or potentially disturb any archaeological resources which may exist in the area, precluding further research. However, if appropriate

mitigation measures are employed on a project-by-project basis, no significant cumulative impacts are anticipated.

Cumulative development would result in the increased use and/or transport of hazardous materials in the area and the potential exposure of an increased population to these materials. However, if appropriate mitigation measures are employed according to state and local regulations, no significant cumulative impacts related to hazardous materials are anticipated.

6.3 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

Development under the proposed Specific Plan would result in irreversible environmental changes, primarily in the form of the consumption of energy supplies and the commitment of land to urban uses.

Under any of the alternatives considered, with the exception of the No-Project Alternative, structures will be built, utilities installed, and extensive demands on energy resources will be realized and subsequently utilized to meet the project-induced energy requirements. Beyond construction activities, energy demands will be expended on the transportation of people to, from, and about the project site.

Until alternative sources of energy resources prove to be viable in both an economical and practical sense, fossil fuels continue to be the principal sources of energy. Thus, development under the proposed Specific Plan would incrementally reduce existing supplies of fuels, including natural gas, fuel oil, and gasoline, representing a relatively long-term commitment to an essentially non-renewable resource. The use of other non-renewable and slowly renewable resources would include lumber, sand and gravel, asphalt, metals, and water.

Development under the proposed Specific Plan would involve the commitment of undeveloped land, and would represent a long-term modification of the current visual and aesthetic conditions of the project site.

7.0 ALTERNATIVES

This chapter is prepared in accordance with CEQA Section 15126(d), and presents a summary of the alternatives considered in this EIR which could result in the reduction or elimination of some of the environmental impacts associated with the Proposed Project. **Although no tree removal is proposed, the existing tree crop could be harvested if stumps left in (without a discretionary permit), substantially changing the character of the site.**

For the purposes of this EIR, five alternatives are considered. Three of these alternatives are described in Chapter 2.0, Project Description, and are analyzed at the same level of detail as the proposed project throughout Chapter 4.0, Environmental Setting, Impacts, and Mitigations, where feasible. In addition, this section considers the No Project Alternative, as well as an Alternative Site Plan.

7.1 NO PROJECT ALTERNATIVE

Under the No Project Alternative, neither tree removal nor new construction is proposed. The site would remain under current existing conditions; the eucalyptus stands and grassland areas of the site would remain undisturbed.

Under this alternative, none of the potential impacts associated with the Proposed Project or any of the other alternatives considered would occur. Water in storage beneath the Nipomo Mesa would follow a pattern similar to that under the historic conditions. Cumulative development would result in an incremental increase in traffic on local roadways; state and federal air quality standards would continue to be exceeded, and noise levels on local roadways would incrementally increase. The rural character and visual appearance of the site would remain unchanged. No impacts on public services would occur; however, the existing eucalyptus stands would continue to pose a high fire risk to the area. Cultural resources on site would be undisturbed. No potential impacts on adjacent or nearby agricultural operations would occur. No impacts would be expected in the areas of hazardous materials or drainage, erosion and sedimentation.

This alternative would not be consistent with most project objectives, as discussed in Section 2.0, Project Description. However, it would be consistent with Objective No. 3, as it would eliminate all potential impacts associated with the proposed project.

7.2 EXPANDED COMMERCIAL/BUSINESS PARK ALTERNATIVE

This alternative would differ from the proposed project since the business park would be increased from 22 acres to 46 acres, while the residential acreage would decrease from 235 acres to approximately 211 acres. Although residential acreage would be reduced with this alternative, the maximum number of units would remain unchanged at 1,320 units, with the effect of increasing residential density.

This alternative would result in a greater demand for water than the proposed project. Total water demand for the Expanded Commercial/Business Park Alternative was estimated to be 1654 acre-feet per year (afy), 15 afy greater than the proposed project. However, as discussed in Section 4.1, Water Resources/Wastewater, this is not anticipated to result in any adverse effects on long-term groundwater storage.

The Expanded Business Park would generate 35,254 average daily trip ends (5,077 more than the project) and 3,401 P.M. peak hour trips ends (527 more than the project). As with the proposed project, this alternative would add a substantial amount of traffic to the segments of Albert Way and Via Concha between Dawn Road and Willow Road; as well as Dawn Road, Camino Caballo, Mesa Road, and Eucalyptus Road east of the site. In addition to the impacts associated with the proposed project, the Willow Road/U.S. Highway 101 ramp intersections would require signal control under this alternative.

Impacts to air quality resulting from construction under the Expanded Business Park Alternative are anticipated to be similar to those generated by the proposed project. Emissions during site clearance and excavation and grading would be the same as those generated by the proposed project. Estimated exhaust emissions during construction are slightly greater than those estimated for the proposed project and are anticipated to exceed the thresholds of 185 lbs/day of NO_x and 2.5 tons per quarter of PM₁₀. As with the proposed project, this would be considered a significant impact, which would cease after completion of construction activities.

As with the proposed project, stationary-source emissions generated by the Expanded Business Park Alternative would exceed the thresholds of significance established by the County for ROG

and NO_x, which would result in a significant impact to air quality. Mobile-source emissions would exceed the thresholds of significance established by the County for all pollutants. Therefore, mobile-source emissions would create a significant impact. Total project-related emissions under this alternative would exceed the thresholds of significance for CO, ROG, NO_x, and PM₁₀. As with the proposed project, this alternative would result in a significant impact on air quality.

Potential impacts on biological resources under this alternative would be similar to the proposed project. Each of the alternatives would result in significant direct impacts to approximately 9 acres of Central Coastal Scrub, and would have the potential to affect the following special status animal species: monarch butterfly, silvery legless lizard, and nesting raptors. Implementation of mitigation measures recommended for the proposed project would also mitigate these impacts for this alternative. During the construction stage, this alternative could result in disturbance to, or direct mortality of, common and special-status wildlife species. Such habitat losses may be permanent for certain burrowing mammals, whose populations could be eliminated due to habitat modification. Finally, irrigation and the application of fertilizers and pesticides for golf course turfed areas may adversely affect biological resources.

Noise levels resulting from construction of this alternative would be similar to those anticipated from the proposed project. Similar to the proposed project, noise from chain saws at any one residence would vary during the initial tree clearing phase depending upon the distance between tree clearing and thinning activities and the given residence. Where tree-clearing activities would occur near the site boundary, chain saw noise could reach 104 to 110 dBA at the closest residences. More typically, chain saw noise would be approximately 86 to 74 dBA with tree clearing activities at distances of 800 to 3,200 feet away, respectively. Once the initial tree clearing phase is completed, noise from building construction would vary depending upon the distance between construction sites and residences. Existing residences would be approximately 400 feet from the nearest building construction site. At 400 feet, construction noise levels would be 63 to 70 L_{eq}. More typically, construction activities would occur at distances of 800 feet or more from the nearest residences. At 800 feet, construction noise would be 57 to 63 L_{eq}. This would be considered a significant impact, which would cease after completion of construction activities.

Project-generated traffic as a result of development of the Expanded Business Park Alternative would increase local traffic noise levels to a slightly greater extent than under the proposed project. For example, traffic noise levels along Via Concha Road and Calle Fresa would be

expected to be 0.6 L_{eq} higher by 2010 under this Alternative than under the project. The difference between this Alternative and the project would be less along the other road segments. As with the proposed project, this would result in a significant impact to the ambient noise environment.

Potential aesthetic impacts associated with this alternative would be identical to the proposed project. The increased business park acreage associated with this alternative would be offset by a corresponding decrease in residential acreage; the maximum number of units would remain unchanged, increasing the residential density. The result of this would be a reduction or elimination of larger lots on site, replaced with higher density lots. This would increase the number of trees to be removed in the interior of the site; however, the perimeter buffers would remain constant under any of the alternatives considered. Since the buffers would remain unaffected by the densities, changes to the natural visual character and form of the site for any alternative would be similar to those anticipated from the proposed project. Therefore, aesthetic impacts are not anticipated to substantially change under any of the alternatives considered.

Impacts on public services, including fire protection, police services, water, wastewater, schools and solid waste disposal would be slightly greater than the proposed project. Impacts related to archaeology, agricultural compatibility, hazardous materials, and drainage, erosion and sedimentation would all be similar to the project.

This alternative would be consistent with most project objectives, as discussed in Section 2.0, Project Description. For Objective No.'s 1 and 2, this alternative may be considered more consistent than the proposed project, as the original intent of the South County Area Plan - Inland Portion for the project site was to emphasize employment opportunities associated with business park uses. However, it would not be consistent with Objective No. 3, as it would result in greater impacts than the proposed project on local roadways, air quality and ambient noise levels.

7.3 REDUCED PROJECT/RURAL VILLAGE I ALTERNATIVE

This alternative would apply "Rural Village" planning area standards to the property. The residential component would decrease from 1,320 to 957 units, due to a maximum density of one unit per acre for the 957-acre site. For this alternative, the business park component of this alternative would be the same as the proposed project, at 22 acres (up to 335,000 sq. ft.).

This alternative would result in a reduced demand for water in comparison to the proposed project. Total water demand for this alternative was estimated to be 1531 acre-feet per year (afy), 108 afy less than the proposed project. As discussed in Section 4.1, Water Resources/Wastewater, this is not anticipated to result in any adverse effects on long-term groundwater storage.

The Rural Village I alternative would generate 27,106 average daily trip ends (3,071 less than the project) and 2,569 P.M. peak hour trips ends (305 less than the project). As with the proposed project, this alternative would still add a substantial amount of traffic to the segments of Albert Way and Via Concha between Dawn Road and Willow Road; as well as Dawn Road, Camino Caballo, Mesa Road, and Eucalyptus Road east of the site. No other traffic impacts are anticipated.

Impacts to air quality resulting from construction under the Rural Village I Alternative would be similar to the proposed project. Emissions during site clearance and excavation and grading would be the same as those generated by the proposed project. Estimated exhaust emissions during construction, as presented in Table 4.3-5, are lower than those estimated for the proposed project but are also anticipated to exceed the thresholds of 185 lbs/day of NO_x and 2.5 tons per quarter of PM_{10} . As with the proposed project, this would be considered a significant impact, which would cease after completion of construction activities.

As with the proposed project, stationary-source emissions generated by the Rural Village I Alternative would exceed the thresholds of significance established by the County for ROG and NO_x , which would result in a significant impact to air quality. Mobile-source emissions would exceed the thresholds of significance established by the County for all pollutants. Therefore, mobile-source emissions would create a significant impact. Total project-related emissions under this alternative would exceed the thresholds of significance for CO, ROG, NO_x , and PM_{10} . This alternative would introduce up to 363 fewer residential units onto the project site than the proposed project, which would be subject to odors emitted by the Unocal facility to the west of the project site. As with the proposed project, this alternative would result in a significant impact on air quality.

Potential impacts on biological resources under this alternative would be similar to the proposed project. As with the project, this alternative would result in significant direct impacts to approximately 9 acres of Central Coastal Scrub, and would have the potential to affect the following special status animal species: monarch butterfly, silvery legless lizard, and nesting

raptors. However, with fewer residential units, this alternative would provide greater flexibility for redesign to avoid these habitats. Implementation of mitigation measures recommended for the proposed project would also mitigate these impacts for this alternative. During the construction stage, this alternative could result in disturbance to, or direct mortality of, common and special-status wildlife species. Such habitat losses may be permanent for certain burrowing mammals, whose populations could be eliminated due to habitat modification. Finally, irrigation and the application of fertilizers and pesticides for golf course turfed areas may adversely affect biological resources.

Noise levels resulting from construction of this alternative are not anticipated to exceed those anticipated from the proposed project. Similar to the proposed project, noise from chain saws at any one residence would vary during the initial tree clearing phase depending upon the distance between tree clearing and thinning activities and the given residence. Where tree-clearing activities would occur near the site boundary, chain saw noise could reach 104 to 110 dBA at the closest residences. More typically, chain saw noise would be approximately 86 to 74 dBA with tree clearing activities at distances of 800 to 3,200 feet away, respectively. Once the initial tree clearing phase is completed, noise from building construction would vary depending upon the distance between construction sites and residences. Existing residences would be approximately 400 feet from the nearest building construction site. At 400 feet, construction noise levels would be 63 to 70 L_{eq} . More typically, construction activities would occur at distances of 800 feet or more from the nearest residences. At 800 feet, construction noise would be 57 to 63 L_{eq} . This would be considered a significant impact, which would cease after completion of construction activities.

Project-generated traffic as a result of development of this alternative would increase local traffic noise levels to a slightly lesser extent than under the project. For example, traffic noise levels along Via Concha Road and Calle Fresa would be expected to be 0.8 L_{eq} less by 2010 under this Alternative than under the project. The difference between this alternative and the project would be less along the other road segments. The only significant difference would be along West Tefft Street, between Mesa Road and Orchard Road, where the increase in noise relative to existing conditions (+2.3) would not be significant under this alternative whereas the increase (+2.5) along that same segment would be significant under Project conditions.

Potential aesthetic impacts associated with this alternative would be similar to or slightly less than the proposed project. Residential densities under this alternative would decrease; therefore, a greater number of large lots would be developed under this alternative, resulting in greater

potential for tree retention. However, the perimeter buffers would remain unaffected by the densities; therefore, changes to the natural visual character and form of the site for this alternative would be similar to those anticipated from the proposed project. Therefore, aesthetic impacts are not anticipated to substantially change under any of the alternatives considered.

Impacts on public services, including fire protection, police services, water, wastewater, schools and solid waste disposal would be slightly less than the proposed project. Impacts related to archaeology, agricultural compatibility, hazardous materials, and drainage, erosion and sedimentation would all be similar to the project.

This alternative would be consistent with most project objectives, as discussed in Section 2.0, Project Description. It would be more consistent with Objective No. 3 than the proposed project, as it would result in lesser impacts than the proposed project on local roadways, air quality and ambient noise levels.

7.4 REDUCED PROJECT/RURAL VILLAGE II ALTERNATIVE

This alternative would apply "Rural Village" planning area standards to the property. The residential component would decrease from 1,320 to 957 units, due to a maximum density of one unit per acre for the 957-acre site. For this alternative, the business park component of this alternative would be 46 acres (up to 701,000 sq. ft.).

This alternative would result in a reduced demand for water in comparison to the proposed project. Total water demand for this alternative was estimated to be 1547 acre-feet per year (afy), 92 afy less than the proposed project. As discussed in Section 4.1, Water Resources/Wastewater, this is not anticipated to result in any adverse effects on long-term groundwater storage.

Traffic generated by this alternative would be approximately the same as the proposed project. Traffic impacts to the study-area streets and intersections would therefore be identical. As with the proposed project, this alternative would add a substantial amount of traffic to the segments of Albert Way and Via Concha between Dawn Road and Willow Road; as well as Dawn Road, Camino Caballo, Mesa Road, and Eucalyptus Road east of the site. No other impacts are anticipated.

Impacts to air quality resulting from construction under the Rural Village II Alternative are not anticipated to exceed those anticipated from the proposed project as discussed above. Emissions

during site clearance and excavation and grading would be the same as those generated by the proposed project. Estimated exhaust emissions during construction, as presented in Table 4.3-5, are slightly lower than those estimated for the proposed project but are also anticipated to exceed the thresholds of 185 lbs/day of NO_x and 2.5 tons per quarter of PM_{10} . As with the proposed project, this would be considered a significant impact, which would cease after completion of construction activities.

As with the proposed project, stationary-source emissions generated by the Rural Village II Alternative would exceed the thresholds of significance established by the County for ROG and NO_x , which would result in a significant impact to air quality. Mobile-source emissions would exceed the thresholds of significance established by the County for all pollutants. Therefore, mobile-source emissions would create a significant impact. Total project-related emissions under this alternative would exceed the thresholds of significance for CO, ROG, NO_x , and PM_{10} . This alternative would introduce up to 363 fewer residential units onto the project site than the proposed project, which would be subject to odors emitted by the Unocal facility to the west of the project site. As with the proposed project, this alternative would result in a significant impact on air quality.

Potential impacts on biological resources under this alternative would be similar to the proposed project. As with the project, this alternative would result in significant direct impacts to approximately 9 acres of Central Coastal Scrub, and would have the potential to affect the following special status animal species: monarch butterfly, silvery legless lizard, and nesting raptors. However, with fewer residential units, this alternative would provide greater flexibility for redesign to avoid these habitats. Implementation of mitigation measures recommended for the proposed project would also mitigate these impacts for this alternative. During the construction stage, this alternative could result in disturbance to, or direct mortality of, common and special-status wildlife species. Such habitat losses may be permanent for certain burrowing mammals, whose populations could be eliminated due to habitat modification. Finally, irrigation and the application of fertilizers and pesticides for golf course turfed areas may adversely affect biological resources.

Noise levels resulting from construction of this alternative are not anticipated to exceed those anticipated from the proposed project. Similar to the proposed project, noise from chain saws at any one residence would vary during the initial tree clearing phase depending upon the distance between tree clearing and thinning activities and the given residence. Where tree-clearing activities would occur near the site boundary, chain saw noise could reach 104 to 110 dBA at the

closest residences. More typically, chain saw noise would be approximately 86 to 74 dBA with tree clearing activities at distances of 800 to 3,200 feet away, respectively. Once the initial tree clearing phase is completed, noise from building construction would vary depending upon the distance between construction sites and residences. Existing residences would be approximately 400 feet from the nearest building construction site. At 400 feet, construction noise levels would be 63 to 70 L_{eq} . More typically, construction activities would occur at distances of 800 feet or more from the nearest residences. At 800 feet, construction noise would be 57 to 63 L_{eq} . This would be considered a significant impact, which would cease after completion of construction activities.

Project-generated traffic as a result of development of this alternative would increase local traffic noise levels to the same extent as under the Project. As with the proposed project, increased noise levels along major arterials in the project vicinity would result in significant impacts along seven of 10 roadway segments analyzed.

Potential aesthetic impacts associated with this alternative would be similar to or slightly less than the proposed project. Residential densities under this alternative would decrease; therefore, a greater number of large lots would be developed under this alternative, resulting in greater potential for tree retention. This potential would be less than the Rural Village I Alternative, due to the increased acreage designated for Business Park uses (from 22 acres to 46 acres). As the perimeter buffers would remain unaffected by the densities, changes to the natural visual character and form of the site for this alternative would be similar to those anticipated from the proposed project. Therefore, aesthetic impacts are not anticipated to substantially change under any of the alternatives considered.

Impacts on fire protection, police services, water and wastewater would be similar to the proposed project; however, impacts on schools and solid waste disposal would be slightly less. Impacts related to archaeology, agricultural compatibility, hazardous materials, and drainage, erosion and sedimentation would all be similar to the project.

This alternative would be consistent with most project objectives, as discussed in Section 2.0, Project Description. As with the Expanded Commercial/Business Park Alternative, this alternative may be considered more consistent than the proposed project for Objective No.'s 1 and 2, as the original intent of the South County Area Plan - Inland Portion for the project site was is to emphasize employment opportunities associated with business park uses.

7.4.1 REVISED PROJECT ALTERNATIVE

As stated in the Project Description, features incorporated into the Revised Project Alternative would reduce specific environmental impacts resulting from implementation of the original proposed project.

The Revised Project Alternative would include revised land uses and placement of land uses, revised project phasing and a revised circulation system. The school site would be eliminated and there may not be a public park (rather the applicant would pay for improvement to an existing park) and pay in-lieu school fees. The golf course area would be expanded from 36 holes to 45 holes. Placement of land uses would most notably change by the business park being moved to the southwest portion of the site, the village being moved slightly east and the resort being repositioned directly south of the Monarch butterfly habitat. This alternative would be developed in four stages instead of the two stages of the proposed project, beginning in the northwest quadrant and then moving clockwise. Stage I would include 427 single family residences, 80 apartments, 10,000 square feet of commercial uses, 167,500 square feet of business park, and an 18-hole golf course. Stage II land uses would be the same as the Stage I land uses analyzed for the proposed project (minus the park). Buildout land uses would also be the same as the buildout land uses analyzed for the proposed project (minus the park and school and with the extra 9 hole golf course).

Water demand under the Revised Project Alternative would remain similar to the original proposed project even though the golf course design would slightly change under Revised Project Alternative. Therefore, implementation of the mitigation measures under the original proposed project would also mitigate impacts under this alternative.

The internal road system would be revised to include six roads radiating out of the village instead of the three proposed as part of the project. External access for Stage I of the Revised Project Alternative would be limited to Highway 1 on the west and Albert Way and Via Concha on the north (with no improvements proposed for Dawn Road and Camino Caballo, and no connections proposed to Mesa Road or Eucalyptus Road). Additional external connections would be provided to Mesa Road and Eucalyptus Road in subsequent Stages, however, direct connections to Dawn Road, Camino Caballo and Viva Way are not proposed.

Trip Generation. ~~Table A~~Table 4.2-25 summarizes the trip generation estimates for Stage I, Stage II and Buildout. Also shown are comparisons to the trip generation estimates developed for the proposed project. The trip generation estimates are based on regression equation rates published in Institute of Transportation Engineers, Trip Generation Manual, 6th Edition. The trip generation estimates also addressed internal versus external trip splits and pass-by trip reductions pursuant to the methods developed for the proposed project.

As shown in ~~Table A~~Table 4.2-25, the Revised Project Alternative would result in minor changes in the overall number of trips generated. Most importantly, the number of trips external to the site would increase. This is due to the mix of land uses and the internal capture rates (the number of residential units remains the same with fewer uses to interact with provided on the site). For example, although buildout of the site would result in a net reduction of 501 ADT and 24 PHT, the number of trips external to the site would be 568 ADT and 41 PHT higher than the proposed project.

Stage I Impacts. Stage I of the Revised Project Alternative would generate 6,052 ADT and 628 PHT external to the site. External access for Stage I is proposed via Highway 1 on the west and the Albert Way and Via Concha on the north, with no direct access via Camino Caballo, Mesa Road, or Eucalyptus Road. Dawn Road would remain unimproved adjacent to and west of the site, thus limiting its usability as an east-west connector. The applicant is also proposing to leave the majority of the roadways along the perimeter of the site unimproved (Dawn Road, Camino Caballo, Viva Way, Banneker and Amador). This access plan requires that the trips generated within the Stage I development area travel approximately one-half mile north to Willow Road, traverse Willow Road to the east, and then back-track to the south via Pomeroy Road to access the downtown Nipomo area and the Tefft Road/U.S. Highway 101 interchange. The plan would also require that the majority of the local traffic in Nipomo area which is destined for the site to travel north to Willow Road via Pomeroy Road then south to the site via Albert Way or Via Concha. This circuitous routing would affect over 50% of the trips generated by the project.

This alternative would result in much higher traffic loading on Albert Way, Via Concha, and Willow Road, while significantly reducing the forecast traffic loading on Dawn Road and Camino Caballo. While the study-area roadways and intersections could generally accommodate the traffic volumes generated by Stage I with the limited circulation system proposed by the applicant (assuming improvements to Albert Way and Via Concha), the circulation plan is inconsistent with good transportation planning principles. The current

Stage I plan includes over 500 residential units and 177,500 square feet of retail/business park space. Over 50% of the traffic which would be generated by this development would be oriented to and from the east (the Nipomo commercial area and the freeway). Providing only one east-west connector link located one-half mile north of the site would be viewed as a minimal circulation system given the size of the development. The proposed circulation system would result in approximately 2,000 additional vehicle miles traveled (VMT) per day (equating to over 600,000 additional VMT on an annual basis) in the Nipomo area (and associated vehicle emissions). The limited access plan could also increase emergency vehicle response times to the site. It is also noted that some of the traffic generated at the site would find its way to the other adjacent dirt roadways (i.e. Dawn Road, Camino Caballo, Viva Way, etc.) even though no improvements are proposed by the applicant for these roadways, thus inducing the need for future roadway improvements. For instance, residents living on Dawn Road who wish to patronize the retail or recreational components of the Woodlands project would travel on Dawn Road to access the site regardless of whether the road was paved or not.

Assuming the access plan proposed by the applicant for this alternative, the operation of the Willow Road/Pomeroy Avenue intersection would degrade to the LOS D range. This access alternative would also result in heavy turning movements at the Willow Road intersections with Albert Way and Via Concha Road. The project would also add traffic to the Willow Road/Route 1 intersection, which could generate potential safety impacts given its current substandard design.

Stage I Mitigations. As discussed above, Stage I of the Revised Project Alternative would generate impacts to several intersections and roadways in the study area. Mitigations are listed below:

Albert Way and Via Concha: These two roadways, which would carry the bulk of the traffic generated by Stage I, shall be improved to County Collector Road standards between Dawn Road and Willow Road. In addition to these roadway improvements, left-turn channelization would be required on Willow Road at the Albert Way and Via Concha Road intersections to accommodate the turning movements generated by the project. These improvements would be required prior to occupancy the Stage I developments.

Willow/Pomeroy: Based on the limited circulation system proposed for the Stage I development, traffic signals would be required at this intersection to accommodate the volumes generated by Stage I. Intersection widening to provide appropriate left-and/or right-turn lanes would also be required. It is anticipated that this improvement would not be required until most of the Stage I development is constructed. Furthermore, if the County requires an additional east-west access connection, as recommended below, the signal would not be required at all for Stage I. It is therefore recommended that the applicant bond for the signal and that signal warrant studies be conducted at periodic occupancy intervals (i.e. at 50% and 75% occupancy) to determine the timing for installation.

Project Frontage Improvements: In order to provide for the equitable development of the future circulation system which will be required to serve the Woodlands site as well as buildout of the Nipomo area, the project applicant would be responsible for improving the roadways fronting the property. These would include Dawn Road, Camino Caballo, Route 1 and Viva Way. The roadways would be improved to County standards, as determined by the County Engineering Department. These improvements would be required prior to occupancy of the Stage I developments.

Route 1/Main Entrance. Prior to construction/logging operations, the Route 1/Main Entrance intersection shall be improved to include a southbound left-turn lane and a northbound right-turn lane. The turning-lanes shall be constructed to provide adequate truck storage and turning movements. The intersection design shall conform to Caltrans design standards.

Route 1/Willow Road. This intersection currently has single lane approaches with substandard geometric design. It is recommended that this intersection be realigned and widened to provide turn-lanes at-on all of the approaches. The intersection should be reconfigured to form a standard three-way approach configuration in order to alleviate driver confusion. This would involve realignment of the Willow Road approach. As volumes increase due to buildout of the area, the control of the intersection may need to be modified to provide all-way STOP control or signalization. These improvements would be required prior to occupancy of any of the Stage I developments.

The improvements recommended for the Willow Road/Route 1 intersection would be required to mitigate potential safety impacts associated with the addition of project traffic and the current substandard design. These improvements would still be required with the revised project. The improvements would need to be constructed prior to development of Stage I. If the improvements are constructed by Caltrans prior to development of Stage I, then no additional improvements would be required of the project.

East-West Connections: As noted in the discussion of this alternative, the current Stage I plan includes no direct east-west connection to the project site. This would result in significant increases in vehicle miles traveled in the area. It is therefore recommended that a minimum of one direct east-west roadway connection be provided for the Stage I development. This could include the connection to and improvement of Mesa Road (as proposed in Stage II of the project), or development of Dawn Road or Camino Caballo as analyzed for the proposed project. These improvements would be required prior to occupancy of any of the Stage I developments. Eucalyptus Road was not included in the discussion because of its southerly location, since development of Stage I would occur in the northern portion of the site.

Stage II Impacts. Stage II of the Revised Project Alternative would generate about the same level of external traffic as Stage I of the proposed project (see ~~Table A~~Table 4.2-25). External access for Stage II would be expanded by adding a connection to Mesa Road, with no direct access to Camino Caballo or Eucalyptus Road and no improvements proposed for Dawn Road. The revised project information provided by the applicant indicates that access to Dawn Road and Camino Caballo would be for "emergency vehicles only". However, the site plan shows two major connections between the site and Dawn Road at Albert Way and Via Concha.

Stage II of this alternative would result in much higher traffic loading on Albert Way, Via Concha, Willow Road, and Mesa Road, while significantly reducing the forecast traffic loading on Dawn Road and Camino Caballo.

While the study-area roadways and intersections could generally accommodate the traffic volumes generated by Stage II with the limited circulation system proposed by the applicant (assuming improvements to Mesa Road) based on roadway engineering design capacities,

the circulation plan is inconsistent with good planning principles. The Stage II development includes 838 dwelling units, over 400,000 S.F. of commercial square-footage, and a 500 room hotel. Providing a single east-west connector link at Mesa Road for this level of development would focus traffic on this roadway and within the neighborhood adjacent to Tefft Road and at a limited number of intersections. Providing additional east-west links would disperse traffic over more of the study-area roads and intersections.

Assuming the access plan proposed by the applicant for this alternative, the operation of the Mesa Road/Tefft Road intersection would degrade to the LOS D range.

It is also noted that development of the Nipomo mesa east of the site may trigger the need for upgrading the links and the cost of the upgrades should be shared by the project according to the project's traffic contributions. Project-generated traffic would find its way to the links as they are paved in the future.

Stage II Mitigations. As discussed above, Stage II of the Revised Project Alternative would generate impacts to several intersections and roadways in the study area. Mitigations are listed below:

Mesa Road: The segment of Mesa Road between Viva Way and Osage Street should be improved to County Collector Road standards, if not improved by other project development in the area or the County prior to construction and occupancy of the second Stage of the Woodlands project.

Mesa Road/Tefft Road: Based on the revised circulation system proposed for the Stage II development, traffic signals would be required at this intersection to accommodate the volumes generated by Stage II. Intersection widening to provide appropriate left-turn channelization may also be required. It is anticipated that this improvement would not be required until most of the Stage II development is constructed and occupied. Furthermore, if the County requires an additional east-west access connection, as recommended below, the signal would not be required at all for Stage II. It is therefore recommended that the applicant bond for the signal and that signal warrant studies be conducted at periodic occupancy intervals (i.e. at 50% and 75% occupancy of Stage II) to determine the timing for installation.

East-West Connections: As previously noted in the discussion of this alternative, the current Stage II plan includes one direct east-west connection to the project site via Mesa Road. This would result in significant loading of Mesa Road in the residential area in the downtown Nipomo area and would require traffic signals at the Tefft Road intersection. It is therefore recommended that a minimum of one additional east-west roadway connection be provided for the Stage II development. This could include the connection to Eucalyptus Road or development of Dawn Road or Camino Caballo as analyzed for the proposed project. These improvements would be required prior to occupancy of any of the Stage II developments.

Buildout Impacts. Buildout of the Revised Project Alternative would generate about the same level of traffic as buildout of the proposed project (slightly higher external traffic as shown in Table A-Table 4.2-25). External access for buildout would be expanded by adding a connection to Eucalyptus Road, with no direct access or improvements proposed for Dawn Road, Camino Caballo and Viva Way. It is noted, however, that project-generated traffic would utilize the entire roadway system in the Nipomo area as buildout occurs, as some of the area roads will be paved as development occurs and some of the traffic generated by the Woodlands project would utilize unpaved roads. The impacts and mitigations for buildout of the Revised Project Alternative would generally be the same as those identified for the proposed project, with the exception of the heavier loading on Mesa Road and the need for signals at the Mesa Road/Tefft Road intersection as identified in the Stage II analysis.

Buildout Mitigations. Buildout impacts of the Revised Project Alternative would be the same as buildout of the proposed project and mitigations would therefore also be the same. In addition to these mitigations, the project would be required to contribute its fair share of the costs of the improvements of the area roadways that its traffic would use.

Study-Area Roadways: The project would be required to contribute a fair share of the costs required to improve the study-area roadways which will accommodate buildout traffic. These would include the off-site portions of Dawn Road, Camino Caballo, and Viva Way as well as the Dawn Road/Route 1 intersection.

Similar to the proposed project, although NO_x emissions associated with construction impacts are estimated to be above the threshold of significance, the amount of NO_x

emissions would be reduced under the Revised Project Alternative. The PM_{10} impacts of the Proposed Project and the Revised Project would also result in a temporary unavoidable significant impact, which would cease at the completion of project construction. The estimated impacts associated with the Revised Project indicate that the change from two stages to four stages of construction reduces construction impacts on air quality.

Similar to the proposed project, the operational air quality impacts at project buildout would be significant under the Revised Project Alternative. Actual impacts could be less than those predicted in this analysis since in preparing the analysis conservative assumptions were made (such as maximum potential trip generation). The project and Revised Project Alternative would include measures that would reduce project trip generation from those indicated in this analysis and thus air quality impacts. Such measures include constructing tunnels/underpass, bus turnouts, passenger benches, and transit stop shelters to encourage the use of mass transit. The project design for both the Revised Project Alternative and the proposed project include bicycle trails and pedestrian paths connected to the County Trail System. Similar to the proposed project, the project entails mixed land use: commercial, recreational and residential. The mixed land uses could reduce trip generation by encouraging internal project trips, resulting in less adverse air quality impacts. The Revised Project Alternative is anticipated to result in less total daily trips than the proposed project. However more external trips, are expected to result under this alternative. The increase in external trips is partially due to the increase school trips. There are no additional air quality mitigation measures available.

Sensitive habitats are places largely at risk by invasive, non-native species. When replacement or mitigation habitat is designed as long linear strips as with this alternative, the perimeter to acreage ratio is extremely high, therefore, non-native plants can more easily invade a linear habitat and such mitigation is usually both unsuccessful and unacceptable to the resource agencies.

Similar to the proposed project during the construction stage, this alternative could result in disturbance to, or direct mortality of, common and special-status wildlife species due mainly to habitat modification. Also, the application of fertilizers and pesticides for golf course turfed areas may adversely affect biological resources. Implementation of mitigation measures recommended for the proposed project would also similarly mitigate these impacts for this alternative.

Construction noise impacts would be similar to that of the proposed project. Similar to the proposed project, operational noise impacts of the Revised Project Alternative would be potentially significant on several residences in the vicinity of the project site. Noise levels would be slightly greater at intersections in the project vicinity. As roads are improved, vehicle traffic, and travel speeds and thus resultant traffic-related noise are expected to increase as roads are improved. An increase in traffic related noise from 0.6 to 12 dBA is anticipated as a result of the Revised Project Alternative traffic along local roads. Sound level variations of less than 3 dBA are not considered to be significant because a three decibel variation is not detectable a 'noticeable' change by the typical human ear. Noise impacts identified along Camino Caballo and Calle Fresa would not occur under the Revised Project because Camino Caballo would not be built and Calle Fresa would not carry any project traffic.

The feasibility of mitigating noise levels to below the 60 dBA Ldn level of significance at affected receptors was evaluated. Noise impacts may be influenced by grade variations, intervening topography, reduced speeds at curves and noise barriers. Mitigation Measure 4.5-2c in the EIR requires the construction of a 6-foot high noise barrier, which is estimated to provide 6 to 10 dBA of noise attenuation. If such barriers were constructed for existing homes close to the road edge, no significant noise impacts associated with long-term road traffic would result from the revised project. A site specific acoustical analyses should still be required prior to obtaining building permits to determine if such a barrier would be warranted or other noise attenuating measures would be warranted.

Potential aesthetic impacts associated with this alternative would be slightly different than the original proposed project. The business park would be located in the southwest corner of the site parallel to Highway 1. This would make the business park more accessible to Highway 1 and less obtrusive to the rural character of Dawn Road and Camino Caballo. The resort would be moved directly south of the butterfly habitat and would be visible from Highway 1. Mitigation measures included under the proposed project would also reduce visual impacts under the Revised Project Alternative to less than significant levels.

Impacts on fire protection and police services would be similar to the original proposed project. Impacts to solid waste services would be slightly less than the proposed project. The school site would be eliminated under this alternative and the applicant would pay in-lieu fees. Elimination of the school site would impact the area's existing Dana and Nipomo Elementary Schools, the existing schools in the area, which currently operate over capacity.

Impacts to archaeology would be slightly greater than the proposed project. Under the Revised Project Alternative, the site would be developed in four stages instead of two, requiring thean additional cut and fill of approximately 538,000 cubic yards. Mitigation measures included under the proposed project related to archaeological resources, drainage erosion and sedimentation would also reduce significant impacts under this alternative. Impacts related to agricultural compatibility would be similar to the project.

7.5 ALTERNATIVE SITE PLAN

This alternative is designed to minimize the potential impacts as identified in Section 4.0 of this document. As with the Rural Village I and II Alternatives, this alternative would apply "Rural Village" planning area standards to the property. The residential component would decrease from 1,320 to 957 units. To minimize traffic impacts, and therefore noise and air quality impacts, the business park component of this alternative would be the same as the proposed project, at 22 acres (up to 335,000 sq. ft.). In order to reduce potential visual impacts, development on the south-facing slope would be limited to golf course development and larger residential lots. Higher density housing would be limited to the interior areas of the site and buffered by eucalyptus stands.

This alternative would result in the same demand for water as the Rural Village I alternative. Total water demand for this alternative was estimated to be 1531 acre-feet per year (afy), 108 afy less than the proposed project. As discussed in Section 4.1, Water Resources/ Wastewater, this is not anticipated to result in any adverse effects on long-term groundwater storage.

As with the Rural Village I alternative, this alternative would generate 27,106 average daily trip ends (3,071 less than the project) and 2,569 P.M. peak hour trips ends (305 less than the project). As with the proposed project, this alternative would still add a substantial amount of traffic to the segments of Albert Way and Via Concha between Dawn Road and Willow Road; as well as Dawn Road, Camino Caballo, Mesa Road, and Eucalyptus Road east of the site. No other traffic impacts are anticipated.

The potential for an additional project entry along Highway One, providing access to the proposed Business Park and other uses on the northern portion of the property, was evaluated for its potential to avoid Dawn Road geometric problems and reduce impacts on Albert Way and Via Concha. However, even with this entry, a substantial amount of the traffic which is anticipated to

use Dawn Road, Albert Way and Via Concha would still elect the shortest routes to the north of the project; therefore, this entry is not anticipated to alleviate any of the project impacts on the Dawn Road intersection, Albert Way or Via Concha. Mitigation measures identified for the proposed project would reduce these impacts to a less than significant level.

Impacts to air quality resulting from construction under this alternative would be similar to the proposed project. Emissions during site clearance and excavation and grading would be the same as those generated by the proposed project. Estimated exhaust emissions during construction, as presented in Table 4.3-5, are lower than those estimated for the proposed project but are also anticipated to exceed the thresholds of 185 lbs/day of NO_x and 2.5 tons per quarter of PM₁₀. As with the proposed project, this would be considered a significant impact, which would cease after completion of construction activities.

As with the proposed project, stationary-source emissions generated by this alternative would exceed the thresholds of significance established by the County for ROG and NO_x, which would result in a significant impact to air quality. Mobile-source emissions would exceed the thresholds of significance established by the County for all pollutants. Therefore, mobile-source emissions would create a significant impact. Total project-related emissions under this alternative would exceed the thresholds of significance for CO, ROG, NO_x, and PM₁₀. This alternative would introduce up to 363 fewer residential units onto the project site than the proposed project, which would be subject to odors emitted by the Unocal facility to the west of the project site. As with the proposed project, this alternative would result in a significant impact on air quality.

Potential impacts on biological resources under this alternative would be less than the proposed project. This alternative would be redesigned to avoid significant direct impacts to the Central Coastal Scrub habitat located on the site, and would have more flexibility to avoid impacts to the monarch butterfly, silvery legless lizard, and nesting raptors. Implementation of mitigation measures recommended for the proposed project would also mitigate these impacts for this alternative. During the construction stage, this alternative could result in disturbance to, or direct mortality of, common and special-status wildlife species. Such habitat losses may be permanent for certain burrowing mammals, whose populations could be eliminated due to habitat modification. As with the proposed project and other alternatives, irrigation and the application of fertilizers and pesticides for golf course turfed areas may adversely affect biological resources.

Noise levels resulting from construction of this alternative are not anticipated to exceed those anticipated from the proposed project. Similar to the proposed project, noise from chain saws at

any one residence would vary during the initial tree clearing phase depending upon the distance between tree clearing and thinning activities and the given residence. Where tree-clearing activities would occur near the site boundary, chain saw noise could reach 104 to 110 dBA at the closest residences. More typically, chain saw noise would be approximately 86 to 74 dBA with tree clearing activities at distances of 800 to 3,200 feet away, respectively. Once the initial tree clearing phase is completed, noise from building construction would vary depending upon the distance between construction sites and residences. Existing residences would be approximately 400 feet from the nearest building construction site. At 400 feet, construction noise levels would be 63 to 70 L_{eq} . More typically, construction activities would occur at distances of 800 feet or more from the nearest residences. At 800 feet, construction noise would be 57 to 63 L_{eq} . This would be considered a significant impact, which would cease after completion of construction activities.

As with the Rural Village I Alternative, project-generated traffic as a result of development of this alternative would increase local traffic noise levels to a slightly lesser extent than under the project. For example, traffic noise levels along Via Concha Road and Calle Fresa would be expected to be 0.8 L_{eq} less by 2010 under this Alternative than under the project. The difference between this alternative and the project would be less along the other road segments. The only significant difference would be along West Tefft Street, between Mesa Road and Orchard Road, where the increase in noise relative to existing conditions (+2.3) would not be significant under this alternative whereas the increase (+2.5) along that same segment would be significant under Project conditions.

Potential aesthetic impacts associated with this alternative would be less than the proposed project. Residential densities under this alternative would decrease; therefore, a greater number of large lots would be developed under this alternative, resulting in greater potential for tree retention. In addition, the limitation of development on the south-facing slope to golf course development and larger residential lots would reduce potential visual impacts from northbound Highway One.

As with the Rural Village I Alternative, impacts on public services, including fire protection, police services, water, wastewater, schools and solid waste disposal would be slightly less than the proposed project. Impacts related to archaeology, agricultural compatibility, hazardous materials, and drainage, erosion and sedimentation would all be similar to the project.

This alternative would be consistent with most project objectives, as discussed in Section 2.0, Project Description. It would be more consistent with Objective No. 3 than the proposed project, as it would result in lesser impacts than the proposed project on local roadways, air quality and ambient noise levels.

7.6 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

As required by CEQA, an environmentally superior alternative must be identified. In this case, the No-Project Alternative would satisfy this requirement. As discussed above, this alternative would not be consistent with most project objectives. However, it would be consistent with Objective No. 3, as it would eliminate all potential impacts associated with the proposed project. Where the No-Project Alternative is selected as the environmentally superior alternative, CEQA requires that another alternative which would substantially reduce or eliminate potential impacts be identified. In this case, the Alternative Site Plan would serve to reduce or eliminate potential impacts to the greatest extent, as potential impacts in all areas would be similar to or less than the Proposed Project and the other alternatives considered, with the exception of the No-Project Alternative.

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8.2 PERSONS AND AGENCIES CONTACTED

Battalion Chief Ben Stewart, California Department of Forestry / County of San Luis Obispo Fire Department.

Mr. Spencer Harris, Cleath and Associates.

Mr. Richard Lichtenfels, Land Use Specialist, County of San Luis Obispo, Department of Environmental Health.

Mr. Chip Patterson, County of San Bernardino Sheriff's Department, Organizational Information Service Officer.

Sergeant Jim Peterson, County of Santa Barbara Sheriff's Department, Public Relations Officer.

Mr. Wayne Hall, County of San Luis Obispo Sheriff's Office, Administrative Services Division.

Lieutenant James F. Mulhall, County of San Luis Obispo Sheriff's Office, Administrative Services Division.

Sgt. Robin Weckerly, Watch Commander, County of San Luis Obispo Sheriffs Office South Station.

Mr. Perry Judd, Director of Facilities, Lucia Mar Unified School District.

Mr. Doug Jones, General Manager, Nipomo Community Services District.

Mr. Pete Newel, Project Engineer, San Luis Obispo County.

Mr. Brian Chaney, Field Manager, Tajiguas Landfill.

Mr. Bill Rizzoli, Cold Canyon Landfill.

Mr. John Ryan, General Manager, San Luis Obispo County (SLOCO) Recycles.

Ms. Ana Asknidis, Owner, RALCCO.

Mr. Edward C. Horton, Vice President, Pebble Beach Company, Environmental Enhancement Program.

Mr. Tim Wilson, Planned Sierra Resources.

Mr. Victor Montgomery, AIA, President, RRM Design Group.

Mr. Tom Martin, Manager, San Luis Garbage Company.

8.3 EIR PREPARERS

Environmental Consultant

Environmental Science Associates
4221 Wilshire Boulevard, Suite 480
Los Angeles, California 90010-3512

Wendy Lockwood, Project Director
Marc Huffman, Project Manager
Tom Roberts, Ph.D., Biological Resources
Rich Masters, P.E., Water Resources
Madonna Marcelo, Air Quality, Noise
Tamseel Mir, Aesthetics, Archaeology
Magdalene Ma, Public Services

Traffic Consultant

Associated Transportation Engineers
100 N. Hope Avenue, Suite 4
Santa Barbara, CA 93110-1686

Scott A. Schell, AICP, Principal Transportation Planner

Archaeological Consultant

Gibsons' Archaeological Consulting
P.O. Box 102
Paso Robles, CA 93447

Robert Gibson, Archaeologist

Monarch Butterfly Consultant

Mr. Kingston Leong
586 Cuesta Drive
San Luis Obispo, CA 93405

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9.0 COMMENTS AND RESPONSE TO COMMENTS

State of California

- A. Cal/EPA Central Coast Regional Water Quality Control Board, Roger W. Briggs, Executive Officer, letter dated April 20, 1998.
- B. California Department of Transportation, Larry Newland, District 5, Intergovernmental Review Coordinator, letter dated April 28, 1998.
- C. Governor's Office of Planning & Research, Antero A. Rivasplata, Chief, State Clearinghouse, letter dated April 9, 1998.

County of San Luis Obispo

- D. Air Pollution Control District, Larry Allen, Air Quality Planning Manager, letter dated May 8, 1998.
- E. Department of Agriculture/Measurement Standards, Robert Hopkins, Deputy Agricultural Commissioner, letter dated May 12, 1998.
- F. Department of General Services, Pete Jenny, Parks Manager, letter dated April 7, 1998.
- G. Engineering Department, Mary Whittelsey, Solid Waste Coordinator, letter dated April 10, 1998.
- H. Engineering Department, Richard Marshall, Development Services Engineer, letter dated April 29, 1998.
- I. Fire Department, Ben Stewart, Battalion Chief, letter dated April 24, 1998.
- J. Fire Department, Ben Parker, Forester, letter dated April 23, 1998.
- K. Integrated Waste Management Authority, William A. Worrell, P.E., letter dated April 8, 1998.
- L. Parks Division, Jan Di Leo, letter dated May 8, 1998.

County of Santa Barbara

- M. Planning & Development, John Cuykendall, Comprehensive Planning Division, letter dated April 24, 1998.

San Luis Obispo Council of Governments and Local Districts

- N. San Luis Obispo Council of Governments, Michael R. Harmon, Associate Transportation Planner, letter dated May 8, 1998.
- O. Lucia Mar Unified School District, Perry Judd, Director Facilities, letter dated March 31, 1998.
- P. Nipomo Community Services District, Alex Mendoza, President of the Board, letter dated April 24, 1998.

Organizations and Individuals

- Q. California Farm Bureau Federation, David J. Guy, letter dated May 7, 1998.
- R. Istar Holliday, Bill Holliday, letter dated May 2, 1998.
- S. Javier Solis, letter dated April 9, 1998.
- T. John Snyder, Koch California LTD, 4 letters/memos dated April 30, 1998, May 5, 1998, May 8, 1998, and no date

- U. Laguna Negra Mutual Water Co., Board of Directors, letter dated April 19, 1998.
- V. Michael LeBrun, letter dated April 10, 1998.

Applicant and Representatives

W. PH Property Development Co., letter dated February 1998

- Attachment A: Cleath & Associates, Review of Water Resources Impacts at the Woodlands for Revised Project Description
- Attachment B: RRM Design Group, Traffic Analysis
- Attachment C: David Evans and Associates, Earthwork Analysis
- Attachment D: Dames & Moore, Air quality Impact Analysis for Revised Project, Woodlands Specific Plan
- Attachment E: Dames & Moore, Biological Resources and Archaeology
- Attachment F: Dames & Moore, Noise Evaluation for Revised Project, Woodlands Specific Plan
- Attachment G: Land Use Concept Plan
- Attachment H: Applicant's Revised Land Use Concept Plan

X. RRM Design Group, Victor Montgomery, Chief Executive Officer, letter dated 5/8/98

Introduction

The following responses to comments address individual comments received on the Woodlands Specific Plan EIR. One of the comments on the EIR (Letter W) is from the applicant. In response to issues identified in the EIR the applicant identified a Revised Project. This revised project is added to the EIR in response to that comment. Since the applicant has indicated his intent to pursue entitlement of that alternative, responses to the following comments address both the project, and if the Revised Project Alternative would be substantially different the responses also address the Revised Project. (In most cases the Revised Project would have similar impacts to the project.)



Pete Wilson
Governor

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APR 22 1998

S.L.O. COUNTY
PLANNING DEPT.

April 20, 1998

Mr. John McKenzie
County of San Luis Obispo
County Government Center, Room 310
San Luis Obispo, CA 93408

Dear Mr. McKenzie:

**RESPONSE TO DRAFT ENVIRONMENTAL IMPACT REPORT - WOODLANDS
SPECIFIC PLAN (SCH#95031020), SAN LUIS OBISPO COUNTY**

Thank you for the opportunity to review and comment on your February 23, 1998 Draft Environmental Impact Report regarding the proposed project. We understand that the project proposes a Specific Plan that consists of: 2 golf courses, 1,240 single family and 80 multi-family residences, 500-room resort, 9-acre commercial plot, 22-acre business park, wastewater treatment facility, public park, elementary school, and open space areas with trails. The subject property is in the Recreation land use category, and is located on the east side of Highway 1 between Dawn Road and the edge of the Mesa. We have the following comments regarding the project.

1. Any on-site waste disposal systems associated with the proposed development must be consistent with the policies and objectives of the Water Quality Control Plan, Central Coast Region (Basin Plan). Discharges of waste, other than to the community sewer system, may be regulated by this Board in accordance the Basin Plan. The Basin Plan requires community on-site systems to be owned and operated by a public entity. If one is not available, a private entity with adequate legal and financial resources to assure ongoing operation and maintenance of the system may be acceptable. Waste Discharge Requirements (WDRs) and/or Water Reclamation Requirements must be adopted by this Regional Board prior to discharge of waste from any on-site wastewater disposal facilities. The WDR adoption process takes at least six months from receipt of a complete application. During this process, proposed requirements are drafted and circulated to interested parties for review and comment. Comments submitted on the draft requirements are address in the final staff report and order presented for Regional Board consideration at a public hearing. 1

2. Water quality impacts may occur in wetlands from construction of structures in waterways, dredging, filling, and altering drainage to wetlands. Destruction or impact to wetlands should be avoided. The goals of the California Wetlands Conservation Policy include ensuring "no overall net loss and achieving a long-term net gain in the quantity, quality, and permanence of wetlands acreage and values". In the event wetland loss is not avoidable, mitigation will be preferably in-kind and on-site with no net destruction of habitat value. Mitigation will preferably be completed prior to, or at least simultaneous to, the filling or other loss of existing wetlands. Successful mitigation projects are complex tasks and difficult to achieve. This issue will be strongly considered during agency review of any proposed wetland fill. Wetland features or ponds created as mitigation for the loss of existing "jurisdictional wetlands" or "waters of the United States" cannot be used as storm water treatment controls. 2



Central Coast
Regional Water
Quality Control
Board

31 Higuera Street
Suite 200
San Luis Obispo, CA
93401-5427
(805) 549-3147
FAX (805) 543-0397

Cont'd.

If the project is done under a U.S. Army Corps of Engineers permit, water quality certification may be needed from this Board. The Regional Board must certify that any permit issued by the U.S. Army Corps of Engineers pursuant to Section 404 of the Clean Water Act (covering dredging or filling of wetlands) complies with state water quality standards, or waive such certification. Section 401 Water Quality Certification is necessary for all 404 Nationwide permits, reporting and non-reporting, as well as individual permits.

2

3. The total consumptive use of the project is calculated to be approximately 830 acre feet per year (afy). The EIR references Santa Barbara County's adopted ground water extraction thresholds, under which the threshold of significance for new ground water withdrawals is 25 afy. The EIR states the Nipomo Mesa subarea is considered to be in overdraft-condition and extractions greater than 25 afy would be considered to have a significant impact on ground water resources. This is a serious problem that needs to be addressed clearly so that decision makers can understand and consider the likely impacts of project approval. Finding of insignificant impact regarding this issue does not appear justified.

3

4. Please note that Title 22 of the California Code of Regulations, Section 60313, specifies reclamation requirements applicable to this project. Treatment and disinfection requirements will depend on the potential for public exposure and the proximity of residential areas. Please be aware that the State Department of Health Services (DHS) is planning to issue revised reclamation regulations in the near future. The project should incorporate the proposed revisions in case the revised regulations go into effect prior to issuance of a reclamation order from the Regional Board. The project applicant should contact DHS directly for a copy of the proposed regulations.

4

If you have any questions, please call Sorrel Marks at (805) 549-3695.

Sincerely,

Roger W. Briggs
For Roger W. Briggs
Executive Officer

KHH:\WINWORD\FILES\EIR\WOODLAND.DOC\SJM's:letters
Task:121-01
File: Woodlands Development (start new file)

Letter A: Cal/EPA Central Coast Regional Water Quality Control Board, Roger W. Briggs, Executive Officer, Letter dated April 20, 1998.

Comment
Number

Response

1. The need for consistency with the Basin Plan and the determination of waste discharge requirements are noted in the Draft EIR on page 87.
2. As noted on page 223 of the Draft EIR, no wetlands occur on the project site.
3. Page 88 of the Draft EIR notes the County of Santa Barbara's 25 afy Threshold of Significance for pumping from overdrafted groundwater basins and that Santa Barbara considers the Santa Maria Basin to be in overdraft. However, it is further stated that the Draft EIR does not use this standard because, 1) the project is in San Luis Obispo County and that county has not adopted any such standard, and 2) the Draft EIR does not consider the Santa Maria Basin to be in overdraft condition based on the groundwater conditions described in Section 4.1.1.2.4.

The "rule of reason" standard is applied to judicial review of EIR contents. The courts do not hold an agency to a standard of absolute perfection, but rather requires only that an EIR show that an agency has made an objective, good-faith attempt at full disclosure. Section 15151 indicates, "[d]isagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the expert." In the case of the Woodlands EIR, where a differing opinion is presented this EIR acknowledges the difference and sets forth the reasons for the difference.

Because the adjudication of the Santa Maria Groundwater Basin is in process and could have numerous outcomes it is too speculative, for purposes of this CEQA analysis, to consider further as this adjudication process may or may not apply to future water rights of the proposed project. In any event, the project already includes numerous measures to conserve water and/or offset water impacts (e.g. toilet retrofit program).

4. As noted on page 328 of the Draft EIR, the wastewater treatment plant will be required to meet Title 22 requirements. Standard engineering practice would require compliance with regulations that are currently enforced and those that are anticipated to be adopted.

DEPARTMENT OF TRANSPORTATION

50 HIGUERA STREET
SAN LUIS OBISPO, CA 93401-5415
TELEPHONE: (805) 549-3111
TDD: (805) 549-3259
FACSIMILE: (805) 549-3259
INTERNET <http://www.dot.ca.gov/dist05/>

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MAY 01 1998

S.L.O. COUNTY
PLANNING DEPT.

April 28, 1998

5-SLO-001-2.33/5.07
Woodlands Specific Plan
(DEIR) SCH #95031020

Mr. Jay Johnson
County of San Luis Obispo Planning
County Government Center
San Luis Obispo, CA 93408

Dear Mr. Johnson:

Caltrans District 5 staff has reviewed the above-referenced document. The following comments were generated as a result of the review:

1. It appears that the circulatory success of this development is contingent on the completion of the Willow Road extension and the eventual construction of a Willow Road/Route 101 Interchange. In fact, my research indicates that it may be 2010 before even the first phase of this improvement is operational. Therefore, this development should be conditioned for no occupancy prior to the complete funding for the Willow Road extension and the southbound on/off ramps at State Route 101. 1
2. (Reference Page 132) - The important role State Route 1 plays in the mobility and access for the greater Nipomo Mesa area has been understated in this document. For example, the expectation (Reference Figure 4.2-6) that only 12% of the trips will use State Route 1 as a primary route is highly questionable. The document bases this assumption on the *South County Traffic Model*, the data for which was not included in this document, and, the **"existing traffic flows observed in the study area."** However, Caltrans staff has observed much greater usage of State Route 1 and can only assume that as the South County and the Nipomo Mesa continues to develop, Route 1 will continue to play an important transportation role, with or without the Willow Road improvements. Again, Caltrans position is based on staff knowledge and years of experience operating this facility. Prior to certification of this document, these trip distribution percentages should be revisited and verified to the satisfaction of Caltrans staff. 2

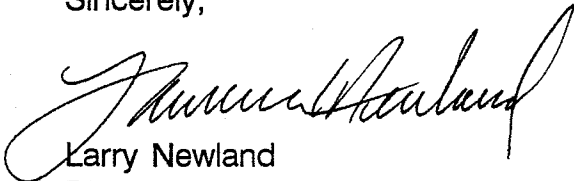
Mr. Jay Johnson
April 29, 1998
Page 2

3. District staff agrees with all of the mitigation measures on pages 145-146 and would add the recommendation that this development should be conditioned for no occupancy prior to the implementation of these measures.

3

I hope this letter gives your agency a better understanding of Caltrans concerns with this project. Please contact me at (805) 549-3683 should you have questions or comments about this project.

Sincerely,



Larry Newland
District 5
Intergovernmental Review Coordinator

cc: Ron DeCarli, SLOCOG
SStrait, DHeumann, TRochte

SLO-001-2.3/5.7.EIR

Letter B: California Department of Transportation, Larry Newland, District 5, Intergovernmental Review Coordinator, letter dated April 28, 1998.

Comment
Number

Response

1. As noted in the response to SLOCOG Comment #4, the EIR contained an analysis for Stage I of the Woodlands development with and without the Willow Road extension. The analysis identified impacts and mitigation measures for Stage 1 for both of the scenarios (with and without the extension). This stage of project could therefore be constructed prior to the extension.

For the Year 2010 buildout analysis, the EIR assumed that the Willow Road extension would be completed with a minimum of a half-diamond interchange at U.S. Highway 101 junction. It is anticipated that full buildout and occupancy of the Woodlands development, which is scheduled for the Year 2010, would be staged to occur after the construction of the Willow Road extension, and the mitigation language has been developed accordingly. The project EIR requires that the Woodlands project contribute to the Willow Road extension and interchange through the County's fee program.

2. The 12% assignment of project trips to State Route 1, which was developed using the County's traffic model, is a reasonable distribution assumption as discussed in the following text. One way of assessing the importance of travel routes in a given area involves the review of existing traffic flows and traffic volumes. Within the Nipomo area, State Route 1 currently carries 2,800 ADT adjacent to the site, 4,600 ADT north of the site, and 4,400 ADT south of the site. In comparing these volumes to other arterials in the area, we see that the section of Tefft Street at U.S. Highway 101 carries 14,400 ADT (3 to 4 times more than Route 1) and U.S. Highway 101 carries 49,500 ADT in the Nipomo Area. Based on these existing travel patterns, it is evident that Tefft Street and U.S. Highway 101 play a more important role in the mobility of the Nipomo Mesa area. This route will be even more emphasized for the Woodlands site after the Willow Road extension and connection to U.S. Highway 101 are constructed. It is also noted that Route 1 is a less attractive travel route for the area given its physical layout (narrow lanes, sharp curves, etc.), circuitous nature, and presence of traffic controls (stop-signs, signals, etc.).

The distribution of project trips also considered the origin and destination attributes of the traffic. For instance, external trips generated by the residential units located on the site will be oriented to major employment and retail centers. While some of the trips would be expected to travel to Guadalupe and the western 5-Cities area via Route 1, a higher percentage would be destined to the major centers along the U.S. Highway 101 corridor.

3. These measures would be required to be implemented prior to occupancy of the project. The text on page 145 states that the improvements would be "installed prior to map recordation or prior to occupancy/final inspection of a construction permit."

Governor's Office of Planning and Research

1400 Tenth Street
Sacramento, CA 95814



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APR 13 1998

S.L.O. COUNTY
PLANNING DEPT.

April 9, 1998

JOHN MCKENZIE
COUNTY OF SAN LUIS OBISPO, ENVIRONMENTAL DIVISION
COUNTY OF GOVERNMENT CENTER
ROOM 310
SAN LUIS OBISPO, CA 93408

Subject: WOODLANDS SPECIFIC PLAN; ED95-026 SCH #: 95031020

Dear JOHN MCKENZIE:

The State Clearinghouse submitted the above named environmental document to selected state agencies for review. The review period is closed and none of the state agencies have comments. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

1

Please call at (916) 445-0613 if you have any questions regarding the environmental review process. When contacting the Clearinghouse in this matter, please use the eight-digit State Clearinghouse number so that we may respond promptly.

Sincerely,

ANTERO A. RIVASPLATA
Chief, State Clearinghouse

Notice of Completion

Appendix F

See NOTE below

Mail to: State Clearinghouse, 1400 Tenth Street, Sacramento, CA 95814 916/445-0613

SCH# 95031020

Project Title: Woodlands Specific Plan EIR(ED95-026, G940005S)

Lead Agency: County of San Luis Obispo

Contact Person: John McKenzie

Street Address: County Government Center, Rm 310

Telephone: (805)781-5600

City: San Luis Obispo Zip: 93408

County: San Luis Obispo

Project Location

County: San Luis Obispo City/Nearest Community: Nipomo

Cross Streets: Highway 1 & Dawn Road Total Acres: 957 acres

Assessor's Parcel Number: Section: Twp. Range: Base:

Within 2 miles: State Hwy #: 1 Waterways: Black Lake Canyon

Airports: Railways: SPRR Schools:

Document Type

- CEQA: [] NOP [] Supplement/Subsequent [] NEPA: [] NOI [] Other: [] Joint Document
[] Early Cons [] EIR (Prior SCH No.) [] EA [] Final Document
[] Neg Dec [] Other [] Draft EIS [] Other
[X] Draft EIR [] FONSI

Local Action Type

- [] General Plan Update [X] Specific Plan [] Rezone [] Annexation
[] General Plan Amendment [] Master Plan [] Prezone [] Redevelopment
[] General Plan Element [] Planned Unit Development [] Use Permit [] Coastal Permit
[] Community Plan [] Site Plan [] Land Division(Subdivision, Parcel Map, Tract Map, etc.) [] Other

Development Type

- [X] Residential: Units 1320 Acres 235 [] Water Facilities Type MGD
[] Office: Sq.ft. Acres Employees [] Transportation: Type
[X] Commercial: Sq.ft. 140,000 Acres 27 Employees [] Mining: Mineral
[] Industrial: Sq.ft. Acres Employees [] Power: Type Watts
[X] Educational: 10 ac. (elementary school site) [X] Waste Treatment: Type On-site community system
[X] Recreational: 587 ac (incl. 2 golf courses) [] Hazardous Waste: Type
[X] Other: Business Park, 22 ac., 335,000 sq. ft.; 500-room resort

Project Issues Discussed in Document

- [X] Aesthetic/Visual [] Flood Plain/Flooding [X] Schools/Universities [X] Water Quality
[X] Agricultural Land [] Forest Land/Fire Hazard [] Septic Systems [X] Water supply/groundwater
[X] Air Quality [] Geologic/Seismic [X] Sewer Capacity [] Wetland/Riparian
[X] Archeological/Historical [] Minerals [X] Soil erosion/compaction/grading [X] Wildlife
[] Coastal Zone [X] Noise [X] Solid Waste [X] Growth Inducing
[X] Drainage/Absorption [X] Population Housing Balance [X] Toxic/Hazardous [X] Land Use
[X] Economic/Jobs [X] Public Services/Facilities [X] Traffic Circulation [X] Cumulative Effects
[] Fiscal [X] Recreation/Parks [X] Vegetation [] Other

Present Land Use/Zoning/General Plan Use

RECREATION

Project Description -The project proposes a Specific Plan that consists of: 2 golf courses (36 holes), 1,240 single family and 80 multi-family residences, a 500-room resort, a 9-acre commercial "village" core, a 22-acre business park, a 12-acre public park, a 10-acre elementary school site and open space areas with trails. The subject property is within the Recreation land use category, and is located on the east side of Highway 1, between Dawn Road and the edge of the Mesa.

State Clearinghouse Contact: Mr. Chris Belsky (916) 445-0613

Project Sent to the following State Agencies

State Review Began: 2-23-98
Dept. Review to Agency 4-2
Agency Rev to SCH 4-7
SCH COMPLIANCE 4-9

- [X] Resources State/Consumer Svcs
Boating General Services
Coastal Comm Cal/EPA
Coastal Consv ARB
Colorado Rvr Bd CA Waste Mgmt Bd
[X] Conservation SWRCB: Grants
[X] Fish & Game # 3 SWRCB: Delta
Delta Protection
Forestry SWRCB: Wtr Quality
Parks & Rec/OHP SWRCB: Wtr Rights
Reclamation X Reg. WQCB # 3
BCDC DTSC/CTC
DWR
OES Yth/Adlt Corrections
Bus Transp Hous Corrections
Aeronautics Independent Comm
[X] CHP Energy Comm
[X] Caltrans # 5 NAIC
Trans Planning PUC
[X] Housing & Devel Santa Mu Mtns
Health & Welfare X State Lands Comm
Drinking H2O Tahoe Rgl Plan
Medical Waste Other

Please note SCH Number on all Comments

95031020

Please forward late comments directly to the Lead Agency

AQMD/APCD 29 (Resources: 2,128)

**Letter C: Governor's Office of Planning & Research, Antero A. Rivasplata, Chief,
State Clearinghouse, letter dated April 9, 1998.**

Comment
Number

Response

1. Comment noted.



**AIR POLLUTION
CONTROL DISTRICT**
COUNTY OF SAN LUIS OBISPO

TO: John McKenzie, Environmental Specialist
San Luis Obispo County Department of Planning and Building

FROM: ^{LA} Larry Allen, Air Quality Planning Manager

DATE: May 8, 1998

SUBJECT: Woodlands Specific Plan - Draft Environmental Impact Report

District staff has reviewed the Draft Environmental Impact Report (DEIR) for the Woodlands Specific Plan. The project proposes a large, mixed-use development on 957 acres of rural, wooded property near the Tosco Refinery and coke calcining industrial complex on the Nipomo Mesa. Project components include over 1300 residential units, a 19-acre business park, 9 acres of commercial retail uses, a 500-unit resort hotel and conference facility, 2 golf courses, a public school, several neighborhood parks and 245 acres of open space. The project is configured as a rural village, and we are pleased to see some neo-traditional land use and circulation design concepts that can reduce reliance on automobile travel within the development. Nonetheless, we have significant concerns regarding the project, particularly its location adjacent to and directly downwind from the Tosco facility.

Typically, environmental review focuses on the impacts that can be expected from a particular project. However, this project will both generate its own impacts as well as expose future residents to existing sources of emissions and odors from neighboring industrial land uses at the Tosco Refinery. As stated in previous correspondence in regard to this site, we believe the two neighboring land uses - residential and heavy industrial - are incompatible from an air quality perspective. Petroleum refining requires the treatment and processing of hazardous and odorous petroleum products. Although emissions and odor problems have been significantly reduced at that facility, odorous fugitive emissions are a natural by-product of the refining process and cannot be eliminated entirely. In addition, the very nature of the product and process results in periodic upsets and breakdowns which can produce significant, short-term emissions of sulfur dioxide and other pollutants that may cause temporary but adverse health impacts. We know of no measures available to avoid these periodic occurrences.

1

The remainder of our comments address specific issue areas of the project, the environmental analysis, and recommended mitigations.

ODOR IMPACTS

1. We request an additional alternative be developed that would describe a scenario resulting in exposing the fewest number of people to refinery emissions. Such an alternative would

2

include little or no residential uses along the west side, with the majority of residential uses clustered on the eastern side of the site. The alternative would maximize golf or other passive recreational activities, as well as commercial and business park uses, while limiting residential uses to one unit per five acres. This density is consistent with the current zoning for the site.

2. Page 191: the section entitled "Odor Effects on the Project Site" incorrectly assumes odors are "...primarily a function of the presence of concentrations of sulfur dioxide. As identified, the highest hourly average in recent measurements was less than the State standard, and therefore should not result in significant odors." These assumptions are incorrect. Sulfur dioxide emissions are not a significant factor relative to odors generated by the facility. Thus, SO₂ concentrations measured on the Mesa bear little or no relation to the potential for odors to occur.

Most of the odors from refinery operations result from reduced sulfur compounds and odorous hydrocarbons emitted close to the ground from sources different than those that generate SO₂. Emissions of these compounds have been significantly reduced, but not eliminated, as a result of the Abatement Order (AO). However, adverse weather conditions, such as surface inversions and/or ground fog, can severely limit vertical dispersion and allow odorous compounds to concentrate near the surface. The potential for this to create an odor problem that causes a nuisance to affected residents is directly related to the frequency and severity of adverse weather conditions and proximity to the refinery. Since the Woodlands site is in close proximity to the refinery, we would expect nuisance odor situations to continue to occur there periodically, independent of measured SO₂ concentrations.

The section concludes with a reference to Figure 4.3-1, which supposedly illustrates areas "particularly susceptible" to odors from the refinery. The figure shows existing contours of the site; however, grading and tree removal will substantially alter the entire site. A map showing odor susceptibility after construction and site alteration would be more appropriate.

3. Given the discussion in #2 above, the potential for occasional odor problems on-site from routine operations at the refinery should be emphasized in the DEIR. The project site lies within the area designated during the Abatement Order period as requiring notification by attaching an advisory to title documents on each property parcel on the Nipomo Mesa, saying, "...odors may occur due to refinery emissions." Compliance with the AO by the refinery has significantly reduced the severity and frequency of odors from refinery operations; however, odors still occur periodically in the project area, and potential residents should be made aware of that situation. In addition, we believe the potential still exists for occasional exceedances of the state health standard for SO₂ during upset conditions at the refinery. Such exceedances are expected to be rare and of short duration, and are usually not related to odor problems; nonetheless, potential residents should be aware of this possibility.

4. The discussion of PM₁₀ exceedances on p. 191, paragraph 3, seems out of place in the Odor discussion. We recommend moving it to the PM₁₀ discussion in Section 4.3.1.3.5. 5
5. Pp. 192-193, the section entitled "Sensitive Receptors," includes a description of the location of current residents in the project area. This section should very clearly describe the number of new residents that the proposed project will bring into the area. The population numbers should include future residents and students at the proposed school site. It is important to note that those students attending the school and living on the site could potentially have 24-hour exposure to any emissions or odors from the refinery. 6
6. The potential for odors from the proposed onsite waste water treatment facility affecting residents of future developments south of the site is not discussed in the document. This should be evaluated and mitigation measures proposed in the DEIR. 7
7. Build out of the proposed project could result in nearly 3,000 new permanent residents. These residents will be the closest downwind receptors to refinery impacts. This increased population is likely to increase the number of nuisance odor complaints received by the APCD. This could have a significant impact on District staffing, operations, and resources. Impact 4.3-4 discusses these impacts on District resources. Mitigation 4.3.4a suggests that attaching an advisory to title documents on each parcel will mitigate these impacts to insignificance. We disagree. Such notification is important and is already required for all new development in that area; however, it is primarily intended to make potential new residents aware of the odor situation. It will not reduce the number of complaints received by the District and therefore will not mitigate the impact on District resources. Additional mitigation is necessary. 8

Recommended Strategies to Reduce Odor Impacts

Implementation of the following strategies may reduce the frequency and severity of exposure to residents from odorous refinery emissions: 9

8. Limit residential uses to the eastern portion of the site. To this end, we disagree with the comment on page 51, which states the Specific Plan will include a process to change the land use designation on 19 acres in the northwest corner of the site from Business Park to RSF, if the business park land inventory cannot be absorbed by the market. Because this portion of the site is closest to the refinery and likely to receive the highest exposure to nuisance odors, we strongly recommend that this portion of the site be kept in non-residential uses. 9
9. Limit tree removal on site. It is highly likely that the eucalyptus forest helps to absorb odor and emission plumes and also helps to mask odors. Thus, the trees provides an effective natural buffer from refinery emissions for both existing and future residents of the area. Every effort should be made to retain as many trees as possible. Additional tree planting 10

onsite by homeowners will enhance the effectiveness of this buffer.

Cont'd.

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10. Require the developer or homeowners association to hire an on-site, on-call employee responsible for investigating all odor complaints, including source determination, complainant follow-up, notification of APCD staff, and report preparation and submittal to the APCD.

11

CONSTRUCTION IMPACTS

The construction activities contemplated for this project are enormous. As stated in the Excavation and Grading section on page 196, the project is proposing a balanced cut and fill, involving excavation and replacement of 1,025,000 cubic yards of earth. For comparison purposes, the amount of excavation and grading estimated at the nearby Guadalupe site in the Unocal Remediation and Abandonment Project is approximately 300,000 cubic yards. Unfortunately, the description of the various construction activities and associated emissions is difficult to follow and poorly documented. The following comments address our concerns:

11. Page 194, Site Clearance: this section discusses the site logging operation, but focuses only on the haul truck emissions from transporting the logs off-site. There is no mention of how the trees would be logged or the emissions associated with the actual logging operation prior to removal of the logs from the site. Other emission sources during the logging operations would be chain saws, chippers, heavy equipment to move and load the logs on site, etc. These emissions sources should be described and quantified in the analysis.

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12. Table 4.3-5 on page 195 provides a list of emission factors for typical construction equipment; however, there is no evidence in the text or the air quality appendix that these factors were actually used in the construction emission calculations. Please clarify.

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13. The text on page 196 indicates that under a worst-case scenario, the grading and excavation phase would occur in one six-month period with 130 work days. The paragraph includes the statement that, based on the District's emission factor for disturbed soil of 40 pounds PM₁₀ per day per acre, "...approximately 25,410 pounds of PM₁₀ would be emitted during the entire excavation and grading period, for an average of 195 pounds per day or 6.35 tons per quarter." These emissions appear to be substantially underestimated, and staff questions how these values were derived. All assumptions and calculations supporting this statement should be provided.

14

14. Table 4.3-6 on page 197 does not provide enough detail to be useful. In reading the referencing text and the air quality appendix, it appears that the values listed in the table represent the estimated emissions from the actual construction of the homes, school, business park and hotel. The calculation method referenced appears to use overall energy consumption values published by the South Coast AQMD, rather than the methodology referenced in the District's CEQA handbook. Additional clarification is needed to justify

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this approach. This is inappropriate. It is not clear if combustion emissions from the logging operation, site excavation and grading, roadway grading, golf course contouring, and other site preparation activities are included in the table. Table 4.3-6 should be significantly expanded to separate and summarize the emissions for each of these construction activities. Those emissions should be presented in units of pounds per day, tons per quarter, and total tons for the project and should be compared to the District's significance thresholds. All calculations should be clearly and fully documented in the air quality appendix. In addition, much more detail is required in both the text description and the appendix on assumptions and calculation methods used to estimate emissions.

15

Proposed Construction Mitigation Measures

The DEIR recommends a comprehensive list of mitigations on pages 198-200 which, if implemented, can considerably reduce the potential air quality impacts from construction. However, due to the size, scope and duration of construction, it appears that estimated NO_x and PM₁₀ emissions will still substantially exceed our 6 tons per quarter offsets threshold. This will require that, in addition to CBACT (described in #15 below), construction emissions be further mitigated by reducing emissions from other emission sources in the region on a 1:1 basis. District staff should be contacted for further details on this requirement. Preparation of an effective Construction Activities Management Plan (measure 4.3-1g) may substantially reduce the offset requirement.

16

15. Mitigation Measure 4.3-1a should be modified as follows:

17

The project applicant shall implement the following Best Available Control Technology (CBACT) for each piece (no less than 6 pieces overall) of diesel-fueled construction equipment estimated to cause the highest level of combustion emissions during construction. Implementation of a given CBACT technology or combination of technologies should always be preceded by an evaluation of the subject equipment to determine the most appropriate retrofit strategy. Other CBACT technologies with similar emissions reduction potential to the examples below may also be considered if appropriate documentation is provided.

CBACT retrofit examples:

- I a Fuel injection timing retard of 2 degrees, and
- b Installation of high pressure injectors, and
- c Use of reformulated diesel fuel

- II a Fuel injection timing retard of 2 degrees, and
- b Coating of internal combustion chamber surfaces (cylinder head, pistons, and valves), and
- c Use of reformulated diesel fuel

OPERATIONAL IMPACTS

16. Operational emissions from stationary and mobile sources listed in Tables 4.3-7 and 4.3-8 should be combined together in one table, with each listed individually and also totaled together for each alternative. 18

Proposed Operational Mitigation Measures

The mitigation measures proposed on pages 206 and 207 are a good start towards reducing air quality impacts of the project. Implementation of the following recommendations will further enhance these mitigations:

17. The existing circulation system on the Nipomo Mesa contains many unpaved roads, which are the source of ongoing nuisance complaints from residents bothered by dust from vehicle travel. It is likely that increased dust generation will result from project-related traffic on unpaved roads in proximity to the site. Pages 145-146 and pp. 162-163 lists as mitigation measures the roads in the project area that will be improved to county standards. The phasing proposed for these road improvements seems appropriate, provided first phase residents are precluded access to those roadway segments on the east side, such as Mesa Rd., for which planned improvements will not occur until the second phase of the project. However, based on our review of the trip generation tables, it appears a substantial number of daily trips are expected on Mesa Rd. from first phase project operations. If direct access is to be provided in the first phase to roadway segments not planned for improvements until the second stage, we request that all project-related road improvements be completed prior to map recordation. 19
18. Mitigation measure 4.3-2a should be modified to include a surcharge for homeowners and/or golf course users to fund expansion of the South County Area Transit System (SCAT) fixed route transit operations to serve the project site. 20
19. To address the significant air quality impacts that cannot be mitigated to a level of insignificance (Class I) associated with operational emissions, we request the following additional mitigation measures be added: 21
- Project specific plan shall include a planning area standard, applied at the time of development plan approval for any golf course, that requires the golf course operator provide only electric golf carts for rental or loan, and provides a mechanism for purchase subsidies and/or incentives to residents to encourage the use of personal electric carts.

CLEAN AIR PLAN CONSISTENCY

20. As mentioned in our introductory comments, many components of this project are consistent 22

with the land use planning strategies recommended in the District's Clean Air Plan (CAP), including the incorporation of mixed-use development, good bicycle and pedestrian trails, and an interconnected street system. However, as mentioned in the DEIR, the proposed project is outside existing urban and village reserve lines and will develop at much higher densities than those accounted for in the population projections of the CAP and County General Plan. These factors are inconsistent with the CAP and could lead to higher emissions than those accounted for in our growth projections. This impact could be mitigated by reducing the density of development as recommended in comment #1, above.

Cont'd.

22

CIRCULATION/ LAND USE DESIGN

21. Page 128, the discussion in the "Transportation Demand Management" section lacks specific examples of TDM measures for the proposed project. This section should be expanded to include a description of typical TDM measures, such as ridesharing, public transit, bicycling, walking and other alternatives to the single occupant vehicle. 23
22. Street width is an important factor in encouraging the use of alternatives to the private vehicle. Narrow streets encourage slower vehicle movement and provide for safer bicycle and pedestrian use. Transportation engineering research shows that 24-foot local street widths (curb-to-curb) are the safest while still allowing adequate access for emergency vehicles. The number of accidents and severity of injuries increases with street width. Wide, curving streets encourage higher vehicle speeds and decrease safety and convenience for other users. The internal circulation system should be designed to encourage walking and bicycling through the use of narrow streets linking to a cohesive bike and pedestrian circulation system. 24
23. Page 51 describes the commercial land uses proposed for the village center, with a mix of commercial retail, restaurants, office space and some residential above the commercial. We commend the pedestrian-friendly orientation and design of the village center. However, the proposal to site the golf clubhouse in the village center could influence the type of commercial uses toward golfers rather than neighborhood serving commercial services. We believe a grocery market and other neighborhood services should be included in the village center, and steps should be taken to ensure it's focus remains to serve the community at large rather than just the resort and golf complex. 25
24. We are concerned that the 19 acre business park (BP) in the northwest corner may be too small to be viable. The applicant may also have doubts, based on the contingency plan to convert to RSF if the BP is not viable. As stated above, we believe this is inappropriate. Residential uses are poorly suited to that corner of the site due to immediate proximity to the Tosco industrial complex. Furthermore, the density bonuses requested as part of the project are based on the inclusion of the business park in the project design. If the BP is eliminated from the project, residential densities should be decreased accordingly. We recommend that the total area designated BP be increased as described in the Expanded Business Park 26

Alternative.

25. We believe there should be a broad range of housing types, including affordable housing, to support the viability of the school. If not, the school could draw primarily from the surrounding community and not from residents of the project site, resulting in longer trip lengths. 27

TRAFFIC ANALYSIS

26. The total Phase I project specific average daily trip (ADT) estimates presented in Table 4.2-3 (page 133) and those used to model air quality impacts (Appendix D) do not appear to agree. Table 4.2-3 presents a total ADT rate of 22,256 trips/day while emission estimates are based on 17,628 trips/day for Phase 1 and 23,572 ADT for Phases 1 and 2. Please reconcile these differences. 28
27. The internal trip rate used in the analysis may be too high and should be better justified. If the business park and school are removed from the project, the internal trip rate will decrease substantially. 29

OTHER ISSUES

28. Hazardous substances are routinely handled at the Tosco facility which, in the unlikely but possible occurrence of an accidental release, could pose a serious health risk to residents. Such an event could require evacuation of the surrounding area, including the project site. The DEIR should address this possibility and discuss potential mitigations to ensure maximum protection of public health. 30
29. As a result of our regulatory relationship with the Tosco facility, we are familiar with other issue areas of refinery operations. Page 256, in the "Existing Noise Section," refers to the "industrial noise sources" associated with the refinery. It is unclear if the decibel levels discussed are typical background noise levels from the refinery, or if the noise levels include temporary, short-duration noise sources such as the sirens and alarms associated with the daily operation of the refinery. This section should include a general description of these temporary noise sources, and these sources should be included in the noise level measurements. 31

SUMMARY

The size, scope and location of this project require that a comprehensive air quality analysis be performed to evaluate the full scope of potential impacts. Although the air quality analysis in

Woodlands Specific Plan DEIR

May 8, 1998

Page 9

this document attempts to address all of the major issue areas, there are many gaps in the information provided that need to be filled; there also appear to be a number of discrepancies in the emission calculations that need to be clarified or corrected. We recommend that the EIR consultant contact the district soon to discuss our comments and ensure that revisions to the air quality analysis for the final EIR adequately address our concerns.

Thank you for the opportunity to review this DEIR. If you have any questions or comments about this memo, please call me or Randy LaVack at 781-5912.

95012C.RSL

Letter D: Air Pollution Control District, Larry Allen, Air Quality Planning Manager, letter dated May 8, 1998.

Comment
Number

Response

1. Comment noted. In making their decision on this project the County will consider the Districts position. See also discussion below.

2. The EIR includes two alternatives with reduced residential densities. Revising the site plan to locate residential uses to the east and further reducing site density to one unit per five acres could still result in residents being exposed to any refinery emissions. As required by Abatement Order and Mitigation Measure 4.3-4a, prospective property owners would be notified of the potential for odor emissions at the refinery and would make their own decision as to whether to locate in the project. Periodic odor emissions, while potentially noticeable, are not considered to be potentially significant adverse health impacts to the future project residences; thus, further mitigation or alternative design is not considered warranted.

As discussed in Section 4.3, Air Quality, page 186, the odors generated by the Tosco Unocal Oil Refinery have been a topic of concern since 1989. The San Luis Obispo Air Pollution Control District and the Refinery have worked together to implement engineering solutions to mitigate odor impacts. Since 1993 changes at the refinery were effective at eliminating some odors altogether and reducing others below significance, although some sources remain as intermittent or occasional potential odor sources.

3. The paragraph addressing "Odor Effects on the Project Site" on p. 191 is replaced with the following:

"Most of the odors from refinery operations result from reduced sulfur compounds and odorous hydrocarbons emitted close to the ground. Emissions of these compounds have been significantly reduced, but not eliminated, as a result of the Abatement Order (AO). However, adverse weather conditions, such as surface inversions and/or ground fog, can limit vertical dispersion and allow odorous compounds to concentrate near the surface. The potential for this to create an odor problem that causes a nuisance to affected residents is directly related to the frequency and severity of adverse weather conditions and proximity to the refinery. Since the Woodlands site is in close proximity to the refinery, nuisance odor situations would be expected to occur periodically. Figure 4.3-1 shows low-lying areas of the site where odors would tend to settle. While site topography would be altered somewhat by the project, these same areas would continue to be low-lying and thus susceptible to odor."

4. Comment noted. Please see page 210, Mitigation Measure 4.3-4a. The following is added to the end of that mitigation measure:

"The notice shall also indicate the possibility for exceedance of the state health standard for SO₂."

5. Page 191, paragraph 3 is moved to page 186 at the end of, Section 4.3.1.3.5, Particulate Matter - 10 Micron
6. Page 191, paragraph 6, Section 4.3.1.6, Sensitive Receptors, the following discussion is added,

"The project would add sensitive receptors to the site including nearly 3,000 residents in the 1,320 residences and occupants of the potential school. Some residents and some schools occupants could be exposed to continuous (24-hour/day) exposure to any emissions or odors from the refinery."

Under the Revised Project no school would be located on the site.

7. Page 208 (and the summary table). The following is added to the end of the impact statement for impact 4.3-4:

"In addition the project could introduce odors associated with the on-site wastewater treatment plant. The plant will be sized and designed to efficiently process with minimal odors) the project's proposed effluent. The plant will be required to meet Basin Plan requirements and approval through RWQCB. This is not anticipated to be significant."

The following discussion is added to page 210 after the first full paragraph:

"Odors from the on-site wastewater treatment plant could also affect nearby residents (mostly on-site) under all alternatives. Odors associated with the proposed on-site waste water treatment facility could affect residents of the project. As discussed in Section 4.3.1.1, Climate and Meteorology, local wind direction is influenced by location and strength of the Pacific High pressure system and other global patterns, topography, and circulation patterns resulting from temperature differences between the land and sea. Onshore winds from the northwest generally prevail during the day. Similar to emissions generated by the Unocal Oil Refinery, wind and sun would help dissipate odors generated by the treatment facility. Common methods of controlling odors at wastewater treatment facilities include chemical pretreatment to reduce the formation and evolution of hydrogen sulfur gas and other compounds associated with wastewater. Odors are also contained by covering tanks, sumps and wet wells that may produce odorous compounds, and by enclosing wastewater treatment equipment and processes which may contribute to the overall odor emissions. Hydrochloric (muriatic) acid may also be used periodically to clean the packing of the odor control scrubbers."

The following mitigation measure is added to page 210:

“Mitigation Measure 4.3-4b: The proposed wastewater treatment facility shall implement odor controlling measures, such as using ferric chloride in the headworks, covering all tanks, sumps and wet wells that may produce odorous compounds, and enclosing wastewater treatment equipment and processes which may contribute to the overall odor emissions.”

8. The following mitigation measure is added to page 210:

“Mitigation Measure 4.3-4c: The applicant (and/or property owners association(s)) shall work with APCD to designate a person, acceptable to APCD, to respond to and investigate odor compliants including source determination, compliant follow up, notification and/or reports to APCD staff of response summary received and prepare public notices, as appropriate.”

9. See response to Comment 2 above.

10. A 100' to 200' tree buffer will be required around the project perimeter. Additional clusters and windrows of euc's will be retained within the project interior. While some thinning within these areas is proposed, additional planting is also proposed along the western perimeter. According to the San Luis Obispo Fire Department, although the trees may provide a natural buffer to odor, eucalyptus trees are considered a "high" fire risk. As discussed in the DEIR, page 300, paragraph 1, the proposed project must conform with the Vegetation Management Plan (Appendix F). The Vegetation Management Plan would manage the existing eucalyptus stands to provide windbreaks, landscape features, privacy screening and wildlife habitat.

11. See response to comment 8 above.

12. The number and type of logging equipment that may be used at the project site would include four chainsaws, one feller buncher, one skidder, one shredder, one slasher, and one front end loader. Assuming 65 days of logging, eight hours per day, for 5 days a week, estimated emissions are 71.80 lbs. of ROG, 52.92 lbs. of NO_x, 4.53 lbs. of SO_x, 263.58 lbs. of CO, and 0.11 tons of PM10 per quarter. This activity will be subject to a county tree removal permit. Also, at such time, size, type and amount of equipment can be better quantified and air quality impacts compared to these estimates.

13. The analysis of project construction impacts for each alternative incorporates construction equipment emissions factors listed in Table 4.3-5.

14. The discussion and calculations found on page 196 for grading and excavation assumes approximately 5 acres, 1,650 cubic yards of dirt, would be graded and excavated each day (not all areas of the site would be graded). According to David Evans and Associates the proposed project requires 804,300 cubic yards of cut and 1,247,700 cubic yards of fill. This necessitates the import of 443,400

cubic yards of fill, and in Stage I. The revised project alternative would result in four Stages of balanced cut and fill. The total quantities would be as follows: Stage 1-580,000 cubic yards, Stage II-375,000 cubic yards, Stage III-290,000 cubic yards, a Stage IV-318,000 cubic yards. These values assume 5 acres per day of excavation.

15. Comment noted. The South Coast AQMD handbook presents a comprehensive energy consumption and emissions methodology to estimate the impacts of specific types of construction. This methodology is detailed and comprehensive. It is not inconsistent with the San Luis Obispo Air Pollution Control District method which suggests using EPA factors for specific types of equipment. However, in this case information on equipment usage was unavailable. The South Coast Air Quality Management District is based on averages (equipment use, worker travel, etc.) for different types of construction, and thus provides a reasonable estimate for the project. The factors identified apply to all construction in Southern California. Emissions resulting from logging equipment are estimated above. Combustion emissions from site excavation and grading, roadway grading, golf course contouring and other site preparation activities are included in the energy consumption emission factors calculations.
16. Comment noted. See response to comment 17 below.
17. Page 198, Paragraph 4, Mitigation 4.3-1a, is revised to read, as follows (deleted text is shown as strike out, new text is bold):

~~“The project applicant shall implement the following Best Available Control Technology (CBACT) for each piece (no less than 6 pieces overall) of diesel-fueled construction equipment estimated to cause the highest level of combustion emissions during construction. Implementation of a given CBACT technology or combination of technologies should always be preceded by an evaluation of the subject equipment to determine the most appropriate retrofit strategy. Other CBACT technologies with similar emissions reduction potential to the example below may also be considered if appropriate documentation is provide.”~~

CBACT retrofit examples:

- I.
 - a. Fuel injection timing retard of 2 degrees, and
 - b. Installation of high pressure injectors, and
 - c. Use of reformulated diesel fuel

 - II.
 - a. **Fuel injection timing retard of 2 degrees, and**
 - b. **Coating of internal combustion chamber surfaces (cylinder head, pistons, and valves), and**
 - c. **Use of reformulated diesel fuel**
18. Total operational emissions by alternative are shown in Table 4.3-9.

Emissions from the Revised Project Alternative are added throughout the EIR.

19. The following mitigation measure is added to page 207:
- “Mitigation Measure 4.3-2g:** Project residents will be discouraged from using unpaved roads within the boundaries of the subject property (which may also lead to other unpaved roads) through the use of gates and posted signs.”
20. Comment noted. Section 5.1.2A4 of the Specific Plan requires all development plan and subdivision applications to address South County Area Transit System (SCAT) fixed route transit operations.
21. The following mitigation measure is added to page 207:
- “Mitigation Measure 4.3-2h:** The project specific plan shall include a standard that will be required at the time of permit approval for any golf course where, only electric golf carts for rental or loan shall be allowed, as well as provide a mechanism to purchase subsidies and/or incentives to residents to encourage the use of personal electric carts.”
22. See response to comment #2. The EIR includes two alternatives with reduced density (see pp. 404 and 407 of the DEIR). However, the project and alternatives include jobs and housing which could at least in part offset emissions created by the project. As indicated in the comment, the project is consistent with the land use plan strategies recommended in the District’s Clean Air Plan.
23. See response to comment #6, Letter H, from Richard Marshall, San Luis Obispo County Engineering Department. The Woodlands project has incorporated numerous Transportation Demand Management concepts in its design. These include provision of an extensive internal bicycle and pedestrian path system within the site, as well as mixed land use plan which provides a jobs-housing balance within the area, as well as retail and recreational opportunities for the on-site residences and an interconnected street system. The mitigation measures for the project have also been modified to include a TDM plan for the business park.
24. Comment noted. The traffic and circulation study prepared by Associated Transportation Engineers addresses those issues with a potential to have a significant impact on the environment. The final design of the internal street network, including issues such as “traffic calming” on local streets, would be addressed by the applicant and County Engineering Department during the development plan review stage of the project. County maintained roads need to meet County standards. There are some roads that could be narrower. These roads would be designed to encourage walking and bicycling through the use of narrow streets linking to a cohesive bike and pedestrian system.
25. Comment noted. The occupants of the commercial/retail space will depend on a variety of factors including primarily market conditions; specific uses cannot be anticipated at this time. Under the Revised Project Alternative, the proposed village would move slightly to the east from its location as described under the proposed project. In addition, the applicant proposes to reposition the resort

directly south of the Monarch butterfly habitat. Also, under the Revised Project Alternative the internal road system would include six roads radiating out of the village rather than three as included in the proposed project alternative. The school would be eliminated under this alternative and the public park site has been moved with the possibility of it being deleted.

26. Comment noted. The 19-acre business park in the northwest corner of the project has been moved to the southwest corner of the property parallel to Highway 1. The decision maker has the ability to condition the project such that if the business park fails residential uses would be decreased.
27. Comment noted. The range of housing types proposed will be influenced by market conditions. However, the applicant proposes a wide range of residential uses (see Section 2.3 of the EIR). The school site that has been deleted under the Revised Alternative will probably result in longer off-site trips from proposed development.
28. The trip generation data presented in Table 4.2-3 presents the internal versus external ends for each land use. For the purpose of evaluating vehicle emissions, the internal trip ends have been adjusted to account for the two trip ends associated with each land use. For instance, a vehicle traveling from a residence within the Woodlands site to the village retail area would be counted as two trip ends in the trip generation table. For the air quality analysis, this is considered as only one trip, however, to avoid double-counting the internal ends, since both ends would occur within the project site.
29. See response to comment #5, Letter N, from Mike Harmon, Associated Transportation Planner, San Luis Obispo Council of Governments. The trip generation data and information regarding internal versus external trips assumption were discussed and agreed upon by County staff prior to the preparation of the traffic and circulation section of the Woodlands Specific Plan EIR. The source of the data (NCHRC report No. 255) is presented in the third paragraph on page 132. The data derived from this report was used to empirically quantify the internal and external trip splits. There is little change in internal and external trip ends with the elimination of the school site and public park.
30. The following impact is added to page 381 (and the summary):

“Impact 4.10-7: An accidental release of hazardous materials at the Tosco facility could result in a potential health risk to residents.”

Hazardous substances are routinely handled at the Tosco facility. In the unlikely but possible occurrence of an accidental release at the Tosco facility project residents could be exposed to a serious health risk. Such an event could require evacuation of the site.

Mitigation Measure 4.10-7a: The County’s Hazardous Material Emergency Response Plan addresses potential evacuation of County residents.

Significance after Mitigation: No significant impacts are anticipated.

31. Noise from the Tosco facility was not audible at the time the noise measurements were taken. According to the Noise Element, the project site lies within the Unocal Refinery 45dBA contour. On occasion, sound from sirens and alarms associated with the daily operation of the refinery could be audible on the project site. These sirens and alarms result in a noise level of less than 45 dBA at the site. This would not be considered a significant impact.

LETTER E

COUNTY OF SAN LUIS OBISPO

RECEIVED

MAY 14 1998

Department of Agriculture/Measurements Standards

2156 SIERRA WAY, SUITE A • SAN LUIS OBISPO, CALIFORNIA 93401-4556
RICHARD D. GREEK (805) 781-5910
AGRICULTURAL COMMISSIONER/SEALER FAX (805) 781-1035

ENVIRONMENTAL SCIENCE ASSOC



May 12, 1998

TO: John McKenzie, Environmental Specialist

FROM: Robert Hopkins, Deputy Agricultural Commissioner

Robert Hopkins

SUBJECT: Woodlands Specific Plan Draft Environmental Impact Report

The following report responds to your request for comments on the Draft Environmental Impact Report (EIR) for the Woodlands Specific Plan. The comments and recommendations in our report are based on current departmental goals to promote and protect agricultural resources and provide for public health, safety and welfare while mitigating negative impacts of development to agriculture.

4.9 Agricultural Compatibility (Pages 353 - 356)

We concur with the information and analysis concerning agricultural impacts contained in the agricultural compatibility section. Mitigation Measure 4.9-1a is sufficient to address any direct incompatibility issues which may come up with the development of this project.

1

4.1 Ground Water Resources (115 - 117)

The EIR indicates the deep aquifer flow is from the Santa Maria subarea to the Nipomo Mesa subarea, where the project is located. The analysis of impacts to ground water resources indicates the project may have significant cumulative impacts to groundwater levels. Although the EIR additionally concludes that the lowering of the groundwater levels is not expected to significantly impact groundwater availability in the Santa Maria Valley, the long term implication of this project to the agricultural resource in the Oso Flaco area would appear serious.

2

John McKenzie, Environmental Specialist

May 12, 1998

Page 2

Located within San Luis Obispo County side of the Santa Maria Valley is approximately 10,000 acres of highly productive land principally devoted to the production of high value vegetable crops. This agricultural area is dependant on ample supply of ground water to remain productive. Long term cumulative impacts to ground water resource could have serious impacts to the agricultural productivity of this area.

3

Many of wholesale nursery operations in the county are located within the vicinity of the project site. These operations are dependent on the availability of high quality groundwater resources to successfully produce a variety of nursery products. The EIR appears to indicate the area of potential greatest reduction in groundwater would occur in areas where some of these agricultural operations exist. As discussed concerning vegetable crops, long term cumulative impact to groundwater resources could have serious impacts to the agricultural productivity of these operations.

4.1 Groundwater Quality Issues (Pages 108 & 109)

4

The EIR identified potential impacts to groundwater resources from the use of fertilizers and pesticides on the golf course. Mitigation measures were recommended to address these concerns. The Agricultural Commissioners Office regulates the use of pesticides within San Luis Obispo County, primarily as the local enforcement agency of state laws and regulations under the auspicious of California Department of Pesticide Regulations. Some of the language contained in the list of mitigation measures 4.1-2a through 4.1-2f (pages 108 & 109) duplicates the requirements of our existing regulatory program. We would like an opportunity to consult with Environmental Science Associates and your office to amend this list of mitigation measures.

Letter E: Department of Agriculture/Measurement Standards, Robert Hopkins, Deputy Agricultural Commissioner, letter dated May 12, 1998.

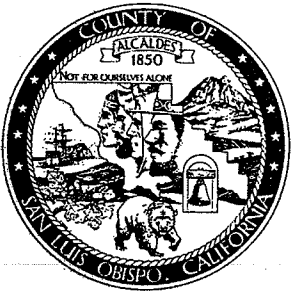
Comment Number

Response

1. Comment noted.
2. The EIR states (on pages 115-116) that under drought conditions, water demand from the project and cumulative projects could lower water levels at certain nearby wells between 4 to 5 feet. The agricultural wells in the Santa Maria Valley including the Oso Flaco area would experience negligible effect because of the distance to the project and the large depth of these wells.
3. As indicated in the EIR (see page 116) cumulative effects during drought conditions on certain wells in the vicinity of the project, could occur. Mitigation measures (see pages 116 and 117) are provided for these potential impacts.
4. Page 108, the following is added before the list of mitigation measures.

“The following mitigation measures are not intended to supplant existing state pesticide laws or regulations administered by the County.”

Page 109, Mitigation Measure 4.1-2a.5 and Mitigation Measure 4.1-2c are required by federal law and must be implemented.



LETTER F

COUNTY OF SAN LUIS OBISPO

Department of General Services

COUNTY GOVERNMENT CENTER • SAN LUIS OBISPO, CALIFORNIA 93408 • (805) 781-5200
DUANE P. LEIB, DIRECTOR

OFFICE MEMORANDUM

RECEIVED

APR 08 1998

S.L.O. COUNTY
PLANNING DEPT.

TO: John McKenzie, Environmental Specialist

FROM: *PJ* Pete Jenny, Parks Manager

DATE: April 7, 1998

SUBJECT: Woodlands Specific Plan - Draft Environmental Impact Report (ED95-026; G940005S)

After reviewing the Draft EIR, the Parks Division of General Services has a few concerns, some of which were noted in our October 17, 1996 comments on the Baseline Environmental Assessment and Constraints Analysis.

- Section 2.3 Project Characters, makes reference to a "12-acre public park, 30 acres of neighborhood play areas and open space between lots, and 76 acres designated for open space buffers along the perimeter of the site." Table 2-2 Project Staging notes that the 12-acre public park site would be dedicated in Phase I, however, it is unclear who would be responsible for developing and managing the combined 30 acres of play areas/open space or whether they are proposed for public dedication. 1
- Section 4.7 Public Services and Utilities, assesses the impacts of the proposed project on fire protection, police services, schools, etc., however, no comparable assessment of the impact on recreational facility services is provided. As with CDF/SAN LUIS OBISPO County Fire, Sheriff's Office and the Santa Lucia Unified School District, the Public Facility Fees associated with the project which might offset capital costs cannot be used for operating expenses. No analysis of those ongoing park operational expenses was provided, nor any mitigation measures to reduce that expense. The staff time alone for a 12-acre park could require 1½-2½ full time positions, depending on the nature of the site developments. Total annual operating costs could easily range from \$125,000 to \$150,000. 2
- Figure 4.2-5 Public Paths/Trail Map, proposes both an internal and peripheral equestrian, pedestrian and bicycle trail system which the document suggests is consistent with the County Trails Plan. However, the proposal does not include two contiguous sections of trail which are identified in the County Trails Plan. They run southernly on Via Way from Mesa Road to Bannecker Road, then west to Amador Way. Given the proposed route leaving the project site on Eucalyptus Road, it would also make sense for the additional trail to connect Bannecker and Eucalyptus along Amador Way. 3

Thank you for the opportunity to comment on this plan. If you have any questions, please contact me at x5930.

Letter F: Department of General Services, Pete Jenny, Parks Manager, letter dated April 7, 1998.

Comment
Number

Response

1. The public park site may be eliminated. If it is, the applicant will provide equivalent funds to the value of the land dedication to be used to improve the existing Nipomo park near the school.
2. The public park site may be eliminated. If it is, the applicant will provide equivalent funds to the value of the land dedication to be used to improve the existing Nipomo Park near the school.

At this time, the applicant may dedicate about 12 acres for future public neighborhood park use or provide in lieu fees for the purpose for developing new parks or rehabilitating existing parks (e.g. Nipomo Regional Park). This area could serve as the "West Nipomo Neighborhood Park" as identified in the Draft County Parks and Recreation Element (August, 1996). Based on the National Recreation and Park Association's suggested ratios for neighborhood and community parks (Neighborhood Park – 1 acre per 1,000 population; Community Park – 5 acre per 1,000 population), the county would have a parkland deficiency. Using NRPA's suggested ratios, the development's potential residential population of about 4, 130 (based on 1990 Census of 3.13 people/household applied to 1,320 units) would generate the following need for parkland: Neighborhood Parks – 4.13 acres, Community Park – 20.65 acres.

The project proposes to set aside over 170 acres for non-commercial active and passive recreational uses, and over 300 acres of commercial recreational use (golf courses). Specifically, the following is proposed to support the county's efforts on providing for park and recreation facilities: 1) provide a number of smaller pocket parks throughout the development; 2) construct golf courses (45 holes total – open to the public); 3) create multi-use paths around and through the development (mostly through the proposed open space areas); 4) dedicate approximately 12 acres for a public park; and 5) establish an approximate 11 acre monarch butterfly preserve. Currently, the applicant proposes to complete the improvements needed for all of the above identified facilities except for the dedicated public park area. The proposed multi-use, perimeter paths around the development is generally consistent with what is proposed in the Draft County Parks and Recreation Element for the Nipomo Community Trail System.

While land values are subject to change, the Draft County Parks and Recreation Element estimates the value of the 12-acre public park area as about \$360, 000 (\$150,000/5 acres). Additional possible funding sources that could be used to improve this dedicated park, as well as for ongoing park operation and staffing costs include: Public Facility Fee, County's General Fund, grants, donations, user fees/charges, concessions, Quimby (parkland dedication and/or in lieu fee associated with subdivision approval) and transient occupancy tax. Establishing a funding source for ongoing operation and staffing costs for the proposed public park is a socio-economic impact that is not subject to CEQA analysis.

3.

The applicant has revised the project Concept Plan (see the Revised Project Alternative), the applicant continues to refine the trails internal to the site.

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SAN LUIS OBISPO COUNTY ENGINEERING DEPARTMENT



COUNTY GOVERNMENT CENTER • ROOM 207 • SAN LUIS OBISPO, CALIFORNIA 93408

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WATER RESOURCES
COUNTY SURVEYOR
SPECIAL DISTRICTS

April 10, 1998

MEMORANDUM

TO: John McKenzie, Environmental Specialist

FROM: Mary Whittlesey, Solid Waste Coordinator

MW 4/10/98

SUBJECT: Woodlands Specific Plan Draft EIR (ED95-026; G940005S)

My comments regarding the solid waste and recycling issues for this development and Draft EIR are presented below. The greatest concern driving my comments are the County's compliance with the California Integrated Waste Management Act of 1989 (AB 939). This law requires every city and county in the state to reduce its waste stream by 50% by 2000 or face fines of up to \$10,000 per day. The unincorporated county currently has reduced the waste stream by only about 20% so it is especially important that we be involved in crafting projects that will not negatively impact our ongoing waste reduction and compliance efforts.

General remarks.

1. The EIR states that "impacts on solid waste are considered significant if they result in the need for a new landfill or a substantial expansion of existing facilities." (P.332) The evaluation of the project's impacts then flow from this criteria.
2. The criteria is flawed. CEQA states that "a project will normally have a significant effect on the environment if it will: breach published national, state, or local standards relating to solid waste or litter control."
"(Appendix G(e))
3. The EIR already identifies the Integrated Waste Management Act of 1989 and the County response to the Act. However, it fails to note this project's role in reducing the waste stream in order for the unincorporated county to be compliant with these two mandates.

1

98 APR 10 PM 4 52

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4. The waste stream in 2000 must be ½ of what it was in 1990, after an allowance for population growth. To simplify the calculations for this project, we can look at per capita generation. In 1990 the unincorporated county produced approximately 4.5 pounds of waste per capita per day. This means that in 2000 the total waste generation cannot exceed 2.25 pounds of waste per day per person. This project exceeds that standard with total waste generation projected as 6,353,35 tons per year, or 8.5 pounds per person per day, using a Nipomo persons per household standard of 3.09 people per dwelling unit. 1
5. Clearly this project will have a significant effect on the environment and the County's compliance with state mandates. The mitigation measures presently identified are not sufficient to assure achieving the standard during project construction or at full project build out. This project must not place the county and current residents in jeopardy of state fines for non-compliance with the standards.
6. As found on page 331, "voluntary recycling is encouraged for all land uses" appears to be the only explanation of how this project is going to achieve and maintain a reduced waste generation. A significantly more explicit discussion of how the project will comply with the state mandate is appropriate for the EIR and any mitigation measures.
7. In order to assure proper disposal and recycling efforts, participation and payment for waste collection, recycling collection and green waste collection must be required for both residential and commercial enterprises in this new development. The Draft EIR should require this mitigation measure to assure proper disposal of the amount of waste being generated and to mitigate the potential for illegal dumping. The CC&Rs for the project should make this participation a condition of ownership. 2
8. The CC&Rs should also encourage the use of mulching mowers for public, residential and commercial properties. 3
9. **Recycled content construction materials.** It is critically important to require the use of recycled content materials during all phases of construction. At a minimum, the plan should require use of recycled content floorings, roofing materials, block, glass, plastics, tile, carpet, paint, etc. in any public, residential and commercial buildings. 4
10. In addition to structures, all public and private facility infrastructure (resorts, golf courses, business parks) must also incorporate the use of recycled content materials. This would include use of rubberized asphalt, recycled content plastic signs, posts, wheel stops, etc.

11. Many high quality construction materials have been manufactured and tested (ASTM) for code compliance; businesses or residents can no longer claim that quality recycled content material are not available. And, it is critical for the future and success of recycling and waste reduction programs that these products be properly utilized. 4
12. There are a number of errors in the sections titled "4.7.6 Solid Waste." The errors include the names of garbage collection companies, ownership of garbage and recycling companies, sites for and cost of disposal and recycling facilities. Even the name of the garbage company servicing the area is incorrect an while some of the ownership of these companies can be confusing, it is important that the information be corrected for future readers. 5

Mitigation Measures:

13. **Mitigation measure 4.7-6a.** Prior to the issuance of building permits the compost management plan should also be submitted to the County Engineer. Permits should be contingent on the Engineer's approval of the plan. Due to the significant amount of green waste expected from this project, the plan must address management of the residential green waste as well as the commercial and recreational fractions. The mitigations for the excessive green waste must require on-site management of 100% of the green waste generated by the golf courses and other recreation facilities in addition to the requirement of management of 50% of the balance of the green material generated by the project. 6
14. **Mitigation measure 4.7-6b.** The recycling plan should also be submitted for approval prior to the issuance of building permits. It should include the location of recycling and waste bins, and 7
15. The recycling plan should be designed to capture and recycle 98% of the recyclables set out for collection The required recycling plan must also include a waste reduction plan that will articulate the steps the developer will take to minimize waste generation during construction. These steps will include the purchasing practices that will assure that excess materials are not delivered to the site, that any materials and packaging that are delivered are recyclable locally, and that proper separation of discarded materials (e.g., sheet rock, conduit, metal flashing, corrugated cardboard, scrap dimension lumber, etc.) will assure maximum recycling.

16. To facilitate automated collection of recyclables and waste and to enhance safety, parking on any streets should be prohibited between 5:30 and 8:30 am.

8

File: SW 6.2.4 Waste Reduction

Letter G: Engineering Department, Mary Whittlesey, Solid Waste Coordinator, letter dated April 10, 1998

**Comment
Number**

Response

1. Page 332, the following is added to the end of the first sentence of the paragraph 4.7.6.2.1: Thresholds of significance.

“or if the project will breach published national, state, or local standards relating to solid waste or litter control.”

See Response to Comment 2, 4, 6, and 7.

2. See Response to Comment #1, above page 335, paragraph 6, Mitigation Measure 4.7-6b states that the recycling plan shall apply to all land uses. The plan would require coordination between the applicant, County Engineering Department, the County Integrated Waste Management Agency and the garbage/recycling company servicing the site.

The project includes a number of uses that would be used by other than project residents. To assign all waste generation to project residents is inappropriate.

The following mitigation measure is added to p.336:

“Mitigation Measure 4.7-6e: The applicant shall ensure through CC&R’s or other mechanisms, that proper disposal and recycling collection and green waste collection will be required for all project occupants, that mulching mowers are encouraged for on-site properties and the use of recycled building materials are encouraged.

3. See Response to Comment #1 above.

4. Comment noted. The following mitigation measure is added to page 336 (Solid Waste):

“Mitigation Measure 4.7-6e: . The use of recycled building materials is encouraged in building projects. Development plan applications shall include in the project description methods to ensure that the project use recycled content materials during construction to the extent economically feasible. Recycled construction material shall include, but not be limited to, flooring, roofing materials, block, glass, plastics, tile, carpet, and paint in any public, residential and commercial buildings. When possible and economically feasible, public structures, including the resort, golf course, and business park, shall incorporate rubberized asphalt, recycled content plastic signs, posts and wheel stops.”

5. In the Solid Waste Section, all references to the "San Luis Garbage Company" are changed to "Nipomo Garbage".

Page 330, Section 4.7.6. Solid Waste, the first three sentences of the first paragraph are revised to read as follows:

Nipomo Garbage, a subsidiary of South County Sanitary Services, collects solid waste generated from the project area and disposed of at the Cold Canyon Landfill in the County of San Luis Obispo, which is owned and operated by companies related to Nipomo Garbage.¹

The following is added to the end of the above paragraph:

Recyclable materials are collected by San Luis Obispo County Recycles and hauled to their processing yard in San Luis Obispo. They may also haul and grind green waste for composting. Waste from the project area may also be disposed of at the Santa Maria Landfill, located approximately 20 miles southeast of the project site.

Page 331, paragraph 4, third sentence, the reference to "80 acres," is changed to "88 acres."

Page 332, paragraph 1, third sentence, the reference "(June 1998)" is changed to "(June 1999)."

6. Comment noted. The following is added to the end of Mitigation Measure 4.7-6a:

"The plan shall address management of residential green waste as well as commercial and recreational uses. One hundred percent (100%) of the green waste generated by the golf courses and fifty percent (50%) of the balance of the green waste material generated by the project shall be managed on the project site. The compost management plan shall be submitted for approval to the County Engineer with permits contingent on that approval."

7. Comment noted. Mitigation Measure 4.7-6b is revised to read as follows (new language is underlined):

"The applicant shall submit for county approval a recycling plan to the County Engineering Department and the County Integrated Waste Management Agency prior to issuance of a building permit. Garbage and recycling collection fees shall be collected in the garbage bill and service shall be provided on a weekly basis. The recycling plan shall apply to all land uses and shall include, but not be limited to: 1) lists of recyclable

¹ Mr. John Ryan, General Manager, SLOCO, telephone communication November 24, 1997.

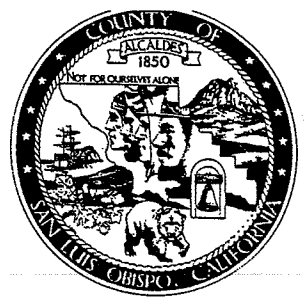
materials, such as white paper, computer paper, newspaper, metal cans, aluminum, motor oil, chipboard and glass; 2) location of recycling and waste bins; 3) designated recycling coordinator for commercial operations, 4) a plan stating the nature and extent of internal and external pick-up services; pick-up schedule; 5) a plan to inform tenants/occupants of recycling services; and (6) the use of mulching mowers for public, residential and commercial properties.”

“The plan shall be designed to capture and recycle 98% of the recyclables set out for collection. The required recycling plan shall also include a waste reduction plan that shall articulate the steps the developer must take to minimize waste generation during construction. These steps shall include, the purchasing practices that will assure that excess materials are not delivered to the site, that any materials and packaging that are delivered are recycled locally, and that proper separation of discarded materials (e.g., sheet rock, conduit, metal flashing, corrugated cardboard, scrap dimension lumber, etc.) will assure maximum recycling.”

8. Comment noted.

LETTER

SAN LUIS OBISPO COUNTY ENGINEERING DEPARTMENT



COUNTY GOVERNMENT CENTER • ROOM 207 • SAN LUIS OBISPO, CALIFORNIA 93408

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APR 29 1998

S.L.O. COUNTY
PLANNING DEPT

ROADS
SOLID WASTE
FRANCHISE ADMINISTRATION
WATER RESOURCES
COUNTY SURVEYOR
SPECIAL DISTRICTS

April 29, 1998

MEMORANDUM

TO: John McKenzie, Environmental Specialist
FROM: Richard Marshall, Development Services Engineer *RM*
SUBJECT: Woodlands Specific Plan - Draft EIR

Thank you for the opportunity to review the subject report. I offer the following comments:

1. Beginning on page 122 and elsewhere in the report, the road names should be corrected to Via Concha, not Via Concha Road, and Juniper Street, not Juniper Road. 1

2. On page 125, the second paragraph under Project Related Improvements notes that the collectors within the village commercial area would have angled parking on both sides. We should really take advantage of having a "clean slate" to work with and come up with something that provides sufficient parking and traffic calming benefits without sacrificing safe and desirable bicycle travel, as angled parking would do. 2

3. In the following paragraph, the report mentions that a landscaped median is planned at the entrance on Via Concha. Does this refer to the Highway 1 end, the Dawn Road end or both? 3

4. In the paragraph after that, it says that improvements to perimeter roads would be dependent upon the progress of residential development in the area. The statement is unclear. Eventually it is clarified in the section where certain improvements are recommended as mitigation measures, but I noted even there that there is an apparent "gap." Viva Way is recommended to be improved along the project frontage, which would extend from Camino Caballo to Banneker Place, but not connect to Eucalyptus Road. The latter connection should be included as it would complete the connectivity of the collector network encircling the project. 4

5. Figure 4.2-3 indicates that one of the proposed local street cross-sections would have a right-of-way of 48 feet. As you are aware, the Real Property Division Ordinance requires a minimum 50-foot right-of-way for such streets. 5

6. The discussion of Transportation Demand Management on page 128 is very brief and general in nature. It should be followed up with discussion about how it applies to the subject project, and quantify any expected benefits that might be realized. 6
7. On page 130, the discussion of Alternative Modes of Transportation needs some corrections and expansion. There is no dial-a-ride service in Arroyo Grande (other than Runabout, Ride-On and other similar countywide providers). Instead, the report should clarify that local fixed-route service is provided by South County Area Transit in Arroyo Grande, Grover Beach, Oceano and Pismo Beach; while Central Coast Area Transit provides regional service along the Highway 101 corridor including stops in Santa Maria, Nipomo and Arroyo Grande. The report should be expanded, in consultation with the regional transit manager (at this time, rather than in the future) to discuss the feasibility of providing service to this remote site with regional transit. 7
8. Also within the discussion of Alternative Modes of Transportation, I have some concerns about the proposed bicycle circulation system. The County's Bicycle Advisory Committee has gone on record many times opposing the use of Class I bicycle paths adjacent to roadways in urban or suburban areas. Studies have shown that in such a configuration, drivers do not readily anticipate two-way bike travel, creating points of conflict at every driveway or street intersection. It would be greatly preferable, in the type of development being proposed, to incorporate Class II bicycle lanes into the street improvements. 8
9. Finally, the map in Figure 4.2-5 indicates a pedestrian connection to the proposed Public Park site, but no bicycle connection; and neither bike nor pedestrian connection to the School site. 9
10. The author does not seem to have used the internal-external split, which I believe we had agreed to by phone August 28, 1997, for the trips generated by the commercial uses of the project. My file indicates that the split should be 55% internal trips for the commercial land use, which yields different figures than shown in Tables 4.2-3 and 4.2-11. 10
11. On page 144, in the discussion about the Construction/Logging Operations, there is a recommendation to use Willow Road, Pomeroy Road and Los Berros Road to head north on Highway 101. On this route, Pomeroy Road is not recommended, due to its narrow widths, sharp curves and steep grades. It would be preferable to continue north on Highway 1 to either Valley Road or Halcyon Road to reach Highway 101 northbound. The route for southbound trucks should be corrected to include Orchard Avenue between Division Street and Tefft Street. It should also reconsider the use of Division Street, for similar reasons as those cited for Pomeroy Road, and evaluate instead the use of Highway 1 south to Highway 166 in Guadalupe. 11
12. On page 146, the discussion of improvements to Highway 1/Willow Road should be corrected to note that it is a four-way intersection. 12

13. The discussion of the proposed project added to the buildout of the General Plan has identified the need for several additional improvements to the streets and intersections in the vicinity. If these improvements are not needed under the current General Plan, but will be needed with the addition of traffic due to this project, then their implementation should be considered mitigations of project impacts, rather than spread over all other development through amendment of the Road Improvement Fee. These improvements include two traffic signals and improvements to the offramps at the Tefft Street interchange. I might point out that I can't tell how the author determined that a signal would be needed at the intersection of Willow Road and Hetrick Avenue, since that location doesn't appear in any of the figures in the analysis.

13

14. On page 177, the description of the Rural Village I as an increase of the business park should be corrected. From the numbers cited, it appears to be a decrease of residential units and no increase of the business park.

14

In addition, I have the following general comments on the contents of the Specific Plan itself, which may or may not affect the environmental review process:

15. Circulation Policy 1 indicates that the "general location and patterns of the circulation pattern shall be generally consistent with the Specific Plan." It is my conclusion, then, that at the time individual subdivisions or developments are being proposed, we will have the opportunity to evaluate the details of those projects' circulation facilities during the corresponding environmental review process.

15

16. The Circulation Classification Map (exhibit 12) and Road Sections Key (exhibit 14) are very general, and not very specific. Some details will need to be addressed at the time of reviewing individual developments:

16

- a. the manner in which land uses near the periphery of the site connect with the perimeter roadways, such as Viva, Camino Caballo, Via Concha and Dawn Road;
- b. the provision of sufficient "loop" circulation within the various development areas, to comply with fire safety regulations, and to encourage pedestrian and bicycle activity.

17. There are eighteen different street cross-sections proposed, some of which have very fine distinctions between them. The project proponents may wish to consider a way to simplify this.

17

18. The cross-sections do not seem to take into account the need to allow for terrain influences in the street designs. None of them allow for cut/fill slopes to be contained within the rights-of-way.

18

19. Several of the cross-sections show provisions for pedestrian travel on only one side of the road. This may be inconsistent with Circulation Policy 4 which discusses connecting residential areas with the village and business park. 19
20. Several of the cross-sections include references to "parking lanes" which are five or six feet wide. County standards (and standard practice) call for a minimum of eight feet, and some agencies require as much as ten feet. 20
21. Cross-section D includes an extra two feet on each side for the curb and gutter. This width may be included within the parking lane adjacent. 21
22. Cross-sections L and R include an eight-foot bicycle/pedestrian trail parallel to the roadway on one side. Notwithstanding my comments in number 8 above, Caltrans standards (which the County has adopted for bikeways design) would require this to be 12 feet wide for shared use. 22

Please call me at 781-5280 if you have any questions or need additional information.

File: Planned Developments - Woodlands Specific Plan

L:\DEVELOP\APR98\WOODLAND.MMO.LND

**Letter H: Engineering Department, Richard Marshall, Development Services
Engineer, letter dated April 29, 1998.**

Comment
Number

Response

1. Comment noted. Road names on the figures are revised from "Via Concha Road" to "Via Concha" and from "Juniper Road" to "Juniper Street".
2. Comment noted. The final design of the internal street network, including issues such as "angled parking" on collector streets, would be addressed during the development plan review stage of the project. The following two sentences replace the fourth sentence of the second paragraph on page 125 of the EIR:

"While the collector roads proposed within the Village area suggest angled parking on both sides, design revisions may be appropriate to provide for safe and desirable bicycle travel. The final design of these roadways shall be subject to review and approval by the County Engineering Department for traffic safety and circulation at the time they are specifically proposed."
3. A landscaped median is planned at both ends of Via Concha as shown on the concept plan.
4. Viva Way would theoretically be improved from Banneker Place to Eucalyptus Road as the adjacent property develops, since this section of road is not contiguous to the Woodlands site. If, however, the roadway improvement is not constructed at the time that the eastern portion of the site is developed, the improvement would need to be completed by the Woodlands Project.
5. The project Concept Plan is being revised (see Applicants Revised Project Alternative). Since the design of all roadways is subject to review by the County, all streets shall conform to County requirements.
6. The following text is added after the last paragraph on Page 128 regarding transportation demand management:

"The Woodlands project incorporates numerous Transportation Demand Management concepts in its design. These include provision of an extensive internal bicycle and pedestrian path system within the site, as well as a mixed land use plan which provides a jobs-housing balance within the area, as well as retail and recreational opportunities for the on-site residences."
7. Page 130, second paragraph, eighth sentence through the end of the paragraph is replaced with the following:

"South County Area Transit provides local fixed-route service in Arroyo Grande, Grover Beach, Oceano and Pismo Beach. The Arroyo Grande community north of the Mesa Area is served by Runabout, Ride-On and other similar county-wide providers."

Central Coast Area Transit provides service along U.S. Highway 101 including stops in Arroyo Grande, Nipomo and Santa Maria."

The project applicant shall coordinate with the regional transit manager to review the feasibility and timing of providing regional transit service to the site in conjunction with the Stage I development.

8. Many bicycle advocates support off-street Class I bike paths while others prefer Class II on-street facilities. When properly designed and implemented, Class I paths work well, providing for recreational and commute travel within a given area. The current level of detail provided on the Public Paths/Trails Map for the Specific Plan does not give sufficient detail to fully review the adequacy of the design of the proposed Class I bike paths. The issue of Class I vs. Class II bicycle paths and the design of the Class I bike paths would need to be resolved during the development review stage of the project. It is recommended that the following mitigation measure be added to the end of Mitigation Measure 4.2-1a for Stage I:

"Bicycle Circulation: The final design of these Class I and/or Class II bikeways shall be subject to review and approval by the County Engineering Department, in consultation with the Planning Department, for bicycle safety and circulation."

9. Comment noted. Final design of the pedestrian and bicycle plan as well as plans for a park and school for the Woodlands site are still in progress (see Applicant Revised Project Alternative). The applicant will work with County staff to ensure that bicycle and pedestrian paths provide optimum access around the site.

10. The trip generation calculations completed for the retail component of the Specific Plan used the internal/external trip assumptions developed by ATE and County staff. The trip calculations also assumed a conservative "pass-by" factor of 15% in addition to the internal/external trip percentages. This pass-by factor accounts for the differences cited in this comment. A footnote was added to the trip generation tables in the EIR in order to clarify this issue.

Retail centers have several trip types, including: "primary", "diverted", and "pass-by" trips. Primary trips are trips with the sole purpose of patronizing the center for instance, patrons traveling from home to the center to patronize a particular store and then return home. Diverted trips are those trips that are attracted from the adjacent roadways within the vicinity of the project, but require a diversion from the roadway of travel to another roadway in order to access the project. Pass-by trips already exist on the adjacent street system and would stop at the site during their primary trip. These trips already exist on the street system adjacent to the retail site, in this case these trips would already exist on the streets within the Specific Plan. The analysis of the retail trips therefore applied the internal/external trip factors to the primary and diverted trips and categorized the pass-by trips as additional internal trips.

11. As stated in the traffic and circulation study, the truck haul route would need to be reviewed and approved by the County prior to issuance of permits to begin the logging operation. One possible route to U.S. Highway 101 for northbound truck traffic would be the use of State Route I to Halcyon. For southbound and eastbound truck traffic use State Route I to State Route 166 or Highway 101.

On page 144, replace paragraph 3 with the following text.

“It is anticipated that the majority of the truck trips generated at the site will travel on U.S. Highway 101. The northern truck route suggested by County staff would allow access to U.S. Highway 101 from the Grand Avenue or Halcyon Rd. interchange in Arroyo Grande. Trucks would travel northbound on State Route 1, use Halcyon Road, then continue on to Grand Avenue or Halcyon Rd./Brisco Rd.. The trucks would return via the reverse route. Alternatively trucks would travel southbound on State Route 1 to State Route 166 accessing U.S. Highway 101 via the State Route 166 interchange, returning via the reverse route. The selection of the final truck haul route would be done in co-operation with County’s Engineering Department.”

12. The mitigation measure for State Route 1/Willow Road on page 146 is revised to indicate that the intersection should be reconfigured to form a standard four-way intersection.

13. Mitigation Measure 4.2-7a is revised to read:

Mitigation Measure 4.2-7a: As reviewed above, the 2060 buildout analysis indicated that several additional improvements would be required in the study area based on the new land uses and traffic modeling completed for the South County area. It is recommended that **one of the following approaches be applied: 1) prior to approval of any development for Stage 2b the applicant shall install the additional 2060 improvements; or 2) the County update the South County Fee Program in conjunction with adoption of the proposed Woodlands Specific Plan. The updated fee program (which would include the additional ‘2060’ improvements required in the South County area and the additional revenues generated from the new land uses proposed (i.e., Woodlands, the new High School, etc.) and assess the new development.**

The traffic signal recommendation for Hetrick and Willow Road was based on traffic model projections which are on file at ATE, as well as information presented in the traffic modeling documents prepared by Fehr & Peers Associates for the Willow Road Extension project.

14. The first sentence on page 177 stating that “This scenario represents a net increase of 366,000 square feet of business park,” is deleted.
15. Mitigation measures 4.2-1a and 4.2-4a and 4.2-5a shall be modified to include the following provision:

Y... ..
M... ..

Detailed Plans. As detailed circulation plans/design for each Stage are prepared, they shall be submitted to the County Engineering Departments and Planning for review of specific resource impacts and consistency with county road standards.

16.-22.

These comments relate to details of the Specific Plan and will be addressed by the applicant during the development review stage of the project.

[Faint, illegible text, likely bleed-through from the reverse side of the page]

CDF / SLO COUNTY LETTER I FIRE DEPARTMENT

General Information 805/543-4244

24 HR. FAX 805/543-6909

635 N. SANTA ROSA • SAN LUIS OBISPO • CALIFORNIA 93405

April 23, 1998

RECEIVED

APR 27 1998

S.L.O. COUNTY
PLANNING DEPT.

John McKenzie
Environmental Division
County Planning & Building
County Government Center
San Luis Obispo, California 93408-2040

Dear Mr. McKenzie:

The Department has reviewed the Draft Environmental Impact Report for the Woodlands Specific Plan in the Nipomo Mesa area. Overall the report identifies the impacts this Department will have with the project in the future years. There are two areas that we feel the need to further clarify: 1. Staffing at our Station 22 (Willow Road Fire Station) and 2. Vegetation Management.

The vegetation management issues are addressed in separate letter (enclosed) from our Unit Forester Ben Parker.

This project would provide initial Fire Life Safety Service from our Station 22 located on Willow Road. 1 1/2 miles North of the site. The station is minimally staffed now with one full time paid fire right 24 hours a day. This position is augmented by 15 paid call firefighters (volunteers). As the area becomes more populated and urban, the staffing at Station 22 will need to increase to two (2) full time fire fighters on duty 24 hours a day.

The Woodlands project itself, however, would not "trigger" the increase in staffing. This Department has been meeting with the developers of the project to try to come up with a program to mitigate the staffing issue. The Draft EIR suggested that residential sprinklers be used to mitigate the problem.

1



SERVING MANY OF THE UNINCORPORATED AREAS OF SAN LUIS OBISPO COUNTY

Including the communities of:

Avila Valley
California Valley
Carrizo Plains

Cholame
Creston
Harmony

Heritage Ranch
Nipomo
Oak Shores

Pozo
Parkhill
San Simeon

Shandon
Simmier

-506-



Woodlands (ED95-026)

April, 24, 1998

Page Two

Cont'd.

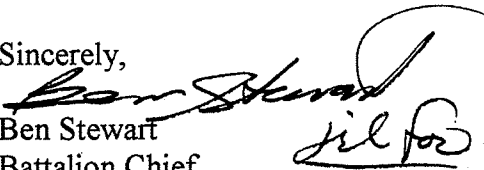
1

The developers feel that if staffing is the real issue then together we should try to come up with a plan to get additional staffing. The Fire Department is in agreement with that. However, if no plan is found to increase staffing, our Department would recommend residential sprinklers be used to mitigate the staffing issue.

If I can provide additional information or assistance on this matter please call me at (805)543-4244.

Sincerely,

Ben Stewart
Battalion Chief



Cc: Dan Turner
Dan Anderson
RRM

Letter I: Fire Department, Ben Stewart, Battalion Chief, letter dated April 24, 1998.

Comment
Number

Response

1. As discussed on page 300 paragraph 2, Section 4.7.1, Fire/Life Safety Protection, although residential sprinklers are not required by code, their use in combination with commercial sprinkler use, would improve CDF/SLO's ability to serve the project, while keeping full-time staffing at each station to a minimum. Mitigation Measure 4.7-1b requires the developer to install automatic sprinkler systems as part of a fire/safety plan in accordance with Building and Fire Department standards.

CDF / SLO COUNTY LETTER J FIRE DEPARTMENT

General Information 805/543-4244

24 HR. FAX 805/543-6909

635 N. SANTA ROSA • SAN LUIS OBISPO • CALIFORNIA 93405

April 23, 1998

John McKenzie
Environmental Division
County Planning & Building Department
County Government Center
San Luis Obispo, California 93408

RE: Comments on the Woodlands Specific Plan Draft EIR (ED95-026; G94005S)

Attached are my comments on the draft EIR.

One general concern is the inclusion of some resource concerns under the heading of Fire/Life Safety that would be more appropriately addressed under the Biological heading in the EIR.

1

Also, throughout the document CDF should be referred to as California Department of Forestry & Fire Protection (instead of California Department of Forestry). This is true only where the name is spelled out, the acronym - CDF- remains the same.

2

Pg. 298 - last sentence, "applicant proposes to maintain 30 foot minimum distance between trees and regular clearing of eucalyptus understory to minimize potential fire risk". How could this be monitored and what enforcement mechanism is there. Public Resource Code does not currently address this. Would the CC&Rs or some other mechanism be used for this? This statement also conflicts with the mitigation measure on page 301 (4.7-1h) that encourages a multiplicity of age and size classes. The fire hazard reduction implied by this paragraph would be negated if the applicant maintains a visual buffer by reducing the tree spacing to the

3



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Including the communities of:

Avila Valley
California Valley
Carrizo Plains

Cholame
Creston
Harmony

Heritage Ranch
Nipomo
Oak Shores
-500-

Pozo
Parkhill
San Simeon

Shandon
Simmier



existing 15 foot spacing . If aesthetics is the overriding concern then additional fire hazard mitigation may be necessary.

Cont'd.
3

Pg. 301 - Mitigation Measure 4.7-1h.

The first bulleted mitigation refers to "in accordance with Best Management Rules specified by the California Forest Practice Rules (Title 14 CCR)." I am not familiar with the term "Best Management Practices" within the Forest Practice Rules. Secondly, the Forest Practice Rules apply to commercial harvesting operations involving commercial species on designated timberlands and therefore would not be applicable in this situation. While the applicant can use the rules as examples of good practices there is no jurisdiction under the Forest Practices Act.

4

Pg. 302 - First bulleted paragraph. Here and in several other locations the EIR uses the term "root sprouting". Eucalyptus do not commonly root sprout. I believe the author means "stump sprouting".

5

Pg. 302 - Second bulleted paragraph. This mitigation of maintaining a range of stem diameters is not a fire /safety issue and should be under a different heading (Biological Resources). Additionally this mitigation may conflict with the second following paragraph which calls for managing the eucalyptus to prevent the formation of vertical fuels.

6

Pg. 302 - Fourth bulleted paragraph. "All eucalyptus groves shall have a fuel loading of less than 2 tons per acre...". How is this to be monitored and enforced? There is no requirement under the PRC.

7

Pg. 302 - Fifth bulleted paragraph. "Trees comprising the sensitive monarch overwintering and buffer zone..." This is not a Fire/Safety mitigation and belongs under the Biological Resources chapter.

8

Vegetation Management Plan (Appendix F)

Management of Eucalyptus Stands

9

Pg. 1 -

1. The Forest Practices Act is not applicable to the lands or species addressed by this EIR.
2. The term "root sprouting" should be replaced with "stump sprouting".

Pg. 2 -

3. This paragraph encouraging a wide range of size classes conflicts with paragraph #5 which calls for preventing vertical fuel ladders.

Management of Coastal Sage Scrub

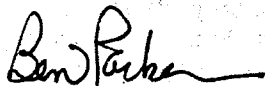
Pg. 3 -

3. This paragraph encourages establishing a buffer between developed areas and "scrub areas". The prescribed buffer would include plants that are highly flammable during fire season because of their open growth habits and dry dormancy. If these buffers are maintained in the final project there will be need to maintain a non-flammable of at least thirty (30) feet between the buffer and any buildings.

10

Additionally , the Vegetation Management Plan should be expanded to recognize that this project will possibly create additional fuel hazards in the form of managed landscaping adjacent to structures and in managed open space areas. These fuels will likely mature into a hazardous condition. We recommend requiring using low volume , fire resistant species in landscaping. Additionally, the use of fire resistant landscaping zones is recommended (See sample attached).

11



Ben Parker, Forester
CDF, SLU



TREE NOTES

CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION

Pete Wilson
Governor
State of California

Richard A. Wilson
Director

Douglas Wheeler
Secretary for Resources
The Resources Agency



NUMBER: 17

JANUARY 1993

Fire Safe Landscaping

Jeanette Needham

CDF Resource Management, 776 S. State St., Suite 107, Ukiah, CA 95482

Fire Risk in California

Wildfire is a continual threat to many homeowners in California. Fire severity can be largely attributed to California's mediterranean climate, vegetation composition, and varied topography. Population growth and development within wildland areas have been substantial and continue to increase. Developed rural areas, with individual homes or housing tracts, are referred to collectively as the urban/wildland intermix. Homeowners must accept the risks of living within this intermix and take the appropriate measures to protect their homes, property, and surrounding natural resources from devastating wildland fires.

Judicious landscape planning can help to save homes and property in a wildfire. The purpose of this *Tree Note* is to provide the homeowner with information on fire safe landscaping which includes appropriate plant selection, spacing and maintenance.

The Greenbelt

Wildfire damage to homes can be dramatically reduced by taking steps to protect the home and the area immediately surrounding it. In developing a fire safe house, it is especially important to establish and maintain a greenbelt around the structure. A greenbelt is an area of irrigated landscaping consisting of fire retardant vegetation. It is a buffer zone between homes, or a group of homes, and the surrounding native vegetation which slows or stops the advancement of ground fires.

To firefighters, a greenbelt serves as a "defensible space". Research has shown that vegetation clearance can substantially increase structure survival in a wildfire. Provisions under Section 4291 of the Public Resources Code require a "clearance of flammable vegetation for a minimum distance of 30 to 100 feet around any structure located in a fire hazardous area". On hillsides, a clearance of up to 200 feet should be maintained because of greater slope exposure to convective and radiant heat. The 30 foot area immediately surrounding a home serves as a fire break and should be maintained with low-growing plants, preferably combined with other features such as concrete pathways, border plantings or rock gardens to provide additional protection.

While serving as an integral part in structure protection, the greenbelt can also be aesthetically pleasing. Greenbelts should be established in late winter or early spring to take advantage of high soil moisture from winter rains. This allows for more rapid root establishment and less summer watering. Drip irrigation works best to establish fire safe landscapes.

Irrigated landscapes do not tend to burn or carry fire as readily as unirrigated ones, since higher plant moisture is maintained. However, if leaf litter and other fuels are allowed to accumulate in irrigated areas, the fire hazard increases. Horticultural practices are an additive process; thus keeping the greenbelt irrigated helps to reduce fire hazard, but is far more effective when coupled with practices such as appropriate species selection, pruning out dead branches from shrubs and trees, clearing leaf litter from the ground, and pruning lower branches to increase clearance above the ground.

Fire hazard reduction can also be accomplished by removing or thinning out native vegetation, especially those with fine, dry fuels and litter such as chamise, sugar bush, and California sagebrush. Other natives such as ceanothus, toyon and manzanita are a desirable form of landscaping which can be retained, but should also be kept widely spaced from one another and properly maintained by thinning and pruning out dead branches. Favor sprouting plants when selecting native vegetation to retain. Resprouting ability and deep rooting are important plant characteristics which will help to maintain slope stability after a fire. Burned plants without the ability to resprout and with roots insulated by soil can offer some landslide protection until those roots eventually decompose. Choose landscape plants for fire retardance, drought tolerance, and erosion protection. The Public Resources Code allows single specimen trees to be retained within the greenbelt provided they are properly maintained. Prune back at least 10 feet from a chimney or stovepipe and 20 feet away from other tree canopies. Prune tree limbs a minimum of 6 to 10 feet above the ground but no greater than 1/3 of the tree's height. Shrubs will produce flames four times their height. Therefore, shrubs should not be planted below trees, unless there is adequate clearance to prevent the "ladder fuel" effect which can carry fire from shrubs up into the tree's canopy.

Pyrophytic Plant Characteristics

It is important to note that all plants burn during extreme fire weather conditions such as low relative humidity, high temperatures, and strong winds. This is when other factors that can be controlled, such as fuel load (amount of live and dead material) and vegetation location and placement become critical.

Periodic fires have been closely linked to ecosystem evolution of plant communities in California and are important in their successional cycle. Fire dependent communities are even-aged and spaced to create a continuous body of fuel.

Plants within these communities, called pyrophytes (literally, a flammable plant), have adapted to the presence of fire over time. Pyrophytes have developed physical, chemical and physiological characteristics to maximize their flammability and ensure successful regeneration after a fire. Specific pyrophytic characteristics include: a high proportion of chemical extractives, e.g. resins, oils, terpenes, waxes; multiple stems (for large surface area per unit of woody volume); rapid accumulation of dead wood and debris; crown sprouting; rapid seed dispersal in burned-over areas; heat-induced germination of hard-coated seeds; and closed cones that open during periods of intense heat.

Fire retardant plant species are less flammable than other species having the same volume of fuel. Inherent characteristics related to oil and mineral content of foliage, percent fuel moisture and fine fuel content determine fire retardance of plants. Chamise, *Adenostoma fasciculatum*, is not fire retardant since it has a high oil content, fine fuel and low ash characteristics. Two important features that determine how readily a plant will burn depend on fuel moisture and the amount of dead fuel present. The homeowner has the ability to control both features to a certain extent.

Minimizing Fire Risk with Landscape Vegetation: The Zone Approach

Reduced fuel volume is key to providing fire safety within the greenbelt. Santa Barbara City Fire Department officials have developed a fire safe landscaping approach which incorporates fuel reduction and appropriate plant selection, placement and maintenance in four distinct plant zones which concentrically surround a home. Zones one and two occupy the greenbelt within 30 feet of the home. Zones three and four correspond to the 30 foot to 100 foot area requiring fuel modification to produce a fire break.

Zone four, the outermost zone, maintains existing native vegetation which has been thinned to reduce fuel loading. This serves as a transition area between the greenbelt and the native vegetation. Proper thinning and spacing is important in this zone. Crown thinning is a form of pruning which removes lateral branches at the base from which they originate. This method opens up a plant but maintains its natural form. It should be

done every 3-5 years. Shrub spacing should be approximately five times the plant's height. Ideally, trees should be spaced approximately 20-40 feet apart to help reduce lateral spread of fire. Typical plants in this zone include manzanita, coffee berry, ceanothus, coast siltkassel and coast live oak.

Zone three provides added protection with lower fuel volume than zone four to hinder fire flow using shrubs and perennials. Plants in this zone should have low growth habit. Examples include yarrow, artemisia, dwarf coyote brush, and penstemon. Although plants within this zone are drought tolerant, periodic irrigation further reduces flammability. Zones three and four fall between the 30 ft to 100 ft area around the structure.

Zone two consists primarily of fire retardant groundcovers and fleshy succulents. This area is designed to provide maximum fire protection. Irrigation and maintenance play an integral part in keeping this an effective protection zone. Plants in this zone may include wild strawberry and dwarf oleander.

Zone one is closest to the structure. It can be more garden-like, a place for innovative design. Irrigation, proper pruning and heavy plant litter removal are essential. Organic mulch, such as fir or redwood bark applied in a thin layer, can be used under and around plants to retain soil moisture, improve soil condition and reduce invasive weeds. Plants may include dwarf lily-of-the-nile, fortnight lily, star jasmine and red hot poker. Rock gardens, ideal in zones one and two, can transform these areas into an alpine-like landscape using very small shrubs and succulents. Gravel, stone or concrete walkways around the structure, having widths three to five times the height of the adjacent plantings, serve as additional barrier protection. Zones one and two fall within the 30 ft area of the structure.

A Note About Trees and Their Flammability

Limited information is available on flammability of specific trees. Species such as blue gum and manna gum eucalyptus, acacias, junipers and pines are noted for their extreme flammability. This is due, in part, to shedding bark, fine fuels and/or volatile resins within the leaves and wood. These species are not recommended for planting in areas of high fire danger. Existing highly flammable tree species within 30 feet of the home should be removed. Ideally, proper horticultural practices and maintenance of trees, e.g. spacing and above-ground clearance, can serve to minimize fire hazard.

Defensible Space Law

The Public Resources Code Section 4291 was enacted to prevent fire originating in or around structures from spreading into wildland or forested areas, and to minimize the chances of forest fires from entering populated areas, destroying property, and endangering human life.

LATIN	COMMON	ZONE
<i>Tulbaghia violacea</i> 'Silver Lace'	Society Garlic	2
<i>Yucca whipplei</i>	Yucca	2/3
<i>Achillea millefolium</i>	Yarrow	3
<i>Achillea taygetea</i> 'Moonshine'	Yarrow	3
<i>Achillea tomentosa</i>	Woolly Yarrow	3
<i>Achillea millefolium</i> 'Red Beauty'	Red Yarrow	3
<i>Achillea millefolium</i> 'Cerise Queen'	Pink Yarrow	3
<i>Arctostaphylos edmundsii</i> 'Carmel Sur'	Manzanita	3
<i>Arctostaphylos</i> 'Emerald Carpet'	Manzanita	3
<i>Arctostaphylos</i> 'Woods Red'	Manzanita	3
<i>Artemisia</i> 'Canyon Gray'	Silver Wormwood	3
<i>Artemisia pycnocephala</i>	No common name	3
<i>Baccharis pilularis</i> 'Twin Peaks'	Dwarf Coyote Brush	3
<i>Centaurea gymnocarpa</i>	Dusty Miller	3
<i>Centranthus ruber</i>	Red Valerian	3
<i>Centranthus ruber</i> 'Albus'	White Valerian	3
<i>Cheiranthus sp.</i>	Wallflower	3
<i>Cistus</i> 'Sunset'	Rockrose	3
<i>Cistus hybridus</i>	White Rockrose	3
<i>Cistus ladanifer</i>	Crimson Spot Rockrose	3
<i>Cistus salviifolius</i>	Sageleaf Rockrose	3
<i>Cistus purpureus</i>	Orchid Rockrose	3
<i>Coreopsis lanceolata</i> 'Sun Ray'	Coreopsis	3
<i>Cotoneaster salicifolius</i> 'Repens'	Willowleaf Cotoneaster	3
<i>Cotoneaster dammerii</i>	Bearberry Cotoneaster	3
<i>Mimulus puniceus</i>	Red Monkey Flower	3
<i>Mimulus longiflorus</i>	Monkey Flower	3
<i>Elymus condensatus</i> 'Canyon Prince'	No common name	3
<i>Eriogonum crocatum</i>	Coastal Wild Gum	3
<i>Eriogonum grandis rubesens</i>	Island Buckwheat	3
<i>Eriophyllum nevinii</i>	Dusty Miller	3
<i>Eschscholzia californica</i>	California Poppy	3
<i>Galvesia speciosa</i>	Island Bush Snapdragon	3
<i>Gaura lindheimerii</i>	Gaura	3
<i>Gazania leucoleana</i> hybrids	Trailing Yellow Gazania	3
<i>Geranium incanum</i>	Stork's Bill Geranium	3
<i>Geranium sanguineum</i>	Geranium	3
<i>Plecostachys serpyllifolia</i>	Curry Plant	3
<i>Helictotrichon sempervirens</i>	Blue Oat Grass	3
<i>Iris</i> 'Pacific Coast Hybrids'	California Iris	3
<i>Koeleria glauca</i>	Blue Hair Grass	3
<i>Lantana montevidensis</i> (sellowiana)	Lantana	3
<i>Lavandula dentata</i>	French Lavender	3
<i>Lavandula stoechas</i>	Spanish Lavender	3
<i>Limonium perezii</i>	Statice	3
<i>Linaria maroccana</i>	Toad-Flax	3
<i>Oenothera berlandieri</i>	Mexican evening Primrose	3
<i>Penstemon</i> 'Midnight'	Beard Tongue	3
<i>Penstemon heterophyllus</i>	Penstemon	3
<i>Penstemon</i> 'Firebird'	Red Penstemon	3
<i>Penstemon</i> 'Skylark'	Penstemon	3
<i>Perovskia atriplicifolia</i>	Russian Sage	3
<i>Rhagodia spinescens deltophylla</i>	Rhagodia	3
<i>Rosmarinus officinalis</i> 'Prostrata'	Rosemary	3
<i>Salvia aurea</i>	Sage	3

LATIN	COMMON	ZONE
<i>Salvia chamaedryoides</i>	Sage	3
<i>Salvia</i> 'Allen Chickering'	Sage	3
<i>Salvia leucantha</i>	Mexican Bush Sage	3
<i>Salvia leucophylla</i>	Purple Sage	3
<i>Salvia</i> 'Dara's Choice'	Sage	3
<i>Santolina chamaecyparissus</i>	Grey Lavender Cotton	3
<i>Santolina virens</i>	Green Lavender Cotton	3
<i>Senecio</i> 'Vira-Vira'	Dusty Miller	3
<i>Silene maritima</i>	No common name	3
<i>Silene Californica</i>	California Indian Pink	3
<i>Sisyrinchium bellum</i>	Blue-eyed Grass	3
<i>Sisyrinchium californicum</i>	Yellow-Eyed Grass	3
<i>Stacys byzantina</i>	Lamb's Ears	3
<i>Trichostema lanatum</i>	Woody Blue Curly	3
<i>Alnus rhombifolia</i>	White Alder	4
<i>Arctostaphylos</i> 'Dr. Hurd'	Manzanita	4
<i>Arctostaphylos</i> 'Sunset'	Manzanita	4
<i>Carpobrotus edulis</i>	Iceplant, Sea Fig	4
<i>Cercocarpus betuloides</i>	Mtn. Mahogany	4
<i>Ceanothus gloriosus</i> 'Anchor Bay'	Mountain Lilac	4
<i>Ceanothus</i> 'Frosty Blue'	Mountain Lilac	4
<i>Ceanothus</i> 'Joyce Coulter'	Mountain Lilac	4
<i>Ceanothus</i> 'Ray Hartman'	Mountain Lilac	4
<i>Ceanothus</i> 'Snow Flurry'	Mountain Lilac	4
<i>Ceanothus</i> 'Wheeler Canyon'	Mountain Lilac	4
<i>Ceanothus</i> 'Yankee Point'	Mountain Lilac	4
<i>Ceanothus</i> 'Point Reyes'	Mountain Lilac	4
<i>Ceanothus griseus horizontalis</i>	Mountain Lilac	4
<i>Garrya elliptica</i> 'Evie'	Coast Silktassel	4
<i>Heteromeles arbutifolia</i>	Toyon	4
<i>Heuchera maxima</i>	Coral Bells	3/4
<i>Prunus lyonii</i>	Catalina Cherry	4
<i>Rhamnus californica</i> 'Eve Case'	Coffee Berry	4
<i>Rhamnus crocea</i>	Redberry	4
<i>Romneya coulteri</i>	Matilija Poppy	4

Gherby Sanborn: Editor, Design and Layout
CDF Resource Management (707) 576-2275 Ext. 367

Important points contained in PRC 4291 pertaining to vegetation include:

- » Fuel removal - maintenance of a firebreak not less than 30 feet on each side of a structure or to the property line, whichever is nearer, by removing flammable vegetation or combustible growth. This does not apply to single specimen trees, ornamental shrubbery or similar plants used as ground cover, if they do not form a means of rapid transmission of fire from native vegetation to any building or structure.
- » Fuel modification - maintenance of additional fire protection by removing flammable vegetation, or combustible growth located from 30-100 feet from such building or structure or to the property line.
- » Remove that portion of any tree which extends within 10 feet of the outlet of any chimney or stovepipe.
- » Prune dead branches from any tree adjacent to or overhanging any building.
- » Remove leaves, needles, or other dead vegetative growth from the roof of any structure.

It is important to adhere to laws regarding vegetation around structures and to combine innovative techniques, such as establishing vegetation zones, to enhance this area. The California Department of Forestry and Fire Protection can provide advice and educational materials to the homeowner to help reduce hazards within and around the home.

The following is a partial list of plants that can be planted within each of the four zones around a structure. This plant list is a compilation of observations and research. More research on fire retardant vegetation needs to be conducted to produce a definitive list. Sunset's new Western Garden Book is an excellent source for specific plant descriptions.

LATIN	COMMON	ZONE
<i>Agapanthus orientalis blue</i>	Lily of the Nile	1
<i>Agapanthus 'Peter Pan'</i>	Dwarf Lily of the Nile	1
<i>Armeria alliacea</i>	Sea Pink	1
<i>Armeria maritima</i>	Sea Pink	1
<i>Armeria pseudoarmeria (formosana)</i>	Sea Pink	1
<i>Diets 'Lemon Drop'</i>	Fortnight Lily	1/2
<i>Diets bicolor</i>	Yellow Wild Iris	1/2
<i>Diets vegeta</i>	White Fortnight Lily	1/2
<i>Erigeron 'Moerheimii'</i>	Fleabane	1
<i>Erigeron karvinskianus</i>	Santa Barbara Daisy	1
<i>Feijoa sellowiana</i>	Pineapple Guava	1
<i>Festuca rubra 'Creeping Red'</i>	Red Fescue	1
<i>Gazania 'Mitsuwa Orange'</i>	Orange Gazania	1/2
<i>Gazania 'Mitsuwa Yellow'</i>	Yellow Gazania	1/2
<i>Hemerocallis (assorted)</i>	Day Lily	1
<i>Minium parkeri</i>	Dwarf Jasmine	1
<i>Phofia uvaria</i>	Red Hot Poker	1
<i>Nerine masonorum</i>	Nerine	1
<i>Punica granatum 'Nana'</i>	Dwarf Pomegranate	1
<i>Pyracantha 'Santa Cruz'</i>	Pyracantha	1

LATIN	COMMON	ZONE
<i>Quercus agrifolia</i>	Coast Live Oak	All
<i>Trachelospermum jasminoides</i>	Star Jasmine	1
<i>Aeonium arboreum 'Atropurpureum'</i>	Aeonium	2
<i>Aeonium undulatum</i>	Saucer Plant	2
<i>Agave americana 'Alba Picta'</i>	Century Plant	2
<i>Agave attenuata 'Nova'</i>	Blue Agave	2
<i>Aloe arborescens</i>	Tree Aloe	2
<i>Aloe 'Johnson's Hybrid'</i>	No common name	2
<i>Aloe nobilis</i>	Aloe	2
<i>Aloe striata</i>	Coral Aloe	2
<i>Aloe vera</i>	Medicinal Aloe	2
<i>Aloe x spinosissima</i>	Spider Aloe	2
<i>Arbutus unedo</i>	Strawberry Tree	2
<i>Arctotheca calendula</i>	Capeweed	2
<i>Bulbine caulescens</i>	Bulbine	2
<i>Bulbine 'Hallmark'</i>	Bulbine	2
<i>Carissa macrocarpa 'Tuttle'</i>	Natal Plum	2
<i>Cercis occidentalis</i>	Western Redbud	2
<i>Coprosma kirkii 'Verde Vista'</i>	Prostrate Mirror Plant	2
<i>Cotyledon barbenyii</i>	No common name	2
<i>Cotyledon macrantha</i>	No common name	2
<i>Cotyledon orbiculata</i>	No common name	2
<i>Crassula arborescens</i>	Silver Jade Plant	2
<i>Crassula argentea 'Pink Beauty'</i>	Pink Jade Plant	2
<i>Crassula lactea 'Taylor's Patch'</i>	Crassula	2
<i>Crassula multicava</i>	Crassula	2
<i>Drosanthemum floribundum rosea</i>	Rosea Ice plant	2
<i>Drosanthemum hispidum</i>	Ice plant	2
<i>Duchesnea indica</i>	Mock Strawberry	2
<i>Dymondia margaritae</i>	No common name	2
<i>Echeveria 'Blue Wave'</i>	Echeveria	2
<i>Echeveria 'Pinkie'</i>	Echeveria	2
<i>Fragaria chiloensis</i>	Wild Strawberry	2
<i>Hesperaloe parviflora</i>	Red Yucca	2
<i>Kalanchoe pumila</i>	Kalanchoe	2
<i>Lampranthus aurantiacus</i>	Bush Gold	2
<i>Lampranthus spectabilis rosea</i>	Trailing Ice Plant	2
<i>Myoporum parvifolium 'Prostrate'</i>	Myoporum	2
<i>Nerium oleander 'Mrs. Roeding'</i>	Dwarf Pink Oleander	2
<i>Nerium oleander 'Petite Salmon'</i>	Dwarf Salmon Oleander	2
<i>Pelargonium peltatum</i>	Ivy Geranium	2
<i>Phormium tenax 'Maori Maiden'</i>	New Zealand Flax	2
<i>Phormium tenax 'Maori Queen'</i>	New Zealand Flax	2
<i>Phormium tenax 'Maori Sunset'</i>	New Zealand Flax	2
<i>Pittosporum crossifolium 'compacta'</i>	Dwarf Karo	2
<i>Pittosporum tobira 'Wheeler's Dwarf'</i>	Mock Orange	2
<i>Ribes viburnifolium</i>	Evergreen Currant	2
<i>Scaevola 'Mauve Clusters'</i>	Fan Flower	2
<i>Schinus molle</i>	California Pepper	2
<i>Sedum brevifolium</i>	Stonecrop	2
<i>Sedum rosea</i>	Rose Root	2
<i>Sedum spathulifolium 'Purpureum'</i>	Stonecrop	2
<i>Senecio cineraria</i>	Dusty Miller	2
<i>Senecio kleinia 'Mandaliscae'</i>	No common name	2
<i>Thevetia peruviana</i>	Yellow Oleander	2

FIRE SAFE

Landscaping

Wildfires threaten lives and cause millions of dollars of destruction in California each year. Although all Californians face the risk of wildfire, you can take preventive steps to protect yourself and your property against this destructive force of nature.

The most effective way to protect your home is to create a fire safe landscape with fire-resistant plants that are arranged in a way to resist the spread of fire from the area surrounding your home to your house. This arrangement creates a "defensible space" in which firefighters can take a stand to protect your home when a wildfire strikes.

You do not need a lot of money or a large plot of land to create a fire safe landscape. And you will find that a fire safe landscape also can conserve water, beautify your home and increase your property value. Proper planning and routine maintenance are the keys to creating a landscape that is most effective.



PLANNING

To plan a fire safe landscape, you first must assess how much your home is at risk. Consider the following:

- Allow for a greater area of defensible space around your home if it is situated on an incline, because fire spreads most quickly uphill.
- Remove highly flammable native vegetation or drought-damaged ornamental plants surrounding your home. Juniper, cypress, eucalyptus and acacia, in particular, are dangerous because they can become explosive in the event of wildfire.
- Install fire-resistant, drought-tolerant ground covers that have high moisture contents and do not accumulate dead leaves or twigs.
- Keep your existing lawn well watered to serve as a greenbelt.
- Contact your local fire department or city planner's office to determine the fire hazard rating of your neighborhood.



SPACING

The purpose of spacing plants and plant groups is to eliminate the risk of a "fire ladder" or continuous sequence of vegetation that carries flames from the edge of your property to your house. Grouping together plants of similar height and with similar water needs creates a "landscape mosaic" that can slow the spread of fire and use water most efficiently.

The following recommendations also apply to landscape mosaics:

- Make sure that plants immediately surrounding your house are planted six feet apart. The plants should be no more than 18 inches high and 24 inches wide.
- Space trees to eliminate a solid canopy in which the leaves of one tree touch the leaves of an adjoining tree, making it easy for fire to spread.
- Consider using masonry or stone walls to separate plant groups and add variety to your landscape.



WATERING

Choosing the right irrigation system will keep a fire safe landscape healthy and maintain its fire resistance. While all plants will eventually burn, healthy plants burn less quickly. Insufficient watering also promotes dead or dying plants that cannot resist fire.

One of the most efficient ways to water is to use drip irrigation. This type of system directs an even, controllable flow of water using localized emitters at the base of each plant. Because, the emitters specifically target where water goes, no water is wasted.

In addition to conserving water, drip irrigation is flexible and easy to use. Emitters can be plugged into tubing that channels water to all the plant groups in your landscape. Some hardware and garden centers even offer pre-packaged kits to simplify installation.

For watering needs in turf landscaping, sprinklers should be used instead of drip irrigation. Depending on your needs, pop-up or overhead sprinklers can be spaced evenly apart and set on timers for the most efficient use.

Once a fire safe landscape has been installed, you can work with your neighbors to create a fire safe community. Because wildfire does not respect property boundaries, creating a fire safe community is your very best defense against wildfire.

Contact your local fire department for additional information on greenbelts, urban forestry programs and creating fire safe communities.



MAINTENANCE

A fire safe landscape must be kept clean and healthy to retain its effectiveness and beauty. At regular intervals, you should perform the following:

- Remove dead branches, leaves and pine needles from your landscape. This litter serves as added fuel during a fire, and may burn long enough and hot enough to cause living plants to ignite.
- Prune and thin trees, shrubs and other vegetation to minimize the fuel load.
- Be diligent about cleaning up plant litter and pruning dead branches from shrubs and trees, especially during fire season.

If you hire a gardener or landscaper to care for your property, ask him or her to include these maintenance steps as part of your routine service.

Fire Safe,  California!

*California Department of Forestry and Fire Protection
1416 Ninth Street, Sacramento, California 95814
P.O. Box 944246, Sacramento, California 94244-2460
916/654-5412*

Letter J: Fire Department, Ben Parker, Forester, letter dated April 23, 1998.

Comment
Number

Response

1. Comment noted. See responses below.
2. Page 293, Section 4.7.1, Fire/Life Safety Protection, references to the "California Department of Forestry" are changed to the "California Department of Forestry and Fire Protection."
3. As indicated on page 300, paragraph 1, implementation of the Vegetation Management Plan would manage the existing eucalyptus stands. Regular clearing of tree understory must conform to CDF/SLO Fire Department requirements. The commentor is referred to the project's Mitigation Monitoring Program. The County Building Department and the Fire Department would be responsible for reviewing the plan for Mitigation Measure 4.7.1d. The Fire Department in conjunction with the Planning Department would also be responsible for review of the Vegetation Management Plan. An Environmental Monitor would monitor individual measures. See Response to Comment #6 below.

The following Mitigation Measure is added to page 287:

Mitigation Measure 4.6-1d: Landscaping shall be planted in conformance with the Fire Safety Plan to provide additional screening of structures.

As indicated on, page 300, paragraph 3, prior to the finalization of any permits, a Fire Safety Plan must be reviewed and approved by the CDF/SLO County Fire Department.

4. The Z'berg-Nejedly Forest Practices Act (FPA) of 1973 regulates timber harvest and related practices on all private, state, county, and city forestlands in California. The act authorizes the California Board of Forestry to adopt rules and regulations. The term "best management practice" is not specifically used in these rules. In this context, the term is intended to mean those forest practices which effectively reduce impacts to watershed, soil productivity, biological, recreational, visual, traffic, and other resource value. The commentor is correct in stating that the rules were developed for, and have technical jurisdiction over, commercial timber harvest.
5. The commentor is correct. Page 302, first bulleted paragraph, the term should be "stump sprouting" and the text is revised accordingly.
6. Comment noted.
7. The commentor is referred to the project's Mitigation Monitoring Program. The County would be responsible for review initially of the overall plan and data as submitted by the Environmental Monitor. The applicant, or property owner

association, in the interest of maintaining a high quality development, would maintain these eucalyptus groves in the long-term.

8. The referenced text is not simply a fire/safety plan but involves broader issues of vegetation management for resource protection. Where a biological issue is mentioned within this plan (e.g., monarch butterfly) it is also mentioned in the biological resources chapter. Keeping all of these concerns in both sections reduces the opportunity for management conflict. Neither section should be restricted, as fire control concerns inevitably determine some aspects of wildlife habitat.
9. See response to comments 4 and 5 above. Strictly speaking, the Forest Practices Act is not applicable to the site. However, the general provisions of this Act work well to preserve wildlife and vegetation (e.g. contribute to habitat diversity. and/or, habitat connectivity) and is therefore proposed to be used for this project.
10. The non-flammable area of at least thirty (30) feet between developed and natural (or buffer) areas is added to the revised text. Guidelines for this area are as follows:
 - Modify or plant vegetation cover between wildlands and the house so it is not continuous.
 - Use ground covers that are low-growing, herbaceous perennials, which retain more moisture than grass.
 - Use stone, gravel, concrete, rocks, and other non-flammable materials for walls, walkways, driveways, borders, and other landscape features.
 - Do not use wood chip mulch, or a wooden walkway or fence.
 - Remove tall trees or shrubs that could drop debris on the roof or in gutters.
 - Remove all dead trees, brush, and tall, dry grass.
 - Keep vegetation well-watered and appropriately pruned and mowed.
11. For all landscaping, the text is revised as per the commentor's direction to recommend the use of fire-resistant species such as lilac (dwarf varieties), rose, chokecherry, apple (crab and full size), birch, mountain aspen. These plants are not "invasive," and would not spread or threaten stands of native vegetation. These species should be added to the Specific Plan list of plants to use for landscaping.

San Luis Obispo County Integrated Waste Management Authority

IWMA BOARD MEMBERS

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County of San Luis Obispo

Dave Romero - Vice President,
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Recycling, Compost & Haz.
Waste Info. 800/400-0811
School Programs Information
805/782-8424

April 8, 1998

John McKenzie, Environmental Division
County Planning & Building Dept.
County Government Center, Room 310
San Luis Obispo, CA 93408

Subject: Woodlands Specific Plan

Dear Mr. McKenzie:

Thank you for the opportunity to review the Draft EIR for the Woodlands Specific Plan. Please note that San Luis Obispo County has adopted a Source Reduction and a Recycling Element and Household Hazardous Waste Element. These Elements have also been approved by the California Integrated Waste Management Board. Please ensure that this project is consistent with those adopted Elements.

AB 939 requires all jurisdictions to divert 50 percent of its waste by the year 2000. To achieve this goal, the County must reduce its waste disposal rate to about 2.3 pounds per day. The proposed project has a waste generation rate of:

residential	- 3.8 lbs/day
Commercial	- 1.1 lbs/day
Open/Recreational	- 5.6 lbs/day
TOTAL	- 10.5 LBS/DAY

To reach the County disposal rate of 2.3 lbs/day this project must implement comprehensive recycling programs. This program must divert more than 75 percent of the waste generated to meet the overall County diversion goal.

98 APR 9 PM 3 28

DEPT
BUILDING

1

Mr. John McKenzie
April 8, 1998
Page 2

Residential

All residents should participate in a curbside recycling program for greenwaste, recyclables and used motor oil. Mitigation Measure 4.7-6b should describe the programs. The service should be included in the garbage bill and provided on a weekly basis. In addition the San Luis Obispo County Integrated Waste Management Authority will provide a school based education program. | 2

Commercial

All commercial uses should participate in a curbside recycling program for greenwaste and recyclables. The programs will vary depending on the nature of the commercial activity. Mitigation Measure 4.7-6b should describe the programs. The service should be included in the garbage bill and provided on a weekly basis | 3

Open/Recreational (Greenwaste)

Mitigation Measure 4.7-6a only requires that 50 percent of the greenwaste be composted. That would still leave 2.8 lbs/day of greenwaste for disposal. Even if the project could reduce the residential and commercial waste to zero, this project exceeds the County limit of 2.3 lbs/day. Thus Mitigation Measure 4.7-6a must be increase to 100 percent of the greenwaste is composted. In addition the Project should be required to use any compost which it generates. | 4

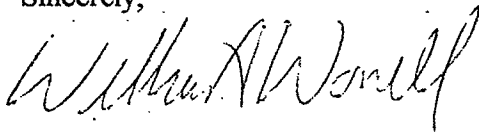
Green Construction

When possible the development should follow green construction practices. For example, the County's Dairy Creek Golf Course uses plastic lumber (made from recycled plastic) for its signs and benches. This practice will help ensure that the material collected by the recycling programs will have users willing to purchase it. | 5

Finally one minor correction for you. Mitigation Measure 4.7-6b should use the correct name, the San Luis Obispo County Integrated Waste Management Authority. | 6

I look forward to your revised Draft EIR.

Sincerely,



William A. Worrell, P.E.

Letter K: Integrated Waste Management Authority, William A. Worrell P.E., letter dated April 8, 1998.

Comment
Number

Response

1. Comment noted. See response to Letter G, comment 6 and 7 regarding the revised Mitigation Measures to manage waste generated as result of the project in order to reduce solid waste disposal rates.
2. Page 335, paragraph 6, Mitigation Measure 4.7-6b states that the recycling plan shall apply to all land uses. The contents of the plan would require the coordination between the County Engineering Department, the County Integrated Waste Management Agency and the garbage/recycling company servicing the site. Also, see response to Letter G, comment 6 and 7.
3. See response to Letter G, comment 6 and 7.
4. See also response to Letter G, comment 6. Mitigation measure 4.7-6a, the requirement for the compost management plan to handle "50 percent" of green waste is changed to "100 percent." The following is add to the end of Mitigation Measure 4.7-6a:

"The project shall use all compost generated on-site."
5. See response to Letter G, comment 4.
6. Mitigation Measure 4.7-6b, "County Integrated Waste Management Agency" is changed to "San Luis Obispo Integrated Waste Management Authority."

RECEIVED

P A R K S

D I V I S I O N

MAY 0 8 1998

MEMO

S.L.O. COUNTY
PLANNING DEPT.

To: Jay Johnson, Planning
From: Jan Di Leo, Parks
Subject: Woodlands Specific Plan, Proposal to Delete the Twelve Acre Park Site
Date: May 8, 1998

It is my understanding the applicant is proposing the deletion of a twelve acre park proposed at the southwest corner of Camino Caballo/Viva Way intersection. County Parks Division notes the following:

1. The existing Nipomo Regional Park had 176,000 user days in 1995. This is currently the only developed park in the Nipomo area. Additional park land and facilities are need considering Nipomo has a population of roughly 10,000 persons. 1
2. The County's *Public Hearing Draft Park and Recreation Element* indicates the need for a West Nipomo Neighborhood/Community Park. It is noted this park should be developed with picnic areas, playground, turf, and multi-use fields. In addition, the 1988 *Parks and Recreation Master Plan* also identifies the need for a community/neighborhood park in the Nipomo area. Although this plan indicates the park should be on the east side of Highway 101, it is noted the location should be determined. This park is to have multi-use fields and courts. 2
3. The County's *Trails Plan* indicates there should be a trail along Viva Way and Camino Cabrillo. These trails would provide alternative access to a park in this area, consistent with the Trail's Plan and the County's Land Use Ordinance. 3
4. As noted in a memo from Pete Jenny, dated April 7, 1998, the project's EIR needs to address park and recreation facility impacts in the Public Services section. The EIR must address community/neighborhood and regional park needs. 4

Under the County's Quimby Ordinance, Parks Division has the ability to determine whether they wish to accept a dedication or require fees. Since acquisition is typically difficult, and there is an identified park need in the Nipomo area, Parks Division would prefer to see the project include as a dedication. Parks will also provide more detailed comments once the park issue is reviewed in the project's EIR. 5

If you have any questions please give me a call at extension 4089. THANKS.

cc: John McKenzie

Letter L: Parks Division, Jan Di Leo, letter dated May 8, 1998.

Comment
Number

Response

1. Comment noted. Under the Revised Project Alternative, the applicant has characterized the proposed park as optional. If the park site is eliminated, the Applicant would provide equivalent funds to the value of the land dedication to be used to improve the existing public recreational areas (e.g., Nipomo park located near the school). The recreation component of the project contains a wide range of features including pocket parks, a public golf course and a network of pedestrian, bicycle and equestrian trails.
2. Comment noted. See response to comment 1 above.
3. Comment noted. The public park site may be eliminated. The project includes an extensive network of pedestrian, bicycle and equestrian trail system that provide a north/south connection consistent with the County's Trails Plan and County's Land Use Ordinance.
4. Comment noted. See also responses to Letter F. Given the large amount of recreational activities and open space proposed on the site, as well as the applicants willingness to include a park (or pay an equivalent fee) in the project, no impacts on parks are anticipated.
5. Comment noted. See response to comment 1 above.



County of Santa Barbara Planning and Development

John Patton, Director

April 24, 1998

John McKenzie, Environmental Division
County Planning & Building Dept.
County Government Center, Rm 310
San Luis Obispo, CA 93408-2040

RE: Draft Woodlands Specific Plan Environmental Impact Report (EIR)

Dear Mr McKenzie:

Thank you for providing the Santa Barbara County Planning & Development Department (P&D) with the opportunity to review and comment on the above referenced EIR. We have reviewed the draft EIR and request that you address the following two issues.

1. Water Resources/Groundwater: As indicated in our March 29, 1995 response letter to your March 3, 1995 NOP, P&D disagrees with the analysis that no significant impacts will occur from the project on the Santa Maria Groundwater Basin. The identified flows out from the Santa Maria Groundwater Basin would have significant adverse impacts on both the groundwater basin and agriculture within the Santa Maria Valley. During the Orcutt Community Plan (OCP) adoption, Santa Barbara County cited this impact as Class II - significant but avoidable with mitigation. The required mitigation measure was that new development was to be served by new supplemental water supplies and not from continued pumpage of the groundwater basin. The final Woodlands EIR should be modified to identify this impact as a significant Class II with similar mitigation. 1

2. Regional Circulation: Although traffic and circulation impacts at the project level may not be significant, the recent OCP EIR identified cumulative impacts at the US 101 Santa Maria River Bridge overcrossing and proposed bridge widening and provisions for Class II bikelanes. The Woodlands EIR should provide for similar analysis and mitigation which would provide funds for bridge widening including provisions for Class II bikelanes (e.g., see attachment). 2

The final Woodlands EIR should include maps depicting linkages between Santa Barbara County and San Luis Obispo County bikeway systems. Also, Section 4.2.2.3.2 Alternative Modes of Transportation should require the project applicant to consult with the Santa Maria Area Transit (SMAT) to provide increased public transportation from northern Santa Barbara County to serve the project. 3

If you have any questions regarding these comments, please call me at (805) 568-3560.

Sincerely,

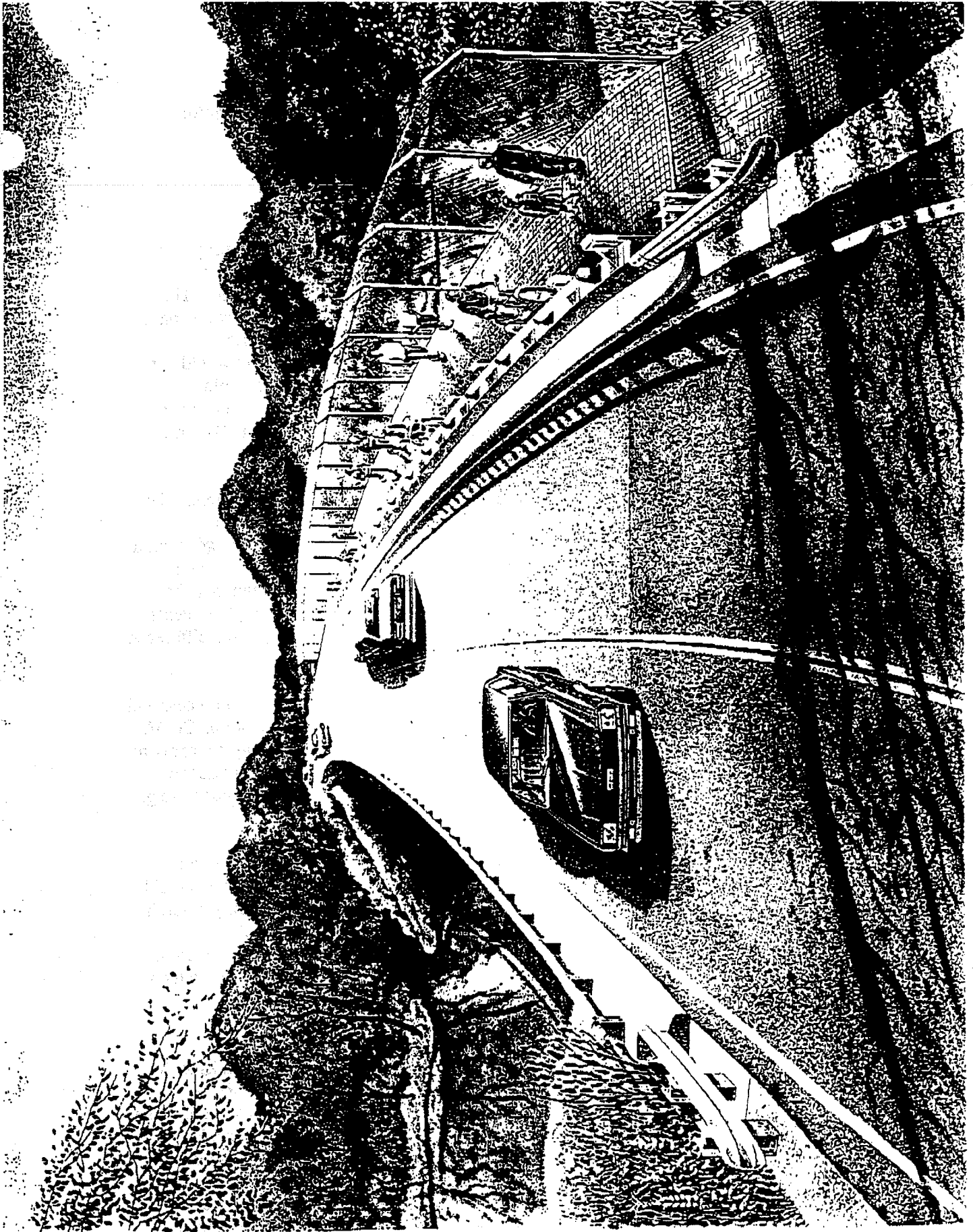


John Cuykendall, Planner
Comprehensive Planning Division

attachment: example of possible bikepath

cc: [Dan Gira, Deputy Director; Dev Vrat, Supervising Planner]

[Faint, mostly illegible text, likely the body of an email or letter]



Letter M: Planning & Development, John Cuykendall, Comprehensive Planning Division, letter dated April 24, 1998.

Comment
Number

Response

1.

The Woodlands project is a separate project from the Orcutt Community Plan, within another jurisdiction, and the basis for the determination of impact significance used different criteria than those used in the Orcutt project. The analysis of the project in this EIR used the Significance Criteria shown on pages 86-89 of the Draft EIR. The analysis concludes that the Santa Maria Groundwater Basin is not in a state of overdraft and that the project would not cause significant impacts on groundwater. The project, however, could contribute to cumulatively significant effects. San Luis Obispo County has not adopted specific thresholds for groundwater conditions as has Santa Barbara County.

The "rule of reason" standard is applied to judicial review of EIR contents. The courts do not hold an agency to a standard of absolute perfection, but rather requires only that an EIR show that an agency has made an objective, good-faith attempt at full disclosure. Section 15151 indicates, "[d]isagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the expert." In the case of the Woodlands EIR, where a differing opinion is presented this EIR acknowledges the difference and sets forth the reasons for the difference.

Because the adjudication of the Santa Maria Groundwater Basin is in process and could have numerous outcomes it is too speculative, for purposes of this CEQA analysis, to consider further as this adjudication process may or may not apply to future water rights of the proposed project. In any event, the project already includes numerous measures to conserve water and/or offset water impacts (e.g. toilet retrofit program).
2.

Project and cumulative impacts to the Santa Maria area are addressed in the traffic and circulation section of the EIR. Regional transportation issues should be addressed in a regional transportation document, such as the County's South County Traffic Study or the next update of San Luis Obispo Council of Governments Regional Transportation Plan (SLOCOG RTP). As identified in the SLOCOG RTP commuting bicyclists will travel up to 5 miles to get to their destination. The U.S. 101 Santa Maria Bridge is well beyond this 5 mile threshold and does not need to be considered further for this project.
3.

The Woodlands development incorporates a bikeway system which links to the local system. The on-site trails system is still being refined (see the Revised Project Alternative). The transit mitigation on page 146 is revised to incorporate this comment (also see response to Letter N, comment #9 from Michael Harmon, San Luis Obispo Council of Governments). However, the nexus of installing bike lanes beyond 5 miles from the project boundaries for the purpose of reducing traffic impacts is greatly diminished as a direct project impact or mitigation, and is most appropriately addressed in the previously-mentioned regional studies.

San Luis Obispo Council of Governments



Ronald L. DeCarli - Executive Director

Regional Transportation Planning Agency
Metropolitan Planning Organization
Congestion Management Agency
State Census Data Affiliate

Arroyo Grande
Atascadero
Grover Beach
Morro Bay
Paso Robles
Pismo Beach
San Luis Obispo
San Luis Obispo County

May 8, 1998

John McKenzie, Environmental Division
County Planning & Building Department
County Government Center, Rm. 310
San Luis Obispo, Ca 93408-2040

Subject: Woodlands Specific Plan - Environmental Impact Report (EIR)

Dear Mr. McKenzie,

I am writing to provide you with our agencies transportation related comments regarding the Draft EIR for the subject project. We agree with the conclusion of the EIR that implementation of the project will result in increased traffic on local roadways and will significantly impact several study area roadways and intersections. We generally agree with the proposed mitigation measures. There are a number of issues, however, we feel need further consideration, primarily the proposed phasing of various transportation system improvements, especially construction of the Willow Road interchange, and the provision of transit service.

Following are our specific comments on the transportation related sections of the EIR.

Page 61, Paragraph 4, Transit-Oriented Standards - We feel that the transit facilities proposed for the project does not adequately address the adopted transit standards. We recommend that the developer be required to establish a program to provide for phased implementation of transit service to the project site as it is built-out. This program should initially include provision of van type shuttle service to provide transportation to major regional destinations and connections with the regional transit system or South County Area Transit (SCAT) system. 1

Page 125, Paragraph 1, Project Access Improvements - We agree with the study that most of the traffic generated by the project will use roadways to the east of the site. In order to safely and efficiently handle this traffic, we recommend that the project entry points on Willow Road, Dawn Road and Viva Way should be improved with left and right turn channelization and merging lanes. In addition, left & right turn channelization should be provided at the entrances to the proposed business park at the northwest corner of the project on Willow Road. 2

Page 125, Paragraph 4, Off-site Improvements - We agree with the proposed paving of Albert Way, Via Concha Road, and Dawn Road. We recommend that consideration be given to the eventual installation of a traffic signal at the intersection of Willow Road and Via Concha Road. This is due to the likelihood that conflicting traffic will increase at this location with the completion of the recently approved extension of Black Lake Canyon Drive to connect with Via Concha. We are also concerned that the traffic expected to pass through the narrow residential streets in the neighborhoods at the east end of Eucalyptus Road, Mesa Road, and Camino Caballo may require selective widening. 3

Page 126, Paragraph 2, Willow Road Interchange - We are concerned that the extension of Willow Road to Route 101 and construction of an interchange may not begin until after Stage 1 is completed. We feel it is important for the road extension and interchange construction to move forward during the development of Stage 1 in order to be completed prior to its full build-out. 4

We recommend the project be conditioned such that, if Stage 1 is 75% built-out and the Willow Road extension and a full interchange is not fully funded, the project sponsor shall be required to advance the anticipated impact fees from the remainder of the full Woodlands project required to fund the extension and interchange, and provide any additional funds needed to complete the Willow Rd. project. Any funds provided by the developer in excess of those that would be collected as part of the Woodlands development would be reimbursed as they are collected from other development projects within the defined "zone of benefit" for the Willow Rd. extension and interchange.

Page 132, Paragraph 3, Trip Generation & Distribution - The study states that, for Stage 1 of the project, "based on nationally accepted travel demand statistics" approximately 42% of the trips generated by the project would be internal trips and the remaining 58% external. We have seen no data to validate this conclusion, and recommend that documentation be provided to verify it and the resulting calculation of traffic impact. 5

Page 135, Table 4.2-4, Internal vs External Traffic Distribution - We do not agree with the conclusion given in Table 4.2-4 that 25% of all trips generated by Stage 1 of the project will be internal trips. We have seen no data that validates this conclusion, and recommend that documentation be provided to verify it and the resulting calculation of traffic impact. 6

Page 137, Last Paragraph, Proposed Business Park - The study concludes that if the proposed business park component of the Specific Plan is not developed, there will be a 15% increase in commute traffic from the on-site housing units leaving the site, and that this would off-set traffic that would no longer travel to the site. We are concerned with the assumption that 25% of the employees in the business park will be residents of the Woodlands Project, as such high levels have not been experienced in other mixed use projects. We recommend that more analysis of this issue be included in the study. 7

Page 146: Middle of Page, Stage 1 Road Improvements - As noted earlier, road improvements required to be completed at the start of Stage 1 should include left & right turn lanes at the entrances to the project on Dawn Road, Viva Way, Willow Road at Via Concho, and at the entrances to the business park at the northwest corner of the project on Willow Road. In addition, further consideration should be given to installation of traffic signals at the intersection of Via Concha with Willow Road. This is due to the likelihood that conflicting traffic will increase at this location with the completion of the recently approved extension of Black Lake Canyon Drive between its western and eastern legs. 8

Page 146: Middle of Page, Alternative Modes of Transportation - Due to its size, the project is expected to be a major contributor to the need for increased transit service in the area. A basic form of service may be needed to serve not only the residents of the project, but also the non-resident employees of the businesses that are proposed to operate on site. We recommend the following: 9

1. The development should be required to establish a program for the phased implementation of transit service to the site. This program should include the initial provision of a van shuttle to provide transportation to major regional destinations and connections for the regional transit system or South County Area Transit (SCAT) system.
2. The development should also be required to conduct a study for the establishment of long term Transportation Demand Management (TDM) options to minimize reduce vehicle trips to the site, including, but not limited to formation of, or participation in, a Transportation Management Association (TMA).
3. As an offset to increased traffic generated by the development, the project sponsor should be required to fund a Park-and-Ride Lot in conjunction with the Willow Road interchange. This lot should be designed to meet the Express Bus Stop standards adopted by SLOCOG.

In conclusion, the transportation impacts of the Woodlands project need to be carefully considered to assure that appropriate mitigation measures are taken in a timely manner and that the conditions on existing roadways and neighborhoods on the Mesa are not adversely affected. The fact that the project site is located in an area that is relatively remote from Route 101, the surrounding road network almost entirely lacks the level of improvement to accommodate the traffic that will be generated, and the scale of the project represents a community with about 1/4th of the number of housing units within the entire City of Pismo Beach complicates the process. This situation creates a need to carry out a greater level of roadway and other transportation related improvements than might otherwise be necessary in other areas of the county - especially in regard to the extension of Willow Road and construction of an interchange.

It is therefore important for the project sponsor to cooperate with the County in such a way as to assure that Willow Road is extended to Route 101 and a full interchange constructed at the earliest practical date. In addition, provisions must be made to provide public transit service options and Transportation Demand Measures noted above. If you have any questions on this matter, please feel free to call me at 781-5724.

Sincerely,



Michael R. Harmon
Associate Transportation Planner

Letter N: San Luis Obispo Council of Governments, Michael R. Harmon, Associate Transportation Planner, letter dated May 8, 1998.

Comment
Number

Response

1. See response to Letter D, comment 20, where the additional requirement that the applicant impose any appropriate surcharge on property owners to pay for costs of expanding the South County Area Transit System. See also response comment 9 below.
2. Comment noted. Turn channelization has been proposed or recommended for the project main entrances. The ultimate design of the secondary access connections to the site will be developed during the development review stage of the project and will be subject to the review and approval of County Engineering staff. It is noted that the Revised Project Alternative is no longer proposing to use Dawn Road and project traffic to Viva Way is expected to be low.
3. The traffic analysis completed for the project indicates that the Willow Road/Via Concha intersection would operate at acceptable levels of service (LOS B) with stop-sign control, thus no signal installation was recommended for this location. The eastern sections of Eucalyptus Road, Mesa Road and Camino Caballo are forecast to carry volumes of 2,000 ADT or less, indicating that operations would remain acceptable.
4. Comment noted, analyses were completed for Stage I of the Woodlands development with and without the Willow Road extension. The analysis indicated that with the appropriate mitigation measures, Stage I could be developed with or without the Willow Road extension in place. [With full buildout of Woodlands, the completion of the Willow Road extension and partial interchange would be required.] It is anticipated that full buildout and occupancy of the Woodlands development would be staged to occur after the construction of the Willow Road extension. The mitigation language presented in the EIR was developed based on identified impacts.
5. The trip generation rates and internal/external splits were discussed and agreed upon by both County and ATE staffs prior to the preparation of the traffic and circulation section of the Woodlands Specific Plan EIR. Trip generation rates and pass-by data were developed based on ITE data and methodology. The source of the external/internal data (NCHRCP Report No. 255) is presented in the third paragraph on Page 132. The data derived from this report was used to empirically quantify the internal and external trip splits. See also response to Richard Marshall Comment #10.
6. The trip distribution analysis did not assume that 25% of the trips would be internal to the site. The analysis assumed that 25% of the project-generated trips would be oriented to and from the overall Nipomo Mesa area west of U.S. Highway 101. This distribution analysis was developed based on information derived from the South County Traffic Model as well as existing traffic flow data observed in the area. This distribution would occur as existing and future

Nipomo Mesa area residents travel to the employment, commercial, and recreational uses which would be constructed on the Woodlands site. Conversely, a portion of the trips generated by the Woodlands residential units would be oriented to the various land uses present in the local Nipomo Mesa area.

7. The text on Page 137 states that without the business park there would be a 15% decrease in traffic generated at the site, not a 15% increase as stated in this comment. The 25% employee capture statistic was derived from empirical data presented in the (NCHRCP Report No. 255) regarding the trip lengths of home-to-work trips.

8. See response to comments 2 and 3 above.

9. We do not believe that there is an appropriate nexus between the impacts generated by the project, as identified in the EIR, and the transit/park-and-ride improvements proposed in this comment. Furthermore, it is our understanding that mandatory adherence to TDM plans is no longer legal in California. The following text is added to the end of the Transit Facility mitigation on page 146:

It is also recommended that the project applicant coordinate with regional transit providers (SCAT, CCAT, SMAT, etc.) to establish a Staged implementation of transit service to the site.

Also the following recommendation is added after the Transit Facility mitigation measure on page 146:

“Transportation Demand Management. A transportation demand management (TDM) program should be part of the development plan for the business park. The TDM Program should include measures designed to provide transportation information, assistance and incentives to employees.”



RECEIVED
 APR 20 1998
 ENVIRONMENTAL SCIENCE ASSOC.
 LOS ANGELES

Lucia Mar Unified School District

602 ORCHARD ST. • ARROYO GRANDE, CA 93420
 (805) 473-4390 • FAX (805) 481-1398

ARROYO GRANDE NIPOMO GROVER BEACH OCEANO PISMO BEACH

RECEIVED

March 31, 1998

APR 01 1998

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

S.L.O. COUNTY
 PLANNING DEPT.

Planning and Building Department
 County of San Luis Obispo
 County Government Center
 San Luis Obispo, CA 93408-2040

Attn: Mr. John McKenzie, Environmental Specialist,
 Environmental Division, Room 310

Re: Comments Regarding Draft EIR prepared for the Woodlands Specific Project
 (ED95-026; G940005S)

Dear Mr. McKenzie:

This letter is furnished to the County of San Luis Obispo (the "County") Building and Planning Department and Environmental Quality Department in regard to the Draft Environmental Impact Report ("DEIR") prepared for the above-referenced General Plan Amendment/Specific Plan (the "Project"). The comments made in this letter are presented on behalf of the Lucia Mar Unified School District (the "District") to the County in regard to the Project. This letter is supplemental to our prior letters of October 31, 1996, July 31, 1997, and August 21, 1997, with regard to the Project and our comments forwarded to the County regarding school mitigation actions taken by the District.

1

On behalf of the District, it is expressly requested that this letter be included in the record of proceedings with regard to the County's consideration of this Project and the Draft EIR prepared in regard to the Project. It is also specifically requested that our prior comment letters of October 31, 1996, July 31, 1997, and August 21, 1997, and the attachments thereto be included in the record of proceedings for this Project.

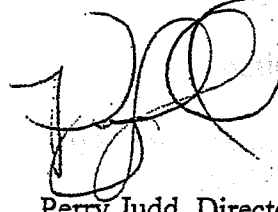
Following our receipt of the DEIR we undertook to review this document, and to have our legal counsel, Bowie, Arneson, Wiles & Giannone, also review the DEIR.

The District strongly supports Mitigation Measure 4.7-3a as proposed on page 320 of the DEIR. Please be advised that the District has had conversations with the Project applicant relative to such a mitigation agreement.

Mr. John McKenzie
March 31, 1998
Page 2

If there are any questions or comments on this matter, or if the County would like further information, please contact the undersigned.

Very truly yours,
LUCIA MAR UNIFIED SCHOOL DISTRICT



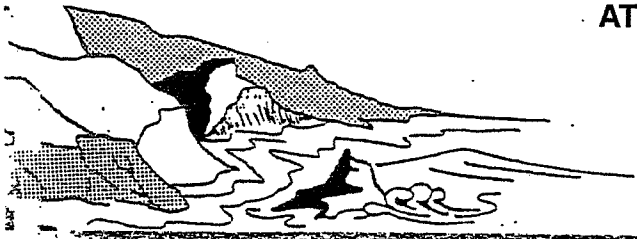
By: Perry Judd, Director, Facilities

REA:ln

cc: Ms. Sandra Davis
Mr. Robert Anslow

Lucia Mar Unified School District

602 ORCHARD ST. • ARROYO GRANDE, CA 93420
(805) 473-4390 • FAX (805) 481-1398



October 31, 1996

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DEPT

**PERSONAL DELIVERY /
PROOF OF RECEIPT**

County of San Luis Obispo
Environmental Division
County Government Center, Room 310
San Luis Obispo, CA 93408

Attn: Mr. John McKenzie, Environmental Specialist

Re: Comments Regarding
The WOODLANDS SPECIFIC PLAN SUPPLEMENT TO EIR; ED95-026, G940005S

Dear Mr. McKenzie:

This letter is furnished to the County of San Luis Obispo ("County") on behalf of the Lucia Mar Unified School District (the "District") in regard to the Woodlands Specific Plan, including the Environmental Impact Report, Baseline Environmental Assessment Constraints Analysis and Notice of Preparation, which have now been received by the District (collectively the "Environmental Documents"). The following comments are made on behalf of the District to the County in regard to the Environmental Documents and specifically include the attachments to this letter.

On behalf of the District it is expressly requested that this letter be included in the record of proceedings with regard to the County's consideration of this Project and the environmental proceedings undertaken with regard to the Project, including any Environmental Impact Report (EIR) prepared in regard to the Project.

Request for Notices

Pursuant to the provisions of the California Environmental Quality Act ("CEQA"), Public Resources Code Section 21092.2 and relevant Government Code provisions, The District hereby requests that copies of all notices and other documents mailed or distributed in relation to the above-referenced Project, and/or any EIR prepared for the Project, be furnished to our offices at the attention of Mr. Scott Lathrop.

Mr. John McKenzie/County of San Luis Obispo
October 31, 1996
Page 2

We further request that copies of all notices and documents mailed or distributed in relation to the above-referenced Project and/or any EIR prepared for the Project, be furnished to our legal counsel:

Bowie, Arneson, Kadi, Wiles & Giannone
4920 Campus Drive
Newport Beach, California 92660
Attn: Mr. William J. Kadi

If there are any fees and charges required for the provision of such notice(s), please provide the District with an invoice for such costs and we will reimburse the appropriate County agency. This request for notice specifically includes, but is not necessarily limited to, notices of all hearings, proposed actions to be taken with regard to the developmental process, requests for information, draft environmental documents, staff reports or commentaries, and, in particular, any Notice of Determination prepared, furnished or filed with regard to this Project pursuant to CEQA.

Identification of Documents Received

We have noted that the Notice of Preparation of the EIR (dated March 3, 1995) relative to the Project has now been received by the District. On October 8, 1996, the District received a Notice of Preparation supplement to EIR relative to the Project. Following responses, the District received additional documents, including the Woodland's Specific Plan Baseline Environmental Assessment and Constraint's Analysis "Final" dated as of July 26, 1996. The District notes that it had not received any of these documents, other than the Notice of Preparation, prior to October of 1996. The Notice of Preparation identified that there was a significant impact to schools and school facilities which would result from the Project (page 5, Item VII(c)). However, the Environmental Assessment does not mention this and as such the District has a significant concern that the Project's impacts to schools and school facilities must be identified and addressed.

Significant Adverse Impact on School Facilities

The Project, as identified in the Notice of Preparation of Environmental Report and the Environmental Documents, will have a significant adverse physical impact on The District's school facilities.

Nipomo and Dana Elementary schools, Mesa Middle School and Arroyo Grande High School would serve the Project. All four schools are currently operating over design capacities. School infrastructure is severely impacted at all these schools. Overcrowding has caused shortages in restrooms, and affected cafeteria, library, playground and parking space.

Mr. John McKenzie/County of San Luis Obispo

October 31, 1996

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In addition, traffic and related concerns is increased around the schools and surrounding neighborhoods.

Any additional students generated by the Project would most likely be transported to other schools in the district, creating a significant transportation impact on the District and the community.

The Notice of Preparation of EIR states that the Project would result in the construction of approximately 250 to 300 residential units. However, we note that the Environmental Documents received do not discuss the generation of students by these residential units (and the corresponding school facilities impacts which would result), nor do they note that the relevant school facilities are currently operating at or over capacity (see discussion above). The generation of students will result in a significant adverse physical impact to schools and school facilities which will be further exacerbated by other projects approved, but not yet built, or which may be, or have been, approved in this area.

With regard to school overcrowding there are specific limitations upon classroom occupancy and use which are applicable to the District. When existing school facilities become overcrowded, to the point where classroom capacity limitations are exceeded, new physical facilities must be provided. If such facilities are not provided, the occupancy limitations will remain exceeded and the quality of education will be adversely affected. Under 14 CCR Section 15064(f) this type of overcrowding, which would result in adverse physical effects, is considered a "significant impact" for purposes of CEQA review. We also note that overcrowding in schools has additional adverse effects on areas of health, safety and sanitation concerns and has impacts on transportation capabilities with corresponding health and safety impacts.

The Notice of Preparation of EIR correctly noted that the generation of additional students would have an adverse impact on the environment. The District has not been furnished with any detailed examination of such environmental consequences, or an examination of the significant adverse impacts in and of themselves or any proposed mitigation measures. This letter is furnished to the County to detail the School District's specific comments and concerns in regard to impacts on schools and school facilities. The District has prepared, and enclosed, as Attachment A, a copy of its School Mitigation Report dated as of August 23, 1996, (and adopted by the District's Board of Trustees in September, 1996) ("Mitigation Report"). The Mitigation Report currently indicates that the cost for the District to provide student housing capacity on a per-dwelling unit basis results in a cost to the District of \$3.72 per square foot (see Table 1 of the Mitigation Report, page 5). The specific bases for such findings are detailed in the Mitigation Report and the District specifically requests that the County review and consider the matters contained within the Mitigation Report as part of its consideration and evaluation of the Project and the corresponding environmental impacts. Significantly, the Mitigation Report concludes that statutory school fees (currently at \$1.84 per square foot for residential building space) provide

Mr. John McKenzie/County of San Luis Obispo

October 31, 1996

Page 4

less than half of the amount actually required to provide school facilities for students generated by the Project.

As acknowledged in the Environmental Documents, the generation of additional students, caused by the Project, will have a significant adverse impact on the schools, physical school facilities and educational environment of the District.

Under the provisions of CEQA, if a significant adverse physical impact is found to be caused by a project, as is the case at hand, the environmental review document (EIR/Negative Declaration) is required to describe measures which could reduce or minimize such significant adverse physical impacts.

The discussion of alternatives must specifically focus on alternatives capable of eliminating any significant adverse effects or reducing them to a level of insignificance even if these alternatives would impede to some degree the attainment of the project objectives or would be more costly. 14 Cal. Code regs. Section 15126(d)(3); Kings County Farm Bureau et. al., v. City of Hanford (Cal. App. 5th Dist. 1990) 221 Cal. App. 3d 692, 270 Cal. Rptr. 650, 670.

The District hereby requests that the County consider, and respond to, the matters and issues raised above.

Cumulative Impact Review

We also bring to the attention of the County the following matters with regard to the cumulative impacts of residential projects on the physical educational facilities, specifically including schools, of the District.

With respect to cumulative impacts under CEQA 14 California Code of Regulations (CCR) Section 15355 provides, in relevant part, as follows:

"Cumulative impacts' refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental effects."

- (a) The individual affects may be changes resulting from a single project or a number of separate projects.
- (b) The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present and reasonably foreseeable probable future projects. Cumulative impacts can result

from individually minor but collectively significant projects taking place over a period of time."

The contribution of additional student population resulting from projects, including residential development (such as is the case with the Project), is exactly the type of situation which will cause overcrowding of public facilities (in this case schools). This overcrowding will have an adverse effect on the students in terms of the quality of education which they receive and the effectiveness of the student-teacher relationship in addition to health, safety and related concerns.

Correspondingly, a significant impact (based on a cumulative impact - separate and apart from direct project impacts) must be found to exist where additional students will be generated by such a residential project regardless of ratios or quantity of students generated. This is particularly the case where property which was not zoned for residential uses is converted to such use, as appears to be the case at hand.

The principal thrust of the District's position is that each project which contributes students to the student population, including, but not limited to the Project, exacerbates the overall situation of student overcrowding not only on an individual basis, but also on a cumulative basis. As provided in 14 CCR Section 15065:

"A lead agency shall find a project may have a significant effect on the environment and therefore require an EIR to be prepared for the project where any of the following conditions occur:

- (a) The project has possible environmental effects which are individually limited but cumulatively considerable. As used in this Section "cumulatively considerable" means that the incremental effects of the individual projects are considerable when viewed in connection with the effects of past projects, the effect of other current projects and the effects of probable future projects."

The intention of CEQA in such regard is that in analyzing a project, a lead agency cannot ignore, or attempt to define, project impacts in such a narrow manner as to avoid reviewing, or considering resulting cumulative impacts. Leonoff v. Monterey County Board of Supervisors (Cal.App. 6th Dist. 1990) 220 Cal.App.3d 1337, 272 Cal. Rptr. 372 at 383.

With regard to cumulative physical impacts to schools and school facilities resulting from the Project, the Notice of Preparation only notes that there may be a cumulative impact. In such regard we would specifically reference the case of Kings County Farm Bureau v. Hanford, supra.

below. That case stands for the proposition that incremental effects resulting from an individual project may not be significant in themselves but their cumulative impact, when combined with other related projects, may very well be significant for purposes of CEQA.

Although the Kings County decision involved an analysis of air pollution, the cumulative impact analysis is readily translatable in the instant case in terms of adverse physical impacts to school facilities. In that case, the lead agency had attempted to view the contribution of the project in question as to the current environmental condition in isolation, without viewing the overall environmental setting or past, contemporaneous or future projects which would also contribute to the impact on the environmental setting.

The court noted that issues to be addressed in terms of the CEQA analysis were not necessarily limited to the individual project impacts, but also the cumulative impact in terms of the environmental setting. The court concluded that assessing significance under CEQA in terms of a strict ratio of the contribution of the project's impacts and the existing overall problem ran contrary to the intentions of CEQA, Kings County Farm Bureau v. Hanford, supra, at 662. The court further found that the analysis used under CEQA avoided analyzing the severity of the problem and allowed the approval, without adequate mitigation, of projects which, when taken in isolation, appear insignificant but when viewed together appear startling. Under the assertion made by the real party in interest in that case, the greater the magnitude of the overall existing problem on the existing impact on public facilities currently existing when the project was forwarded, the less significance a project would have when compared as a strict ratio to the existing condition. The court concluded use of such a ratio in isolation to other cumulative impacts was not acceptable under CEQA.

The cumulative impact analysis performed with respect to the Project must address the adverse physical impacts to schools and school facilities on which there will be a cumulative impact. The District requests that as part of the County's analysis of this matter (and proposed mitigation(s)) that the cumulative impacts on schools and school facilities which may result from this project be specifically considered, reviewed and mitigated, as required under CEQA.

The cumulative impact analysis conducted for the Project should also consider other projects which have been approved by the County which approve residential housing (and correspondingly have student generation impacts) on this area. Additionally, any residential approvals which are now pending before the County for this area should be considered.

Authority of Legislative Body to Provide for Adequate Mitigation of Acknowledged Significant Impacts on School Facilities

There is no doubt since the defeat of Proposition 170 and concurrent repeal of Senate Bill 1287 on November 3, 1993, that cities and counties may condition certain kinds of land use approvals on full school mitigation. The foundation for this is found in a group of three California Appellate Court cases: Mira Development Corporation v. City of San Diego (1988) 205 Cal.App.3d 1201, 252 Cal.Rptr. 825; William S. Hart Union High School District v. Regional Planning Commission of Los Angeles (1991) 226 Cal.App.3d 1612, 277 Cal.Rptr. 645; and Murrieta Valley Unified School District v. County of Riverside (1991) 228 Cal.App.3d 1212, 279 Cal.Rptr. 421.

In Mira Development Corporation v. City of San Diego (1988) 205 Cal.App.3d 1201, 252 Cal. Rptr. 825, the City of San Diego denied a requested zone change in part because school facilities in the area were inadequate to serve the new development. The developer contended that the city council was prohibited by Section 65996 from denying a rezoning application on the basis of school overcrowding. Section 65996 prohibits a public agency from denying approval of a "development project" on the basis of the adequacy of school facilities. The court found that a rezoning was not a "development project" as such is defined in the Government Code, and that furthermore, "development project" could only be construed to refer to an agency's adjudicative, rather than legislative, actions. Since a rezoning is a legislative action, the City of San Diego was entitled to deny the zoning application on the basis of inadequate school facilities.

The Mira decision was followed by William S Hart Union High School District v. Regional Planning Commission of Los Angeles (1991) 226 Cal.App.3d 1612, 277 Cal.Rptr. 645. In Hart, two school districts challenged the approval of a zone change, general plan amendment, development agreement, tentative tract map approval and conditional use permit on the grounds that said approvals were inconsistent with the County of Los Angeles' General Plan. The General Plan precluded approval where public facilities, including schools, were not being provided. The County argued that §§65995 and 65996 preempted any consideration of the adequacy of school facilities other than Statutory School Fees. The Court of Appeal found in favor of the school districts and held that in the case of legislative approvals, such as general plan amendments, specific plans and zone changes, Section 65996 did not preempt consideration of the adequacy of school facilities.

The holding of Hart was followed by the Court of Appeals' decision in Murrieta Valley Unified School District v. County of Riverside (1991), 279 Cal.Rptr. 421. In that case, the Murrieta Valley Unified School District contended that Riverside County General Plan Amendment violated Government Code Sections 65300 through 65302 in that the proposed

comprehensive general plan amendment was not consistent with the General Plan since the County had failed to incorporate any terms or conditions to assure that adequate school facilities would be provided. In addition, the Court of Appeal was asked to consider whether the County of Riverside had violated (the California Environmental Quality Act) (CEQA) by failing to adequately address significant adverse impacts on the District as part of the approval process.

The Court concluded that the District did have a legal claim for violation of CEQA. The Court determined that the County was not preempted or prohibited from considering and providing feasible mitigation measures in an EIR and in the general plan amendment to which the EIR related. Further, the Court held that the County was not preempted from imposing mitigation measures besides the development fees permitted by the School Fee Legislation.

Taken together, the Mira, Hart & Murietta decisions stand for the proposition that a public agency is not precluded by the school fee legislation from requiring mitigation measures in addition to Statutory School Fees when considering legislative land use approvals. The Districts note that general plan amendments, specific plan amendments, community plan amendments, and zoning determinations (such as will be involved with the Project) are legislative land use approvals.

We also bring to your attention the determination of another California appeals court with regard to this item. On January 4, 1995, the California Court of Appeals, Second Appellate District, Division 6, filed a decision in the matter of the Santa Maria-Bonita School District v. Planning Commission of the City of Santa Maria, etc., et. al. (Second Appellate Civil Number B078572 (Santa Barbara County)). The Santa Maria Decision involved a project involving residential development, which had received a zoning change (a legislative action) by the City of Santa Maria without provision for adequate mitigation of the acknowledged significant impacts on school facilities of the Santa Maria-Bonita School District. In overruling the lower court's demurrer, the Appellate Court specifically focused on the Mira, Hart and Murietta Decisions and confirmed their applicability with regard to legislative action decisions pertaining to developments involving residential housing. The Santa Maria Court, drawing on previous decisions, specifically determined that the City of Santa Maria did have the authority to impose mitigation measures to fully mitigate the acknowledged significant impacts on schools and school facilities. Additionally, the Santa Maria Court concluded that the Mello-Roos Community Facilities Act of 1982, as amended (Government Code Section 53311, et seq.), was available to provide such mitigation under the relevant statutes.

Inadequacy of State Funds for School Facilities Purposes.

In regard to State funding for local school facilities, it is the position of the District that the State of California cannot be relied upon as a source of funding for school facilities to meet

increased student demands. At the end of the 1996 Legislative Session, the California Legislature adjourned without taking action on either Senate Bill 569 (SB 569) or Senate Bill 763 (SB 763). Both of these pieces of legislation would have provided various bond amounts for submission to the California electorate in order to fund schools and school facilities. SB 763 would have provided \$4 billion in terms of a bond proposal and was favored by some California school districts. The failure of either of these legislative actions to be completed leaves California school districts without access to a state-wide bond until the next election cycle in June of 1998. Until then, the only State funding for school facilities will be the remaining Proposition 203 funds (currently about \$700 million) and the class-size reduction facilities dollars. Neither of these funding sources is adequate to address the multi-billion dollar school construction projects cost backlog now existent within the State. It should be noted that in 1994, then acting State Superintendent of Public Instruction, William D. Dawson, noted that the backlog was then more than \$6 billion. Even with the advent of Proposition 203 monies, the State of California is still billions and billions of dollars behind on its obligation to fund new schools and school facilities.

This information is furnished to the County because opponents of school mitigation frequently assert that it is the State's responsibility to fund schools and school facilities. The school district does not dispute the basic nature that public education is in fact the obligation of the State. However, as should be clear from the foregoing facts, the State is unable (or unwilling) to meet its obligation in this regard and as such, local legislative bodies, including cities and counties, should therefore take into consideration both the status of school systems in terms of overcrowding and also the inability of the State to meet public facility funding requirements.

Non-availability of Bond Funds

Pursuant to the provisions of Education Code § 15100, *et seq.*, school districts are permitted to forward a general obligation bond proposition for the acquisition and improvement of real property relating to educational facilities to voters within the District. The District in fact forwarded a general obligation bond proposal at the District's cost, to the voters of the District in an attempt to provide general obligation bond financing. However, such a ballot measure must be approved by a two-thirds vote of the voters voting on such proposition. The District's general obligation bond election proposal, as submitted to the voters on November 8, 1994, was not approved. Correspondingly, general obligation bond funds are not available as a source of revenue for the constructing of new District school facilities.

Availability of Mello-Roos Act to Provide Mitigation

Under the provisions of the Mello-Roos Community Facilities Act of 1982, as amended, Government Code Sections 53311, *et seq.* (the "Mello-Roos Act"), various types of public agencies, including Counties and school districts, are provided a statutory means to finance a

variety of types of public facilities through the establishment of a community facilities district.

In the past the County has, in certain instances, asserted that the Mello-Roos Act is not a legally available means of mitigating impacts to schools and school facilities. In this regard, we also bring to the attention of the County the provisions of Government Code Section 65996(f) which provides in relevant part:

"Nothing in this section shall be interpreted to limit or prohibit the use of Chapter 2.5 (commencing with Section 53311) of Division 2 of Title 5 [the Mello-Roos Act] to finance the construction or reconstruction of school facilities."

Correspondingly, the Mello-Roos Act clearly is available to provide such mitigation.

The Mello-Roos Act offers significant options and flexibility in such regard. Such options include, but are not limited to, issuing bonds to finance school facilities, a pay-as-you-go special tax to build specific facilities or providing a prepayment option as part of the special tax to provide for necessary school mitigation. Additionally, a Mello-Roos district formed over the Project could form the basis of a core community facilities district. It is the position of the Districts that the viability, usability and applicability of a community facilities district to this Project should be carefully analyzed and reviewed as part of the mitigation evaluation for the acknowledged significant physical impacts which will result from this Project.

Proposed Mitigation Measures

The District suggests the following language be included in the EIR to be prepared for the Project in order to provide full mitigation of the acknowledged significant physical impacts to schools and school facilities of Districts:

1. The County will require that statutory school fees (currently at \$1.84/square foot for residential, \$0.28/square foot for commercial/industrial) be collected at or prior to the time of building permit at the level established by the Lucia Mar Unified School District. The County will cooperate with Lucia Mar Unified School District in order to assure that such statutory fees are collected by the Lucia Mar Unified School District at the appropriate time; and
2. The Project applicant/developer shall be required to enter into a mitigation agreement with the appropriate school districts for full mitigation of school facilities impacts. Such mitigation agreement(s) may include: (i) alternatives for

Mr. John McKenzie/County of San Luis Obispo

October 31, 1996

Page 11

full financial mitigation of school facilities; (ii) requiring the applicant to participate in a financing mechanism (such as a Mello-Roos community facilities district) to mitigate or remove school facilities impacts; (iii) requiring the project to be phased in a manner which allows the school districts to accommodate students as the project is built out; and/or (iv) requiring the project to be limited to senior citizen housing which would not create school impacts.

The foregoing mitigation measures are available, feasible and permitted under State law. The County has already indicated its willingness to impose fees for other public services and infrastructure requirements in the context of similar projects and should show the same willingness with regard to essential education for this Project.

We would be happy to discuss any of the proposed mitigation measures should you have any questions in this regard.

Based on the foregoing, it would be the request of the District that the foregoing mitigation measures be included within the draft Mitigated Negative Declaration as it relates to the Project.

Mr. John McKenzie/County of San Luis Obispo

October 31, 1996

Page 12

Conclusion

The Environmental Documents have clearly identified and recognized that the Project will have significant adverse physical impacts on the schools and school facilities of the District. Having identified and acknowledged the significant adverse physical impacts, the County, as the lead agency, is obligated, under the provisions of CEQA, to provide adequate mitigation measures for such significant impacts. Current California State law allows and requires the County to provide full mitigation for projects involving legislative decisions.

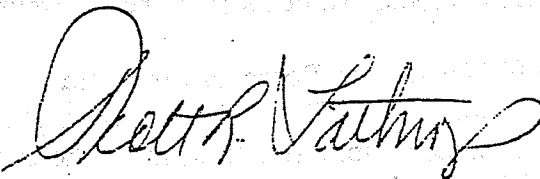
In regards to potential mitigation, the District has pointed out that State funds are not available for capital facilities construction or acquisition purposes and should not be relied upon by the County as a mitigation measure in this regard. The passage of general obligation bond measures requires a two-thirds positive vote and as such, passage of such bond measures is speculative and should not be relied upon by the County as providing any form of mitigation measure, particularly given the results of the District's attempts to pass such a bond measure.

The District requests that the County fully consider the matters set forth in this letter, consider the impacts identified and include adequate mitigation measures in the EIR as conditions of Project approval.

Please feel free to contact me in regards to any questions you might have on this matter.

Very truly yours,

LUCIA MAR UNIFIED SCHOOL DISTRICT

by 

Scott Lathrop
Director, Facilities/Asset & Risk Mgt.

SRL/jw
Attachments

cc: Mr. Bill Kadi, (w/o att.)
Mr. Robert E. Anslow, (w/o att.)

LUCIA MAR UNIFIED SCHOOL DISTRICT
BOARD OF EDUCATION
September 3, 1996

RESOLUTION
TO READOPT AND INCREASE SCHOOL FACILITY FEES LEVIED ON
DEVELOPMENT PROJECTS PURSUANT TO GOVERNMENT CODE
SECTION 53080, RESOLUTION A-9697-08

WHEREAS, the Board of Trustees ("Board") of the Lucia Mar Unified School District ("District") previously has adopted and levied School Facility Fees ("Fees") pursuant to Sections 53080 and 65995 of the Government Code in the amounts of \$1.72 per square foot of residential development in the District, and \$.28 per square foot for new commercial development and new industrial development in the District, and

WHEREAS, on January 24, 1996, the State Allocation Board authorized an increase in the above rate due to increases in the index specified in Section 65995(b)(3) of the Government Code to \$1.84 per square foot for new residential development and \$0.30 for new commercial and industrial development, subject to such increases meeting applicable statutory requirements including Section 6600 et seq. of the Government Code; and

WHEREAS, new development continues to generate additional students for the District's schools and the District is required to provide school facilities to accommodate those students; and

WHEREAS, the District does not have sufficient funds available for the construction or reconstruction of the school facilities, including acquisition of sites, construction of permanent school facilities, including interim school facilities, as well as central administrative and support facilities to accommodate students from new development ("School Facilities"); and

WHEREAS, the Board has received and considered a report entitled "Justification Report for School Facility Fees" dated August 23, 1996, ("Report"), which Report includes information, documentation, and analysis of the capital facilities needs of the District, and an evaluation and projection of the number of students that will be generated by new residential development, the new facilities that will be required to serve such students, and the costs of such facilities; and

WHEREAS, the Reports pertaining to the Fees and to the capital facilities needs of the District has been available to the public as required by law before the Board of Trustees considered at a regularly scheduled public meeting the increase and readoption of the Fees; and

WHEREAS, a public hearing was held as required by law and all required notices of the proposed increase and readoption of the Fees have been given; and

WHEREAS, Government Code Section 53080.1 provides that the adoption, increase or imposition of any fee, charge, dedication, or other requirement, pursuant to Government Code Section 53080, shall not be subject to Division 13 (commencing with Section 21000) of the Public Resources Code.

NOW, THEREFORE, BE IT RESOLVED by the Board of Education as follows:

1. That this Board finds that the purpose of the Fees levied upon residential development is to fund the additional School Facilities required to serve the students generated by the residential development upon which the Fees are imposed.

2. That this Board finds that the Fees will be used only to finance those facilities described in the Reports and related documents and that these facilities are required to serve the students generated by the residential development; and that the use of the Fees will include remodeling existing facilities to add additional classrooms and acquiring and installing additional relocatable classrooms and related facilities, with the specific location of new schools, remodeling of existing facilities, and additional relocatables to be determined based on the residence of the students being generated by such development, as well as any required central administrative and support facilities.

3. That this Board finds that the residential development, upon which the Fees are levied, will cause a need for additional School Facilities in the District because new students will be generated from new residential development and the District does not have student capacity in the existing School Facilities to accommodate these students.

4. That this Board finds that the Fees levied on residential development, by this Resolution, will be used to fund School Facilities which will be used to serve the students generated by such residential development.

5. That this Board finds that the amount of the Fees levied on residential development as set forth in this Resolution does not exceed the cost of providing the School Facilities required to serve the students generated by such development.

6. That this Board finds that the purpose of the Fees imposed on commercial and industrial development is to fund the additional School Facilities required to serve the students generated by the commercial and industrial development upon which the Fees are imposed.

7. That this Board finds that the Fees imposed on commercial and industrial development will be used only to finance those facilities described in the Report and related documents and that these facilities are required to serve the students generated by such development; and that the use of the Fees will include remodeling existing facilities to add additional classrooms and acquiring and installing additional relocatable classrooms and related facilities, with the specific location of new schools, remodeling of existing facilities, and

September 3, 1996

additional relocatables to be determined based on the residence of the students being generated by such development, as well as construction of permanent School Facilities.

8. That this Board finds that the commercial and industrial development, upon which the Fees are levied, will cause a need for additional School Facilities in the District because new students will be generated from commercial and industrial development and the District does not have student capacity in the existing School Facilities to accommodate these students.

9. That this Board finds that the Fees levied on commercial and industrial development, by this Resolution, will be used to fund School Facilities which will be used to serve the students generated by such development.

10. That this Board finds that the amount of the Fees levied on commercial and industrial development as set forth in this Resolution does not exceed the cost of providing the School Facilities required to serve the students generated by such development.

11. That this Board finds that a separate account has been established for the deposit of Fees imposed on residential and commercial/industrial development and that said account has at all times since been separately maintained from other funds of the District.

12. That this Board finds that the funds of the account, described in Section 11, consisting of the proceeds of Fees are hereby appropriated for the purposes of constructing and reconstructing those facilities necessitated by new development, and thus, funds may be expended for those purposes.

13. That this Board hereby readopts the Fees on residential development and levies Fees on such development in the following amounts:

- A. \$1.84 per square foot of assessable space for residential development, including new residential projects, manufactured homes and mobile homes as authorized under Government Code Section 53080.4, except for any development project used exclusively for housing senior citizens, as described in Civil Code Section 51.3, or as described in Subdivision J of Section 1569.2 of the Health and Safety Code or paragraph 9 of subdivision (d) of Section 15432 of the Government Code or any mobile home or manufactured home that is located within a mobile home park, subdivision, cooperative or condominium for mobile homes limited to older persons as defined by the Federal Fair Housing Amendments of 1988, and including residential construction or reconstruction other than new construction where such construction or reconstruction results in an increase of assessable space, as defined in Government Code Section 65995 in excess of 500 square feet.

RESOLUTION A-9697-08
September 3, 1996

additional relocatables to be determined based on the residence of the students being generated by such development, as well as construction of permanent School Facilities.

8. That this Board finds that the commercial and industrial development, upon which the Fees are levied, will cause a need for additional School Facilities in the District because new students will be generated from commercial and industrial development and the District does not have student capacity in the existing School Facilities to accommodate these students.

9. That this Board finds that the Fees levied on commercial and industrial development, by this Resolution, will be used to fund School Facilities which will be used to serve the students generated by such development.

10. That this Board finds that the amount of the Fees levied on commercial and industrial development as set forth in this Resolution does not exceed the cost of providing the School Facilities required to serve the students generated by such development.

11. That this Board finds that a separate account has been established for the deposit of Fees imposed on residential and commercial/industrial development and that said account has at all times since been separately maintained from other funds of the District.

12. That this Board finds that the funds of the account, described in Section 11, consisting of the proceeds of Fees are hereby appropriated for the purposes of constructing and reconstructing those facilities necessitated by new development, and thus, funds may be expended for those purposes.

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RESOLUTION A-9697-08

September 3, 1996

- B. \$0.30 per square foot of assessable space, for new residential development used exclusively for the housing of senior citizens: as described in Section 51.3 of the Civil Code or as described in subdivision J of Section 1569 of the Health and Safety Code or paragraph 9 of subdivision (d) of Section 15432 of the Government Code or any mobile home or manufactured home that is located within a mobile home park, subdivision, cooperative or condominium for mobile homes limited to older persons as defined by the Federal Fair Housing Amendments of 1988.

14. That this Board hereby readopts the Fees on commercial and industrial development and levies Fees on such development in the following amounts per square foot of chargeable covered and enclosed space for the following categories of commercial and industrial development:

Retail and Services	\$0.30
Office	\$0.30
Research and Development	\$0.30
Industrial/Warehouse/Manufacturing	\$0.30
Hotel/Motel	\$0.30

15. That the proceeds of the Fees readopted and established pursuant to this Resolution shall continue to be deposited into that account identified in Section 11 of this Resolution, the proceeds of which shall be used exclusively for the construction and reconstruction of School Facilities necessitated by new development with the exception of that amount of Fees proceeds which the District is authorized by law to expend in accomplishing any study, proceeding or determinations required by Government Code Section 66001 or in financing the described facilities or in defending the imposition of fees.

16. That this Board hereby determines that the Fees readopted and established pursuant to this Resolution are reasonably related and roughly proportional to:

- A. The use of Fees and the types of new development projects within the boundaries of the District upon which Fees are imposed; and
- B. The need for new School Facilities and the types of new development projects upon which the Fees are imposed.

17. That the Superintendent or his designee is directed to cause a copy of this Resolution to be delivered to the building official of each city within the District's boundaries and the County of San Luis Obispo along with a copy of all the supporting documentation referenced herein and a map of the District clearly indicating the boundaries thereof within which development is subject to the Fees increased and readopted pursuant to this Resolution, to request that no building permit or approval for occupancy be issued by any of these entities

RESOLUTION A-9697-08
September 3, 1996

for any residential development project, mobile home or manufactured home subject to the Fees absent a certification from this District of compliance of such project with the requirements of the Fees, nor that any building permit be issued for any non-residential development absent a certification from this District of compliance with the requirements of the applicable Fees.

18. That the Superintendent is authorized to cause a certificate of compliance to be issued for each development project, mobile home and manufactured home for which there is compliance with the requirement of the Fees in the amount specified by this Resolution. In the event a certificate of compliance is issued for the payment of Fees for a development project, mobile home or manufactured home and it is later determined that the statement or other representation made by an authorized party concerning the development project as to square footage are untrue, then such certificate shall automatically terminate, and the appropriate city or the County of San Luis Obispo shall be so notified.

19. That no statement or provision set forth in this Resolution, or referred to therein shall be construed to repeal any preexisting fee previously imposed by the District on any residential or nonresidential development, or negate any Mitigation Agreements between the District and developers, or limit the ability of the District to pursue mitigation beyond the amounts in this Resolution when legislative approvals are sought by new development.

20. That the increase in the District's Fees will become effective 60 days from the date of this Resolution unless a separate Resolution increasing the fees immediately on an urgency basis is adopted by the Board.

On the motion of Board Member Harvey, seconded by Board Member Mills, and on the following roll call vote, to wit:

- AYES: Mrs. Harvey, Mr. Howell, Mrs. Mills, Mrs. O'Connor, Ms. Santos, Mr. Senna, Mrs. Soto
- NOES: None
- ABSENT: None

the foregoing resolution is hereby adopted.

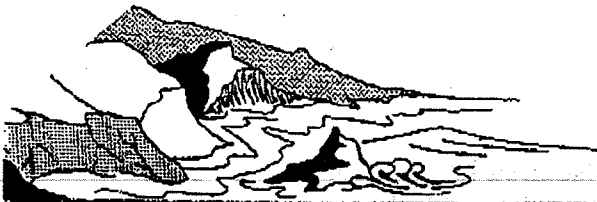
Carol Harvey, Clerk
Carol Harvey, Clerk

9/5/96
Date adopted

FILE COPY

Lucia Mar Unified School District

602 ORCHARD ST. • ARROYO GRANDE, CA 93420
(805) 473-4390 • FAX (805) 481-1398



ARROYO GRANDE NIPOMO GROVER BEACH OCEANO PISMO BEACH

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

July 31, 1997

Magdalene H. Ma, Associate
ENVIRONMENTAL SCIENCE ASSOCIATES, INC.
4221 Wilshire Blvd., Suite 480
Los Angeles, CA 90010-3512

RE: WOODLANDS SPECIFIC PLAN, Nipomo

Dear Ms. Ma:

On behalf of the Lucia Mar Unified School District, please be advised that your letter to us dated July 18, 1997 regarding the above-entitled project, will be addressed fully in the latter half of August. This additional time is necessary as we are in the process of updating the District's "Justification Report for School Facility Fees". The updated data is necessary to answer all the questions more accurately.

Thank you for your understanding and courtesies. If you have any questions in the meantime, please do not hesitate to call the undersigned.

Sincerely,

Perry Judd, Interim Director
Facilities/Maintenance

cc: Sandra Davis
Robert Anslow

P 277 789 643

97001

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Environmental Science Assoc

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Los Angeles, CA 90010-3512

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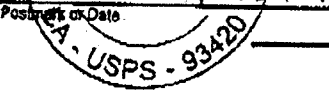
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PS Form 3800, April 1995





ARROYO GRANDE

NIPOMO

GROVER BEACH

OCEANO

PISMO BEACH

August 21, 1997

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Magdalene H. Ma, Associate
ENVIRONMENTAL SCIENCE ASSOCIATES, INC.
4221 Wilshire Blvd., Suite 480
Los Angeles, CA 90010-3512

RE: WOODLANDS SPECIFIC PLAN, Nipomo

Dear Ms. Ma:

On behalf of the Lucia Mar Unified School District ("District"), this letter is provided in response to your correspondence dated July 18, 1997. Please be aware that we have previously responded to this project with an in-depth letter dated October 31, 1996, addressed to John McKenzie, Environmental Specialist for the County of San Luis Obispo, Environmental Division. A copy of that letter is attached hereto (Attachment "A") and all elements of it still apply (and it is incorporated herein by this reference), with the exception that in March, 1997, Bond Measure A was passed by the voters of our School District, for the construction of a new high school, which is currently in the pre-design phase.

It is specifically requested that this letter and all its attachments be included in the record of proceedings for the Woodlands Specific Plan (the "Project"). This letter should be considered to be a supplement to our prior comment letters. The District again references and repeats its request for all notices, and other documents, furnished, provided or published with regard to the environmental review of this project as set forth in the attached letter.

Responding to the specific questions presented on Page 2 of your letter, the following information is provided as excerpted from the "*Lucia Mar Unified School District's Long Range Facilities Plan 1995-2005*", dated August 21, 1995, (Attachment "B") and prepared by Schoolhouse Services-Economists and Planners of San Mateo, California, or from other District sources. Please note that as indicated to you in our letter of July 31, 1997, the "*Justification Report for School Facility Fees*" of the District's Long Range Plan is currently being updated.

Response to Question #1: Current enrollment for the District is 10,703. The schools as they currently exist which would serve the Project area are as follows:

Nipomo Elementary
190 East Price Street
Nipomo, CA 93444
Grades K-2

Dana Elementary
920 West Tefft Street
Nipomo, CA 93444
Grades 3-5

Mesa Middle School
255 Halcyon Road
Arroyo Grande, CA 93420
Grades 6-8

Arroyo Grande High School
495 Valley Road
Arroyo Grande, CA 93420
Grades 9-12

Response to Question #2: As noted above, the District is going to build a new high school using proceeds of the General Obligation Bonds. In regard to the effect on the District of the proposed dedication of the identified elementary school site, numerous factors would have to be reviewed and addressed. Various statutory requirements apply to the dedication and acquisition of school sites by public school districts within the State of California. Are the developers proposing to donate 10 acres of land for a school site and build the school? If not, then the cost of the facilities must be considered. If an elementary school were to be built on the site, the current Justification Report for School Facility Fees indicates it would need to accommodate in excess of 300 students. Current projections are that an additional 56 students would be generated from the Project to the middle school. However, that does not account for projected growth during the building of additional facilities. Assuming that the proposed school is designed to meet the capacity of the Project and for future growth, the District still will bear the burden of long-term maintenance costs, along with annual funding of educational supplies and staff.

Response to Question #3: Design capacity for the permanent buildings of the various school sites has been exceeded long ago. Modular classrooms have been added, thus figures given here are for current capacities with modulars in place:

<u>SCHOOL</u>	<u>PERMANENT With Modulars Capacity</u>	<u>CURRENT Enrollment</u>	<u>PERCENT of Capacity</u>
Nipomo Elementary	672	686	102%
Dana Elementary	796	693	98%
Mesa Middle School	559	765	136%
Arroyo Grande High School	1950	2744	140%

It needs to be emphasized that the use of relocatable classrooms is a temporary, stop-gap measure and cannot be relied upon by governmental entities as a continuing, long-term use for adequate school student education. It can be seen, the District's facilities are at or over capacity at each school site which would be utilized for the Project.

Response to Question #4: It is projected that this Project site will generate: 303 additional students in the K-6 range; 102 students for the 7-8 middle school range; and 138 students to the high school. The question regarding the school system's ability to absorb new students has been identified in prior comments in Attachment "A".

Response to Question #5: Please refer to our comments made in our October 31, 1996 letter to County Environmental Specialist John McKenzie (Attachment "A").

Response to Question #6: Please refer to our comments made in Attachment "A".

Response to Question #7: Facts used to estimate the number of students and the financial impact are based on the District's Facility Justification Report. Please refer to our comments to County Environmental Specialist John McKenzie, dated October 31, 1996 and Attachment "B".

As mentioned in our letter of July 31, the District is in the process of generating a new Facility Fee Justification Report. This new report will take into account the General Obligation School Bond passed in March of '97 and at that time the District will re-address the questions posed in your letter with updated information.

Response to Question #8. The District would recommend that the developer enter into a Mitigation Agreement and that the options and flexibility of the Mello-Roos Act (the formation of a community facilities district) be utilized. This question is also addressed in our Attachment "A", but we again reiterate that the District's "Justification Report for School Facility Fees" is currently being updated.

As set forward in the District's comment letter of October 31, 1986, it is the position of the District that the Project, as currently proposed, will have a significant adverse impact on the schools and school facilities of the District. Based upon a finding that the Project will have a significant impact, the requirements of the California Environmental Quality Act (CEQA) will require that adequate mitigation measures be provided to mitigate that significant impact to a level of non-significance.

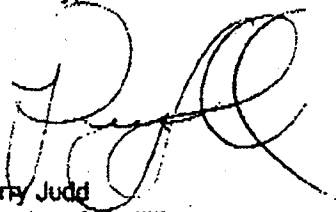
The District has noted that there are also several other residential projects planned, or in process, in the Nipomo area. The District points out that the cumulative impacts of this Project, taken together with other residential projects located in the area, must be considered, and adequately mitigated under the requirements of CEQA. We would suggest that data regarding nearby residential projects be gathered so that a factually based cumulative impact review can be included as part of the environmental review for the Project.

The District would very much appreciate the opportunity to review each of the environmental documents prepared with regard to the Project at the earliest possible date. The District would request to receive a copy of the Initial Study and corresponding initial commentary as soon as it is prepared and available for release. If there is some difficulty in providing these documents we would request that you contact the undersigned.

The District hopes to work with the developer and the County in terms of providing the necessary school infrastructure to benefit the entire community and to provide for the educational needs of our community students.

Should you have any questions with regard to this matter, please do not hesitate to contact me.

Sincerely,



Perry Judd
Director of Facilities

PJ:jd

Encl.

cc: Sandra Davis
Robert Anslow

Letter O: Lucia Mar Unified School District, Perry Judd, Director, Facilities, letter dated March 31, 1998.

Comment
Number

Response

1. Comment noted. Under the Revised Proposed Alternative, the school site would be eliminated in lieu of fees at the choice of the Lucia Mar Unified School District.

LETTER
NIPOMO COMMUNITY SERVICES DISTRICT

148 SOUTH WILSON STREET
POST OFFICE BOX 326 NIPOMO, CA 93444-0326
(805) 929-1133 FAX (805) 929-1932

MAY 4 1998
ENVIRONMENTAL SCIENCE ASSOC.
LOS ANGELES

RECEIVED

April 24, 1998

APR 30 1998

S.L.O. COUNTY
PLANNING DEPT.

John McKenzie
Environmental Division
County Planning and Building
County Government Center Room 310
San Luis Obispo, CA 93408-2040

SUBJECT: WOODLANDS SPECIFIC PLAN - DRAFT EIR

The Nipomo Community Services District has reviewed the Water Resource/Wastewater Section of the Woodland Project EIR and have the following comments:

- The District's Board of Directors is in support of the Woodland Project and believes that it would be an asset to the Nipomo area. 1
- The District believes that a large project such as this may have a potential effect on the groundwater basin. 2
- In 1989 the District Board of Directors reviewed a number of groundwater studies and declared that the Nipomo Basin was in overdraft condition. The definitions of overdraft and safe yield in the Woodland Draft EIR may differ from the State Department of Water Resources (Bulletin No. 118) and established by the courts. 3

Overdraft - 'The condition of a groundwater basin where the amount of water withdrawn by pumping exceeds the amount of water replenishing the basin over a period of time'. Los Angeles vs. San Fernando defines overdraft as a point at which "extractions from the basin exceeds its safety yield plus any ... temporary surplus." Temporary surplus is the amount of water that can be pumped from a basin to provide storage space for surface water that would be wasted during wet years if it could not be stored in the basin.

Safe yield: - 'The maximum quantity of water which can be withdrawn annually from a groundwater supply under a given set of conditions without causing an undesirable result.' The phrase "undesirable result" is understood to refer to the gradual lowering of the groundwater levels resulting eventually in the depletion of the supply. It is recommended that these definitions be included in the Woodland EIR.

The State Department of Water Resources has presented a draft report of the Arroyo Grande/Nipomo Mesa Groundwater Study to the County Flood Control District. This report may assist in evaluating the groundwater resources on the Nipomo Mesa. 4

- On page 82 paragraph 4.1.1.2.5 "Water Rights", the paragraph indicates that the Santa Maria groundwater basin has not been adjudicated. On July 14, 1997, the Santa Maria Valley Water Conservation District filed a complaint against the City of Santa Maria, Southern California Water Company and the City of Guadalupe to adjudicate Santa Maria area groundwater basin. A portion of the Woodland Project may fall in the indicated adjudication boundary and may be affected by such future actions of the court. 5
- The EIR should address self-generating versus exchange unit type water softeners within this development so that salt build-ups in the groundwater basin are minimized. 6
- What controls are to be enforced to assure that the reclaimed water, fertilizers and pesticides are properly selected, handled, stored and applied as not to degrade the groundwater quality? Without controls and enforcement, there will be a significant impact on quality. 7
- Page 116 "Mitigation Measure" ¶4.1-6A indicates that a retrofit program replacing toilet fixtures at a rate of 1:1 should be incorporated into the development. The District supports this concept to mitigate water use. It is felt that the ratio of 1:1 should be defined. It normally takes four (4) retrofits to accumulate sufficient water savings for one new resident. The one to one basis should be clarified indicating whether its one toilet per one house or 4 units per one house. An inventory of available retrofits on the Mesa should be review to see if there are sufficient retrofits available for the proposed project. 8

Again the District is in support of this project and feels it would be of benefit to the Nipomo area. The Board feels that the above items should be reviewed prior to the final EIR being completed.

If you have any questions, please contact the District office at 929-1133.

Very truly yours,

NIPOMO COMMUNITY SERVICES DISTRICT

Alex Mendoza by Corina Johnson
Board Secretary

Alex Mendoza
President of the Board

Letter P: Nipomo Community Services District, Alex Mendoza, President of the Board, letter dated April 24, 1998.

Comment
Number

Response

1. Comment noted.
2. Although the project is large in comparison to the other developments in the area, the findings of the EIR analysis show that the project itself would provide some reduction of groundwater levels, but the drawdown would not be enough to cause any significant impact. Some of the offsetting factors that reduce impacts are the removal of thousands of high water-consuming eucalyptus trees and the use of recycled wastewater for irrigation of the new landscape. The project, in combination with other reasonably foreseen projects, may cause significant effects by reducing groundwater levels in several nearby wells during drought conditions. Mitigation measures are provided to reduce these effects to less than significant levels.
3. The EIR defined the Nipomo "Basin" as a subbasin to the larger Santa Maria Groundwater Basin. Although there are unique hydrologic characteristics of the Nipomo area such as the high infiltration rate of the soils on the mesa, the Paso Robles formation, which is the principal water bearing formation under the mesa, is continuous with the Santa Maria Groundwater Basin. Although the Nipomo subarea is projected to continue its historic decline of groundwater levels, the Santa Maria Groundwater Basin goes through cycles of drought and recovery which have achieved a stable condition for the Basin.

The definitions of overdraft and safe yield from the DWR publication are essentially the same as the definitions used in the EIR for overdraft and perennial yield, which came from a widely used textbook.

4. ESA has reviewed the recently released draft DWR report. Please note that the report is preliminary and subject to revision before it is considered a complete and final report.
5. The last sentence of page 82 of the Draft EIR is changed to read as follows:

The Santa Maria Groundwater Basin currently is not adjudicated and all landowners are able to install wells and pump groundwater in the basin. However, on July 14, 1997, the Santa Maria Valley Water Conservation District filed a complaint against the City of Santa Maria, Southern California Water Company, and the City of Guadalupe to adjudicate the basin. If the basin is adjudicated prior to the implementation of the project, it is possible that the project may be affected by the court order.

Because the adjudication of the Santa Maria Groundwater Basin is in process and could have numerous outcomes it is too speculative, for

purposes of this CEQA analysis, to consider further as this adjudication process may or may not apply to future water rights of the proposed project. In any event, the project already includes numerous measures to conserve water and/or offset water impacts (e.g. toilet retrofit program).

6. Water softeners can use considerable quantities of water and can increase the level of salts in the wastewater, which will be used for irrigation. The developer has no plans to install water softeners in the homes and buildings it constructs.

The following mitigation measure is added to page 117:

Mitigation Measure 4.1-6e: As a part of the project's CC&Rs' no water softener's shall be allowed.

7. The application of reclaimed water is regulated by a permit from the Central Coast Regional Water Quality Control Board. The Board will issue Waste Discharge Requirements that will govern the quality and use of the treated wastewater in order to protect the beneficial uses of the groundwater. The Regional Board has enforcement capability including fines and cease and desist orders. The use of pesticides is regulated by federal law which is administered and enforced by the County. Fertilizers are not a regulated compound.

8. The 1:1 replacement ratio is intended to replace an existing toilet for every new toilet installed in the development. So, if a new home in the development had 4 toilets, 4 non-low-flow toilets would be replaced. This, in addition to the other mitigation measures in the EIR, should reduce potential significant effects. As noted in the EIR, if there are insufficient fixtures to be replaced within the Santa Maria ground water basin, a comparable water savings program will be substituted.



CALIFORNIA FARM BUREAU FEDERATION

DEPARTMENT OF ENVIRONMENTAL ADVOCACY
2300 RIVER PLAZA DRIVE, SACRAMENTO, CA 95833-3239

JOLYN S. RICHARDSON, DIRECTOR
DAVID J. GUY
RONALD LIEBERT
THERESA A. DENNIS
ATTORNEYS AT LAW

TELEPHONE (916) 561-5601
FACSIMILE (916) 561-5691

May 7, 1998

VIA FEDERAL EXPRESS

John McKenzie, Environmental Specialist
San Luis Obispo County Department of Planning and Building
County Government Center
San Luis Obispo, CA 93408

RE: WOODLANDS DRAFT EIR

Dear Mr. McKenzie:

We have reviewed the draft Environmental Impact Report (DEIR) for the Woodlands Specific Plan on behalf of the San Luis Obispo County Farm Bureau and the Santa Barbara County Farm Bureau. We have serious concerns about the project's reliance on the groundwater supplies that are critical to viable farming in the Santa Maria Valley and the Nipomo Mesa. Our comments will therefore focus upon the groundwater issues involved with this project. First, we will show that the project proponents have no right to pump groundwater. Second, we will discuss how the DEIR fails to show that the project has a long-term water supply for the project that is both physically and legally available. Finally, we suggest that the County pursue other water supply options for the project that could serve as a long-term, permanent water supply for this project and other similar projects in this area.

I. PROJECT PROPONENT HAS NO RIGHT TO GROUNDWATER

A. Groundwater Law Generally

Under California law, overlying landowners, such as farmers and ranchers, have equal rights to the reasonable and beneficial use of groundwater. (*Katz v. Walkinshaw* (1909) 141 Cal.116; *Pasadena v. Alhambra* (1949) 33 Cal.2d 908, 925.) On the other hand, the project proponents are appropriators of groundwater. (*City of San Bernardino v. City of Riverside* (1921) 186 Cal. 7; *City of Los Angeles v. City of San Fernando* (1975) 14 Cal.3d 199, 293 fn. 99; *Eden Township County Water Dist. v. Hayward* (1923) 218 Cal. 634, 640; *Pasadena v. Alhambra* (1949) 33 Cal.2d 908, 927; *Burr v. Maclay Rancho* (1911) 160 Cal. 268, 280.) As a matter of law, appropriators are only entitled to use surplus water in the groundwater basin. (*Katz v. Walkinshaw, supra*) This means that if the basin is in overdraft or in balance, the appropriator's rights are subordinated to the overlying landowners and they have no right to pump or to continue pumping groundwater. If there is a surplus in the Santa Maria basin, the respective rights to that surplus need to be further analyzed.

B. Project Proponents Cannot Acquire the Right to Appropriate Water from the Santa Maria Basin

The project proponents have no right to pump groundwater from the Santa Maria basin, regardless of whether the basin is in overdraft or there is a surplus condition.

1. Overdraft-Balanced Basin

As previously discussed, if the Santa Maria basin is in overdraft or in balance, the project proponents (as appropriators) do not have any right to pump groundwater.

2. Surplus

Appropriators, such as the project proponents, can typically acquire the rights to surplus groundwater. There are, however, several reasons why this general rule does not apply to the present situation. First, the most recent hydrologic analysis of the Santa Maria basin and the most credible analysis based on empirical data, suggests that the basin is in balance and thus there is little, if any, surplus groundwater. (Luhdorff and Scalmanini, June 1977; *see* DEIR, p.79.) In other words, just because the basin is not in overdraft does not necessarily mean that there is surplus groundwater. New appropriators have no right to pump from a groundwater basin that is balance.

Second, any surplus in the Santa Maria basin can be attributed to and thus belongs to the Santa Maria Valley Water Conservation District ("District") and its landowners. It is generally acknowledged that well levels in the Santa Maria Valley were declining prior to the construction of Twitchell Reservoir. (*See* DEIR, p.79.) This reservoir was constructed for both flood control and to recharge the Santa Maria groundwater basin for the benefit of overlying landowners. In fact, the water rights license from the State Water Resources Control Board expressly provides that:

"Santa Barbara County Water Agency, on behalf of the Santa Maria Water Conservation District and its landowners, shall, consistent with other terms of this license, have the perpetual right to use all water that becomes available through the operation of Twitchell Dam and Reservoir which right shall be appurtenant to land upon which the water is applied to beneficial use." (Emphasis added.)

This additional water in the Santa Maria basin is therefore the fruits of the District's effort to secure a reliable water supply for the Santa Maria Valley and its landowners. This water, even though it may appear to be surplus, is therefore not available for appropriation.

A similar case in San Benito County is instructive on this issue. The San Benito County Water District filed suit against developers who sought to appropriate water from the

groundwater basin. The appellate court found that the water imported into the basin by the water district did not constitute surplus groundwater which could be acquired by the developer since the appropriator would not have had a right to the groundwater absent the importation of water. (*San Benito County Water District v. Del Piero*, unpublished opinion, 6th App. Dist. Ct. of Appeal, No. H010428 (1994); enclosed for your review.) In a similar vein, the water that is recharged into the Santa Maria basin by the Twitchell project is not surplus water available for use by the project proponent.

Third, even if there is a surplus condition in the Santa Maria basin, it is only a temporary surplus. Reliance on a temporary water supply for a permanent residential development in California is an unreasonable use of water and defies logic and good planning. (See Calif. Const. Art. X, §2.) As a practical matter, once new developments are completed and begin to rely upon the groundwater, it becomes increasingly difficult to require a cessation of pumping, particularly if the residential areas expand and demand an even greater water supply. The policy of allowing development to proceed without a proven and adequate water supply is therefore very shortsighted and will significantly impact other water users throughout the Santa Maria basin. As the following discussion will show, new development cannot be approved based on a temporary water supply.

II. THE DEIR FAILS TO ADEQUATELY ADDRESS THE WATER SUPPLY FOR THE PROJECT

The California Environmental Quality Act ("CEQA") requires that before approving a project, such as the Woodlands, the County must analyze any potentially significant effects on the environment, which includes any effects that result from supplying water for the project. (*Stanislaus Natural Heritage Project v. County of Stanislaus, et al.* (1996) 48 Cal.App.4th 182, 205.) The EIR "require[s] recognition that water must be supplied, that it will come from a specific source or one of several possible sources, of what the impact will be if supplied from a particular source or possible sources, and if that impact is adverse, how it will be addressed. (*Id.* at 206.) Most importantly, this analysis of water must be done up front--it cannot be deferred for a later time.

As previously discussed, the project proponents have no right to the groundwater that is discussed in the DEIR, and even if it does have a right, it is a tenuous right that may not be available on a long-term basis to supply the project during all water year types, including critically dry years. The water resources section in the DEIR, in addressing the groundwater resources in the Santa Maria basin, acknowledges and supports the assertion that the project proponents have no right to groundwater. Most notably, the EIR preparers acknowledge that there are discrepancies among reports describing the hydrologic conditions to the Nipomo Mesa subarea, but they then conclude that "although groundwater levels have historically declined in this area, the lack of adverse effects would suggest that the area is not in an overdraft condition." (*Id.* at 78.) They also concur with the Luhdorff and Scalmanini report that "the repeated recovery of groundwater levels to near historical high levels in most of the Santa Maria basin does not support the conclusion [in other reports] that the basin is in an overdraft condition." (DEIR, p.79.) In referring to the Nipomo Mesa subarea, the DEIR suggests a balanced

hydrologic cycle. (DEIR, p.82.) These assertions in the DEIR are significant since nowhere in the water resources section is there any indication that there is surplus groundwater available for appropriation.

In light of this water supply analysis, the County cannot approve the project under CEQA for two reasons. First, the DEIR fails to show that there is surplus groundwater (or any other water) that is both physically and legally available on a long-term permanent basis during all year types, including critically dry years. Second, the DEIR has failed to show that the proposed pumping will not adversely affect agricultural resources, which includes and is directly related to the groundwater resources. (See *Galante Vineyards v. Monterey Peninsula Water Management District* (1997) 60 Cal.App. 4th, 1109; *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 738.) As previously mentioned, pumping non-surplus water will have a significant environmental impact on both groundwater resources and the agricultural resources. Moreover, if there is not a long-term water supply available to the project during all year types, including dry years, then the new development will be forced to pump additional groundwater, which will then have significant effects on agricultural resources. It is therefore critical to assure that there is a water supply available to the proposed project in all year types and on a long-term, permanent basis.

Additionally, the DEIR lists the approved/pending projects on Nipomo Mesa in Table 3.2 (p.69-70) and indicates that "it is anticipated that cumulative development would lower groundwater levels, decrease groundwater quantities and storage, and affect the ability of some wells in the area to economically pump groundwater. This could result in adverse groundwater effects over the long-term of the region, and would be a potentially significant cumulative impact." (DEIR, p.398.) For this reason alone, the County cannot approve this project based on its failure to comply with CEQA.

III. THE PROJECT MUST HAVE A LONG-TERM, PERMANENT WATER SUPPLY PRIOR TO COUNTY APPROVAL

As the DEIR strongly suggests, groundwater is not a reliable water supply for this project and may not be both physically and legally available in all years. Instead of relying on groundwater to the detriment of others, we suggest that the County and developers pursue other long-term water supply options for this project and others on Nipomo Mesa.

To assure sound coordination between water and land use planning, Santa Barbara County has adopted several water policies to protect the Santa Maria basin as part of its Orcutt Community Plan which are instructive for the present situation. These policies provide:

- "The County may approve development under the OCP as long as there are existing or permanent entitlement backed long-term supplemental water supplies (i.e., not continued overdraft of the groundwater basin) adequate to meet the water demand as determined by County staff of such development. Development beyond that which can be served by existing or permanent

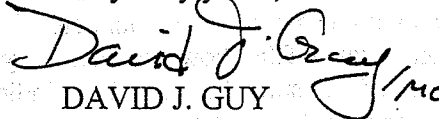
entitlement backed long-term water supplies shall not be approved, consistent with Land Use Element LUDP 4. Long term supplemental supplies are defined as lasting as long as the defined optimal life of a project (i.e., 75 years). If the water purveyor(s) is not purchasing State Water entitlement (is in fact entering into a contract for water), the County retains the right to review the contract to ensure that the terms fulfill the definition of a long-term supplemental supply. (Orcutt Community Plan, Policy Wat-0-2.)

- "Previous agricultural historic use shall not be credited toward the water demand of non-agricultural development, unless required by law." (*Id.*, Policy WAT-0-4.)

We are not aware of any similar policies in San Luis Obispo County. To assure good land use and water supply planning into the future, we encourage the County to adopt similar policies that apply to the proposed project and other similar developments within San Luis Obispo County. To the extent that a long-term, permanent supply is available for the project, then we will have no opposition to this project.

Thank you for the opportunity to provide comments on the Woodlands DEIR. If you have any questions or would like to discuss this further, please call.

Very truly yours,


DAVID J. GUY

DJG:mo

cc: (w/o enclosures)

San Luis Obispo County Farm Bureau
Santa Barbara County Farm Bureau
Santa Maria Valley Water Conservation District

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Letter Q: California Farm Bureau Federation, David J. Guy, letter dated May 7, 1998.

Comment
Number

Response

The project analyzed in the Draft EIR proposes to pump water for on-site use only. The project description does not include plans to sell water outside of the project boundaries. Therefore, the issue of groundwater appropriation does not apply. The project proponents and the future homeowners at the Woodlands, as landowners, have the right to pump groundwater.

The organization that will be formed to distribute water from the wells to the Woodlands properties has not been formed at this time. The organization will be determined through negotiations between the applicant and the County. The County wishes that the organization be the most local form as possible, such as a homeowner's association or community services district, although it is possible that the County could operate the system. Should the organization at some future time decide to appropriate pumped groundwater, they would have to comply with applicable California water rights law and CEQA. However, this is not part of the proposed project.

The Draft EIR acknowledges on page 77 that there are some discrepancies among reports concerning the groundwater conditions in the area and explains why some groundwater data have been improperly used in other reports.

The "rule of reason" standard is applied to judicial review of EIR contents. The courts do not hold an agency to a standard of absolute perfection, but rather requires only that an EIR show that an agency has made an objective, good-faith attempt at full disclosure. Section 15151 indicates, "[d]isagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the expert." In the case of the Woodlands EIR, where a differing opinion is presented this EIR acknowledges the difference and sets forth the reasons for the difference.

577 Sheridan Road
Arroyo Grande, CA 93421
May 2, 1998

RECEIVED
MAY 19 1998
RECEIVED
ENVIRONMENTAL SCIENCE ASSOC.
LOS ANGELES

SLO Department of Planning and Building
County Government Center
San Luis Obispo, CA 93408
Dear John McKenzie,

MAY 05 1998

S.L.O. COUNTY
PLANNING DEPT.

After listening to the developers last night at the Nipomo Recreational Center meeting, we were reminded of the last part of *The Wizard of Oz* when the wizard said, I am the mighty Wizard! Don't look behind the curtain!"

John Stoddard of Black Lake was, at least, honest enough to state he would do whatever benefitted him financially, and if complying with TDC's or whatever else the County "required" wasn't economically "feasible," he wouldn't do it.

John Hunnecke was less open, but "looking behind the curtain" the wide gap between what this Woodlands' agent promised the community at the April 30 meeting (in bold type) and the reality (in parentheses) of what will be delivered was obvious:

1. Our business park will bring hundreds of jobs to the South County! (It won't happen unless the locals and the County Board offers tax-free status and other financial incentives to the businesses we don't yet have lined up. This will cost the local community about 15 years of lost revenue in the face of increased costs to the county taxpayers, and if other communities are any indicator of the success of these schemes, the businesses will move on as soon as their tax-exempt status ends)

1

2. We will use our own wells and our reclaimed waste water to service the development! (If it's cheaper to "sell" our water to Santa Maria in exchange for distributors' promises to service us, we'll do it)

2

3. We will mitigate any decline in groundwater levels that affect our neighbors' wells! (Don't ask me to put it into writing; I won't. All I *will* agree to in writing is to "survey surrounding wells to determine water level interference and if any remedial measures are needed...." We will **not** promise *actual* mitigation in writing!)

3

4. We want a high class 500 room hotel like the Four Seasons to bring tourists to this lovely community! (We have no hotel knocking at our door...Maybe you locals can get one here if you promise *those* developers tax incentives to build here, too!)

4

5. We are dedicating eleven acres to a butterfly preserve! (300 feet by 300 feet makes 11 acres if I say it does, although it *really* adds up to less than 1.5 acres!)

5

6. **We are going to build a beautiful village of over 1300 homes on 960 acres! You'll love it!** (If the South County General Plan Amendment required for such increased density sets a precedent for increasing the density on **all** new development permits issued for the Mesa, that's the locals' problem, not Woodlands')

6

7. **We will improve the roads impacted by the enormous traffic increases resulting from our development's addition of 1386 homes, businesses , hotel, public golf courses and "village"!** (We will improve exterior roads *if and when* the Willow Road Extension/Interchange is completed! Otherwise, locals, live with the traffic, or pay for mitigating it yourselves!)

7

I could go on, but you get the drift. As a native New Yorker, I'm familiar with a "hustle," and last night's "presentation" made me uncomfortable. I trust it raised your awareness level, too, and that you will demand concrete, contactural solutions to the obvious problems this ambitious project will inflict on its neighbors and the entire county, before you recommend approval. Hunnecke and his investors will be long gone with the loot before the proverbial bad stuff hits the fan, but you and I will be here to suffer the consequences.

Sincerely,

Astar Holliday
Bill Holliday

Letter R: Istar Holliday, Bill Holliday, letter dated May 2, 1998.

Comment
Number

Response

1. Comment noted. CEQA does not require the analysis of economic impacts of a proposed project. As stated in Section 15131(a) of the State CEQA Guidelines, "Economic or social effects of a project shall not be treated as significant effects on the environment." Socio-economics factors will be weighed by the decisionmakers in deciding whether to approve the project.
2. Comment noted. The EIR's analysis is based on the applicant intent to use water from on-site wells and reclaimed water from on-site uses.

The project description in the EIR indicates the proposed use of water pumped from on-site wells for potable uses and the use of reclaimed water from the wastewater treatment plant for permitted irrigation. No other water distribution scenario has been proposed.
3. Comment noted. As stated in the DEIR on page 117, the applicant will conduct a survey of wells that could be affected by cumulative water level interference. The applicant shall then implement means to allow for continued production of these wells under drought conditions to the satisfaction of the County Engineer.

The EIR describes the potential for the project, during drought conditions, and in combination with future reasonably foreseen projects, to adversely affect certain wells. A sample of 16 wells were reviewed and it is acknowledged that others may be affected. The mitigation described, in writing, on page 117 of the Draft EIR describes completing a thorough survey of wells that could be cumulatively affected and the applicant shall, "then implement means to allow for continued production of these wells under drought conditions to the satisfaction of the county."
4. Comment noted. As indicated above, socio-economic issues are not addressed in CEQA documents. The decision-makers will weigh the feasibility of a hotel in making their decision on the project.
5. Comment noted. As indicated in the DEIR on page 51, 11 acres would be set aside as sensitive habitat for the Monarch butterfly. The size of this area would remain unchanged under the Revised Project Alternative.
6. Comment noted. As discussed in Section 3.3 the project (as would the Revised Alternative) is generally consistent with the South County Area Plan. Section 6.1 discussed the growth inducing potential.
7. The applicant will mitigate impacts prior to their occurrence. Roads to be used by project traffic will be improved prior to occupation. Section 4.2 discusses the potential traffic impacts specific to the proposed project, as well as identify specific roads that will need to be improved by the applicant.

LETTER S

April 9, 1998

RECEIVED
APR 13 1998
S.L.O. COUNTY
PLANNING DEPT.

John McKenzie, Environmental Division
County Planning & Building Dept.
County Government Center, Room 310
San Luis Obispo, CA 93408-2040

Dear Mr. McKenzie:

This letter relates to the Draft Environmental Impact Report (EIR) for the Woodlands Specific Plan. This letter is being sent to you by both U.S. mail as well as by e-mail.

The following are my comments to the draft EIR:

1. The Proposed Project Density of More than 957 Residential Units Would Exceed the Limits Set by the General Plan:

The County General Plan sets a base number of residential units at one per five acres. Additional dwelling units may be proposed beyond the base number up to a density of one residential unit per acre. 1

Exactly what is meant by the term "residential unit" is not entirely clear from the language of the General Plan. However one reasonable interpretation would bring into the definition either all or some portion of resort and hotel rooms, since their occupancy would create the same environmental issues as more conventional residential units.

Since the project is 957 acres in size, the maximum number of residential units which would be permissible under the General Plan is 957. Included in that number should be some aspect of the proposed hotel and resort units. 2

A project density of more than 957 residential units would require an amendment of the General Plan. Amendment of the General Plan would require public hearings and broad community involvement far greater than the scheme which has been set for hearings in connection with the Woodlands EIR.

As a homeowner who will be directly affected by the Woodlands project, I would oppose any approval of a project size in excess of 957 residential units. A reasonable compromise might be that the hotel should be limited to what was described to us at the Public Scoping Meeting held on July 22, 1996, that is **no more than 250 rooms**. If the developer wishes more than 250 rooms for the hotel, then the number of other residential units should be decreased by the same amount. For example, if the developer wishes 350 rooms for the hotel (that is, 100 more than was previously described to us), then the number of other residential units should be decreased by 100 (that is, from 957 to 857). 3

2. The Proposed Business Park Element Was Not Adequately Covered in the Scoping Meeting:

The business park is intended to bring jobs to the area, which is not a bad thing so long as it does not adversely impact the neighborhood. Note that the developer failed to provide the public with any 4

Mr. John McKenzie, Environmental Division
April 9, 1998
Page 2 of 2

meaningful details concerning the business park at the Public Scoping Meeting of July 22, 1996. There is a possibility that this might affect the validity of the process regarding the business park element, which cannot be remedied by its inclusion in the draft EIR. A reasonable compromise might be that the business park should be limited to the smallest size mentioned by the developer in the draft EIR, that is **no more than 22 acres**.

Cont'd.

4

3. The Draft EIR Does Not Adequately Address the Effect of the Woodlands Project on Surrounding Individual Homeowner Wells:

5

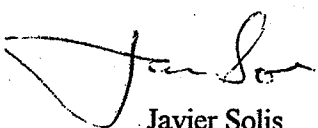
While the draft EIR takes the position that there is minimal impact on certain wells in the area (primarily of interest to me Well No. 11N/35W-10La), it does not adequately reflect the projected impact on individual homeowner wells between the project and that well (including mine). The additional drawdown on my individual well may require an expensive requirement for me to drill a deeper well than I currently have. One mitigation that the County should consider is that the developer reimburse the project neighbors for the additional cost of sinking their current wells deeper, in order to accommodate the additional drawdown that will be caused by the Woodlands project.

4. The Rural Village I Alternate Comes Closest To Meeting the General Plan:

6

The Rural Village I Alternate, while technically outside the bounds of the General Plan, comes closest to meeting the current goals and standards of the General Plan. As such, it should be shown in the EIR as the baseline proposal - not buried in the document as an alternate. The Rural Village I alternate represents the alternative with the least environmental impact among those listed, and the one which should be preferred by the County, over all others proposed.

Very truly yours,


Javier Solis
844 Via Concha Road
Nipomo, CA 93444

Letter S: Javier Solis, letter dated April 9, 1998.

Comment
Number

Response

1. Comment noted. As defined in the County's Land Use Ordinance (Sec. 22.04.032) the Specific Plan process will allow for parcels less than 1 acre when the project is within an urban or village reserve line. As a part of this request, the applicant proposes that a village reserve line be established around this project.
2. Comment noted. The number of residential units under the Revised Project Alternative would remain the same as the original proposed project. On page 68 Table 3-1 9 (Consistency with County of San Luis Obispo Plans and Policies) the DEIR addresses the number of allowable dwelling units. The proposed uses and densities are consistent with what is allowed in the Recreation land use category (See LUO and Table O, Framework for Planning). In addition, the Specific Plan process is an amendment of the General Plan. The project will be required to comply with all legal requirements for public hearings before the Planning Commission and Board of Supervisors.
3. Comment noted. Under the Revised Project Alternative, the number of residential units and hotel rooms would remain the same as under the original proposed project. Decision-makers will weigh the feasibility of a hotel in making their decision on the project.
4. Comment noted. The DEIR provides adequate discussion of the business park and the EIR process is valid for its analysis.
5. It is not feasible to predict the drawdown of every one of the hundreds of wells in the area. The groundwater model was used to predict the drawdown in certain representative wells in the area that surround the property. The model predicts that the project will lower well no, 11N/35W-10La by 2.85 feet over baseline conditions. If Mr. Solis' well is in line between this well and the project, it would be expected to experience drawdown more than 2.85 feet in a rough proportion to the distance to the Dawn Road well. A review of the available data on individual wells in the area showed that most were hundreds of feet lower than this drawdown, and would not be affected by the pumping.
6. Comment noted. The applicant has made minor changes to the proposed project as reflected in the Revised Project Alternative in an effort to reduce specific environmental impacts. Also refer to Comment #2.

The Woodlands EIR study, Executive Summary States: "One of the main sources of recharge to the southern Nipomo Mesa is inflow from the Santa Maria Valley. .. the other main source of ground water is reduced ocean outflow ... Calculations presented in the 1997 Addendum show 830 acre feet per year (afy) of water consumed by the project. ... If (415 afy) of the project consumptive use would be derived from increase inflow and half from decreased outflow."

They then quote the Luhdorff and Scalmanini report "... it indicates a long-term stability... thus, overdraft conditions due to salt water intrusion do not appear to have existed historically." The Luhdorff and Scalmanini report does not provide data or state that there is a surplus of 415 afy in the Santa Maria Valley area which the EIR study assumes.

Is the Luhdorff and Scalmanini report wrong about the basin being in balance?

The EIR study also state "... impacts on stream flow (in the Santa Maria River) will be completely offset by the recent importation of State water by the City of Santa Maria. The reduction in ground water production by the City will result in higher basin-wide water levels"

Why is the EIR ignoring the fact that the City of Santa Maria water may not be available as the city is attempting to sell all its imported return flows (sewer water) and has claimed the right to pump its accumulated "reduction in ground water production" at any later time?

The City of Santa Maria is importing water for water quality and because they say they need supplemental water for future growth.

If the city needs to pay for 5000 afy of imported water for growth why would the woodlands not be required to?

The draft 1998 DWR report in SLO is out and it states:

The Arroyo Grande HSA has a surplus of	1700 AF/Year on the long term average
The Nipomo Mesa HSA has a surplus of	800 AF/Year ¹ on the long term average
The Guadalupe ² HSA has a shortage of	4400 AF/Year on the long term average

¹not including the approved Cypress Ridge project of 400 AF/Year and NCS D commitment to provide about 500 AF/Year of water to new hookups. ²Santa Maria valley north of the county line to the bluff.

This \$350,000 DWR study is in direct conflict with the EIR study as it shows that there is at least a 4400 afy shortage in the Santa Maria area not a 415 afy surplus needed as stated in the EIR. It also shows the Nipomo Mesa with a 800 afy surplus but that has been committed to be used by Cypress Ridge and NCS D.

Is the new DWR study wrong?

Although an initial study can identify environmental effects by use of a summary or checklist, it must also disclose for public scrutiny the data or evidence on which the person conducting the study relied. It must also provide evidence which will enable a person to determine whether the findings which ultimately resulted from the EIR are supported by the evidence. Mere conclusions are simply not enough. (Citizens Association for Sensible Development of the Bishop Area V. County of Inyo (1985) 172 Cal. App. 3d 151,171)

Will actual well level and location data be provided from your EIR studies which people can check?

NCS D has stated in the past the basin is in overdraft.

Is NCS D wrong in their statement that the basin is in overdraft?

This project will increase use of water on the mesa by about 10% (800 afy more then the 8000 afy used now). The capital cost is about \$4,000 per lot for Woodlands 1200 lots to hookup to state water for the project.

NCS D is the appropriator (one who sells water) with the latest increase in pumping in the basin. Because they only have the right to pump surplus water they are the ones that would have to cut back first if there is any shortage.

If the basin is now in about a balance, NCS D will have to cutback 830 afy and replace the water pumped by the woodlands project. It will cost NCS D's 2500 customers about \$2000 each in capital costs to get state water.

When the conflicting reports, if the EIR turns out to be wrong who will pay for state water to correct the problems caused by the water use of your project? What guarantee do the people of Nipomo have that it will not be them?



KOCH CALIFORNIA LTD.

662 Eucalyptus Rd., Box 1127
 Nipomo, California 93444
 Phone (805) 929-4153
 Fax (805) 929-5598
 Home (805) 929-2455 7:00Pm to 9:00 PM

May 5, 1998

John McKenzie, Environmental Division
 County Planning and Building Dept.
 County Government Center, Rm. 310
 San Luis Obispo, CA 93408-2040

(805) 781-5600

(805) 781-1242 fax

Dear John McKenzie:

I am requesting more information on the Woodlands Specific Plan EIR(ED95-026: G940005S)

In the EIR it states on page 71: Elements of this section were derived from Water Resources Management Study for the Woodlands, by Cleath and Associates, April 1996, and Addendum dated September, 1997 and December, 1997. These reports were independently reviewed by Environmental Science Associates.

1

I would like a copy of the Review done by Environmental Science Associates.

On Page 78 the EIR states: There are discrepancies among reports describing the hydrogeologic conditions of the Nipomo Mesa Subarea. The EIR for the South County Area Plan Inland Portion, 1991, relying on groundwater levels reported by the State Department of Water Resources (DWR), concludes that the Nipomo Mesa, "is providing outflow to adjacent areas of the Santa Maria Groundwater Basin because it has historically had an excess of groundwater recharge as opposed to extractions". The report prepared for the project applicant by Cleath and Associates, 1996, describes groundwater historically flowing from the Santa Maria Valley northwest to the Nipomo Mesa. This inflow varies annually, but has been estimated to average 3,300 acre-feet per year (afy) from 1996 to 1992. The Cleath report attributes the discrepancy on the improper use by DWR of certain wells that draw on water in higher perched water zones, showing water levels as high as 200 feet above levels in the production zones. Therefore, the Cleath reports concludes that there is less groundwater in storage above mean sea level in the Mesa (56,400 afy) than was estimated by DWR.

On Page 35 of the Water Resources Management Study for the Woodlands it states: The model was calibrated using the data and estimated parameters as detailed above to simulate the conditions prevailing during the years 1977 through 1992. Ground water flow parameters (permeability and storativity) and recharge parameters were adjusted until there was a close fit between the historic water levels and those predicted by the simulation. The calibration wells were selected based on availability of historic data and proximity to the main study area (see Figure 20).

It should be noted there may be considerable variation of water levels in wells that are screened in different production horizons. For example, at the new Woodlands Highway 1 wells, water levels in the monitoring well are consistently 25-30 feet higher than those in the adjacent production well. Effects from the vertical variations in heads were also found in calibrating the model. In several of the calibration target wells, the levels calculated by the model did not match the actual-historic levels, but did match the seasonal variations in levels fairly closely.

Because much of the data utilized for the development of the model were estimated (such as agricultural ground water production and water levels in the creeks), the accuracy of this model should not be considered to be any greater than the accuracy of the many estimates and assumptions. The results of ground water modeling are included in both the previous section on Status of the Nipomo Mesa Storage Area and in the following section on Potential Impacts to Ground Water.

These texts shows the importance and effect of selecting the wells to do modeling which is then used to make conclusions. Because the conclusions in the EIR on water draw down, overdraft, sea water intrusion and basing storage are based on the results of the model and the assumptions it is important to be able to check the data.

1

In addition I have the following reference: Although an initial study can identify environmental effects by use of a summary or checklist, it must also disclose for public scrutiny the data or evidence on which the person conducting the study relied. It must also provide evidence which will enable a person to determine whether the findings which ultimately resulted in the MND (or resulted from the EIR) are supported by the evidence. Mere conclusions are simply not enough. (Citizens Association for Sensible Development of the Bishop Area V. County of Inyo (1985) 172 Cal. App. 3d 151,171)

2

I request a copy of the following:

3

Location of Wells, state well numbers, their historical water levels and drilling/construction logs of wells where used in the study.

Location of Wells, state well numbers, their historical water levels and drilling/construction logs of wells where not used in the study model because there was a conclusion that they were not representing the production zone.

Location of Wells, state well numbers, their historical water levels and drilling/construction logs of wells where not used in the study model but not evaluated and the reason for not using them.

Permeability information used in the study area by Model grids (my copy is unreadable) and the wells used to come to that conclusion on Permeability.

Storativity information used in the study area by Model grids (my copy is unreadable) and the wells used to come to that conclusion on Storativity.

Historical and projected water level information used in the study area by Model grid and the wells used to come to that conclusion on level.

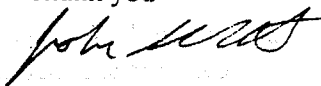
Historical and projected water pumpage information used in the study area by Model grid and the wells used to come to that conclusion on pumpage.

Historical and projected water return flow information used in the study area by Model grid and the information used to come to that conclusion on return flow.

Historical and projected rain water inflow information used in the study area by Model grid and the wells used to come to that conclusion on rain water inflow.

Historical and projected Inflow and outflow at the boundy areas of the study area by Model grid.

Thank you



John Snyder

LETTER T (3)

Comments for Woodlands Draft EIR 5-8-98

John Snyder
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Nipomo, CA 93444
(805) 929-4153
(805) 929-5598

John McKenzie, Environmental Division
County Planning & Building Dept.
County Government Center, Rm 310
San Luis Obispo, CA 93408-2040

Dear John McKenzie, Environmental Specialist

I would like to comment on the Woodlands Specific Plan Draft EIR (ED95-026;G940005S).

1) Water is a very important issue for agriculture. Agriculture sole supply in this area is the ground water basin. Because agriculture primarily consists of overlying land owners that pump water for their own use they have the first priority to the water over anyone selling water (as appropriators). A reduction of the water supply for agriculture or any increase in the cost of water for agriculture would be a major negative impact for agriculture. The DEIR has many conclusions that are not shown to be supported by data, use data can not be reviewed by the public or are extrapolated from others studies without verification. Many studies and findings have been made in the Santa Maria basin that are conflicting with this DEIR. The differences in conclusions between the studies have not been explained in many of the cases.

1

2) In past DEIRs the legal issues of water have been avoided. However the use of water does have California laws that apply. Would one be allowed in an DEIR to say the neighbors property will be used for open space or road ways to mitigate for the project if the applicant did not own the property and the neighboring owner did not agree in some way? No. The same logic applies to groundwater. You must show that you can pump the water on a permanent basis both physically and legally. I understand that the right to pump groundwater is based on priority, pumping history and time, not so much title like property and this makes it a difficult analysis. But the analysis has to be done so the people who get their water from the basin and have the lowest priority (appropriators like NCSD, Cal Cities) will not have the burden of correcting any over-pumping by paying the cost for imported water to replace over-pumped water retroactively. Nor should the overlying landowners be expected to pay for over pumpage by appropriators through pumping cutbacks or well charges for any mistakes in planning by the county that result in any over-pumping. In any case if there is any court order in the basin of a shortage of water in the basin the DEIR should address a plan that would cause the project appropriators to be required to pay the full cost of acquiring supplemental water and replacing any water that was removed from the start of the shortage.

2

3) An EIR is legally required. You must come to several legal conclusions. An overdraft is a legal state of the basin which would result in significant impacts that must be mitigated. If you are not mitigating your water pumpage you must come to the conclusion that there is not an overdraft in the basin as a whole and justify that with supportable, verifiable data.

3

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COUNTY PLANNING & BUILDING

4) There have been many studies and conflicting conclusions made on the status of the groundwater in the Santa Maria Groundwater Basin. It is important for the public to be able to verify your results. I would like the evidence you have to support your conclusions. Please see my data request letter dated 5/5/98. This inclusion of the letter is not intended to effect the status of the answer, timing and intent of the original letter.

4

5) The 1998 DWR study clearly states that there is only one Santa Maria basin from Orcutt to Pismo, and the subdivision at the southern Nipomo mesa edge is for data collection purposes only. Do you come to the same conclusion?

5

6) Your model study area is shown in figure 4.1-4. It extends beyond the north boundary of the Nipomo mesa but does not extend over the entire north end of the Santa Maria basin. On the south side you have stopped just north of the Santa Maria river and the San Luis Obispo County line but do not extend the study over the entire basin to the southern edge.

6

What justification do you have for the limited water study area in the basin as a whole? How could there be no impacts in the Santa Maria groundwater basin as a whole when "the groundwater basin is a singular, large hydraulically continuous aquifer system throughout its 250 square miles in the southwestern corner of San Luis Obispo County and the northwestern corner of Santa Barbara County"¹. How do you know the effect of the importation of state water by the city of Santa Maria if it is not in the study area or model? What is the effect of development in Orcutt and how will that effect the water in Santa Maria which would effect water in Nipomo?

Your study area should extend over the Santa Maria basin as a whole because the basin is in two counties each of which does not have full control of development in the basin. You should include all future planned and approved projects in the whole basin using water, from Pismo Beach south to Orcutt and Gualdalupe.

7) With that in mind the Orcutt area plan sets the precedent for the basin in that groundwater is not to be considered a reliable long term supply for new development. The Orcutt Community Plan cited the impact as Class II Significant but avoidable with mitigation. The required mitigation measure was that new development was to be served by new supplemental water supplies and not from continued pumpage of the groundwater basin. The project should be required to provide the same mitigation. This would prevent the impact on low priority (appropriative pumpers) from this project. There is state water pipe line capacity and water for sale by many entities at this time and NCS D has a pipe to carry the water from the State pipe to the boundary of the Woodlands project. This existing piping makes it cost effective to mitigate and avoid the impact of the water use of the project.

7

The 1998 DWR report states that there is a 800 afy surplus in the Nipomo Mesa area. This means that with this project's proposed pumpage of 800 AF Plus Cypress Ridges 400 afy plus NCS D's commitment to supply 500 afy the basin may go beyond the safe yield and the last houses to be built would need to bring in surplus water. If your project is not completed first where will the surface or surplus water come from?

¹ Water Resources of the Arroyo Grande-Nipomo Mesa Area April 1998 Draft page 56 & figure 14 (also in South County plan Apenddex A)

8) Pismo and Oceano have also acquired state water in the north end of the Santa Maria basin setting precedent in groundwater use not to be considered a reliable long term supply for new development in the basin. 8

9) Transfer Development Credit projects will use water above the current planned density. How have you factored in the Transfer Development Credit program in San Luis Obispo County into your numbers? 9

10) What is your definition of significant impact for the groundwater basin and is it the same as the legal definition of significant impact used in determining Overdraft, Balance, Underdraft, Safe Yield And Temporary Surplus used for the groundwater basins? If it is not the same there will be potential impacts that have not been studied or properly mitigated. The basin is currently in an adjudication with a filing date of June 1997. 10

11) Does your project pump any water that is from a temporary surplus as properly defined above in the basin with the Safe Yield being exceeded in any future years of your projections? Any temporary surplus use could only be considered temporary by definition and could not be a long-term supply of water for the project. 11

12) Since the legal right to pump water is based first on a priority with overlying land owners who pump their own water for use on their property having first priority and second on Appropriators which have the right to sell water which is surplus over the net yield in a first in time, first in right. Your DEIR does not state the type of entity that will run and manage the water system supplying water to homes. In a Woodlands Nipomo Community Network meeting at the Nipomo library on 4/14/98 it was stated in the long run the operations would be taken over by an appropriator. The right to pump water would then become subordinate to the overlying landowners and would not be a viable long-term supply as it would be the first to be curtailed in a shortage(as it is acquired last in time to existing appropriators). As such you need to state the nature of the operator of the water system and insure that it will not become an appropriator. 12

13) In the 1979 DWR report old studies that were made in other counties were used for rain infiltration to the basin. These were challenged by many other studies resulting in about doubling of the amount of rain water being used in the calculations. If the DWR can be off by a factor of 2 what makes your numbers more accurate?. How accurate are your numbers? What percentage do you use for infiltration of rain water on the mesa? What is the factor for an area with a solid grove of Eucalyptus trees? Are these infiltration linear with rainfall or do they start only after a certain amount of rain within a given time period? If so what time period. What measurements do you have that have actually been made on the mesa to verify the conclusions? 13

14) I would like a comparison of your model to the 1998 DWR model. In your models projections of future water in storage are calculated. For the periods of 1975, 1980, 1985, 1990, 1995, 2000, 2010, 2020 what numbers do you use for: 14

- Urban Population?
- Urban Hookups?
- Urban applied water?
- Urban Net water used?
- Rural Population?

Rural Homes?
 Rural applied water?
 Rural Net water used?
 Agriculture applied water?
 Agriculture Net water used?
 Industrial applied water?
 Industrial Net water used?

14

Applied water exported out of the basin by NCSD?
 Net water exported out of the basin by NCSD?
 Net water imported into the basin by NCSD through the sewer plant?

Safe yield of the whole Santa Maria basin?
 Safe yield of the Santa Maria valley HAS of the Santa Maria basin?
 Safe yield of the Nipomo HAS of the Santa Maria basin?
 Safe yield of the Arroyo Grande HAS of the Santa Maria basin?

Other numbers assumed for the model and calculations?

15) The 1998 DWR has used a return flow of 10 AF for 300 AF of applied water for the Black Lake golf course which is 3.3%. The DEIR has return flows of 69 AF for 791AF of applied water for your golf course which is 8.7%. This is more than a factor of 2. Why is there such a large difference and what data do you have to support your calculation?

15

16) In one part of your study you add all return flow to the basin. In the water quality section you state that the water with its nitrates etc. will remain in the top confine layer (not the production zone) and go to the ocean. How can the nitrates and salt loading go one way to the ocean and all the water go to the basin where the production wells are?

16

17) There are reported relatively higher nitrate areas in the Santa Maria valley. Because you show your project pulling water from the Santa Maria area your study needs to address the pulling of any nitrate towards and into the Nipomo area, any wells in-between the nitrate and the project and its effect on water quality on wells in the area.

17

18) There has been an outflow reported to be about 10,000 afy to the ocean from the basin depending on which report you read. If the project consumes 800 afy there will be a substantial reduction in ocean outflow. This reduction will reduce the removal of any salt and nitrate from the basin and this effect has not been looked at by your study. This will have a major negative impact on both agriculture and drinking wells in the basin.

18

19) About 1 1/2 years ago the project has paid \$15,000 and has \$95,000 in escrow for a contract to be developed for a water transfer of water "not pumped by Santa Maria due to taking its taking state water" some times claimed to be "water dumped into the basin from the Santa Maria sewer treatment plant" which would compensate for water being pumped from the projects current wells. This type of basin transfer would require an overdraft in the basin. The period to come up with a deal has been extended for 6 months several times. Why should we believe the studies conclusion the basin has a surplus and is not overdrafted if the projects applicant does not believe it enough to have taken this money out of escrow?

19

20) Your DEIR states "The Cleath report attributes the discrepancy on the improper use by '1979' DWR of certain wells that draw on water in higher perched water zones, showing water levels as high as 200 feet above levels in the production zones. Therefore, the Cleath report concludes that there is less groundwater in storage above mean sea level in the Mesa (56,400 afy) than was estimated by '1979' DWR.". If the DWR can make this simple mistake of selecting the wrong well what assurances do the well owners of Nipomo have that you have not made the same type of mistake. What evidence do you have that the wells your study selected are in the correct "production zone"?

20

What wells (by state well number) were incorrect?

What wells (by state well number) were correct?

What were the differences in level?

What data do you have that justifies the correction?

I would like a copy of the data.

21) Do you use any well data from NCSD, well data from the County that is on NCSD wells, or is from the DWR on NCSD wells which is dated before 1991? I was told by the general manager of NCSD in 1995 that all well data that was more then five years old was "unreliable". This data or its derivatives should be identified and removed from any study and conclusions made on this DEIR. All NCSD data is public and all data from NCSD in your study should be released.

21

22) With the choice of wells effecting the outcome of the studies so much we must know which wells were used in the study so we can compare them with data we know. I would like a copy of the location drilling data and well levels used in the study. It is inappropriate to use data as a basis for conclusions in an DEIR that can not be released to the public.

22

23) All wells records from public entities are public record and should be released with the study so we can review and compare the levels in the studies with the actual levels.

23

24) Although an initial study can identify environmental effects by use of a summary or checklist, it must also disclose for public scrutiny the data or evidence on which the person conducting the study relied. It must also provide evidence which will enable a person to determine whether the findings which ultimately resulted from *the DEIR are* supported by the evidence. Mere conclusions are simply not enough. (Citizens Association for Sensible Development of the Bishop Area V. County of Inyo (1985) 172 Cal. App. 3d 151,171)
Will actual well level and location data be provided from your DEIR studies which people can check?

24

25) The study and its conclusions are based on wells in the basin. Some wells are part of the public record such as NCSD, Cal Cities and DWR/USGS/County monitoring wells. Why were the data from these wells not provided in the study? Were there any attempts to obtain release's for the well data from private property owners? I would like a copy of any attempts to obtain releases from well owners.

25

26) The length of time you have projected forward is inadequate and should be for a "permanent" period to verify a permanent water source for the project and prevent future impacts. I believe a period of 75 years is considered the minimum time period required.

26

27) Because a overlying use has a priority over appropriative use and there is only control through the initial permitting process of each development by the planning department on appropriative uses. Increases in overlying pumping in the future could effect the ability of this project to pump water. Changes and growth of overlying pumping should be addressed in the study. The study of cumulative and future use should not be just limited to the approved and proposed projects in the county planning department.

27

28) What farmers were talked to and what data did they provide?

28

29) The study does not consider the effect of the largest well on the mesa, NCSD's Sundale Well which NCSD is going to use as their primary well to supply water to the district. This well pumpage will cause a significant change in pumping patterns and should be considered in the model for the future buildout of the NCSD.

29

30) Cal Cities water company is requesting a rate increase for Orcutt and Nipomo at this time to bring in state water because they claim the basin is overdrafted and new and current home owners are being asked to pay the bill. It would be inconsistent to make new houses in the Cal Cities Water company area pay for state water while allowing this large development to pump groundwater as their only supply with no future backup.

30

31) You have used the model to predict 50 years into the future. How do we know the model has an accuracy to project from the base years of 1976-1992 to 2050? As a check of the model you need to run it back 50 years and plot the models predicted water level and various wells levels so we can see the accuracy. If the difference is more then 20 % of the predicted water level drops in any neighboring wells the model should be redone or not used as a basis of the DEIR conclusions. Note there are plenty of wells on the north and south ends of the model area that go back to the 1930's to do this check.

31

32) The Woodlands DEIR study, Executive Summary States: "One of the main sources of recharge to the southern Nipomo Mesa is inflow from the Santa Maria Valley. ... the other main source of ground water is reduced ocean outflow ... Calculations presented in the 1997 Addendum show 830 acre feet per year (afy) of water consumed by the project. ... half (415 afy) of the project consumptive use would be derived from increase inflow and half from decreased outflow."

32

They then quote the Luhdorff and Scalmanini report "... it indicates a long-term stability... thus, overdraft conditions due to salt water intrusion do not appear to have existed historically." The Luhdorff and Scalmanini report does not provide data or state that there is a surplus of 415 afy in the Santa Maria Valley area which the DEIR study assumes.

Is the Luhdorff and Scalmanini report wrong about the basin being in balance?

33) The DEIR study also state "... impacts on stream flow (in the Santa Maria River) will be completely offset by the recent importation of State water by the City of Santa Maria. The reduction in groundwater production by the City will result in higher basin-wide water levels" Why is the DEIR ignoring the fact that the City of Santa Maria water may not be available as the city is attempting to sell all its imported return flows (sewer water) and has claimed the right to pump its accumulated "reduction in ground water production" at any later time?

33

The City of Santa Maria is importing water for water quality and because they say they need supplemental water for future growth.

If the city needs to pay for 5000 afy of imported water for growth why would the woodlands not be required to?

34) The draft 1998 DWR report in SLO is out and it states:

The Arroyo Grande HSA has a surplus of	1700 AF/Year on the long term average
The Nipomo Mesa HSA has a surplus of	800 AF/Year ¹ on the long term average
The Guadalupe ² HSA has a shortage of	4400 AF/Year on the long term average

¹not including the approved Cypress Ridge project of 400 AF/Year and NCSD commitment to provide about 500 AF/Year of water to new hookups.

²Santa Maria valley north of the county line to the bluff.

This \$350,000 DWR study is in direct conflict with the DEIR study as it shows that there is at least a 4400 afy shortage in the Santa Maria area not a 415 afy surplus needed as stated in the DEIR. It also shows the Nipomo Mesa with a 800 afy surplus but that has been committed to be used by Cypress Ridge and NCSD.

Is the new DWR study wrong?

35) NCSD has stated in the past the basin is in overdraft and has passed resolutions to that state the basin is in overdraft.

Is NCSD wrong in their statement that the basin is in overdraft?

36) This project will increase use of water on the mesa by about 10% (800 afy more then the 8000 afy used now). The capital cost is about \$4,000 per lot for Woodlands 1200 lots to hookup to state water for the project.

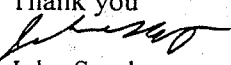
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If the basin is now in about a balance, NCSD will have to cutback 830 afy and replace the water pumped by the Woodlands project. It will cost NCSD's 2500 customers about \$2000 each in capital costs to get state water.

37) Given the conflicting reports, if the DEIR turns out to be wrong who will pay for state water to correct the problems caused by the water use of your project? What guarantee do the people of Nipomo have that it will not be them?

If you have any questions about my questions or comments please call.

Thank you


John Snyder

LETTER T (4)

John Snyder
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John McKenzie, Environmental Division
County Planning & Building Dept.
County Government Center, Rm 310
San Luis Obispo, CA 93408-2040

Faxed 781-1242

Dear John McKenzie, Environmental Specialist:

I would like to comment on the Woodlands Specific Plan Draft EIR (ED95-026;G940005S).

1) The Woodlands project looks like it will be doubling the traffic on Eucalyptus Road. The intersection of Osage and Eucalyptus is not as depicted on the maps which show a stretch intersection. There is an offset of about 60 feet between the West and East sections of Eucalyptus road. Although the road may have a rating of 10,600 trips this does not consider the intersection or the effect of long standing agricultural traffic needed on Eucalyptus Road. Being around Nipomo one knows the truck traffic is considered frequently when the safety of road and quality of life is considered in Nipomo. If the roads are unpaved people complain more about truck. We know this from Dawn Road and the greenhouses there. For this reason we supported the full paving of Eucalyptus even though we had paving to our driveway and received no direct benefit. We also know the more car traffic on the roads the less acceptable people find a truck. The bad intersection at Osage amplifies this negative impact considerably. At the time Eucalyptus was paved the Board of Supervisors removed the correcting of the intersection I believe because of the small amount of traffic that would be on the road and the cost of the project which was a the limit for an assessment district to work.

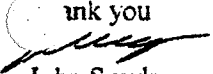
1

The trucks we have been using for our operation have been traveling through Nipomo for the last 20 years and are very useful and responsible. We have been able to handle any complaints people have had so far. Nipomo is the fastest growing area in the flower business in the state of California at this time and we need to be able to use trucks to move our product out for sale. Because we are here the Project should accommodate the existing trucks and mitigate the negative impact of the additional traffic even though the rating of the road may be adequate. The project should not be allowed to limit truck traffic or cause a limit to be placed on truck traffic due to complaints of over crowding caused by the projects doubling of traffic on the road

I see there are three solutions:

1. The Project could limit traffic in proportion to their participation in the assessment district by putting a cul-de-sac at the end of Eucalyptus road with 10-20 houses maximum on the end of the road. Possibly also with a emergency fire access to get to Highway 1.
2. The Project could straighten out the intersection at Osage and Eucalyptus.
3. The Project could be required to keep the current full rating of Eucalyptus road when it extends it to Highway 1 and be required to allow truck traffic on that road at all times in the future. This would enable us to route our trucks to come in on one side (say the east) and out the other side (say the west) through the project to Highway 1. This would compensate for the increase traffic flow by reducing the ratio of trucks to cars on the east side of Eucalyptus. It is possible because most of the trucks must always stop at other greenhouses on the mesa.

If you have any questions about my questions or comments please call.

Thank you

John Snyder

Letter T: John Snyder, Koch California LTD, 4 letters/memos dated April 30, 1998, May 5, 1998, May 8, 1998 and no date.

COMMENT LETTER T(1): John Snyder, April 30, 1998

Each comment submitted in this letter is also included in Mr. Snyder's comment letter dated May 8, 1998 and are addressed in the responses to Letter T(3)

COMMENT LETTER T(2): John Snyder, May 5, 1998

Comment

Number

Response

1. A hydrogeologist and a water resources professional engineer from Environmental Science Associates reviewed the work submitted by Cleath and Associates. The reviewers concluded that the analysis was reasonable and appropriate. No separate report was prepared for this review.
2. The commenter does not specify those statements he believes to be conclusionary. No conclusionary statements are made in the EIR without evidence to support the conclusions.
3. The information requested was provided to the commenter. The data requested has been provided to the extent possible. All of the information used by the EIR consultant in their water analysis has been provided to the commenter.

COMMENT LETTER T(3): John Snyder, May 8, 1998

Comment

Number

Response

1. The Draft EIR describes the technical hydrogeology work that was completed for the project. It is stated that the Draft EIR authors concur that the work done by the applicant's consultant is reasonable and appropriate. The technical studies and background data used in the analysis are available for review from the County. The County responded to the request in the letter dated May 5, 1998 for specific data.

The Draft EIR acknowledges on page 77 that there are some discrepancies among reports concerning the groundwater conditions in the area and explains why some groundwater data have been improperly used in other reports.

The "rule of reason" standard is applied to judicial review of EIR contents. The courts do not hold an agency to a standard of absolute perfection, but rather requires only that an EIR show that an agency has made an objective, good-faith attempt at full disclosure. Section 15151 indicates, "[d]isagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the expert." In the case of the Woodlands

EIR, where a differing opinion is presented this EIR acknowledges the difference and sets forth the reasons for the difference.

2. Please see response to Letter Q
3. The EIR refers on page 95 to the Luhdorff and Salmanini report which describes the basin as cycling through periods of drought and recovery. In some years the recovery is to near historic high levels as shown in Figure 4.1-3. For this reason the authors concluded, and ESA concurs, that the basin is not in a state of overdraft.
4. The data requested has been provided to the extent possible. All of the information used by the EIR consultant in their water analysis has been provided to the commentor.
5. The EIR concurs with the Draft DWR report in recognizing the Santa Maria Groundwater Basin as a single groundwater basin. The Nipomo subarea is in hydraulic continuity with the rest of the groundwater basin, but is distinguished by certain physical characteristics, such as the thick dune sands on the ground surface that cause a high level of rainfall infiltration.
6. The model area used is of appropriate size and sufficiently large to examine potential impacts from the project on local water resources, where the greatest or potentially significant impacts would be expected to occur. Modeling the entire Santa Maria Groundwater Basin is beyond the scope of the EIR analysis.

The EIR discussion on the effects of water importation by the City of Santa Maria were based on a hydraulic budget analysis, which is the same methodology used by DWR in the draft report. The effect of pumping on one side of the basin (Nipomo) on the other side (Orcutt) are very indirect and potentially so small as to be immeasurable.

7. The water availability and quality problems in Orcutt are mainly due to local overpumping. The ground water flow modeling performed by Cleath & Associates evaluates the potential for similar problems occurring on the Nipomo Mesa and the results are reported in the DEIR, along with proposed mitigation measures. The mitigation measures in the Orcutt area plan are more restrictive than proposed for The Woodlands because of local ground water conditions, not basin-wide conditions.

The Orcutt Plan EIR was for a development in Santa Barbara County, which has an adopted threshold of significance for groundwater extractions from the Santa Maria groundwater basin. This is why the County of Santa Barbara assigned the impacts to groundwater from the Orcutt plan as significant. San Luis Obispo County does not have an adopted threshold for groundwater extractions and uses their own judgement in determining levels of significance. In addition, as discussed in pages 79-82 of the DEIR, the basin as a whole does not appear to be in a state of overdraft.

As discussed in Response to Comment No. 34, DWR selected a different base period for representing long-term climatic conditions. This base period selection

is critical for determining long-term basin trends. The base period used in the project modeling provides different, and more representative results for the project area.

As ground water production increases on the Nipomo Mesa, storage levels will decline, resulting in increased inflow from the Santa Maria Valley and decreased outflow to the Cienega Valley and the Pacific Ocean. Storage levels will stabilize (averaged over dry and wet cycles) at a lower equilibrium level when total inflow equals total outflow. Cleath & Associates estimates that stabilization will occur at a range of water levels that could potentially impact some shallow wells in the project vicinity during extended droughts under the cumulative projects analysis. The Draft EIR provides a mitigation for this potential impact.

8. The importation of state water by Pismo and Oceano would improve groundwater conditions in the basin.
9. The voluntary County "Transfer Development Credits" were not factored into the analysis due to the speculative nature of this program (e.g. locations and potential densities of 'receiver' and 'sender' sites are unknown at this time).
10. The EIR defines the terms used for overdraft and perennial, or safe yield, using a widely used textbook definition. The definitions are essentially the same as the definitions found in DWR Bulletin 118.

The Final EIR text will be revised to acknowledge the filing of a complaint that may lead to adjudication of the basin. Please see Response to Comment letter P5.
11. The project does not propose to pump water that would create an overdraft condition.
12. While the ownership mechanism (e.g. water company, CSD) of the water and wastewater facilities for the project has not been determined at this time, the project does not propose to import or export any water, and is therefore an overlying user. The project description does not include plans to sell or provide water outside of the project boundaries.
13. The percentage of precipitation percolating to ground water beneath the Nipomo Mesa, on average, is estimated at 21 percent. This value was derived from hydrologic budget calculations for a nine square mile area on the Nipomo Mesa. The actual value is probably somewhere between about 17 to 25 percent. The factor beneath solid eucalyptus groves is zero. The infiltrating water is calculated as a percentage of total rainfall. There have been no actual measurements of percolating water volumes made on the Nipomo Mesa that Cleath & Associates or ESA are aware of.
14. The available breakdown of estimated production for the model is on page 49 of the Water Resources Management Study, 1996, Cleath and Associates. The other items requested either are not used in the model or have not been isolated and quantified. Use of the term "safe yield" only applies to the whole Santa Maria ground water basin and this number cannot be determined from the model.

15. The DWR draft report states on page 50 that, "Reclaimed water from the Black Lake Golf Course WWTP, which is held in an aerated lagoon prior to being applied to the adjacent Black Lake Golf Course, amounts to about 100 AF/Y, of which about 10 AF/Y percolates to the ground water basin." This is a 10 percent return flow rate, not 3 percent.
16. Percolating water does not go to directly into the main producing zones. Percolating water reaches model Layer 1. Production is from model Layer 2. Water is transmitted between layers based on a leakance factor. The same would apply to percolation or precipitation and return flows from the project site as described on page 37 of the Water Resources Management Study.
17. The Nipomo Mesa is already pulling water from beneath the Santa Maria Valley. This is an existing condition; the project will not change that. Areas of elevated nitrates in the Santa Maria Valley are generally in the central and west portions of the valley on the south side of the Santa Maria River. Ground water on the south side of the river channel flow to the west and would not be drawn beneath the Nipomo Mesa by the project. According to groundwater quality data from the Regional Board, nitrate concentrations in ground water beneath the San Luis Obispo portion of the valley are similar to concentrations measured in ground water from the project's wells. Therefore, the increased production by project wells would not cause water with significantly higher nitrate concentrations to be drawn toward the project from the Santa Maria Valley.
18. Impacts on water quality due to net reduction in ocean outflow have been addressed through the basin pickup analysis. This analysis assumes that a portion of the water pumped by the project would otherwise have gone out to the ocean and represents the reduction in ocean outflow. Rather than actually flowing to the ocean, this portion of water is effectively consumed by the project. Salt loading calculations show that the quality of percolating water recharging the basin from beneath the project site will be similar in nitrate and total dissolved solids concentrations to the existing ground water quality. This is possible because the project removes eucalyptus and increases percolation of precipitation beneath the site. Any potential adverse impact to water quality from the reduction in ocean outfall is fully mitigated by the increase in percolation beneath the site.
19. Transferring water credits is a water resources management tool that does not require overdraft conditions. Management of water resources benefits everyone.
20. The DWR estimates for Nipomo Mesa ground water in storage above mean sea level during 1975 was 172,000 acre-feet as reported in the 1979 report and 83,000 acre-feet as reported in their current draft report. The same type of mistake made in 1979 has not been made in this project analysis as evidenced by conservative storage estimates modeled by Cleath & Associates. Evaluation and assignment of wells into the model layers was performed by an experienced certified engineering geologist. We do not have the specific well numbers used by the DWR for their 1975 storage estimates.

21. If the NCS D provided any information to Cleath & Associates which is "unreliable," they should so state in writing. NCS D data may be reviewed at the NCS D offices.
22. This data was provided in response to letter T(2).
23. This data was provided in response to letter T(2).
- 24, 25. The CEQA document prepared for the project is a Draft Environmental Impact Report, not an Initial Study. The EIR provides a detailed discussion of the hydrogeologic analysis and the data used in the study. It does not merely provide conclusionary statements.

The data requested was provided in response to letter T(2). Some logs for private wells obtained during the course of work are maintained on a proprietary database.
26. The time period selected for the model was selected by examining groundwater trends to define a full cycle of drought and recovery. There is no universal time period used in groundwater modeling studies. Each study is unique.
27. The water use projections for the project were based on buildout conditions. Cumulative impacts were determined by adding in other reasonably foreseen projects, which are projects that have been either approved by the County or are pending approval (Table 3-2). To use any other projects than those on this list would be speculative.
28. Cleath & Associates conducted a survey of the Oso Flaco area wells and spoke with various farmers. The results of this survey, such as well locations, pumping rates and ground water production estimates were used as background information to assist with model inputs and are not available on a formal basis, except as summarized in the Water Resources Management Study.
29. The cumulative project analysis did assume all new production for NCS D would effectively come from the Sundale well. Shifting the distribution of pumping among NCS D wells will not change the cumulative impacts conclusions or the recommended mitigation measures.
30. As stated on page 84 of the Draft EIR, the County has not authorized connections to the state water project that could serve the project. The applicant has no control over the water rates charged by Cal Cities.
31. For the model to predict water levels, it requires many different 'inputs,' such as precipitation, well-extractions, inflow from groundwater accross boundary lines, etc. It is not feasible to estimate all model data input back to the 1930's. The assumption that the base period years are appropriate for model calibration is based on precipitation data for the area as discussed in the Water Resources Management Study.
32. A ground water basin that is in "balance" or shows "long-term stability" does not imply in any way that the safe yield of the basin is being fully utilized. For

example, before any development whatsoever, a ground water basin is also in balance and shows long-term stability. The Luhdorff and Scalmanini report concludes that the basin goes through periodic cycles of drought and recovery, and that even with the extensive pumping for agriculture and other uses, the basin has recovered to near historic high groundwater levels.

33. The cumulative impacts analysis has not ignored the City of Santa Maria's claim to percolated wastewater. In the long-term, whether or not the importation of State Water offsets stream flow impacts attributable to the project, those impacts are secondary to the main controlling factors (existing agricultural production and Twitchell Reservoir operations) and would not significantly change the historical pattern of stream flow, which includes no flow during extended drought periods.

The future production needs of the City of Santa Maria and the water quality issues faced by the City are not the same as for The Woodlands project. Commitments made to purchase State Water by the City of Santa Maria years ago are based in part on the assumption that the ground water basin was in overdraft.

34. The DWR draft report states that there was 4,400 afy shortage in the Guadalupe Hydrologic Soils Area over the selected base period of 1984 through 1995. Cleath & Associates selected a base period of 1977 through 1992 as being representative of long-term climatic conditions. A review of the water level trends in the Guadalupe HSA (Figure 20) on page 66 of the DWR Report shows the importance of base period selection. Water levels drop, on average, over the DWR base period but do not drop over Cleath & Associates' base period. The DWR report is not necessarily wrong, based on their selection of a representative base period. Cleath & Associates, however, considers the years from 1977 to 1992 as providing a better representation of the long-term climatic conditions.

The "rule of reason" standard is applied to judicial review of EIR contents. The courts do not hold an agency to a standard of absolute perfection, but rather requires only that an EIR show that an agency has made an objective, good-faith attempt at full disclosure. Section 15151 indicates, "[d]isagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the expert." In the case of the Woodlands EIR, where a differing opinion is presented this EIR acknowledges the difference and sets forth the reasons for the difference.

35. The letters submitted by the Nipomo Community services District on the Notice of Preparation of the Draft EIR (see Appendix B) refer to overdraft conditions in the Nipomo subarea. The Draft EIR describes the anticipated effects of the project as continuing the historic decline of groundwater levels in the Nipomo subarea. However, the analysis shows that the Santa Maria Groundwater Basin, for which the Nipomo subarea is a subset and is in hydraulic continuity, is not in overdraft, but rather is in a stable condition of cyclic drought and recovery periods.

36. See Response to Comment No. 32.

37. The Draft EIR used the best tools to predict future groundwater conditions. The analysis was conducted and reviewed by professionals licensed by the state in a good faith effort to provide accurate and meaningful conclusions.

COMMENT LETTER T (4): John Snyder, undated

Comment
Number

Response

1. The Woodlands development will improve the impacted roadways to County standards, thereby maintaining and/or upgrading the rating of the impacted roadways. Truck traffic will not be limited or restricted on any of the county-maintained roadways as a result of construction of the project.

PG 8 APR 21 34 PM '98
Halcyon, CA 93421
April 19, 1998

Jay Johnson and John McKenzie
County of San Luis Obispo
Planning and Building Department
County Government Center
San Luis Obispo, CA 93408
Gentlemen,

We would like to make an official response to the proposal of the developers of the 956 acre Woodlands Project planned for the Nipomo Mesa. We were not able to attend the April 14 meeting, but we were provided extensive notes of the proceedings by a neighbor in attendance. In addition, we have been at many presentations by developers of this property during NAAG and NCSD Board meetings these last 12 years and understand the scope of the project.

In spite of the public statement by individuals such as Jacqueline Fredericks, Ed Lauer, and others that there is "widespread" approval of the project, there are many, such as shareholders of the Laguna Negra Mutual Water Company and others in the Callender-Garrett Village, who have expressed concern and disapproval, and these "supportive" statements should be examined closely for their veracity. However, those who disapprove are aware that the developers might prevail, given the past performance of the County and the anxiety of the South County businessmen and large landowners to create another Monterey/Carmel on the Mesa and so increase their own business' or land's value. Given this understanding, we urge you to consider the following in your recommendations to the Board.

The Woodlands developers have, to our knowledge, produced no **actual** tenants for their "Silicon-Valley type industrial park." What is known is that they plan to develop 3 golf courses (45 holes) and build over 1300 homes around them and admit the development will lower groundwater level of the Nipomo Mesa Subunit three to five feet. What is **also** known is that the developers have been in "talks" with both NCSD and Cal Cities Water offering, in exchange for service, to export water from the Woodlands wells on the Nipomo Mesa to the distribution areas of both these "suppliers" who, as long as they are "assured" a water supply, continue to expand their spheres of influence and over whom the other overlying users have absolutely no influence. In other words, Woodlands wants to "sell" our underlying water supply for their own financial benefit. Present landowners would be powerless to prevent any lowering of the groundwater levels, which would render many present individual wells useless. Furthermore, the "monitoring of pesticides and fertilizer intrusion into our common water

1

2

supply will be "monitored" on a strictly voluntary basis. All of this is unacceptable to us.

2

We urge you, therefore, to impose the following reasonable restrictions on the developers as conditions of development permits:

1. All drinking, cooking, and bathing water required of the residential and commercial development on the property will be supplied by the wells and water storage facilities on the property.

3

2. Only "Grey" (or reclaimed) water will be used to irrigate the golf courses and other landscaped areas of the development.

4

3. The developers would be forbidden to make any "deals" with "appropriators" such as NCS D and Cal Cities Water to "exchange" Nipomo Mesa groundwater for distribution systems and processed water.

5

3. Groundwater monitoring systems will be installed by the developers, but will be operated by the County Environmental Health Division, which will collect as well as analyze the samples taken.

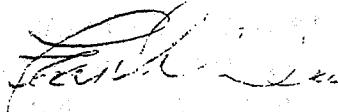
6

Last year, Carl Hauge of the State DWR made it clear at an NCS D Board meeting what havoc was wrought on the Monterey Peninsula by developers who promised the moon, enriched themselves, raped the environment, and destroyed the water supply. We do not have to duplicate that county's careless mistakes.

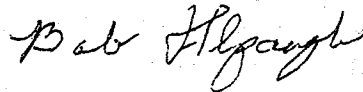
Sincerely,

The Laguna Negra Mutual Water Company Board of Directors :

Frank Drake, President



Robert Alpaugh, Director



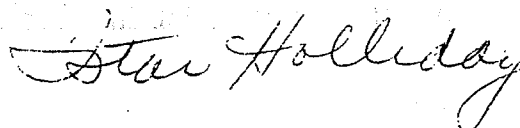
Thomas Bates, Director



Scott Naumann, Director



Istar Holliday, Sec'y/ Treas.



Letter U: Laguna Negra Mutual Water Co., Board of Directors, letter dated April 19, 1998.

**Comment
Number**

Response

1. The project description for the EIR does not indicate any proposed export of water from the property. All water produced from on-site wells and from recycling wastewater would be used within the project boundaries.
2. Pesticide use is regulated by the State. Authority to administer the regulations, including monitoring, is with the County. There are no regulations or monitoring requirements for fertilizer application.
3. The project description plans for the on-site water sources to supply all of the water demand from the project.
4. Recycled water will be used for irrigation of the golf courses. No regulatory agency has the authority to restrict the application of water meeting Title 22 standards for irrigation.
5. As stated above, there are no plans to export water from the project. Any discretionary approval by a government agency to purchase and convey water offsite would be subject to additional CEQA review.
6. Groundwater monitoring or the installation of groundwater monitoring devices is not the responsibility of the Applicant.

'98 APR 10 PM 1 02

April 10, 1998

John McKenzie, Environmental Division
County Planning & Building Dept.
County Government Center, Rm. 310
San Luis Obispo, CA 93408-2040

Mr. McKenzie

WOODLANDS SPECIFIC PLAN (PLAN)

In regard to the February 1998, Woodlands Specific Plan, specifically:

Traffic mitigation:

The Plan assumes Willow Road will go through to Highway 101. I understand that change is no longer being pursued. Given this change and the fact that a portion of Cypress Ridge mitigation dollars for the Halcyon/1 intersection have been move to the El Campo/101 intersection, the Woodlands project should more fully consider its impact to Highway 1 north.

1

The Plan should address what will be done to prevent increase traffic north on Guadalupe Road and in to the Black Lake Canyon Sensitive Resource Area.

2

Biological Impacts:

The Plan addresses impact to the current biological state of the parcel. Given the highly altered state the property is currently in, this is inappropriate. Mitigation of impacts must consider historic state of the property (i.e. pre-Eucalyptus) and the current state of the sites natural flora and fauna.

3

Water Resources:

As a near by resident, this is an area of great concern. Low flow toilets to residences on septic system do not off set high intensity irrigation uses. The Plan proposes standard golf courses which, as the Plan indicates, consume great amounts of water. Most of the applied water is lost to evaporation or transpiration. Conversely, homes on septic systems generally return all waste water to the subsurface below the root zone, making the discharge ultimately available for ground water recharge.

4

Mitigation for the Plan's prescribed water use should reflect the type of use. Consumption of the current landscape (eucalyptus) should be compared to the Plans final landscape. This comparison may motivate the owner/developer to return the site to more native flora. Mitigation off-sets must consider similar uses such as the highly consumptive refinery and agricultural uses near by.

The project design, specifically the golf areas, should reflect the area and regions impacted water resource. Designs which use less green areas and more natural "rough" and out of bounds areas should be used.

To prevent adversely impacting existing private and public wells in the surrounding area, a maximum aquifer drawdown should be established at the projects boundaries. A series of piezometers could be installed at the projects boundary to establish the pre-project static level and regularly measure the projects impact. Consideration for historic level changes could be incorporated by use of existing data and a Maximum Allowable Drawdown established. Just as urban residents must cease watering landscape in a drought, the Woodlands would develop a contingency plan for irrigation restriction and ultimate cessation if established minimum levels were approached and exceeded.

Open Space, Parks, Public Services

The creativeness with which the Plan addresses these areas borders on disgusting. Will I be allowed to walk freely through the golf course areas? Are children to organize pick up games on traffic mediums? Preserved open space is a key issue now for the future viability of this area. The contorted application of the County's Open Space policy to this project is a good example of why the public gets enraged. As a PUBLIC SERVANT your interpretation and application of public policy must consider the current and future good of the public at large.

The Plan must consider other Public Services than law enforcement. The fact that park land set availability is currently behind park land needs, must be considered - 12 acres of 1000! Active park lands and access to inactive area should be accomplished at the start of the projects first phase. The impact to school facilities must consider that the Lucia Mar Facilities are already in a critical state of overcrowding and current projections are for this condition to worsen in the short term.

Pubic accessible active and inactive park lands must get better consideration. The 12 acres proposed should be clarified as to improvements and improvement should be made early in the project. Also public park and open space should consider coastal access possibilities and impacts.

The rural village designation is being twisted in order to establish greater housing densities without appreciable off-set. This end-around approach must be addressed for its real impact. How will the "village" off set its development density? Golf areas or the small strips between them are not an appropriate for open space off set.

Splintered open space areas do not accomplish the goal of open space off-sets. Large blocks of the project parcel or a separate parcel should be set aside and protected as long term open space. This is the intent of Open space policy.

Hazardous Materials

The projects site's previously documented use as an area of unauthorized manufacture of illegal drugs must be addressed. The manufacture of "crack" produces copious amounts of hazardous waste. Up to five pounds of solvents and caustic compounds are produced per pound of drug production. Identification of drug manufacturing areas should be covered. Proper clean up of these areas should be outlined.

8

Commentary

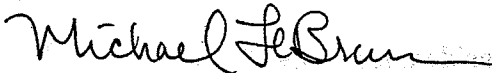
As regulatory staff, you are most often addressed by the business/developer/owner that wants a project completed and the few irate neighbors who adamantly contest any project. Your job is difficult. You must balance these extremes and consider the many more numbers of relatively silent persons effected. Certainly many of those effected are not yet born or otherwise not cognizant of this projects long reaching effects. Please use a whole view. See the extreme disgust over North Coast projects. Consider the destruction of land and community in the highly urbanized areas south of us. Imagine two, three, four, generations in to the future and attempt to consider the comments of those to come.

9

Your work is critical. Please encourage this development toward a project the community can get behind and support as opposed to one we must stand in front of and fight. All projects impact, make sure this project also produces, identifiable, measurable, benefits to the community at large and the path to completion will become much more clear.

Please place me on the Interested Parties List for all future meetings and published plans for this project.

Thanks



Michael LeBrun
2268 Callender Road
Arroyo Grande, CA 93420

Letter V: Michael LeBrun, letter dated April 10, 1998.

Comment
Number

Response

1. A separate EIR and project study report for the Willow Road extension is currently being prepared, and the Willow Road extension is still a viable project. Impacts to Route 1 north of the site are addressed in the EIR.
2. The EIR addresses all anticipated project impacts.
3. CEQA does not require analysis of biological resources which *could* be present on site, only those documented by an acceptable level of effort or presumed present because of highly suitable habitat. As CEQA guidelines section 15125 states, the description of the environment is "as it exists before the commencement of the project," not in some hypothetical prior state (i.e. pre-eucalyptus).
4. The retrofitting of non-low-flow toilets in the area is but one of the proposed mitigation measures for reducing potential cumulative impacts. The toilets that would be targeted for the program are those that are on sewer systems.

The water budget analyzed for the project incorporated the water savings from removing the eucalyptus tree and replacing them with the proposed landscaping. No off-site mitigation other than the toilet retrofit program was considered necessary to address cumulative impacts.

Unfortunately, there are no *static* pre-project water levels. Water under the mesa has historically declined and will continue to decline without the project. The groundwater in the Santa Maria Basin goes through cycles of drought and recovery. By placing a limit on groundwater drawdown, this would not reflect natural variations or effects from other pumps. Without an adjudication by the courts, the landowners of the project would have unrestricted rights to the groundwater, as existing residents in the area do.

Any future county-wide or basin-wide mandatory water restrictions imposed on businesses or residents would affect this project as well as other existing or proposed water users mandatory water restrictions would not be affected by development agreements.

5. Comment noted. The Public Services Section of the DEIR addresses issues of fire protection, sheriff/police protection, schools, water services, sanitary sewer services and solid waste. Under the Revised Project Alternative the development of the school site has been eliminated at the request of the school district. The internal road system proposed under the Revised Project Alternative would increase the number of internal roads from three to six. This would improve access to the project's different features, including access to a park, if it is developed. Also, see comment letters L1, L3 and F2.

6. **Comment noted. As stated in the DEIR, on page 53, under the Rural Village Alternatives, the residential component would decrease from 1,320 units to 957 while the business park could stay the same or increase.**
7. **Comment noted**
8. **Comment noted. . The site has been previously surveyed and no evidence of substantial contamination was identified at that time.**
9. **Comment noted.**

LETTER W

PH PROPERTY DEVELOPMENT COMPANY (Applicant) Comments to the Draft Environmental Impact Report February, 1998 for the Woodlands Specific Plan

Introduction

PH Property Development Company, the "Applicant", has reviewed the Draft Environmental Impact Report (DEIR) and has noted the environmental impacts which the DEIR states are likely to result from the development of the project. Applicant has determined that some of the environmental impacts involving water, air quality, biology, noise and archaeology all can be reduced by minor changes in the locations of certain features of the project itself. 1

All of the changed feature locations are illustrated by the last two pages of the Applicant's comments which will illustrate the original project plan and the revised project plan.

Both the original project and the revised project are identical in project features, namely residential units, acreage of business park, resort rooms and active irrigated open space (golf). There will be no school site, at the choice of the school district, and there may or may not be an active public park which will be determined by the local Nipomo residents.

Changes

1. The 19-acre business park in the northwest corner of the project has been moved to the southwest corner of the property parallel to Highway 1, just south of the development's Highway 1 entrance.
2. The village has moved slightly to the east.
3. The resort has been repositioned directly south of the Monarch butterfly habitat. The habitat will be an added resort feature together with the view from the resort to the southwest.
4. The internal road system has been improved so the features of the project are easily accessible. For example, the original project had only three roads leading to the village; whereas the revised project now has six roads radiating out of the village for added convenience.
5. The school site has been eliminated in lieu of fees.
6. The public park site may be eliminated. If it is, the Applicant will provide equivalent funds to the value of the land dedication to be used to improve the existing Nipomo park near the school.

7. The golf feature of the project has been redesigned with a more contiguous theme which was made possible by the aforementioned changes. The redesign will produce an additional nine holes thereby allowing the Applicant flexibility to expand the golf feature up to 45 holes of golf from the original 36.

1

If the golf feature is expanded it will have no adverse environmental impacts on the DEIR stated water use or traffic. The new golf design simply makes more efficient use of water. The traffic trips associated with nine holes of golf are minimal and are more than mitigated by the absence of the school site. Additional information on this is provided in Cleath & Associates *Review of Water Resources Impacts* (See Attachment A) and the traffic study provided by RRM Design Group (See Attachment B) in this Applicant's comments to the DEIR.

8. The project will be developed in four stages instead of two. Originally the project was to be developed first in the western half and then in the eastern half. It will now begin in the northwest quadrant, then move to the northeast quadrant in a clockwise direction, then to the southeast quadrant, and finally to the southwest quadrant.

This strategy will reduce the impacts of noise, dust and air quality during construction by separating the work into smaller phases. For example, the revised Plan significantly reduces the impacts of grading the site. (See Attachment C--letter from David Evans & Associates dated April 28, 1998). Specific documentation will be provided in subsequent sections of Applicant's comments.

Positive Impacts of the Applicant's Design Changes

The new business park location is easily accessible to Highway 1 and therefore is less obtrusive to the more rural nature of Dawn Road and Camino Caballo.

2

The new resort site will make good use of the Monarch butterfly feature and will benefit from enhanced views to the southwest.

The new road system will make the village more accessible to all parts of the project and the surrounding neighborhood.

The additional golf area will be an added resort attraction and contributes flexible capacity for convenient local residential play.

The Applicant believes that the redesigned features will help attract economic expansion to the area and will require an investment over the life of the Project by the Applicant of between \$70 million and \$80 million for the required infrastructure of the project. The Applicant will require a Development Agreement which will ensure that the County's

mitigations are implemented and protect the Applicant's entitlement. The Development Agreement will request an exemption to the growth ordinance which is essential to the implementation of the project.

Cont'd.

2

Mitigation--Revised Project

The Applicant believes that the revised project reduces environmental impacts to the area and now submits mitigations specific to the revised Project.

Project Water Demand: (Pages 89 through 85 DEIR)

The revised project may have three golf courses containing 45 holes instead of two golf courses containing 36 holes as originally contemplated. However the total golf course acreage under irrigation for the 45 holes will not exceed the 275 acres under irrigation which was originally planned for the 36 holes.

3

See also Attachment A, Cleath & Associates, *Review of Water Resources Impact*, dated May 4, 1998.

See also Attachment B, RRM Design Group, *Traffic Analysis*, dated May 4, 1998.

Mitigation measure 4.1-6d: (Page 117 DEIR)

The Applicant does not know the impact of the well installed by the NCSD at the corner of Sundale and Camino Caballo. Is it fair that the Applicant mitigate decreases in water levels in neighboring wells when other users may contribute to a water level decrease during a drought condition. Clearly it would be equitable for all new users to share necessary mitigations.

4

Impact 4.2 Traffic and Circulation:

Impact 4.2-1; Mitigation 4.2-1a:

Applicant requests road mitigation occur prior to OCCUPANCY.

5

The Applicant has reworked the traffic analysis and that analysis appears as Attachment B in the Applicant's comments to the DEIR.

Dawn Road between Via Concha and Pomeroy: There is no need to improve Dawn Road between Via Concha and Pomeroy to County Collector's standards since the business park has been relocated parallel to Highway 1.

Perimeter Boundaries--sections of Dawn Road, Camino Caballo, Viva Way, Banneker and Armador that front the property: There is no need to improve the sections of the aforementioned boundaries that front the property.

6

The Applicant's development is a version of a rural village design and has an internal road system radiating from the village center. The development's perimeter is buffered by eucalyptus trees. The existing rural nature of the perimeter boundaries will enhance the rural feeling of the area. Applicant further notes that the perimeter boundaries are not existing legal roads and have never, except for a small section of the north side of Dawn Road, been offered for dedication.

Cont'd.

6

Applicant notes that under Title 21 of the County Road Standards, property frontage roads are not required to be paved if the property owner is not making use of the property frontage roads. Clearly, this applies to the Applicant's Project.

Applicant notes that the residents who attended the community meeting Thursday evening, April 30th, 1998, preferred the project's perimeter boundaries remain sand, thereby maintaining the existing equestrian nature of the property's boundaries.

Route 1/Dawn Road: There is no need to improve the intersection of Dawn Road and Highway 1 because of the new location of the business park.

7

Applicant has learned that Caltrans will improve Willow Road at Highway 1. In addition, that intersection is not being adversely affected by the Project's trips; the problem is one of geometry. Clearly the Applicant will contribute to this work through the existing South County fee structure that is already a part of the building permit process.

Impact 4.2-2; Mitigation 4.2-2a: Implementation of Stage I without the Willow Road extension and partial interchange at U.S. Highway 101.

8

The implications of this mitigation is not clear. The Applicant is contributing to all South County road improvements through funds generated by the project's building permits. Any additional contributions by the Applicant would not be equitable unless shared by the entire South County area.

Impact 4.2-4; Mitigation 4.2-4a: There is no need to improve the segment of Camino Caballo between Via Concha and Pomeroy in that the revised project will not put any trips on Camino Caballo.

9

The change in location of the business park and a better design of internal roads eliminate the need for access to Camino Caballo.

Mesa Road: The segment of Mesa Road between Viva Way and Osage Street should be improved to County Collector's standards by the Applicant if not improved by other project development in the area or the County at the time of the development of the Woodland's Phase II. If the Applicant in fact builds all or portions of Mesa Road, the Applicant requests that the County enter into a reimbursement agreement for the sections of Mesa Road that are built by the Applicant.

10

The Applicant further requests that Mesa Road between Viva Way and Osage Street be added to the South County Fee Area Program as contemplated in the South County Update of the General Plan.

Cont'd.

10

Eucalyptus Road: The Applicant believes that Eucalyptus Road has already been improved and is part of an assessment district.

11

Impact 4.2-5; Mitigation 4.2-5a:

Willow Road at Highway 1: The Applicant understands that improvements to Willow Road and Highway 1 are already scheduled by Caltrans. Therefore, they are not the direct responsibility of the Applicant.

12

Additional Road Issues: Applicant notes that the relocation of features of the project and a more efficient internal road and multi-use trail system will result in far better access to the village and related features from all parts of the development and the surrounding neighborhood.

13

Applicant further notes that the new internal road system will concentrate the development features of the project in close proximity to the village and the business park, thereby making pedestrian, rather than vehicular, access the preferable method of reaching the village and resort.

Applicant submits that the internal road system is all local--rural, radiating out of the village to offsite County Collectors and arterials which begin at the development's property line.

Applicant reserves the right to declare all street types public or private.

See also Attachment B, RRM Design Group, *Traffic Analysis*, dated May 4, 1998.

4.3 Air Quality

Impacts 4.3-1 (Construction Impacts):

Air pollutant emissions associated with construction activities for the Revised Project are estimated based on the changes in the project design (see Attachment D). Although NO_x emissions are estimated to be above the threshold of significance, the amounts of NO_x emissions would be reduced for the Revised Project. PM₁₀ impacts would not be significant for the Revised Project. The estimated impacts associated with the Revised Project indicate that the change to four (4) phases of construction reduces construction impacts on air quality.

14

Mitigation Measure 4.3-1a:

The Applicant would implement the Draft EIR's Mitigation Measures 4.3-1a (a,b,c) for the Revised Project. According to the Draft EIR, implementation of Mitigation Measures 4.3-1a (a,b,c) is adequate for NO_x control for the proposed project. Therefore, it is unnecessary to implement Draft EIR Mitigation Measures 4.3-1a (d,e,f,g).

15

Mitigation Measure 4.3-1c:

The Applicant's Revised Project description includes watering the site twice daily. Implementing this watering program for the revised project, the PM₁₀ emissions are estimated below a level of significance.

16

Mitigation Measure 4.3-1d:

This Draft EIR Mitigation Measure is for PM₁₀ control. However, it is unnecessary since PM₁₀ impacts are estimated to be below a level of significance for the Revised Project.

17

Mitigation Measure 4.3-1e:

This Draft EIR Mitigation Measure is for PM₁₀ control. However, like Mitigation Measure 4.3-1d, it is unnecessary since PM₁₀ impacts are estimated to be below a level of significance for the Revised Project.

18

Mitigation Measure 4.3-1f:

This Draft EIR Mitigation Measure is for PM₁₀ control. However, like Mitigation Measures 4.3-1d and 4.3-1e, it is unnecessary since PM₁₀ impacts are estimated to be below a level of significance for the Revised Project.

19

Significance after Mitigation (Construction):

Although the short-term and localized NO_x impacts would be significant for construction of the Revised Project, the NO_x emissions are estimated to be lower than those predicted for the original project evaluated in the Draft EIR. PM₁₀ impacts would not be significant for the Revised Project. Therefore, the Revised Project would reduce air quality impacts, compared to the original project.

20

Impacts 4.3-2 (Operational Impacts):

Based on conservative estimation methods, operational air quality impacts would continue to be significant under the Revised Project. However, the total estimated emissions would be substantially lower than those predicted in the Draft EIR (see Attachment D). Several control measures would be incorporated into the project design. The control measures include constructing tunnels, bus turnouts, passenger benches, and stop shelters to encourage the use of mass transit. The project design for both the Revised Project and the original project include bicycle trails and pedestrian paths connected to the County Trail System. In addition, the project entails a mixed land use: commercial and residential. The mixed land use would reduce the trip generation, resulting in less adverse air quality impacts than those evaluated in the Draft EIR for the original project. Consequently, the Revised Project would result in less air quality impacts than those of the original project evaluated in the Draft EIR.

21

Mitigation Measure 4.3-2b:

The Applicant has included an equivalent mitigation measure in the project design under both the original and revised projects. The measure included in the project design is to construct bicycle trails and pedestrian paths on the project site and connect them to the County Trail System. Therefore, Draft EIR Mitigation Measure 4.3-2b is unnecessary.

22

See also Attachment D, Dames & Moore, *Air Quality Impact Analysis for Revised Project Woodlands Specific Plan*, dated May 4, 1998.

4.4 Biological

Monarch Butterflies:

Mitigation measures 4.4-3a, #1 and #2 will adequately preserve the buffer areas intact. Thus, mitigation measures 4.4-3a, #3 through #8 are unnecessary and are therefore not reasonable under the California Environmental Quality Act (CEQA).

23

Nesting Raptors:

Mitigation measures 4.4-3c is unreasonable as it requires construction to halt between the months of March and July. Instead, the following wording is recommended:

24

“For areas which are scheduled for construction between March and July, a pre-construction survey shall be conducted for nesting raptors. Trees containing active raptor nests shall be identified by the project biologist. Destruction of such breeding sites shall be avoided for the duration of the breeding season by establishment of an appropriate setback as determined by consultation with California Department of Fish and Game and/or the U.S. Fish & Wildlife Service. An exclusion barrier shall be installed around the perimeter to prevent Destruction of nest trees which would result in destruction of nests, eggs, and/or nestlings per Section 3503.5: Construction activities shall, meanwhile, be allowed to continue outside the protected area.”

Common Species:

Impact 4.4-4 identifies impacts to two categories of wildlife species: 1) common, and 2) special status. Impacts to common species do not constitute a significant impact. Therefore, mitigation for common species is unnecessary.

25

Other:

The Draft EIR specifies Mitigation Measures 4.4-3a and 4.4-3c to mitigate impacts to the monarch butterfly and raptors identified as special status species. Therefore, Mitigation Measure 4.4-4a is unnecessary.

26

The Draft EIR does not identify specific mitigation for potential impacts to the other two special status species (loggerhead shrike and the American badger). Therefore, the following wording is recommended to replace the Draft EIR's Mitigation Measure 4.4-4a:

27

"A pre-construction survey to locate loggerhead shrike nesting sites and active badger burrows shall be conducted prior to commencement of construction activities at a given area. An appropriate setback, as determined by California Department of Fish and Game and/or the U.S. Fish & Wildlife Service, shall be established around active sites. An exclusion barrier shall be installed around the perimeter to prevent destruction of the nest site or burrow. Construction activities shall, meanwhile, be allowed to continue outside the protected area. When it is determined that an active site is no longer active, construction activities shall be permitted to resume at that site."

27

Golf Course Maintenance:

Impacts to identified sensitive resources within the project limits have already been quantified and mitigation specified in the Draft EIR. Mitigation Measures 4.4-5a, 4.4-5b, and 4.4-5c are, therefore, excessive and unnecessary.

28

Concerning irrigation practices, fertilizing and pesticide application, the Applicant should be required to meet the standard permit condition requirements of San Luis Obispo County.

29

Eucalyptus Trees:

Mitigation Measure 4.4-6a is unnecessary. CEQA requires that mitigation be provided for significant impacts. Mitigation Measure 4.4-6a addresses eucalyptus woodlots, windrows, and trees which are not environmentally sensitive habitat, and therefore not significant. These trees are only significant in the context of being monarch butterfly roosting sites which are addressed earlier in the Draft EIR.

30

See also Attachment E, Dames & Moore, *Biological Resources and Archaeology*, dated May 4, 1998.

4.5 Noise

Impacts 4.5-3 (Offsite Vehicular Traffic Impacts):

A worst case noise analysis was conducted to assess potential offsite vehicular traffic impacts associated with the Revised Project Alternative (Attachment F). Potentially significant impacts were identified as follows: Two residences along Via Concha Road; eighteen residences along Willow Road between Via Concha Road and the Black Lake Residential Development; four residences along Pomeroy Road north of Willow Road (for the half diamond interchange scenario); five residences, a public library and a school along West Tefft Street between Mesa Road and Orchard; two residences along Mesa Road; and one residence along Albert Way. Noise impacts identified in the Draft EIR along Camino Caballo and Calle Fresca would not occur under the revised project.

31

This decrease in noise impacts is due to the fact that Camino Caballo would not be built and that Calle Fresa would not carry any project traffic.

31

The feasibility of mitigating noise levels to below the 60 dBA Ldn level of significance at affected receptors was also evaluated. It was determined that it is feasible to reduce noise to below the level of significance by the construction of a 6-foot high noise barrier. Therefore, no significant noise impacts would result from the revised project.

Since the analysis of the revised project was considered worst case, a site specific acoustical analysis will be required prior to obtaining building permits. The analysis will consider the noise attenuating effects of "hard" and "soft" site conditions, grade variations, intervening topography, and reduced speeds at curves in the road to more precisely determine the sound levels at receptors and determine the proper location of noise barriers. It is likely that some of the significantly impacted receptors may not be impacted when a more detailed analysis is conducted.

See also Attachment F, Dames & Moore, *Noise Evaluation For Revised Project Woodlands Specific Plan*, dated May 4, 1998.

4.7 Public Services

The Applicant is dealing directly with both the Fire Department and the Sheriff's Department of the County of San Luis Obispo.

32

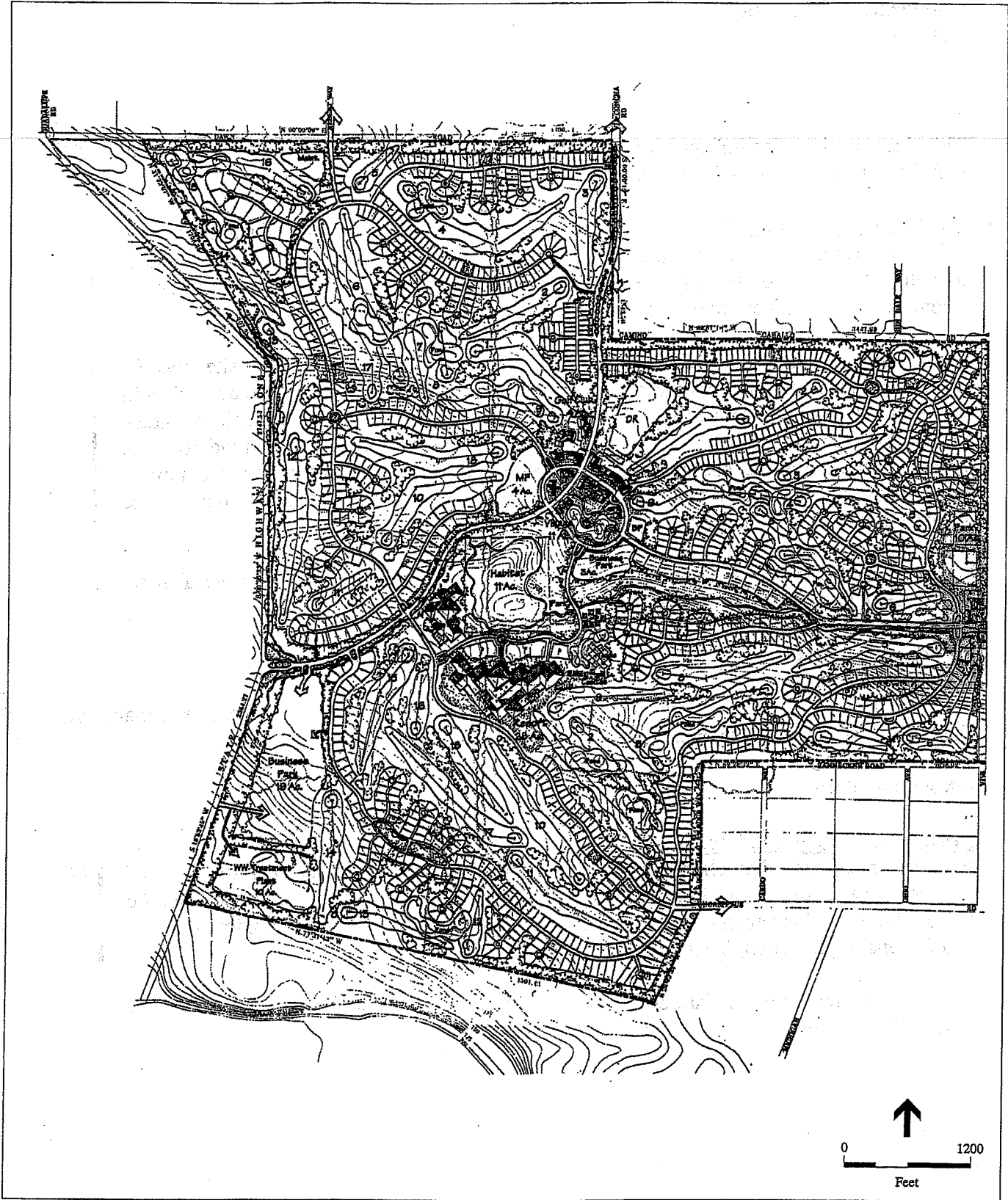
4.8 Archaeology

Mitigation Measure 4.8-1c:

It is not necessary that all construction activities cease, but rather that the area of discovery be avoided until the extent, location and disposition of artifacts can be accomplished. This depends upon good coordination between the archaeological monitor and the onsite project engineers.

33

See also Attachment E, Dames & Moore, *Biological Resources and Archaeology*, dated May 4, 1998.



SOURCE: RRM Design Group.

Woodlands Specific Plan / 950250 ■

Figure 2.2a
Revised Project Alternative

Letter W: PH Property Development Co., letter dated February 1998.

The applicant provided the following attachments/studies, these documents are contained in Appendix G , and are bound separately:

- Attachment A: Cleath & Associates, Review of Water Resources Impacts at the Woodlands for Revised Project Description
- Attachment B: RRM Design Group, Traffic Analysis
- Attachment C: David Evans and Associates, Earthwork Analysis
- Attachment D: Dames & Moore, Air quality Impact Analysis for Revised Project, Woodlands Specific Plan
- Attachment E: Dames & Moore, Biological Resources and Archaeology
- Attachment F: Dames & Moore, Noise Evaluation for Revised Project, Woodlands Specific Plan
- Attachment G: Land Use Concept Plan
- Attachment H: Applicant's Revised Land Use Concept Plan

Comment
Number

Response

1. The following is added to the Project Description as **2.4.3 Revised Project Alternative** on page 53:

2.4.3 Revised Project Alternative

The applicant incorporated changes to the original proposed project after review of the DEIR.

Both the original proposed project and the revised project are identical in the following project features, residential units (1,320 units), acreage of business park (22 acres with up to 335,000 sq.ft. of space), resort rooms (up to 500 rooms) and active irrigated open space. However, the Revised Project Alternative would not include a school site; instead, the applicant would contribute funding (see Mitigation Measure 4.7-3a). If the park site is eliminated the Applicant would provide in lieu fees based on provisions of Title 21 (Chapter 9).

As stated above, project features under the proposed project and the revised project would remain similar. However, in order to reduce certain environmental impacts, the Applicant has proposed minor changes to the proposed project. Under this alternative, the 19-acre business park originally proposed in the northwest portion of the project would be relocated to the southwest corner of the property parallel to Highway 1, just south of the development's Highway 1.

The Revised Alternative Concept Plan is shown in Figure 2-2a. The proposed village would move slightly to the east from its location as described under the proposed project. The proposed resort would be repositioned directly south of the Monarch butterfly habitat. Also, under the Revised Project Alternative the internal road system would include six roads radiating out of the village rather than three as included in the proposed project alternative. The school would be eliminated under this alternative.

Under this alternative the proposed golf course would have nine additional holes, (a total of 45 holes compared to the original 36). The applicant has designed the course such that this expansion of the golf course would not require additional water consumption.

Under this alternative, the project would be developed in four stages rather than two. Stage I would include of 580,000 cubic yards of cut and fill while Stage II would include 375,000 cubic yards. Stage III would include 290,000 yards and the final Stage would include 318,000 cubic yards. Development would begin in the northwest quadrant, then move to the northeast quadrant in a clockwise manner. This differs from the original proposed project, which proposed to develop the western portion of the site and then the eastern portion.

The following information is added to the Project Description to Table 2-1: Comparison of Alternatives (page 54):

Revised Project Alternative 1,320 units 46 acres

The following text is added after the first sentence on page 54.

“Under the Revised Project Alternative, the project would be developed in four stages instead of two. Development would occur in the northwest quadrant of the site and move in a clockwise motion.”

The following text is added as the last sentence in the paragraph before 3.4: Cumulative Development:

“Residential units would remain the same in the Revised Project Alternative as the original proposed project.”

The following text is added as the last paragraph on page 179 of the Traffic and Circulation Section:

Revised Project Alternative

The Revised Project Alternative would result in minor changes in the overall number of trips generated. The internal road system would be revised to include six roads radiating out of the village instead of the three proposed as part of the project. External access for Stage I of the Revised Project Alternative would be limited to Highway 1 on the west and Albert Way and Via Concha on the north (with no improvements proposed for Dawn Road and Camino Caballo, and no connections proposed to Mesa Road or Eucalyptus Road). Additional external connections would be provided to Mesa Road and Eucalyptus Road in subsequent Stages, however, direct connections to Dawn Road, Camino Caballo and Viva Way are not proposed.

Trip Generation. Table 4.2-25 summarizes the trip generation estimates for Stage I, Stage II and Buildout. Also shown are comparisons to the trip generation estimates developed for the proposed project. The trip generation estimates are based on regression equation rates published in Institute of Transportation Engineers, Trip Generation Manual, 6th Edition. The trip generation estimates also addressed internal versus external trip splits and pass-by trip reductions pursuant to the methods developed for the proposed project.

TABLE 4.2-25:

REVISED PROJECT ALTERNATIVE TRIP GENERATION

Stage	ADT	PHT
Stage I - Revised Project Alternative		
Internal	3,102	302
External	<u>6,052</u>	<u>628</u>
Totals	9,154	930
Stage II - Revised Project Alternative		
Internal	8,826	831
External	<u>13,190</u>	<u>1,294</u>
Totals	22,016	2,125
Stage I - Proposed Project		
Internal	9,258	874
External	<u>12,998</u>	<u>1,275</u>
Totals	22,256	2,149
Net Difference		
Internal	-432	-43
External	<u>+192</u>	<u>+19</u>
Totals	-240	-24
Buildout - Revised Project Alternative		
Internal	12,143	1,141
External	<u>17,533</u>	<u>1,709</u>
Totals	29,676	2,850
Buildout - Proposed Project		
Internal	13,212	1,206
External	<u>16,965</u>	<u>1,668</u>
Totals	30,177	2,874
Net Difference		
Internal	-1,069	-65
	<u>+568</u>	<u>+41</u>
Totals	-501	-24

Estimates based on ITE regression curve rates.

ADT = Average Daily Trips; PHT = Peak Hour Trips.

As shown in Table 4.2-25, the Revised Project Alternative would result in minor changes in the overall number of trips generated. Most importantly, the number of trips external to the site would increase. This is due to the mix of land uses and the internal capture rates (the number of residential units remains the same with fewer uses to interact with provided on the site). For example, although buildout of the site would result in a net reduction of 501 ADT and 24 PHT, the number of trips external to the site would be 568 ADT and 41 PHT higher than the proposed project.

Stage I Impacts. Stage I of the Revised Project Alternative would generate 6,052 ADT and 628 PHT external to the site. External access for Stage I is proposed via Highway 1 on the west and the Albert Way and Via Concha on the north, with no direct access via Camino Caballo, Mesa Road, or Eucalyptus Road. Dawn Road would remain unimproved adjacent to and west of the site, thus limiting its usability as an east-west connector. The applicant is also proposing to leave the majority of the roadways along the perimeter of the site unimproved (Dawn Road, Camino Caballo, Viva Way, Banneker and Amador). This access plan requires that the trips generated within the Stage I development area travel approximately one-half mile north to Willow Road, traverse Willow Road to the east, and then back-track to the south via Pomeroy Road to access the downtown Nipomo area and the Tefft Road/U.S. Highway 101 interchange. The plan would also require that the majority of the local traffic in Nipomo area which is destined for the site to travel north to Willow Road via Pomeroy Road then south to the site via Albert Way or Via Concha. This circuitous routing would affect over 50% of the trips generated by the project.

This alternative would result in much higher traffic loading on Albert Way, Via Concha, and Willow Road, while significantly reducing the forecast traffic loading on Dawn Road and Camino Caballo. While the study-area roadways and intersections could generally accommodate the traffic volumes generated by Stage I with the limited circulation system proposed by the applicant (assuming improvements to Albert Way and Via Concha), the circulation plan is inconsistent with good transportation planning principles. The current Stage I plan includes over 500 residential units and 177,500 square feet of retail/business park space. Over 50% of the traffic which would be generated by this development would be oriented to and from the east (the Nipomo commercial area and the freeway). Providing only one east-west connector link located one-half mile north of the site would be viewed as a minimal circulation system given the size of the development. The proposed circulation system would result in approximately 2,000 additional vehicle miles traveled (VMT) per day (equating to over 600,000 additional VMT on an annual basis) in the Nipomo area (and associated vehicle emissions). The limited access plan could also increase emergency vehicle response times to the site. It is also noted that some of the traffic generated at the site would find its way to the other adjacent dirt roadways (i.e. Dawn Road, Camino Caballo, Viva Way, etc.) even though no improvements are proposed by the applicant for these roadways, thus inducing the need for future roadway improvements. For instance, residents living on Dawn Road who wish to patronize the retail or recreational components of the Woodlands project would travel on Dawn Road to access the site regardless of whether the road was paved or not.

Assuming the access plan proposed by the applicant for this alternative, the operation of the Willow Road/Pomeroy Avenue intersection would degrade to the LOS D range. This access alternative would also result in heavy turning movements at the Willow Road intersections with Albert Way and Via Concha Road. The project would also add traffic to the Willow Road/Route 1 intersection, which could generate potential safety impacts given its current substandard design.

Stage I Mitigations. As discussed above, Stage I of the Revised Project Alternative would generate impacts to several intersections and roadways in the study area. Mitigations are listed below:

Albert Way and Via Concha: These two roadways, which would carry the bulk of the traffic generated by Stage I, shall be improved to County Collector Road standards between Dawn Road and Willow Road. In addition to these roadway improvements, left-turn channelization would be required on Willow Road at the Albert Way and Via Concha Road intersections to accommodate the turning movements generated by the project. These improvements would be required prior to occupancy the Stage I developments.

Willow/Pomeroy: Based on the limited circulation system proposed for the Stage I development, traffic signals would be required at this intersection to accommodate the volumes generated by Stage I. Intersection widening to provide appropriate left- and/or right-turn lanes would also be required. It is anticipated that this improvement would not be required until most of the Stage I development is constructed. Furthermore, if the County requires an additional east-west access connection, as recommended below, the signal would not be required at all for Stage I. It is therefore recommended that the applicant bond for the signal and that signal warrant studies be conducted at periodic occupancy intervals (i.e. at 50% and 75% occupancy) to determine the timing for installation.

Project Frontage Improvements: In order to provide for the equitable development of the future circulation system which will be required to serve the Woodlands site as well as buildout of the Nipomo area, the project applicant would be responsible for improving the roadways fronting the property. These would include Dawn Road, Camino Caballo, Route 1 and Viva Way. The roadways would be improved to County standards, as determined by the County Engineering Department. These improvements would be required prior to occupancy of the Stage I developments.

Route 1/Main Entrance. Prior to construction/logging operations, the Route 1/Main Entrance intersection shall be improved to include a southbound left-turn lane and a northbound right-turn lane. The turning-lanes shall be constructed to provide adequate truck storage and turning movements. The intersection design shall conform to Caltrans design standards.

Route 1/Willow Road. This intersection currently has single lane approaches with substandard geometric design. It is recommended that this intersection be realigned and widened to provide turn-lanes on all of the approaches. The intersection should be reconfigured to form a standard three-way approach configuration in order to alleviate driver confusion. This would involve realignment of the Willow Road approach. As volumes increase due to buildout of the area, the control of the intersection may need to be modified to provide all-way STOP control or signalization. These improvements would be required prior to occupancy of any of the Stage I developments.

The improvements recommended for the Willow Road/Route 1 intersection would be required to mitigate potential safety impacts associated with the addition of project traffic and the current substandard design. These improvements would still be required with the revised project. The improvements would need to be constructed prior to development of

Stage I. If the improvements are constructed by Caltrans prior to development of Stage I, then no additional improvements would be required of the project.

East-West Connections: As previously noted, the current Stage I plan includes no direct east-west connection to the project site. This would result in significant increases in vehicle miles traveled in the area. It is therefore recommended that a minimum of one direct east-west roadway connection be provided for the Stage I development. This could include the connection to and improvement of Mesa Road (as proposed in Stage II of the project), or development of Dawn Road or Camino Caballo as analyzed for the proposed project. These improvements would be required prior to occupancy of any of the Stage I developments. Eucalyptus Road was not included in the discussion because of its southernly location, since development of Stage I would occur in the northern portion of the site.

Stage II Impacts. Stage II of the Revised Project Alternative would generate about the same level of external traffic as Stage I of the proposed project (see Table 4.2-25). External access for Stage II would be expanded by adding a connection to Mesa Road, with no direct access to Camino Caballo or Eucalyptus Road and no improvements proposed for Dawn Road. The revised project information provided by the applicant indicates that access to Dawn Road and Camino Caballo would be for "emergency vehicles only". However, the site plan shows two major connections between the site and Dawn Road at Albert Way and Via Concha.

Stage II of this alternative would result in much higher traffic loading on Albert Way, Via Concha, Willow Road, and Mesa Road, while significantly reducing the forecast traffic loading on Dawn Road and Camino Caballo.

While the study-area roadways and intersections could generally accommodate the traffic volumes generated by Stage II with the limited circulation system proposed by the applicant (assuming improvements to Mesa Road) based on roadway engineering design capacities, the circulation plan is inconsistent with good planning principles. The Stage II development includes 838 dwelling units, over 400,000 S.F. of commercial square-footage, and a 500 room hotel. Providing a single east-west connector link at Mesa Road for this level of development would focus traffic on this roadway and within the neighborhood adjacent to Tefft Road and at a limited number of intersections. Providing additional east-west links would disperse traffic over more of the study-area roads and intersections.

Assuming the access plan proposed by the applicant for this alternative, the operation of the Mesa Road/Tefft Road intersection would degrade to the LOS D range.

It is also noted that development of the Nipomo mesa east of the site may trigger the need for upgrading the links and the cost of the upgrades should be shared by the project according to the project's traffic contributions. Project-generated traffic would find its way to the links as they are paved in the future.

Stage II Mitigations. As discussed above, Stage II of the Revised Project Alternative would generate impacts to several intersections and roadways in the study area. Mitigations are listed below:

Mesa Road: The segment of Mesa Road between Viva Way and Osage Street should be improved to County Collector Road standards, if not improved by other project

development in the area or the County prior to construction and occupancy of the second Stage of the Woodlands project.

Mesa Road/Tefft Road: Based on the revised circulation system proposed for the Stage II development, traffic signals would be required at this intersection to accommodate the volumes generated by Stage II. Intersection widening to provide appropriate left-turn channelization may also be required. It is anticipated that this improvement would not be required until most of the Stage II development is constructed and occupied.

Furthermore, if the County requires an additional east-west access connection, as recommended below, the signal would not be required at all for Stage II. It is therefore recommended that the applicant bond for the signal and that signal warrant studies be conducted at periodic occupancy intervals (i.e. at 50% and 75% occupancy of Stage II) to determine the timing for installation.

East-West Connections: As noted in the discussion of this alternative, the current Stage II plan includes one direct east-west connection to the project site via Mesa Road. This would result in significant loading of Mesa Road in the residential area in the downtown Nipomo area and would require traffic signals at the Tefft Road intersection. It is therefore recommended that a minimum of one additional east-west roadway connection be provided for the Stage II development. This could include the connection to Eucalyptus Road or development of Dawn Road or Camino Caballo as analyzed for the proposed project. These improvements would be required prior to occupancy of any of the Stage II developments.

Buildout Impacts. Buildout of the Revised Project Alternative would generate about the same level of traffic as buildout of the proposed project (slightly higher external traffic as shown in Table 4.2-25). External access for buildout would be expanded by adding a connection to Eucalyptus Road, with no direct access or improvements proposed for Dawn Road, Camino Caballo and Viva Way. It is noted, however, that project-generated traffic would utilize the entire roadway system in the Nipomo area as buildout occurs, as some of the area roads will be paved as development occurs and some of the traffic generated by the Woodlands project would utilize unpaved roads. The impacts and mitigations for buildout of the Revised Project Alternative would generally be the same as those identified for the proposed project, with the exception of the heavier loading on Mesa Road and the need for signals at the Mesa Road/Tefft Road intersection as identified in the Stage II analysis.

Buildout Mitigations. Buildout impacts of the Revised Project Alternative would be the same as buildout of the proposed project and mitigations would therefore also be the same. In addition to these mitigations, the project would be required to contribute its fair share of the costs of the improvements of the area roadways that its traffic would use.

Study-Area Roadways: The project would be required to contribute a fair share of the costs required to improve the study-area roadways which will accommodate buildout traffic. These would include the off-site portions of Dawn Road, Camino Caballo, and Viva Way as well as the Dawn Road/Route 1 intersection.

The following text is added to page 198 of the Air Quality Section before the Mitigation Measures:

Revised Project Alternative

Similar to the proposed project, although NO_x emissions associated with construction impacts are estimated to be above the threshold of significance, the amount of NO_x emissions would be reduced under the Revised Project Alternative. The PM₁₀ impacts of the Proposed Project and the Revised Project would also result in a temporary unavoidable significant impact, which would cease at the completion of project construction. The estimated impacts associated with the Revised Project indicate that the change from two stages to four stages of construction reduces construction impacts on air quality. Increased vehicle trips on Camino Caballo and Dawn Road would increase PM₁₀.

Similar to the proposed project, the operational air quality impacts at project buildout would be significant under the Revised Project Alternative. Actual impacts could be less than those predicted in this analysis since in preparing the analysis conservative assumptions were made (such as maximum potential trip generation). The project and Revised Project Alternative would include measures that would reduce project trip generation from those indicated in this analysis and thus air quality impacts. Such measures include constructing tunnels/underpass, bus turnouts, passenger benches, and transit stop shelters to encourage the use of mass transit. The project design for both the Revised Project Alternative and the proposed project include bicycle trails and pedestrian paths connected to the County Trail System. Similar to the proposed project, the project entails mixed land use: commercial, recreational and residential. The mixed land uses could reduce trip generation by encouraging internal project trips, resulting in less adverse air quality impacts. The Revised Project Alternative is anticipated to result in less total daily trips than the proposed project. However more external trips, are expected to result under this alternative. The increase in external trips is partially due to the increase school trips. There are no additional air quality mitigation measures available.

The following column is added to Table 4.5-4, page 263:

<u>Road Segment</u>	<u>YEAR 2010</u>
	Future w/ <u>Revised Proj.</u>
State Route 1 / South of Willow Rd.	+2
Via Concha Road / South of Willow Rd.	+12
Willow Road / East of Via Concha Rd.	+7
Pomeroy Road / North of Willow Rd.	+1
Calle Fresa / West of Pomeroy Rd.	+2.7
Camino Caballo / West of Pomeroy Rd.	+0.6
West Tefft St. / b/w Mesa and Orchard	+5
West Tefft St. / b/w Eucalyptus and Mesa	+4
Mesa Road / West of West Tefft St.	+11
Eucalyptus Road / West of West Tefft St.	+10
Albert Way / South of Willow	+11

The following column is added to Table 4.5-5, page 264:

<u>Road Segment</u>	<u>YEAR 2010</u>
	Future w/ <u>Revised Proj.</u>
State Route 1 / South of Willow Rd.	315
Via Concha Road / South of Willow Rd.	80
Willow Road / East of Via Concha Rd.	790
Pomeroy Road / North of Willow Rd.	<50
Calle Fresa / West of Pomeroy Rd.	--
Camino Caballo / West of Pomeroy Rd.	--
West Tefft St. / b/w Mesa and Orchard	250
West Tefft St. / b/w Eucalyptus and Mesa	100
Mesa Road / West of West Tefft St.	65
Eucalyptus Road / West of West Tefft St.	50
Albert Way / South of Willow Rd	<50

The following text is added in the Aesthetics Section before the final sentence in the last paragraph on page 286:

Under the Revised Project Alternative project components, specifically residential units, acreage of business park, resort rooms and active irrigated open space would remain the same as the original proposed project. However, their location would change. Residential uses would be located along the bluff along the western property line. Although trees would break up this view, travelers along Highway 1 could perceive a line of houses along the ridge. The business park would be moved to the southwest portion of the property parallel to Highway 1. The resort would be repositioned directly south of the Monarch butterfly habitat. Mitigation measures that would reduce visual impacts to less than significant levels under the proposed project would also reduce such impacts under the Revised Project Alternative.

The following text is added to page 269 of the Noise Section before the Mitigation Measures:

Revised Project Alternative

Construction noise impacts would be similar to that of the proposed project. Similar to the proposed project, operational noise impacts of the Revised Project Alternative would be potentially significant on several residences in the vicinity of the project site, as shown in Table 4.5-4. Noise levels would be slightly greater at intersections in the project vicinity. Vehicle traffic and travel speeds and thus resultant traffic-related noise are expected to increase as roads are improved. An increase in traffic related noise from 0.6 to 12 dBA is anticipated as a result of the Revised Project Alternative traffic along local roads. Sound level variations of less than 3 dBA are not considered to be significant because a less than three decibel variation is not typically 'noticeable' by the human ear. Noise impacts identified along Camino Caballo and Calle Fresa would be insignificant under the Revised Project because Camino Caballo would not be built and Calle Fresa would carry very little project traffic.

The feasibility of mitigating noise levels to below the 60 dBA (Ldn) level of significance at affected receptors was evaluated. Noise impacts may be influenced by grade variations, intervening topography, reduced speeds at curves and noise barriers. Mitigation Measure 4.5-2c in the EIR requires the construction of a 6-foot high noise barrier, which is estimated to provide 6 to 10 dBA of noise attenuation. If such barriers were constructed for existing homes close to the road edge, no significant noise impacts associated with long-term road traffic would result from the revised project. A site specific acoustical analyses should still be required prior to obtaining building permits to determine if such a barrier or other noise attenuating measures would be warranted.

The following text is added as the last sentence in the first paragraph on page 320, 4.7 Public Services:

Under the Revised Project Alternative, the school site would be eliminated and the applicant would pay in-lieu of fees.

The following is added to page 334 at the end of Table 4.7-4:

<u>Land Use</u>	<u>Estimated Daily Generation Rate (pounds/unit)</u>	<u>Estimated Generation (pounds/day)</u>	<u>Annual Generation (tons/year)</u>
Revised Project Alternative			
Residential Units (1,320 units)			
1,240 single family	10/du	12,400	2,263.00
80 multi-family	4/du	<u>320</u>	<u>58.40</u>
Subtotal		12,720	2,321.40
Commercial Land Uses			
Retail (140,000 sq. ft.) ^a	5/1,000 sf	700	127.75
Resort Hotel (500-room)	2 lb/room/day	1,000	182.50 ^c
Business Park (335,000 sq.ft.)	5/1,000 sf	<u>1,675</u>	<u>305.70</u>
Subtotal		23,375	615.95
Open Space/Recreation (418 acres)	8 tons/acre/yr	18,323	3,344.00
Total		34,418	6,281.35

a. Golf course clubhouse uses included.

b. Assumes 180-day school year.

c. Assumes 800 square feet per room.

SOURCE: California Integrated Waste Management Board, *Resources Manual*, May 1989; Environmental Sciences Associates, 1997.

The following text is added to page 409 as the seventh paragraph:

7.4.1 REVISED PROJECT ALTERNATIVE

As stated in the Project Description, features incorporated into the Revised Project Alternative would reduce specific environmental impacts resulting from implementation of the original proposed project.

The Revised Project Alternative would include revised land uses and placement of land uses, revised project phasing and a revised circulation system. The school site would be eliminated and there may not be a public park (rather the applicant would pay for improvement to an existing park) any pay in-lieu school fees. The golf course area would be expanded from 36 holes to 45 holes. Placement of land uses would most notably change by the business park being moved to the southwest portion of the site, the village being moved slightly east and the resort being repositioned directly south of the Monarch butterfly habitat. This alternative would be developed in four stages instead of the two stages of the proposed project, beginning in the northwest quadrant and then moving clockwise. Stage I would include 427 single family residences, 80 apartments, 10,000 square feet of commercial uses, 167,500 square feet of business park, and an 18-hole golf course. Stage II land uses would be the same as the Stage I land uses analyzed for the proposed project (minus the park). Buildout land uses would also be the same as the buildout land uses analyzed for the proposed project (minus the park and school and with the extra 9 hole golf course).

Water demand under the Revised Project Alternative would remain similar to the original proposed project even though the golf course design would slightly change under Revised Project Alternative. Therefore, implementation of the mitigation measures under the original proposed project would also mitigate impacts under this alternative.

Revised Project Alternative

The Revised Project Alternative would result in minor changes in the overall number of trips generated. The internal road system would be revised to include six roads radiating out of the village instead of the three proposed as part of the project. External access for Stage I of the Revised Project Alternative would be limited to Highway 1 on the west and Albert Way and Via Concha on the north (with no improvements proposed for Dawn Road and Camino Caballo, and no connections proposed to Mesa Road or Eucalyptus Road). Additional external connections would be provided to Mesa Road and Eucalyptus Road in subsequent Stages, however, direct connections to Dawn Road, Camino Caballo and Viva Way are not proposed.

Trip Generation. Table 4.2-25 summarizes the trip generation estimates for Stage I, Stage II and Buildout. Also shown are comparisons to the trip generation estimates developed for the proposed project. The trip generation estimates are based on regression equation rates published in Institute of Transportation Engineers, Trip Generation Manual, 6th Edition. The trip generation estimates also addressed internal versus external trip splits and pass-by trip reductions pursuant to the methods developed for the proposed project.

TABLE 4.2-25:

REVISED PROJECT ALTERNATIVE TRIP GENERATION

Stage	ADT	PHT
Stage I - Revised Project Alternative		
Internal	3,102	302
External	<u>6,052</u>	<u>628</u>
Totals	9,154	930
Stage II - Revised Project Alternative		
Internal	8,826	831
External	<u>13,190</u>	<u>1,294</u>
Totals	22,016	2,125
Stage I - Proposed Project		
Internal	9,258	874
External	<u>12,998</u>	<u>1,275</u>
Totals	22,256	2,149
Net Difference		
Internal	-432	-43
External	<u>+192</u>	<u>+19</u>
Totals	-240	-24
Buildout - Revised Project Alternative		
Internal	12,143	1,141
External	<u>17,533</u>	<u>1,709</u>
Totals	29,676	2,850
Buildout - Proposed Project		
Internal	13,212	1,206
External	<u>16,965</u>	<u>1,668</u>
Totals	30,177	2,874
Net Difference		
Internal	-1,069	-65
	<u>+568</u>	<u>+41</u>
Totals	-501	-24

Estimates based on ITE regression curve rates.

ADT = Average Daily Trips; PHT = Peak Hour Trips.

As shown in Table 4.2-25, the Revised Project Alternative would result in minor changes in the overall number of trips generated. Most importantly, the number of trips external to the site would increase. This is due to the mix of land uses and the internal capture rates (the number of residential units remains the same with fewer uses to interact with provided on the site). For example, although buildout of the site would result in a net reduction of 501 ADT and 24 PHT, the number of trips external to the site would be 568 ADT and 41 PHT higher than the proposed project.

Stage I Impacts. Stage I of the Revised Project Alternative would generate 6,052 ADT and 628 PHT external to the site. External access for Stage I is proposed via Highway 1 on the west and the Albert Way and Via Concha on the north, with no direct access via Camino Caballo, Mesa Road, or Eucalyptus Road. Dawn Road would remain unimproved adjacent to and west of the site, thus limiting its usability as an east-west connector. The applicant is also proposing to leave the majority of the roadways along the perimeter of the site unimproved (Dawn Road, Camino Caballo, Viva Way, Banneker and Amador). This access plan requires that the trips generated within the Stage I development area travel approximately one-half mile north to Willow Road, traverse Willow Road to the east, and then back-track to the south via Pomeroy Road to access the downtown Nipomo area and the Tefft Road/U.S. Highway 101 interchange. The plan would also require that the majority of the local traffic in Nipomo area which is destined for the site to travel north to Willow Road via Pomeroy Road then south to the site via Albert Way or Via Concha. This circuitous routing would affect over 50% of the trips generated by the project.

This alternative would result in much higher traffic loading on Albert Way, Via Concha, and Willow Road, while significantly reducing the forecast traffic loading on Dawn Road and Camino Caballo. While the study-area roadways and intersections could generally accommodate the traffic volumes generated by Stage I with the limited circulation system proposed by the applicant (assuming improvements to Albert Way and Via Concha), the circulation plan is inconsistent with good transportation planning principles. The current Stage I plan includes over 500 residential units and 177,500 square feet of retail/business park space. Over 50% of the traffic which would be generated by this development would be oriented to and from the east (the Nipomo commercial area and the freeway). Providing only one east-west connector link located one-half mile north of the site would be viewed as a minimal circulation system given the size of the development. The proposed circulation system would result in approximately 2,000 additional vehicle miles traveled (VMT) per day (equating to over 600,000 additional VMT on an annual basis) in the Nipomo area (and associated vehicle emissions). The limited access plan could also increase emergency vehicle response times to the site. It is also noted that some of the traffic generated at the site would find its way to the other adjacent dirt roadways (i.e. Dawn Road, Camino Caballo, Viva Way, etc.) even though no improvements are proposed by the applicant for these roadways, thus inducing the need for future roadway improvements. For instance, residents living on Dawn Road who wish to patronize the retail or recreational components of the Woodlands project would travel on Dawn Road to access the site regardless of whether the road was paved or not.

Assuming the access plan proposed by the applicant for this alternative, the operation of the Willow Road/Pomeroy Avenue intersection would degrade to the LOS D range. This access alternative would also result in heavy turning movements at the Willow Road intersections with Albert Way and Via Concha Road. The project would also add traffic to the Willow Road/Route 1 intersection, which could generate potential safety impacts given its current substandard design.

Stage I Mitigations. As discussed above, Stage I of the Revised Project Alternative would generate impacts to several intersections and roadways in the study area. Mitigations are listed below:

Albert Way and Via Concha: These two roadways, which would carry the bulk of the traffic generated by Stage I, shall be improved to County Collector Road standards between Dawn Road and Willow Road. In addition to these roadway improvements, left-turn channelization would be required on Willow Road at the Albert Way and Via Concha Road intersections to accommodate the turning movements generated by the project. These improvements would be required prior to occupancy the Stage I developments.

Willow/Pomeroy: Based on the limited circulation system proposed for the Stage I development, traffic signals would be required at this intersection to accommodate the volumes generated by Stage I. Intersection widening to provide appropriate left- and/or right-turn lanes would also be required. It is anticipated that this improvement would not be required until most of the Stage I development is constructed. Furthermore, if the County requires an additional east-west access connection, as recommended below, the signal would not be required at all for Stage I. It is therefore recommended that the applicant bond for the signal and that signal warrant studies be conducted at periodic occupancy intervals (i.e. at 50% and 75% occupancy) to determine the timing for installation.

Project Frontage Improvements: In order to provide for the equitable development of the future circulation system which will be required to serve the Woodlands site as well as buildout of the Nipomo area, the project applicant would be responsible for improving the roadways fronting the property. These would include Dawn Road, Camino Caballo, Route 1 and Viva Way. The roadways would be improved to County standards, as determined by the County Engineering Department. These improvements would be required prior to occupancy of the Stage I developments.

Route 1/Main Entrance. Prior to construction/logging operations, the Route 1/Main Entrance intersection shall be improved to include a southbound left-turn lane and a northbound right-turn lane. The turning-lanes shall be constructed to provide adequate truck storage and turning movements. The intersection design shall conform to Caltrans design standards.

Route 1/Willow Road. This intersection currently has single lane approaches with substandard geometric design. It is recommended that this intersection be realigned and widened to provide turn-lanes on all of the approaches. The intersection should be reconfigured to form a standard three-way approach configuration in order to alleviate driver confusion. This would involve realignment of the Willow Road approach. As volumes increase due to buildout of the area, the control of the intersection may need to be modified to provide all-way STOP control or signalization. These improvements would be required prior to occupancy of any of the Stage I developments.

The improvements recommended for the Willow Road/Route 1 intersection would be required to mitigate potential safety impacts associated with the addition of project traffic and the current substandard design. These improvements would still be required with the revised project. The improvements would need to be constructed prior to development of

Stage I. If the improvements are constructed by Caltrans prior to development of Stage I, then no additional improvements would be required of the project.

East-West Connections: As previously noted, the current Stage I plan includes no direct east-west connection to the project site. This would result in significant increases in vehicle miles traveled in the area. It is therefore recommended that a minimum of one direct east-west roadway connection be provided for the Stage I development. This could include the connection to and improvement of Mesa Road (as proposed in Stage II of the project), or development of Dawn Road or Camino Caballo as analyzed for the proposed project. These improvements would be required prior to occupancy of any of the Stage I developments. Eucalyptus Road was not included in the discussion because of its southerly location, since development of Stage I would occur in the northern portion of the site.

Stage II Impacts. Stage II of the Revised Project Alternative would generate about the same level of external traffic as Stage I of the proposed project (see Table 4.2-25). External access for Stage II would be expanded by adding a connection to Mesa Road, with no direct access to Camino Caballo or Eucalyptus Road and no improvements proposed for Dawn Road. The revised project information provided by the applicant indicates that access to Dawn Road and Camino Caballo would be for "emergency vehicles only". However, the site plan shows two major connections between the site and Dawn Road at Albert Way and Via Concha.

Stage II of this alternative would result in much higher traffic loading on Albert Way, Via Concha, Willow Road, and Mesa Road, while significantly reducing the forecast traffic loading on Dawn Road and Camino Caballo.

While the study-area roadways and intersections could generally accommodate the traffic volumes generated by Stage II with the limited circulation system proposed by the applicant (assuming improvements to Mesa Road) based on roadway engineering design capacities, the circulation plan is inconsistent with good planning principles. The Stage II development includes 838 dwelling units, over 400,000 S.F. of commercial square-footage, and a 500 room hotel. Providing a single east-west connector link at Mesa Road for this level of development would focus traffic on this roadway and within the neighborhood adjacent to Tefft Road and at a limited number of intersections. Providing additional east-west links would disperse traffic over more of the study-area roads and intersections.

Assuming the access plan proposed by the applicant for this alternative, the operation of the Mesa Road/Tefft Road intersection would degrade to the LOS D range.

It is also noted that development of the Nipomo mesa east of the site may trigger the need for upgrading the links and the cost of the upgrades should be shared by the project according to the project's traffic contributions. Project-generated traffic would find its way to the links as they are paved in the future.

Stage II Mitigations. As discussed above, Stage II of the Revised Project Alternative would generate impacts to several intersections and roadways in the study area. Mitigations are listed below:

Mesa Road: The segment of Mesa Road between Viva Way and Osage Street should be improved to County Collector Road standards, if not improved by other project

development in the area or the County prior to construction and occupancy of the second Stage of the Woodlands project.

Mesa Road/Tefft Road: Based on the revised circulation system proposed for the Stage II development, traffic signals would be required at this intersection to accommodate the volumes generated by Stage II. Intersection widening to provide appropriate left-turn channelization may also be required. It is anticipated that this improvement would not be required until most of the Stage II development is constructed and occupied.

Furthermore, if the County requires an additional east-west access connection, as recommended below, the signal would not be required at all for Stage II. It is therefore recommended that the applicant bond for the signal and that signal warrant studies be conducted at periodic occupancy intervals (i.e. at 50% and 75% occupancy of Stage II) to determine the timing for installation.

East-West Connections: As noted in the discussion of this alternative, the current Stage II plan includes one direct east-west connection to the project site via Mesa Road. This would result in significant loading of Mesa Road in the residential area in the downtown Nipomo area and would require traffic signals at the Tefft Road intersection. It is therefore recommended that a minimum of one additional east-west roadway connection be provided for the Stage II development. This could include the connection to Eucalyptus Road or development of Dawn Road or Camino Caballo as analyzed for the proposed project. These improvements would be required prior to occupancy of any of the Stage II developments.

Buildout Impacts. Buildout of the Revised Project Alternative would generate about the same level of traffic as buildout of the proposed project (slightly higher external traffic as shown in Table 4.2-25). External access for buildout would be expanded by adding a connection to Eucalyptus Road, with no direct access or improvements proposed for Dawn Road, Camino Caballo and Viva Way. It is noted, however, that project-generated traffic would utilize the entire roadway system in the Nipomo area as buildout occurs, as some of the area roads will be paved as development occurs and some of the traffic generated by the Woodlands project would utilize unpaved roads. The impacts and mitigations for buildout of the Revised Project Alternative would generally be the same as those identified for the proposed project, with the exception of the heavier loading on Mesa Road and the need for signals at the Mesa Road/Tefft Road intersection as identified in the Stage II analysis.

Buildout Mitigations. Buildout impacts of the Revised Project Alternative would be the same as buildout of the proposed project and mitigations would therefore also be the same. In addition to these mitigations, the project would be required to contribute its fair share of the costs of the improvements of the area roadways that its traffic would use.

Study-Area Roadways: The project would be required to contribute a fair share of the costs required to improve the study-area roadways which will accommodate buildout traffic. These would include the off-site portions of Dawn Road, Camino Caballo, and Viva Way as well as the Dawn Road/Route 1 intersection.

Similar to the proposed project, although NO_x emissions associated with construction impacts are estimated to be above the threshold of significance, the amount of NO_x emissions would be reduced under the Revised Project Alternative. The PM₁₀ impacts of the Proposed Project and the Revised Project would also result in a temporary unavoidable significant impact, which would cease at the completion of project construction. The estimated impacts associated with the

Revised Project indicate that the change from two stages to four stages of construction reduces construction impacts on air quality.

Similar to the proposed project, the operational air quality impacts at project buildout would be significant under the Revised Project Alternative. Actual impacts could be less than those predicted in this analysis since in preparing the analysis conservative assumptions were made (such as maximum potential trip generation). The project and Revised Project Alternative would include measures that would reduce project trip generation from those indicated in this analysis and thus air quality impacts. Such measures include constructing tunnels/underpass, bus turnouts, passenger benches, and transit stop shelters to encourage the use of mass transit. The project design for both the Revised Project Alternative and the proposed project include bicycle trails and pedestrian paths connected to the County Trail System. Similar to the proposed project, the project entails mixed land use: commercial, recreational and residential. The mixed land uses could reduce trip generation by encouraging internal project trips, resulting in less adverse air quality impacts. The Revised Project Alternative is anticipated to result in less total daily trips than the proposed project. However more external trips, are expected to result under this alternative. The increase in external trips is partially due to the increase school trips. There are no additional air quality mitigation measures available.

Sensitive habitats are places largely at risk by invasive, non-native species. When replacement or mitigation habitat is designed as long linear strips as with this alternative, the perimeter to acreage ratio is extremely high, therefore, non-native plants can more easily invade a linear habitat and such mitigation is usually both unsuccessful and unacceptable to the resource agencies.

Similar to the proposed project during the construction stage, this alternative could result in disturbance to, or direct mortality of, common and special-status wildlife species due mainly to habitat modification. Also, the application of fertilizers and pesticides for golf course turfed areas may adversely affect biological resources. Implementation of mitigation measures recommended for the proposed project would also similarly mitigate these impacts for this alternative.

Construction noise impacts would be similar to that of the proposed project. Similar to the proposed project, operational noise impacts of the Revised Project Alternative would be potentially significant on several residences in the vicinity of the project site. Noise levels would be slightly greater at intersections in the project vicinity. As roads are improved vehicle traffic, travel speeds and traffic-related noise are expected to increase. An increase in traffic related noise from 0.6 to 12 dBA is anticipated as a result of the Revised Project Alternative traffic along local roads. Sound level variations of less than 3 dBA are not considered to be significant because a three decibel variation is not a 'noticeable change' by the typical human ear. Noise impacts identified along Camino Caballo and Calle Fresa would not occur under the Revised Project because Camino Caballo would not be built and Calle Fresa would not carry any project traffic.

The feasibility of mitigating noise levels to below the 60 dBA Ldn level of significance at affected receptors was evaluated. Noise impacts may be influenced by grade variations, intervening topography, reduced speeds at curves and noise barriers. Mitigation Measure 4.5-2c in the EIR requires the construction of a 6-foot high noise barrier, which is estimated to provide 6 to 10 dBA of noise attenuation. If such barriers were constructed for existing homes close to the road edge, no significant noise impacts associated with long-term road traffic would result from the revised project. A site specific acoustical analyses should still be required prior to obtaining building permits to determine if such a barrier or other noise attenuating measures would be warranted.

Potential aesthetic impacts associated with this alternative would be slightly different than the original proposed project. The business park would be located in the southwest corner of the site parallel to Highway 1. This would make the business park more accessible to Highway 1 and less obtrusive to the rural character of Dawn Road and Camino Caballo. The resort would be moved directly south of the butterfly habitat and could be visible from Highway 1. Mitigation measures included under the proposed project would also reduce visual impacts under the Revised Project Alternative to less than significant levels.

Impacts on fire protection and police services would be similar to the original proposed project. Impacts to solid waste services would be slightly less than the proposed project. The school site would be eliminated under this alternative and the applicant would pay in-lieu fees. Elimination of the school site would impact the area's existing Dana and Nipomo Elementary Schools, which currently operate over capacity.

Impacts to archaeology would be slightly greater than the proposed project. Under the Revised Project Alternative, the site would be developed in four stages instead of two, requiring an additional cut and fill of approximately 538,000 cubic yards. Mitigation measures included under the proposed project related to archaeological resources, drainage erosion and sedimentation would also reduce significant impacts under this alternative. Impacts related to agricultural compatibility would be similar to the project.

2. The Applicant's design change comments are noted.
3. Comment noted. Although the number of holes would increase at the proposed golf course, the total golf course acreage under irrigation would remain the same as the proposed project alternative.
4. The NCS D well, as well as other extraction wells in the area and future wells from new developments, would contribute cumulatively to local drawdown of groundwater levels. The cumulative drawdown would only become problematic under certain drought conditions where water levels may temporarily decrease to a point that some local wells may be affected. Without adjudication of the basin, there are no regulations that provide for pumping limits or for remedies when wells are impacted by pumping from several parties. The County does not have jurisdiction or authority to regulate pumping from the NCS D well or the other existing wells on the Mesa. Its only authority is to place conditions over new developments, including the proposed project and other future projects. Therefore, the proposed mitigation measure as written is appropriate. The applicant is free to negotiate agreements with NCS D and other parties to contribute to cumulative impact mitigation costs.
5. The language regarding the timing of the roadway mitigations was developed by County staff.

A separate review of the applicants traffic study is provided at the end of this response letter.

The applicant states that no improvements would be required on Dawn Road due to the relocation of the Business Park Component of the Project. Dawn Road could serve as one of the primary east-west collector routes for the land uses

which would be developed in the northern portion of the Woodlands project. While relocation of the business park would tend to reduce the traffic added by the project on Dawn Road, it would by no means eliminate all traffic additions generated by the project, as the revised Land Use Concept Plan shows two major connections between the northern portion of the project site and Dawn Road.

If available, Dawn Road would be an attractive route for traffic generated in the northern portion of the Specific Plan that is oriented to the downtown Nipomo area and, more importantly, the Tefft Road/U.S. Highway 101 interchange. Dawn Road would also provide an access route between existing and future residences in the Nipomo area and the Business Park, Golf Course and Retail uses proposed within the Woodlands site. As noted above, without the Dawn Road connection to the east the trips generated within the northern area of the site under Stage I would travel approximately one-half mile north to Willow Road, traverse Willow Road to the east, and then back-track to the south via Pomeroy Road to access the downtown Nipomo area and the Tefft Road/U.S. Highway 101 interchange.

6. The applicant states that there would be no need to improve any of the roads along the boundary of the property. County staff have indicated that the project would be required to construct frontage improvements pursuant to County standards on Dawn Road, Viva Way, and Camino Caballo (see Richard Marshall memo dated June 30, 1998). These improvements would be required to serve the traffic generated by the project and would constitute a fair-share contribution by the project to the improvements required in the immediate vicinity of the project site. These improvements would also facilitate completion of the future grid circulation system envisioned for the Nipomo area.

As reviewed above in response to Comment #5, the roads along the perimeter of the site will need to be dedicated and approved pursuant to County standards.

7. The applicant states that there would be no need for improvements at the Dawn Road/Route 1 intersection given the relocation of the business park. Given that improvements to Dawn Road would be along the project frontage and would not extend to Route 1, the condition requiring the project applicant to construct the improvements for the Dawn Road/Route 1 intersection should be deleted from the EIR (see Mitigation Measures 4.2-1a).

The improvements recommended for the Willow Road/Route 1 intersection would be required to mitigate potential safety impacts associated with the addition of project traffic and the current substandard design. These improvements would still be required with the revised project. The improvements would need to be constructed prior to development of Stage I. If the improvements are constructed by Caltrans prior to development of Stage I, then no additional improvements would be required of the project.

8. Comment noted. The mitigation measures listed in the EIR did not require that the applicant construct the Willow Road extension to mitigate project impacts. The language provided in the EIR that says the applicant "may elect" to construct the improvements was developed by County staff. The mitigation measure (see 4.2-5a) language has been revised as follows:

If the Willow Road extension and partial interchange have not been funded and constructed prior to the commencement of Stage II development, the project sponsor shall pay its fair share. This payment would be subject to reimbursement from the County fee program, which has programmed the funding of this entire improvement.

9. It is anticipated that some of the traffic generated by the project would utilize Camino Caballo, both as a secondary access route between the Woodlands site and Pomeroy Road as well as a local access route between area residences and the commercial/business/recreational uses which will be developed on the Woodlands site. Given the existing and future volumes which would be experienced on Camino Caballo, it is anticipated the road will eventually be paved. It is therefore recommended that the section of Camino Caballo adjacent to the Woodlands site be constructed to County standards prior to development of Stage I.

Given that improvements to Dawn Road would be along the project frontage and would not extend to Route 1, the condition requiring the project applicant to construct the improvements for the Dawn Road/Route 1 intersection should be deleted from the EIR (see Mitigation Measures 4.2-1a).

10. Development of a reimbursement agreement for improvements to Mesa Road required to accommodate Stage II traffic would ultimately be determined by the County.

The decision to include improvements to Mesa Road within the South County Fee Program would ultimately be determined by the County.

11. As outlined in Richard Marshall's memo dated June 30, 1998, utilization of Eucalyptus Road by the Woodlands development would require payment of an in-lieu fee by the applicant to the existing assessment district.

Comment noted. The mitigation measures listed in the EIR did not require that the applicant construct the Willow Road extension to mitigate project impacts. The original language provided in the EIR says the applicant "may elect" to construct the improvements, it does not require them. See revised language under Comment #8.

12. See response to Comment 7 above.

13. The applicant states that the new road system will make the village more accessible to the surrounding neighborhood, and that this is a positive impact of the design change. Review of the revised Land Use Concept Plan and the traffic analysis provided by the applicant indicates that this is not the case.

The applicant's circulation plan for the Stage I development requires that all external traffic generated by the project use Willow Road to travel to and from the east, with no traffic accessing the site via Dawn Road, Camino Caballo, Mesa Road, or Eucalyptus Road. This access plan requires that the trips generated within the Stage I development area travel approximately one-half mile north to

Willow Road, traverse Willow Road to the east, and then back-track to the south via Pomeroy Road to access the downtown Nipomo area and the Tefft Road/U.S. Highway 101 interchange. The plan would also require that all local traffic in the Nipomo area which is destined for the site travel north to Willow Road and then south to the site via Albert Way or Via Concha. For the Stage II and buildout development scenarios, the applicant appears to suggest or infer restricting access to the site on both Dawn Road and Camino Caballo, again limiting access to the surrounding areas.

County staff and decision makers will ultimately determine whether the internal roads will be private or public.

ATE conducted a peer review of the traffic study prepared by RRM Design Group for the applicant's revised alternative and offer the following comments.

A. Project Trip Generation

The Stage I trip generation information submitted by the applicant appears to be simply factored from the Stage I data presented in the DEIR based on the change in size of the individual project components. The trip generation assumptions used in the EIR were developed by ATE and County staff at the outset of the project. The trip generation projected in the applicant's traffic study assumed the same trip generation rates developed for the initial Stage I development. The rates used by ATE were based on the regression equations published in Institute of Transportation Engineers, Trip Generation Manual, 6th Edition. The trip rates will therefore change as the size of the development changes. This was not accounted for in the applicant's traffic study. The applicant has also indicated that the school will be removed from the site and that the park may also be deleted. The revised traffic analysis should consider these proposed land use changes.

The trip generation assumptions presented in the EIR also addressed internal versus external trip splits and pass-by trip reductions. The basis for those assumptions was the NCHRPC Report No. 255. The data derived from that report was used to empirically quantify the internal and external trip splits. Modifying the project to change the size of the business park and retail areas in the new Stages and delete the park and/or school would require additional analyses to determine the effects on the internal versus external trip generation for the project.

Using the methodology presented in the EIR, the revised Stage I development would generate a volume of 9,165 ADT and 930 P.M peak hour trips. The applicant's study projected a volume of 8,032 ADT and 805 P.M peak hour trips. We have attached copies of the trip generation tables for each Stage of the project. The attached tables show the methodology used to predict the project generated traffic volumes.

B. Project Street System

One of the most significant changes in the new project proposal is the configuration of the site access and circulation plan. The following text reviews these changes:

Stage I: The applicant's circulation plan and the traffic study assume that 90% of the external traffic generated by Stage I of the project would use Willow Road (remaining 10% using Route 1) and that no traffic would use Dawn Road, Camino Caballo, Mesa Road, or Eucalyptus Road. This access plan requires that the trips generated within the Stage I development area travel approximately one-half mile north to Willow Road, traverse Willow Road to the east, and then back-track to the south via Pomeroy Road to access the Tefft Road/U.S. Highway 101 interchange and the downtown Nipomo area. The plan would also require that all local traffic in the Nipomo area which is destined for the site travel north to Willow Road and then south to the site via Albert Way or Via Concha.

While the study-area roadways and intersections could generally accommodate the traffic volumes generated by Stage I with the limited circulation system proposed by the applicant, the circulation plan is inconsistent with good planning principles. The current Stage I plan includes over 500 residential units and 177,500 square feet of retail/business park space. The majority of the traffic which would be generated by this development would be oriented to and from the east (the Nipomo commercial area and the freeway). Providing only one east-west connector link located one-half mile north of the site would be viewed as a very minimal circulation system given the size of the development. The proposed circulation system would result in increased vehicle miles traveled in the Nipomo area (and associated vehicle emissions) and could increase emergency vehicle response times to the site.

Stage II: The circulation plan for the Stage II development (which when combined with the revised alternative State I is essentially the same land use as Stage I analyzed in the EIR), indicates that east-west access to the site will be provided via Willow Road and Mesa Road, with no connections to Dawn Road or Camino Caballo. The project distribution figure provided in the applicant's traffic study also shows no loading on Eucalyptus Road, presumably because no connection is provided at the site.

The modified access plan results in significantly higher loading on Mesa Road, Albert Way, Via Concha, and Willow Road, with significant decreases in traffic on Dawn Road and Camino Caballo. The applicant's traffic study indicates that the study-area roadways and intersections could generally accommodate the traffic volumes generated by Stage II with the circulation system proposed.

While the street system proposed for the Stage II development would generally be adequate for project traffic, it provides a "bare-bones" circulation system for the project and the western Nipomo area, as only one direct east-west link is provided directly to the site (Mesa Road). As noted above, the reduced circulation system would result in increased vehicle miles traveled in the Nipomo area (and associated vehicle emissions) and could increase emergency vehicle response times to the site.

C. Year 2005 and 2010 Base Volumes

The traffic model used to develop the Year 2005 and Year 2010 traffic volumes for the EIR assumed that the east-west links of Dawn Road, Camino Caballo, Mesa Road and Eucalyptus Road were fully constructed and assigned traffic accordingly. If these assumptions are no longer valid, the base volumes used to assess project impacts would need to be revised. If these links are not expected to be available (i.e. paved), then the model should be revised so that the reduced circulation system is reflected in the assignment of base Year 2005 and 2010 volumes. Traffic generated from other projects in the area would be expected to use routes similar to the revised Stage I development if those east-west links are not available. This would increase traffic on the east-west links the applicant's study assumes are available. However, if they are assumed to be in place for base year 2005 or 2010 conditions, then traffic generated by the project would use them and the analysis would again need to be modified.

14. **The following text is added to page 198, after the Rural Village II discussion:**

Revised Project

Air pollutant emissions associated with construction activities for the Revised Project are estimated based on the changes in the project design. Although NO_x emissions are estimated to be above the threshold of significance, the amounts of NO_x emissions would be reduced for the Revised Project, as shown in Table 4.3-6. Similar to the Proposed Project and the other Alternatives, the PM₁₀ impacts of the Revised Project would also result in a temporary unavoidable significant impact, which would cease at the completion of project construction. The estimated impacts associated with the Revised Project indicates that the change from two Stages to four Stages of construction reduces construction impacts on air quality. Increased vehicle trips on Camino Caballo and Dawn Road would increase PM₁₀.

Similar to the proposed project, the operational air quality impacts at project buildout would be significant under the Revised Project Alternative. Actual impacts could be less than those predicted in this analysis since in preparing the analysis conservative assumptions were made (such as maximum potential trip generation). The project and Revised Project Alternative would include measures that would reduce project trip generation from those indicated in this analysis and thus air quality impacts. Such measures include constructing tunnels/underpass, bus turnouts, passenger benches, and transit stop shelters to encourage the use of mass transit. The project design for both the Revised Project Alternative and the proposed project include bicycle trails and pedestrian paths connected to the County Trail System. Similar to the proposed project, the project entails mixed land use: commercial, recreational and residential. The mixed land uses could reduce trip generation by

encouraging internal project trips, resulting in less adverse air quality impacts. The Revised Project Alternative is anticipated to result in less total daily trips than the proposed project. However more external trips, are expected to result under this alternative. The increase in external trips is partially due to the increase school trips. There are no additional air quality mitigation measures available.

15. Given the typical daily afternoon windy condition, watering the entire site twice a day is unlikely. Proposed measures 'd' & 'e' are proposed to reduce dust from stockpiled areas, steeper barren areas, or if there are any lapses in grading activities (e.g. after 5 p.m. or Sundays) which would not be done with measures 'a', 'b' or 'c'. Measures 'f' & 'g', while less significant will also reduce air quality impacts.
16. Comment noted. Use of watering trucks may not mitigate for dust control in the following circumstances given the afternoon windy conditions: stockpile areas, steep slopes inaccessible bore areas, limited weekend construction activities or when there are lapses when grading crews are not in project site.
- 17.-18. See response #15.
19. See response #15.
- The County Circulation Element has planned for a public collector street system to serve the Nipomo area, including the Woodlands site. As such, some of the streets within the Woodlands site (Via Concha, Mesa, Eucalyptus Road, etc.) will be County collector streets rather than local streets.
20. Comment noted.
21. Comment noted. Both original and revised projects propose similar control measures and are considered similar in potential impacts.
22. The plans submitted for consideration in the EIR are relatively general, where the actual circulation design may be slightly modified when construction-level of final design plans are completed and submitted to the county. This mitigation measure is to provide assurance these linkages remain in tact during the final design Stage.
23. The purpose of the mitigation measures is not to preserve the buffer areas intact, but to preserve the overwintering population of monarch butterflies intact. Therefore, in consultation with species experts, the DEIR specified additional measures (Mitigation Measures 4.4-3a, #3-#8) are reasonable under CEQA.
24. **Mitigation Measure 4.4-3c (page 239) is revised to read:**

Mitigation Measure 4.4-3c: For areas which are scheduled for construction between March and July, a pre-construction survey shall be conducted for nesting raptors. Trees containing active raptor nests shall be identified by the project biologist. Destruction of such breeding sites

shall be avoided for the duration of the breeding season by establishment of an appropriate setback as determined by consultation with California Department of Fish and Game and/or the U.S. Fish and Wildlife Service. An exclusion barrier shall be installed around the perimeter to prevent destruction of nest trees which would result in destruction of nests, eggs, and/or nestlings per Fish and Game Code Section 3503.5 and to minimize the effect of construction related noise and dust.

As stated in the mitigation measure, the applicant will consult with California Department of Fish and Game. If a nest fails after consultation, Fish and Game would assume responsibility and the project would not be halted. Additionally, Fish and Game will determine the size of the buffer, which is not expected to impede development of the project.

25. The mitigation measures specified would protect both common and special status species. In large scale developments such as this one, impacts to common species can be locally significant. Therefore, linking common species and special status species in an impact and mitigation is appropriate.
26. It is not clear why the commenter believes these measures to be unnecessary. They are considered necessary to protect these species.
27. The mitigation as proposed is intended to deal with protection of *all* biologically sensitive areas, not just habitats associated with the species referenced by the commentor. Mitigation measure 4.4-4a is consistent with CEQA when properly applied, e.g., as a mechanism to prevent intrusion into areas which are to be preserved (e.g., coastal scrub) and loss of protected wildlife which may have moved into the area between the EIR-level surveys and the actual start of construction.

The following mitigation measure is added to page 240:

Mitigation Measure 4.4-4c: A pre-construction survey to locate loggerhead shrike nesting sites and active badger burrows shall be conducted prior to commencement of all grading activities involving vegetation removal. A preconstruction survey will also be conducted on a site that has not been disturbed more than 90 days. An appropriate setback, as determined by California Department of Fish and Game and/or the U.S. Fish and Wildlife Service, shall be established around active sites. An exclusion barrier shall be installed around the perimeter to prevent destruction of the nest site or burrow. Construction activities shall, meanwhile, be allowed to continue outside the protected area. When it is determined that an active site is no longer active, construction activities shall be permitted to resume at that site.

- 28-30. These measures are the only ones that specifically apply to golf courses. Golf course development can have potentially significant effects on sensitive biological resources. Therefore, the mitigations proposed are entirely consistent with the construction of golf courses in environmentally sensitive areas.

Regarding eucalyptus, the main intent of the proposed mitigation was to protect the remaining windrows and clusters which are key components to mitigate much

of the potential visual mitigation. These trees are also used for raptor nesting previously discussed.

31. Comment noted. See the Revised Alternative discussion.

The following Mitigation Measures is added to page 270:

Mitigation Measure 4.5-2c: The project sponsor shall construct a 6-foot high noise barrier or other appropriate device to reduce excessive noise below county threshold for sensitive receptors significantly affected by the project development. The placement of noise barriers shall be in accordance with the acoustical analyses.

Mitigation Measure 4.5-2d: A site specific acoustical analyses shall be required to account for project and cumulative noise impacts for all residences along potentially affected roads. The analyses shall be conducted prior to obtaining any discretionary permits and reviewed as necessary throughout the development of the project.

32. Comment noted.

33. Comment noted. If archaeological resources are discovered during construction activities, the archaeological monitor would only halt construction activities within 50 yds. of the identified sensitive area(s). The identified areas would be avoided until the extent, location and disposition of artifacts can be accomplished, which requires coordination between the monitor and on-site engineers.

The following text (shown in bold) is added to Mitigation Measure 4.8-1c:

Mitigation Measure 4.8-1c: In accordance with the County Land Use Ordinance, Section 22.05.140, in the event archaeological resources are unearthed or discovered during any construction activities, the following standards apply:

Construction activities shall cease **within 50 yards of the archaeologically sensitive area**, and the Environmental Coordinator and Planning Department shall be notified so that the extent and location of discovered materials may be recorded by a qualified archaeologist, and disposition of artifacts may be accomplished in accordance with state and federal law.

34. Comment noted. Under the Revised Project Alternative approximately 538,000 more cubic yards of cut and fill would be required than the proposed project. However, grading would occur over four Stages rather than two as proposed by the Proposed Project. Therefore, impacts would be less on a "per Stage" level. Mitigation measures related to archaeology, erosion and sedimentation in the

Draft EIR would also reduce impacts resulting from grading proposed under the Revised Project Alternative.

The proposed project would require grading of approximately 100,000 cubic yards of earth. The Revised Project Alternative would reduce the amount of grading required to approximately 50,000 cubic yards, thereby reducing the potential for soil erosion and sedimentation.

The Revised Project Alternative would also require the installation of erosion control measures, such as silt fences and sediment basins, to further reduce the potential for soil erosion and sedimentation.

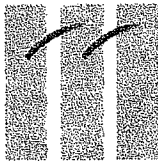
The Revised Project Alternative would also require the installation of riprap along the project's perimeter to reduce the potential for soil erosion and sedimentation.

The Revised Project Alternative would also require the installation of vegetation along the project's perimeter to reduce the potential for soil erosion and sedimentation.

The Revised Project Alternative would also require the installation of a drainage system to reduce the potential for soil erosion and sedimentation.

The Revised Project Alternative would also require the installation of a stormwater management system to reduce the potential for soil erosion and sedimentation.

The Revised Project Alternative would also require the installation of a water quality monitoring system to reduce the potential for soil erosion and sedimentation.



R R M D E S I G N G R O U P

Architecture • Planning • Engineering • Surveying • Interiors • Landscape Architecture

May 8, 1998

Mr. John McKenzie
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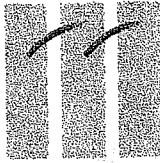
Re: Comments on the Woodlands Specific Plan DEIR

Dear John:

The following comments are supplemental to comments submitted directly by the applicant in conjunction with a separate letter dated May 7, 1998 and submitted to you May 8, 1998. We have referenced these comments consistent with the method used in the DEIR.

1. Page 31, 4.7-6a. It is anticipated that compost management for the golf course will be provided as a part of the golf course operations on site or through arrangements with a service provider such as the local refuse disposal company. Compost management for residential, resort, and business park uses will be provided by a local service provider such as the local refuse disposal company. 1
2. Page 31, 4.7-6b. Recycling and solid waste disposal programs will be generated in conjunction with a local service provider who will act as "recycling coordinator" as part of the services provided. 2
3. Page 32, 4.8-1b. Our understanding is that archaeological monitoring shall be provided during all earth moving in the vicinity of archaeological resource areas identified in the DEIR, not during all earth moving activity on the entire site. 3
4. Page 39, 4.11-2a. We suggest that "or development plan approval" be deleted. Provision of schematic plans prior to development plan approval would be the typical standard since the project design will not be final at that time. Provision of final plans "prior to final map" is workable. 4
5. Page 45, 4.9-1. Although agricultural compatibility was not found to be a significant impact, it should be noted that the project would *not* result in the conversion of the site from "open space". The site is not designated open space, and it is well documented that the existing conditions on site are not "open space" in character. The site is an old Eucalyptus tree plantation with trees planted for optimal harvesting conditions resulting in unusually low biotic values on site and very little "open space" character except at significant distance away from the site. 5
6. Page 396, 1st full paragraph and Table 6-1 page 397. The comments related to the nature of employment opportunities and occupational breakdown do not appear well documented, may be premature, and do not account for construction period jobs. The construction period for a project of this scale may extend over a period as long as a decade or more resulting in significant employment opportunities over a substantial period of time. 6

Mr. John McKenzie
Page 2
May 8, 1998



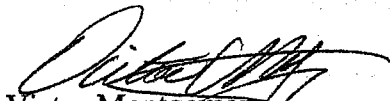
The applicant is preparing and will submit to the County a fiscal analysis for the project which will be submitted for review.

7. Page 401, 7-1. This section indicates under the no project alternative that the visual appearance of the site will remain "unchanged" and that all potential impacts associated with the proposed project would be eliminated. This conclusion is not supported by existing land use designations on the property or by the existing use of the property. Under the no project alternative, the character of the site could be changed radically by harvesting the existing tree crop. Indeed, the visual appearance of the site would be more radically changed by harvesting activity (no project) than by the proposed project that will retain much of the existing tree cover and a perimeter buffer of existing trees. 7
8. Page 404 and 409. On both of these pages there are statements concerning "the original intent" of the South County Area Plan. These statements appear to be more editorial comment by the DEIR author than factual matters related to the evaluation of environmental impacts. The "original intent" of the South County Plan may be subject to widely varying interpretation. Prior meetings between County staff and members of the County Planning Commission who participated in the South County Plan public hearings and recent community meetings held in the South County appear to support the conclusion that the proposed project is consistent with the "original intent" South County Plan. We suggest that these editorial comments should be deleted since they are matters of opinion. 8

Thank you for the opportunity to comment upon the DEIR. If you have questions regarding these comments please do not hesitate to contact our office to discuss them.

Sincerely,

RRM DESIGN GROUP


Victor Montgomery
Chief Executive Officer

cc John Janneck, PH Property
Allison Donatello, RRM
Jay Johnson, County Planning Department

c/p93404\govt\vm-DEIRComments5-8-98

Letter X: RRM Design Group, Victor Montgomery, Chief Executive Officer, letter dated May 8, 1998.

Comment
Number

Response

1. Comment noted. See responses to Letters G and K.
2. Comment noted. See responses to Letters G and K.
3. Due to the potential shifting of sands over the last several thousand years, and the limited visibility of the site, additional launch sites may exist on the subject site because they may be buried or not seen due to poor visibility. Therefore, the proposed measure is appropriate for all future ground-disturbing activities.
4. Comment noted. Mitigation Measure 4.11-2a (p. 39 and p. 390) is revised to delete "or development plan approval" and the following new Mitigation Measure 4.11-2b is added for other discretionary permits (e.g. Dev. Plans)

Mitigation Measure 4.11-2b: Prior to development plan or other discretionary permit approval, the project applicant shall provide the County with schematic design plans that demonstrates adequate flood protection.
5. Comment noted. As noted in the DEIR, much of the site has been logged and burned more than once, and supports dense second or third growth eucalyptus. Since the trees were planted for optimal harvesting conditions, they maintain low biotic values (except for Monarch butterflies and nesting raptors). However, the site is relatively open and undeveloped (as opposed to urban or developed).
6. Page 396, the following sentence is added to the end of the first full paragraph:

"Project construction could extend over ten years or more, thus generating substantial construction employment."
7. Page 401, the following sentence is added to the end of the first paragraph under section 7.1:

"Although no tree removal is proposed, the existing tree crop could be harvested if stumps left in (without a discretionary permit), substantially changing the character of the site."
8. At the time this property was being considered in the South County Planning Area update by the Planning Commission and Board of Supervisors to change from the Industrial land use category to Recreation, project proponents emphasized the value and importance of the high-end, job generating potential that this property could have under the Recreation zoning. Conceptual plans of campus-style business parks (including research and development) covering 70 acres that would be surrounded by several golf courses were presented. This original concept, included a lower density (2-1/2 acre) residential cluster

component. While the standards incorporated into the Area Plan update were generally based on these concepts, they were kept general enough to allow some flexibility in the final outcome through the Specific Plan process, and to anticipate that market forces may result in some changes to this conceptual design.

Page 409, fifth paragraph, second sentence, delete the word "original", change the word "was" to "is".

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