

# **Appendices**





# Environmental Impact Report

# Station 3 Site Acquisition and Construction

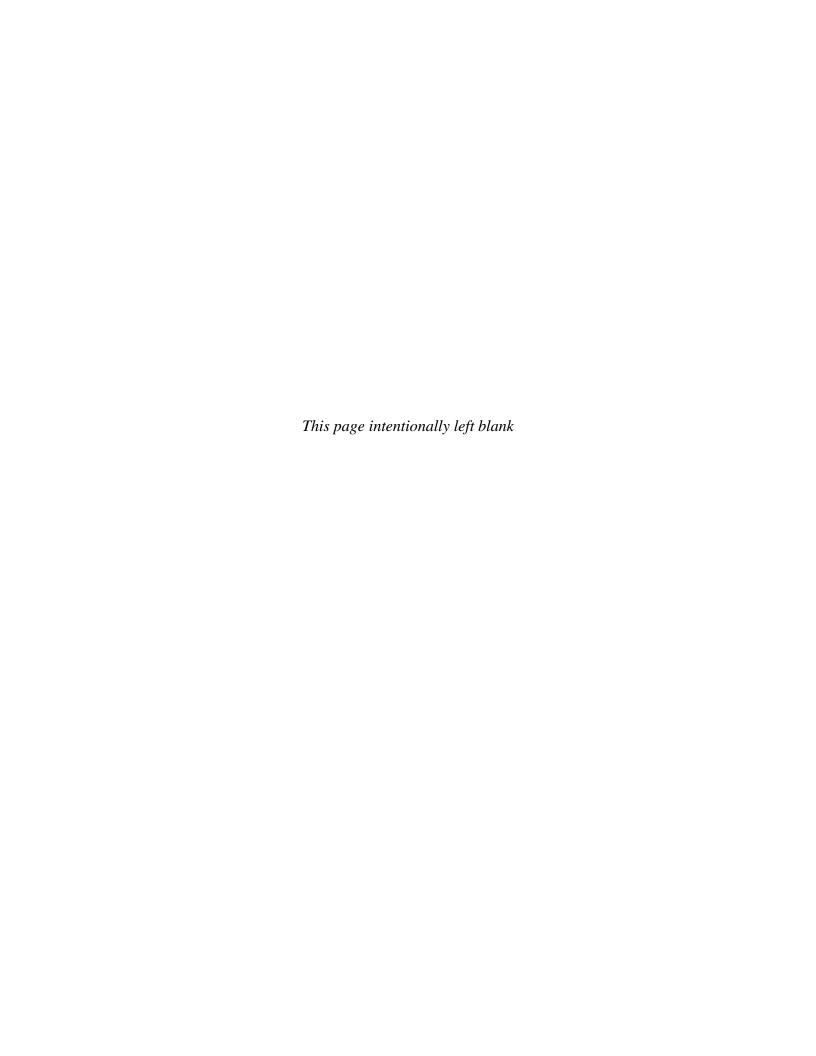
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## APPENDIX A

INITIAL STUDY

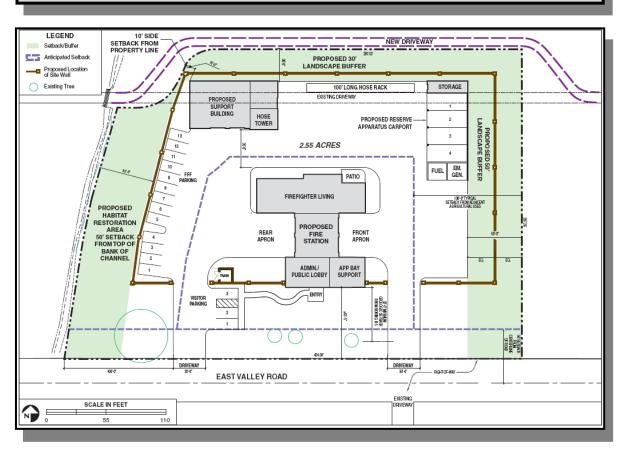


# MONTECITO FIRE PROTECTION DISTRICT

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# Montecito Fire Protection District Station 3 Site Acquisition and Construction Initial Study

March 2011



**Montecito Fire Protection District** 

AMEC Earth & Environmental, Inc.

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## 1.0 REQUEST/PROJECT DESCRIPTION

The Montecito Fire Protection District (MFPD) proposes to construct a new Fire Station 3 to improve fire protection services for the community, particularly the eastern portion of Montecito. The MFPD is the Lead Agency for implementation of this project under the California Environmental Quality Act (CEQA). In order to implement this project, the MFPD would acquire a 2.55-acre site to support construction of Station 3, which would consist of three primary structures. The 7,000-square foot (sf) main fire station building would be located in the south-central portion of the site fronting East Valley Road, and two support buildings would be located at the northeastern and northwestern parts of the site. The 4,800 gross sf northwestern support building would house maintenance bays and other support and storage functions, as well as a two-story hose tower. The 2,975-sf northeastern support building would house a separate carport structure and storage space for reserve apparatus used for emergencies. A 100-foot long lose rack would also be located at the northern extent of the developed area. Additionally, the project includes personnel, visitor and public parking areas (total of 16 spaces), two ingress/egress driveways, exterior lighting, and landscape and habitat restoration areas (Table 1). Potential increases in storm water runoff are proposed to be retained on site and treated through the design of a permeable paver system for the parking areas, landscaped swales and a rainwater garden.

The project would be constructed to United States Green Building Council (USGBC) LEED Silver certification to incorporate energy efficient building design and construction such as passive heating, solar energy use of recycled building materials and water conserving design and water quality protection measures. Additionally, the proposed project would be constructed in the Montecito architectural vernacular of thick walls, deep inset windows and doors, and clay and mortar tiles roofs in compliance with the Montecito Design Guidelines.

Construction would take place over 12 months and would require the conversion of 2.55 acres of prime agricultural soils and existing lemon orchard to institutional uses and the relocation and/or removal of two specimen coast live oaks and six oak saplings. Agricultural uses would continue on residentially zoned land adjacent to the site, and a buffer of 100 feet between habitable structures and active lemon orchards has been incorporated into project design to limit potential human health concerns associated with pesticide use. Additionally, all development onsite would be located entirely outside of the small, oaklined drainage channel, which runs contiguous with the western boundary of the site. Construction would be setback a minimum 50 feet from the top of the bank of the channel and habitat restoration of this 50-foot setback adjacent to the drainage with native flora would occur as part of the project in accordance with any applicable County guidelines.

	Table 1: Summary of Proposed Project
Structures	<ul> <li>Fire Station – 1-story (27'), 7,000 sf</li> <li>Support Building/Hose Tower – 1-story (27'), 4,800 sf, including attached 2-story (29') Hose Tower</li> <li>Reserve Apparatus Storage/Carport – 1-story (21'), 418-sf enclosed storage space, 650-sf fuel storage/generator, and 4 parking spaces under 2,432-sf carport</li> <li>Hose Rack – 100' long</li> <li>Total Structural Square Footage (Gross): 15,300 sf</li> </ul>
Impervious Surfaces	<ul> <li>Visitor Parking - 3 spaces (1 handicap accessible), 782 sf</li> <li>Firefighter and Other District Personnel Parking – 13 spaces, 2,600 sf</li> <li>37,597 sf of other paved area</li> <li>Total Impervious Surfaces: 40,979 sf (0.94 acres)</li> </ul>
Landscaping and Open Space	<ul> <li>Habitat Restoration Area – 12,756 sf on western portion of site</li> <li>Landscape Buffer Area – 21,501 sf on northern and eastern portions of site</li> <li>Landscaped area at street frontage – 15,053 sf</li> <li>Miscellaneous landscaped area within site – 4,254 sf</li> <li>Total Landscaped or Restored Area: 53,564 sf (1.23 acres)</li> </ul>
Site Access	Two 30'-wide entry/exit driveways off East Valley Road

The MFPD anticipates that this station would respond to approximately three to four emergency responses per day, based upon the historic number of calls for the community. Additionally, noise associated with periodic operation of emergency vehicles and response to alarms would occur.

The MFPD is requesting a Parcel Map Waiver in accordance with County of Santa Barbara, Chapter 21, Subdivision Regulations, to create an approximate 2.55-acre parcel from a larger 76.87-acre parcel, a portion of APN 155-070-008. The applicant is also requesting approval of a Major Conditional Use Permit, in accordance with the Montecito Land Use Development Code, to permit development of the fire station.

### 2.0 PROJECT LOCATION

The project site is located on the north side of East Valley Road, east of Sheffield Drive and Romero Canyon Road, and west of Ortega Ridge Road, and known as 2500 East Valley Road, in the Montecito Planning Area of the First Supervisorial District. The subject property is identified as Assessor Parcel Number (APN) 155-070-008 (76.87 acres). APN 155-070-008 is owned by the Petan Company, a holding of the property owner, Palmer G. Jackson. Site information is provided in Table 2.

Table 2: Site Information					
Site Location	<ul> <li>Nearest Major Intersection: Sheffield Drive and East Valley Road, approximately 2,000 feet west of the site</li> <li>Assessor's Parcel Number: 155-070-008</li> <li>Supervisorial District: First District</li> </ul>				
<b>Community Plan Designation</b>	• Montecito Community Plan (MCP), Urban Area, Semi-Rural Residential (SRR-0.5)				
Zoning District, Ordinance	• 2-E-1 (Estate Residential), 2 acre minimum lot size, Montecito Land Use Development Code				
Site Size	• +/- 2.55 acres				
Present Use & Development	Agriculture (lemon orchard)				
Surrounding Uses/Zoning	<ul> <li>North: Agriculture (lemon orchard); Residential 2-E-1</li> <li>South (across East Valley Road): Residential, 5-E-1</li> <li>East: Agriculture (lemon orchard); Residential, 2-E-1</li> <li>West: Agriculture (lemon orchard); Residential, 2-E-1</li> </ul>				
Access	East Valley Road/ State Highway 192				
Public Services	<ul> <li>Water Supply: Montecito Water District</li> <li>Sewage: Montecito Sanitary District</li> <li>Fire: Montecito Fire Protection District</li> <li>School District: Montecito Union School District (Primary); Santa Barbara School District (Secondary)</li> </ul>				

#### 3.0 ENVIRONMENTAL SETTING

#### 3.1 PHYSICAL SETTING

#### Slope/Topography

The site is relatively level, sloping gently (approximately 7 percent) in a southern trend and elevation is approximately 325 feet. Although the site and immediately surrounding parcels are gently sloping, the steep wooded slopes of Ortega Ridge are located south and southeast of the site and the foothills of the Santa Ynez Mountains begin to rise steeply within approximately 0.5 mile to the north.

#### Fauna

The site likely supports faunal species common in agricultural and less developed areas of the foothills such as field mice, coyote, raccoon, hawks, and owls. A known Monarch butterfly roost is present in the eucalyptus grove present on Assessor's Parcel Numbers (APNs) 155-070-002 and 155-030-045, approximately 2,500 feet northeast of the proposed project site (California Natural Diversity Database [CNDDB] 2010).

#### Flora

Vegetation on the proposed project site consists primarily of lemon trees (*Citrus limon*) as part of a larger 237-acre lemon and avocado agricultural operation (Rancho San Carlos). Coast live oaks (*Quercus agrifolia*) line the southern and western boundaries of the site adjacent to East Valley Road and the

intermittent drainage, respectively. The property contains a total of 51 oaks varying in size from 3 inches to 44 inches in diameter at breast height (DBH) and up to 35 feet tall (Spiewak 2010).

Archaeological and Historic Sites

A records search and Phase I Archaeological site survey found that no archaeological or historic sites are known to occur on the property.

Soils

The underlying soil association at the site consists of Ballard fine sandy loam occurring on 2 to 9 percent slopes. The soil in the area is characterized by moderately well drained fine sandy loams (US Department of Agriculture [USDA] 1981). The USDA indicates that this soil is favorable for building site development and would not pose a geotechnical limitation to project construction (USDA 1981).

Soils within the project site are considered prime farmland (California Department of Conservation 2009). The estimated yield for soils found on the project site is 800 field boxes (50 pounds) of lemons per acre per year (USDA 1981).

Surface Water Bodies

There are no surface water bodies on the proposed project site; however, an unpaved drainage channel borders the site immediately to the west, with the site boundary running contiguous with the top of the bank of this drainage channel. The drainage, ranging between 4 and 8 feet wide and 2 and 4 feet deep and flows only during and immediately following rain events (Sam Frye, Manager, Rancho San Carlos). Additionally, Picay Creek is located across East Valley Road, approximately 200 feet south of the project site.

Surrounding Land Uses

Surrounding the site to the north, west, and east are parcels currently used for lemon and avocado orchards on the 235-acre Rancho San Carlos. Several residences are located within 1,000 feet to the north of the site. South of the site, across East Valley Road are three existing estate residences and a large equestrian facility, including stables, barns and paddocks and an apartment, with one of these residences directly across East Valley Road opposite the site. The Valley Club of Montecito golf course is located approximately 500 feet southwest of the site. Approximately 100 feet west of the site is an undeveloped parcel owned by the Archdiocese of Los Angeles. The nearest residential neighborhood proximate to the site consists of eight estate homes off of Stonehouse Lane, approximately 600 feet west of the site. Further west are the neighborhoods of homes using on smaller lots along Romero Canyon Road and off Orchard Avenue and Tabor Lane.

Existing Structures

No existing structures are located on the site.

#### 3.2 ENVIRONMENTAL BASELINE

The environmental baseline from which the project's impacts are measured consists of the on the ground conditions described above. The project site has not previously been analyzed under the CEQA at the discretionary permit level; however, the project is located within the Montecito Community Planning

Area, for which an Environmental Impact Report (92-EIR-03) was certified at the time of Plan adoption in June of 1992. Subsequently, as part of a 1995 settlement agreement associated with the MCP, the Board of Supervisors adopted a Comprehensive Plan Amendment and a Rezone and approved an Addendum to 92-EIR-03. These legislative actions applied the current SRR-0.5 land use designation and 2-E-1 zoning to APN 155-070-008.

Recently the Montecito Growth Management Ordinance (MGMO) (Ordinance No. 3916 and amendments) was extended, along with the certification of the associated Final EIR (September 15, 2010). The intent of the MGMO is to pace growth within the Montecito Community Planning Area in a manner that balances development with available resources. The balance is defined within the current ordinance by establishing particular water supply and fire protection service levels that must be achieved and maintained, as well as traffic and circulation impacts, which must first be mitigated.

According to the Final MGMO EIR, areas of eastern Montecito, the foothills near Bella Vista Drive, and fringe areas cannot be provided the same standard of response as the rest of district due to their rural locations. Substantial areas of Eastern Montecito are outside the five minute response time. Fernald Point Lane and Butterfly Beach are also located outside of five-minute response time areas due to obstacles in the road network that slow response times.

#### 4.0 POTENTIALLY SIGNIFICANT EFFECTS CHECKLIST

The MFPD Board of Directors, acting as the Lead Agency for the project, will determine thresholds of significance; however, the County of Santa Barbara (County) thresholds have been utilized for this IS for reference and due because the County is a Responsible Agency with permitting authority over the project.

The following checklist indicates the potential level of impact and is defined as follows:

**Potentially Significant Impact (Class I):** A fair argument can be made, based on the substantial evidence in the file, that an effect may be significant.

**Less Than Significant Impact with Mitigation (Class II):** Incorporation of mitigation measures has reduced an effect from a Potentially Significant Impact to a Less Than Significant Impact.

**Less Than Significant Impact (Class III):** An impact is considered adverse but does not trigger a significance threshold.

**No Impact (Class III):** There is adequate support that the referenced information sources show that the impact simply does not apply to the subject project.

**Reviewed Under Previous Document:** The analysis contained in a previously adopted/certified environmental document addresses this issue adequately for use in the current case and is summarized in the discussion below. The discussion should include reference to the previous documents, a citation of the page(s) where the information is found, and identification of mitigation measures incorporated from the previous documents.

#### 4.1 AESTHETICS/VISUAL RESOURCES

Wi	ll the proposal result in:	Poten. Signif.	Less than Signif. With Mitigation	Less Than Signif.	No Impact	Reviewed Under Previous Document
a.	The obstruction of any scenic vista or view open to the public or the creation of an aesthetically offensive site open to public view?			X		
b.	Change to the visual character of an area?		X			
c.	Glare or night lighting which may affect adjoining areas?		X			
d.	Visually incompatible structures?			X		

#### **Existing Setting:**

The project site is located approximately 2,000 feet east of the intersection of Sheffield Drive and East Valley Road, in a semi-rural part of Montecito bounded by the Santa Ynez Mountains to the north and characterized by lemon and avocado orchards, equestrian uses, single-family residential estates and areas of oak, eucalyptus, and riparian woodlands. The primary public viewshed for this project is along East Valley Road, which has not been designated as a Scenic Highway (Santa Barbara County 2009a). Public views from East Valley Road are dominated by the wooded corridor along East Valley Road and the Santa Ynez Mountains to the north. Views of the site are partially obscured by mature oak trees that provide intermittent visual screening from East Valley Road and from neighboring residences to the south. No other adjacent residences or receptors have foreground views of the project site; however, more distant views of the site area briefly available from Ortega Ridge Road, from scattered residences along Ortega Ridge and potentially from private homes located off of Romero Canyon Road over 0.5 mile north of the site.

#### **County Thresholds of Significance (Included for Reference):**

The County's Visual Aesthetics Impact Guidelines classify coastal and mountainous areas, the urban fringe, and travel corridors as "especially important" visual resources. A project may have the potential to create a significantly adverse aesthetic impact if (among other potential effects) it would impact important visual resources, obstruct public views, remove significant amounts of vegetation, substantially alter the natural character of the landscape, or involve extensive grading visible from public areas. The guidelines address public, not private views.

#### **Impact Discussion:**

(a) The proposed project consists of three new structures consisting of a 7,000-sf fire station and two support buildings located at the northeastern and northwestern parts of the development area. The 4,800-gross sf northwestern support building would house maintenance bays and other support and storage functions, as well as a two-story hose tower. The 2,975-sf northeastern support building would house a separate carport structure and storage space for reserve apparatus used for emergencies. Additionally, the project includes 16 parking spaces, two ingress/egress driveways, exterior lighting, and landscaped and habitat restoration areas. Although the property is visible from public roadways (East Valley Road), the

proposed project would be mostly single-story and low profile, and would incorporate measures to limit the visual scale of the project (i.e., sinking the foundation of the hose tower to reduce overall height). These structures also would be partially screened from roadway views by mature oak trees that currently front the site. Additionally, all structures would be set back a minimum of 50 feet from the edge of East Valley Road, which allows for generous landscaping and limits interference with mountain views to the north. A 6-8 foot high perimeter wall would also provide some visual screening of the structures and paved areas.

(b-d) Construction of the proposed fire station complex would visually transform the site from its present agricultural character; however, the proposed structures would be of a similar mass, scale, and height to surrounding estate compounds, and the structures have been carefully designed to provide building profiles and architectural styles complementary to the surrounding land uses in the semi-rural residential region of Montecito (Mitigation Measure 1). The project would increase lighting over current conditions; however exterior lighting would be designed to minimize glare seen from the roadway and neighboring areas and the level and type of lighting would be consistent with that present on surrounding uses. (Mitigation Measure 2). With incorporation of these measures, the project would not create nuisance glare and would be compatible with the semi-rural residential character of vicinity land uses. Further, potential visual impacts of development in eastern Montecito were previously considered as part of the MCP update, determined to result in Class I, Significant and Unavoidable Impacts, and accepted by the Board of Supervisors in 1992 with their adoption of the Program's Statement of Overriding Considerations.

Further discussion and analysis of Aesthetic and Visual Resources will be contained within the project EIR.

#### **Cumulative Impacts:**

The MCP EIR analyzed the impacts of development of this area of Montecito on the Community's aesthetic and visual resources. The EIR found that the impacts of buildout of the area on aesthetics would be significant and unavoidable, and a Statement of Overriding Consideration was adopted. The impacts associated with cumulative development in the vicinity of the site were addressed in the MCP EIR.

As with all development within the MCP boundaries, the proposed project is required to comply with the *Montecito Architectural Guidelines and Development Standards* and is subject to review and approval by the MBAR. The requirements for MBAR review and compliance with architectural guidelines is a direct result of the visual/aesthetic resources analysis of the MCP EIR. Any future development would be held to the same standards that are applicable to the surrounding community to ensure that scenic vistas would not be obstructed, visual character of the area and compatibility of structures would be maintained, and the effects of glare or night lighting would be minimized.

The implementation of the project is not anticipated to result in any substantial change in the aesthetic character of the area since the project would be visually compatible with its surroundings and views of the project would be limited. Thus, the project would not appear to cause a cumulatively considerable effect on aesthetics. Further discussion and analysis of Aesthetic and Visual Resources will be contained within the project EIR.

#### **Mitigation and Residual Impact:**

The following mitigation measures would ensure the project's potential aesthetic impacts are reduced to a less than significant level:

Additional mitigation will be identified as needed as part of the EIR analysis.

- (1) All elements of the project (e.g., design, scale, character, colors, materials, landscaping, and signs) shall be compatible with vicinity development and shall be subject to review and approval by the Montecito BAR. Plan Requirement and Timing: The applicant shall submit architectural drawings of the project for review and shall obtain final approval by the Montecito Board of Architectural Review prior to issuance of zoning clearance. Grading plans, if required, shall be submitted to P&D concurrent with or prior to MBAR plan filing. Monitoring: Permit Compliance shall ensure structures built and landscaping and signs are installed according to MBAR-approved plans.
- (2) Any exterior night lighting installed on the project site shall be of low intensity, low glare design, minimum height, and shall be hooded to direct light downward onto the subject parcel and prevent spill-over onto adjacent parcels. Applicant shall develop a Lighting Plan incorporating these requirements and provisions for dimming lights after 10:00 p.m. **Plan Requirements**: The locations of all exterior lighting fixtures and an arrow showing the direction of light being cast by each fixture and the height of the fixtures shall be depicted on a Lighting Plan to be reviewed and approved by P&D and the MBAR. **Monitoring**: P&D and MBAR shall review the Lighting Plan for compliance with this measure prior to issuance of zoning clearance for structures. Permit Compliance shall inspect structures upon completion to ensure that exterior lighting fixtures have been installed consistent with their depiction on the final Lighting Plan.

With the incorporation of these measures, residual impacts would be less than significant (Class II).

#### 4.2 AGRICULTURAL RESOURCES

Less than Reviewed Signif. Less Under Will the proposal result in: With No Poten. Than Previous Signif. Mitigation Signif. Impact Document<sup>1</sup> **a.** Convert prime agricultural land to non-agricultural use, impair agricultural land productivity (whether prime or non-prime) or conflict with agricultural  $\mathbf{X}$ preserve programs? **b.** An effect upon any unique or other farmland of X State or Local Importance?

<sup>1</sup> Montecito Community Planning Area Program Environmental Impact Report (92-EIR-03) was certified at the time of Plan adoption in June of 1992. Subsequently, the Board of Supervisors approved an Addendum to 92-EIR-03 in 1995. These actions analyzed the agricultural impacts resulting from the change of land use under the proposed legislative actions and applied the

current SRR-0.5 land use designation and 2-E-1 zoning to APN 155-070-008.

#### Background

Agricultural lands play a critical economic and environmental role in Santa Barbara County. Agriculture continues to be Santa Barbara County's major producing industry with a gross production value of over \$1.24 billion (Santa Barbara County 2009b). In addition to the creation of food, jobs, and economic value, farmland provides valuable open space and maintains the County's rural character.

#### Physical:

The existing project site currently supports approximately 2 acres of lemon orchard, a part of a larger agricultural operation on Rancho San Carlos. Soils onsite are Ballard fine sandy loam, 2 to 9 percent (USDA 1981). Soils within the project site are considered prime farmland (California Department of Conservation 2009). The estimated yield for soils found on the project site is 800 field boxes of lemons per acre per year, a high yield compared to other area soils (USDA 1981).

#### **County Environmental Thresholds:**

The County's Agricultural Resources Guidelines (approved by the Board of Supervisors, August 1993) provide a methodology for evaluating agricultural resources. These guidelines utilize a weighted point system to serve as a preliminary screening tool for determining significance. The tool assists planners in identifying whether a previously viable agricultural parcel could potentially be subdivided into parcels that are not considered viable after division. A project which would result in the loss or impairment of agricultural resources would create a potentially significant impact. The Point System is intended to measure the productive ability of an existing parcel as compared to proposed parcels. The tool compares availability of resources and prevalent uses that benefit agricultural potential but does not quantifiably measure a parcel's actual agricultural production.

Initial Studies are to use this Point System in conjunction with any additional information regarding agricultural resources. The Initial Study assigns values to nine particular characteristics of agricultural productivity of a site. These factors include parcel size, soil classification, water availability, agricultural suitability, existing and historic land use, comprehensive plan designation, adjacent land uses, agricultural preserve potential, and combined farming operations. If the tabulated points total 60 or more, that parcel is considered viable for the purposes of analysis. The project would be considered to have a potentially significant impact if the division of land of a viable parcel would result in parcels that did not either score over 60 in themselves or resulted in a score with a significantly lower score than the existing parcel. Any loss or impairment of agricultural resources identified using the Point System could constitute a potentially significant impact and warrants additional site specific analysis.

#### **Impact Discussion:**

(a-b) The approximately 2.55-acre project site contains prime agricultural soils and would normally be subject to protection by County Agricultural Element policies. However, as part of the adoption of the MCP, the Board of Supervisors adopted approved residential zoning for the site and adopted a statement of overriding considerations regarding conversion and development of prime agricultural land at the project site, recognizing its conversion out of agricultural use.

#### **Cumulative Impacts:**

The County's Environmental Thresholds were developed, in part, to define the point at which a project's contribution to a regionally significant issue constitutes a significant effect at the project level. In this instance, the Board of Supervisors adopted overriding considerations regarding conversion and development of prime agricultural land at the project site. Therefore, the project has been found not to exceed the threshold of significance for agricultural resources. Further, the project's contribution to the regionally significant loss of agricultural resources is not considerable, and its cumulative effect on regional agriculture is less than significant.

#### 4.3 AIR QUALITY

Wi	ll the proposal result in:	Poten. Signif.	Less than Signif. With Mitigation	Less Than Signif.	No Impact	Reviewe d Under Previou s Docume nt
a.	The violation of any ambient air quality standard, a substantial contribution to an existing or projected air quality violation, or exposure of sensitive receptors to substantial pollutant concentrations (emissions from direct, indirect, mobile and stationary sources)?			X		
b.	The creation of objectionable smoke, ash or odors?				X	
c.	Extensive dust generation?			X		
Gr	eenhouse Gas Emissions		Significant	ı	No Classi	fication
d.	Emissions equivalent to or greater than 10,000 metric tons of CO <sub>2</sub> per year from stationary sources during long-term operations?				X	

#### **Existing Setting:**

Montecito, including the project site, is located within the South Central Coast Air Basin (SCCAB). Federal and State standards have been established for certain air pollutants, including ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, lead and fine particulates. Pollutants of concern in the South Central Coast Air Basin include fine particulate matter ( $PM_{10}$ ), nitrogen oxides ( $NO_x$ ), and reactive organic compounds (ROC). An attainment designation informs residents of an area whether or not the air quality meets standards designated by the State and Federal government for public health. The Santa Barbara County Air Pollution Control District (SBCAPCD) prepares the County Clean Air Plan for attaining compliance with State and Federal air quality standards. Santa Barbara County is currently in attainment for the Federal eight-hour  $O_3$  and  $PM_{10}$  standards and in attainment for the State one-hour  $O_3$  standard. The County has exceeded the State  $PM_{10}$  and State eight-hour  $O_3$  standards and the County is therefore considered to be in non-attainment for these criteria pollutants. The County is in attainment for all other criteria pollutants.

#### **County Environmental Threshold:**

Chapter 5 of the Santa Barbara County Environmental Thresholds and Guidelines Manual (as amended in 2006) addresses the subject of air quality. The thresholds provide that a proposed project will not have a significant impact on air quality if operation of the project will:

- emit (from all project sources, mobile and stationary), less than the daily trigger (55 pounds per day) for offsets for any pollutant;
- emit less than 25 pounds per day of oxides of nitrogen (NOx) or reactive organic
- compounds (ROC) from motor vehicle trips only;
- not cause or contribute to a violation of any California or National Ambient Air Quality Standard (except ozone);
- not exceed the APCD health risk public notification thresholds adopted by the APCD Board; and
- be consistent with the adopted federal and state Air Quality Plans.

No thresholds have been established for short-term impacts associated with construction activities. However, the County's Grading Ordinance requires standard dust control conditions for all projects involving grading activities. Long-term/operational emissions thresholds have been established to address mobile emissions (i.e., motor vehicle emissions) and stationary source emissions (i.e., stationary boilers, engines, paints, solvents, and chemical or industrial processing operations that release pollutants).

#### **Impact Discussion:**

(a-b) The project would not result in significant new vehicle emissions (i.e., new average daily vehicular trips to or from the site would be fewer than 100). It would not involve substantial new stationary sources (i.e., equipment, machinery, hazardous materials storage, industrial or chemical processing, etc.) that would increase the amount of pollutants released into the atmosphere. The project would also not generate additional smoke, ash, odors, or long term dust after construction. Because the project would create minimal emissions from mobile or stationary sources, the project's contribution to global warming from the generation of greenhouse gases would be negligible.

Emissions of ozone precursors (NOx and ROC) during project construction would result primarily from the on-site use of heavy earthmoving equipment. Due to the limited period of time that grading activities would occur on the project site, construction-related emissions of NOx and ROC would not be significant on a project-specific or cumulative basis. However, due to the non-attainment status of the air basin for ozone, the project should implement measures recommended by the APCD to reduce construction-related emissions of ozone precursors to the extent feasible. Compliance with these measures is routinely required for all new development in the County. Upon implementation of these measures, impacts would be less than significant.

Long-term emissions that would result from project-generated vehicle trips, along with stationary sources (i.e., natural gas usage) would be well below threshold levels for significant air quality impacts, pursuant to the screening table maintained by the Santa Barbara County APCD.

(c) Grading and construction for the project, with approximately 16,500 cubic yard (cy) of cut and 15,500 cy of fill, has the potential to generate short-term fugitive dust. Project-related construction activities would require grading be minimized to the extent possible under the circumstances. Earth moving operations at the project site would not have the potential to result in significant project-specific short-

term emissions of fugitive dust and PM<sub>10</sub>, with the implementation of standard dust control measures that are required for all new development in the County.

Further discussion and analysis of potential Air Quality impacts will be contained within the project EIR.

#### (d) Greenhouse Gas Emissions / Global Climate Change

#### Background

Greenhouse gases (GHGs) include carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF<sub>6</sub>) and nitrogen trifluoride (NF<sub>3</sub>). Combustion of fossil fuels constitutes the primary source of GHGs. GHGs accumulate in the atmosphere, where these gases trap heat near the Earth's surface by absorbing infrared radiation. This effect causes global warming and climate change, with adverse impacts on humans and the environment. Potential effects include reduced water supplies in some areas, ecological changes that threaten some species, reduced agricultural productivity in some areas, increased coastal flooding, and other effects.

#### Methodology/ Impacts

Construction and long-term operation of the proposed project would result in the generation of GHG emissions from construction equipment, vehicle trips, and area sources (e.g., use of appliances, landscaping, generators, heating/cooling) associated with the operation of the fire station. While the generation of GHGs from this project would be relatively minor, the proposed project would incrementally contribute to the challenge of meeting the State's attainment goals of reducing GHG emissions to 1990 levels by the year 2020 as stated in AB 32. However, the project would incorporate sustainable design in accordance with USGBC LEED Silver standards, and would utilize drought-tolerant and native landscaping that would minimize water and energy consumption and associated GHG emissions. Therefore impacts with mitigation would be less than significant.

#### **Cumulative Impacts:**

The County's Environmental Thresholds were developed, in part, to define the point at which a project's contribution to a regionally significant impact constitutes a significant effect at the project level.

In this instance, the project has been found not to exceed the significance criteria for air quality. Therefore, the project's contribution to regionally significant air pollutant emissions, including GHGs, is not cumulatively considerable, and its cumulative effect is less than significant.

#### 4.4 BIOLOGICAL RESOURCES

Will the proposal result in:	Poten. Signif.	Less than Signif. With Mitigation	Less Than Signif.	No Impact	Reviewed Under Previous Document
Flora					
<b>a.</b> A loss or disturbance to a unique, rare or threatened plant community?				X	

b.	A reduction in the numbers or restriction in the range of any unique, rare or threatened species of plants?			X	
c.	A reduction in the extent, diversity, or quality of native vegetation (including brush removal for fire prevention and flood control improvements)?		X		
d.	An impact on non-native vegetation whether naturalized or horticultural if of habitat value?		X		
e.	The loss of healthy native specimen trees?	X			
f. Fa	Introduction of herbicides, pesticides, animal life, human habitation, non-native plants or other factors that would change or hamper the existing habitat?		X		
g.	A reduction in the numbers, a restriction in the range, or an impact to the critical habitat of any unique, rare, threatened or endangered species of animals?			X	
h.	A reduction in the diversity or numbers of animals onsite (including mammals, birds, reptiles, amphibians, fish or invertebrates)?		X		
i.	A deterioration of existing fish or wildlife habitat (for foraging, breeding, roosting, nesting, etc.)?		X		
j.	Introduction of barriers to movement of any resident or migratory fish or wildlife species?		X		
k.	Introduction of any factors (light, fencing, noise, human presence and/or domestic animals) which could hinder the normal activities of wildlife?		X		

#### **Existing Plant and Animal Communities/Conditions:**

#### Background and Methods:

For this project, site visits were conducted in February and June 2008 by Mr. Dan Gira and Mr. Andrew Chen of AMEC Earth & Environmental (AMEC 2008). Additionally, an arborist report for the site was prepared by Mr. Bill Spiewak, Registered Consulting Arborist (Spiewak 2010). The following analysis is based on this information and additional records search.

#### Flora:

Vegetation on the 2.55 acre site consists primarily of actively cultivated lemon orchard with limited understory of bare ground and non-native grasses and weedy species subject to regular vegetation management (e.g., spraying, tilling). Fifty-one coast live oaks (*Quercus agrifolia*) are present along the site's southern and western boundaries adjacent to East Valley Road and the intermittent drainage, respectively. Understory vegetation in the intermittent drainage is sparse and subject to orchard maintenance practices. The CNDDB indicates that the Sonoran maiden fern may potentially occur in Romero Creek more than ½-mile north of the site (CNDDB 2010). The project site does not contain natural plant communities considered rare by the California Department of Fish and Game.

#### Fauna:

Wildlife species expected to inhabit the site likely include common species such as raccoon, striped skunk, opossum, California ground squirrel, deer, and fox. Approximately 300 bird species have been observed in the region and likely include common species such as the western meadowlark, horned lark, house finch, mourning dove, and various raptor species. A known Monarch butterfly roost is present in a eucalyptus grove approximately 2,500 feet northeast of the site (CNDDB 2010).

#### **County Environmental Thresholds:**

Santa Barbara County's Environmental Thresholds and Guidelines Manual (2008) includes guidelines for the assessment of biological resource impacts. The following thresholds are applicable to this project:

Riparian Habitats: Project impacts may be considered significant due to: direct removal of riparian vegetation; disruption of riparian wildlife habitat, particularly animal dispersal corridors and or understory vegetation; or intrusion within the upland edge of the riparian canopy leading to potential disruption of animal migration, breeding, etc. through increased noise, light and glare, and human or domestic animal intrusion; or construction activity which disrupts critical time periods for fish and other wildlife species.

Oak Woodlands and Forests: Project impacts may be considered significant due to habitat fragmentation, removal of understory, alteration to drainage patterns, disruption of the canopy, removal of a significant number of trees that would cause a break in the canopy, or disruption in animal movement in and through the woodland.

*Individual Native Trees*: Project impacts may be considered significant due to the loss of 10% or more of the trees of biological value on a project site.

Other Rare Habitat Types: The Manual recognizes that not all habitat-types found in Santa Barbara County are addressed by the habitat-specific guidelines. Impacts to other habitat types or species may be considered significant, based on substantial evidence in the record, if they substantially: (1) reduce or eliminate species diversity or abundance; (2) reduce or eliminate the quality of nesting areas; (3) limit reproductive capacity through losses of individuals or habitat; (4) fragment, eliminate, or otherwise disrupt foraging areas and/or access to food sources; (5) limit or fragment range and movement; or (6) interfere with natural processes, such as fire or flooding, upon which the habitat depends.

#### **Impact Discussion**:

(a-c) The majority of this parcel is cultivated in lemon orchards. However, areas of oak trees occur along an intermittent drainage which traverses this parcel from north to south as well as on the site's southeastern corner. This orchard is actively managed and does not support native vegetation communities. The drainage bordering the site to the west is lined with coast live oaks of various sizes (i.e. ranging from saplings to 4 feet DBH) and an understory consisting of native and non-native species. The proximity of active agricultural operations and the presence of non-native species reduce habitat values of the drainage. While drainage channel-associated oak trees are not designated as Environmentally Sensitive Habitat (ESH) by County, the project includes measures to protect these trees and restore the native habitats along this drainage. In compliance with Montecito Community Plan Policy BIO-M-1.2 and BIO-M-1.8, which require that new development be set back a minimum of 50 feet from

the top of the bank or edge of oak canopy, the proposed project includes a habitat restoration area that would set back proposed development a minimum of 50 feet from the top of the bank of the channel. Therefore impacts would be less than significant.

- (d) The project would result in the conversion of approximately 2.55 acres of primarily lemon orchard to developed uses and retain areas of oak trees along the intermittent drainage which traverses this parcel from north to south as well as on the parcel's southern frontage. The project would require the removal of six small oaks less than 6 inches in diameter and two mature oaks that are the smallest specimen trees on the site; however the majority of the existing oaks would continue to provide roosting, forage, and nesting habitat and additional oaks would be planted in landscape and restoration areas. Lemon trees on the site provide limited roosting and foraging habitat for resident and transitory bird species; however ongoing cultivation practices limit the habitat value of the orchard. Non-native naturalized vegetation associated with the drainage on the western portion of the site would be removed during proposed habitat restoration efforts, which would result in temporary impacts to primarily non-native habitat; however, restoration to native habitats would result in beneficial impacts to native vegetation and wildlife species.
- (e) An arborist report was prepared by Bill Spiewak, dated 21 July 2010. Mr. Spiewak identified 51 oak trees on the site, and rated the health of the trees and identified tree protection measures to implement during construction. Mr. Spiewak indicates that the project would require the removal of six small oaks less than 6 inches in diameter and two mature oaks that are the smallest of all the larger trees. The six smaller oaks may be eligible for transplant. All other oaks could be retained and protected by following tree protection measures. Minor encroachment could occur to the critical root zone of three oaks. In addition, other oaks may need to be pruned to allow visibility from driveway entries. Removed trees would require mitigation in accordance with County of Santa Barbara policies (Mitigation Measure 1). Impacts would be less than significant with mitigation.
- (f) The project could result in the use of fertilizers and herbicides associated with the care and maintenance of the proposed new landscaped areas, an excess of which could run off the site and enter the adjacent drainage. However, the landscaped areas and habitat restoration areas would utilize a combination of native and drought resistant vegetation that would require minimal chemicals and maintenance. Additionally, the project may decrease overall pesticide and fertilizer use associated with the existing lemon orchard. Further, the site has been designed to include a bioswale/rain garden that would provide infiltration and uptake of excess fertilizers or herbicides before storm water or excess irrigation water left the site. Therefore, impacts would be less than significant.
- (g-k) No ESH or critical habitat exist onsite. The project would result in the conversion of approximately 2.55 acres of primarily lemon orchard of limited habitat value. Exiting lemon trees could provide limited roosting or nesting for native or migratory birds; however given existing human disturbance associated with ongoing cultivation, most habitat would be considered of marginal value. Additionally, project design would perverse most native trees and would include a 50-foot habitat restoration buffer along the top of the bank of the drainage channel. Restoration would enhance the habitat qualities of the channel. Outdoor lighting would be limited, and the 50 foot buffer would limit light impacts to more sensitive habitat areas. Therefore, impacts would be less than significant.

Further discussion and analysis of Biological Resources will be contained within the project EIR.

#### **Cumulative Impacts:**

Since the project would not significantly impact biological resources onsite, it would not have a cumulatively considerable effect on the County's biological resources.

#### **Mitigation and Residual Impact:**

Although the proposed project would not significantly impact biological resources, the following mitigation measures to address potential adverse effects on oak trees will be considered as part of the EIR.

- 1. The proposed project would preserve most of the oak tree onsite and would include the planting of additional oak trees throughout project landscape buffers and the habitat restoration area.
- 2. In addition, the project would include as determined necessary the following Tree Protection Measures:
  - A pre-construction meeting should be held with contractors, prior to commencement of work, to discuss tree protection measures.
  - Install fencing, chain link, to establish tree protection zones (TPZs), at the outside edge of the critical root zones (CRZs) or work areas (if CRZs are encroached upon). Fences must be maintained in upright positions throughout the duration of the project. Tree protection fencing should also remain upright during landscape installation. Oaks in the drainage channel should be protected with fencing at the buffer zone and at the edge of the road where it bisects the row of trees.
  - The TPZs should be void of all activities, including parking vehicles, operation of equipment, storage of materials and dumping (including temporary spoils from excavation).
  - All excavation and grading near trees should be monitored by the project arborist.
  - Excavation within the CRZs but outside of the TPZs should be done by hand where reasonable. Any roots encountered that are 0.5 feet and greater should be cleanly cut.
  - Tree pruning, where limbs may conflict with equipment and proposed structures, should be done prior to excavation and grading.
  - Pruning should be performed or supervised by a qualified Certified Arborist. The project arborist should review the goals with workers prior to commencement of any tree pruning. Tree workers should be knowledgeable of *American National Standards Institute (ANSI) A-300 Pruning Standards* and *ISA Best Management Practices for Tree Pruning*.
  - Review results of soil analysis and treat if necessary, or perform additional diagnostic protocol on stressed trees and treat accordingly.
  - Trees that are impacted from root damage (even minimally) should be sprayed in the early spring and late summer with permethrin (*Astro*) to help resist attack of oak bark beetles. The application of the chemical should be applied to the lower 6 inches of trunk. Treatments should be repeated for at least two years after completion of the project or if drought prevails for longer periods.
  - It may be determined by the project arborist that supplemental irrigation is necessary to aid trees that incur root loss and/or during hot and dry periods.
  - Mitigate removal of oaks by planting at a ratio of 10 to 1 with one gallon saplings along the drainage channel, or 3 to 1 with fifteen gallon oaks in the landscape.
  - The project arborist should monitor activities on the site throughout the duration of the project. This would be more frequent during fencing installation, excavation and grading, and less frequent as the project progresses, provided fences remain upright and TPZs are not violated.

With the incorporation of these measures, residual impacts would be less than significant.

#### 4.5 CULTURAL RESOURCES

Wi	ll the proposal result in:	Poten. Signif.	Less than Signif. With Mitigation	Less Than Signif.	No Impact	Reviewed Under Previous Document
Ar	chaeological Resources					
a.	Disruption, alteration, destruction, or adverse effect on a recorded prehistoric or historic archaeological site (note site number below)?				X	
b.	Disruption or removal of human remains?				X	
c.	Increased potential for trespassing, vandalizing, or sabotaging archaeological resources?				X	
d.	Ground disturbances in an area with potential cultural resource sensitivity based on the location of known historic or prehistoric sites?			X		
Etl	nnic Resources					
е.	Disruption of or adverse effects upon a prehistoric or historic archaeological site or property of historic or cultural significance to a community or ethnic group?			X		
f.	Increased potential for trespassing, vandalizing, or sabotaging ethnic, sacred, or ceremonial places?				X	
g.	The potential to conflict with or restrict existing religious, sacred, or educational use of the area?				X	

#### **Existing Setting:**

Previous ground disturbance on the subject parcel include an orchard irrigation system that extends up to one foot below the surface. The current ranch manager related that mature lemon trees have been periodically mechanically ripped and removed in the past. These agricultural practices have resulted in disturbances throughout the project area to some degree (MFPD 2010a). Based on records on file at the CCIC (Central Coast Information Center of the University of California, Santa Barbara), a map and records search at the CCIC (23 March 2010), and a Phase 1 survey (MFPD 2010a), no cultural resources are recorded are known or likely to occur on the project site.

#### **County Environmental Thresholds:**

The County Environmental Thresholds and Guidelines Manual contains guidelines for identification, significance determination, and mitigation of impacts to important cultural resources. Chapter 8 of the Manual, the *Archaeological Resources Guidelines: Archaeological, Historic and Ethnic Element,* specifies that if a resource cannot be avoided, it must be evaluated for importance under CEQA. CEQA Section 15064.5 contains the criteria for evaluating the importance of archaeological and historical resources. For archaeological resources, the criterion usually applied is: (D), "Has yielded, or may be likely to yield, information important in prehistory or history". If an archaeological site does not meet any of the four CEQA criteria in Section 15064.5, additional criteria for a "unique archaeological

resource" are contained in Section 21083.2 of the Public Resource Code, which states that a "unique archaeological resource is an archaeological artifact, object, or site that: 1) contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information; 2) has a special and particular quality such as being the oldest of its type or the best available example of its type; or 3) is directly associated with a scientifically recognized important prehistoric or historic event or person. A project that may cause a substantial adverse effect on an archaeological resource may have a significant effect on the environment.

#### **Impact Discussion:**

(a-g) The potential for cultural resources to exist onsite is low due to past disturbances, and a Phase I Cultural Resource Survey found no resources. However, in the unlikely event that previously unidentified cultural resources are discovered during site development, the standard archaeological discovery condition (Mitigation Measure 1) would mitigate impacts to cultural resources to less than significant levels.

Further discussion and analysis of Cultural Resources will be contained within the project EIR.

#### **Cumulative Impacts:**

Since the project would not impact cultural resources, it would not have a cumulatively considerable effect on the County's cultural resources.

#### **Mitigation and Residual Impact:**

The following mitigation measure would reduce the project's cultural resource impacts to a less than significant level:

1. In the event archaeological remains are encountered during grading, work shall be stopped immediately or redirected until a P&D qualified archaeologist and Native American representative are retained by the applicant to evaluate the significance of the find pursuant to Phase 2 investigations of the County Archaeological Guidelines. If remains are found to be significant, they shall be subject to a Phase 3 mitigation program consistent with County Archaeological Guidelines and funded by the applicant. Plan Requirements/Timing: This condition shall be printed on all building and grading plans. Monitoring: P&D shall check plans prior to approval of Land Use Permits\Coastal Development Permits and shall spot check in the field.

With the incorporation of this measure, residual impacts would be less than significant.

#### 4.6 ENERGY

W	ill the proposal result in:	Poten. Signif.	Less than Signif. With Mitigation	Less Than Signif.	No Impact	Reviewed Under Previous Document
a.	Substantial increase in demand, especially during peak periods, upon existing sources of energy?			X		
b.	Requirement for the development or extension of new sources of energy?			X		

Electricity is provided in the project area by Southern California Edison. Electric lines are located on power poles immediately across from the site along the south side of East Valley Road. Natural gas lines exist in the vicinity of the project area, with service provided by the Southern California Gas Company.

#### **County Environmental Thresholds:**

The County and the MFPD have not identified significance thresholds for electrical and/or natural gas service impacts (Thresholds and Guidelines Manual).

#### **Impact Discussion:**

(a-b) The project consists of three structures totaling approximately 15,300 square feet, which are proposed to be developed to USGBC LEED Silver certification standards, and would therefore incorporate energy efficient design and technologies. Further, in light of the enormous scope of the California electricity grid and natural gas delivery system and the relatively small size of the project, the additional demand represented by this project could be considered incremental but not significant. The project would not require the development or extension of any new sources of energy to serve its energy needs. In summary, the project would have a negligible effect on regional energy needs. No adverse impacts would result.

#### **Cumulative Impacts:**

The project's contribution to the regionally significant demand for energy is not considerable, and is therefore less than significant.

#### **Mitigation and Residual Impact:**

No mitigation is required. Residual impacts would be less than significant.

#### 4.7 FIRE PROTECTION

Wi	ll the proposal result in:	Poten. Signif.	Less than Signif. With Mitigation	Less Than Signif.	No Impact	Reviewed Under Previous Document
a.	Introduction of development into an existing high fire hazard area?				X	
b.	Project-caused high fire hazard?				X	
c.	Introduction of development into an area without adequate water pressure, fire hydrants or adequate access for fire fighting?				X	
d.	Introduction of development that will hamper fire prevention techniques such as controlled burns or backfiring in high fire hazard areas?				X	
e.	Development of structures beyond safe Fire Dept. response time?				X	

The project site is located within a State Responsibility Area Very High Fire Hazard Severity Zone (Santa Barbara County 2009c). Additionally, Very High Fire Hazard Areas surround the site, particularly to the north, west, and in the surrounding Santa Ynez foothills. The project site is located in an area of eastern Montecito that currently lacks a MFPD-standard five-minute response time. Due to inadequacies in response-time coverage, the MFPD passed and adopted Resolution 2004-10 which made the identification of a parcel that could accommodate a new station the district's highest priority.

#### **Montecito Fire Department Thresholds:**

The following Montecito Fire Department standards are applied in evaluating impacts associated with the proposed development:

- The emergency response time standard is approximately 5 minutes.
- The ability of the engine companies to extinguish fires (based on maximum flow rates through hand held line) meets state and national standards assuming a 3,500 square foot structure. Therefore, in any portion of the Fire District's response area, all structures over 3,500 square feet are an unprotected risk (a significant impact) and therefore should have internal fire sprinklers.

#### **Impact Discussion:**

(a-e) The project is designed to address current inadequacies in MFPD response coverage. The project would allow for increased staff and fire protection equipment required for the MFPD to reduce areas that currently lack a five-minute response time in Montecito. The project would have a beneficial effect on fire protection.

Further discussion and analysis of Fire Protection will be contained within the project EIR.

#### **Cumulative Impacts:**

Since the project would function to reduce significant fire hazards, it would have a cumulatively beneficial effect on fire safety within the County.

#### 4.8 GEOLOGIC PROCESSES

Wi	ll the proposal result in:	Poten. Signif.	Less than Signif. With Mitigation	Less Than Signif.	No Impact	Reviewed Under Previous Document
a.	Exposure to or production of unstable earth conditions such as landslides, earthquakes, liquefaction, soil creep, mudslides, ground failure (including expansive, compressible, collapsible soils), or similar hazards?		X			
b.	Disruption, displacement, compaction or overcovering of the soil by cuts, fills or extensive grading?			X		

c.	Exposure to or production of permanent changes in		X	
	topography, such as bluff retreat or sea level rise?			
d.	The destruction, covering or modification of any		X	
	unique geologic, paleontologic or physical features?			
e.	Any increase in wind or water erosion of soils,	X		
	either on or off the site?			
f.	Changes in deposition or erosion of beach sands or			
	dunes, or changes in siltation, deposition or erosion			
	which may modify the channel of a river, or stream,	X		
	or the bed of the ocean, or any bay, inlet or lake?			
g.	The placement of septic disposal systems in			
	impermeable soils with severe constraints to		X	
	disposal of liquid effluent?			
h.	Extraction of mineral or ore?		X	
i.	Excessive grading on slopes of over 20%?		X	
		••		
j.	Sand or gravel removal or loss of topsoil?	X		
k.	Vibrations, from short-term construction or long-	X		
	term operation, which may affect adjoining areas?			
l.	Excessive spoils, tailings or over-burden?		X	

The project is located in the Transverse Range geomorphic province of California. Transverse Ranges are characterized by east-west trending geologic structures, including Santa Ynez Mountain Range. The site overlies Pleistocene-age to recent alluvial deposits. Severe ground shaking during earthquakes is a hazard endemic to most of California. The east-west trending Arroyo Parida Fault is mapped approximately 600 feet south of the property and is considered active (Dibblee 1986); however, more recent USGS maps show the Arroyo Parida trending north of East Valley Road near the project site (USGS 2009). The Fernald Point Fault is also shown on the USGS map, trending from the southwest to the northeast, possibly through the southeast corner of the project site, and emerging with the Arroyo Parida. To identify the precise location of the Arroyo Parida Fault and the Fernald Point Fault, a subsurface investigation was performed by Campbell Geo, Inc. in November 2010 and January/February 2011 at the project site. Six exploratory soil borings were drilled ranging in depths from 20 to 270 feet. Additionally, two exploratory trenches were excavated. The borings indicate that both faults are located outside of the project site (MFPD 2011). In accordance with 2010 California Building Code Section 1613 A.5.2, and the underlying geologic conditions, the site is considered appropriate for development. Additionally, surface rupture, landslides, liquefaction, soil creep, mudslides, and ground failure (including expansive, compressible, collapsible soils) were determined to have a low potential to occur in the project site (MFPD 2011).

#### **County Environmental Thresholds:**

Pursuant to the County's Adopted Thresholds and Guidelines Manual, impacts related to geological resources may have the potential to be significant if the proposed project involves any of the following characteristics:

- 1. The project site or any part of the project is located on land having substantial geologic constraints, as determined by P&D or PWD. Areas constrained by geology include parcels located near active or potentially active faults and property underlain by rock types associated with compressible/collapsible soils or susceptible to landslides or severe erosion. "Special Problems" areas designated by the Board of Supervisors have been established based on geologic constraints, flood hazards and other physical limitations to development.
- 2. The project results in potentially hazardous geologic conditions such as the construction of cut slopes exceeding a grade of 1.5 horizontal to 1 vertical.
- 3. The project proposes construction of a cut slope over 15 feet in height as measured from the lowest finished grade.
- 4. The project is located on slopes exceeding 20% grade.

#### **Impact Discussion:**

- (a) Site specific detailed geologic testing has determined that the project site is not underlain by any faults. Compliance with existing building regulations would reduce potential ground shaking impacts caused by movement along a distant fault to a less than significant level. Liquefaction potential in the area has been determined to be low. Any potential for expansive soils would be mitigated by the use of non-expansive engineered fill. All soils-related hazards would be reduced to a less than significant level through the normal building permit review and inspection process.
- (**b, i**). The project site is on flat to gently sloping ground. Project development would involve a minor amount of fill, which would have negligible impacts on the environment. Therefore, impacts would be less than significant.
- (c) The site location is located approximately 1.25 miles inland and would therefore not be subject to coastal erosion within that planning horizon. Additionally, grading associated with project development would not result in permanent substantial changes in topography. Therefore, impacts would be less than significant.
- (e, f, j) Grading operations would occur on the project site that would temporarily remove vegetative cover and disturb the ground surface, thereby increasing the potential for erosion and sedimentation impacts. However, the potential for the project to cause substantial of topsoil through erosion and sediment transport would be adequately mitigated by State and County standard erosion control and drainage requirements. Therefore, impacts would be less than significant.
- (d, g, h, k, l) There are no unique geological features located on the project site, and the project would not result in the use of septic systems. The project would not involve mining, the loss of topsoil, or construction-related vibrations. Therefore, impacts would be less than significant.

Further discussion and analysis of Geologic Processes will be contained within the project EIR.

#### **Cumulative Impacts**:

Since the project would not result in significant geologic impacts, it would not have a cumulatively considerable effect on geologic hazards within the County.

#### 4.9 HAZARDOUS MATERIALS/RISK OF UPSET

Wi	ll the proposal result in:	Poten. Signif.	Less than Signif. With Mitigation	Less Than Signif.	No Impact	Reviewed Under Previous Document
a.	In the known history of this property, have there been any past uses, storage or discharge of					
	hazardous materials (e.g., fuel or oil stored in underground tanks, pesticides, solvents or other chemicals)?				X	
b.	The use, storage or distribution of hazardous or toxic materials?			X		
c.	A risk of an explosion or the release of hazardous substances (e.g., oil, gas, biocides, bacteria, pesticides, chemicals or radiation) in the event of an accident or upset conditions?			X		
d.	Possible interference with an emergency response plan or an emergency evacuation plan?			X		
e.	The creation of a potential public health hazard?				X	
f.	Public safety hazards (e.g., due to development near chemical or industrial activity, producing oil wells, toxic disposal sites, etc.)?				X	
g.	Exposure to hazards from oil or gas pipelines or oil well facilities?				X	
h.	The contamination of a public water supply?				X	

#### **Existing Setting:**

Currently the project site is occupied primarily by a lemon orchard and no structures or hazardous material storage occurs on the site. Pesticides and fertilizers are used, as needed, at the project site. No pesticides or other chemicals are stored at the project site. Historically the site has been utilized for agricultural operations.

#### **County Environmental Threshold:**

The County's safety threshold addresses involuntary public exposure from projects involving significant quantities of hazardous materials. The threshold addresses the likelihood and severity of potential accidents to determine whether the safety risks of a project exceed significant levels.

#### **Impact Discussion:**

- (a) According to a Phase I Environmental Site Assessment for the project site (MFPD 2010b), no significant releases of hazardous chemicals or petroleum products on the project site have been observed or reported. Therefore, no impact would occur.
- (b, c, e, g, h) There are no aspects of the proposed project that would include or involve hazardous materials at levels that would constitute a hazard to human health or the environment. The use of

common household materials (cleaners, garden and automotive products, etc.) on the project site would not result in significant hazardous materials/waste impacts. Therefore, impacts would be less than significant.

- (d) The proposed project would enhance emergency response capabilities in the vicinity of the project site and throughout Montecito and would therefore not interfere with emergency response plans or an emergency evacuation plan.
- (f) According to Santa Barbara County Agricultural Commissioner's Permit and Use Data, in 2010 six types of pesticides were applied to the agricultural operation that includes the project site. Pesticides most commonly used for lemon operations include unclassified petroleum oils, mineral oils, isopropylamine salt glyphosate and potassium salt glyphosate (Round-Up), and chlorpyrifos, (Department of Pesticide Regulation [DPR] 2009). Petroleum and mineral oils have been known to cause rapid respiration, cyanosis, tachycardia, and low-grade fever usually indicative of frank hydrocarbon pneumonitis; however these symptoms are considered rare. Isopropylamine salt glyphosate, potassium salt plyphosate are considered Class III by the EPA, indicating a low level of toxicity and risk to human health. Chlorpyrifos is a neurotoxin, suspected endocrine disruptor, and has been associated with asthma, reproductive and developmental toxicity and acute toxicity, and is classified as Class II by the EPA, indicating it is moderately toxic.

The proposed project includes a 100-foot setback from active agricultural operations for main residence structures and additional hazard mitigation including a wall and vegetative screening around the perimeter of the site and to reduce the risk of pesticide drift. With incorporation of these design measures, the risks to human health and safety would be less than significant.

Further discussion and analysis of Hazardous Materials will be contained within the project EIR.

#### **Cumulative Impacts:**

Since the project would not create significant impacts with respect to hazardous materials and/or risk of upset, it would not have a cumulatively considerable effect on safety within the County.

#### 4.10 HISTORICAL RESOURCES

Wi	ll the proposal result in:	Poten. Signif.	Less than Signif. With Mitigation	Less Than Signif.	No Impact	Reviewed Under Previous Document
a.	Adverse physical or aesthetic impacts on a structure or property at least 50 years old and/or of historic or cultural significance to the community, state or nation?				X	
b.	Beneficial impacts to an historic resource by providing rehabilitation, protection in a conservation/open easement, etc.?				X	

Currently the project site is occupied primarily by a lemon orchard and no structures exist on the project site. Historically the site has been utilized for agricultural operations and no structures are known to have occurred on the project site. Potentially historical resources in the vicinity of the project site include the Palmer Jackson House and stone drainage culverts constructed more than 50 years ago.

#### **County Environmental Threshold:**

Historic Resource impacts are determined through use of the County's Cultural Resources Guidelines. A significant resource a) possesses integrity of location, design, workmanship, material, and/or setting; b) is at least fifty years old, and c) is associated with an important contribution, was designed or built by a person who made an important contribution, is associated with an important and particular architectural style, or embodies elements demonstrating outstanding attention to detail, craftsmanship, use of materials, or construction methods.

#### **Impact Discussion:**

(a, b) No structures or formal landscape features currently exist on the project site. The proposed development does not include the demolition or alteration of structures in excess of 50 years in age. Additionally, no off-site potentially historic structures would be impacted or damage during construction and operation of the proposed project. As a result, no impacts to historic resources are anticipated.

#### **Cumulative Impacts:**

Since the project would not result in any impacts to historic structures, it would not have any cumulatively considerable effect on the region's historic resources.

#### **4.11 LAND USE**

Wi	ll the proposal result in:	Poten. Signif.	Less than Signif. With Mitigation	Less Than Signif.	No Impact	Reviewed Under Previous Document
a.	Structures and/or land use incompatible with existing land use?					X
b.	Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?					X
c.	The induction of substantial growth or concentration of population?			X		
d.	The extension of sewer trunk lines or access roads with capacity to serve new development beyond this proposed project?			X		
e.	Loss of existing affordable dwellings through demolition, conversion or removal?				X	

Displacement of substantial numbers of existing			
		X	
<u> </u>			
* * * *			
necessitating the construction of replacement		X	
housing elsewhere?			
The loss of a substantial amount of open space?		X	
A			
results in isolation of an area, businesses located in			
the vicinity close, neighborhood degenerates, and			
buildings deteriorate. Or, if construction of new			
freeway divides an existing community, the			
•			
· · · · · · · · · · · · · · · · · · ·		**/	
		X	
•		Y	
Conflicts with adopted airport safety zones?		Α.	
	housing, necessitating the construction of replacement housing elsewhere?  Displacement of substantial numbers of people, necessitating the construction of replacement housing elsewhere?  The loss of a substantial amount of open space?  An economic or social effect that would result in a physical change? (i.e. Closure of a freeway ramp results in isolation of an area, businesses located in the vicinity close, neighborhood degenerates, and	housing, necessitating the construction of replacement housing elsewhere?  Displacement of substantial numbers of people, necessitating the construction of replacement housing elsewhere?  The loss of a substantial amount of open space?  An economic or social effect that would result in a physical change? (i.e. Closure of a freeway ramp results in isolation of an area, businesses located in the vicinity close, neighborhood degenerates, and buildings deteriorate. Or, if construction of new freeway divides an existing community, the construction would be the physical change, but the economic/social effect on the community would be the basis for determining that the physical change would be significant.)	housing, necessitating the construction of replacement housing elsewhere?  Displacement of substantial numbers of people, necessitating the construction of replacement housing elsewhere?  The loss of a substantial amount of open space?  An economic or social effect that would result in a physical change? (i.e. Closure of a freeway ramp results in isolation of an area, businesses located in the vicinity close, neighborhood degenerates, and buildings deteriorate. Or, if construction of new freeway divides an existing community, the construction would be the physical change, but the economic/social effect on the community would be the basis for determining that the physical change would be significant.)

The 2.55 acre project site is currently a part of 76.87 acre APN 155-070-008, a portion of the larger 235 acre Rancho San Carlos. The Land use and Zoning Designations for most of this parcel are 2-E-1 (Estate Residential, minimum 2 acres parcel size), while the northern end is designated as 3-E-1 (Estate Residential, minimum 3 acres parcel size).

Surrounding the site to the north, west, and east are parcels currently used for lemon and avocado orchards on the 235 acre Rancho San Carlos. Several residences are located within 1,000 feet to the north of the site on Petan company holdings, as well as on the adjacent Featherhill Ranch. South of the site, across East Valley Road are three existing estate residences and a large equestrian facility, including stables, barns and paddocks and an apartment, with one of these residences directly across East Valley Road opposite the site. The Valley Club of Montecito golf course is located approximately 500 feet southwest of the site. Approximately 100 feet west of the site is an undeveloped parcel owned by the Archdiocese of Los Angeles. The nearest residential neighborhood proximate to the site consists of eight estate homes off of Stonehouse Lane, approximately 600 feet west of the site. Further west are the neighborhoods of homes using on smaller lots along Romero Canyon Road and off Orchard Avenue and Tabor Lane.

#### **County Environmental Threshold:**

The Thresholds and Guidelines Manual contains no specific thresholds for land use. Generally, a potentially significant impact can occur if a project would result in substantial growth inducing effects.

#### **Impact Discussion:**

(a, b) The project site is zoned for residential uses and would require issuance of a Conditional Use Permit and a Parcel Map Waiver by the County of Santa Barbara. Additionally, the project site would be adequately setback and screened from pesticide and chemical uses that would occur associated with

ongoing agricultural land uses. The project is a permitted use under existing County ordinances and has been identified as an important public facility in the MCP.

- (c) The project is not inherently growth inducing, however completion of the fire station and the associated reduction in response times to areas of eastern Montecito could reduce a potential barrier to future development in eastern Montecito. Growth in Montecito is governed under the MGMO, which restricts development to 19 units per year and this limit would not change upon completion of the proposed project. The potential growth inducing effects in the vicinity of the proposed project will be further discussed in the project EIR.
- (d-j) The proposed project does not cause a physical change that would conflict with adopted environmental policies or regulations. The project does not result in the loss of affordable housing, loss of open space, or a significant displacement of people. The project does not involve the extension of a sewer trunk line, and does not conflict with any airport safety zones.

Further discussion and analysis of Land Use will be contained within the project EIR.

#### **Cumulative Impacts:**

The development of the project site was considered as part of the adoption of the MCP, the Board of Supervisors adopted overriding considerations regarding conversion and development of prime agricultural land at the project site. Therefore, the project is not anticipated to result in any issues with conformance with environmentally protective policies and standards. Thus, the project would not cause a cumulatively considerable effect on land use.

#### *4.12 NOISE*

W	ill the proposal result in:	Poten. Signif.	Less than Signif. With Mitigation	Less Than Signif.	No Impact	Reviewed Under Previous Document
a.	Long-term exposure of people to noise levels exceeding County thresholds (e.g. locating noise sensitive uses next to an airport)?			X		
b.	Short-term exposure of people to noise levels exceeding County thresholds?			X		
c.	Project-generated substantial increase in the ambient noise levels for adjoining areas (either day or night)?		X			

#### **Existing Setting:**

The proposed project site is located outside of 65 A-weighted decibels (dBA) noise contours for roadways, public facilities, and airport approach and take-off zones. Noise generation at the project site currently consists of the occasional use of agricultural equipment. The surrounding noise-environment is dominated by vehicle traffic on East Valley Road; however the site vicinity is rural-residential and currently experiences low levels of noise. Noise sensitive receptors in the project vicinity include several residences located within 1,000 feet to the north of the site, three existing estate residences south of the site, the Valley Club of Montecito golf course located approximately 500 feet southwest of the site, and

the residential neighborhood consisting of eight estate homes off of Stonehouse Lane, approximately 600 feet west of the site.

#### **County Environmental Threshold:**

Noise is generally defined as unwanted or objectionable sound which is measured on a logarithmic scale and expressed in dBA. The duration of noise and the time period at which it occurs are important values in determining impacts on noise-sensitive land uses. The Community Noise Equivalent Level (CNEL) and Day-Night Average Level (Ldn) are noise indices which account for differences in intrusiveness between day- and night-time uses. County noise thresholds are: 1) 65 dBA CNEL maximum for exterior exposure, and 2) 45 dBA CNEL maximum for interior exposure of noise-sensitive uses. Noise-sensitive land uses include: residential dwellings; transient lodging; hospitals and other long-term care facilities; public or private educational facilities; libraries, churches; and places of public assembly.

#### **Impact Discussion:**

- (a) The proposed project consists of a new fire station for the MFPD. Long-term noise generated onsite would not exceed County thresholds. Noise sensitive uses on the proposed project site would not be exposed to or impacted by off-site noise levels exceeding County thresholds. Impacts would be less than significant.
- (b) The proposed project would not result in construction activities generating short-term noise impacts exceeding County thresholds with incorporation of construction noise reduction measures (Mitigation Measure Noise-1). Impacts would be less than significant.
- (c) The proposed project consists of a new fire station for the MFPD. Due to standard operating conditions associated with a municipal fires station, the project could result in adverse nuisance noise levels in adjoining areas. The proposed fire station would implement a "good neighbor" policy to minimize the noise impacts to their adjacent residential neighbors; however the fire station's operation would involve activities that would generate intermittent noise as summarized in Table 3.

Table 3. Proposed Project Noise Generation								
Noise Source	Projected Frequency	Duration of Noise						
Fire Engine Emergency Response	Three to four times a day	Under one minute						
Outside Public Address System	Throughout day, not after 5:00 p.m.	Less than 30 seconds per episode. Volume control to turn off after hours.						
Exercise of Emergency Generator	Once a week	Approximate 5 minute episodes						

<u>Emergency Vehicle Engine Noise</u> – Fire engines exiting and entering the site on East Valley Road would create additional vehicle noise. The Montecito Fire Department anticipates that this station will continue to respond to approximately three to four emergency responses per day, which is the historic number of calls. Additional demands may be generated by new development; however, this number of trips would not constitute a substantial increase in vehicle traffic on East Valley Road.

<u>Siren Noise</u> – In general, when fire engines leave a fire station, it is normal to always use their sirens. Sirens are designed to be loud enough to gain attention and be noticeable to surrounding motorists, thereby creating noise levels in excess of 100 dBA at 50 feet away. Such noise levels would be clearly audible to nearby residents along East Valley Road and to all surrounding residences. However, these sound levels are only expected to occur several times per day.

<u>Exterior Address System – Normal fire station operations depend on an outside paging/address system to alert fire personnel who are outside of the building when an emergency call comes in. The Fire Department has an automatic reset button for the paging system that is triggered when emergency vehicles exit the site. Additionally, the fire station is able to control the volume to maintain noise levels in accordance with the noise ordinances. To assure that the exterior paging system operates without adverse impacts to the surrounding neighborhood, it is recommended that the system be equipped with the automatic reset feature and operated to control volume within the noise levels permitted under the noise ordinance.</u>

<u>Emergency Generator</u> – The emergency generator, used as a secondary source of power in the event of an electrical outage, would be tested once a week but would otherwise be in operation only during an emergency event. The generator is fitted with an exterior enclosure and a muffler, and is therefore not expected to generate noise levels beyond what would be experienced from a diesel automobile engine. The infrequency of use of the generator, its being equipped with a muffler, its location with an enclosure, its placement to the rear of the property with landscaped retaining walls are all factors which reduce the noise impacts of the emergency generator to a less than significant level.

In summary, the project would intermittently raise ambient noise levels in the project vicinity; however the long-term noise environment is not expected to exceed what is permitted by local ordinances for noise. Based on the combination of existing physical factors which help to reduce noise (such as setback distances from buildings, paging volume control, and siren delay) and the recommended operational mitigation measures (such as time limitations for testing of siren equipment and reset features on the exterior paging/address system), noise impacts are expected to be less than significant.

Further discussion and analysis of Noise will be contained within the project EIR.

#### **Cumulative Impacts:**

The implementation of the project is not anticipated to result in any substantial noise effects. Therefore, the project would not contribute in a cumulatively considerable manner to noise impacts.

#### **Mitigation and Residual Impact:**

1. The following measures would be required to reduce the potential impacts anticipated for noise. Construction activities for site preparation shall be limited to the hours between 8:00 a.m. and

5:00 p.m., Monday through Friday. No construction shall occur on State holidays (e.g., Thanksgiving, Labor Day). Construction equipment maintenance shall be limited to the same hours. Non-noise generating construction activities such as interior painting are not subject to these restrictions.

- 2. Volume controls shall be installed with the exterior address system.
- 3. Intermittent noise generating activities such as emergency generator exercising will be limited to daytime hours on the weekdays for five-minute durations.

Monitoring: Building Inspectors and Permit Compliance shall spot check and respond to complaints.

With the incorporation of these measures, residual impacts would be less than significant.

#### 4.13 PUBLIC FACILITIES

Wi	ll the proposal result in:	Poten. Signif.	Less than Signif. With Mitigation	Less Than Signif.	No Impact	Reviewed Under Previous Document
a.	A need for new or altered police protection and/or health care services?			X		
b.	Student generation exceeding school capacity?			X		
c.	Significant amounts of solid waste or breach any national, state, or local standards or thresholds relating to solid waste disposal and generation (including recycling facilities and existing landfill capacity)?			X		
d.	A need for new or altered sewer system facilities (sewer lines, lift-stations, etc.)?			X		
e.	The construction of new storm water drainage or water quality control facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			X		

#### **Existing Setting:**

Police protection for the project area is provided by the Santa Barbara County Sheriff. School Districts that serve the project area are the Montecito Union School District for Primary education and the Santa Barbara School District for Secondary education. Utility service to the site would be provided by extension of services such as water and sewer from existing nearby connections. Municipal water is provided by the Montecito Water District. Wastewater and sewer services are provided by Montecito Sanitary District. Municipal solid waste is collected by Marborg Industries.

#### **County Environmental Thresholds**

(Schools) A significant level of school impacts is generally considered to occur when a project would generate sufficient students to require an additional classroom.

(Solid Waste) A project is considered to result in significant impacts to landfill capacity if it would generate 196 tons per year of solid waste. This volume represents 5 percent of the expected average annual increase in waste generation, and is therefore considered a significant portion of the remaining landfill capacity. In addition, construction and demolition waste from remodels and rebuilds is considered significant if it exceeds 350 tons. A project which generates 40 tons per year of solid waste is considered to have an adverse effect on solid waste generation, and mitigation via a Solid Waste Management Plan is recommended.

#### **Impact Discussion:**

(a-e) The proposed project would result in the development of a fire station. This new development would not have a significant impact on existing police protection or health care services and existing service levels would be sufficient to serve the proposed project. The project would not result in significant impacts to public services. The project would not generate the number of students (approximately 20) that would require an additional classroom. School fees would be paid if required by State Law. The proposed project would not generate solid waste in excess of County thresholds (196 tons per year, and construction waste would not exceed 350 tons). The project would not cause the need for new or altered sewer system facilities as it is already in the service district, and the District has adequate capacity to serve the project. The proposed project would create new impervious surfaces that could result in greater surface runoff from the site since there would be less open ground capable of absorbing rainwater. This increased surface runoff would be accommodated with a bioswale that would provide infiltration and uptake of excess storm water or excess irrigation water. No additional drainages or water quality control facilities would be necessary to serve the project. Therefore, the proposed project would not result in significant impacts.

Further discussion and analysis of Public Facilities will be contained within the project EIR.

#### **Cumulative Impacts:**

The proposed project is not inherently growth inducing, however completion of the fire station and the associated reduction in response times to areas of eastern Montecito could reduce a potential barrier to future development in eastern Montecito. The potential growth inducing effects in the vicinity of the proposed project and potential cumulative effects to Public Facilities (e.g., sewer) will be further discussed in the project EIR.

#### 4.14 RECREATION

Wi	ll the proposal result in:	Poten. Signif.	Less than Signif. With Mitigation	Less Than Signif.	No Impact	Reviewed Under Previous Document
a.	Conflict with established recreational uses of the area?				X	
b.	Conflict with biking, equestrian and hiking trails?			X		
c.	Substantial impact on the quality or quantity of existing recreational opportunities (e.g., overuse of				X	

an area with constraints on numbers of people, vehicles, animals, etc. which might safely use the			
area)?			

# **Existing Setting:**

The project site is private property and occupied primarily by an active lemon orchard. Historically the site has been utilized for agricultural operations. No substantial public recreational uses or trails are known to occur on the site (Santa Barbara Trail Guide 2011). South of the site, across East Valley Road is a large equestrian facility, including stables, barns, and paddocks. Additionally, the Valley Club of Montecito golf course is located approximately 500 feet southwest of the site.

## **County Environmental Threshold:**

The Thresholds and Guidelines Manual contains no threshold for park and recreation impacts. However, the Board of Supervisors has established a minimum standard ratio of 4.7 acres of recreation/open space per 1,000 people to meet the needs of a community. The Santa Barbara County Parks Department maintains more than 900 acres of parks and open spaces, as well as 84 miles of trails and coastal access easements.

The proposed project site is located at approximately 2500 East Valley Road. No established recreational uses are located on or adjacent to the proposed project site; however an equestrian facility is located approximately 1,500 feet east of the project site.

# **Impact Discussion:**

- (a, b) The proposed project would result in the development of a fire station and support facilities. Project implementation would not result in any conflicts with established recreational uses of the area, including biking, equestrian, or hiking trails. Impacts would be less than significant.
- (c) The population increase associated with project implementation would result in less than significant adverse impacts on the quality and quantity of existing recreational opportunities, both in the project vicinity and County-wide.

# **Cumulative Impacts:**

Since the project would not affect recreational resources, it would not have a cumulatively considerable effect on recreational resources within the County.

# 4.15 TRANSPORTATION/CIRCULATION

Will the proposal result in:		Poten. Signif.	Less than Signif. With Mitigation	Less Than Signif.	No Impact	Reviewed Under Previous Document
a.	Generation of substantial additional vehicular movement (daily, peak-hour, etc.) in relation to existing traffic load and capacity of the street system?			X		
b.	A need for private or public road maintenance, or				X	

	need for new road(s)?				
c.	Effects on existing parking facilities, or demand for new parking?			X	
d.	Substantial impact upon existing transit systems (e.g. bus service) or alteration of present patterns of circulation or movement of people and/or goods?  Alteration to waterborne, rail or air traffic?		X	X	
f.	Increase in traffic hazards to motor vehicles,				
1.	bicyclists or pedestrians (including short-term construction and long-term operational)?		X		
g.	Inadequate sight distance?				
	Ingress/egress?	X			
	general road capacity?		X		
	emergency access?		X		
h.	Impacts to Congestion Management Plan system?			X	

# **Existing Setting:**

The project site is located at 2500 East Valley Road. The MCP identifies State Highway 192, or East Valley Road, as a Circulation Element Primary Road through most of the planning area, but as a Secondary Road west of Sheffield Drive and along the site frontage. This road classification typically fronts upon residences at medium to lower densities. Traffic levels on East Valley Road are well below the acceptable capacity of 5,530 average daily trips (ADT) with volumes at approximately 2,600 ADT.

# **County Environmental Thresholds:**

According to the County's Environmental Thresholds and Guidelines Manual, a significant traffic impact would occur when:

a. The addition of project traffic to an intersection increases the volume to capacity (V/C) ratio by the value provided in Table 4, or sends at least 15, 10 or 5 trips to an intersection operating at LOS D, E or F.

Table 4. Level of Service Thresholds					
LEVEL OF SERVICE (including project)	INCREASE IN VOLUME/CAPACITY GREATER THAN				
A	0.20				
В	0.15				
С	0.10				
	Or the addition of:				
D	15 trips				
Е	10 trips				
F	5 trips				

- b. Project access to a major road or arterial road would require a driveway that would create an unsafe situation, or would require a new traffic signal or major revisions to an existing traffic signal.
- c. Project adds traffic to a roadway that has design features (e.g., narrow width, road side ditches, sharp curves, poor sight distance, inadequate pavement structure) or receives use which would be incompatible with substantial increases in traffic (e.g. rural roads with use by farm equipment, livestock, horseback riding, or residential roads with heavy pedestrian or recreational use, etc.) that will become potential safety problems with the addition of project or cumulative traffic. Exceeding the roadway capacity designated in the Circulation Element may indicate the potential for the occurrence of the above impacts.
- d. Project traffic would utilize a substantial portion of an intersection(s) capacity where the intersection is currently operating at acceptable levels of service (A-C) but with cumulative traffic would degrade to or approach LOS D (V/C 0.81) or lower. Substantial is defined as a minimum change of 0.03 for intersections which would operate from 0.80 to 0.85 and a change of 0.02 for intersections which would operate from 0.86 to 0.90, and 0.01 for intersections operating at anything lower.

# **Impact Discussion:**

- (a) Based on a project-specific traffic study (ATE 2010), the proposed project would generate approximately 32 average daily vehicle trips and approximately 14 peak hour vehicle trips (11 in A.M., 3 in P.M.). The addition of this traffic onto roadways in the project area would not result in significant traffic or other transportation related impacts. Traffic on East Valley Road is well below the acceptable capacity of 5,530 ADT, with volumes at approximately 2,600 ADT. Additionally, traffic from potential development would also utilize Sheffield Drive for access to U.S. 101. This road carries traffic volume estimated at 3,390 ADT, well below its estimated acceptable capacity of 5,530 ADT. Although the MCP projects future buildout traffic volumes on Sheffield Drive of 5,100 ADT, this level would not exceed acceptable capacity and the project's contribution to this increase would be minor.
- **(b)** Traffic that would be generated by the project would not result in significant impacts to public streets that would require new roads or a significant amount of increased roadway maintenance.
- (c) The proposed project would be required to provide all required parking spaces on-site, and out of the road right-of-way.
- (d, e) The proposed project would not result in significant transit- or transportation-related impacts.
- (f) The project would not create a traffic hazard for motorists, pedestrians, bicyclists, or transit users, or affect emergency access. The additional traffic caused by the project would not result in significant traffic safety impacts.
- (g) The proposed project would include two driveways at East Valley Road. A Sight Distance Analysis for the project site (Associated Transportation Engineers 2009) found that there are utility poles and oak trees located along the north side of East Valley Road that would partially obstruct an emergency vehicle driver's view of approaching vehicles to the east and west at both of the proposed driveways.

<u>Eastern Driveway</u>. There are oaks along the fence line just east of the driveway that would need to be trimmed. Further to the east, past a fire hydrant that is located just east of the driveway, the oak trees that line the road would need to be trimmed up from ground level so that drivers can see under the canopies.

The overhanging limbs would need to be trimmed (and the trimming maintained) to provide adequate sight distance. There would be 1,100 feet of sight distance looking to the east, which exceeds the 550 feet required by Caltrans standards. The sight distance looking to the west from the Eastern Driveway is limited by overhanging limbs of three oak trees just to the west. The overhanging limbs would need to be trimmed (and the trimming maintained) to provide adequate sight distance. There would be 1,025 feet of sight distance looking west with oak trees trimmed as recommended (Associated Transportation Engineers 2009).

Western Driveway. The sight distance looking to the east is obstructed by a utility pole, which the site plan shows would be relocated, as well as oak trees. There is a small group of oaks (less than 6 inches in diameter) along the fence line just east of the utility pole that would need to be removed or trimmed. Further to the east, the oak trees that line the road would need to be trimmed up from ground level (and trimming maintained) so that drivers can see under the canopies. There would be 1,225 feet of sight distance looking east. The sight distance looking west is limited by the overhanging limbs of the oak trees that line the road. The overhanging limbs would need to be trimmed (and the trimming maintained) to provide adequate sight distance. There would be 900 feet of sight distance looking west (Associated Transportation Engineers 2009).

Impacts to sight distance would be less than significant with incorporation of mitigation measures (Mitigation Measure 1).

(h) Roadways and intersections in the project area operate at acceptable levels of service and are not subject to Congestion Management Plan requirements.

Further discussion and analysis of Transportation/Circulation will be contained within the project EIR.

## **Cumulative Impacts:**

The County's Environmental Thresholds were developed, in part, to define the point at which a project's contribution to a regionally significant impact constitutes a significant effect at the project level. In this instance, the project has been found not to exceed the threshold of significance for traffic. Therefore, the project's contribution to the regionally significant traffic congestion is not considerable, and is less than significant.

## **Mitigation and Residual Impact:**

The following mitigation measures would reduce the project's transportation impacts to a less than significant level:

1. Routine oak trimming shall occur by a Certified Arborist every six months, or as required, to maintain maximum sight distance.

With the incorporation of these measures, residual impacts would be less than significant.

# 4.16 WATER RESOURCES/FLOODING

		Less than			Reviewed
Will the managel magnit in		Signif.			Under
Will the proposal result in:	Poten.	with	Less Than		Previous
	Signif.	Mitigation	Signif.	No Impact	Document

a.	Changes in currents, or the course or direction of			X	
	water movements, in either marine or fresh waters?				
b.	Changes in percolation rates, drainage patterns or	X			
	the rate and amount of surface water runoff?				
c.	Change in the amount of surface water in any water		X		
	body?				
d.	Discharge, directly or through a storm drain system,				
	into surface waters (including but not limited to				
	wetlands, riparian areas, ponds, springs, creeks,				
	streams, rivers, lakes, estuaries, tidal areas, bays,				
	ocean, etc) or alteration of surface water quality,				
	including but not limited to temperature, dissolved			X	
	oxygen, turbidity, or thermal water pollution?				
e.	Alterations to the course or flow of flood water or			X	
	need for private or public flood control projects?				
f.	Exposure of people or property to water related				
	hazards such as flooding (placement of project in				
	100 year flood plain), accelerated runoff or			X	
	tsunamis, sea level rise, or seawater intrusion?				
g.	Alteration of the direction or rate of flow of			X	
	groundwater?				
h.	Change in the quantity of groundwater, either				
	through direct additions or withdrawals, or through				
	interception of an aquifer by cuts or excavations or		X		
	recharge interference?				
i.	Overdraft or over-commitment of any groundwater				
	basin? Or, a significant increase in the existing				
	overdraft or over-commitment of any groundwater			X	
	basin?				
j.	The substantial degradation of groundwater quality	·		X	
	including saltwater intrusion?				
k.	Substantial reduction in the amount of water		X		
	otherwise available for public water supplies?				
l.	Introduction of storm water pollutants (e.g., oil,				
	grease, pesticides, nutrients, sediments, pathogens,	X			
	etc.) into groundwater or surface water?				

# **Existing Setting:**

There are no surface water bodies and no floodplains on the proposed project site; however, a natural drainage borders the site immediately to the west, with the site boundary running contiguous with the top of the bank of this drainage channel. The drainage, ranging between 4 and 8 feet wide and 2 and 4 feet deep, is only wet during and immediately following rain events (Sam Frye, Manager, Rancho San Carlos). Additionally, Picay Creek is located across East Valley Road, approximately 200 feet south of the project site. Existing water use for irrigation of onsite orchards is estimated at 2 to 3 acre feet per year, with water supplied by the Montecito Water District, onsite wells, and stream diversions.

# **County Water Resources Thresholds:**

A project is determined to have a significant effect on water resources if it would exceed established threshold values which have been set for each overdrafted groundwater basin. These values were determined based on an estimation of a basin's remaining life of available water storage. If the project's net new consumptive water use [total consumptive demand adjusted for recharge less discontinued historic use] exceeds the threshold adopted for the basin, the project's impacts on water resources are considered significant.

A project is also deemed to have a significant effect on water resources if a net increase in pumpage from a well would substantially affect production or quality from a nearby well.

# **Water Quality Thresholds:**

A significant water quality impact is presumed to occur if the project:

- Is located within an urbanized area of the county and the project construction or redevelopment individually or as a part of a larger common plan of development or sale would disturb one (1) or more acres of land;
- Increases the amount of impervious surfaces on a site by 25% or more;
- Results in channelization or relocation of a natural drainage channel;
- Results in removal or reduction of riparian vegetation or other vegetation (excluding non-native vegetation removed for restoration projects) from the buffer zone of any streams, creeks or wetlands;
- Is an industrial facility that falls under one or more of categories of industrial activity regulated under the NPDES Phase I industrial storm water regulations (facilities with effluent limitation; manufacturing; mineral, metal, oil and gas, hazardous waste, treatment or disposal facilities; landfills; recycling facilities; steam electric plants; transportation facilities; treatment works; and light industrial activity);
- Discharges pollutants that exceed the water quality standards set forth in the applicable NPDES permit, the Regional Water Quality Control Board's (RWQCB) Basin Plan or otherwise impairs the beneficial uses<sup>2</sup> of a receiving water body;
- Results in a discharge of pollutants into an "impaired" water body that has been designated as such by the State Water Resources Control Board or the RWQCB under Section 303 (d) of the Federal Water Pollution Prevention and Control Act (i.e., the Clean Water Act); or
- Results in a discharge of pollutants of concern to a receiving water body, as identified by the RWQCB.

## **Impact Discussion:**

(a-f) The drainage design concept for the proposed project would maintain the sheet flow drainage that is prevalent on level areas of the site, collecting storm water runoff into a bioswale, and eventually discharging into the existing drainage courses to the west and south of the site. The project structures and

<sup>&</sup>lt;sup>2</sup> Beneficial uses for Santa Barbara County are identified by the RWQCB in the Water Quality Control Plan for the Central Coastal Basin, or Basin Plan, and include (among others) recreation, agricultural supply, groundwater recharge, fresh water habitat, estuarine habitat, support for rare, threatened or endangered species, preservation of biological habitats of special significance.

pavements would include a total of approximately 1.3 acres of impermeable surfaces. Vehicle parking spaces would utilize permeable pavers to increase infiltration and reduce runoff. The drainage to the west of the project site generally flows only during and immediately after rainfall events (Sam Frye, Manager, Rancho San Carlos) and the proposed project is not located in an area that would subject people or property to flood waters. Nor would the project generate a significant amount of runoff that would lead to any potential flooding or a change in the direction of water movement. Less than significant impacts would occur with mitigation.

- (h-i, k) The project would be supplied with water from the Montecito Water District (MWD), which obtains its water from the Montecito groundwater basin and surface water reservoirs (Jameson Lake and Cachuma Lake) along with allocations from the State Water Project. In 1992, the Thresholds Manual identified the Montecito Groundwater Basin as in a state of overdraft by approximately 473 acre-feet per year (AFY) and set an impact threshold of 4 AFY. The proposed project would not substantially change current water usage. The existing lemon orchard is irrigated, and the removal of lemon trees for the proposed project would reduce irrigation; however, the project would require water for municipal uses. Projected water use would be substantially less than existing use and therefore would be less than significant.
- (g, j) The direction of groundwater flows and groundwater quality would not be affected by the proposed project as it would not rely on septic systems, nor would it draw directly upon groundwater resources such that flows or quality would be affected. No significant impacts would occur.
- (I) The proposed project has been designed to include a bioswale that would allow for some uptake of storm water runoff along with the uptake of potential surface water pollutants. The project may involve the minor use of fertilizers, pesticides, and "household" cleaners and chemicals, as well as greases that would result from washing of fire vehicles. However, minor amounts of such materials would not present a significant potential for release of waterborne pollutants. Application of standard County grading, erosion, and drainage-control measures would ensure that no significant increase of waterborne pollutants would occur. Less than significant impacts would occur with mitigation.

Additional discussion of water resources will be provided in the EIR.

### **Cumulative Impacts:**

The County's Environmental Thresholds were developed, in part, to define the point at which a project's contribution to a regionally significant impact constitutes a significant effect at the project level. In this instance, the project has been found not to exceed the threshold of significance for water resources. Therefore, the project's contribution to the regionally significant issues of water supplies and water quality is not considerable, and is less than significant.

# 5.0 INFORMATION SOURCES

# 5.1 References

AMEC Earth & Environmental, Inc. (AMEC). 2008. Field observations made by AMEC personnel in February and June 2008.

Associated Transportation Engineers. 2009. Sight Distance Analysis for the Montecito Fire Station Project, County of Santa Barbara. 25 November.

Associated Transportation Engineers. 2010. Traffic Impact Analysis for the Montecito Fire Station Project, County of Santa Barbara. 28July.

California Department of Conservation. 2009. Division of Land resource Protection: Santa Barbara County Important Farmland 2008. August.

California Natural Diversity Database (CNDDB). California. 2010. Department of Fish and Game (CDFG) records search. 16 October 2010.

Department of Pesticide Regulation (DPR). 2009. 2009 Annual Statewide Pesticide Use Report Indexed by Commodity: Santa Barbara County.

Dibblee, T.W., Jr. 1986. Geologic Map of the Carpinteria Quadrangle, Santa Barbara County, California. Dibblee Geologic Foundation Map #DF-04, Santa Barbara, California.

Montecito Fire Protection District (MFPD). 2008. Station 3 Site Identification Study. August.

MFPD. 2010a. Phase I Archaeological Investigation. Montecito Fire Protection District Fire Station No. 3 Near 2500 East Valley Road. Montecito, California. July.

MFPD. 2010b. Phase I Environmental Site Assessment- Station 3. 15 December.

MFPD. 2011. Geologic Hazards and Preliminary Geotechnical Evaluation of the Proposed Montecito Fire Protection District Station 3. 7 March.

Santa Barbara County. 1982. Santa Barbara County Comprehensive Plan. Revised August 1982.

Santa Barbara County. 1992. Montecito Community Plan Update. 15September.

Santa Barbara County. 2009a. Santa Barbara County Comprehensive Plan: Scenic Highways Element. Adopted 1975, Republished 2009. May.

Santa Barbara County. 2009b. Agricultural Production Report. 12 April 2010.

Santa Barbara County. 2009c. Fire Protection Districts, High Fire Hazard Areas and Flood Hazard Areas. Available at:

 $http://www.sbcountyplanning.org/pdf/maps/MiscellaneousMaps/FireHazard\_AllRespnsAreas\_FloodHazard\_Update.pdf.$ 

Santa Barbara Trail Guide. 2011. Front Country Trails. Available at:

http://santabarbaratrailguide.com/trailmapfront.shtml. 11 March 2011.

Spiewak, Bill. 2010. Oak Tree Assessment for the Montecito Fire Protection District at 2500 East Valley Road. 21 July.

United States Department of Agriculture (USDA). 1981. Soil Survey of Santa Barbara County, California (South Coastal Part).

United States Geological Survey (USGS). 2009. Geologic Map of the Santa Barbara County Coastal Plain, Santa Barbara County, California. U.S. Geological Survey Scientific Investigations Map 3001, Scale 1:24,000.

enensive Plan (check those s	used):	
Seismic Safety/Safety Element	X	Conservation Element
Open Space Element	X	Noise Element
Coastal Plan and Maps	X	Circulation Element
ERME		<u> </u>
Sources (check those sources	used):	
Field work	X	Ag Preserve maps
Calculations	X	Flood Control maps
Project plans	X	Other technical references
Traffic studies		(reports, survey, etc.)
Records	X	Planning files, maps, reports
Grading plans	X	Zoning maps
Elevation, architectural rendering	gs X	Soils maps/reports
Published geological map/report	s	Plant maps
Topographical maps	X	Archaeological maps and reports
		Other
	Seismic Safety/Safety Element  Open Space Element  Coastal Plan and Maps  ERME  Sources (check those sources Field work  Calculations  Project plans  Traffic studies  Records  Grading plans  Elevation, architectural rendering  Published geological map/report	Open Space Element  Coastal Plan and Maps  ERME  Sources (check those sources used): Field work  Calculations  Project plans  Traffic studies  Records  Records  X  Elevation, architectural renderings  X  Published geological map/reports

# 6.0 PROJECT SPECIFIC AND CUMULATIVE IMPACT SUMMARY

Class I Impacts: None

Class II Impacts: Aesthetics, Air Quality, Biological Resources, Cultural Resources, Geologic Processes, Fire Protection, Hazardous Materials/Risk of Upset, Land Use, Noise, Public Facilities, Water Resources/Flooding

Class III Impacts: Energy, Historic Resources, Recreation

All Class II Impacts will be further examined in detail in the project EIR. All other resource areas would result in Class III Impacts and therefore will not be analyzed in further detail in the project EIR.

Cumulative Impact Summary: The scope of the project, which is designed to be consistent with the MCP, as well as mitigation identified in this document, would ensure that the project would not result in significant cumulative impacts and the project's contribution to cumulative impacts on environmental resources in the area would not be considerable. The MCP EIR analyzed the impacts that would result from development of this site. Therefore the project would not result in cumulatively considerable significant impacts.

# 7.0 MANDATORY FINDINGS OF SIGNIFICANCE

	Will the proposal result in:		Less than Signif. with Mitigation	Less Than Signif.	No Impact	Reviewed Under Previous Document
1.	Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, contribute significantly to greenhouse gas emissions or significantly increase energy consumption, or eliminate important examples of the major periods of California history or prehistory?			X		
2.	Does the project have the potential to achieve short- term to the disadvantage of long-term environmental goals?			X		
3.	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past			X		

	projects, the effects of other current projects and the effects of probable future projects.)			
4.	Does the project have environmental effects which			
	will cause substantial adverse effects on human		X	
	beings, either directly or indirectly?			
5.	Is there disagreement supported by facts, reasonable			
	assumptions predicated upon facts and/or expert			
	opinion supported by facts over the significance of			
	an effect which would warrant investigation in an	X		
	EIR?			

- (1) The proposed project does not have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory. As discussed in Section 4.4 Biological Resources, Section 4.5 Cultural Resources, Section 4.9 Hazardous Material/Risk of Upset, Section 4.13 Public Facilities and Section 4.16 Water Resources/Flooding any potential impacts can be mitigated to less than significant levels. While these sections identify impacts that are "less than significant with mitigation," none of those impacts involves conditions identified under Section 15065 (a)(1) that result in mandatory findings of significance. In addition, standard conditions that would be applied to the project (if approved) to ensure consistency with the MCP and the development code would also ensure the project would not result in significant environmental impacts.
- (2-5) The project would not have impacts that are cumulatively considerable, as discussed in each of the issue area sections. The proposed project is not inherently growth-inducing; however, completion of the fire station and the associated reduction in response times to areas of eastern Montecito could reduce a potential barrier to future development in eastern Montecito. The potential growth-inducing effects in the vicinity of the proposed project and potential cumulative effects will be further discussed in the project EIR.

# 8.0 PROJECT ALTERNATIVES

MFPD has considered 16 different site locations over a period from 2005-2010. Of those locations, four were identified as being potentially suitable for the location of Station 3. These three locations are:

- the property immediately west of the proposed site, owned by the Archdiocese of Los Angeles (APN 155-070-009);
- a hillside site on East Valley Road near Ortega Ridge Road (APN 005-030-007); and,
- a site on the eastern boundary of Rancho San Carlos (APN 155-070-008).

These alternative site locations, as well as the No Project Alternative, will be evaluated in the project EIR as to whether they would reduce any project-related impacts. Other alternatives such as a reduced building scale alternative and other sites would be presented as "considered but eliminated from further analysis."

# 9.0 INITIAL REVIEW OF PROJECT CONSISTENCY WITH APPLICABLE SUBDIVISION, ZONING AND COMPREHENSIVE PLAN REQUIREMENTS

# **Key Land Use Studies**

Plan	Policy/Goal	Policy Summary
	Land Use Development Policy #4	Adequate public or private services and resources (i.e., water, sewer, roads, etc.) must be available
	Hillside and Watershed Protection Policy #1	Minimize cut and fill
	Hillside and Watershed Protection Policy #2	Design development to preserve existing natural features and minimize excavation and grading
Santa Barbara County Land Use Element	Historical and Archaeological Sites Policy #1	Avoid development on significant cultural sites
	Historical and Archaeological Sites Policy #2	Avoid impacts to cultural sites for development on parcels where such sites are located
	Historical and Archaeological Sites Policy #3	Mitigation in accordance with State Office of Historic Preservation and the Native American Heritage Commission
	Visual Resources Policy #3	New structures shall be in conformance with scale and character of the existing community
Santa Barbara County Environmental Resource	Category A	Prohibit urbanization on lands with significant environmental constraints
Management Element	Category B	Prohibit urbanization on lands with significant environmental constraints, with minor exceptions
	Goal LU-M-1	Protect semi-rural quality of life and community character
	Policy LUED-M-1.1	Public uses shall be compatible with the community's residential character
	Goal FM-1	Ensure that adequate fire protection services and facilities are available
	Policy PRT-M-1.6	Existing recreational facilities and uses shall not be impacted
	Goal BIO-M-1	Recognize the importance of the biological resources of Montecito
Montecito Community	Policy BIO-M-1.2	Environmentally sensitive habitat: riparian woodland, monarch butterfly roosts, sensitive native flora, and

Plan	Policy/Goal	Policy Summary
Plan		coastal sage scrub and shall be protected
	Policy BIO-M-1.6	Riparian vegetation shall be protected and restoration of degraded riparian areas shall be encouraged
	Policy BIO-M-1.16	All existing native trees shall be preserved
	Policy BIO-M-1.19	Oak woodland shall be protected as a collective entity, rather than as individual trees
	Policy GEO-M-1.2	Grading shall be minimized to prevent scars to the natural topography and potential erosion and other safety risks
	Policy CR-M-2.1	Significant cultural, archaeological, and historic resources shall be protected and preserved
	Policy VIS-M-1.3	Minimize impacts to open space views
	Policy VIS-M-2.1	Preserve lands in open space for scenic value

Source: County of Santa Barbara 1982; 1992.

# 10.0 RECOMMENDATION BY MFPD

# On the basis of the Initial Study, MFPD:

Finds that the proposed project WILL NOT have a significant effect on the environment and, therefore, recommends that a Negative Declaration (ND) be prepared.

Finds that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures incorporated into the REVISED PROJECT DESCRIPTION would successfully mitigate the potentially significant impacts. Staff recommends the preparation of an ND. The ND finding is based on the assumption that mitigation measures will be acceptable to the applicant; if not acceptable a revised Initial Study finding for the preparation of an EIR may result.

Finds that the proposed project MAY have a significant effect on the environment, and recommends that an EIR be prepared.

Finds that from existing documents (previous EIRs, etc.) that a subsequent document (containing updated and site-specific information, etc.) pursuant to CEQA Sections 15162/15163/15164 should be prepared.

PROJECT EVALUATOR:

Kevri Waller DATE: March 28, 2011

# 11.0 ATTACHMENTS

- 1. Vicinity Map
- 2. Site Plan



Figure 1. Site Boundaries and Vicinity

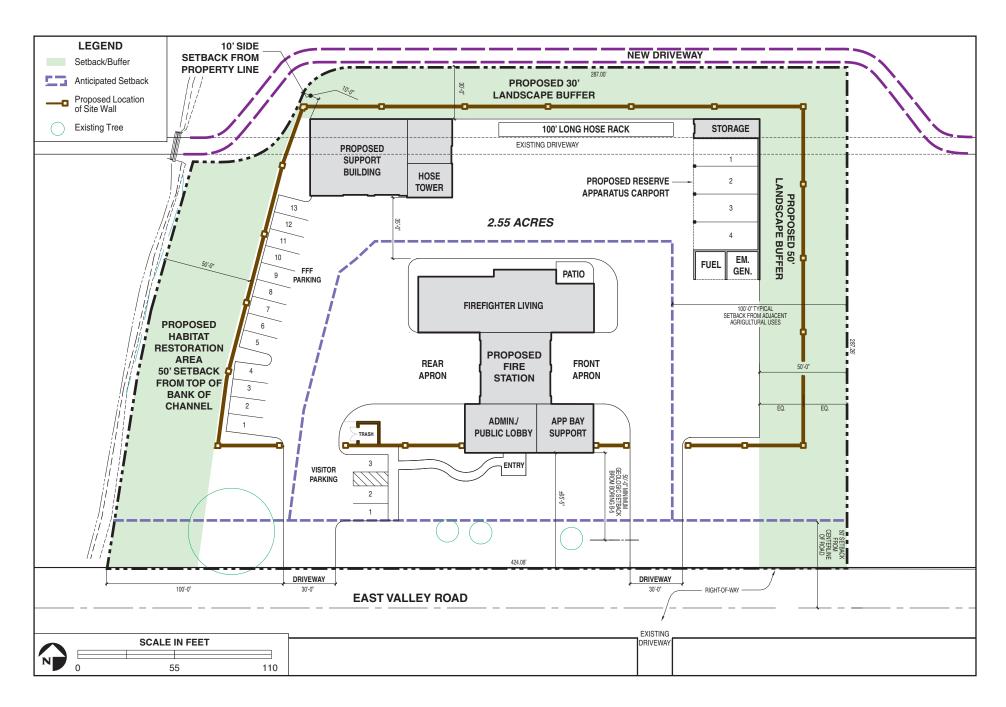


Figure 2. Conceptual Layout Plan

# **APPENDIX B**

NOTICE OF PREPARATION (NOP)

# **Notice of Preparation**

To: EIR & Notice of Preparation Mailing Lis	st
SUBJECT: Notice of Preparation of a Draft	Environmental Impact Report
Lead Agency:	Consulting Firm: (if applicable)
Agency Name: Montecito Fire Protection District	EIR to be prepared by:
Street Address: <u>595 San Ysidro Rd.</u>	Firm Name: AMEC Earth & Environmental, Inc.
City/State/Zip: <u>Santa Barbara, CA 93108</u>	Street Address: 104 West Anapamu St., Suite 204A
Contact: Chief Kevin Wallace, 805-969-7762	City/State/Zip: Santa Barbara, CA 93101

Contact: <u>Dan Gira</u>, 805-962-0992/fax 805-966-1706

The Montecito Fire Protection District will be the Lead Agency for preparation of an Environmental Impact Report (EIR) for the project identified below. We need to know the views of interested agencies, members of the public and community organizations as to the scope and content of the environmental information, particularly which is germane to public agencies statutory responsibilities in connection with the proposed project. Public agencies will need to use the EIR certified by MFPD when considering any permits or other approval for this project. Members of the public and community organizations are encouraged to identify issues early on that they believe should be addressed in this EIR.

The project description, location, and the potential environmental effects are summarized in the attachment. A copy of the Initial Study is being provided to all public agencies that receive this Notice of Preparation. Additional copies are available upon request from the Consulting Firm (see above contact). Due to the time limits mandated by State law, your response must be sent at the earliest possible date, but **not later than 30 days** after receipt of this notice.

Please send your response to the attention of <u>Dan Gira</u>, <u>Project Manager</u>, <u>of AMEC Earth & Environmental</u> at the address shown above. For public agencies, we will need the name of a contact person in your agency.

Project Title: Montecito Fire Protection District Fire Station 3 Site Acquisition and Construction

**Project Location:** An approximately 2.55-acre area that includes portions of existing legal parcels 03-CC-036 and 03-CC-037 abutting East Valley Road, located within the 76.87-acre APN 155-070-008 located at or near 2500 East Valley Road in the unincorporated community of Montecito, California.

# **Project Description:**

The proposed project would include the purchase of privately owned property, development of approximately 2.55 acres to accommodate a fire station, and the acquisition of required permits and parcel map changes to allow the development. Of the 2.55-acre area, approximately 1.56 acres would be developed with impervious surfaces (buildings or pavements), with the remaining area used as landscape buffer (north and east sides of the parcel) or habitat restoration area (west side of parcel). Three structures would be developed, including the main station building, a support building and hose tower, and a storage/carport building along with an exterior hose rack. There are no existing structures onsite. The site is gently sloping, and minimal grading would be required for site development. Site access would be provided by two driveways that would be constructed off East Valley Road. Water and sewer service would be provided by Montecito Water and Sanitary Districts.

Date:	March 28, 2011
Signature:	Karra Weller
Title:	Fire Chief

## NOTICE OF PREPARATION ATTACHMENT

#### MONTECITO FIRE PROTECTION DISTRICT STATION 3 ACQUISTION AND CONSTRUCTION

The Montecito Fire Protection District (MFPD), as Lead Agency under the California Environmental Quality Act (CEQA), is requesting comments on the Environmental Impact Report (EIR) scope of work for the proposed project, described below and in the Notice of Preparation, and commonly referred to as the MFPD Station 3 Site Acquisition and Construction Project. A copy of the Initial Study is being provided to all public agencies that receive this Notice of Preparation. Additional copies are available for review upon request. Please contact AMEC Earth & Environmental Project Manager, Dan Gira at (805) 962-0992.

# **Project Location and Setting**

The project site is located on the north side of East Valley Road, east of Sheffield Drive and Romero Canyon Road, and west of Ortega Ridge Road, generally at or near 2500 East Valley Road, in the Montecito Planning Area of the First Supervisorial District. The project site is located on a portion of Assessor Parcel Number (APN) 155-070-008 (76.87 acres), which is owned by the Petan Company.

The proposed project site slopes gently to the south and is part of a larger agricultural operation currently cultivated with lemon and avocado orchards (Figure 1). Mature coast live oak trees exist onsite fronting East Valley Road and along an intermittent drainage on the proposed site's west end. No existing structures are located on the site, which is surrounded to the west, north, and east by lemon orchards. Two estate residences are located south of the site across East Valley Road. The surrounding area is generally designated for and developed with low density estate residential development.

	Site Information
Site Location	Nearest Major Intersection: Sheffield Drive and East Valley
	Road approximately 2,000 feet west of the site
	Assessor's Parcel Number: a portion of 155-070-008
	Supervisorial District: First District
Community Plan Designation	Montecito Community Plan (MCP), Urban Area, Semi-Rural
	Residential (SRR-0.5)
Zoning District, Ordinance	2-E-1 (Estate Residential), 2 acre minimum lot size, Montecito
	Land Use Development Code
Site Size	+/- 2.55 acres
Present Use & Development	Agriculture (lemon orchard)
Surrounding Uses/Zoning	North: Lemon orchard; zoned Estate Residential
	South: Estate Residential
	East: Lemon orchard; zoned Estate Residential
	West: Lemon orchard; zoned Estate Residential
Access	East Valley Road/ State Highway 192
Public Services	Water Supply: Montecito Water District
	Sewage: Montecito Sanitary District
	Fire: Montecito Fire Protection District
	School District: Montecito Union School District (Primary);
	Santa Barbara School District (Secondary)

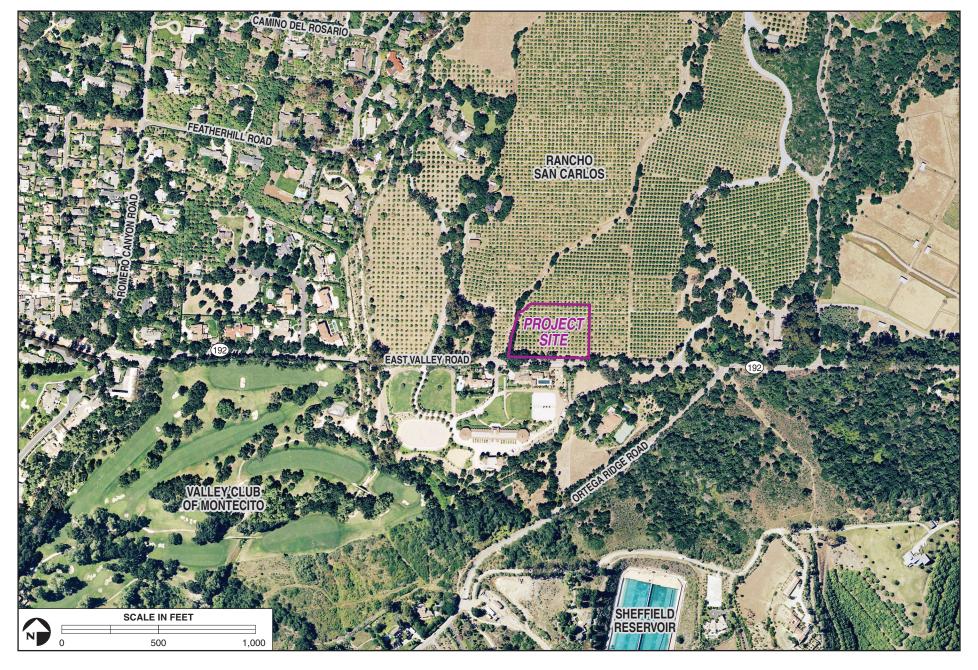


Figure 1. Site Boundaries and Vicinity

## **Project Description**

The proposed project would involve approval by the Montecito Fire Protection District Board of Directors of the acquisition of 2.55 acres and the construction of a new fire station and accessory structures totaling approximately 14,000 square feet (sf) to improve service to the Montecito area (Figure 2). Preliminary plans for the Station include construction of three buildings; a main station of 7,000 sf with apparatus bays, offices, and firefighter residential quarters; a support building of 4,800 sf with a hose drying tower of up to 35 feet in height, and an additional support building of 2,975 sf for carports and storage of reserve apparatus. Paved surfaces would occupy approximately 1.5 acres of the 2.55 acre site with landscaping covering approximately 1 acre or approximately 40% of the site. Access would be available off East Valley Road via two driveways. Final station design plans would be refined through the environmental review and approval process.

# **Discretionary Permits**

The proposed project could include consideration by the County of Santa Barbara for approval of a Parcel Map Waiver in accordance with County of Santa Barbara, Chapter 21, Subdivision Regulations, and a Conditional Use Permit in accordance with the Montecito Land Use Development Code. The project design would be reviewed by the Montecito Board of Architectural Review (MBAR) and be subject to review and consideration by the Montecito Planning Commission.

## **Probable Environmental Effects/Issues Scoped for EIR**

The key resource areas anticipated to be evaluated in the EIR include:

- Aesthetics/Visual Resources: The project would entail development of structures in a location that is currently undeveloped or used for agriculture, potentially changing the visual character.
- Agricultural Resources: Although designated for residential use, the site is currently in use
  for production of lemons, and the proposed project would discontinue such use. Further,
  the site is located on prime agricultural soils; however, as part of the adoption of the
  Montecito Community Plan, the Board of Supervisors adopted overriding considerations
  regarding conversion and development of prime agricultural land at the project site.
- Air Quality: The proposed project would result in emissions from construction equipment, suspension of fugitive dust during grading activities and limited emissions related to longterm operation.
- Biological Resources: The project site is located adjacent to an ephemeral drainage and supports stands of coast live oak trees along this drainage and East Valley Road. All site development would be setback more than 50 feet from the drainage; however, removal of approximately 2 specimen and 6 smaller oak trees (<6 inches diameter) would be required for site access.
- Cultural Resources: The site has been subject to a Phase I Cultural Resource records search and field survey and no archaeological or significant historic resources were identified. In the event that previously unidentified cultural resources are discovered during site development, potential impacts would be mitigated by standard conditions.
- Fire Protection: The proposed project would substantially improve fire protection and emergency response services throughout Montecito, particularly in the community's east end, a beneficial impact.

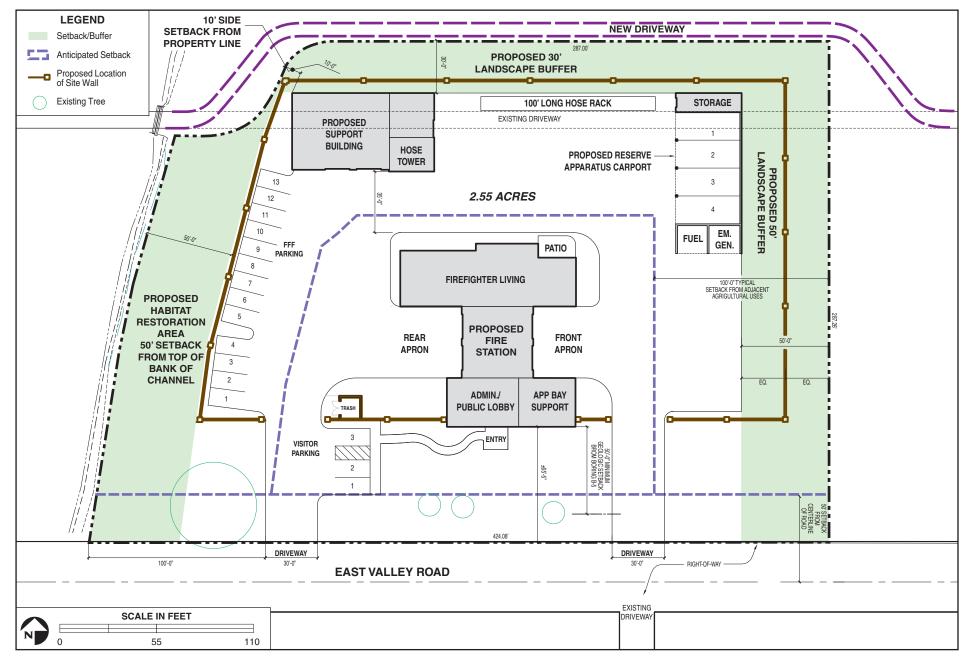


Figure 2. Conceptual Layout Plan

- Geologic Processes: The project site is located in the vicinity of both the Fernald Point and Arroyo Parrida faults; however, detailed geologic investigation has determined that no faults are present on the project site and set backs would be employed to ensure that structures are located at least 50 feet from any potential offsite fault locations. Compliance with Uniform Building Code standards would further reduce the risk of impact from geologic processes.
- Hazards: The proposed project would be surrounded on three sides by active agricultural operations which are known to employ pesticides and herbicides to control pests; however, the project includes a 100-foot buffer between agricultural areas and the portions of the site that would experience heavy use: the fire station and surrounding apron area.
- Land Use: Project development would entail construction of a public utility use in a residential zone district, which is permitted with a Conditional Use Permit under County ordinances. The EIR would consider consistency with surrounding uses as part of the review process.
- Noise: Although the project site is located along a well-travelled roadway, the project vicinity experiences the low noise levels characteristic of a rural residential area. Introduction of noise from fire sirens would increase noise levels for residents in the vicinity; the EIR would review potential noise impacts, including "nuisance noise."
- Public Facilities: The development of the proposed fire station would incrementally increase demands for water and sewer service. No major drainage or water quality control facilities would be necessary to serve the project beyond those incorporated into project design.
- Transportation/Circulation: Construction and operation of Station 3 would incrementally
  increase traffic in eastern Montecito. Introduction of larger slow moving construction and
  emergency vehicles onto East Valley Road could potentially create traffic hazards, although
  the line-of-sight along East Valley Road in the project vicinity has been determined to be
  adequate for safety.
- Cumulative Impacts: In addition to addressing direct and indirect project-related impacts, the EIR would also identify potential cumulative impacts and the proposed project's incremental contribution to such impacts. Particular attention would be paid to issues such as Transportation and Circulation and Public Services (i.e., water and sewer service and capacities).
- Additional CEQA Concerns: The EIR would briefly review irreversible impacts (if any), climate change and related legislation, with particular attention on potential growth inducement concerns and the role of the Montecito Growth Management Ordinance in regulating growth in the community.

Other issues that are anticipated to be addressed in the Initial Study include:

- Consistency with Adopted Plans and Policies: The EIR would review the project's consistency with adopted environmental policies or regulations.
- Energy: Given the relatively small size of the project, the additional demand represented by this project could be considered incremental but not significant. The project would not require the development or extension of any new sources of energy to serve its energy needs.
- Hazardous Materials/Risk of Upset: There is no evidence that hazardous materials were used, stored or spilled on site in the past, and there are no aspects of the proposed use that would include or involve hazardous materials at levels that would constitute a hazard to human health or the environment (see also Hazards above).
- Historical Resources: No structures or formal landscape features currently exist on the project site. The proposed development does not include the demolition or alteration of structures in excess of 50 years in age.

- Recreation: Project development would not conflict with established recreational uses of the area, including biking, equestrian, or hiking trails, and would not directly result in greater demand on existing recreational facilities.
- Water Resources/Flooding: The project site is not located in a floodplain, and would not substantially increase storm water runoff. The proposed project has been designed to include a bioswale that would allow for some uptake of storm water runoff along with the uptake of potential surface water pollutants.

# **Development of a Reasonable Range of Alternatives**

The EIR will evaluate a reasonable range of potential alternatives to the proposed project. Possible alternatives tentatively identified for further consideration include alternative site(s) and alternative station design configurations. These alternatives are general in nature since further environmental issue area analyses would be necessary before more specific project alternatives can be identified. Consideration of potential project redesign would be determined during the course of environmental review based on the need to avoid or minimize any potentially significant effects.

The alternatives analysis will consider project objectives, alternative site suitability and availability, availability of infrastructure, Community Plan consistency, opportunities for project redesign, if feasible, and the alternative's potential to reduce environmental effects. The EIR will discuss the rationale for selection of alternatives that are feasible and therefore, merit in-depth consideration, and which are infeasible (e.g., failed to meet Project objectives or did not avoid significant environmental effects) and therefore rejected.

# Public Scoping Meeting

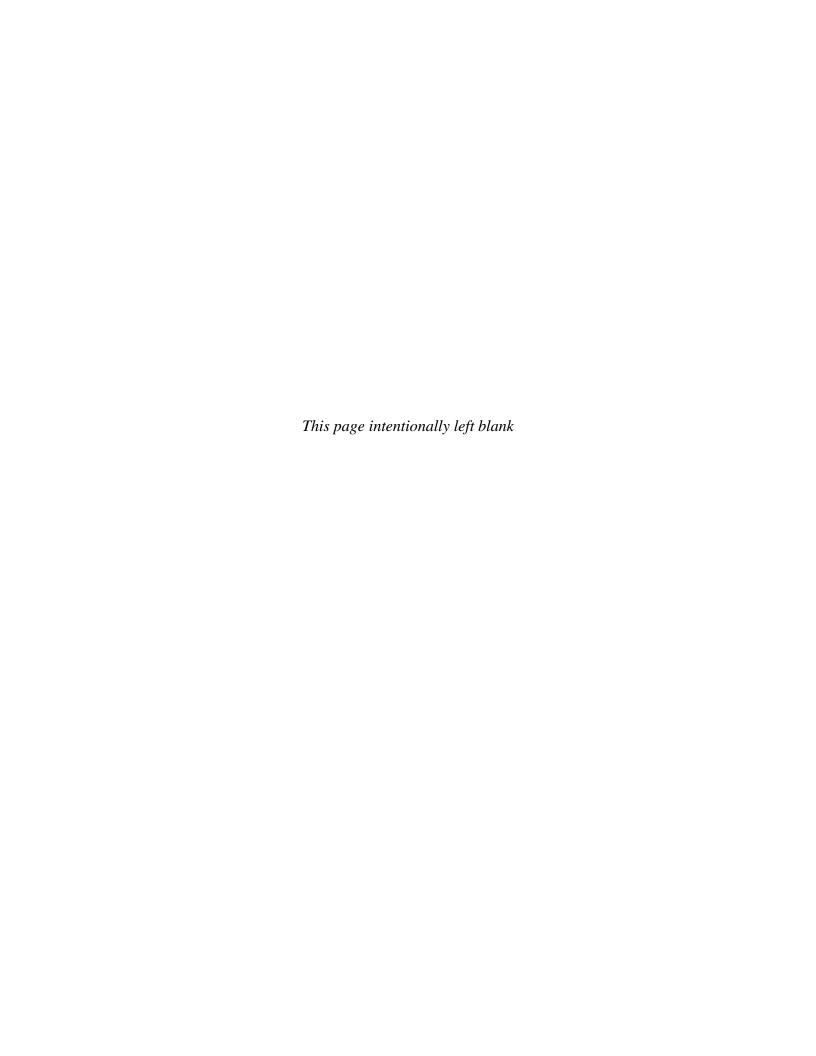
A public scoping meeting has been scheduled to allow for any interested parties to provide input on issues to be discussed in the EIR:

Date: Thursday, April 21, 2011

**Time:** 7:00 PM

Place: MFPD Station 1, 595 San Ysidro Road, Montecito, California 93108

The meeting is an opportunity for MFPD and consultant staffs to gather information from the public regarding the potential environmental impacts of the project that need to be evaluated in the EIR. It is not intended to be a hearing on the merits of the project. Therefore, members of the public should keep their comments focused on potential significant changes to the environment that may occur as a direct result of project development.



# APPENDIX C NOP COMMENTS AND RESPONSES

# **INDEX TO NOP COMMENTS**

- 2 Appendix C includes a copy of the Notice of Preparation (NOP) for the proposed Project,
- 3 transcripts from the Public Scoping Hearings conducted on the NOP, copies of all comment
- 4 letters received on the NOP during the public comment period, and an indication (Section or
- 5 Sub-Section) where each individual comment is addressed in the Draft EIR. **Table C-1** lists all
- 6 comments and shows the comment set identification number for each letter or commenter.
- 7 Table C-2, identifies the location where each individual comment is addressed in the Draft EIR.
- 8 Comment letters are presented chronologically followed by the transcripts from the Public
- 9 Hearing.

1

Table C-1.
NOP Commenters and Comment Set Numbers

Agency /Affiliation	Name of Commenter	Date of Comment	NOP Comment Set
Caltrans District 5	Chris Shaeffer	4/15/11	1
County of Santa Barbara Executive Office:	Chandra Wallar, Executive Officer	4/20/11	ı
-Fire Department	Richard Todd, Fire Marshall	4/12/11	2
-Planning and Development	Glenn Russell, P&D Director	4/20/11	3
-Public Works Department	Bret Stewart, Senior Development Engineer Manager	4/19/11	4
Santa Barbara County APCD	Eric Gage, Air Quality Specialist	4/25/11	5
Public Scoping Hearing 4/21/11	Various Members of the Public	4/21/11	6

Table C-2.
Responses to the NOP Comments

Comment #	Responses
	Caltrans District 5
1-01	Sight Distance. Comment noted.
1-02	<b>Landscape Maintenance.</b> Comment incorporated. A landscaping and maintenance plan designed to maintain line-of sight on East Valley Road has been incorporated into the Project Description, Section 2.6, <i>Mitigation Measures Included In the Proposed Project</i> .
1-03	<b>Sight Distance Methodology.</b> Comment noted. The Caltrans design speed methodology (at 40 mph) was not used since the EIR analysis measured actual speeds and used the 85 <sup>th</sup> percentile speed of vehicles traveling on the road (49 mph westbound/47 mph eastbound traffic) as a more realistic/conservative approach. Discussion of this methodology is included in the EIR in Section 3.10, Transportation and Traffic, Impact TT-3.

10

1-05 Drainage Analysis. Comment incorporated. A drainage analysis/plans are not currently available but will be completed prior to final MFPD project approval or to CUP submittal to the County. However, the EIR discusses site drainage in Sec 3.11, Water Resources, Supply, and Service, Impact WAT-2 and states that the prowould direct most of the site's runoff to a bioswale west of the project site.  Santa Barbara County Fire Department  2-01 Visual Contamination or Chemical Odors. Comment incorporated. The requirement to stop work and notify the County Fire Department HMU if visual contamination or chemical odors are detected during construction has been incorporated into the Project Description, Section 2.6, Mitigation Measures Inclusion In the Proposed Project and Section 3.12.2, Hazardous Materials.  Santa Barbara County Planning and Development  3-01 Adopted Trails. Comment incorporated. The EIR includes discussion of the proposed on-road trail along East Valley Road in Section 2.0, Project Description  3-02 Montecito Community Plan. Comment incorporated. The EIR includes a polic consistency analysis for all applicable policies, including those regarding with biological resources in the MCP, in Section 4, Consistency with Plans and Police  3-03 Project Description. Comments incorporated (see Section 2.4, Project Description Table 2-2):  • 2-story structures. The project includes a 35' hose tower, but includes only a policy of the proposed of the proposed of the project includes a 35' hose tower, but includes only a policy of the project Description includes a 35' hose tower, but includes only a policy of the project Description includes a 35' hose tower, but includes only a policy of the project Description includes a 35' hose tower, but includes only a policy of the project Description includes a 35' hose tower, but includes only a policy of the project Description in the project includes a 35' hose tower, but includes only a policy of the project Description in the project includes a 35' hose tower, but in	ded
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· ·	ion,
• 2-story structures. The project includes a 35' have tower but includes only a po	
2-story structures. The project includes a 33 mose tower, but includes only a pe	ortion
of a 2-story structure for the Training House.	
• The estimated 16,500 cy of cut and 15,500 cy of fill is a reasonable worst-case	
scenario required to level the building site.	
• The previously proposed site wall has been removed from the project.	
• A grading plan is not currently available but will be completed prior to final MI	FPD
project approval or prior to CUP submittal to the County.	
• The proposed support building is non-habitable – not intended for residential us	e.
3-04 Aesthetics. Comment noted. Aesthetics impacts associated with proposed	
construction activities are addressed in the EIR in Section 3.1, Aesthetics and Visi	ual
Resources, Impact VIS-1.	
3-05 Air Quality. Comment incorporated. The EIR includes quantitative analysis of	
potential cumulative GHG emissions and climate change impacts (see Section 3.3	3, Air
Quality, Impact AQ-4).	
<b>3-06 Biology.</b> Comment incorporated. The EIR includes a <i>Class II</i> , potentially signification	cant
but feasibly mitigated impact to biological resources (see Section 3.4, Biological	
Resources, Impact BIO-2).	
3-07 Cultural Resources. Comment incorporated. The EIR includes discussion of the	;
Phase I Cultural Resources Survey, including the known cultural resource within	1,000
feet of the project site (see Section 3.5, <i>Cultural Resources</i> ).	
<b>3-08 Geology.</b> Comment noted. Grading impacts are assessed in the EIR in Section 3	.7,
Geologic Processes, Impact GEO-3.	
3-09 Noise. Comment incorporated. The EIR includes analysis of noise impacts in Se	
3.9, <i>Noise</i> .	ction

1

3-10	Water Resources and Flooding. Comment incorporated. Mitigation measures
3-10	required for water quality have been included in Section 3.11, Water Resources,
	Supply, and Service.
3-11	Permit Process. Comment incorporated. The EIR includes discussion of required
3-11	project permits and permit approval path in the Project Description, Section 2.5,
	Project Approvals and Permitting.
	Santa Barbara County Public Works Department
4-01	Low Impact Development (LID). Comment incorporated. The EIR discusses how
	the project design addresses LID in Section 3.11, Water Resources, Supply, and
	Service, Impact WAT-3.
4-02	<b>Paved Surfaces.</b> Comment incorporated. The EIR has been revised to clarify that
	paved surfaces consists of both permeable and impermeable areas in Sections 2.0,
	Project Description and 3.11, Water Resources, Supply, and Service, Impact WAT-2.
4-03	Potential Pollutant Runoff. Comment incorporated. The EIR further discusses the
	potential for waterborne pollutants and includes mitigation in Section 3.11, Water
	Resources, Supply, and Service, Impact WAT-2.
4-04	Post-Construction Water Quality Measures. Comment incorporated. The EIR
	discusses the potential for post-construction waterborne pollutants and includes
	mitigation in Section 3.11, Water Resources, Supply, and Service, Impact WAT-2.
4-05	Storm Water Treatment Standard Conditions. Comment incorporated. The EIR
	discusses requirements for Storm Water Treatment Standard Conditions in Section
4.06	3.11, Water Resources, Supply, and Service, Impact WAT-3.
4-06	Impervious Surfaces. Comment incorporated. The EIR discusses impacts from
	increased impervious surfaces and includes mitigation in Section 3.11, Water
4.07	Resources, Supply, and Service, Impact WAT-3.
4-07	Runoff Control Standard Conditions. Comment incorporated. The EIR discusses
	compliance with standard conditions for runoff in Section 3.11, <i>Water Resources</i> , <i>Supply, and Service, Impact WAT-3</i> .
	Santa Barbara County Air Pollution Control District
5-01	Emergency Generator Engines. Comment incorporated. The EIR includes analysis
3-01	of the proposed diesel emergency generator (see Section 3.3, <i>Air Quality, Impact AQ</i> -
	1).
5-02	Attainment Status and Consistency with CAP. Comment incorporated. The EIR
	includes analysis of project consistency with the CAP (see Section 3.3, Air Quality,
	Impact AQ-3).
5-03	Increases In Emissions From Proposed Project. Comment incorporated. The EIR
	includes quantitative analysis of potential emissions associated operation of the
	proposed fire station. APCD-recommended mitigation measures have been included to
	minimize fugitive dust and equipment emissions (see Section 3.3, Air Quality, Impact
	AQ-1).
5-04	Construction Impacts. Comment incorporated. The EIR includes quantitative
	analysis of potential emissions associated construction of the proposed fire station,
	including ROC, NO <sub>x</sub> , and PM. Analysis includes area source, stationary source, and
	mobile source emissions based on the project-specific traffic study (see Section 3.3,
5.05	Air Quality, Impact AQ-2).
5-05	Global Climate Change/GHG Impacts. Comment incorporated. The EIR includes
	quantitative analysis of potential cumulative GHG emissions and climate change
	impacts (see Section 3.3, Air Quality, Impact AQ-4).

	Public Scoping Hearing 4/21/11
6-01	<b>Gene Sinser – Conflict of Interest.</b> Mr. Gira did not author any of the analyses – he is
	the Project Manager in charge of overall document quality and conclusions, but does
	not write the sections. Mr. Michael Henry is the Deputy Project Manager charged with
	initial review of each EIR analysis and did not work on the original Station 3 Site
	Identification Study. AMEC staff prepare their own initial analysis and write their own
	EIR section for review by the Deputy Project Manager and Project Manager. Further,
	Mr. Chris Price, a former County Planner, currently with Price Postel and Parma, also
	reviews the processing of the EIR. The process is objective.
6-02	Mary Sheldon – Increased Staffing/Traffic/Housing Demand and Cemetery. The
	County has removed analysis of housing from their EIR process; however, it is
	discussed in the EIR (see Section 3.8, <i>Land Use</i> ). The EIR also includes discussion of
	the cemetery on the Archdiocese's site (see Section 3.5, <i>Cultural Resources</i> ) as well as
	traffic issues (see Section 3.10, Transportation and Traffic).
6-03	<b>Dale Duffy – Cemetery.</b> Although not included in the scope of the EIR, construction
	costs based on similar fire station projects are approximately \$4.5 to \$5.5 million. The
	EIR includes discussion of the cemetery in Section 3.5, <i>Cultural Resources</i> .
6-04	Gene Sinser – Driveway Location and Standards. The EIR addresses potential
	impacts associated with the proposed driveway locations in Section 3.10,
	Transportation and Traffic. The proposed driveway locations were selected by traffic
	engineers to minimize turning movement conflicts and are consistent with general
	Federal Highway Administration standards. Due to very low traffic volumes, potential
	turning movement conflicts are not considered a significant environmental concern.
	The EIR discusses the standards as clearly as possible as well as the trade-offs for
C 0.	moving the driveways.
6-05	Dominick Larkin – Driveway Location and Standards. See response to comment 6-
	04 above. The current EIR schedule has the Draft EIR being released in December
	2011, a 45-day comment period with hearing in January 2012, and MFPD Board of
	Directors hearing(s) in March 2012. The additional County process would occur
6-05	through 2012 and 2013.  Many Shelden Land Volves, Although not included in the same of the EID.
0-05	Mary Sheldon – Land Values. Although not included in the scope of the EIR,
	economic issues are discussed in Section 5.0, <i>Other CEQA Sections</i> . An economist was retained to prepare a literature review, and an Appraiser's Report was obtained for
	homes in the vicinity of fire stations (refer to Appendix J). No known hedonic
	economic analyses on impacts to land values from construction of rural or sub-rural
	fire stations have been completed – one study performed in downtown Portland –
	found beneficial impact in an urban location.
6-06	Gene Sinser – Alternative Locations. The EIR includes an Alternatives analysis (see
0-00	Section 6.0, <i>Alternatives</i> , for additional sites and associated issues, including
	disclosure of trade-offs and how many other homes would be impacted at other sites,
	as well as a comparison matrix.
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## DEPARTMENT OF TRANSPORTATION

50 HIGUERA STREET SAN LUIS OBISPO, CA 93401-5415 PHONE (805) 549-3101 FAX (805) 549-3329 TDD (805) 549-3259

TDD (805) 549-3259 http://www.dot.ca.gov/d/st05/



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SB 192 - pm11.14

April 15, 2011

Chief Kevin Wallace Montecito Fire Protection District 595 San Ysidro Road Santa Barbara, CA 93108

Subject: Fire Station 3 Notice of Preparation

Dear Chief Wallace:

Thank you for the opportunity to review the Notice of Preparation. The initial study's transportation component discusses at length the sight distance concerns for the proposed driveways onto SR 192. The conclusion reached within the NOP is shared by Caltrans, in that if existing foliage / landscaping is adequately reduced, there is sufficient distance to satisfy Highway Design Standards regarding sight distance.

The Environmental Impact Report (DEIR) should make clear the roles and responsibilities 1-2 concerning landscape maintenance and how those roles will be enforced.

However, the analytical m ethodology used in the NOP to support the sight distance conclusion is incorrect. According to the Highway Design Manual (Topic 200-1), all sight distance analysis shall be based on design speed of the facility, not the 85th percentile. For this specific facility, however, we observe an uncommon occurrence. The design speed for this location (40 mph) is actually less than the signed speed limit. The purpose for discussing this is to provide guidance to the lead agency and consultants that the methodology used in this instance is not routinely accepted by Caltrans, and should not be used or relied upon for future use.

The DEIR should include analysis specifically centering on environmental resources (biology, cultural, etc) that are located within the state's right of way. The area of potential effect will include the specific locations for the driveway connections but may also include other areas of right of way. Please ensure this is completely addressed, as the analysis can be used to support the encroachment permit application and may avoid duplication of effort when the application is submitted.

Regarding section 4.16, Water Resources / Flooding, at your convenience or with the DEIR, please provide a copy of the preliminary drainage analysis and a set of drainage 1-5

plan sheets for review. These documents should clearly depict that no additional flows are being added to Caltrans' facilities.

If there are questions pertaining to this correspondence, please call me at (805) 549-3632.

Sincerely,

Chris Shaeffer

Development Review

Caltrans District 5

e: L. Newland, CT

F. Boyle, CT

L. Wickham, CT

T. Edell, CT

D. Gira, AMEC

# **County Of Santa Barbara**

Chandra L. Wallar
County Executive Officer



105 East Anapamu Street, Suite 406 Santa Barbara, California 93101 805/568-3400 • Fax 805/568-3414 www.countyofsb.org

# **Executive Office**

April 20, 2011

Dan Gira, Project Manager AMEC Earth & Environmental 104 West Anapamu St., Suite 204A Santa Barbara, CA 93101

Fax: 805-966-1706

Email: daniel.gira@amec.com

RE: Notice of Preparation of a Draft Environmental Impact Report for Montecito Fire Protection

District Fire Station 3

Dear Mr. Gira:

Thank you for the opportunity to comment on the Notice of Preparation and Initial Study for the preparation of a draft Environmental Impact Report for Fire Station 3. At this time, the County submits comments from the Fire Department, Planning and Development Department, and Public Works Department.

The County looks forward to continued dialogue on the Fire Station 3 project. If you should have further questions, please do not hesitate to contact my office directly, or Jeff Hunt, Director of Long Range Planning Division, at (805) 568-2072.

Sincerely,

Chandra L. Wallar

County Executive Officer

cc: Glenn Russell, Director, Planning and Development Department Scott McGolpin, Director, Public Works Department Richard Todd, Division Chief/Fire Marshal, Fire Department Brett Stewart, Senior Development Engineering Manager Enclosures:

Fire Department letter, April 12, 2011 Planning and Development Department letter, April 20, 2011 Public Works Department letter, April 19, 2011



### Fire Department

"Serving the community since 1926"

Michael W. Dyer Fire Chief County Fire Warden

Christian J. Hahn Deputy Fire Chief

#### **HEADQUARTERS**

4410 Cathedral Oaks Road Santa Barbara, CA 93110-1042 (805) 681-5500 FAX: (805) 681-5563

April 12, 2011

Chief Kevin Wallace Montecito Fie Protection District 595 San Ysidro Road Santa Barbara, CA 93108

Dear Chief Wallace:

SUBJECT: Montecito Fire Protection District NOP IS/EIR Fire Station 3

The above project is located within the jurisdiction of the Santa Barbara County Fire Department. To comply with the established standards, we submit the following with the understanding that the Fire Protection Certificate application may involve modifications, which may determine additional conditions.

#### **GENERAL NOTICE**

1. Stop work immediately and contact the County Fire Department, Hazardous Materials Unit if visual contamination or chemical odors are detected while implementing the approved work at this site. <sup>2-1</sup> Resumption of work requires approval of the HMU, 805-686-8170.

Please notify the Fire Prevention Division of any changes to the project proposal. Further intensification of use or change in the project description may require additional review.

As always, if you have any questions or require further information, please call 805-681-5523 or 805-681-5500.

In the interest of life and fire safety,

Richard Todd

Division Chief/Fire Marshal

RJ: mkb



# **County of Santa Barbara**Planning and Development

Glenn S. Russell, Ph.D., Director

Dianne Black, Director of Development Services
Jeff Hunt, Director of Long Range Planning

April 20, 2011

Dan Gira, Project Manager AMEC Earth & Environmental 104 West Anapamu St., Suite 204A Santa Barbara, CA 93101

RE: Notice of Preparation of a Draft Environmental Impact Report for Montecito Fire Protection District Fire Station 3

Dear Mr. Gira:

Thank you for the opportunity to comment on the Notice of Preparation and Initial Study for the preparation of a draft Environmental Impact Report for Fire Station 3. The Planning and Development Department submits the following for your consideration:

#### **General Comments**

Adopted Trails: The EIR should acknowledge and identify the proposed on road shoulder trail along East Valley Road as shown in the County Parks, Recreation & Trails (PRT) maps for the Montecito area. Any permit review would include an analysis of consistency with the PRT map. Typically, a road shoulder trail would need adequate room along the road frontage (approximately 10 feet wide) to accommodate trail use along East Valley Road. Since this area includes a Caltrans right-of-way, this could be considered a dedication of a 10-foot easement to the County, adjacent to the Caltrans ROW, for trail purposes.

Montecito Community Plan: The EIR should include a Biological Resource policy consistency analysis for policies identified in the Montecito Community Plan. Additionally, please note that while there are currently no Montecito planning area projects underway with the Long Range Planning Division (the Montecito Growth Management Ordinance was completed in October 2010), the Division is currently planning its 2011-2012 Annual Work Plan. Long Range Planning staff will notify the Montecito Fire Protection District of any new projects for the Montecito planning area adopted by the Board of Supervisors for the 2011-2012 Annual Work Plan.

#### **Project Description**

The EIR should clarify the following information in the Project Description of the document:

- Any two-story structures
- Clarify the need for 16,500 cubic yards (c.y.) of cut and 15,500 cubic yards (c.y.) of fill.
- Confirm whether the site wall will be retaining any earth.

3-2

3-3

- Attach a proposed grading plan.
- Confirm that the proposed support building is in fact non-habitable and clarify the meaning in this regard.

#### Aesthetics

The EIR should discuss the aesthetic effects associated with the 16,500 (c.y.) of cut and the 3-4 15,500 (c.y.) of fill.

#### Air Quality

Potential impacts from greenhouse gases should not be referenced in discussion areas A or B of the Initial Study. The questions in A or B are not related greenhouse gases and therefore the conclusions appear misplaced. Additionally, any discussion of greenhouse gas impacts should comport with the County of Santa Barbara's current approach to GHG analysis of proposed development.

#### **Biology**

The Initial Study mitigation and residual impact preface misstates that there are no identified impacts. The mitigation and residual impacts statement in this section should acknowledge that the analysis concludes a potentially significant impact and proposed mitigation.

#### **Cultural Resources**

The EIR should acknowledge that there is a known resource within 1000 feet of the project site and clarify whether shovel test pits were included in the Phase I cultural resource investigation. <sup>3</sup> Finally, the EIR should include a discussion of the review and confirmation of conclusions of cultural resource analysis.

#### Geology

The project description includes 16,500 (c.y.) of cut and 15,500 (c.y.) of fill, a large amount of grading. The EIR's characterization of the project as requiring a "minor" amount of grading should be re-assessed given the grading quantifies specified.

#### Noise

The EIR should reference a noise study if one was prepared. If no noise study was prepared, then the EIR should include analysis and/or discussion that further substantiates the conclusions presented in this section.

#### Water Resources and Flooding

The EIR should include the identification of mitigation measures for identified impacts.

#### 3 - 10

#### **Permit Process**

The EIR should describe all required project permits and permit approval path.

3 - 11

<sup>&</sup>lt;sup>1</sup> Joyce Gerber, Planner, Planning and Development Department is available for consultation on the design of the Phase I investigation for the proposed project.

The County looks forward to continued dialogue on Fire Station 3 and future projects. If you should have further questions, please do not hesitate to contact my office directly, or Jeff Hunt, Director of Long Range Planning Division, at (805) 568-2072.

Sincerely,

Glenn Russell, Ph.D.

Director, Planning and Development Department

cc: Jeff Hunt, Director, Long Range Planning Division

Anne Almy, Supervising Planner, Development Review Division

Julie Harris, Senior Planner, Development Review Division

## COUNTY OF SANTA BARBARA PUBLIC WORKS DEPARTMENT

123 East Anapamu Street Santa Barbara, CA 93101 805\568-3000 FAX 805\568-3019



## SCOTT D. MCGOLPIN Director

April 19, 2011

Mr. Dan Gira, Project Manager AMEC Earth & Environmental, Inc. 104 W. Anapamu St., Ste 204A Santa Barbara, CA 93101

Re: Montecito Fire Protection District Station 3 Site Acquisition and Construction IS/EIR NOP

Dear Mr. Gira.

Public Works has reviewed the above referenced document regarding the proposed Fire Station and we offer the following comments From Flood Control and Project Clean Water:

- 1. The document should explain how the project addresses Low Impact Development (LID) and which LID measures are applied. LID is County policy, and is required for applications of this scope. It is also a requirement of our NPDES permit. Our policy is outlined in the County's LID Guidance Manual.
  - To be effective, LID must be integral to the design process, not added as an afterthought during construction. It will not be considered acceptable to simply state, "The project will incorporate LID measures" as if it will somehow be implemented at a future time. Those measures should be known and definable at this point, and appropriate design considerations employed. 4-2
- 2. The project description indicates that permeable pavers will be used for parking, but Table 1 uses the term "impervious surfaces" for parking. To avoid confusion, it should be referred to as "paved surfaces" and then it should be indicated that portions are composed of permeable material. The same comment applies to page 38, where pavement is called "impermeable". The associated text should be corrected for accuracy.
- 3. Also on page 38, item (L) says that "fertilizers, pesticides, household cleaners and chemicals, and grease from washing fire vehicles" would not present a significant potential for waterborne pollutants. We would disagree on this point without further explanation or mitigation. The conclusion after listing the potential pollutants should state: "mitigation to treat those pollutants will be provided..." and then go on to explain.
- 4. Following that, the document states, "standard grading, erosion, and drainage-control measures" would ensure no significant waterborne pollutants would be discharged. The distinction should be made between construction related measures and those for long-term operation. It is acceptable not to list the standard construction BMPs, but this document should explain the post-construction measures more thoroughly.

AA /EEO Employer

- 5. Our Water Resources Division would condition this project to meet our standard conditions for storm water treatment control as follows: "Because the project develops more than 0.5 acre of impervious area, runoff must be treated in conformance with the Public Works Standard Conditions for Approval Water Quality BMPs". More information/explanation is needed to determine whether there is sufficient area and length provided to effectively utilize the proposed bioswales as a treatment system..
- 6. The "Water Quality Thresholds" on page 37 state that a significant impact is presumed to occur if the project "increases the amount of impervious surface on a site by 25% or more." Pages 37-38 of the document go on to say that "The project structures and pavements would include a total of approximately 1.3 acres of impervious surfaces" and that "Less than significant impacts would occur with mitigation." However, it appears that with 1.3 acres of impervious area on a 2.5 acre site, the proposed project will exceed the threshold for significant impact. The document does not sufficiently describe any mitigation measures that would reduce this impact to less than significant.
- 7. Our Flood Control District would condition this project to meet our standard conditions for runoff control as follows: "The post-developed peak discharge rate shall not exceed the pre-developed peak discharge rate for the 2-year through 100-year storm events. More information shall be provided to demonstrate how this project will meet the County's runoff standards".

Thank you for the opportunity to comment on this document.

Bret A. Stewart, P.E.

Senior Development Engineering Manager



April 25, 2011

Dan Gira AMEC Earth & Environmental, Inc. 104 West Anapamu Street, Suite 204A Santa Barbara, CA 93101

Re: APCD Response to Notice of Preparation of a Draft Environmental Impact Report for Montecito Fire Protection District Fire Station 3

Dear Mr. Gira:

The Santa Barbara County Air Pollution Control District (APCD) appreciates the opportunity to provide comments on the Notice of Preparation (NOP) of a Draft Environmental Impact Report (EIR) for the Fire Station 3 site acquisition and construction. The Montecito Fire Protection District proposes to convert 2.55 acres of agricultural land to institutional use for the fire station site. Included in the development are a 7,000 square foot fire station, a 4,800 square foot support building with hose tower, 3,500 square feet for a storage structure and carport housing 4 parking spaces and emergency generator, associated parking areas, access driveways, landscaping, and creek restoration areas. Grading for the project consists of 16,500 cubic yards of cut and 15,500 cubic yards of fill. The subject property is identified as Assessor's Parcel Number 155-070-008 and is located on the 2500 block of East Valley Road in the unincorporated community of Montecito.

APCD staff reviewed the NOP for the Draft EIR and the Initial Study. APCD's guidance document, entitled *Scope and Content of Air Quality Sections in Environmental Documents* (updated June, 2010) is available online at <a href="https://www.sbcapcd.org/apcd/landuse.htm">www.sbcapcd.org/apcd/landuse.htm</a>. This document should be referenced for general guidance in assessing air quality impacts in the Draft EIR. The EIR should evaluate the following potential impacts related to the construction of Fire Station 3:

1. Emergency Generator Engines. The proposed facility includes an emergency generator that may be subject to APCD permit requirements and prohibitory rules. Therefore, APCD is a responsible agency under the California Environmental Quality Act (CEQA), and will rely on the EIR when evaluating any APCD permits for proposed equipment. The Initial Study and EIR should include the air pollutant emissions for all proposed equipment to avoid additional CEQA documentation requirements related to APCD permit issuance. In the case of a diesel-fired emergency generator engine, an equipment-specific Health Risk Assessment (HRA) may be required. The EIR should examine whether the operations associated with the proposed project, including the generator, will result in air quality impacts to sensitive land uses such as residential. The HRA analysis should be included in the EIR. APCD's Modeling Guidelines for Health Risk Assessments (APCD Form 15i) are available for download at <a href="https://www.sbcapcd.org/eng/dl/dl01.htm">www.sbcapcd.org/eng/dl/dl01.htm</a>. In the case of the proposed emergency generator engine, a screening level HRA may be adequate to address whether operation of the engine will exceed the APCD health risk public notification thresholds. Please contact Kaitlin McNally with

5-1

APCD's Engineering and Compliance Division at (805) 961-8855 for more information on HRA screening.

2. Attainment Status and Consistency with the APCD Clean Air Plan (CAP). The APCD has posted the most up-to-date attainment status for the County on the APCD website <a href="www.sbcapcd.org/sbc/attainment.htm">www.sbcapcd.org/sbc/attainment.htm</a> and the most recent Clean Air Plan is available at <a href="www.sbcapcd.org/cap.htm">www.sbcapcd.org/cap.htm</a>. The website should be consulted for the most up-to-date air quality information prior to the release of the Public Draft EIR.

5-2

Many industrial and manufacturing sources, as well as buildings with large heating devices or generator engines, may be subject to APCD rules and permit requirements. Commercial or industrial projects will be considered consistent with the CAP if they are consistent with APCD rules and regulations. Large industrial stationary source projects may be found inconsistent if their direct emissions are not considered in the CAP stationary source emission inventory (Section 4.4 of APCD's Scope and Content document).

3. Increase in Emissions from Proposed Project. The EIR should present significance thresholds for ozone precursor emissions (reactive organic compounds [ROC], and oxides of nitrogen [NO<sub>X</sub>]) and particulate matter, and quantify operational emissions to determine whether the proposed project will produce emissions in excess of the thresholds. APCD's Scope and Content document contains the APCD Board-adopted criteria for evaluating the significance of adverse air quality impacts for APCD projects. APCD recommends that Montecito Fire Protection District use these, or more stringent, thresholds to determine significance of air quality impacts.

5 - 3

Currently the Initial Study states that the daily trigger for offsets of any criteria pollutant is 55 pounds per day. This text should be revised to indicate that the daily trigger for offsets is 55 pounds per day for  $NO_x$  and ROCs, and 80 pounds per day for  $PM_{10}$ .

The proposed project will involve air quality impacts associated with motor vehicle trips to and from the proposed fire station. The air quality impact analysis for mobile source emissions should be based on a project-specific traffic study whenever possible. In addition to motor vehicle emissions, the analysis should include emissions associated with unpermitted stationary sources such as commercial heating and cooling equipment. These emissions (termed "area source" emissions) should be included in the operational phase emission evaluation. Air pollutant emissions from the proposed emergency generator and any other stationary sources that require APCD permits (termed "stationary sources"), should also be included in the analysis.

Stationary and area source emissions must be added to transportation source emissions prior to applying the project-specific thresholds of significance. If the proposed project exceeds the significance thresholds for air quality, mitigations should be applied to reduce those emissions to below the levels of significance. Section 6 of APCD's *Scope and Content* document offers ideas for air quality mitigations. However, project-specific measures should be developed that are pertinent to the subject project and are enforceable by the lead agency.

- 4. Construction Impacts. The EIR should discuss the potential air quality impacts associated with construction activities for the proposed project. APCD's June, 2010 Scope and Content document, Section 6.1, presents recommended mitigation measures for fugitive dust and equipment exhaust 5-4 emissions associated with construction projects. These are included for your convenience as Attachment A and Attachment B of this letter. Construction mitigation measures should be enforced as conditions of approval for the project. The EIR should have a Mitigation Monitoring and Reporting Plan that explicitly states the required mitigations and establishes a mechanism for enforcement.
- 5. Global Climate Change/Greenhouse Gas impacts. Global climate change is a growing concern that must be addressed in CEQA documents. Global climate change is a cumulative impact; a project participates in this potential impact through its incremental contribution combined with the cumulative increase of all other sources of greenhouse gases.

5-5

California Senate Bill 97 (SB 97), enacted in 2007, required that the CEQA Guidelines be amended to include "guidance for the mitigation of greenhouse gas (GHG) emissions or the effects of GHG emissions." The California Office of Planning & Research (OPR) developed amendments to the CEQA Guidelines, which were adopted by the California Natural Resources Agency on December 30, 2009 and became effective March 18, 2010. These amendments establish a framework for including global climate change impacts in the CEQA process, and include revisions to the Environmental Checklist Form (Appendix G) as well as to the Energy Conservation appendix (Appendix F). A new section (§15064.4) has been added that provides an approach to assessing impacts from GHG's. For additional information on the SB 97 CEQA Guidelines amendments, visit the Resources Agency's website at www.ceres.ca.gov/ceqa/guidelines/.

We recommend that all projects subject to CEQA review be considered in the context of GHG emissions and climate change impacts. <u>CEQA documents should include a quantification of GHG emissions from all project sources, direct and indirect, as applicable.</u> In addition, we recommend that climate change impacts be mitigated to the extent reasonably possible, whether or not they are determined to be significant. The discussion of climate change impacts can be included under cumulative air quality impacts or in its own section. At a minimum, the project should include greenhouse gas mitigation measures as applicable from the following sector-based list:

- Energy use (energy efficiency, low carbon fuels, renewable energy)
- Transportation (reduce vehicle miles traveled, compact and transit-oriented development, pedestrian- and bicycle-friendly communities)
- Water conservation (improved practices and equipment, landscaping)
- Waste reduction (material re-use/recycling, composting, waste diversion, waste minimization)
- Architectural features (green building practices, cool roofs)

For guidance regarding greenhouse gas analysis for CEQA environmental documents, please refer to the CAPCOA CEQA & Climate Change document. CAPCOA has also published Quantifying Greenhouse Gas Mitigation Measures, an extensive sector-by-sector compendium of project-specific

APCD Response to NOP of a Draft EIR for Montecito Fire Protection District Fire Station 3 April 25, 2011 Page 4 of 4

mitigation measures, including quantification methods to calculate GHG reductions. Both these documents are available online at <a href="http://www.capcoa.org">http://www.capcoa.org</a>.

We hope you find our comments useful. We look forward to reviewing the Draft EIR. Please contact me at 961-8893 or by e-mail at <a href="mailto:edg@sbcapcd.org">edg@sbcapcd.org</a> if you have questions.

Sincerely,

Eric Gage

Air Quality Specialist

**Technology and Environmental Assessment Division** 

Attachments: Fugitive Dust Control Measures

Diesel Particulate and NO<sub>x</sub> Emission Measures

cc: Project File

**TEA Chron File** 



## ATTACHMENT A FUGITIVE DUST CONTROL MEASURES

These measures are required for all projects involving earthmoving activities regardless of the project size or duration. Proper implementation of these measures is assumed to fully mitigate fugitive dust emissions.

- During construction, use water trucks or sprinkler systems to keep all areas of vehicle movement damp enough to prevent dust from leaving the site. At a minimum, this should include wetting down such areas in the late morning and after work is completed for the day. Increased watering frequency should be required whenever the wind speed exceeds 15 mph. Reclaimed water should be used whenever possible. However, reclaimed water should not be used in or around crops for human consumption.
- Minimize amount of disturbed area and reduce on site vehicle speeds to 15 miles per hour or less.
- If importation, exportation and stockpiling of fill material is involved, soil stockpiled for more than two days shall be covered, kept moist, or treated with soil binders to prevent dust generation. Trucks transporting fill material to and from the site shall be tarped from the point of origin.
- Gravel pads shall be installed at all access points to prevent tracking of mud onto public roads.
- After clearing, grading, earth moving or excavation is completed, treat the disturbed area by watering, <u>or</u> revegetating, <u>or</u> by spreading soil binders until the area is paved or otherwise developed so that dust generation will not occur.
- The contractor or builder shall designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust offsite. Their duties shall include holiday and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the Air Pollution Control District prior to land use clearance for map recordation and land use clearance for finish grading of the structure.

**Plan Requirements:** All requirements shall be shown on grading and building plans and as a note on a separate information sheet to be recorded with map. **Timing:** Requirements shall be shown on plans or maps prior to land use clearance or map recordation. Condition shall be adhered to throughout all grading and construction periods.

**MONITORING:** Lead Agency shall ensure measures are on project plans and maps to be recorded. Lead Agency staff shall ensure compliance onsite. APCD inspectors will respond to nuisance complaints.



### ATTACHMENT B DIESEL PARTICULATE AND NO<sub>x</sub> EMISSION MEASURES

Particulate emissions from diesel exhaust are classified as carcinogenic by the state of California. The following is an updated list of regulatory requirements and control strategies that should be implemented to the maximum extent feasible.

The following measures are required by state law:

- All portable diesel-powered construction equipment shall be registered with the state's portable equipment registration program OR shall obtain an APCD permit.
- Fleet owners of mobile construction equipment are subject to the California Air Resource Board (CARB) Regulation for In-use Off-road Diesel Vehicles (Title 13 California Code of Regulations, Chapter 9, § 2449), the purpose of which is to reduce diesel particulate matter (PM) and criteria pollutant emissions from in-use (existing) off-road diesel-fueled vehicles. For more information, please refer to the CARB website at <a href="https://www.arb.ca.gov/msprog/ordiesel/ordiesel.htm">www.arb.ca.gov/msprog/ordiesel/ordiesel.htm</a>.
- All commercial diesel vehicles are subject to Title 13, § 2485 of the California Code of Regulations, limiting
  engine idling time. Idling of heavy-duty diesel construction equipment and trucks during loading and unloading
  shall be limited to five minutes; electric auxiliary power units should be used whenever possible.

The following measures are recommended:

- Diesel construction equipment meeting the California Air Resources Board (CARB) Tier 1 emission standards for off-road heavy-duty diesel engines shall be used. Equipment meeting CARB Tier 2 or higher emission standards should be used to the maximum extent feasible.
- Diesel powered equipment should be replaced by electric equipment whenever feasible.
- If feasible, diesel construction equipment shall be equipped with selective catalytic reduction systems, diesel oxidation catalysts and diesel particulate filters as certified and/or verified by EPA or California.
- Catalytic converters shall be installed on gasoline-powered equipment, if feasible.
- All construction equipment shall be maintained in tune per the manufacturer's specifications.
- The engine size of construction equipment shall be the minimum practical size.
- The number of construction equipment operating simultaneously shall be minimized through efficient management practices to ensure that the smallest practical number is operating at any one time.
- Construction worker trips should be minimized by requiring carpooling and by providing for lunch onsite.

**Plan Requirements:** Measures shall be shown on grading and building plans. **Timing:** Measures shall be adhered to throughout grading, hauling and construction activities.

MONITORING: Lead Agency staff shall perform periodic site inspections to ensure compliance with approved plans. APCD inspectors shall respond to nuisance complaints.

## PUBLIC SCOPING HEARING MINUTES STATION 3 SITE ACQUISITION AND CONSTRUCTION EIR MONTECITO FIRE PROTECTION DISTRICT

Location: Fire District Headquarters, 595 San Ysidro Road, Montecito, California

Date: April 21, 2011

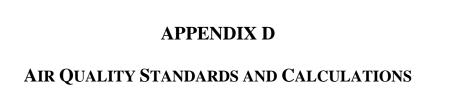
Attendees: Chief Kevin Wallace, Dan Gira, Geri Ventura, Gene Sinser, Mary Sheldon,

Ms. Dale Duffy, Dominick Larkin, Nancy Eldridge, Bob Eldridge, Doug Hall

1. Fire Chief Kevin Wallace introduced the proposed Fire Station and explained background and need for project. Chief Wallace introduced Mr. Dan Gira from AMEC.

- 2. Mr. Dan Gira explained AMEC's role in the project, background on the Station 3 Site Identification Study, overall EIR and NOP processes, and issue areas to be addressed in the EIR, including alternatives. Mr. Gira discussed overall project timeline and future opportunities to comment.
- 3. Gene Sinser stated that Mr. Dan Gira did the research for the Station 3 Site Identification Study sites and recommendations. He felt that Mr. Gira doing the EIR is a "fox in the hen house." He stated that the MFPD might want to avoid even the perception of a conflict of interest, although he does not impugn Mr. Gira's skill or knowledge.
- 4. Mr. Gira stated that he would not do any of the analyses; he is the Project Manager in charge of overall document quality and conclusions, but does not write the sections. Ms. Linn Zukor is the Deputy Project Manager charged with initial review of each EIR section and she did not work on the original Station 3 Site identification Study. Mr. Gira stated that AMEC staff prepare individual initial analyses and write individual sections for review by the Deputy Project Manager and Project Manager. Mr. Gira stated that he believes this to be an objective process.
- 5. Chief Wallace stated that Mr. Chris Price from Price Postel and Parma, a former County Planner, would also be reviewing the processing of the EIR. Chief Wallace stated that he believes this to be an objective process.
- 6. Mary Sheldon stated that she is concerned with staffing and increased demand for housing. Also she is concerned with increased traffic with staff getting to and from the new station. She is also concerned about preserving the integrity of the cemetery on the nearby Archdiocese site. She asked where the funding comes from.
- 7. Mr. Dan Gira stated that Santa Barbara County has removed housing analyses from the EIR process, but the EIR could include discussion of this issue. Mr Gira stated that he is aware of the cemetery on the Archdioceses site and that the EIR will discuss traffic.
- 8. Chief Wallace stated that the district has three rentals to address housing. The Board identified the need for a third station in 2003 and has been putting money aside since then. Chief Wallace stated that he believes there is enough funding set aside in current dollars to pay for the Station he could obtain a certificate of participation if necessary.
- 9. Ms. Dale Duffy asked about the estimated cost of construction and the location of the cemetery.
- 10. Chief Wallace stated that Goleta is building a fire station for the County and budgeted 4.5 to 5.5 million. He stated that he would research the location of the cemetery.

- 11. Mr. Gene Sinser stated that it is too early to tell, but that he would violently object to a driveway directly across from his driveway.
- 12. Mr. Dan Gira stated that he would speak with the traffic consultant about driveway location and would address the issue in the EIR. He stated that the driveway location was selected by traffic engineers to minimize turning movement conflicts and is consistent with general Federal Highway Administration Standards. He indicated that due of very low traffic volumes, potential turning movement conflicts are probably not a significant environmental concern. He stated that the standards would be laid out as clearly as possible in the EIR, including what the trade-offs would be from moving the driveway.
- 13. Dominick Larkin stated that it is close to the ranch. He is concerned with driveway location as well.
- 14. Dan Gira reviewed the project schedule and stated that the EIR would be released this summer (July), followed by a 45-day comment period on the EIR, including a hearing in August and MFPD Board of Directors hearing(s) in October. He stated that including the County process could stretch the timeline out to 2012/2013.
- 15. Ms. Mary Sheldon asked whether the EIR would address land values.
- 16. Mr. Dan Gira stated that economic issues are not typically included in an EIR, but that it will be addressed. He stated that an initial 3 to 4 days of research (i.e., with urban land institute and American Planning Association, as well as contacting economists) has been completed, but that no one is aware of an economic analysis that has been prepared for fire station impacts on land values. One study performed in downtown Portland found beneficial impacts for a fire station in an urban location. He stated that he would do the best job he could and disclose what he finds.
- 17. Mr. Gene Sinser stated that he too has researched this issue as well. He questions that this is desirable vs. required. He suggested that the location of the proposed station could be revisited with tweaks so that it wouldn't impact the current neighbors.
- 18. Mr. Dan Gira indicated that the EIR's alternatives analysis would review additional sites and associated issues, including disclosure to the Board regarding the number of other residences that would be impacted at other sites. He stated that every site has different trade-offs. The Birnamwood site was pursued, which would require relocation of their maintenance facility and cost more than the budget. The site is ideal for response times, but has other issues. Mr. Gira stated that he would take another look and provide a matrix of comparisons.
- 19. Chief Wallace stated that there was another willing seller Campbell Griffith but the site has steep slopes and trees. A station was designed to see if the site could be configured, but there were too many constraints. Another site was the cemetery, but it was found that Eminent Domain powers do not apply to the Catholic church and they were unwilling to sell. They began to entertain the idea of selling but were not willing to disinter remains at the site.
- 20. Mr. Dan Gira stated that the Archdioceses site would be difficult. The County is not cooperative with digging up graves. Policies protect Cultural and Archaeological Resources and it would face significant opposition. There are probable Chumash at the site as well, which would be contentious. He stated that the EIR would look at the issue and discuss, but the site would be very controversial.
- 21. Ms. Mary Sheldon stated that she believes there are two firemen buried at the cemetery and she could provide some more information.
- 22. Meeting adjourned at 8pm.



#### Appendix D **Air Quality Standards**

**Federal and State Ambient Air Quality Standards** Table 1-D.

Pollutant	Averaging Time	Federal Primary Standards	California Standard
Ozone (O <sub>3</sub> )	8-Hour	0.075 ppm	0.070 ppm
	1-Hour	revoked	0.09 ppm
Carbon Monoxide (CO)	8-Hour	9.0 ppm	9.0 ppm
	1-Hour	35.0 ppm	20.0 ppm
Nitrogen Dioxide (NO <sub>2)</sub>	Annual	0.053 ppm	0.030
	1-Hour		0.18 ppm
Sulfur Dioxide (SO <sub>2</sub> )	Annual	$80 \mu g/m^3$	
	24-Hour	0.14 ppm	0.04 ppm
	1-Hour		0.25 ppm
$PM_{10}$	Annual	revoked	$20~\mu g/m^3$
	24-Hour	$150 \ \mu g/m^3$	$50.0 \ \mu g/m^3$
PM <sub>2.5</sub>	Annual	$15 \mu g/m^3$	$12 \mu g/m^3$
	24-Hour	$35 \mu g/m^3$	
Lead (Pb)	30-Day Average		$1.5 \mu g/m^3$
	Calendar Quarter	$1.5 \mu g/m^3$	
	Rolling 3-Month Average	$0.15~\mu g/m^3$	
Hydrogen Sulfide (H <sub>2</sub> S)	1-hour	<del></del>	0.03 ppm
Vinyl Chloride	24-hour		0.010 ppm
Visibility Reducing Particles	8-hour		Visibility of 10 miles or more due to particles (haze) when relative humidity is less than 70 percent
Sulfates	24-hour		$25 \mu g/m^3$

Notes:  $ppm = parts \ per \ million$   $\mu g/m^3 = micrograms \ per \ cubic \ meter$ -- = Not applicable Source: CARB 2008.

Page: 1

2/1/2012 12:49:39 PM

#### Urbemis 2007 Version 9.2.4

#### Combined Annual Emissions Reports (Tons/Year)

File Name: G:\Environmental-Development\2011 Projects\7551005103.2001.3 Montecito FS\FireStation(Jan2012).urb924

Project Name: Montecito FS

Project Location: California State-wide

On-Road Vehicle Emissions Based on: Version: Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

Page: 2 2/1/2012 12:49:39 PM

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

Both Area and Operational Mitigation must be turned on to get a combined mitigated total.

	ROG	<u>NOx</u>	CO	<u>SO2</u>	PM10 Dust PI	M10 Exhaust	<u>PM10</u>	PM2.5 Dust	PM2.5 Exhaust	<u>PM2.5</u>	<u>CO2</u>
2013 TOTALS (tons/year unmitigated)	0.40	3.07	1.52	0.00	0.01	0.15	0.16	0.00	0.14	0.14	398.75
2013 TOTALS (tons/year mitigated)	0.40	3.07	1.52	0.00	0.00	0.15	0.16	0.00	0.14	0.14	398.75
Percent Reduction	0.00	0.00	0.00	0.00	38.02	0.00	1.53	35.31	0.00	0.36	0.00
AREA SOURCE EMISSION ESTIMATES											
		ROG	<u>NOx</u>	<u>co</u>	<u>SO2</u>	<u>PM10</u>	PM2.5	<u>CO2</u>			
TOTALS (tons/year, unmitigated)		0.01	0.00	0.14	0.00	0.00	0.00	1.71			
TOTALS (tons/year, mitigated)		0.01	0.00	0.14	0.00	0.00	0.00	1.42			
Percent Reduction		0.00	NaN	0.00	NaN	NaN	NaN	16.96			
OPERATIONAL (VEHICLE) EMISSION ESTIM	MATES										
		ROG	<u>NOx</u>	<u>co</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>			
TOTALS (tons/year, unmitigated)		0.03	0.04	0.31	0.00	0.05	0.01	25.05			
SUM OF AREA SOURCE AND OPERATIONA	AL EMISSION E	STIMATES									
		<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>			
TOTALS (tons/year, unmitigated)		0.04	0.04	0.45	0.00	0.05	0.01	26.76			

Page: 1

2/1/2012 12:50:13 PM

#### Urbemis 2007 Version 9.2.4

#### Combined Summer Emissions Reports (Pounds/Day)

File Name: G:\Environmental-Development\2011 Projects\7551005103.2001.3 Montecito FS\FireStation(Jan2012).urb924

Project Name: Montecito FS

Project Location: California State-wide

On-Road Vehicle Emissions Based on: Version: Emfac2007 V2.3 Nov 1 2006

Off-Road Vehicle Emissions Based on: OFFROAD2007

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Summary	Report:
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	ROG	<u>NOx</u>	CO	<u>SO2</u>	PM10 Dust Pl	M10 Exhaust	<u>PM10</u>	PM2.5 Dust	<u>PM2.5</u> Exhaust	<u>PM2.5</u>	<u>CO2</u>
2013 TOTALS (lbs/day unmitigated)	5.69	49.51	26.19	0.01	0.46	2.25	2.70	0.10	2.07	2.17	6,069.20
2013 TOTALS (lbs/day mitigated)	5.69	49.51	26.19	0.01	0.29	2.25	2.53	0.07	2.07	2.13	6,069.20
AREA SOURCE EMISSION ESTIMATES											
		<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	<u>PM2.5</u>	<u>CO2</u>			
TOTALS (lbs/day, unmitigated)		0.13	0.03	1.56	0.00	0.01	0.01	10.81			
TOTALS (lbs/day, mitigated)		0.13	0.03	1.55	0.00	0.01	0.01	9.21			
Percent Reduction		0.00	0.00	0.64	NaN	0.00	0.00	14.80			
OPERATIONAL (VEHICLE) EMISSION ESTIMA	ATES										
		ROG	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	PM2.5	<u>CO2</u>			
TOTALS (lbs/day, unmitigated)		0.16	0.24	1.62	0.00	0.27	0.05	137.26			
SUM OF AREA SOURCE AND OPERATIONAL	. EMISSION E	STIMATES									
		ROG	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	<u>PM10</u>	PM2.5	<u>CO2</u>			
TOTALS (lbs/day, unmitigated)		0.29	0.27	3.18	0.00	0.28	0.06	148.07			
Both Area and Operational Mitigation must be to	urned on to get	a combined m	nitigated total.								

#### Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

<u>ROG</u>	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	PM10 Dust	PM10 Exhaust	<u>PM10</u>	PM2.5 Dust	PM2.5 Exhaust	PM2.5	<u>CO2</u>
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Page: 3

2/1/2012	12:50:13	PM
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Time Slice 1/1/2013-1/14/2013 Active Days: 10	3.09	28.88	14.36	0.01	0.25	1.26	1.51	0.06	1.16	1.22	3,734.77
Mass Grading 01/01/2013- 01/31/2013	3.09	28.88	14.36	0.01	0.25	1.26	1.51	0.06	1.16	1.22	3,734.77
Mass Grading Dust	0.00	0.00	0.00	0.00	0.20	0.00	0.20	0.04	0.00	0.04	0.00
Mass Grading Off Road Diesel	2.55	20.56	11.10	0.00	0.00	0.99	0.99	0.00	0.91	0.91	2,247.32
Mass Grading On Road Diesel	0.51	8.26	2.53	0.01	0.05	0.27	0.32	0.02	0.25	0.26	1,400.35
Mass Grading Worker Trips	0.03	0.06	0.73	0.00	0.00	0.00	0.01	0.00	0.00	0.00	87.10
Time Slice 1/15/2013-1/31/2013 Active Days: 13	5.67	<u>49.51</u>	<u>26.19</u>	<u>0.01</u>	<u>0.46</u>	<u>2.25</u>	<u>2.70</u>	<u>0.10</u>	<u>2.07</u>	<u>2.17</u>	6,069.20
Fine Grading 01/15/2013- 02/28/2013	2.58	20.62	11.83	0.00	0.20	0.99	1.19	0.04	0.91	0.95	2,334.42
Fine Grading Dust	0.00	0.00	0.00	0.00	0.20	0.00	0.20	0.04	0.00	0.04	0.00
Fine Grading Off Road Diesel	2.55	20.56	11.10	0.00	0.00	0.99	0.99	0.00	0.91	0.91	2,247.32
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.03	0.06	0.73	0.00	0.00	0.00	0.01	0.00	0.00	0.00	87.10
Mass Grading 01/01/2013- 01/31/2013	3.09	28.88	14.36	0.01	0.25	1.26	1.51	0.06	1.16	1.22	3,734.77
Mass Grading Dust	0.00	0.00	0.00	0.00	0.20	0.00	0.20	0.04	0.00	0.04	0.00
Mass Grading Off Road Diesel	2.55	20.56	11.10	0.00	0.00	0.99	0.99	0.00	0.91	0.91	2,247.32
Mass Grading On Road Diesel	0.51	8.26	2.53	0.01	0.05	0.27	0.32	0.02	0.25	0.26	1,400.35
Mass Grading Worker Trips	0.03	0.06	0.73	0.00	0.00	0.00	0.01	0.00	0.00	0.00	87.10

Page: 4 2/1/2012 12:50:13 PM

Time Slice 2/1/2013-2/28/2013 Active Days: 20	2.58	20.62	11.83	0.00	0.20	0.99	1.19	0.04	0.91	0.95	2,334.42
Fine Grading 01/15/2013- 02/28/2013	2.58	20.62	11.83	0.00	0.20	0.99	1.19	0.04	0.91	0.95	2,334.42
Fine Grading Dust	0.00	0.00	0.00	0.00	0.20	0.00	0.20	0.04	0.00	0.04	0.00
Fine Grading Off Road Diesel	2.55	20.56	11.10	0.00	0.00	0.99	0.99	0.00	0.91	0.91	2,247.32
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.03	0.06	0.73	0.00	0.00	0.00	0.01	0.00	0.00	0.00	87.10
Time Slice 3/1/2013-7/30/2013 Active Days: 108	5.49	42.54	20.12	0.00	0.00	2.11	2.12	0.00	1.95	1.95	5,663.38
Building 03/01/2013-07/31/2013	5.49	42.54	20.12	0.00	0.00	2.11	2.12	0.00	1.95	1.95	5,663.38
Building Off Road Diesel	5.49	42.52	20.07	0.00	0.00	2.11	2.11	0.00	1.95	1.95	5,656.27
Building Vendor Trips	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.54
Building Worker Trips	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.57
Time Slice 7/31/2013-7/31/2013 Active Days: 1	<u>5.69</u>	42.54	20.12	0.00	0.00	2.11	2.12	0.00	1.95	1.95	5,663.58
Building 03/01/2013-07/31/2013	5.49	42.54	20.12	0.00	0.00	2.11	2.12	0.00	1.95	1.95	5,663.38
Building Off Road Diesel	5.49	42.52	20.07	0.00	0.00	2.11	2.11	0.00	1.95	1.95	5,656.27
Building Vendor Trips	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.54
Building Worker Trips	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.57
Coating 07/31/2013-12/31/2013	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20
Architectural Coating	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20

Page: 5

#### 2/1/2012 12:50:13 PM

Time Slice 8/1/2013-8/30/2013 Active Days: 22	1.52	7.56	5.37	0.00	0.01	0.62	0.63	0.00	0.57	0.57	783.85
Asphalt 08/01/2013-08/31/2013	1.33	7.56	5.37	0.00	0.01	0.62	0.63	0.00	0.57	0.57	783.65
Paving Off-Gas	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.17	7.20	4.55	0.00	0.00	0.61	0.61	0.00	0.56	0.56	645.55
Paving On Road Diesel	0.02	0.30	0.09	0.00	0.00	0.01	0.01	0.00	0.01	0.01	51.00
Paving Worker Trips	0.03	0.06	0.73	0.00	0.00	0.00	0.01	0.00	0.00	0.00	87.10
Coating 07/31/2013-12/31/2013	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20
Architectural Coating	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20
Time Slice 9/2/2013-12/31/2013 Active Days: 87	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20
Coating 07/31/2013-12/31/2013	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20
Architectural Coating	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20

#### Phase Assumptions

Phase: Fine Grading 1/15/2013 - 2/28/2013 - Default Fine Site Grading Description

Total Acres Disturbed: 0.05

Maximum Daily Acreage Disturbed: 0.01 Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

- 1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day
- 1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day
- 1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

#### Page: 6

#### 2/1/2012 12:50:13 PM

Phase: Mass Grading 1/1/2013 - 1/31/2013 - Type Your Description Here

Total Acres Disturbed: 0.05

Maximum Daily Acreage Disturbed: 0.01 Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 347.83

Off-Road Equipment:

- 1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day
- 1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day
- 1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Paving 8/1/2013 - 8/31/2013 - Default Paving Description

Acres to be Paved: 0.94

Off-Road Equipment:

- 2 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day
- 1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day
- 1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day

Phase: Building Construction 3/1/2013 - 7/31/2013 - Default Building Construction Description

Off-Road Equipment:

- 2 Air Compressors (106 hp) operating at a 0.48 load factor for 8 hours per day
- 2 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 8 hours per day
- 1 Cranes (399 hp) operating at a 0.43 load factor for 4 hours per day
- 1 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day
- 1 Graders (174 hp) operating at a 0.61 load factor for 8 hours per day
- 2 Off Highway Trucks (479 hp) operating at a 0.57 load factor for 8 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day
- 1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Page: 7

#### 2/1/2012 12:50:13 PM

Phase: Architectural Coating 7/31/2013 - 12/31/2013 - Default Architectural Coating Description Rule: Residential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250 Rule: Residential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250 Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250 Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

#### Construction Mitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

	ROG	<u>NOx</u>	<u>CO</u>	<u>SO2</u>	PM10 Dust	PM10 Exhaust	<u>PM10</u>	PM2.5 Dust	PM2.5 Exhaust	PM2.5	<u>CO2</u>
Time Slice 1/1/2013-1/14/2013 Active Days: 10	3.09	28.88	14.36	0.01	0.17	1.26	1.42	0.04	1.16	1.20	3,734.77
Mass Grading 01/01/2013- 01/31/2013	3.09	28.88	14.36	0.01	0.17	1.26	1.42	0.04	1.16	1.20	3,734.77
Mass Grading Dust	0.00	0.00	0.00	0.00	0.11	0.00	0.11	0.02	0.00	0.02	0.00
Mass Grading Off Road Diesel	2.55	20.56	11.10	0.00	0.00	0.99	0.99	0.00	0.91	0.91	2,247.32
Mass Grading On Road Diesel	0.51	8.26	2.53	0.01	0.05	0.27	0.32	0.02	0.25	0.26	1,400.35
Mass Grading Worker Trips	0.03	0.06	0.73	0.00	0.00	0.00	0.01	0.00	0.00	0.00	87.10

Page: 8 2/1/2012 12:50:13 PM

Time Slice 1/15/2013-1/31/2013	5.67	<u>49.51</u>	<u>26.19</u>	<u>0.01</u>	0.29	<u>2.25</u>	<u>2.53</u>	0.07	<u>2.07</u>	<u>2.13</u>	6,069.20
Active Days: 13 Fine Grading 01/15/2013- 02/28/2013	2.58	20.62	11.83	0.00	0.12	0.99	1.11	0.03	0.91	0.93	2,334.42
Fine Grading Dust	0.00	0.00	0.00	0.00	0.11	0.00	0.11	0.02	0.00	0.02	0.00
Fine Grading Off Road Diesel	2.55	20.56	11.10	0.00	0.00	0.99	0.99	0.00	0.91	0.91	2,247.32
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.03	0.06	0.73	0.00	0.00	0.00	0.01	0.00	0.00	0.00	87.10
Mass Grading 01/01/2013- 01/31/2013	3.09	28.88	14.36	0.01	0.17	1.26	1.42	0.04	1.16	1.20	3,734.77
Mass Grading Dust	0.00	0.00	0.00	0.00	0.11	0.00	0.11	0.02	0.00	0.02	0.00
Mass Grading Off Road Diesel	2.55	20.56	11.10	0.00	0.00	0.99	0.99	0.00	0.91	0.91	2,247.32
Mass Grading On Road Diesel	0.51	8.26	2.53	0.01	0.05	0.27	0.32	0.02	0.25	0.26	1,400.35
Mass Grading Worker Trips	0.03	0.06	0.73	0.00	0.00	0.00	0.01	0.00	0.00	0.00	87.10
Time Slice 2/1/2013-2/28/2013 Active Days: 20	2.58	20.62	11.83	0.00	0.12	0.99	1.11	0.03	0.91	0.93	2,334.42
Fine Grading 01/15/2013- 02/28/2013	2.58	20.62	11.83	0.00	0.12	0.99	1.11	0.03	0.91	0.93	2,334.42
Fine Grading Dust	0.00	0.00	0.00	0.00	0.11	0.00	0.11	0.02	0.00	0.02	0.00
Fine Grading Off Road Diesel	2.55	20.56	11.10	0.00	0.00	0.99	0.99	0.00	0.91	0.91	2,247.32
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.03	0.06	0.73	0.00	0.00	0.00	0.01	0.00	0.00	0.00	87.10
Time Slice 3/1/2013-7/30/2013 Active Days: 108	5.49	42.54	20.12	0.00	0.00	2.11	2.12	0.00	1.95	1.95	5,663.38
Building 03/01/2013-07/31/2013	5.49	42.54	20.12	0.00	0.00	2.11	2.12	0.00	1.95	1.95	5,663.38
Building Off Road Diesel	5.49	42.52	20.07	0.00	0.00	2.11	2.11	0.00	1.95	1.95	5,656.27
Building Vendor Trips	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.54
Building Worker Trips	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.57

Page: 9 **2/1/2012 12:50:13 PM** 

Time Slice 7/31/2013-7/31/2013 Active Days: 1	<u>5.69</u>	42.54	20.12	0.00	0.00	2.11	2.12	0.00	1.95	1.95	5,663.58
Building 03/01/2013-07/31/2013	5.49	42.54	20.12	0.00	0.00	2.11	2.12	0.00	1.95	1.95	5,663.38
Building Off Road Diesel	5.49	42.52	20.07	0.00	0.00	2.11	2.11	0.00	1.95	1.95	5,656.27
Building Vendor Trips	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.54
Building Worker Trips	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.57
Coating 07/31/2013-12/31/2013	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20
Architectural Coating	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20
Time Slice 8/1/2013-8/30/2013 Active Days: 22	1.52	7.56	5.37	0.00	0.01	0.62	0.63	0.00	0.57	0.57	783.85
Asphalt 08/01/2013-08/31/2013	1.33	7.56	5.37	0.00	0.01	0.62	0.63	0.00	0.57	0.57	783.65
Paving Off-Gas	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	1.17	7.20	4.55	0.00	0.00	0.61	0.61	0.00	0.56	0.56	645.55
Paving On Road Diesel	0.02	0.30	0.09	0.00	0.00	0.01	0.01	0.00	0.01	0.01	51.00
Paving Worker Trips	0.03	0.06	0.73	0.00	0.00	0.00	0.01	0.00	0.00	0.00	87.10
Coating 07/31/2013-12/31/2013	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20
Architectural Coating	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20
Time Slice 9/2/2013-12/31/2013 Active Days: 87	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20
Coating 07/31/2013-12/31/2013	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20
Architectural Coating	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20

Page: 10

#### 2/1/2012 12:50:13 PM

#### Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Fine Grading 1/15/2013 - 2/28/2013 - Default Fine Site Grading Description

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

The following mitigation measures apply to Phase: Mass Grading 1/1/2013 - 1/31/2013 - Type Your Description Here

For Soil Stablizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

#### Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

<u>Source</u>	ROG	<u>NOx</u>	<u>co</u>	<u>SO2</u>	<u>PM10</u>	PM2.5	<u>CO2</u>
Natural Gas	0.00	0.01	0.01	0.00	0.00	0.00	8.00
Hearth							
Landscape	0.12	0.02	1.55	0.00	0.01	0.01	2.81
Consumer Products	0.00						
Architectural Coatings	0.01						
TOTALS (lbs/day, unmitigated)	0.13	0.03	1.56	0.00	0.01	0.01	10.81

Page: 11

#### 2/1/2012 12:50:14 PM

#### Area Source Mitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

<u>Source</u>	ROG	<u>NOx</u>	CO	<u>SO2</u>	<u>PM10</u>	PM2.5	<u>CO2</u>
Natural Gas	0.00	0.01	0.00	0.00	0.00	0.00	6.40
Hearth							
Landscape	0.12	0.02	1.55	0.00	0.01	0.01	2.81
Consumer Products	0.00						
Architectural Coatings	0.01						
TOTALS (lbs/day, mitigated)	0.13	0.03	1.55	0.00	0.01	0.01	9.21

#### Area Source Mitigation Measures Selected

Mitigation Description Percent Reduction

Commercial Increase Energy Efficiency Beyond Title 24 20.00

#### Area Source Changes to Defaults

#### Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

<u>Source</u>	ROG	NOX	СО	SO2	PM10	PM25	CO2
Goverment office building	0.16	0.24	1.62	0.00	0.27	0.05	137.26
TOTALS (lbs/day, unmitigated)	0.16	0.24	1.62	0.00	0.27	0.05	137.26

Operational Settings:

Includes correction for passby trips

Page: 12

#### 2/1/2012 12:50:14 PM

Includes the following double counting adjustment for internal trips:

Residential Trip % Reduction: 0.00 Nonresidential Trip % Reduction: 0.00

Analysis Year: 2012 Temperature (F): 60 Season: Summer

Emfac: Version: Emfac2007 V2.3 Nov 1 2006

#### Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Goverment office building		36.00	1000 sq ft	1.00	36.00	155.85
					36.00	155.85
		Vehicle Fleet M	<u>lix</u>			
Vehicle Type	Percent	Туре	Non-Cataly	<i>y</i> st	Catalyst	Diesel
Light Auto		48.6	0	.8	99.0	0.2
Light Truck < 3750 lbs		10.9	1	.8	93.6	4.6
Light Truck 3751-5750 lbs		21.8	0	.5	99.5	0.0
Med Truck 5751-8500 lbs		9.6	1	.0	99.0	0.0
Lite-Heavy Truck 8501-10,000 lbs		1.7	0	0.0	76.5	23.5
Lite-Heavy Truck 10,001-14,000 lbs		0.7	0	0.0	42.9	57.1
Med-Heavy Truck 14,001-33,000 lbs		1.0	0	0.0	20.0	80.0
Heavy-Heavy Truck 33,001-60,000 lbs		0.9	0	0.0	0.0	100.0
Other Bus		0.1	0	0.0	0.0	100.0
Urban Bus		0.1	0	0.0	0.0	100.0
Motorcycle		3.5	60	0.0	40.0	0.0
School Bus		0.1	0	0.0	0.0	100.0
Motor Home		1.0	0	0.0	90.0	10.0

Page: 13 **2/1/2012 12:50:14 PM** 

#### **Travel Conditions**

		Residential		Commercial			
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work	Customer	
Urban Trip Length (miles)	10.8	7.3	7.5	9.5	7.4	7.4	
Rural Trip Length (miles)	16.8	7.1	7.9	14.7	6.6	6.6	
Trip speeds (mph)	35.0	35.0	35.0	35.0	35.0	35.0	
% of Trips - Residential	32.9	18.0	49.1				
% of Trips - Commercial (by land use)							
Goverment office building				0.0	0.0	100.0	

#### Operational Changes to Defaults

Ambient summer temperature changed from 85 degrees F to 60 degrees F

Ambient winter temperature changed from 40 degrees F to 50 degrees F

Emission Factors <sup>1</sup>							
CO	NOx	SOx	PM <sub>10</sub>	PM <sub>2.5</sub>	VOC	CO2	Total HAPs
(g/kW-hr)	(g/kW-hr)	(lb/hp-hr)	(g/kW-hr)	(g/kW-hr)	(g/kW-hr)	(lb/hp-hr)	(lb/MMBTU)
0.90000	3.610	0.00205	0.1600	0.1600	0.19000	1.15	0.00632

Rating (KW)	Rating (hp)	Operating Hours/yr		Emissions (lb/hr)						
80	107.3	500	0.16	0.64	0.22	0.028	0.028	0.034	92.00	0.0047
				Emissions (lbs/day) (based on 24 hr operation)						
			3.81	15.28	5.28	0.68	0.68	0.80	2208.00	0.114
			Emissions (tons/yr)							
			0.04	0.16	0.05498	0.0071	0.0071	0.008	23	0.00119

<sup>1.</sup> Emission in g/kW-hr taken from manufacturer's spec sheet and factors in lb/hp-hr taken from AP-42, Table 3.3-1 and 3.3-2 for Diesel Fired Engines (full load conditions)

Emission (lb/hr) = EF (lb/hp-hr) \* 107.3 (hp) or EF (g/kW-hr) \* 80 kW / 453.59 (g/lb)

Emission (lb/hr) = EF (lb/MMBTU) \* 0.007 (MMBTU / hp-hr) \* 107.3 (hp)

Based on ARB Diesel Engine Screening Risk Assessment Tables at 50% load there is no cancer risk beyond 200 meters http://www.arb.ca.gov/ab2588/diesel/instructions.htm

Emission Factor <sup>1</sup>	681 lbs CO2/MWh	1
Energy Use <sup>2</sup>	54,160 BTU/sqft	
Building Size	7100 sqft	
Energy Usage	3.85E+08 BTU	(Energy Use x Building Size)
BTU to KWh	2.93E-04 (KWh/BTU)	
Energy Usage	1.13E+05 KWh	(Energy Usage x BTU to KWh)
CO2 emissions	76728 lbs	(Emission Factor x Energy Use/1000)
CO2 emission	38.4 tons	

- 1. USEPA OAS at http://oaspub.epa.gov/powpro/ept\_pack.charts
- 2. DOE Buildings Energy Data Book at http://buildingsdatabook.eren.doe.gov

The criteria you have selected returns a small sample set (under 25). This may make the data unreliable. For more information on reliability, please visit <u>EIA's website.</u>

#### **Results**

Sample Size: 4

Represents (# of buildings): 4,264

Total Square Feet: 33,159,350

Fuels	Thousand Btu	Expenditures (\$)	Thousand Btu/ Square Foot	Expenditures/ Square Foot (\$)
Electricity	1,795,982,059	36,780,519	54.16	1.11
Natural Gas	37,234,565	465,767	1.12	0.01
Fuel Oil	0	0	0.00	0.00
All Major Fuels	1,833,216,624	37,246,286	55.29	1.12

End-Use	Thousand Total Btu	Thousand Btu/ Square Foot
Heating	457,832,980	13.81
Cooling	129,494,637	3.91
Ventilation	82,657,710	2.49
Water Heating	159,836,858	4.82
Lighting	492,807,589	14.86
Cooking	0	0.00
Refrigeration	158,711,065	4.79
Office Equipment	26,462,726	0.80
Computer Use	52,987,290	1.60
Miscellaneous	272,427,874	8.22

New Search

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Last Updated: March 2011

1 of 1 4/29/2011 10:41 AM

STATES CONSTRUCTION OF THE PROTECTION

http://oaspub.epa.gov/powpro/ept\_pack.charts Last updated on Friday, April 29, 2011

Clean Energy

You are here: <u>EPA Home</u> use? - Power Profiler

Climate Change Clean Energy

Energy and You

How clean is the electricity I

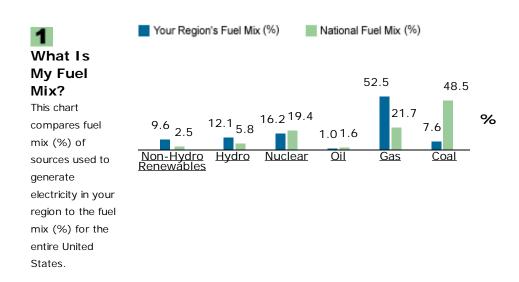
## How Does the Electricity I Use Compare to the National Average?

The table below contains two charts:

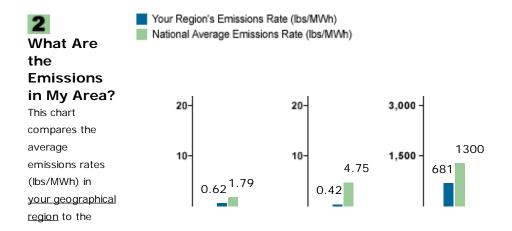
- The first chart compares the fuel mix used to generate electricity in <u>your region of the power grid</u> to the national fuel mix.
- The second chart compares the average air emissions rates in <u>your region</u> of the power grid to the national average emissions rates.

eGRID Subregion: WECC California (which includes the ZIP code: 93108)

#### **FUEL MIX COMPARISON**



#### **EMISSIONS RATE COMPARISON**



1 of 2 4/29/2011 10:47 AM

national average			
emissions rates			
(lbs/MWh) for			
nitgrogen oxide,	<u>Nitrogen</u> Oxide	<u>Sulfur</u> Dioxide	<u>Carbon</u> Dioxide
sulfur dioxide,	<u>Oxide</u>	<u> Dioxide</u>	DIOXIGE
and carbon			
dioxide.			

### **MAKE A DIFFERENCE**



Choose one of the buttons on the right to find out what you can do to make a difference. My Emissions

Find out about the **actual emissions** attributable to the electricity you use in your home or business.

Be More Energy Efficient Find out how you can make your home or business more **energy efficient**.

Buy Green Power

Learn how you can **buy green power** (power generated from renewable energy sources) for your home or business.

**Note:** The information reported above is derived from EPA's <u>eGRID database</u> for calendar year 2007.

2 of 2 4/29/2011 10:47 AM

		I			ngines (D g Risk Tool	1971				
Region:  Project #:  Date:  District  Met Site	Facili	4/2/2012 <b>Met Station</b>	nit #: [		Quad QUA Distance(m) Miles: Yards:		w sw		Quad 1 Quad 2	_
Model Type Year:	Model Type RURAL BD					Cancer Risk  Resident Risk: Maximum Res. Risk				
BHP: % Load PM10 EF (g/E Hours / Lbs / Y	BHP): Yr:	Engine Data	131 100 0.15 50 2.17	Convert to G/BHP Convert to G/KW	In a Million	Worker Risk:  1.65  Calculate Risk	r %	37.9 Maximum \ Quad: Distance	91 Worker 1	<b>4.35</b> Risk <b>1.65</b>
		Update Emissions				Print Form				

### **APPENDIX E**

OAK TREE ASSESSMENT



# OAK TREE ASSESSMENT for the MONTECITO FIRE PROTECTION DISTRICT at 2500 East Valley Rd. July 21, 2010

Prepared for: Chief Kevin Wallace Montecito Fire Protection District 595 San Ysidro Road Santa Barbara, California 93108

969-7762 / KWallace@MontecitoFire.com

Prepared by:
Bill Spiewak
Registered Consulting Arborist #381
American Society of Consulting Arborists

Board Certified Master Arborist #310B International Society of Arboriculture

3517 San Jose Lane, Santa Barbara, CA 93105 (805) 331-4075 / bill@santabarbaraarborist.com

### **SUMMARY**

The Montecito Fire Prevention District is proposing to build a new station at 2500 East Valley Road. I was provided with a conceptual plan in June 2010 and went to the site to inspect the trees.

There are 32 oak trees in good health along a drainage channel that will not be affected provided the minimum buffer zone is complied with and trees are protected.

There are 19 other oaks along East Valley Road that are within the parameters of the project. Two of the large trees appear stressed, and the others are in good condition. All trees along East Valley Road will need some pruning to reduce risks, and enhance health and structure.

I found that two proposed driveways are in the best locations that minimize impacts to oaks. This design will require the removal of six small oaks less than 6" in diameter and two mature oaks that are the smallest of all the larger trees.

All other oaks can be retained and protected by following tree protection measures that are included with this report, but need refinement when a final design is approved. Removed trees greater than 6" in diameter should be mitigated with replacement oaks at 10 to 1 if one gallon trees are planted along the channel, or 3 to 1 if fifteen gallon trees are planted in the landscape.

### **TABLE OF CONTENTS**

BACKGROUND	3
ASSIGNMENT	3
LIMITS OF MY ASSIGNMENT	3
USE OF THIS REPORT	3
PROJECT SCOPE	3
OBSERVATIONS / COMMENTS	4
Drainage Channel Oaks	4
East Valley Oaks	4
DISCUSSION	7
Tree Health	7
Tree Structure	8
The Project	8
CONCLUSIONS	9
TREE PROTECTION MEASURES	9
ARBORIST DISCLOSURE STATEMENT AND CERTIFICATION PERFORMANCE	N OF 11
SITE PLAN - see attached MFPD.pdf	12

### BACKGROUND

The Montecito Fire Protection District has purchased a parcel of property at 2500 East Valley Road with the objective of building a new fire station. There are 51 oaks on the site. I was retained to assess these trees and provide an opinion on their condition and the potential impacts from a construction project. I performed my field work on June 25 and July 19, 2010.

### ASSIGNMENT

I have been assigned to assess oak trees within the boundaries of the property and prepare a report with my findings and recommendations relative to their condition and potential impacts from construction on the site.

### LIMITS OF MY ASSIGNMENT

This report is based on a visual assessment. The nineteen tree locations along the road were plotted by linear measurement and are not precise. Trees in the drainage channel were assessed as a group and not individually, as were the other nineteen oak trees. The drainage channel tree locations were visually plotted.

### **USE OF THIS REPORT**

It is intended that this report offer recommendations to develop the property with the least amount of impact to the oak trees.

### PROJECT SCOPE

In order to fulfill my assignment, the following tasks were required:

- Identify the oak trees on the site and plot them on a site plan.
- Assess their condition. The trees along the drainage channel were assessed as a group.
- Sample soil and send to a laboratory for analysis. [Results not yet returned at the date of this report submittal].
- Draw critical root zones of the East Valley Road trees on the site plan.
- Evaluate the conceptual design relative to the critical root zones of the East Valley Road oaks.
- Assess the visual obstructions created by the trees, from potential driveway locations and comment.
- Discuss findings with owner and agent.
- Prepare report

### **OBSERVATIONS / COMMENTS**

Refer to the pdf of the site plan for the location of the trees. The site is a lemon orchard with two stands of oak trees. These include a line of 32 oaks along the drainage channel, up to the property line, and 19 oaks along East Valley Rd.

### **Drainage Channel Oaks**

- 1. The trees along the drainage channel vary in age and size, from approximately 4" diameter to more than 30" in diameter, and some with multiple stems. Some are as high as 35' tall.
- 2. The trees provide a dense screen along the west side of the property despite a few small gaps between some trees.
- 3. They all have full crowns and appear in good biological condition, although many have been infested with a common wasp that causes some leaf spotting, which is not of concern.
- 4. Deadwood is common, especially in the larger trees.
- 5. Mechanically, most of the trees are in good condition, yet several have typical structural defects described as co-dominant stems with included bark. This common defect can lead to branch splitting when trees get larger and denser. (See definition under the discussion heading *Tree Structure*).
- 6. Some pruning is warranted to enhance health and structure, as the property becomes developed. However, a biologist may need to be consulted to determine if pruning creates any negative impacts to habitat.

### East Valley Oaks

The table below identifies the 19 trees along East Valley Road. Refer to the June conceptual site plan to locate the trees by corresponding number.

- # corresponds with tree # on the site plan.
- **DBH** is diameter at breast height measured at 54" above ground. The diameter of multi-stemmed trees are separated with a "/". Some diameters are measured slightly higher or lower depending on limbs or bulges protruding on the trunk that may misrepresent size.
- CRZ is the critical root zone defined by 1' radius per 1" DBH. CRZs of multistemmed trees are determined by calculating the square root of the sum of the squares of each stem diameter.
- Condition considers health and structure.
- Comment identifies key observations.
- Potential Project Impact is based on the conceptual plan included with this report. TPM is tree protection measures.

#	DBH	CRZ	Cond ition	Comment	Potential Project Impacts
1	12"/ 9"	15'	Good	Small tree-the 9" trunk is enveloping the chain-link fence.	No potential project impacts with TPM.

#	DBH	CRZ	Cond ition	Comment	Potential Project Impacts
2	23"	23'	Good -fair	The upper portion of the crown appears to be thinning.	No potential project impacts with TPM.
3	22"	22'	Good	At the edge of the channel, the crown is very dense over the road.	No potential project impacts with TPM.
4	39"	39'	Good	One of the two largest and significant trees. Lots of large interior deadwood that poses risks.	No potential project impacts with TPM.
5	44"	44'	Good	The second of the two largest trees. Great form and health but note some oozing on the trunk.	Minor encroachment into east side of CRZ with western driveway. No significant project impacts with TPM.
6	19"	19'	Good	Youngest of the larger trees and has plenty of smaller deadwood. Note that the trunk is enveloping the fence from the base to 3'.	Remove for western driveway.
7	4"	4'	Good	Young tree. May be reasonable to transplant.	Remove for western driveway.  Not required to report due to <6" DBH.
8	5"	5'	Good	Young tree. May be reasonable to transplant.  Remove for western driv Not required to report of Company to the	
9	4"	4'	Good	Young tree. May be reasonable to transplant.	Remove for western driveway.  Not required to report due to <6" DBH.
10	5"	5'	Good	Young tree. May be reasonable to transplant.	Remove for western driveway.  Not required to report due to <6" DBH.

#	DBH	CRZ	Cond ition	Comment	Potential Project Impacts
11	7"	7'	Good	Young tree. May be reasonable to transplant.	Minor encroachment into west side of CRZ. Follow TPM. May need to be trimmed or removed to improve line of site to east from driveway.
12	3"	3'	Good	Young tree. May be reasonable to transplant.	No potential project impacts with TPM. Not required to report due to <6" DBH. May need to be trimmed or removed to improve line of site to east from driveway.
13	27"	27'	Fair- poor	Lots of tip dieback and some watersprouts. Most stressed tree with adjacent oak #14	No potential project impacts with TPM.
14	26"	26'	Fair- poor	Lots of tip dieback and some watersprouts. Most stressed tree with adjacent oak #13	No potential project impacts with TPM.
15	32"	32'	Fair	Tree grows diagonally to the north with low major limbs. Some tip dieback and watersprouts on the trunk. Also note the the major cavity on the south side of the trunk at 4'-5', maybe where another trunk had split many years ago.	Minor encroachment into north and east side of CRZ with eastern driveway. No significant project impacts with TPM. Tree will need to be lifted due to low limbs.
16	3"	3'	Good	Young tree. May be reasonable to transplant.	Remove for eastern driveway.  Not required to report due to <6" DBH.
17	5"	5'	Good	Young tree. May be reasonable to transplant.	Remove for eastern driveway.  Not required to report due to <6" DBH.

#	DBH	CRZ	Cond ition	Comment	Potential Project Impacts
18	12"	12'	Good	Short tree that bifurcates into two major limbs at 12" above ground. Low limbs will conflict. Nice short tree.	Remove for eastern driveway.
19	14"	14'	Poor	Outside the property line. Note the recent split limb at 10' and the old split trunk at 3'. Very poor structurally	No potential project impacts. Tree could be removed if driveway needs to be relocated to the east without any significant loss.

### DISCUSSION

### Tree Health

It was evident that there was variability in crown condition among the nineteen oaks. It is quite likely that these trees were all previously infested with California Oak Moth. At least three generations of this common pest have infested oaks throughout Santa Barbara last year and I have recently observed it returning on other properties. Although the caterpillar stage of the pest defoliates oak trees, most recover without harm. However, old trees may be damaged from defoliation due to their age and reduced resistance, especially if they are stressed.

In order to determine if there are chemical problems in the soil that could exacerbate declining health in trees #13 and #14, I collected one soil sample from the root zone of healthy oaks #4 & #5, and one sample from the root zone of stressed oaks #13 & #14. This would allow me to compare and assess soil conditions. A healthy tree is more likely to resist any minor impacts from root pruning or other construction related impacts, than an older stressed tree.

### Tree Structure

A common defect observed in many oaks is called co-dominant stems with included bark. Much of this can be mitigated with pruning and cabling.

### Co-dominant stems with included bark

Co-dominant stems are two or more trunks, leaders, limbs or branches that grow next to each other, a similar rates, and are similar in size. As these continue to grow each year, they also enlarge in diameter. Eventually, the gap between them closes and the bark becomes included or embedded. This results in a weak attachment between the stems and is a concern when the angles of attachment are acute or narrow rather than obtuse or wide. This structural occurrence is a common defect in trees and the cause for the majority of splitting that occurs as co-dominant stems with included bark get large and heavy. The concern can often be mitigated with removal of one of the co-dominant stems, pruning and sometimes cabling. Despite this being a common problem, not every co-dominant stem with included bark will fail. Targets below the tree, risk assessment and the tree's significance in the landscape, should be the basis for concern.

### The Project

The project calls for a main structure surround by two driveways to the east and west, additional storage and maintenance structures, and additional parking. The building envelope is adequately distanced from the drainage channel trees, but is close to the East Valley Road trees. The placement of the driveways will require the removal of some of the trees. In addition, other oaks may need to be pruned or removed to allow visibility from the driveway entries.

I have evaluated the trees to determine which oaks could be removed to allow for driveways with the least amount of impact to the oak resource. The conceptual plan shows the driveway position requiring removal of eight oak trees including trees #6 - #10 and #16 - #18. Six of these oaks are under 6" in diameter and do not normally require reporting, nor mitigating, according to Santa Barbara County guidelines. The other two are relatively young and small at 19" and 12", compared to the seven more mature and larger oaks.

### CONCLUSIONS

- 1. Removing the small trees, #7-#10 and #16-#17 (under 6"DBH), and the two larger trees, #6 and #18, appears to be the best option for this design concept.
- 2. The line of sight from the driveways may require some pruning.
- 3. Soil analysis may indicate soil problems beneath two large oaks that may be addressed to enhance tree health. Note that the lab had not yet produced results at the time of this report submittal.
- 4. Mitigate removal of two oaks greater than 6" in diameter by planting six-fifteen gallon oaks in the landscape, or 20-one gallon oaks in some of the gaps or along the edges of the drainage channel.
- 5. Small trees may be candidates for relocation and may be allowed as mitigation trees.
- 6. Trees to be retained should be protected by following tree protection measures below but will need some refinement when a final design is approved.
- 7. All trees along East Valley Road warrant some pruning to remove deadwood and enhance health and structure.

### TREE PROTECTION MEASURES

- 1. A pre-construction meeting should be held with contractors, prior to commencement of work, to discuss tree protection measures.
- 2. Install fencing, chain link, to establish tree protection zones (TPZs), at the outside edge of the critical root zones or work areas (if CRZs are encroached upon). Fences must be maintained in upright positions throughout the duration of the project. Tree protection fencing should also remain upright during landscape installation. Oaks in the drainage channel should be protected with fencing at the buffer zone and at the edge of the road where it bisects the row of trees.
- 3. The TPZs should be void of all activities, including parking vehicles, operation of equipment, storage of materials and dumping (including temporary spoils from excavation).
- 4. All excavation and grading near trees should be monitored by the project arborist.
- 5. Excavation within the CRZs (critical root zones) but outside of the TPZs, should be done by hand where reasonable. Any roots encountered that are ½" and greater should be cleanly cut.
- 6. Tree pruning, where limbs may conflict with equipment and proposed structures, should be done prior to excavation and grading.
- 7. Pruning should be performed or supervised by a qualified Certified Arborist. The project arborist should review the goals with workers prior to commencement of any tree pruning. Tree workers should be knowledgeable of *American National Standards Institute (ANSI) A-300 Pruning Standards* and *ISA Best Management Practices for Tree Pruning.*
- 8. Review results of soil analysis and treat if necessary, or perform additional diagnostic protocol on stressed trees and treat accordingly.
- 9. Trees that are impacted from root damage (even minimally) should be sprayed in the early spring and late summer with permethrin *(Astro)* to help resist attack of oak

- bark beetles. The application of the chemical should be applied to the lower 6' of trunk. I recommend that treatments be repeated for at least two years after completion of the project or if drought prevails for longer periods.
- 10. It may be determined by the project arborist that supplemental irrigation is necessary to aid trees that incur root loss and/or during hot and dry periods.
- 11. Mitigate removal of oaks by planting at a ratio of 10 to 1 with one gallon saplings along the drainage channel, or 3 to 1 with fifteen gallon oaks in the landscape.
- 12. The project arborist should monitor activities on the site throughout the duration of the project. This would be more frequent during fencing installation, excavation and grading, and less frequent as the project progresses, provided fences remain upright and TPZs are not violated.

## ARBORIST DISCLOSURE STATEMENT AND CERTIFICATION OF PERFORMANCE

Arborists are tree specialists who use their education, knowledge, training and experience to examine trees, recommend measures to enhance the beauty and health of trees, and attempt to reduce the risk of living near trees. Clients may choose to accept or disregard the recommendations of the arborist, or to seek additional advice.

Arborists cannot detect every condition that could possibly lead to structural failure of a tree. Trees are living organisms that fail in ways we do not fully understand. Conditions are often hidden within trees and below ground. Arborists cannot guarantee that a tree will be healthy or safe under all circumstances, or for a specified period of time. Likewise, remedial treatments, like any medicine, cannot be guaranteed.

Treatment, pruning and removal of trees may involve considerations beyond the scope of the arborist's services such as property boundaries, property ownership, site lines, disputes between neighbors, and other issues. Arborists cannot take such considerations into account unless complete and accurate information is disclosed to the arborist. An arborist should then be expected to reasonably rely upon the completeness and accuracy of the information provided.

Trees can be managed, but they cannot be controlled. To live near a tree is to accept some degree of risk. The only way to eliminate all risk associated with trees is to eliminate all trees.

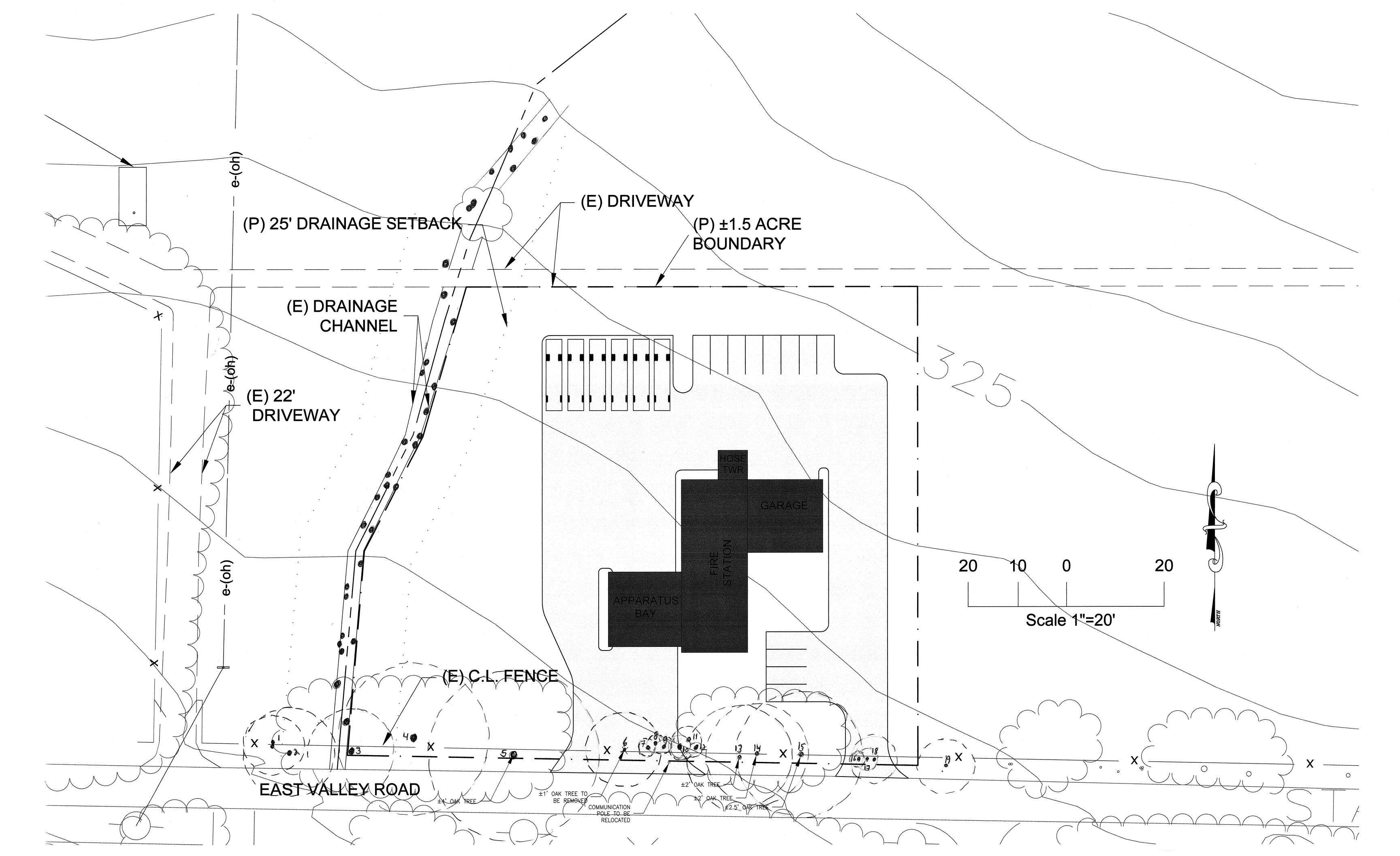
I Bill Spiewak, certify:

That I have personally inspected the trees on the property referred to in this report and have stated my findings accurately.

The analysis, opinions and conclusions stated herein are my own and are based on current scientific procedures and commonly accepted arboricultural practices.

Signed:	
Ū	Bill Spiewak
	Registered Consulting Arborist #381
	American Society of Consulting Arborists
	Board Certified Master Arborist #310B
	International Society of Arboriculture

## SITE PLAN - see attached MFPD.pdf



This is an oak tree inventory that corresponds with the numbers on the site plan. CRZ, critical root zone, represents the radius around each tree.

#	DBH	CRZ	Cond ition	Comment	Recommen dation
1	12"/ 9"	15'	Good	Small tree-the 9" trunk is enveloping the chain-link fence.	
2	23"	23'	Good -fair	The upper portion of the crown appears to be thinning.	
3	22"	22'	Good	At the edge of the channel, the crown is very dense over the road.	
4	39"	39'	Good	One of the two largest and significant trees. Lots of large interior deadwood that poses risks.	
5	44"	44'	Good	The second of the two largest trees. Great form and health but note some oozing on the trunk.	
6	19"	19'	Good	Youngest of the larger trees and has plenty of smaller deadwood. Note that the trunk is growing around the fence from the base to 3'.	
7	4"	4'	Good	Young tree. May be reasonable to transplant if conflict with construction.	
8	5"	5'	Good	Young tree. May be reasonable to transplant if conflict with construction.	
9	4"	4'	Good	Young tree. May be reasonable to transplant if conflict with construction.	
10	5"	5'	Good	Young tree. May be reasonable to transplant if conflict with construction.	
11	7"	7'	Good	Young tree. May be reasonable to transplant if conflict with construction.	
12	3"	3'	Good	Young tree. May be reasonable to transplant if conflict with construction.	
13	27"	27'	Fair- poor	Lots of tip dieback and some watersprouts. Most stressed tree with adjacent oak.	

#	DBH	CRZ	Cond ition	Comment	Recommen dation
14	26"	26'	Fair- poor	Lots of tip dieback and some watersprouts.  Most stressed tree with adjacent oak.	
15	32"	32'	Fair	Tree grows diagonally to the north with low major limbs. Some tip dieback and watersprouts on the trunk. Also not the the major cavity on the south side of the trunk at 4'-5', maybe where another trunk had split many years ago.	
16	3"	3'	Good	Young tree. May be reasonable to transplant if conflict with construction.	
17	5"	5'	Good	Young tree. May be reasonable to transplant if conflict with construction.	
18	12"	12'	Good	Short tree that bifurcates into two major limbs at 12" above ground. Low limbs will conflict.	
19	14"	14'	Poor	Outside the property line. Note the newer break at 10' and the old break at 3'. Not a great tree.	



Anaheim Office Lab No. 10-197-0011 July 28, 2010

Locations:

1101 S Winchester Blvd. G173 San Jose, CA 95128 (408) 727-0330

Bill Spiewak Consulting Arborist 3517 San Jose Lane Santa Barbara, CA 93105

Attn: Bill

**OAK TREES** 

4741 E. Hunter Ave #A Anaheim, CA 92807 (714) 282-8777

Attached are the data sheets corresponding to two soil samples collected from some oak trees. Samples were submitted to investigate the possibility that differences in tree vigor may be explained by soil chemistry.

### Soil Analysis Results

Nitrogen is slow in both samples, but this should not matter if the oaks in question are *Quercus agrifolia*, as these trees are well adapted to low soil fertility. Phosphorus and potassium are adequate in sample # 1, above full sufficiency in sample # 2. Calcium and magnesium are similarly supplied in both samples and are sufficient for plant nutritive purposes. Copper, zinc, manganese, and iron are high enough that supplementation will not be necessary for some time. Salinity is safely low in both samples and the pH values indicate moderately acid conditions. Boron is safely low in the two sample locations.

### **Comments and Recommendations**

It is unlikely that the difference in vigor is due to soil chemistry. Abiotic factors such as compaction, grade change, soil moisture extremes, or some kind of disease or insect problem may be contributing to the difference in vigor.

Please call if you have any questions.

Paul F. Santos, M.S. Plant Pathologist

Email: bill@santabarbaraarborist.com





## Soil & Plant Laboratory, Inc.

4741 E. Hunter Ave, Suite A. Anaheim, CA. 92807 714-282-8777 (phone) 714-282-8575 (fax) www.soilandplandaboratory.com

Send To:
Bill Spiewak Consulting Arborist
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Santa Barbara CA 93105

Project : Oak

 Date Printed :
 07/23/2010

 Date Received
 07/16/2010

 Page :
 1 of 2

 Lab Number :
 05242

10-197-0011

02358

Report No:

Cust No :

Sample Id: #1

### **SATURATION EXTRACT - PLANT SUITABILITY**

		Effect on Plant Growth						
Test	Result	Negligible	Sensitive Crops Restricted	Many Crops Restricted	Only Tolerant Crops Satisfactory	Few Crops Survive		
Salinity (ECe)	0.4 dS/m							
Sodium Adsorption Ratio (SAR) *	1.72							
Boron (B)	0.11 ppm							
Sodium (Na)	1.7 meq/L							
Chloride (CI)								
Carbonate (CO3)								
Bicarbonate (HCO3)								
Fluoride (F)								

<sup>\*</sup> Structure and water infiltration of mineral soils potentially adversely affected at SAR values higher than 6.

Test	Result	Strongly Acidic	Moderately Acidic	Slightly Acidic	Neutral	Slightly Alkaline	Moderately Alkaline	Strongly Alkaline	Qualitative Lime
рН	5.5 s.u.								None

#### **EXTRACTABLE NUTRIENTS**

Test	Result	Sufficiency		NO3-N				
rest	Result	Factor	Very Low	Low	Medium	Optimum	Very High	NO3-N
Available-N	13 ppm	0.4						5 ppm
Phosphorus (P) - Olsen	17 ppm	0.9						5 ppm
Potassium (K)	78 ppm	0.9						NH4-N
Potassium - sat. ext.	0.2 meq/L							8 ppm
Calcium (Ca)	1141 ppm	1.0						
Calcium - sat. ext.	1.0 meq/L							Total
Magnesium (Mg)	292 ppm	1.9						Exchangeable Cations(TEC)
Magnesium - sat. ext.	0.9 meq/L							Cations(TEO)
Copper (Cu)	1.2 ppm	1.4						85 meq/kg
Zinc (Zn)	3 ppm	0.8				<u> </u>		US med/kg
Manganese (Mn)	14 ppm	1.9						
Iron (Fe)	246 ppm	7.5			•	•	1	1
Boron (B) - sat. ext.	0.11 ppm	0.4		Ì				
Sulfate - sat. ext.	1.6 meq/L	0.5			•			
Exch Aluminum								

Cu, Zn, Mn and Fe were analyzed by DTPA extract.

### **PARTICLE SIZE ANALYSIS**

				Weight Percent of Sample Passing 2mm Screen					
Half Sat	Organic Matter	Gra Coarse 5-12	vel Fine 2-5	Very Coarse 1-2	Sand Coarse 0.5-1	Med. to Very Fine 0.05-0.5	Silt .00205	Clay 0002	USDA Soil Classification
15 %									





4741 E. Hunter Ave, Suite A. Anaheim, CA 92807 714-282-8777 (phone) 714-282-8575 (fax) www.scilandplantlaboratory.com

Send To: Bill Spiewak Consulting Arborist 3517 San Jose Ln. Santa Barbara CA 93105

Project: Oak

Report No: Cust No : 02358 Date Printed : 07/23/2010 07/16/2010 Date Received Page: 2 of 2

Lab Number:

05243

10-197-0011

#2 Sample Id:

### **SATURATION EXTRACT - PLANT SUITABILITY**

		Effect on Plant Growth								
Test	Result	Negligible	Sensitive Crops Restricted	Many Crops Restricted	Only Tolerant Crops Satisfactory	Few Crops Survive				
Salinity (ECe)	0.6 dS/m									
Sodium Adsorption Ratio (SAR) *	0.66									
Boron (B)	0.18 ppm									
Sodium (Na)	1.0 meq/L									
Chloride (CI)										
Carbonate (CO3)		]								
Bicarbonate (HCO3)		1								
Fluoride (F)		]								

<sup>\*</sup> Structure and water infiltration of mineral soils potentially adversely affected at SAR values higher than 6.

Test	Result	Strongly Acidic	Moderately Acidic	Slightly Acidic	Neutral	Slightly Alkaline	Moderately Alkaline	Strongly Alkaline	Qualitative Lime
рН	6.0 s.u.								None

#### **EXTRACTABLE NUTRIENTS**

Tool	Desult	Sufficiency		SOIL TEST RATINGS					
Test	Result	Factor	Very Low	Low	Medium	Optimum	Very High	NO3-N	
Available-N	11 ppm	0.4						8 ppm	
Phosphorus (P) - Olsen	28 ppm	1.6						8 ppm	
Potassium (K)	230 ppm	2.9						NH4-N	
Potassium - sat. ext.	0.5 meq/L							3 ppm	
Calcium (Ca)	970 ppm	1.0							
Calcium - sat. ext.	2.7 meq/L							Total	
Magnesium (Mg)	210 ppm	1.6						Exchangeable Cations(TEC)	
Magnesium - sat. ext.	1.6 meq/L							Oddions(120)	
Copper (Cu)	1.2 ppm	1.6	Ţ.					70 meq/kg	
Zinc (Zn)	4 ppm	1.2						/ o meg/kg	
Manganese (Mn)	11 ppm	1.7							
Iron (Fe)	157 ppm	5.4	·		•	•	•		
Boron (B) - sat. ext.	0.18 ppm	0.6			·				
Sulfate - sat. ext.	1.2 meq/L	0.4			T				
Exch Aluminum									

Cu, Zn, Mn and Fe were analyzed by DTPA extract.

### **PARTICLE SIZE ANALYSIS**

				We	Weight Percent of Sample Passing 2mm Screen				
Half Sat	Organic Matter	Gra Coarse 5-12	vel Fine 2-5	Very Coarse 1-2	Sand Coarse 0.5-1	Med. to Very Fine 0.05-0.5	Silt .00205	Clay 0002	USDA Soil Classification
14 %									



## PHASE 1 ARCHAEOLOGICAL INVESTIGATION

## MONTECITO FIRE PROTECTION DISTRICT FIRE STATION NO. 3 NEAR 2500 EAST VALLEY ROAD MONTECITO, CALIFORNIA

Prepared for:

Montecito Fire Protection District 595 San Ysidro Road Montecito, CA 93108

## **July 2010**

Prepared by:

David Stone, M.A., RPA Andrea Bardsley, M.A. RPA

## **DUDEK**

621 Chapala Street Santa Barbara, CA 93101 Tel. (805) 963-0651

## **TABLE OF CONTENTS**

Secti	<u>ion</u>		Page No.
1.0	INT	TRODUCTION	1
2.0	PR	OJECT DESCRIPTION AND EXISTING SETTING	3
3.0	3.1 3.2 3.4	CKGROUND RESEARCH Prehistoric Setting Historic Setting Previous Research	5 6
4.0	FIE	ELDWORK	7
5.0	CO	NCLUSIONS	12
6.0	REI	FERENCES	10
LIST	OF F	IGURES	
		Project VicinitySite Plan	
LIST	OF T	TABLES	
Figui	re 1	Recorded Archaeological Sites Within 0.5 Miles of the Project S	Site7
Centi	ral Co	pastal Information Center Records Search Letter, March 23, 201	0

### 1.0 INTRODUCTION

This report presents the results of an intensive Phase 1 archaeological investigation conducted by Dudek associated with a proposed Montecito Fire Protection District No. 3, near 2500 East Valley Road, Montecito, California (see Figure 1). The Phase 1 archaeological investigation was conducted in accordance with requirements of the *County of Santa Barbara Regulations Governing Archaeological and Historical Projects Undertaken in Conformance with the California Environmental Quality Act (CEQA) and Related Laws: Cultural Resource Guidelines* (revised January 1993), as adopted by the City of Goleta. The 2.9-acre proposed project parcel, an active lemon tree orchard, was systematically surveyed in 5-meter interval by two professional archaeologists, Ken Victorino, RPA (Dudek), and Andrea Bardsley, RPA (AMEC Earth and Environmental). No prehistoric or historic archaeological resources were identified. Due to the excellent ground visibility experienced during the survey, the results of this survey can be considered highly reliable. No further investigations or conditions are considered necessary.

Ms. Bardsley, in addition to participating in the intensive survey, was responsible for contributing substantial sections of this Phase 1 report, including the project description, previous research, and survey methods and results.

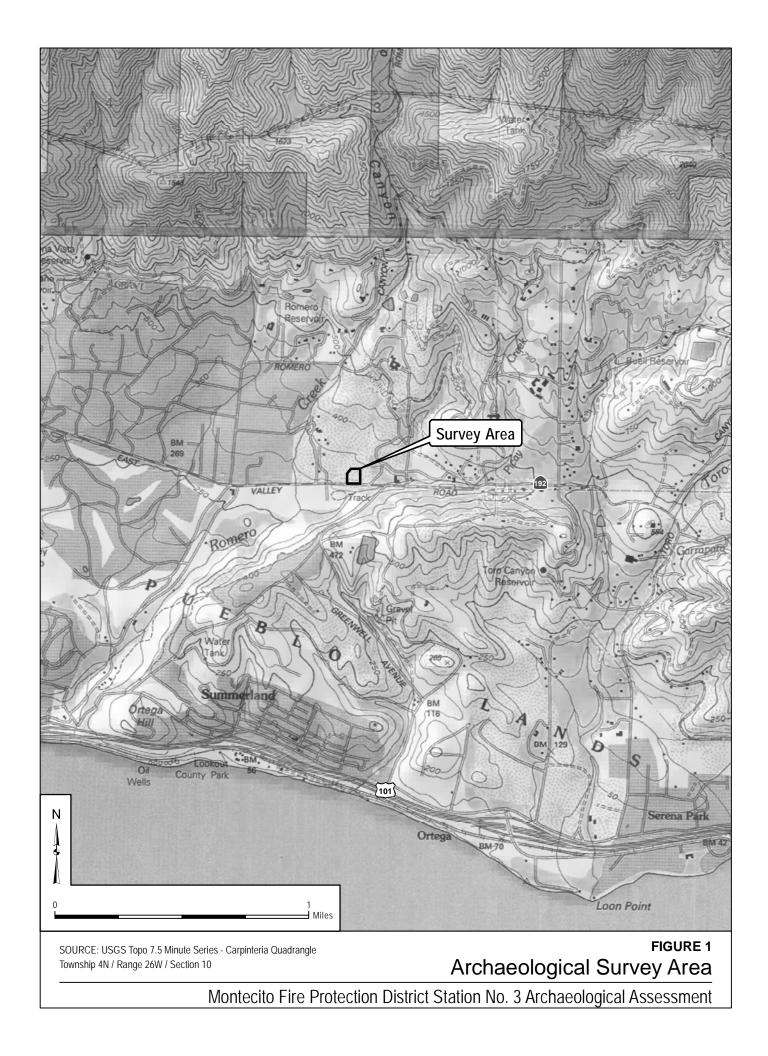
### 2.0 PROJECT DESCRIPTION

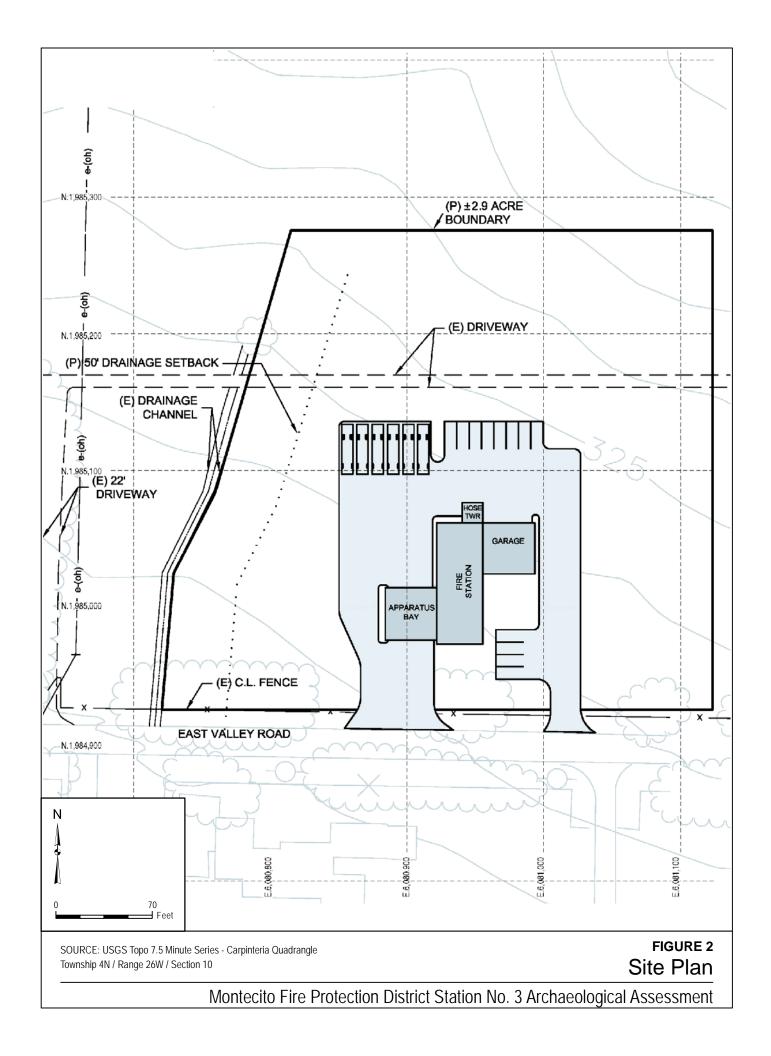
The proposed conceptual improvements to the existing approximately 2.9-acre project area resulting from construction of Fire Station No. 3 include the following (see Figure 2):

- Fire station including an apparatus bay, a garage, and a hose tower;
- Parking lot and driveway from East Valley Road; and
- Utility connections including sewer, gas, electricity, and cable.

Excavation associated with these improvements will extend at least 3 feet below the existing ground surface. Vegetation will be removed to create a buffer between the station facility and surrounding orchard trees.







### 3.0 BACKGROUND RESEARCH

### 3.1 Prehistoric Setting

The local prehistoric chronology is divided into four major periods – Paleoindian, Early Period, Middle Period, and Late Period. It is generally accepted that humans entered the New World during the latter part of the Wisconsin glaciation between 40,000 and 20,000 years before present (B.P.). The earliest unquestioned evidence of human occupation in southern Santa Barbara County is dated to between 10,000 to 8,000 B.P. (Erlandson and Colten 1991). Paleoindian groups during this time focused on hunting Pleistocene megafauna, including mammoth and bison. Plants and smaller animals were undoubtedly part of the Paleoindian diet as well, and when the availability of large game was reduced by climatic shifts near the end of the Pleistocene, the subsistence strategy changed to a greater reliance on these resources.

Post-Pleistocene changes in climate and environment are reflected in the local archaeological record by approximately 8,000 B.P., the beginning of the Early Period, as defined by Chester King (1981, 1979, 1974). The Early Period of the Santa Barbara Channel mainland was originally defined by Rogers (1929), who called it the "Oak Grove" Period. The diagnostic feature of this period is the mano and metate milling stones, which were used to grind hard seeds such as sage for consumption. Toward the end of the Early Period, sea mammal hunting appears to have supplemented subsistence strategies (Glassow et al. 1990).

The Middle Period (3,350 to 800 B.P.) is characterized by larger and more permanent settlements, related to a generally wetter environment. Materials from Middle Period sites reflect a greater reliance on marine resources and include marine shells, fish remains, and fishhooks. A major shift in vegetable food exploitation occurred, as the mano and metate milling stones were replaced by stone mortars and pestles. This indicates a transition from seed gathering to oak tree acorn gathering and processing, a result of cooler temperatures and more expansive oak woodland habitats. Toward the end of this period, the plank canoe was developed, making ocean fishing and trade with the Channel Islands safer and more

efficient (Arnold 1987). Terrestrial resources continued to be exploited as evidenced by the presence of contracting-stemmed and corner-notched projectile points from Middle Period sites (Bamforth 1984).

The Late Period (800 to 150 B.P. or approximately A.D. 1150 to 1800) was a time of increased social and economic complexity. The increased number of permanent and semi-permanent villages clustered along the Santa Barbara Channel and on the Channel Islands, and the diversity of environmental site settings in which sites have been identified, indicates a substantial increase in prehistoric population. Intensification of terrestrial as well as marine resources occurred. Acorns continued to be processed, and land mammals were hunted with the bow and arrow, rather than exclusively by spear. Trade networks, probably controlled by village chiefs, expanded and played an important part in local Chumash culture, reinforcing status differences and encouraging craft specialization. Shell beads, found throughout the Early and Middle Periods, increased in number and variety, related to status and social value.

The protohistoric culture of the Chumash was terminated by the arrival of a Spanish expedition led by Gaspar de Portola in 1769. Chumash culture changed dramatically with the establishment of the Missions of Santa Barbara, Santa Ynez, and La Purísima.

### 3.2 Historic Setting

The historic occupation of the project vicinity can be divided into three settlement periods: the Mission Period (A.D. 1769 – 1830), the Rancho Period (ca. A.D. 1830 -1865), and the American Period (ca. A.D. 1865 – 1915). Construction of Mission Santa Barbara in 1786, Mission la Purísima Concepcíon in 1787, and Mission Santa Ynez in 1804, altered both the physical and cultural landscape of the region. The missions were the center of Spanish influence in the region and affected native patterns of settlement, culture, trade, industry, and agriculture. Following the secularization of the Missions by the Mexican Government in 1821, California became part of the Republic of Mexico.

Secularization of lands and a focus on cattle raising marked the Rancho Period, where large land grants of Mission lands were ceded to wealthy, prominent Spanish families. Native



Americans continued to work as laborers on ranchos during this period. With California statehood in 1850 and the advent of the American Period, farming and more intensive land uses steadily replaced cattle stock raising. Cattle ranching was substantially curtailed by a prolonged drought in the 1860s.

Since statehood, major forces of regional change during the last 150 years have been railroads, maritime shipping, agribusiness concerns, the oil industry, and the college institutions.

### 3.3 Previous Research

An archaeological records search of the project site was conducted by Ms. Barsdley at the Central Coastal Information Center (CCIC), University of California, Santa Barbara on March 23, 2010 (see attached letter). The records search included a review of all cultural resource investigations and recorded prehistoric and historic archaeological sites located within the project site and a 0.5-mile radius.

The records search indicated that no cultural resource investigations have been completed within project area; twelve investigations have been completed within the ½-mile radius of the project site (see Section 6.0 References). The records search identified no recorded archaeological resources within the project area, but one prehistoric site and five historic sites are exist within a 0.5-mile radius (Table 2).

The six archaeological sites are summarized in Table 1, below. The prehistoric site, CA-SBA-15, appears to be a temporary habitation site located adjacent to a permanent fresh water source. The historic sites are all related to 20<sup>th</sup> century drainage infrastructure and public works improvements.



Table 1 Recorded Archaeological Sites Within 0.5 Miles of the Project Site

Trinomial	Primary No.	Component	Description
SBA-15	P-42-000015	Prehistoric	Groundstone and lithic scatter
SBA-3788	P-42-003788	Historic	Romero Creek Bridge
SBA-3789	P-42-003789	Historic	Unnamed drainage culvert
SBA-3790	P-42-003790	Historic	Picay Creek culvert
SBA-3791	P-42-003791	Historic	Unnamed drainage culvert
SBA-3792	P-42-003792	Historic	Unnamed drainage culvert

### 4.0 FIELDWORK

An intensive archaeological surface survey of the project area was conducted on June 25, 2010, by Ken Victorino, RPA, and Andrea Bardsley, RPA. All ground surfaces within the project area were intensively inspected in 5-meter (15-feet) parallel north-south transects, roughly following the rows of lemon trees within the property.

The project area is currently part of a well-tended lemon orchard located on gentle south-trending slopes. The soils on site are Ballard fine sandy loam, 2 to 9 percent (USDA 1981). An unnamed, shallow (no greater than 3-feet deep), open drainage defines the western project area border.

Vegetation within the project site, besides the lemon trees, included only periodic small patches of annual weeds and forbs. In order to enhance the reliability of the intensive survey results, the small patches of weeds identified throughout the project area were removed with a shovel. The banks and bottom of the shallow unnamed drainage were also closely inspected. The drainage was not conveying water at the time of the survey, such that ground visibility within the channel was excellent (100 percent). The resulting ground surface



visibility throughout the project area was excellent (between 90-100 percent).

Previous ground disturbances within the project area include an orchard irrigation system that extends approximately up to 1 foot below the surface. The current ranch manager related that mature lemon trees have been periodically mechanically ripped and removed in the past. These agricultural practices have resulted in disturbances throughout the project area to some degree.

No evidence of prehistoric or historic archaeological resources was identified as a result of the intensive archaeological survey. As ground surface visibility was excellent throughout the project area, the negative survey results for cultural resources are considered highly reliable. It is important to note that the systematic survey methods were much more intensive than the 15-meter (45-foot) transect intervals required by the Santa Barbara County Cultural Resource Guidelines.

### 5.0 CONCLUSIONS

Based on the excellent ground surface visibility and intensive survey strategy, and the absence of any prehistoric or significant historic archaeological deposits, the potential for the proposed project to encounter unknown but potentially significant subsurface prehistoric remains (intact and not subject to previous ground disturbance) is considered unlikely. As the project site is located on fairly level topography and is not within the influence of a major drainage or alluvial fan hillside, it is very unlikely that the existing project area surface soils are a function of alluvium associated with flooding runoff over the past several thousand years that would otherwise have the potential to bury unknown prehistoric site living surfaces. Therefore, project impacts on prehistoric and historic archaeological resources are considered to be less than significant.

In the highly unlikely event that potentially important cultural resources are identified during construction, artifacts and particularly features, if identified, could be capable of indicating when prehistoric use of the area occurred. Contemporary Chumash individuals generally

consider all prehistoric artifacts and food remains (e.g., shellfish, animal bone) to be important heritage resources. Any isolated human remains would be protected by Public Resource Code 5098.98 and are considered important heritage resources by the contemporary Native American community.

Therefore, the following measure is recommended:

 In the unlikely event that potentially significant cultural resources are encountered during grading, excavation should be immediately suspended and a County-qualified archaeologist and Native American observer retained to evaluate the importance of the find consistent with Santa Barbara County Cultural Resource Guidelines.

This recommended measure would ensure that the unlikely potential for impacts unknown cultural resources during proposed project construction activities would remain less than significant.



### 6.0 REFERENCES

- Arnold, J.E. 1987. Craft Specialization in the Prehistoric Channel Islands, California. *University of California Publications in Anthropology*, No. 18. Berkeley.
- Bamforth, D.B. 1984. Analysis of Chipped Stone Artifacts. In *Archaeological Investigations on the San Antonio Terrace, Vandenberg Air Force Base, California, in Connection with MX Facilities Construction*. Chambers Consultants and Planners. Submitted to U.S. Army Corps of Engineers, Los Angeles District.
- Erlandson, Jon M., and Roger Colten. 1991. Hunter-Gatherers of Early Holocene Coastal California. *Perspectives in California Archaeology, Volume I.* Edited by Jon M. Erlandson and Roger Colten. Institute of Archaeology, University of California, Los Angeles.
- Glassow, M.A., with contributions by Jeanne E. Arnold, G.A. Batchelder, D.T. Fitzgerald, B. Glenn, D.A. Guthrie, D.L. Johnson, and P.L. Walker. 1990. *Archaeological Investigations on Vandenberg Air Force Base in Connection with the Development of Space Transportation System Facilities, Volume 1*.
- King, Chester. 1981. The Evolution of Chumash Society: A Comparative Study of Artifacts Used in Social System Maintenance in the Santa Barbara Channel Region before A.D. 1804.Ph.D. dissertation, Department of Anthropology, University of California, Davis.
- \_\_\_\_\_\_. 1979. Beads and Selected Ornaments. In *Final Report: Archaeological Studies at Oro Grande, Mojave Desert, California*. Edited by C. Rector, J. Swenson, and P. Wilke. Archaeological Research Unit, University of California, Riverside.
- \_\_\_\_\_\_. 1974. The Explanation of Differences and Similarities Among Beads Used in Prehistoric and Early Historic California. In *Antap, California Indian Political and Economic Organization*. Edited by L.J. Bean and T.F. King. *Ballena Press Anthropological Papers* 2: 75-92.
- Rogers, David Banks. 1929. *Prehistoric Man of the Santa Barbara Coast*. Santa Barbara Museum of Natural History.
- United States Department of Agriculture (USDA). 1981. Soil Survey of Santa Barbara County, California (South Coastal Part).



#### CCIC Records Search Investigations Within 0.5 Mile of the Project Area

- Berry, S. 1987. Phase I Archaeological Assessment, APN 5-090-02, -18, -19, -20, -21. Report on file at Central Coastal Information Center (CCIC), University of California Santa Barbara.
- Coombs, G. 1979 An Archaeological Field Reconnaissance of a Parcel of Land North of Summerland, California. Report on file at CCIC, University of California Santa Barbara.
- Kiaha, Krista 2006 Historic Property Survey Report Mission Canyon CURE Project Santa Barbara County, California. Report on file at CCIC, University of California Santa Barbara.
- McKenna, J. 1993 Cultural Resources Investigations of the Cross Creek Ranch Project Area, Santa Barbara County, California, Phase I: Literature Search and Preliminary Assessment. Report on file at CCIC, University of California Santa Barbara.
- Montecito Fire Protection District (MFPD). 2008. *Final Station 3 Site Identification Study, Montecito, CA*. Prepared by AMEC, Earth and Environmental, Inc. August 2008.
- Romani, John F. and Timothy Hazeltine 2001 Results of Phase 1 Cultural Resource Investigation: 355 Ortega Ridge Road, Summerland, Santa Barbara County, CA [APN 005-020-024] (Los Grading Project, Case No. 00-LUS-380 SM). Report on file at CCIC, University of California Santa Barbara.
- Science Applications International Corp. 1996. Phase I Cultural Resources Investigation 244 Camino Del Rosario APN 155-05-049. Report on file at CCIC, University of California Santa Barbara.
- Stone, D. 1983a. Phase I Archaeological Assessment, APN 5-020-20, 30, 48. Report on file at CCIC, University of California Santa Barbara.
- Stone, D. 1983b. Phase I Archaeological Assessment, TPM 13,529, APN 07-480-19. Report on file at CCIC, University of California Santa Barbara.
- Waldron, W. 1983 Negative Archaeological Report State Highway 192. Report on file at CCIC, University of California Santa Barbara.
- Wilcoxon, L. 1989 A Phase 1 Archaeological Resource Evaluation for the Proposed Vista Del Costa Subdivision near Summerland, California. Report on file at CCIC, University of



California Santa Barbara.

- Wilcoxon, L. 1982 A Phase I Cultural Resource Assessment for the Subdivision of East Valley Ranch Tract 13,350 Montecito, California. Report on file at CCIC, University of California Santa Barbara.
- Wilcoxon, L. 1990 A Phase 1 archaeological resource evaluation for the proposed irrigation reservoir expansion project at the Valley Club of Montecito, SB Co, CA. Report on file at CCIC, University of California Santa Barbara.



## CENTRAL COAST INFORMATION CENTER

California Archaeological Inventory



SAN LUIS OBISPO AND SANTA BARBARA COUNTIES Department of Anthropology University of California, Santa Barbara Santa Barbara, CA 93106-3210 (805) 893-2474 FAX (805) 893-8708

March 23, 2010

To Whom It May Concern:

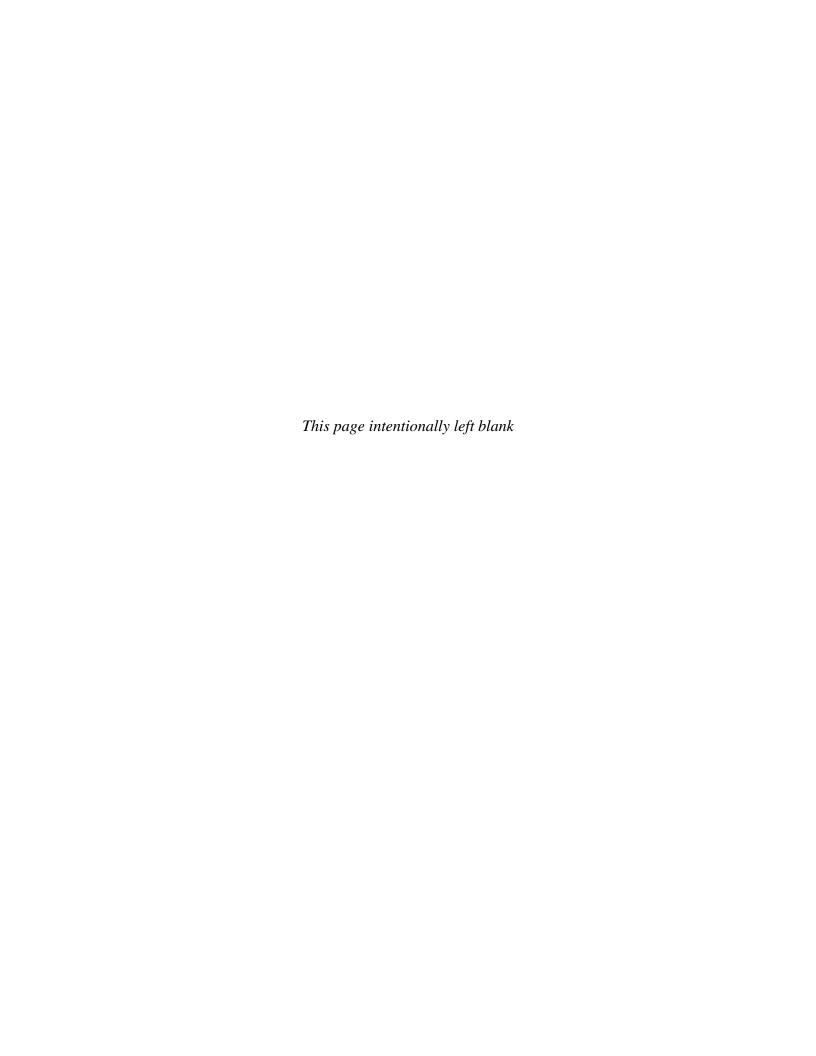
On the above date, Andrea Bardsley performed a record search on behalf of AMEC for the Montecito Fire Department Project in Santa Barbara County.

If you have any questions about this project, please contact me.

Sincerely,

Kristina Gill

**Assistant Coordinator** 



### APPENDIX G

# GEOLOGIC HAZARDS AND PRELIMINARY GEOTECHNICAL EVALUATION

# CAMPBELL.GEO, INC.

ENGINEERING GEOLOGY · HYDROLOGY · GEOENVIRONMENTAL SERVICES

# Geologic Hazards and Preliminary Geotechnical Evaluation of the Proposed Montecito Fire Protection District Station 3

2500 East Valley Road Montecito, California

March 7, 2011

Submitted to

Montecito Fire Protection District 595 San Ysidro Road Santa Barbara, CA 93108

Attn: Chief Kevin Wallace

#### Prepared by

C A M P B E L L·G E O, I N C. 327-A EAST HALEY STREET SANTA BARBARA CALIFORNIA 93101-1712 TELEPHONE: (805) 965-5003 FACSIMILE: (805) 963-5371

## AMPBELL·GEO, INC.

ENGINEERING GEOLOGY · HYDROLOGY · GEOENVIRONMENTAL SERVICES

March 7, 2011

Montecito Fire Protection District 595 San Ysidro Road Santa Barbara, CA 93108

Attn: Chief Kevin Wallace

Subject:

Geologic Hazards and Preliminary Geotechnical Evaluation

Proposed MFPD Station 3

East Valley Road (APN 155-070-008)

Montecito, California

Dear Chief Wallace:

INTRODUCTION

Pursuant to our proposal dated October 11, 2010, Campbell Geo, Inc. is pleased to present this geologic hazards and preliminary geotechnical evaluation of the proposed site of a new MFPD station on a portion of the property located at 2500 East Valley Road, near Ortega Ridge Road in Montecito, Santa Barbara County, California. Please see Plate 1 - Regional Geology and Project Location Map.

The proposed development is depicted on the conceptual Site Layout (RRM Design Group), dated August 10, 2010, that has been provided to us. We understand that proposed development includes a fire station building, support building, and reserve apparatus carports, along with associated landscape, driveway, and parking area, although no detailed development plans were available for our review. We anticipate that construction will be at approximately existing site grades and that the buildings will be relatively light, one- to two-story wood-frame structures with Portland cement concrete parking and driveway areas.

Under definitions in the most current California Building Code (CBC, 2010), the project is considered to be an essential services facility, with the same occupancy category as hospitals, law enforcement facilities, airport control towers, etc. (CBC Table 1604A.5). Engineering geologic reports are required by CBC Section 1803A.6. Specific hazards, including seismic/fault-related hazards, are required to be evaluated. Our work was conducted in general

conformance with state guidelines (CDMG<sup>1</sup> Note 42 and California Geologic Survey SP 117, and Notes 48 and 49) and the 2010 California Building Code. A preliminary geotechnical evaluation was also conducted to provide preliminary recommendations for foundation design and site grading.

In accordance with the 1972 State of California Alquist-Priolo Act, "no structure for human occupancy ... shall be permitted to be placed across the trace of an active fault" (California Code of Regulations). The site was identified to be potentially affected by an inferred branch of the Arroyo Parida Fault, mapped by the US Geological Survey on the most recently released regional geologic map (Minor, et al., 2009).

Our work consisted of the tasks outlined in our proposal, which was authorized in October, 2010.

Those tasks are summarized as follows:

- Review of aerial photographs
- Review of digital elevation images (DEM)
- Review of relevant geologic data from previous work by this office and others
- Exploratory boring program for collection of geotechnical data, fault data, bulk soil samples, and undisturbed soil samples
- Exploratory trenching
- Laboratory testing of soil samples
- Preparation of a geologic map and cross-section
- Geologic hazard analysis of the building site
- Preparation of a summary report, including preliminary grading and foundation recommendations

#### PREVIOUS WORK

Regional investigations (the County's 1979 Seismic Safety Element), and regional Geologic Maps (Dibblee, 1986 and Minor et al., 2009) were reviewed during the course of this

<sup>&</sup>lt;sup>1</sup> California Division of Mines and Geology, now known as the California Geologic Survey (CGS).

Geologic Hazards/Preliminary Geotechnical Evaluation of Proposed MFPD Station 3

2500 East Valley Road, Montecito

March 7, 2011

Page 3

evaluation. To further evaluate the location of inferred faults in the vicinity of the project, we

reviewed additional geologic maps (Upson, 1951; Gurrola, 2006; and Jennings, 2010).

SITE CONDITIONS

Existing Land Use/Vegetation

The site is located on what is currently a lemon grove. A few oak trees are located at

the western and southern boundaries of the proposed fire station site. The latitude/longitude of

the project site is 34.4369°N/119.5944°W, as measured from the US Geological Survey Map

Locator database.

Topography/Drainage

The proposed building footprint is on flat to gently sloping ground. Based on the

County of Santa Barbara Flood Control Department topographic map (Sheet 19, July 1990), the

site elevation varies from approximately 330 feet to 305 feet above sea level. The surface grade

slopes to the southwest at approximately 7 percent. Runoff of surface water at the site is to the

south and west, by sheet flow to East Valley Road. A drainage ditch that is less than 5 feet

deep is located on the western boundary of the proposed site.

Groundwater

In the exploratory trenches excavated by Campbell Geo in January and February 2011,

no groundwater was detected. In the borehole B-2, excavated in November 2010, groundwater

was noted at a depth of 53 feet, roughly equivalent to elevation 260 feet, based on the

topographic map elevation at B-2. Groundwater was either at a lower elevation or not found in

other borings.

Variations in groundwater elevations should be anticipated during years with high

rainfall and during/after storm events, but groundwater is not expected to affect the proposed

structure improvements adversely.

CAMPBELL-GEO, INC.

#### **INVESTIGATION**

#### Analysis of Aerial Photographs

We analyzed stereo pair aerial photographs from flights by Pacific Western Aerial Surveys (CPW-SB1-95/-96 from 1972/73 and PWSB 14-30/-52 from 2003). We also evaluated a Digital Elevation Model (DEM) image of the area, prepared from elevation data<sup>2</sup> enhanced with varying artificial sun angles. The intent of our aerial photo and DEM evaluation was to determine (to the extent possible) whether geomorphic features were visible on or near the building site that were suggestive of faults or landslides.

The aerial photographs and DEM indicate the presence of offsite east-west and southwest-trending geomorphic features associated with the Arroyo Parida and Fernald Point Faults, respectively. The features are not distinct lineations and are not evident in the aerial photographs or DEM on the proposed site. No other relevant geomorphic features were interpreted to exist from our examination of the DEM images and the listed aerial photos. No landslides at the project site are evident in the photos.

#### Subsurface Exploration

To gather samples for geotechnical analysis and to investigate the presence of a fault-related surface rupture hazard, a subsurface investigation was performed by Campbell Geo, Inc. in November 2010 and January/February 2011 for the currently proposed project location. Six exploratory soil borings were drilled utilizing hollow-stem auger and rotary wash drill rigs to depths ranging from 20 to 370 feet. The boring logs are presented in Appendix A. We also excavated two exploratory trenches. A total of over 380 linear feet of trench was excavated to a depth of roughly 9 feet. The approximate location of the borings and Trenches 1 and 2 are shown on Plate 2. The geologic cross-section (Plate 3) attached to this report has been prepared using the plan and elevations provided on the county flood control topographic map. The trench logs are presented on Plate 4. The trench locations have been surveyed and plotted on a

<sup>&</sup>lt;sup>2</sup> From the NOAA 2002/2003 Dataset.

site map prepared by a surveyor (MNS Engineers) under contract with MFPD. A copy of MNS's map is included in Appendix A of this report.

The purpose of the deep borings was to evaluate the presence of bedrock offsets indicative of historic fault movement. The Arroyo Parida and Fernald Point Faults are structures exhibiting bedrock that has been offset upward on the south and southeast of the faults, respectively. Despite drilling as deep as 370 feet (approximately to elevation -75 feet below sea level) into Quaternary-age deposits, no Tertiary-age bedrock was encountered. Based on bedrock outcrops east of the site, the Tertiary-age Sespe formation is believed to underlie the site below the Quaternary deposits. The Sespe is a distinctive, red/brown siltstone, sandstone, or conglomerate. Fault movements that are known to have occurred within the last two million years (the Quaternary period) would be expected to be exhibited by vertical offsets in the older rocks dating to the Tertiary period (*i.e.*, the Sespe formation). Sespe formation outcrops are found less than 500 feet southeast of the site on the upthrown (south side) of the Arroyo Parida/Fernald Point Faults. The absence of shallow bedrock found in any boring at the proposed building site suggests that the fault structures are located offsite. Due to the lithologic similarity between the Quaternary units (intermediate alluvium and the Casitas formation, described below), any offsets in the contact between those two units were not apparent.

The purpose of the exploratory trenches was to evaluate geologic features indicative of fault offsets, gouge, or shear zones. The trench features included cobbles and boulders supported by a matrix of unconsolidated silty sand, sandy silt, and some clay collectively identified as intermediate/older alluvium (Qia). That unit was found not to be well stratified throughout the trench. The USGS (Minor et al., 2009) interprets the Qia unit to have been deposited in the Upper and Middle Pleistocene epoch, which means it is probably less than one million years old. No offset in strata and no fracturing, gouging, or other features indicative of recent near-surface fault rupture were found in the trenches. The exploratory trenches were loosely backfilled (not compacted) with native material.

Water wells as deep as 600 feet exist to the southwest within 1,200 feet of the site (Hoover, 1979). These wells are in Storage Unit 1 of the Montecito Groundwater Basin, and

Geologic Hazards/Preliminary Geotechnical Evaluation of Proposed MFPD Station 3

2500 East Valley Road, Montecito

March 7, 2011

Page 6

are interpreted to exist north of the previously mapped trace of the Arroyo Parida Fault.

Drilling for groundwater exploration further to the south and southwest encountered shallow

bedrock south or southeast of the mapped location of the Arroyo Parida and Fernald Point

Faults. Based on Campbell Geo's communications with the US Geological Survey (Dr. Scott

Minor)3, the 2009 mapping of the concealed/queried faults in the project area is based on the

absence of evidence on the ground that the Fernald Point Fault continues to the northeast of its

intersection with the Arroyo Parida Fault. Dr. Minor concludes that the Fernald Point Fault

must either terminate at the Arroyo Parida Fault (with the latter continuing farther west along a

westerly strike, as shown on the 2009 map), or the Arroyo Parida must curve to the southwest

and become the Fernald Point Fault, as shown by other previous investigators (Hoover,

Dibblee, and Gurrola). Based on our site investigation, the Arroyo Parida Fault appears to

curve to the southwest.

**Laboratory Testing** 

Laboratory testing was performed on representative bulk and relatively undisturbed

Maximum Dry Density/Optimum Moisture Content (ASTM:

samples obtained from the borings. The following tests were performed:

D 1557)

Moisture/Density Tests (ASTM: D2216)

• Direct Shear (ASTM: D3080)

• Consolidation (ASTM: D2433)

• Atterberg Limits (ASTM: D4318)

Sieve Analysis (ASTM: D422)

• Corrosivity Testing (Cal. Tests 417, 422, and 643; EPA 9045C)

• R-Value (Cal. Test 307-F)

Results of the laboratory tests are included in Appendix B.

<sup>3</sup> October, 2010.

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#### **GEOLOGY**

#### Regional Setting

The south coast of Santa Barbara County is located on the southern flank of the Santa Ynez Mountains, which make up a portion of the Transverse Range Province of California. The regional geologic structure consists of mostly south dipping sedimentary rocks uplifted from the north by tectonic movement along several generally east to west trending fault and fold structures, and by ongoing regional tectonic compression of the Santa Barbara Channel area. The uplifted Tertiary and early Quaternary age rocks underlying the project area are moderately deformed by folding and faulting. The MFPD project site is located on an alluvial fan formed by the erosion and deposition of detritus from Romero Canyon and the south face of the Santa Ynez Mountains, located approximately one-half mile north of the site.

Tectonic activity is ongoing, as evidenced by earthquakes in the geologically recent past (1812, 1925, 1941, and 1978) that resulted in moderate to severe damage in the Santa Barbara area. A fault location map for the project site and vicinity prepared from a portion of the 2009 map by Minor *et al.* is presented as Plate 1.

#### Site Geology: Lithology

The geologic formations encountered in boreholes or exposed on the site are, from oldest to youngest, the Casitas formation (Qca), older, intermediate alluvial or fanglomerate deposits (Qia), and Artificial Fill (Qaf), as shown on Plate 2 - Geologic Map, Plate 3 - Geologic Cross-Section, and Plate 4 – Exploratory Trench Log.

#### Casitas Formation (Qca)

This moderately consolidated deposit of sand, clay, cobbles and boulders does not crop out in the project area, but was encountered at a depth of roughly 100 feet in the two deep borings. The Casitas is dated to the upper and middle Pleistocene epoch (Minor *et al.*, 2009).

Geologic Hazards/Preliminary Geotechnical Evaluation of Proposed MFPD Station 3

2500 East Valley Road, Montecito

March 7, 2011

Page 8

Fanglomerate/Intermediate Alluvial Deposits (Qia)

Overlying the Casitas formation, unconsolidated sand, silt, gravel, cobble and boulder

deposits are identified as the fanglomerate or intermediate alluvium. This unit is lithologically

very similar to the underlying Casitas formation. Minor (2009) and Gurrola (2006) indicate an

upper Pleistocene age for the intermediate alluvium, which in the Montecito area is an alluvial

fan deposit exhibiting stream and debris flow deposits with materials transported from the south

face and canyons of the adjacent Santa Ynez mountain range.

Artificial fill (Qaf)

Recent artificial fill is also present at this site, found as thin deposits in utility trenches.

Additional fill areas may be present. Recommendations for artificial fill are included in the

Conclusions/Recommendations section of this report.

Site Geologic Structure

The Quaternary units are unconsolidated sedimentary materials that exhibit no bedding

planes in outcrops at the project site. The trench exposures exhibit some stratification. The

deep contact between the intermediate alluvium and underlying Casitas formation is probably

not flat, and more likely interstratification between the units is present given the similar

depositional environments. Please see the Geologic Cross-Section (Plate 3) presented in this

report.

POTENTIAL GEOLOGIC HAZARDS

**Faults** 

A geologic fault is a fracture(s) in the crust of the earth along which rocks on one side

have moved relative to rocks on the other side. In an earthquake, rupture surfaces almost

always follow pre-existing faults or fault zones. Inactive geologic faults are structures with no

evidence of movement within the last 1.6 million years. Potentially active geologic faults are

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those that have exhibited movement during the last 1.6 million years. The State of California (Alquist-Priolo Earthquake Fault Zoning Act, 1972) defines active faults as those where rupture within the last 11,000 years (the Holocene epoch) can be demonstrated. The 1972 A-P Act prohibits development over faults that are active and are "well-defined," *i.e.*, that can be traced at or just below ground surface.

In the immediate area currently proposed for development, no confirmed active faults have been mapped by the State of California (Jennings, 2010) or other previous investigations we have reviewed. Investigations that we have reviewed indicate nearby mapped active and potentially active faults.

A summary of active faults within 50 miles of the site is presented on Table I attached to this report. The summary has been derived from EQFAULT (Blake, 2005), using the Crouse and McGuire attenuation factor and the fault parameter database used by the USGS and the California Geological Survey (CGS) (Cao, et al., 2003). (Other attenuation factors in EQFAULT do not give true geometric distances to estimated fault plane surfaces.) The nearest fault in the USGS/CGS database used for seismic motion analysis in this report is the Mission Ridge/Arroyo Parida/More Ranch Fault (MR/AP Fault), which is less than 1 mile from the site, based on the EQFAULT analysis. This fault is considered to be active by most geologists (rupture within the last 11,000 years). The site is also located near the southwest trending Fernald Point Fault that splays off the Arroyo Parida.

The nearest active fault mapped in accordance with Alquist-Priolo Earthquake Fault Zoning Act is the Red Mountain Fault in the Pitas Point Quadrangle in Ventura County. The Red Mountain Fault is a high angle (56°), north-dipping reverse fault. The fault surface expression shown on the State of California Special Studies Zone Map (1991) is located more than 10 miles east of the project site, but the map does not show the trace of the fault offshore where the fault trends to the west towards the Santa Barbara area. Using the computer model EQFAULT (Version 3.00, Blake 2005), and the Crouse and McGuire (1994) attenuation factor, the closest subsurface portion of the Red Mountain Fault is estimated to be 4.2 miles (6.7 kilometers) from the project site. The fault length reported by the California Geological Survey

Geologic Hazards/Preliminary Geotechnical Evaluation of Proposed MFPD Station 3

2500 East Valley Road, Montecito

March 7, 2011

Page 10

(CGS, 2002) is 24 miles (39 kilometers). An earthquake magnitude of 7.0 (Mw) is possible on

the Red Mountain Fault, according to the CGS, and is considered to be the source of the

magnitude 5.9 earthquake in 1941 (Moore and Taber, 1979). The CGS reports the fault slip

rate to be approximately 2 mm/year. The third major local structure used for the seismic

analysis is the Santa Ynez Fault. It is located to the north, 3.7 miles (6.0 kilometers) from the

site, is capable of generating a magnitude 7.1 (Mw) earthquake, and has an estimated slip rate

as high as 2 mm/year (Cao, 2003, CGS, 2007, and USGS, 2008).

The Santa Ynez, the Red Mountain, and the MR/AP Faults have been used in our

deterministic seismic hazard analysis in the Conclusions/Recommendations section of this

report.

Other investigators (Namson and Davis, 1990) have stated the opinion that the region is

underlain by a large "blind thrust" fault and fold structure. Although this blind thrust fault does

not break the ground surface, it may have larger seismic shaking potential than the faults

considered to exist by the California Geologic Survey, according to studies by these

investigators.

Surface Rupture

To evaluate the potential for surface rupture from inferred or unmapped fault traces

through or near the proposed building footprint, we conducted our subsurface investigation to

identify lithologic units that indicated past rupture or offset, as described above. Known fault

and fold structures in this general area trend from the east to the west, as shown on Plate 1,

roughly perpendicular to the line of trenches. As shown on the trench log (Plate 4), no evidence

of near surface fault-related rupture was observed in the sedimentary unit (Qia) that is estimated

to be more than 11,000 years old.

**Ground Shaking** 

Severe ground shaking during earthquakes is a hazard endemic to most of California.

Several earthquakes of Richter magnitude 6 (or larger) have been recorded in the area in recent

CAMPBELL-GEO, INC.

Geologic Hazards/Preliminary Geotechnical Evaluation of Proposed MFPD Station 3

2500 East Valley Road, Montecito

March 7, 2011

Page 11

historic times. Earthquakes that produced strong, significant ground shaking affecting this site

in recent history include the earthquake of 1812, the 1857 Fort Tejon earthquake, the "Santa

Barbara Earthquake" of 1925, the 1927 Point Arguello earthquake, the 1941 earthquake, and

the magnitude 5.1 event in 1978,4 which is also referred to as the "Santa Barbara Earthquake"

(Miller and Felzeghy, 1978). Many historic Santa Barbara earthquakes have been due to known

or suspected rupture of offshore faults.

Based on the updated historical USGS earthquake catalog used in EQSEARCH (Blake,

2005), the highest ground motion at the project site in the last 209 years was 0.275g. That

estimated historical seismic effect was from the earthquake in 1941, which was an event

believed to have occurred offshore of Carpinteria and is roughly estimated to have been an Mw

5.9 earthquake.

The largest historical earthquake magnitude listed on the database for a 100 kilometer

search radius was the M 7.9 event in 1857, known as the Fort Tejon Earthquake, from a rupture

of the San Andreas Fault, on a section that extended from present-day Monterey County to San

Bernardino County.

An estimation of future seismic shaking at the site has been developed for this project

using the USGS Ground Motion Parameter Calculator (v.5.0.9a), the National Seismic Hazards

Mapping Project 2002 Interactive Deaggregation Model, and the EZFRISK Seismic Hazard

Analysis model. The results are presented below and in the Conclusions section of this report.

**Erosion** 

No areas of active erosion were noted during our site mapping and exploration work.

Slope Stability

The project site is relatively flat and is not subject to surficial or gross instability. The

USGS (Bezore and Wills, 1999) has identified this area to have a "low landslide potential." No

<sup>4</sup> Miller and Felzeghy report an average earthquake magnitude of 5.8 for this event, based on local seismograph

data.

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Geologic Hazards/Preliminary Geotechnical Evaluation of Proposed MFPD Station 3

2500 East Valley Road, Montecito

March 7, 2011

Page 12

other geologic investigations we reviewed (listed under Previous Work, above) indicated a

landslide at or near the project site.

Seiches, Volcanism, Tsunamis

None of these geologic hazards affect the site.

**Flooding** 

The Flood Insurance Rate Map (FIRM) published by the Federal Emergency

Management Administration shows the site to be in "zone x," with less than a 0.2% annual

chance of flooding (map number 06083C1411F, effective September 30, 2005 and posted on

the FEMA website, February, 2010). The project civil engineer should evaluate the overall site

flooding hazard and necessary mitigation.

Radon Gas

Radon is an odorless and colorless radioactive gas produced by the natural decay of

minerals found in many types of earth materials. Potentially unhealthful concentrations of

radon gas are found at some locations on the south coast, due to the mineralogy of some

specific geologic unit(s), especially the Rincon formation.

The Rincon formation is not exposed at or near ground surface at this site. The

California State Geological Survey's Radon Zone Map for Santa Barbara County (CDMG,

1995) indicates a low potential for excessive in-door radon levels in the general vicinity of the

project site. No onsite measurements of radon have been made by this office.

Liquefaction

Liquefaction is a phenomenon in which earthquake induced cyclic stresses generate

excess pore water pressure in cohesionless soils, causing a temporary loss of shear strength.

The primary factors that influence liquefaction potential are as follows:

a. in-place soil density

CAMPBELL.GEO, INC.

Geologic Hazards/Preliminary Geotechnical Evaluation of Proposed MFPD Station 3

2500 East Valley Road, Montecito

March 7, 2011

Page 13

b. duration of sustained pressure (cyclic stresses)

c. depth to groundwater

d. soil type/gradation

The potential for liquefaction at the site is considered low due to the absence of shallow

groundwater and dense nature of the sandy soils.

**Settlement** 

Based on our consolidation test and settlement analysis based on standard penetration

tests (modified Meyerhof method), we anticipate total settlement of ½-inch and differential

settlement of 1/4-inch due to building loads.

**Expansive Soils** 

Based on the results of our laboratory testing and observed soil texture, the near surface

soils possess a low expansion potential. The foundation recommendations in the foundations

and slabs section of this report will mitigate this potential geologic hazard.

Seismic Motion Analysis

Site Classification

In accordance with 2010 California Building Code (CBC) Section 1613 A.5.2, and the

underlying geologic conditions. Site Class D is considered appropriate for the proposed

building site.

Mapped Spectral Acceleration Parameters

The Maximum Considered Earthquake (MCE) Ground Motion is defined by ASCE as

the most severe earthquake effects considered by ASCE Standard 7-05. The MCE spectral

response acceleration parameters for the 0.2 second (S<sub>S</sub>) and one second (S<sub>1</sub>) periods are

determined in accordance with ASCE 7-05 and with CBC Figures 1613A.5.3 and 1613A.5.4,

respectively. With the site latitude/longitude of 34.4369°N/119.5944°W, bedrock acceleration

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values (not corrected for soil conditions) were obtained for  $S_S$  and for  $S_I$ , using the Ground Motion Parameter Calculator (Version 5.1.0) available from the USGS National Seismic Hazard Mapping program. Inputs for the ASCE 7-05 Standard were used. A print-out of the ground motion calculator output for this site is attached to this report (Appendix B).

For this site: 
$$S_S = 2.420g$$
 and  $S_1 = 0.913g$ .

#### Site Coefficients/Spectral Response Acceleration Parameters

In accordance with CBC Sections 1613A.5.3 and 1613A.5.4, the maximum considered earthquake spectral response for the 0.2 second (or "short") period ( $S_{MS}$ ) and for the 1.0-second period ( $S_{M1}$ ) are determined from  $S_s$  and  $S_1$  (mapped spectral acceleration parameters) and from the site coefficients  $F_a$  (Table 1613A.5.3(1)) and  $F_v$  (Table 1613A.5.3(2)), determined for Site Class D, as follows:

$$S_{MS} = F_a S_s$$
 and  $S_{M1} = F_V S_1$   
For this site:  $S_{MS} = 1.0 (2.420) = 2.420g$  and  $S_{M1} = 1.5 (0.913) = 1.369g$ 

<u>Site specific</u> spectral acceleration response parameters have been determined separately, as discussed below.

#### General Design Spectral Acceleration Parameters

The general design spectral acceleration parameters for the short and 1.0-second periods ( $S_{DS}$  and  $S_{DI}$ ) determined from the data presented above, in accordance with CBC Section 1613A.5.4, are as follows:

$$S_{DS} = 2/3 S_{MS}$$
 and  $S_{D1} = 2/3 S_{M1}$   
 $S_{DS} = 1.613g$   $S_{D1} = 0.913g$ 

<u>Site specific</u> spectral acceleration design parameters have been determined separately, as discussed below.

Geologic Hazards/Preliminary Geotechnical Evaluation of Proposed MFPD Station 3

2500 East Valley Road, Montecito

March 7, 2011

Page 15

Project Seismic Design Category

In accordance with CBC Section 1613A.5.6, since the mapped spectral response

acceleration parameter at the 1.0-second period ( $S_1 = 0.913g$ ) is more than 0.75g, and since the

proposed structures would appear to fall within criteria for Occupancy Category IV per CBC

Table 1604A.5, the project is assigned to Seismic Design Category F. The occupancy category

should be confirmed by the project design professional.

Deaggregated Seismic Source Parameters

Using the US Geological Survey's 2008 Interactive Deaggregation Model for the site,

the Modal Magnitude (M<sub>w</sub>) and Modal Distance (R) were derived. A probabilistic return period

of 2,475 years (equivalent to a 2% chance of exceedance in 50 years) was used for the 0.2

second Site Acceleration (SA) period and the 1.0 second SA period. The results, attached in

Appendix B, are summarized as follows:

SA period of 0.2 second:

 $M_w = 7.2$  and R = 7.8 km

SA period of 1.0 second:

 $M_{\rm w} = 7.2$ 

and R = 7.5 km

Site Specific Ground Motion Analysis

As required by CBC Section 1615A.1.2B, the project requires a site specific ground

motion analysis, since the project is assigned to Seismic Design Category F. As outlined in the

ASCE Standard 7-05, Section 21.2, the maximum considered earthquake (MCE) has been

evaluated by both probabilistic and deterministic methods.

Probabilistic Method

Using the EZ-FRISK program (version 7.51 of a model developed by Risk

Engineering, Inc.), the US Geological Survey fault database (USGS, 2008), a basement

depth of 0.15 km, and four Next Generation Attenuation (NGA) models described in the

deterministic method below, the earthquake with a 2% chance of occurrence in 50 years

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(return period of 2,475 years) is expected to produce a maximum rotated component of ground motion value of 2.854g, which is at a period of 0.4 seconds. A plot of the PSHA response spectra is presented in Appendix B and on Plate 5.

#### Deterministic Method

The deterministic evaluation performed with EZ-FRISK has evaluated all fault sources of the 2008 USGS database within 200 km of the site. Three nearby faults have been identified as the seismic sources capable of generating the highest ground motion at the site: the Mission Ridge/Arroyo Parida/More Ranch, the Red Mountain, and the Santa Ynez Faults. Based on a review of potential ground motion also performed with EQFAULT and the Boore, *et al.* (1997), attenuation model, these appear to be the appropriate faults for the evaluation. The EQFAULT data is summarized on Table I.

Although the Pitas Point-North Channel Slope Fault surface trace is located offshore, the fault plane dips to the north, toward the project site. Some investigators believe that the Mission Ridge/Arroyo Parida/More Ranch (MR/AP) Fault system is a subordinate structure to the Pitas Point-North Channel Slope Fault (LaForge and Anderson, 2001). The Pitas Point-North Channel Slope Fault also represents a potential source for a damaging earthquake in the south coast area of Santa Barbara. That conclusion is supported by the analysis from EQFAULT and the EZ-FRISK Model.

A spectral acceleration plot of the Mission Ridge/Arroyo Parida/More Ranch, Red Mountain, and Santa Ynez Faults has been generated by EZ-FRISK using an input for depth to basement rock (0.15 km) and four next generation attenuation (NGA) models (Campbell and Bozorgnia, 2008; Boore and Atkinson, 2008; Chiou and Youngs, 2008; Abrahamson and Silva, 2008). These attenuation models are recognized and considered appropriate for the crustal tectonics of Southern California. The largest amplitudes of ground motions considering all sources calculated using the weighted mean of the attenuation equations, including a near-source directivity parameter, have been used to create the deterministic plot of the maximum rotated component of ground

motion versus period at the 84<sup>th</sup> percentile, in accordance with CBC Section 1803A.6.2. That deterministic plot generated by EZ-FRISK is presented in Appendix B.

The plot shows the largest spectral response acceleration is 2.546g, which is at the 0.5 second response period. In accordance with ASCE 7-05 Section 21.2.2, a plot of the 84<sup>th</sup> percentile accelerations versus period has been compared to the plot of probabilistic accelerations versus period and the deterministic lower limit is shown on Plate 5.

In accordance with ASCE 7-05 Section 21.2.3, the lesser of the spectral response accelerations, as determined by Sections 21.2.1 and 21.2.2 (probabilistic and deterministic) has been reduced by 2/3, and is shown as the line plotted on Plate 5.

The acceleration values at the 0.2 second (S<sub>DS</sub>) and 1.0 second (S<sub>DI</sub>) periods for the final design acceleration values have also been evaluated in accordance with ASCE 7-05 Section 21.4. For the 0.2 second period, the Site Specific Design Response Acceleration is less than 90% of the peak spectral acceleration for periods greater than 0.2 seconds, so 90% of the 0.5-second period (1.697g) equal to 1.528g shall be taken as the site specific spectral acceleration at 0.2 seconds. For the 1.0-second period, the Site Specific Design Response Acceleration is less than two times the Site Specific Design Response Acceleration at the 2.0-second period. Therefore, the site Specific Design Response Acceleration at 2.0 seconds (0.812g) multiplied by two shall be taken as the site specific spectral acceleration at the 1.0-second period. Those values shall not be taken less than 80% of the Design Spectral Acceleration, as determined by ASCE 7-05 Section 11.4.4. Therefore, the final design acceleration values for this project are as follows:

$$S_{DS} = 1.528g$$
 and  $S_{D1} = 1.624g$ 

The Site Specific MCE response spectra is determined by multiplying  $S_{DS}$  and  $S_{D1}$  by 1.5, and those values shall not be taken less than 80% of the MCE response accelerations ( $S_{MS}$  and  $S_{M1}$ ), as determined by ASCE 7-05 Section 11.4.3. As shown on Plate 6, the final site specific MCE acceleration values for this project are as follows:

$$S_{MS} = 2.291g$$
 and  $S_{M1} = 2.436g$ 

#### **CONCLUSIONS AND RECOMMENDATIONS**

#### General

The development of the proposed fire station site is feasible from a geologic and geotechnical standpoint, based on the data collected during our 2010 and 2011 evaluation. Known fault and fold structures in this general area of the south coast trend from the northwest to the southeast, as shown on Plate 1. Onsite faults presenting a ground surface rupture hazard have not been found to exist at the proposed footprint or in an area that extends 30 feet to the south and 90 feet to the north, as shown on Plate 2. The mapped locations of the Fernald Point and Arroyo Parida Faults are more than 50 feet horizontally from the project site, based on regional geologic work conducted by Dibblee (1986), Hoover (1979), and Gurrola (2006). The 2009 USGS map shows queried (or uncertain) fault locations through or near the site.

State of California regulations and policies (CCR Title 14 and State Mining and Geology Board policy) state that "the area within 50 feet of such active faults shall be presumed to be underlain by active branches of that fault unless proven otherwise." Due to the proximity of the site boundary and East Valley Road, it was not possible to drill or trench more than 30 feet south of the proposed building footprint. The local building official may allow the footprint locations as currently proposed or the footprint of the southernmost building can be shifted 20 feet north. The extended distance of the area investigated to the north should allow all structures to be shifted north, if desired.

The absence of a near surface rupture hazard does not prove the absence of a deeper fault structure, which could, like any of several south coast faults, present a ground shaking hazard. Please see details in the following Ground Motion section of this report.

#### Radon Gas Control

The USEPA's county by county nationwide map of radon risk assigned the highest of three risk levels to Santa Barbara County as a whole. Radon gas concentrations have not been measured onsite. However, based on the State of California's 1995 map and given the absence of near surface exposures of the typical radon host rock, the Rincon shale, there is probably not a high radon hazard at the project site.

In general, our conclusion is that it is less costly to design and construct building features for passive or active control of soil gas than to evaluate the site for the presence of radon, given the sometimes complex ways that bedrock, soil and building factors can interact. Many standard modern construction methods (gravel, visqueen below slabs, caulking and sealing) provide a significant level of protection against radon intrusion into indoor air breathing spaces. Therefore, if feasible, control of radon gas to reduce indoor air accumulations should be addressed through structure design. It is not technically complicated and can be accomplished by adequate ventilation of sub-slab areas or crawl spaces and sealing other structure features overlying or in contact with the ground surface.

The designer should refer to one or more of the several USEPA guidance documents on this subject. These are geared toward homeowner, architect, and contractor use and are available at the following web site: <a href="http://www.epa.gov/radon/pubs/index.html">http://www.epa.gov/radon/pubs/index.html</a>.

The 1994 EPA publication, "Radon Prevention in the Design and Construction of Schools and Other Large Buildings" would probably be one of the documents of interest.

#### **Ground Motion**

The proposed building should be designed and constructed to resist the effects of seismic ground motions as provided in Chapter 16A and 18A, Division IV of the 2010

California Building Code applicable to the building use and importance and the American Society of Civil Engineers (ASCE) Standard 7-05.

A summary of specific recommended CBC criteria is as follows:

			References	
Parameter	Notation	Value	2010 CBC	ASCE 7-10
Occupancy Category		IV	Table 1604.5	Table 1-1
Soil Profile/Site Class		D	Tables 1613A.5.2 and -5.5	Table 20.3-1
Seismic Design Category		F	1613A.5.6	11.6.1.1
Mapped MCE/Short Period Spectral Response	Ss	2.420g	Fig 1613.5(1)	Fig 22-1
Mapped MCE/1 second Period Special Response	Sı	0.913g	Fig 1613.5(2)	Fig 22-2
Site Coefficient	Fa	1.0	Table 1613A.5.3(1)	Table 11.4-1
Site Coefficient	F <sub>v</sub>	1.5	Table 1613A.5.3(2)	Table 11.4-2
Adjusted MCE/Short Period Spectral Response	S <sub>MS</sub>	2.420g	F <sub>a</sub> xS <sub>s</sub> 1613A.5.3	11.4.3
Adjusted MCE/1 second Period Spectral Response	S <sub>M1</sub>	1.369g	F <sub>v</sub> xS <sub>1</sub> 1613A.5.3	11.4.3
Design MCE/Short Period Spectral Response	S <sub>DS</sub>	1.613g	2/3xS <sub>MS</sub> 1613A.5.4	11.4.4
Design MCE/1 second Period Spectral Response	S <sub>D1</sub>	0.913g	2/3xS <sub>M1</sub> 1613A.5.4	11.4.4
Site Specific MCE/Short Period Spectral Response	S <sub>MS</sub>	2.291g	1615A and 1803A.6.2	21.4
Site Specific MCE/1 Second Period Spectral Response	S <sub>M1</sub>	2.436g	1615A and 1803A.6.2	21.4
Final Design MCE/Short Period Spectral Response	S <sub>DS</sub>	1.52 <b>8</b> g	1615A and 1803A.6.2	21.4
Final Design MCE/1 Second Period Spectral Response	S <sub>D1</sub>	1.624g	1615A and 1803A.6.2	21.4

#### **Site Grading**

Prior to grading, the site should be cleared of any existing debris and vegetation. Materials generated during clearing should be properly disposed of at an approved location offsite. Any underground structures, septic systems, or tanks should be removed in accordance with local regulations. Holes resulting from the removal of buried obstructions, which extend below recommended removal depths, should be replaced with compacted fill. Material in Trenches 1 and 2, located as shown on Plate 2 and on the surveyor's exhibit in the appendix, should be located by the surveyor, then removed to the total trench depth and re-compacted in the areas proposed for development. The trench depth (approximately 9 feet) is shown on Plate 4. Rock removal by screening will likely be necessary.

In areas where improvements are planned at or near existing site grades, the near surface soils disturbed by removal of the lemon trees and any existing fill should be removed down to undisturbed, medium dense to dense fanglomerate/intermediate alluvial deposits and replaced as compacted fill in order to achieve design grades. Removal depths on the order of 3 feet are anticipated and root and rock removal by hand picking or screening will likely be necessary. The removals should extend to a distance beyond the improvements equal to the depth of removal where possible. Final removal depths should be determined in the field during grading by the geotechnical consultant.

Fill should be moisture-conditioned to near optimum moisture content and compacted by mechanical means in uniform horizontal lifts of 6 to 8 inches in thickness. All fill should be compacted to a minimum relative compaction of 90% based upon ASTM: D1557. The on-site materials are suitable for use as compacted fill provided all vegetation, debris, and other perishable or unsuitable materials are removed. Rock fragments over 6 inches in maximum dimension should be excluded from the fill. Due to the abundance of cobbles and boulders in onsite materials, screening to remove oversize rocks will be necessary to process material prior to use as compacted fill. All grading and compaction should be observed and tested as necessary by the geotechnical consultant.

#### Foundations and Slabs

The foundation system should be designed by the Structural Engineer in accordance with the SRI/CRSI Design of Slab-on-Ground Foundations. Design in accordance with the SRI/CRSI Design of Slab-on-Ground Foundations should utilize an effective plasticity index of 20. The following recommendations are considered geotechnical minimums and may be increased by structural requirements.

After removal and recompaction of the disturbed near surface soils and any existing fill, the proposed buildings may be supported by conventional continuous/spread footings. Conventional continuous/spread footings should extend at least 18 inches into approved compacted fill or fanglomerate/intermediate alluvial deposit, should be at least 15 inches wide, and may be designed for a dead plus live load bearing capacity of 2,000 pounds per square foot. This value may be increased by one-third for wind and seismic forces. A lateral bearing value of 250 pounds per square foot per foot of depth and a coefficient of friction of 0.35 may be assumed. Continuous footings should be reinforced with at least four No. 4 bars, two top and two bottom. Foundations located adjacent to utility trenches should extend to below a 1:1 plane projected upward from the bottom of the trench. Footings should be observed by the geotechnical consultant prior to placement of reinforcement and concrete to ensure that the appropriate bearing materials have been encountered. Total and differential settlement of the structures due to foundation loads is considered to be less than ½- and ½- inch, respectively.

Slab-on-grade floors should have a minimum thickness of 5 inches and should be reinforced with #4 bars spaced at 18 inches, center to center, in two directions, and supported on chairs so that the reinforcement is at mid-height in the slab. Floor slabs should be underlain by a 4-inch layer of clean sand with at least a 10-mil visqueen vapor barrier placed at mid-height in the sand. Prior to placing concrete, the slab subgrade soils should be thoroughly moistened.

#### **Retaining Walls**

Retaining wall footings should be designed in accordance with the previous building foundation recommendations. Retaining walls free to rotate (cantilever walls) should be designed for an active pressure of 35 pounds per cubic foot (equivalent fluid pressure) for level backfill, provided the backfill consists of on-site granular soils. Walls restrained from movement at the top should be designed for an at-rest earth pressure of 60 pounds per cubic foot (equivalent fluid pressure) for level granular backfill. Any additional surcharge pressures behind the walls should be added to these values. Retaining walls should be provided with adequate drainage to prevent buildup of hydrostatic pressure and should be adequately waterproofed. The subdrain system behind retaining walls should consist of at least a 4-inch diameter Schedule 40 (or equivalent) perforated (perforations "down") PVC pipe embedded in at least 1 cubic foot of ¾-inch crushed rock per lineal foot of pipe all wrapped in approved filter fabric. Recommendations for wall waterproofing should be provided by the project architect and/or structural engineer.

#### Temporary Slopes

Temporary slopes necessary to perform the remedial grading or to facilitate the construction of retaining walls should be inclined at a slope ratio no steeper than 1:1 (horizontal to vertical). Field observations by the geotechnical consultant during grading of temporary slopes is recommended and considered necessary to confirm anticipated conditions and provide additional recommendations as warranted.

#### Portland Cement Concrete Pavement

Based on the results of our R-value test and an assumed traffic category of C, we recommend a Portland cement concrete pavement section of 6.5 inches of portland cement concrete over compacted fill.

Page 24

Prior to placement of portland cement concrete pavement, subgrade areas should be scarified to a depth of 6 to 8 inches, moisture conditioned to near optimum moisture content, and compacted to at least 95 percent relative compaction in accordance with ASTM: D 1557. Contraction joints should be provided at 10-foot spacing (maximum). Joints should create square panels were possible. For rectangular panels (where necessary), the long dimension should be no more than 1.5 times the short dimension. Joint depth should be at least 0.25 times the PCC pavement thickness. Construction joints should be thoroughly sealed to prevent the infiltration of water into the underlying soils.

Load transfer devices consisting of smooth steel dowels are recommended across construction joints. The dowells should be 7/8-inch in diameter, embedded 6 inches into the concrete on both sides and spaced 12 inches on center.

#### Concrete Flatwork

Concrete flatwork should be at least 5 inches thick and reinforced with at least No. 4 bars placed at 18 inches on center (two directions) and placed on chairs so that the reinforcement is in the center of the slab. Slab subgrade should be thoroughly moistened prior to placement of concrete. Contraction joints should be provided at 10-foot spacings (maximum). Joints should create square panels where possible. For rectangular panels (where necessary), the long dimension should be no more than 1.5 times the short dimension. Joint depth should be at least 0.25 times the flatwork thickness. Construction joints should be thoroughly sealed to prevent the infiltration of water into the underlying soils.

#### Retaining Wall and Trench Backfill

All retaining wall and utility trench backfill should be compacted to at least 90% relative compaction (ASTM: D1557). Backfill should be tested and observed by the Geotechnical Consultant. The locations of exploratory trenches excavated in 2011 were surveyed by MNS Engineers. Those trenches should be re-surveyed and staked prior to construction to allow compaction, as outlined above.

Chief Kevin Wallace, MFPD
Geologic Hazards/Preliminary Geo

Geologic Hazards/Preliminary Geotechnical Evaluation of Proposed MFPD Station 3

2500 East Valley Road, Montecito

March 7, 2011

Page 25

**Corrosivity** 

Representative samples of the on-site soils were submitted for sulfate, chloride,

resistivity, and pH testing. The results of the corrosivity tests are summarized in Appendix B.

The sulfate contents are consistent with a negligible sulfate exposure classification per Tables

4.2.1 and 4.3.1 of the American Concrete Institute Publication 318; consequently, no special

provisions for sulfate resistant concrete are considered necessary. We recommend a corrosion

engineer be contacted to review the remaining test results and provide appropriate

recommendations, if necessary.

Recommended Observation and Testing During Construction

The following tests and/or observations by the geotechnical consultant are

recommended:

site grading

footing excavations prior to placement of forms and reinforcing steel

geologic trench and utility trench backfill

retaining wall backdrain and backfill placement

portland cement concrete pavement subgrade

Surface Water Drainage

Drainage from the buildings, and parking and driveway areas should be collected and

directed to appropriate drainage devices. Drainage should not be placed in soil infiltration

systems or be allowed to flow freely over slopes.

Grading and Foundation Plan Review

Grading and foundation plans should be reviewed by the geotechnical consultant to

confirm conformance with the recommendations presented herein and to provide additional

investigation or recommendations, as necessary.

CAMPBELL.GEO, INC.

#### LIMITATIONS

The analyses, conclusions, and recommendations contained in this report are based on site conditions as they existed at the time of our investigation and further assume the excavations to be representative of the subsurface conditions throughout the site. The analyses, conclusions, and recommendations are also based on preliminary site development plans. If different subsurface conditions from those encountered during our exploration are observed or appear to be present in future excavations or site work, the geotechnical consultant should be promptly notified for review and reconsideration of recommendations.

Our investigation was performed using the degree of care and skill ordinarily exercised, under similar circumstances, by reputable geologic/geotechnical engineers practicing in this or similar localities. No other warranty, express or implied, is made as to the conclusions and professional advice included in this report. This report has been prepared for the sole use of the Montecito Fire Protection District.

This report should be submitted to the appropriate government regulatory agencies to determine the need, if any, for supplemental geologic studies.

If you have any questions concerning this report, please do not hesitate to contact us.

Sincerely, Campbell·Geo, Inc.





Steven H. Campbell
Professional Geologist
State of California, #5576
Certified Engineering Geologist
State of California, #1729

Mark D. Hetherington Registered Civil Engineer

State of California, #30488

Geotechnical Engineer
State of California, #397.

SHC\rig

Clients\MFPD\Stn 3\Stn 3-Geo\_R1.doc

Attachments:

Table (1)

Plates (6)

**Appendices** 

cc:

AMEC Earth and Environmental

Attn: Mr. Dan Gira, Program Manager

bcc:

Hetherington Engineering

Attn: Mr. Mark Hetherington (electronic copy)

#### REFERENCES CITED

#### page 1 of 2

- American Society of Civil Engineers, 2005, "Minimum Design Loads for Buildings and Other Structures," ASCE/SEI Standard 7-05.
- Bezore, S. and Wills, C.J., 1999, "Landslide Hazard Maps of Southeastern Santa Barbara County, California," USGS OFR 99-12.
- Blake, T., 2005, "EQFAULT, EQSEARCH and FRISKSP, Version 3.00" Thomas F. Blake Computer Services and Software.
- Boore, D.M., Joyner, W.B., and Fumal, T.E. (1997), "Equations for Estimating Horizontal Response Spectra and Peak Acceleration from Western North American Earthquakes: A Summary of Recent Work," Seismological Research Letters, Vol. 68, No. 1, pp. 128-153.
- Cao, T., et al., 2003, "The Revised 2002 California Probabilistic Seismic Hazard Maps, June 2003" (modification of USGS Open-File Report 02-420, as used in Blake 2005).
- Chiou, B. and R. Youngs, 2008, "An NGA Model for the Average Horizontal Component of Peak Ground Motion and Response Spectra," Earthquake Spectra, v. 24, pp. 173-216.
- Dibblee, T.W., Jr., 1966, "Geology of the Central Santa Ynez Mountains Santa Barbara County, California," Division of Mines, State of California Department of Natural Resources, Bulletin 186.
- Dibblee, T.W., Jr., 1987, "Geologic Map of the Carpinteria Quadrangle, Santa Barbara County, California," Dibblee Geologic Foundation Map #DF-04, Santa Barbara, California.
- Gurrola, L.D., 2006, "Active Tectonics and Earthquake Hazards of the Santa Barbara Fold Belt, Santa Barbara, California," UCSB Ph.D. Thesis.
- Hoover, M. F., 1979, "Delineation of the Montecito Basin, Montecito Water District," April 18, 1979.
- Jennings, C.W., 2010, "Fault Activity Map of California," California Geologic Survey, Geologic Data Map No. 6.
- LaForge, R. and Anderson, L., 2001, "Seismic Hazard Evaluation for Glen Anne, Lauro, Ortega and Carpinteria Dams, Cachuma Project, Santa Barbara Area, California", U.S. Bureau of Reclamation Seismotectonic Report 2000-1.
- Minor, S.A., Kellogg, K.S., Stanley, R.G., Gurrola, L.D., Keller, E.A., and Brandt, T.R. 2009, "Geologic Map of the Santa Barbara Coastal Plain, Santa Barbara County, California," U.S. Geological Survey Scientific Investigations Map 3001, Scale 1:24,000.

#### REFERENCES CITED

page 2 of 2

- Moore and Taber, 1979, "Seismic Safety and Safety Element, Santa Barbara County Comprehensive Plan."
- Namson, J. and David, T., 1990, "Late Cenozoic Fold and Thrust Belt of the Southern Coast Ranges and Santa Maria Basin, California," AAPG Bulletin, vol. 7, No. 4, pp. 467-492.
- State of California, Division of Mines and Geology, 1995, "Radon Zone Map for Santa Barbara County."
- State of California, Division of Mines and Geology, 1991, "Special Studies Zones, Pitas Point Quadrangle," November 1, 1991.
- US Environmental Protection Agency, County by County Radon Zone Map, 2010 posting at <a href="http://www.cpa.gov/radon/zonemap.html">http://www.cpa.gov/radon/zonemap.html</a>.
- US Geological Survey, "Seismic Design Values for Buildings," Ground Motion Parameter Calculator Version 5.1.0.
- US Geological Survey, 2008, "Documentation for the 2008 Update of the US National Seismic Hazard Maps," Open File Report 2008-1128.
- US Geological Survey, 2008, "The Uniform California Earthquake Rupture Forecast, Version 2 (UCERF 2)," by 2007 Working Group on California Earthquake Probabilities, USGS Open File Report 2007-1437.

# TABLE I SUMMARY OF REGIONAL FAULTS AS POTENTIAL SOURCES OF SEISMIC SHAKING Montecito Fire Protection District, Proposed Station 3

2500 East Valley Road, Montecito, California source: EQFAULT, ver. 3.0, 2005 February 2011

Estimated Maximum Earthquake Event

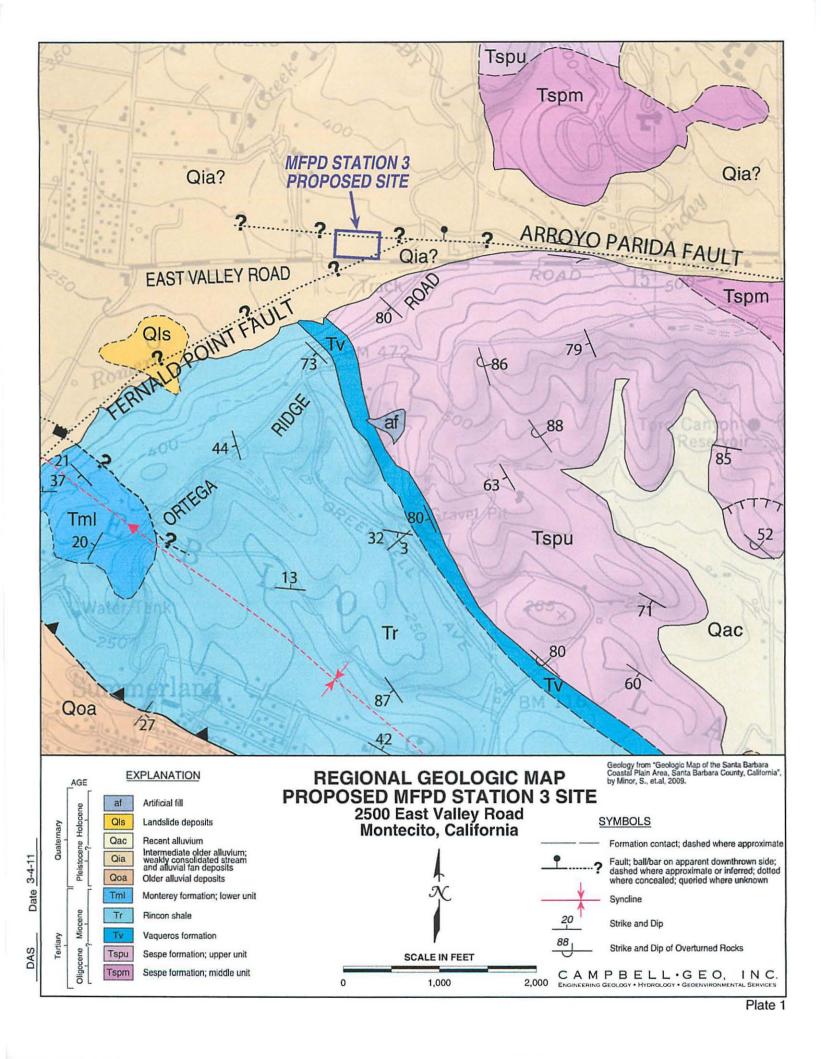
	Estimated Waximum Cartiquake E				are Event
		***	Maximum	Peak Site	Est. Site Shaking
	Approximate Distance <sup>(1)</sup> mi (km)		Earthquake	Accelera-	Intensity (modified
FAULT NAME			Mag. (M <sub>w</sub> )	tion (g) <sup>(2)</sup>	Mercalli Scale) <sup>(2)</sup>
Mission Ridge/Arroyo Parida (More Ranch)	0.2	(0.3)	7.2	0.832	XI
Santa Ynez (East)	3.7	(6.0)	7.1	0.560	X
Red Mountain	4.2	(6.7)	7.0	0.749	XI
Santa Ynez (West)	4.4	(7.1)	7.1	0.446	X
North Channel Slope	7.3	(11.7)	7.4	0.696	XI
Ventura - Pitas Point	9.0	(14.5)	6.9	0.377	IX
Oak Ridge Mid-Channel Structure	9.4	(15.2)	6.6	0.320	IX
Channel Island Thrust (Eastern)	14.7	(23.7)	7.5	0.374	IX
Oak Ridge (Blind Thrust Offshore)	18.6	(29.9)	7.1	0.213	VIII
Big Pine	19.1	(30.8)	6.9	0.153	VIII
Anacapa - Dume	23.3	(37.5)	7.5	0.249	IX
San Cayetano	24.8	(39.9)	7.0	0.161	VIII
Oak Ridge (onshore)	25.7	(41.4)	7.0	0.156	VIII
Los Alamos - West Baseline	30.0	(48.2)	6.9	0.132	VIII
Simi - Santa Rosa	30.0	(48.3)	7.0	0.144	VIII
Santa Cruz Island	30.6	(49.3)	7.0	0.137	VIII
Santa Rosa Island	33.6	(54.1)	7.1	0.134	VIII
Pleito Thrust	34.8	(56.0)	7.0	0.126	VIII
San Andreas - whole	35.6	(57.3)	8.0	0.170	VIII
Lion's Head	40.7	(65.5)	6.6	0.089	VII
San Gabriel	45.2	(72.7)	7.2	0.093	VII
Malibu Coast	45.7	(73.6)	6.7	0.087	VII
San Luis Range (S. margin)	46.4	(74.7)	7.2	0.110	VII
Garlock (West)	46.9	(75.5)	7.3	0.095	VII
Casmalia (Orcutt Frontal Fault)	51.6	(83.0)	6.5	0.070	VI
San Juan	53.4	(85.9)	7.1	0.077	VII

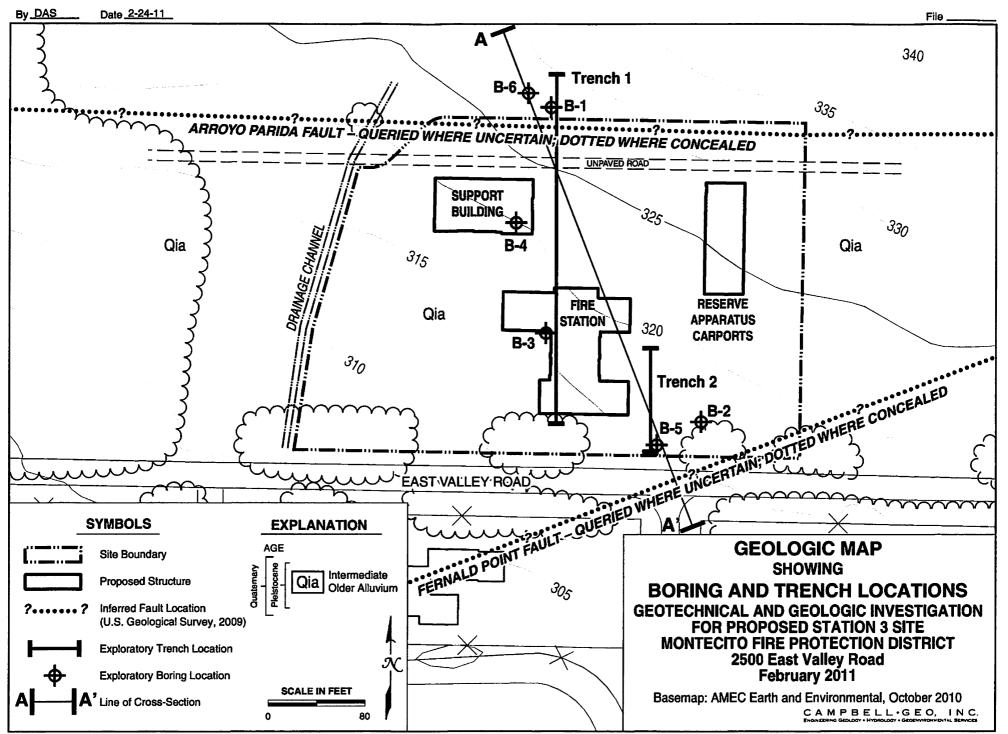
#### NOTES:

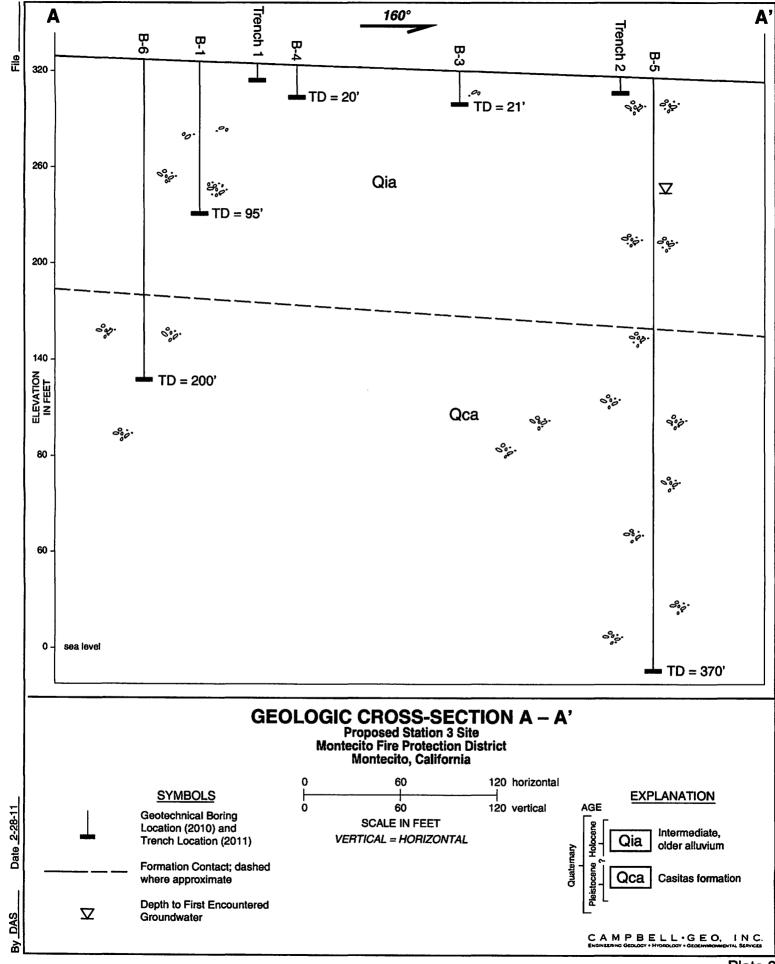
<sup>(1)</sup> With the Crouse and McGuire (1994) attenuation factor, EQFAULT estimates the closest perpendicular distance between the site and the fault plane based on the geometry of the fault plane.

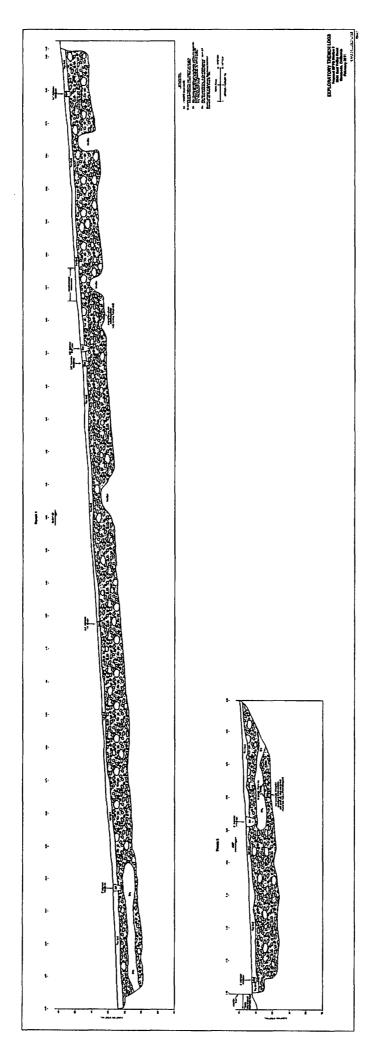
<sup>(2)</sup> Peak Site Acceleration and Site Intensity per EQFAULT with the Boore, et al. (1997) attenuation factor and Site Class D. VALUES NOT INTENDED FOR FINAL DESIGN MFPD SE 3 Geo TLxls

C A M P B E L L G E O, I N C.



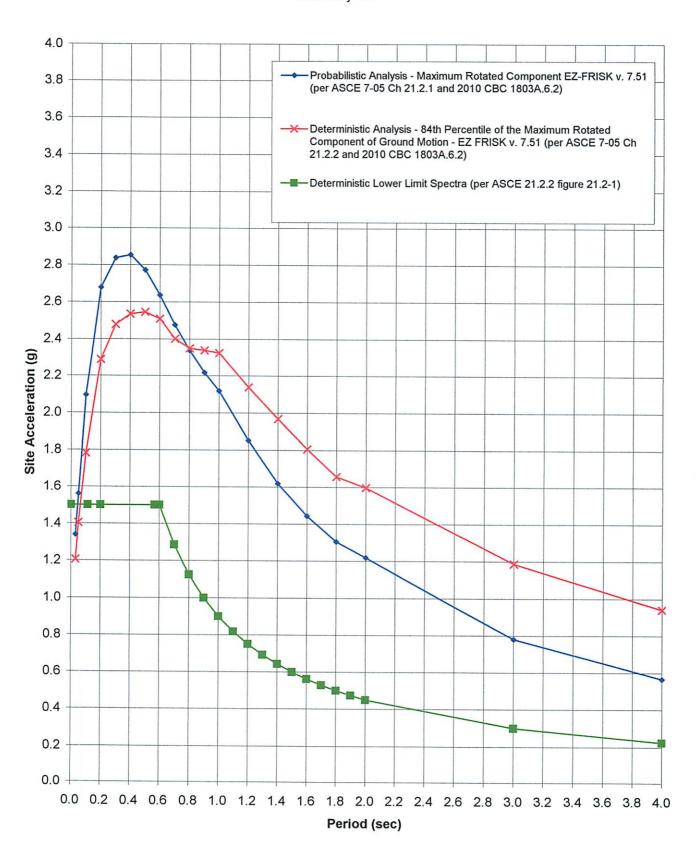






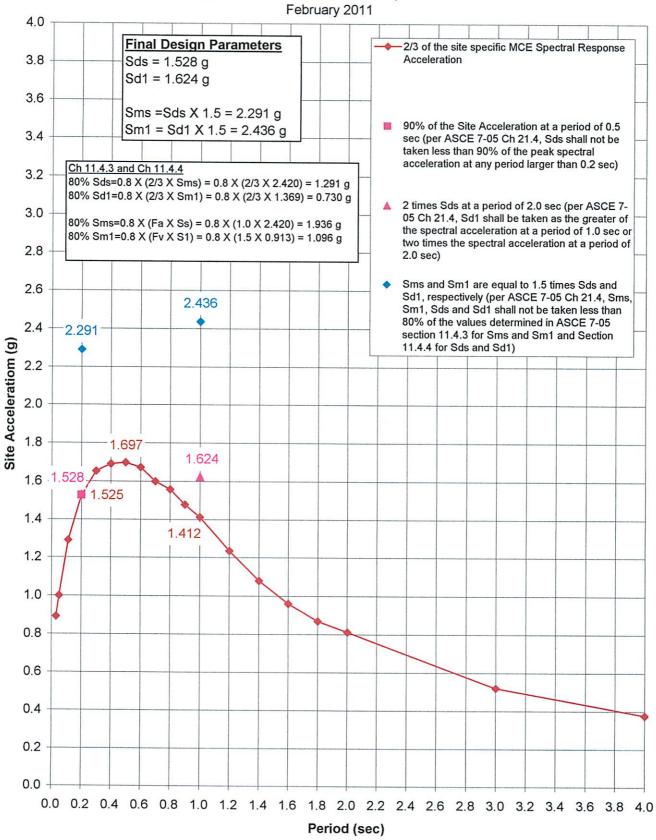
#### Site Specific Ground Motion Analysis

Montecito Fire Prevention District Proposed Station 3 February 2011



### Final Design Spectra Site Specific Ground Motion Anaylsis

Montecito Fire Prevention District Proposed Station 3



### **APPENDICES**

- A. Boring Logs MNS Engineers' Survey
- B. Laboratory Data
- C. Seismic Motion Analysis

### APPENDIX A

**Boring Logs** 

MNS Engineers' Survey

### **LEGEND SHEET FOR BORING LOGS**

### **BORING LOG SYMBOLS**

### MONITORING WELL SYMBOLS

**Bulk Sample** 

**Concrete Seal** 

Standard Penetration Test/Sample

**Bentonite Seal** 

2 1/2" Split Spoon Sample – California Modified

Lapis #3 Sand

**□** First Water Encountered

Native Backfill

**¥** Measured Water Level

Contact between Soils;
 may be gradational or inferred



**Slotted Section of Casing** 

### **LITHOLOGIES**



Clay



**Sandy Clay** 



Silt; Sandy Silt; Silt/Sand



**Pebbles** 



Sand



Cobbles/Boulders



Clayey, Silty, Sand



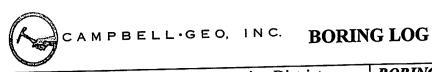
**Bedrock** 

Date (-1-08

### SYMPBELL'GEO, INC. BORING LOG

							1 I		0
Well Con- struction	0 <sup>z</sup> H	Graphic BoJ	l Description	io2\20st	1	Blows per foot	ЫD	Sample #	Depth (ft)
110 (1711	0								
				10.5		Summer	D20C	Contractor:	Builliact
osa	jard r	sting orci	ring Location: north of ex	ioa		Drilling	048		
<u> </u>			vation:	91म	<u></u> -			: CWE82	
						CY WOI	20 1 10	Method: S	3นบุสมาชิยเทร
	AN	er Pack:	een Slot Size: NA Fill	2051 _		ION VJ	-8 Ta		
			AN : 9qyT bnp 9zi2 gniz	$\mathcal{C}_{\alpha\beta}$		5791/09	E60 🏸	oshzini 4/bst	DtZ. smiT
								01/1/1	Date: 1
		II	scked by: Steve Campbe				C		
			ged By: Mike Maguire	807	nta Barbara	Road. Sa	Vallev	7 tzs. H 002.C	Tocation
					OU DISILICE	Protecti	ut on	T: Montec	<b>b</b> KO1EC
			KING NO: B-1	Ua	toimtoid mo	:44 <u>C</u>			

		Silty gravel; tan/yellow/dark brown; dry to moist; hard;	ST (TAS)		B-I @ 12,	SI
	10000000000000000000000000000000000000	Same аs above but no clay	74/50 for 1" (SPT)		B-1 @ 10-11,	01
	30 000 000 000 000 000 000 000 000 000	contic at o sand with gravel & minor clay; gray/tan/yellow/brown; dry to moist; hard; loose to mod dense	(T92) 87		B-I @ 1.5°	
	00000	cobble at 6'	12		B-1 <b>®</b> 2,	ς
	WD WS	3. – 6' silty sand with minor pebbles; yellow/brown; slightly moderately loose; firm			B-1 @ t,	
	ws	1' – 3' silty sand with minor clay chunks; red/brown; dry to moist; firm to hard; loose to moderately dense; minor pebbles	33		B-I ௵5.	
	WS	0 – 8" silty sand; dark brown; moist; loose; some organic & sandstone pebbles 8" – 1' sandstone cobble			B-1 PAIK @ 1-2,	ī
Vell Con- truction	H sinderio BoJ	USCS/Soil Description	Blows per foot	PID	Sample #	Depth (ft) 0



BORING NO: B-1
Logged By: Mike Maguire
Checked by: Steve Campbell
Casing Size and Type: NA
Screen Slot Size: NA Filter Pack: NA
Elevation:
Boring Location: north of existing orchard road

Depth	Sample #	PID	Blows		Graphic Log	H <sub>2</sub> 0	Well Con- struction
(ft)			per	USCS/Soil Description	Log		ou donon
			foot		00000		
18							
20	B-1 @ 20'		50 for 3" (SPT)	Sandstone cobble; tan; approximately 1 foot diameter	M. 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		
25	B-1 @ 25'		50 for 5" (SPT)	Silty sandy gravel w/ cobbles & boulders; yellow/brown; dry to moist; loose to moderately dense; very hard	O CONTROL OF THE CONT	A CARLOS ASSESSED ASSESSED	
	B-1 @ 27.5'			27.5 – 30' silty sand w/ minor clay; red/brown; moist; moderately dense; soft to firm	SM		
30	B-1 @ 30'		50 for 3" (SPT)	silty sandy gravel with cobbles; yellow/brown; dry to moist; hard; moderately dense; red fine grain sandstone cobble @ 30		Lykyologynagot katoniosakosty katalisi	
35							



<b>PROJECT</b> : Montecito Fire Protection District	BORING NO: B-1
Location: 2500 East Valley Road, Santa Barbara	Logged By: Mike Maguire
Date: 11/1/10	Checked by: Steve Campbell
Time Started/Finished: 0930 / 1625	Casing Size and Type: NA
Sampling Method: SPT & CA MOD	Screen Slot Size: NA Filter Pack: NA
Rig Type: CME85	Elevation:
Drilling Contractor: S&G Drilling	Boring Location: north of existing orchard road

Donth	Sample #	PID	Blows per		Graphic	H <sub>2</sub> 0	Well Con-
Depth (ft)	Sample #	ייי	foot	USCS/Soil Description	Log		struction
(11)	B-1 @ 35'		50 for 5"	Sandstone cobble at 35'; silty sandy gravel w/ cobbles;	00.00.00		
	B-1 (cg 33		(SPT)	yellow/brown; dry to moist; hard; moderately dense	GM-GP.		
40	B-1 @ 40°		50 for 5.5" (SPT)	Sandstone cobble at 40'; same as above	50000000000000000000000000000000000000		
45							
	B-1 @ 46'		40/50 for 2" (SPT)	Silty sandy gravel w/ minor clay; brown/orange; moist; firm to hard; moderately dense	GP-GC		
50	B-1 @ 50'		45/50 for 1"	Silty sand w/ minor gravel & cobbles; brown/orange; slightly moist; hard; moderately dense	Service Servic	מניינוי מן אין אין פּיינואויאן יאראון און פּיינאיאן מופּ זי	

PROJECT: Montecito Fire Protection District	BORING NO: B-1
Location: 2500 East Valley Road, Santa Barbara	Logged By: Mike Maguire
Date: 11/1/10	Checked by: Steve Campbell
Time Started/Finished: 0930 / 1625	Casing Size and Type: NA
Sampling Method: SPT & CA MOD	Screen Slot Size: NA Filter Pack: NA
Rig Type: CME85	Elevation:
Drilling Contractor: S&G Drilling	Boring Location: north of existing orchard road

Depth	Sample #	PID	Blows per				
(ft)	Jpi0 "	1 ""	foot	USCS/Soil Description	Graphic	$H_20$	Well Con-
			1001	USCS/Soil Description	Log		struction
55	Bag sample B-1 @ 55-60'			silty sand; dark brown/rusty; slightly moist; moderately dense; firm	SM-GM		
60			50 for 1"				
			(SPT)	1.5 – 2" cobble at 60; Silty sand w/ minor clay; brown/yellow; moist; mod dense; minor cobbles & sandstone boulders	00000000000000000000000000000000000000		
65				Same as above, but less clay  66 – 70' harder drilling	Solve In the solve		
70	B-1 @ 70'		(SPT)	silty sand; brown/orange; slightly moist; loose to moderately dense; firm to hard; white/tan sandstone to siltstone boulder @ 70°	SM		



	POPING NO. D 1
PROJECT: Montecito Fire Protection District	BORING NO: B-1
Location: 2500 East Valley Road, Santa Barbara	Logged By: Mike Maguire
Location: 2500 East Valley Road, Salling	Checked by: Steve Campbell
Date: 11/1/10	Casing Size and Type: NA
Time Started/Finished: 0930 / 1625	Screen Slot Size: NA Filter Pack: NA
Sampling Method: SPT & CA MOD	
Di T CME95	Elevation:
Rig Type: CME85	Boring Location: north of existing orchard road
Drilling Contractor: S&G Drilling	120

	Sample #	PID	Blows per		Graphic	H <sub>2</sub> 0	Well Con- struction
Depth (ft)	Sample #	110	foot	USCS/Soil Description	Log		Sudeller
75	B-1 @ 70-75' Baggie only B-1 @ 75'		50 for 2" (SPT)	Siltstone boulder; tan/orange; dry; very hard on tip ofcenter rod; silty sand w/ cobbles; brown/orange; dry; very hard; moderately dense to dense  76 – 80' siltstone boulder; white to tan; dry; hard; hard, slow but uniform drilling (not choppy)	boulder	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	
80	B-1 @ 81.5°		47 (SPT)	Silty sand w/ minor clay and minor pebbles; brown/red; moist; firm; dense	SM-GM		
85				Same as above but yellow/brown	SM-GM-GM-GM-GM-GM-GM-GM-GM-GM-GM-GM-GM-GM	التعلام الاختفريت علاوه والارماع	
				silt with minor clay; yellow/brown; moist to saturated; soft to firm; moderately dense	SM-CL		

TOTAL AND CONTROL OF THE PROPERTY OF THE PROPE	
Graphic H <sub>2</sub> 0 Well Con-	
The second secon	Drilling Contractor: S&G Drilling
Boring Location: north of existing orchard road	Rig Type: CME85
Elevation:	Sampling memou: Dr. w. cr. co.
Screen Slot Size: NA Filter Pack: NA	Sampling Method: SPT & CA MOD
Casing Size and Type: NA	Time Started/Finished: 0930 / 1625
	01/1/11 :910(1
	Location: 2500 East Valley Road, Santa Barbara
Logged By: Mike Maguire	<b>PROJECT:</b> Montecito Fire Protection District
BOKING NO: B-1	toirteid noitestord exist etiestach monte en
C FOC	CAMPBELLIGEO, INC. BORIN
5015	111102 311. 022
Q IO Q 1994S	

			EOB = 94' (auger starting to come apart)  7.5 - 94' backfilled with cuttings 7.5 - 94' backfilled with cuttings				
	7.	÷ MD≻g	hard; moderately dense	(TAS)			<u>\$6</u>
	A I III KAWA MARKAWA		very tough drilling; possible boulder @ 89-94?	"8 rof 0č		B-I <b>©</b> 6 <b>4</b> ،	
		MD-WS	Sandstone; tan/yellow in sampler; silty sand; yellow; moist to saturated; dense; firm to hard; yellow; moist to saturated; dense; firm to hard;	%2 rof 05 (SPT)		B-1 © 30,	06
Well Construction	0 <sup>z</sup> H	Graphic Log	USCS/Soil Description	Blows per foot	OIId	Sample #	Depth



BORING NO: B-2
Logged By: Mike Maguire
Checked by: Steve Campbell
Casing Size and Type: NA
Screen Slot Size: NA Filter Pack: NA
Elevation:
Boring Location: north fence near East Valley Rd

Depth (ft)	Sample #	PID	Blows per foot	USCS/Soil Description	Graphic Log	H <sub>2</sub> 0	Well Con- struction
1	B-2 @ 1.5'		34/50 for 2"	Silty sand w/ some organics; dark brown; dry; loose to moderately dense; firm	SM		
<b>F</b>	В-2 @ 4'			Sandstone boulder approximately 2-4.5'; baggie sample of Ground up sandstone boulder at 4'	boulder		
5	B-2 @ 6'		50 (SPT)	5.5' silty gravel w/ some cobbles; brown; dry to moist; Hard; moderately dense; some cobbles	0.00 M 0.00 M 0.		
	B-2 @ 8'		48/50 for 5"	Silty gravel; tan/brown; dry to moist; very hard; moderately dense to dense	00000000000000000000000000000000000000		
10	B-2 @ 11'		75 (SPT)	Same as above but brown/yellow			
15	B-2 @ 15.5'		20/50 for 4" (SPT)	, , , , , , , , , , , , , , , , , , ,		· 0 · · · · · · · · · · · · · · · · · ·	



PROJECT: Montecito Fire Protection District	BORING NO: B-2
Location: 2500 East Valley Road, Santa Barbara	Logged By: Mike Maguire
Date: 11/2/10	Checked by: Steve Campbell
Time Started/Finished: 0815 / 1415	Casing Size and Type: NA
Sampling Method: SPT & CA MOD	Screen Slot Size: NA Filter Pack: NA
Rig Type: CME85	Elevation:
Drilling Contractor: S&G Drilling	Boring Location: north fence near East Valley Rd

Depth	Sample #	PID	Blows		Graphic	H <sub>2</sub> 0	Well Con-
(ft)			per foot	USCS/Soil Description	Log		struction
18				18 – 21' boulder	boulder		
20	No recovery		50 for 0"				
				Silty gravel; yellow/tan/dark brown; dry to moist; hard; loose to moderately dense			
25	B-2 @ 25.5'		17/50 for 5.5" (SPT)	Same as above with some cobbles	GM		
30	No recovery		50 for 0"	Silty sand; gravel; tan to orange; dry to moist; hard; loose; to moderately dense; boulder at 30'	2000 2000 2000 2000 2000 2000 2000 200		
35							



	Pappig No. D 2
<b>PROJECT</b> : Montecito Fire Protection District	BORING NO: B-2
Location: 2500 East Valley Road, Santa Barbara	Logged By: Mike Maguire
	Checked by: Steve Campbell
Date: 11/2/10	Casing Size and Type: NA
Time Started/Finished: 0815 / 1415	Casing Size and Type. 147
Sampling Method: SPT & CA MOD	Screen Slot Size: NA Filter Pack: NA
Sumpting Method: 511 of 511	Elevation:
Rig Type: CME85	Boring Location: north fence near East Valley Rd
Drilling Contractor: S&G Drilling	During Locations. Hotal 19110

Depth	Sample #	PID	Blows per		Graphic I Log	H <sub>2</sub> 0	Well Con- struction
(ft)			foot	USCS/Soil Description			
<u> </u>	B-2 @ 35.5'		15/50 for	Silty sand w/ minor clay; gray/orange; moist; soft to			
	2 - (9		5.5" (SPT)	firm; moderately dense	SM-CL		
		·					
				i			
	1						
40	B-2 @ 40'		50 for 5"				
40	B-2 (2) 40		(SPT)	Sandstone boulder at 40.5'			
			(3,1)				
			Ì				
		<b>!</b>			. ,,		ł
					boulder		
					1		
					1		
					i i		
		1					
		1					· ·
45							1
43_	4				000		
			40	Sandy, clayey gravel w/minor sandstone & siltstone			
	B-2 @ 46'		48	pebbles & cobbles; moist; soft to firm; moderately			
			(SPT)		E GC ₹	ı	
	1			dense to dense	200		
				Clayey silt w/ minor gravel; brown/orange; moist;			
				firm; moderately dense	SC-SM		
	B-2 @ 45-50'						
	1	1	1				
<b>5</b> 0	from cuttings		1				
50			1	Clayey silt w/ gravel; brown/orange; moist; soft to firm;	SC-SM		
				dense		1	
			1			1	
						1	
							,
		1	1			一	·



PROJECT: Montecito Fire Protection District	BORING NO: B-2
Location: 2500 East Valley Road, Santa Barbara	Logged By: Mike Maguire
	Checked by: Steve Campbell
Date: 11/2/10 Time Started/Finished: 0815 / 1415	Casing Size and Type: NA
Sampling Method: SPT & CA MOD	Screen Slot Size: NA Filter Pack: NA
	Elevation:
Rig Type: CME85 Drilling Contractor: S&G Drilling	Boring Location: north fence near East Valley Rd

Doub	Comple#	PID	Blows per		Graphic	H <sub>2</sub> 0	Well Con-
Depth (ft)	Sample #	ועוז	foot	USCS/Soil Description	Log		struction
60	B-2 @ 55-60' from cuttings		50 for 4"	Silty clay; brown/orange; moist to very moist; soft; dense  Silty clayey gravel w/ cobbles; brown/yellow/red; moist (some thin saturated zones); soft to firm; mod dense	SC-SM-CL-SM-CL-GM-GC		
65 70	B-2 @ 65-70' from cuttings			Clayey silt; brown; moist; soft; moderately dense  Harder material 70-73' then smooth drilling 73-75'; possible sandstone boulder	SM-CL		



PROJECT: Montecito Fire Protection District	BORING NO: B-2
Location: 2500 East Valley Road, Santa Barbara	Logged By: Mike Maguire
Date: 11/2/10	Checked by: Steve Campbell
Time Started/Finished: 0815 / 1415	Casing Size and Type: NA
Sampling Method: SPT & CA MOD	Screen Slot Size: NA Filter Pack: NA
Rig Type: CME85	Elevation:
Drilling Contractor: S&G Drilling	Boring Location: north fence near East Valley Rd

Depth (ft)	Sample #	PID	Blows per foot	USCS/Soil Description	Graphic Log	H <sub>2</sub> 0	Well Con- struction
75	B-2 @ 75'		50 for 3" (SPT)	Silty gravel w/ minor clay; brown/orange/tan; moist; firm to hard; moderately dense (sandstone cobble in tip of sampler)	=GM/GC		
80				Same as above	GM-GC		
85	B-2 @ 85'			Silty clay; brown; saturated; soft; dense	=SC-CL-		



<b>PROJECT</b> : Montecito Fire Protection District	BORING NO: B-2
Location: 2500 East Valley Road, Santa Barbara	Logged By: Mike Maguire
Date: 11/2/10	Checked by: Steve Campbell
Time Started/Finished: 0815 / 1415	Casing Size and Type: NA
Sampling Method: SPT & CA MOD	Screen Slot Size: NA Filter Pack: NA
Rig Type: CME85	Elevation:
Drilling Contractor: S&G Drilling	Boring Location: north fence near East Valley Rd

Depth	Sample #	PID	Blows per		Graphic	H <sub>2</sub> 0	Well Con-
(ft)	J		foot	USCS/Soil Description	Log		struction
90	B-2 @ 90'		50 for 4"	Sandy, clayey gravel; brown/orange; moist to saturated; firm to hard; moderately dense  Same as above			
100	B-2 @ 100'		50 for 3" (SPT)	Same as above	GC:		
				EOB = 100' Groundwater measured @ 53' 1 hour 55 min after end of drilling 0 - 1' cuttings 1 - 4' bentonite chips (hydrated) 4 - 100' backfilled with cuttings			



<b>PROJECT</b> : Montecito Fire Protection District	BORING NO: B-3
Location: 2500 East Valley Road, Santa Barbara	Logged By: Mike Maguire
Date: 11/2/10	Checked by: Steve Campbell
Time Started/Finished: 1640 / 1800	Casing Size and Type: NA
Sampling Method: CA MOD	Screen Slot Size: NA Filter Pack: NA
Rig Type: CME85	Elevation: to be surveyed Boring Location:
Drilling Contractor: S&G Drilling	between 4 & 5 lemon tree rows N. of E. Valley Rd
Drilling Contractor: S&G Diffing	between 1 ce 3 femical 200 to 15 femical 200 to

Depth (ft)	Sample #	PID	Blows per foot	USCS/Soil Description	Graphic Log	H <sub>2</sub> 0	Well Con- struction
1				Silty sand w/ organics and cobbles; dark brown; moist; soft to firm; loose	≡SM-GM		
	B-3 @ 2.5' B-3 @ 3.5' B-3 bulk @ 1-5'		36 18/50 for 5"	Silty sandy gravel w/ cobbles; brown; dry to moist; firm to hard; loose Same as above	The state of the s		
5	B-3 @ 5.5'		30/50 for 5"	Silty sandy gravel w/ cobbles; tan to brown; dry; firm to hard; moderately dense	GM SOL		
	B-3 @ 7.5'		16/50 for 5"	Silty sand w/ minor gravel; brown/orange; dry to moist; hard; loose	= SM =		
10	B-3 @ 10.5'		44/50 for 4"	Silty sandy gravel w/ cobbles; brown/tan; moist; hard; moderately dense		A. T. C.	
15	B-3 @ 15.5°		37/50 for 3"	Silty clayey gravel & cobbles; brown to dark brown; moist; hard; moderately dense		10 10 25 08 10 U.S. Ke 10 18 50	



<b>PROJECT</b> : Montecito Fire Protection District	BORING NO: B-3
Location: 2500 East Valley Road, Santa Barbara	Logged By: Mike Maguire
Date: 11/2/10	Checked by: Steve Campbell
Time Started/Finished: 1640 / 1800	Casing Size and Type: NA
Sampling Method: CA MOD	Screen Slot Size: NA Filter Pack: NA
Rig Type: CME85	Elevation: to be surveyed Boring Location:
Drilling Contractor: S&G Drilling	between 4 & 5 lemon tree rows N. of E. Valley Rd
Dritting Community. Said Diffing	

Depth (ft)	Sample #	PID	Blows per foot	USCS/Soil Description	Graphic Log	H <sub>2</sub> 0	Well Con- struction
18	B-3 @ 21'		50	Clayey gravel w/ cobbles; brown/orange; moist; firm to			
				hard; moderately dense  EOB = 21' No groundwater encountered Backfill: 0 - 1 cuttings 1 - 7 bentonite chips (hydrated) 7 -21 cuttings	F100000		

	Date: 11/5/
00 East	Location: 25
Montec	<b>bKO1ECL</b> :

Supplyo to to small part House C 20 7 Hooms	Drilling Contractor: S&G Drilling
Elevation: to be surveyed Boring Location:  between 2 & 3 lemon tree rows S. of existing access road	Rig Type: CME75
Screen Slot Size: NA Filter Pack: NA	Sampling Method: SPT & CA MOD
Casing Size and Type: NA	Time Started/Finished: 1640 / 1820
Checked by: Steve Campbell	Date: 11/5/10
Logged By: Mike Maguire	Producer: Noncons Analysis Road, Santa Barbara
BOKING NO: B-4	<b>PROJECT:</b> Montecito Fire Protection District

	HEIDERIANITAPERINIPARA .: SSETE N. F. BOTT SOLESOLETA		Silty clayey gravel & cobbles; brown; slightly moist; hard; loose to moderately dense	24/50 for 6"		B-† ® 14'2,	SI
	ن <u>ء</u>	GW C	to moderately dense	"č roî	1		
	013. 95	0000	Silty sandy gravel w' cobbles; brown/tan; dry; hard; loose	05/77		B-4 @ 10.	10
	,					۶-۱۵،	
		0,000			ļ	B-4 pajk @	
	10.00 M	000				no recovery	
		ponjqet	Sandstone boulder – 5.5 – 7.5°	50 for 3"		B-4 <b>᠖</b> 1. (psffic ouly) B-1 <b>⑥</b> 6.	
						по гесочету	
		CW C	Same as above, but light brown	°5 for 3"		B-t 🕲 २,	Ş
		0000	Same as above	19		B-¢ ⊚ ¢.	
		\$ 500 S					
		. WO	firm to hard; loose				
			Silty sandy gravel w/ cobbles; tan to brown; dry to moist;	67		B-4 @ 5.	
		SW-CW	soft to firm; loose				ı
		000	Silty sand w/ organics and cobbles; dark brown; moist;				0
struction		Log	USCS/Soil Description	ber foot	DIG	Sample #	(ft) Depth
Well Con-	H <sup>s</sup> 0	Graphic					

H://Campbell/Geo/Lients/Montecito FPD/Stn 3 Project/GeologicGeotech Project/Boring Logs/Boring Log-B-4.doc



O Pistist	BORING NO: B-4
<b>PROJECT</b> : Montecito Fire Protection District	
Location: 2500 East Valley Road, Santa Barbara	Logged By: Mike Maguire
Date: 11/5/10	Checked by: Steve Campbell
Date: 11/3/10	Casing Size and Type: NA
Time Started/Finished: 1640 / 1820	Screen Slot Size: NA Filter Pack: NA
Sampling Method: SPT & CA MOD	Elevation: to be surveyed Boring Location:
Rig Type: CME75	Elevation. to be surveyed 20 of evicting coness road
Drilling Contractor: S&G Drilling	between 2 & 3 lemon tree rows S. of existing access road

	struction
4 I	
1	

### WWBBEFF.eeo INC BOSING FOC

3 N
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of fence at East Valley Road	Drilling Contractor: Filipponi & Thompson Drilling
Elevation: Boring Location: 6 feet north	Rig Type: Speed Star SS15 6%" bit/Air & Mud Rotary
Screen Slot Size: NA Filter Pack: NA	Sampling Method:
Casing Size and Type: NA	Time Started/Finished: 1050/1600 & 0830/1300
Checked by: Steve Campbell	Date: 11/8/10 & 11/9/10
Fogged By: Mike Maguire	Location: 2500 East Valley Road, Santa Barbara
BOKING NO: B-2	<b>PROJECT:</b> Montecito Fire Protection District

			Same as above			B-5 @ 250,	720
			Silty sandy gravel; brown/orange			B-2 @ 540.	
				739،			ļ
			Зате аз ароуе			B-5 @ 227'	
	İ		Same as above			B-2 @ 220	
			Sandy gravel			B-2 @ 510.	
			<b>Зате аз аро</b> ve			B-2 @ 500,	200
			Silty sand gravel; light brown	-		B-2 @ 180.	
			Same as above 180-184' change in consistency per driller; slight			B-2 @ 180,	
			Silty gravel w/ chunks of siltstone			B-5 @ 170°	
			Silty sand w/ gravel; light brown			B-2 @ 190,	
			Рате вз вроче			B-2 @ 120.	120
			Звте ва вроче			B-2 @ 140.	
			Silty sand w/ minor gravel; brown to light brown			B-2 @ 130,	
			Silty sandy gravel; brown; loose to moderately dense			B-2 @ 150,	
			Silty sand w/ minor gravel; brown; loose Same as above			B-2 @ 110,	
			Same as above			B-2 @ 100,	100
		1	Silty sandy gravel; brown; loose to moderately dense			B-2 @ 60,	
			Saturated; moderately dense Sandstone boulder @ 80°			B-2 @ 80.	
			Silty gravel; brown/orange; moist to saturated Silty gravel w/ minor clay; brown/orange; moist to			B-2 @ 10,	
			moist; moderately dense; 52-56' sandstone boulder			B-2 @ 90,	
			Silty sandy gravel w/ minor clay; brown/orange;			B-2 @ 20.	05
			silty sand w/ minor gravel; brown/orange; slightly moist same as above	35,		B-2 ® 40,	
			Boulder at 25'	-50		B-2 @ 30,	
			Same as above, but loose to moderately dense			B-2 @ 50,	
			Silty gravel; tan to brown; dry; loose; hard Same as above			B-2 © 10, B-2 © 17,	01
Well Construction	0 <sup>z</sup> H	oidqsrD goJ	USCS/Soil Description	Blows per foot	מיז	Sample #	Depth (ft) 0
tt_\III	VП	2:4-0-5		שוטוזיים שטה	PID	4 010000	Atme/

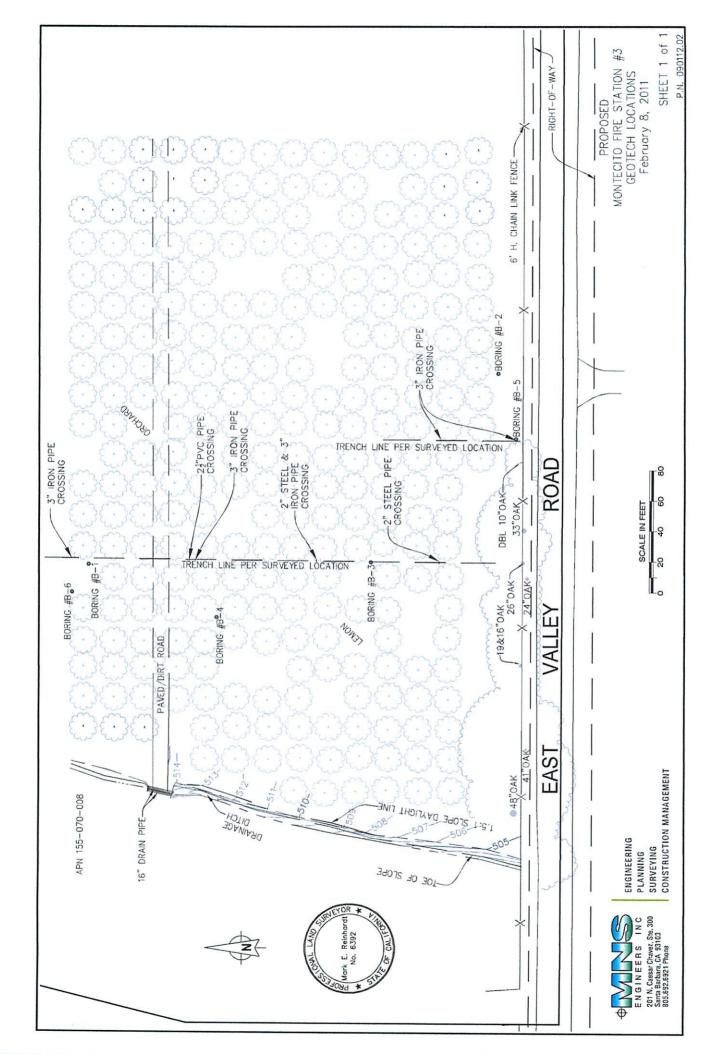
<b>PROJECT</b> : Montecito Fire Protection District	BORING NO: B-5		
Location: 2500 East Valley Road, Santa Barbara	Logged By: Mike Maguire		
Date: 11/8/10 & 11/9/10	Checked by: Steve Campbell		
Time Started/Finished: 1050/1600 & 0830/1300	Casing Size and Type: NA		
Sampling Method:	Screen Slot Size: NA Filter Pack: NA		
Rig Type: Speed Star SS15 6¾" bit/Air & Mud Rotary	Elevation: Boring Location: 6 feet north		
Drilling Contractor: Filipponi & Thompson Drilling	of fence at East Valley Road		

Depth (ft) 250	Sample #	PID	Blows per foot	USCS/Soil Description	Graphic Log	H <sub>2</sub> 0	Well Construction
350	B-5 @ 260' B-5 @ 270' B-5 @ 280' B-5 @ 290' B-5 @ 300' B-5 @ 310' B-5 @ 320' B-5 @ 330' B-5 @ 340'		316*	Same as above  Silty sandy gravel; tan to brown; loose to moderately dense Silty gravel w/ minor clay; tan to brown; moderately dense Sandy silty gravel; tan to brown & gray; loose to moderately dense Same as above  Same as above  Silty gravel w/ minor clay; brown; moderately dense Same as above  Silty sandy gravel; brown; loose  Same as above  Same as above			
				EOB = 370' Groundwater noted but not measured due to mud rotary drilling methods Backfilled with gravel; placed concrete plug 0-10'			



<b>PROJECT</b> : Montecito Fire Protection District	BORING NO: B-6		
Location: 2500 East Valley Road, Santa Barbara	Logged By: Mike Maguire		
Date: 11/9/10	Checked by: Steve Campbell		
Time Started/Finished: 1430 / 1630	Casing Size and Type: NA Screen Slot Size: NA		
Sampling Method:	Filter Pack: NA Elevation:		
Rig Type: Speed Star SS15 63/4" bit/Mud Rotary	Boring Location: between 5 & 6 rows of lemon trees from		
Drilling Contractor: Filipponi & Thompson Drilling	illing creek on the west; ±68' from center of existing driveway		

Depth (ft)	Sample #	PID	Blows per foot	USCS/Soil Description	Graphic Log	H <sub>2</sub> 0	Well Construction
10	B-6 @ 10'			Silty sandy gravel w/ cobbles; brown/gray; loose			
	B-6 @ 20'			Same as above			
	B-6 @ 30'			Same as above but light brown			
	B-6 @ 40°			same as above but brown to red/brown			
_50	B-6 @ 50'			Same as above			
	B-6 @ 60'			Silty clayey gravel; brown; loose to moderately dense			
	B-6 @ 70°			Same as above			
	B-6 @ 80'			Silty sandy gravel; brown; loose to moderately dense			
	B-6 @ 90'			Same as above			
100	B-6 @ 100'			Same as above			
	B-6 @ 110'			Silty clayey gravel; brown/red; moderately dense			
	B-6 @ 120'			Silty sandy gravel; brown; loose to moderately dense			
	B-6 @ 130'			Same as above			
	B-6 @ 140'			Same as above			
150	B-6 @ 150'			Same as above			
	B-6 @ 160'			Sandy clayey gravel; brown/red; moderately dense			
	B-6 @ 170'			Silty sandy gravel w/ minor clay			
	B-6 @ 180'			Silty sandy gravel; brown; loose			
	B-6 @ 190'			Same as above			
195 200	B-6 @ 200'			Same as above			
				EOB = 200' Groundwater not measured; mud-rotary drilling; Backfilled with gravel; placed concrete plug at 1-10'			
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### APPENDIX B

Laboratory Data

### SUMMARY OF FIELD MOISTURE/DENSITY RELATIONSHIPS

# (ASTM: D2216) MFPD Station 3 Site November 2010

SAMPLE LOCATION	FIELD MOISTURE CONTENT (%)	FIELD DRY DENSITY (pcf)
B-1 @ 2.5'	9.1	120.8
B-1 @ 7.5'	14.2	119.1
B-2 @ 1.5'	12.8	92.0
B-2 @ 8'	14.0	120.0
B-3 @ 2.5'	13.0	116.3
B-3 @ 3.5'	9.7	110.4
B-3 @ 5.5'	13.4	115.9
B-3 @ 7.5'	7.9	117.0
B-3 @ 10.5'	15.2	112.3
B-3 @ 15.5'	12.0	111.0
B-3 @ 21'	8.7	
B-4 @ 2'	6.1	120.9
B-4 @ 4'	8.1	110.3
B-4 @ 10'	8.6	109.1
B-4 @ 14'	6.9	124.1

#### **DIRECT SHEAR**

(ASTM: D3080)
MFPD Station 3 Site
November 2010

Sample Location	Angle of Internal Friction ( <sup>0</sup> )	Cohesion (psf)	Remarks
B-3 @ 1-5'	27	200	Remolded to 90% relative compaction, soaked, saturated, drained
B-4 @ 5-10'	30	250	Remolded to in-place density and w/c, soaked, saturated, drained

### **ATTERBERG LIMITS**

(ASTM: D4318)
MFPD Station 3 Site
November 2010

Sample	Liquid Limit	Plastic Limit	Plasticity Index (%)	Unified Soil
Location	(%)	(%)		Class
B-1 @ 1-5'	22	22	0	ML

### R-VALUE (Cal Test 307-F) MFPD Station 3 Site November 2010

Sample Location	R-Value
B-3 @ 1-5' and B-3 @ 5-10' (mixed)	23

#### **EXPANSION INDEX**

(ASTM: D4829)
MFPD Station 3 Site
November 2010

Sample Location	Initial Moisture (%)	Compacted Dry Density (pcf)	Final Moisture (%)	Expansion Index	Expansion Potential
B-3 @ 1-5'	8.2	117.6	15.8	40	low

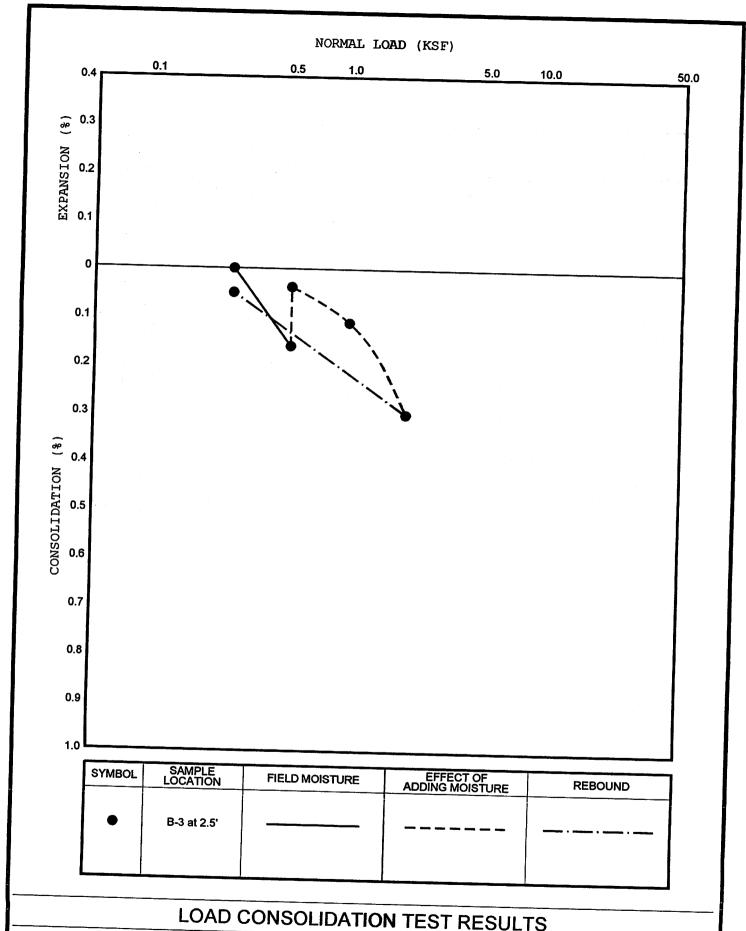
### MAXIMUM DRY DENSITY/OPTIMUM MOISTURE CONTENT

(ASTM: D1557)
MFPD Station 3 Site
November 2010

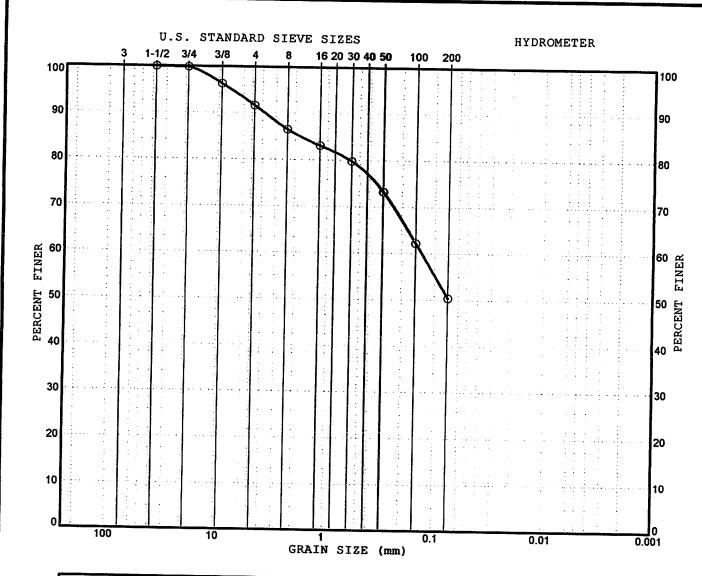
Sample Location	Description	Maximum Dry Density (pcf)	Optimum Moisture Content (%)
B-3 @ 1-5'	Brown silty sand	130.0	9.0
B-3 @ 5-10'	Brown silty sand	130.0	8.5

# CORROSIVITY TEST RESULTS MFPD Station 3 Site November 2010

Sample Location	Soluble Sulfate (Cal Test 417) %	Resistivity (Cal Test 643) (ohm-cm)	Chloride (Cal Test 422) (mg/kg)	ph (EPA 9045c)
B-3 @ 1-5'	.0033	8,420	5.1	7.39
B-3 @ 5-10'	.0020	11,000	<5.0	7.83



HETHERINGTON ENGINEERING, INC. GEOTECHNICAL CONSULTANTS	MFPD Station 3 Montecito, California			
SEG FECHNICAL CONSULTANTS	PROJECT NO.	6730.1	FIGURE NO.	



COBBLES	GRA	GRAVEL		SAND		
0023220	Coarse	Fine	Coarse	Medium	Fine	SILT and CLAY

SYMBOL	SAMPLE LOCATION	% PASSING NO. 4 SIEVE	% PASSING NO. 200 SIEVE	% FINER 2 MICRONS	UNIFIED SOIL CLASSIFICATION
0	B-3 at 1.0' - 5.0'	92	50		ML

### **GRADATION TEST RESULTS**

HETHERINGTON ENGINEERING, INC.

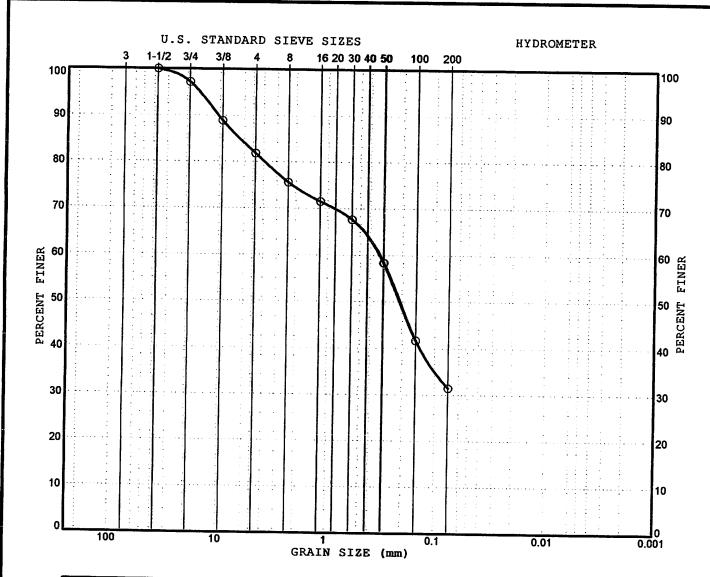
**GEOTECHNICAL CONSULTANTS** 

MFPD S	
Montecito,	California

PROJECT NO.

6730.1

FIGURE NO.



COBBLES	GRA	VEL	SAND				
COBBLLO	Coarse	Fine	Coarse	Medium	Fine	SILT and CLAY	

SYMBOL	SAMPLE LOCATION	% PASSING NO. 4 SIEVE	% PASSING NO. 200 SIEVE	% FINER 2 MICRONS	UNIFIED SOIL CLASSIFICATION
0	B-4 at 5.0' - 10.0'	82	32		SM

# **GRADATION TEST RESULTS**

HETHERINGTON ENGINEERING, INC.
GEOTECHNICAL CONSULTANTS

MFPD Station 3 Montecito, California

PROJECT NO.

6730.1

FIGURE NO.

# **APPENDIX C**

USGS Seismic Response Spectra (from Ground Motion Calculator – v. 5.1.0)

USGS 2008 Interactive Deaggregation Seismic Source Parameters

Estimation of Peak Horizontal Site Acceleration in Last 209 Years from EQSEARCH (ver. 3.0, 2005 with catalog files updated through December 31, 2008)

Probabilistic and Deterministic Ground-Motion Evaluation EZ-FRISK (v.7.51)

```
USGS Java calculator ASCE 7-05.txt
MFPD Stn 3 - February 2011
Conterminous 48 States
2005 ASCE 7 Standard
Latitude = 34.4369
Longitude = -119.5943999999998
Spectral Response Accelerations Ss and S1
Ss and S1 = Mapped Spectral Acceleration Values
Site Class B - Fa = 1.0, Fv = 1.0
Data are based on a 0.01 deg grid spacing
  Period
             Sa
           (g)
2.420 (Ss, Site Class B)
0.913 (S1, Site Class B)
  (sec)
   0.2
   1.0
Conterminous 48 States
2005 ASCE 7 Standard
Latitude = 34.4369
Longitude = -119.59439999999998
Spectral Response Accelerations SMs and SM1
SMs = Fa x Ss and SM1 = Fv x S1
Site Class D - Fa = 1.0 ,Fv = 1.5
  Period
             Sa
  (sec)
            (g)
   0.2
           2.420 (SMs, Site Class D)
           1.369 (SM1, Site Class D)
Conterminous 48 States
2005 ASCE 7 Standard
Latitude = 34.4369
Longitude = -119.59439999999998
Design Spectral Response Accelerations SDs and SD1
SDs = 2/3 x SMs and SD1 = 2/3 x SM1
Site Class D - Fa = 1.0 , Fv = 1.5
  Period
             Sa
            (g)
  (sec)
           1.613 (SDs, Site Class D)
0.913 (SD1, Site Class D)
   0.2
   1.0
Conterminous 48 States
2005 ASCE 7 Standard
Latitude = 34.4369
Longitude = -119.5943999999998
MCE Response Spectrum for Site Class B
Ss and S1 = Mapped Spectral Acceleration Values
Site Class B - Fa = 1.0, Fv = 1.0
 Period
               Sa
                           Sd
             (g)
0.968
  (sec)
                       (inches)
                        0.000
 0.000
             2.420
 0.075
                        0.134
 0.200
             2.420
                        0.946
                        3.362
 0.377
             2.420
 0.400
             2.282
                        3.567
 0.500
             1.825
                        4.458
 0.600
             1.521
                        5.350
 0.700
             1.304
                        6.241
 0.800
             1.141
                        7.133
 0.900
             1.014
                        8.025
```

Page 1

```
USGS Java calculator ASCE 7-05.txt
                         8.916
  1.000
              0.913
  1.100
              0.830
                         9.808
  1.200
              0.761
                         10.700
              0.702
                         11.591
  1.300
  1.400
              0.652
                         12.483
  1.500
              0.608
                         13.375
                         14.266
  1.600
              0.570
                         15.158
  1.700
              0.537
  1.800
                         16.049
              0.507
  1.900
              0.480
                         16.941
  2.000
                         17.833
              0.456
Conterminous 48 States
2005 ASCE 7 Standard
Latitude = 34.4369
Longitude = -119.5943999999998
Site Modified Response Spectrum for Site Class D
SMS = FaSs \text{ and } SM1 = FvS1
Site Class D - Fa = 1.0, Fv = 1.5
  Period
                Sa
                           Sd
             (g)
0.968
  (sec)
                        (inches)
  0.000
                         0.000
  0.113
             2.420
                         0.303
  0.200
             2.420
                         0.946
  0.566
             2.420
                         7.565
  0.600
             2.282
                         8.025
  0.700
             1.956
                         9.362
  0.800
                         10.700
             1.711
             1.521
1.369
1.244
  0.900
                         12.037
  1.000
1.100
                         13.375
14.712
  1.200
             1.141
                         16.049
  1.300
                         17.387
             1.053
  1.400
             0.978
                         18,724
  1.500
             0.913
                         20.062
  1.600
             0.856
                         21.399
  1.700
             0.805
                         22.737
  1.800
             0.761
                         24.074
  1.900
                         25.412
26.749
             0.720
  2.000
             0.684
Conterminous 48 States
2005 ASCE 7 Standard
Latitude = 34.4369
Longitude = -119.5943999999998
Design Response Spectrum for Site Class D
SDS = 2/3 x SMs and SD1 = 2/3 x SM1
Site Class D - Fa = 1.0, Fv = 1.5
  Period
               Sa
                           Sd
             (g)
0.645
  (sec)
                       (inches)
  0.000
                        0.000
  0.113
             1.613
                        0.202
  0.200
             1.613
                        0.631
  0.566
             1.613
                        5.043
  0.600
             1.521
                        5.350
             1.304
                        6.241
  0.700
             1.141
                        7.133
  0.800
  0.900
             1.014
                        8.025
```

1.000

0.913

8.916

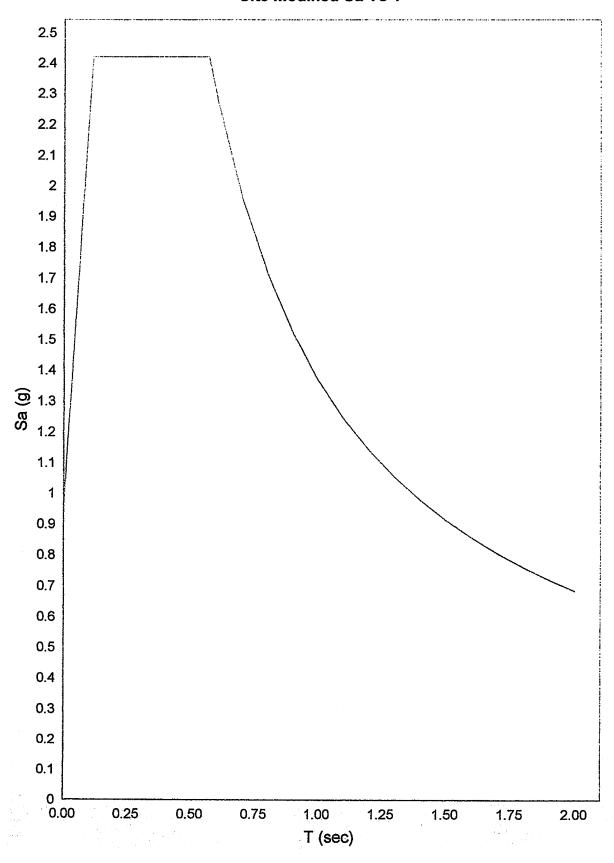
Page 2

# USGS Java calculator ASCE 7-05.txt 9.808 10.700 11.591 12.483 13.375 14.266 15.158 16.049 16.941 17.833 1.100 1.200 1.300 1.400 1.500 1.600 1.700 0.830 0.761 0.702 0.652 0.608 0.570 0.537

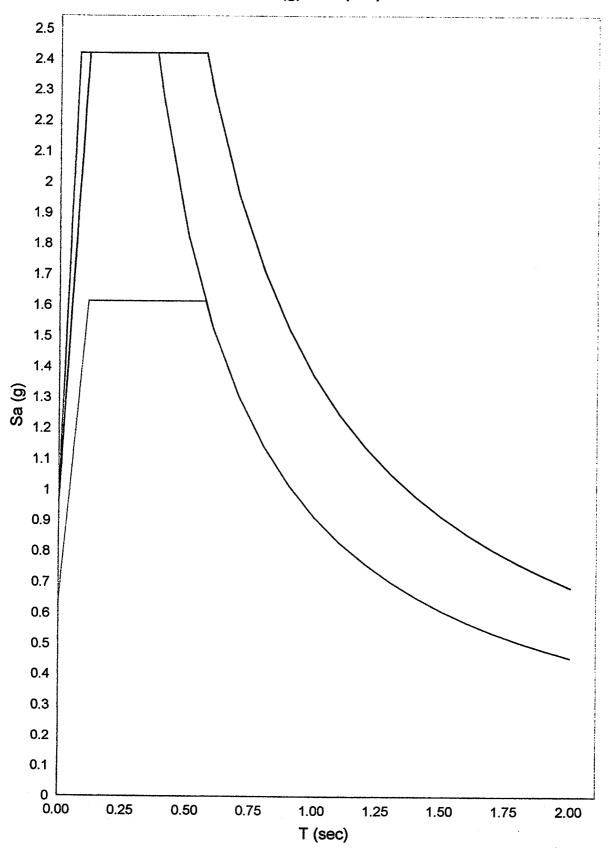
1.900

0.480 0.456

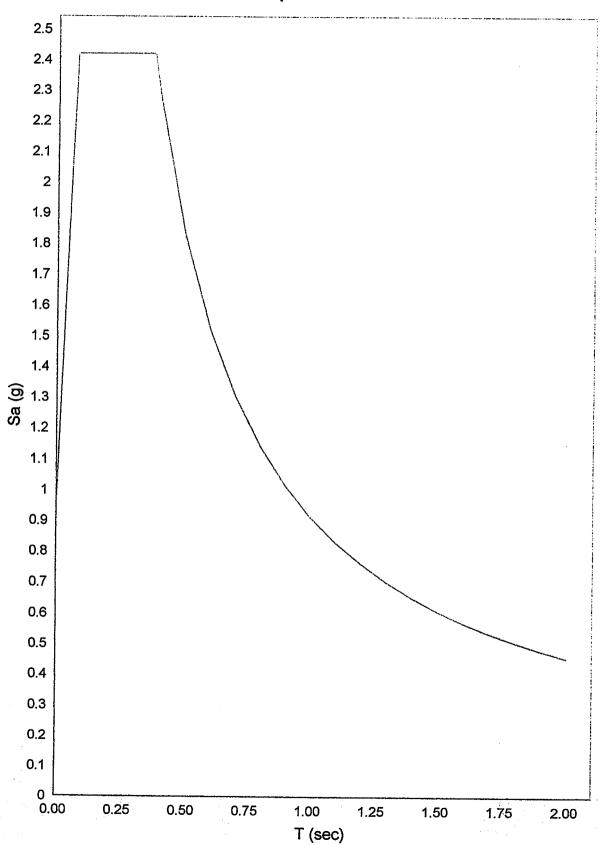
Site Modified Sa Vs T



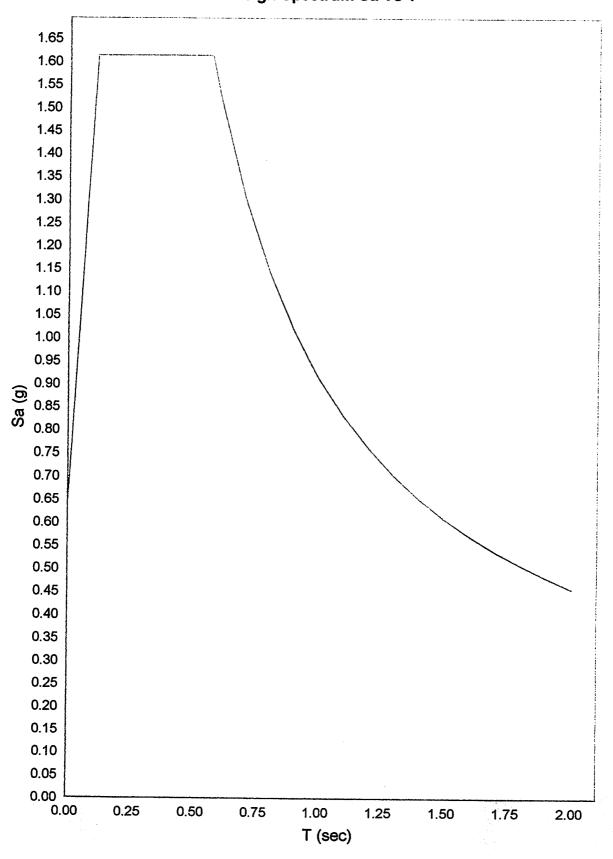
Sa (g) Vs T (sec)

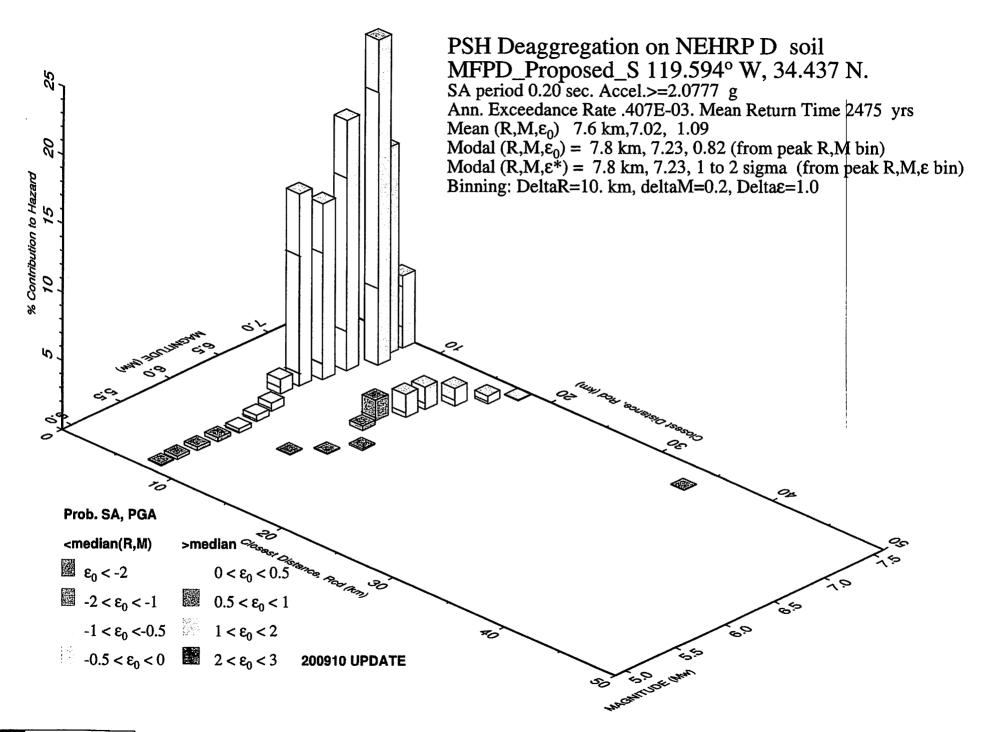


MCE Spectrum Sa Vs T



Design Spectrum Sa Vs T





```
*** Deaggregation of Seismic Hazard at One Period of Spectral Accel. ***
*** Data from U.S.G.S. National Seismic Hazards Mapping Project, 2008 version ***
PSHA Deaggregation. % Contributions. Site: MFPD Proposed S long: 119.594 d W., lat: 34.437 N.
Input Vs30 (m/s) = 270.0 (some WUS atten. models use Site Class not Vs30).
NSHMP 2007-08 update. See USGS OFR 2008-1128. Analysis on DaMoYr:17/02/2011
Mean Return Period: 2475 years. 0.20 s. PSA =2.0777 g. Weight * Computed_Rate_Ex 0.407E-03
#Pr[at least one eq with median motion>=PSA in 50 yrs]=0.00038
#This deaggregation corresponds to Mean Hazard w/all GMPEs
DIST(km) MAG(Mw) ALL EPS EPSILON>2 1<EPS<2 0<EPS<1 -1<EPS<0 -2<EPS<-1 EPS<-2
          5.05
                  0.106
                           0.106
                                   0.000
                                             0.000
                                                      0.000
                                                               0.000
                                                                        0.000
    7.7
    7.8
           5.20
                  0.239
                           0.239
                                    0.000
                                             0.000
                                                      0.000
                                                               0.000
                                                                        0.000
    7.9
          5.40
                  0.272
                           0.251
                                    0.021
                                             0.000
                                                      0.000
                                                               0.000
                                                                        0.000
    7.9
                                                                        0.000
          5.60
                  0.294
                           0.246
                                    0.048
                                             0.000
                                                      0.000
                                                               0.000
    8.0
          5.80
                  0.304
                         0.230
                                    0.074
                                             0.000
                                                      0.000
                                                              0.000
                                                                        0.000
                                                      0.000
   12.5
          5.81
                  0.052
                          0.052 0.000
                                             0.000
                                                              0.000
                                                                        0.000
   7.7
          6.01
                  0.429
                          0.327
                                    0.103
                                             0.000
                                                     0.000
                                                              0.000
                                                                       0.000
   14.2
          6.00
                  0.064
                          0.064
                                    0.000
                                             0.000
                                                     0.000
                                                              0.000
                                                                       0.000
   7.4
          6.20
                  0.580
                          0.409
                                    0.172
                                             0.000
                                                     0.000
                                                              0.000
                                                                       0.000
   15.4
                          0.098
                                                     0.000
                                                                       0.000
          6.21
                  0.098
                                    0.000
                                             0.000
                                                              0.000
    6.1
          6.43
                  1.042
                           0.574
                                    0.449
                                             0.018
                                                     0.000
                                                              0.000
                                                                       0.000
   13.5
          6.44
                          0.277
                                  0.035
                                             0.000
                                                    0.000
                                                              0.000
                                                                       0.000
                 0.312
    6.2
          6.61
                           4.496
                                    8.573
                                             0.907
                                                    0.000
                                                              0.000
                                                                       0.000
                 13.976
   13.1
          6.61
                 1.460
                          1.249
                                    0.211
                                             0.000
                                                     0.000
                                                              0.000
                                                                        0.000
    6.6
                           3.582
                                                     0.000
                                                              0.000
                                                                       0.000
          6.80
                 12.813
                                    8.093
                                             1.138
   14.2
          6.79
                          1.335
                  1.666
                                    0.331
                                             0.000
                                                     0.000
                                                              0.000
                                                                       0.000
                                 11.138
    6.9
          7.01
                           4.234
                                                     0.000
                                                              0.000
                                                                       0.000
                18.251
                                             2.879
                                                     0.000
   14.3
          6.97
                                            0.000
                                                              0.000
                 1.615
                          1.165
                                   0.451
                                                                       0.000
   7.8
          7.23
                 23.815
                          3.927 14.277
                                             5.611
                                                    0.000
                                                              0.000
                                                                       0.000
   15.3
          7.15
                 1.262
                          0.844
                                 0.418
                                             0.000
                                                    0.000
                                                              0.000
                                                                       0.000
   7.1
          7.38
                 14.997
                          2.639
                                  8.392
                                             3.950
                                                     0.016
                                                              0.000
                                                                       0.000
   16.6
          7.34
                  0.565
                          0.402
                                    0.163
                                             0.000
                                                     0.000
                                                              0.000
                                                                       0.000
   34.3
          7.34
                  0.051
                           0.051
                                    0.000
                                             0.000
                                                     0.000
                                                              0.000
                                                                       0.000
   7.2
          7.54
                  5.291
                           0.794
                                    2.916
                                             1.538
                                                      0.043
                                                              0.000
                                                                       0.000
   17.7
          7.52
                  0.086
                           0.065
                                    0.020
                                             0.000
                                                      0.000
                                                              0.000
                                                                       0.000
Summary statistics for above 0.2s PSA deaggregation, R=distance, e=epsilon:
Contribution from this GMPE(%): 100.0
                    7.6 km; M= 7.02; eps0=
Mean src-site R=
                                            1.09. Mean calculated for all sources.
                    7.8 km; M= 7.23; eps0=
Modal src-site R=
                                            0.82 from peak (R,M) bin
MODE R*= 7.8km; M*= 7.23; EPS.INTERVAL: 1 to 2 sigma % CONTRIB.= 14.277
Principal sources (faults, subduction, random seismicity having > 3% contribution)
Source Category:
                                % contr. R(km)
                                                 M
                                                      epsilon0 (mean values).
California B-faults Char
                                  54.59
                                           7.4
                                                 7.17
                                                         1.02
California B-faults GR
                                  41.63
                                           7.9
                                                 6.90
                                                         1.10
CA Compr. crustal gridded
                                   3.77
                                           8.8
                                                 6.03
                                                         1.95
Individual fault hazard details if its contribution to mean hazard > 2%:
Fault ID
                                          Rcd(km) M
                                % contr.
                                                       epsilon0 Site-to-src azimuth(d)
Santa Ynez (West) Char
                                   4.23
                                           7.5
                                                6.88
                                                       1.58
                                                                  -47.7
                                                7.15
                                                       1.04
Santa Ynez (East) Char
                                   6.67
                                           5.9
                                                                    9.3
Mission Ridge-Arroyo Parida-Sant
                                  5.85
                                           0.3 6.78 1.05
                                                                    6.9
                                                                 -179.3
Red Mountain Char
                                  14.97
                                           7.3
                                                 7.40
                                                         0.69
Pitas Point (Lower)-Montalvo Cha
                                                 7.25
                                11.67
                                           9.1
                                                         0.75
                                                                 175.7
                                                         1.07
Santa Ynez Connected Char
                                   5.20
                                                 7.34
                                           5.9
                                                                    9.3
Mission Ridge-Arroyo Parida-Sa G
                                   2.88
                                           2.4
                                                 6.66
                                                         1.22
                                                                  173.7
Santa Ynez (East) GR
                                   2.18
                                           6.6
                                                 6.87
                                                         1.36
                                                                  39.9
Red Mountain GR
                                  14.15
                                           7.5
                                                 7.01
                                                         0.93
                                                                 -172.1
Pitas Point (Lower)-Montalvo GR
                                  15.61
                                           9.1
                                                 6.86
                                                         0.99
                                                                  175.6
Santa Ynez Connected GR
                                   4.44
                                           6.2
                                                 7.01
                                                         1.24
                                                                    8.7
```

#\*\*\*\*\*\*\*End of deaggregation corresponding to Mean Hazard w/all GMPEs

```
PSHA Deaggregation. % Contributions. Site: MFPD Proposed S long: 119.594 d W., lat: 34.437 N.
Input Vs30 (m/s) = 270.0 (some WUS atten. models use Site Class not Vs30).
NSHMP 2007-08 update. See USGS OFR 2008-1128. Analysis on DaMoYr:17/02/2011
Mean Return Period: 2475 years. 0.20 s. PSA =2.0777 g. Weight * Computed_Rate_Ex 0.196E-03
#Pr[at least one eq with median motion>=PSA in 50 yrs]=0.00000
#This deaggregation corresponds to Boore-Atkinson 2008
DIST(km) MAG(Mw) ALL EPS EPSILON>2 1<EPS<2 0<EPS<1 -1<EPS<0 -2<EPS<-1 EPS<-2
    7.4
           5.41
                   0.043
                            0.043
                                     0.000
                                             0.000
                                                      0.000
                                                               0.000
    7.7
           5.60
                   0.069
                            0.069
                                     0.000
                                             0.000
                                                      0.000
                                                               0.000
                                                                        0.000
    7.9
           5.80
                   0.096
                           0.096
                                     0.000
                                             0.000
                                                      0.000
                                                               0.000
                                                                        0.000
    7.5
           6.02
                  0.179
                           0.171
                                    0.008
                                             0.000
                                                      0.000
                                                               0.000
                                                                        0.000
                         0.027
   14.5
           6.00
                  0.027
                                    0.000
                                             0.000
                                                     0.000
                                                               0.000
                                                                        0.000
    7.2
          6.20
                  0.278
                         0.256
                                                   0.000
                                    0.022
                                             0.000
                                                               0.000
                                                                        0.000
   15.6
           6.21
                  0.054
                         0.054
                                    0.000
                                             0.000
                                                     0.000
                                                               0.000
                                                                        0.000
    6.0
           6.43
                  0.488
                           0.341
                                    0.138
                                             0.009
                                                      0.000
                                                               0.000
                                                                        0.000
   13.9
           6.43
                  0.157
                           0.142
                                    0.015
                                             0.000
                                                      0.000
                                                               0.000
                                                                        0.000
    6.7
           6.61
                  6.726
                           1.636
                                    4.562
                                             0.527
                                                      0.000
                                                               0.000
                                                                        0.000
   13.3
           6.60
                  0.738
                           0.600
                                    0.139
                                             0.000
                                                      0.000
                                                               0.000
                                                                        0.000
   22.7
           6.61
                  0.041
                           0.041
                                    0.000
                                             0.000
                                                      0.000
                                                               0.000
                                                                        0.000
   6.2
           6.79
                  7.482
                         1.432
                                    5.068
                                             0.982
                                                      0.000
                                                               0.000
                                                                        0.000
   14.3
           6.79
                  1.055
                           0.776
                                    0.279
                                             0.000
                                                      0.000
                                                               0.000
                                                                        0.000
   23.1
          6.79
                  0.040
                           0.040
                                    0.000
                                             0.000
                                                      0.000
                                                               0.000
                                                                        0.000
    6.8
          7.01
                  8.947
                         1.521
0.632
                                    5.783
                                                      0.000
                                             1.642
                                                               0.000
                                                                        0.000
   14.6
          6.98
                  0.894
                                                      0.000
                                    0.262
                                             0.000
                                                               0.000
                                                                        0.000
   38.0
          7.06
                  0.035
                         0.035
                                  0.000
                                             0.000
                                                     0.000
                                                               0.000
                                                                        0.000
   7.7
          7.23
                 11.278
                         1.519
                                    6.814
                                                      0.000
                                             2.944
                                                               0.000
                                                                        0.000
   15.2
          7.16
                  0.530
                         0.330
                                    0.200
                                             0.000
                                                      0.000
                                                               0.000
                                                                        0.000
   36.7
          7.20
                  0.033
                          0.033
                                    0.000
                                             0.000
                                                      0.000
                                                               0.000
                                                                        0.000
    7.1
          7.38
                  6.372
                           0.859
                                    4.015
                                                      0.000
                                             1.498
                                                               0.000
                                                                        0.000
   16.8
          7.34
                  0.232
                          0.167
                                    0.066
                                             0.000
                                                      0.000
                                                               0.000
                                                                        0.000
   35.3
          7.34
                  0.027
                           0.027
                                    0.000
                                             0.000
                                                      0.000
                                                               0.000
                                                                        0.000
    7.2
          7.54
                  2.242
                           0.283
                                    1.356
                                             0.603
                                                      0.000
                                                               0.000
                                                                        0.000
   17.9
          7.52
                  0.034
                           0.027
                                    0.007
                                             0.000
                                                      0.000
                                                               0.000
                                                                        0.000
Summary statistics for above 0.2s PSA deaggregation, R=distance, e=epsilon:
Contribution from this GMPE(%): 48.2
Mean src-site R= 7.7 km; M= 7.01; eps0=
                                           1.01. Mean calculated for all sources.
                   7.7 km; M= 7.23; eps0= 0.77 from peak (R,M) bin
Modal src-site R=
 MODE R*= 7.7km; M*= 7.22; EPS.INTERVAL: 1 to 2 sigma % CONTRIB.= 6.814
Principal sources (faults, subduction, random seismicity having > 3% contribution)
Source Category:
                                % contr. R(km)
                                                       epsilon0 (mean values).
                                                 М
California B-faults Char
                                  25.38
                                            7.4
                                                  7.16
                                                          0.97
California B-faults GR
                                  21.33
                                            7.9
                                                  6.89
                                                          1.00
Individual fault hazard details if its contribution to mean hazard > 2%:
Fault ID
                                % contr. Rcd(km) M epsilon0 Site-to-src azimuth(d)
Santa Ynez (West) Char
                                   1.97
                                           7.5 6.88
                                                       1.49
                                                                  -47.7
Santa Ynez (East) Char
                                   3.31
                                           5.9 7.14
                                                       0.90
                                                                    9.3
Mission Ridge-Arroyo Parida-Sant
                                   3.04
                                           0.3 6.78
                                                         0.90
                                                                     6.9
Red Mountain Char
                                   6.42
                                           7.3 7.40
                                                         0.71
                                                                 -179.3
Pitas Point (Lower)-Montalvo Cha
                                  5.35
                                           9.1 7.24
                                                       0.72
                                                                  175.7
Santa Ynez Connected Char
                                   2.43
                                           5.9
                                                7.34
                                                         0.96
                                                                    9.3
Mission Ridge-Arroyo Parida-Sa G
                                                6.66
                                   1.53
                                           2.4
                                                         1.05
                                                                  173.7
Santa Ynez (East) GR
                                                         1.22
                                   1.13
                                           6.7 6.87
                                                                  39.9
Red Mountain GR
                                   6.92
                                           7.5 6.99
                                                         0.87
                                                                 -172.1
Pitas Point (Lower)-Montalvo GR
                                   8.19
                                           9.1
                                                 6.85
                                                         0.87
                                                                 175.6
Santa Ynez Connected GR
                                   2.20
                                           6.2
                                                 7.00
                                                         1.11
                                                                    8.7
```

#\*\*\*\*\*\*End of deaggregation corresponding to Boore-Atkinson 2008

```
PSHA Deaggregation. % Contributions. Site: MFPD Proposed S long: 119.594 d W., lat: 34.437 N.
Input Vs30 (m/s) = 270.0 (some WUS atten. models use Site Class not Vs30).
NSHMP 2007-08 update. See USGS OFR 2008-1128. Analysis on DaMoYr:17/02/2011
Mean Return Period: 2475 years. 0.20 s. PSA =2.0777 g. Weight * Computed_Rate_Ex 0.639E-04
#Pr[at least one eq with median motion>=PSA in 50 yrs]=0.00000
#This deaggregation corresponds to Campbell-Bozorgnia 2008
DIST(km) MAG(Mw) ALL EPS EPSILON>2 1<EPS<2 0<EPS<1 -1<EPS<0 -2<EPS<-1 EPS<-2
                                             0.000
                                                                      0.000
     7.7
              5.05
                        0.010
                                   0.010
                                                          0.000
                                                                                 0.000
              5.20
     8.0
                        0.028
                                   0.028
                                               0.000
                                                          0.000
                                                                      0.000
                                                                                 0.000
                                                                                             0.000
                                0.041
                                                                   0.000
                       0.041
                                                                               0.000
     8.1
              5.40
                                              0.000
                                                          0.000
                                                                                             0.000
     8.1
             5.60
                      0.049
                                0.049 0.000
                                                         0.000
                                                                  0.000 0.000
                                                                                             0.000
     8.2
             5.80
                                0.049 0.000
                                                          0.000 0.000
                       0.049
                                                                                0.000
                                                                                             0.000
     8.0
              6.01
                       0.058
                                0.058 0.000
                                                         0.000 0.000
                                                                                0.000
                                                                                             0.000
                                0.009 0.000
                                                         0.000 0.000
    13.9
              6.00
                       0.009

      0.009
      0.009
      0.000
      0.000
      0.000
      0.000

      0.075
      0.075
      0.000
      0.000
      0.000
      0.000

      0.013
      0.013
      0.000
      0.000
      0.000
      0.000

      0.178
      0.154
      0.023
      0.000
      0.000
      0.000

      0.060
      0.054
      0.006
      0.000
      0.000
      0.000

      2.348
      1.371
      0.978
      0.000
      0.000
      0.000

      0.356
      0.331
      0.025
      0.000
      0.000
      0.000

      2.013
      1.132
      0.881
      0.000
      0.000
      0.000

      0.263
      0.249
      0.015
      0.000
      0.000
      0.000

      3.428
      1.373
      1.862
      0.193
      0.000
      0.000

      0.330
      0.278
      0.052
      0.000
      0.000
      0.000

      2.825
      0.939
      1.683
      0.204
      0.000
      0.000

                                                                                 0.000
                                                                                             0.000
     7.7
             6.20
                                                                                            0.000
    15.2
             6.21
                                                                                           0.000
     6.9
            6.44
                                                                                         0.000
   13.1
            6.44
                                                                                         0.000
     6.3
             6.61
                                                                                           0.000
   13.0
             6.61
                                                                                            0.000
     7.0
             6.80
                                                                                             0.000
    14.2
             6.80
                                                                                             0.000
     6.6
             7.02
                                                                                             0.000
   14.5
             6.98
                                                                                             0.000
    7.2
             7.21
                    2.825
                                0.939 1.683 0.204 0.000 0.000
                                                                                             0.000
   15.6
                     0.252 0.187 0.065
                                                                  0.000 0.000
             7.16
                                                      0.000
                                                                                             0.000
                                                       0.211 0.000 0.000
0.000 0.000 0.000
                               1.013 1.334
0.087 0.024
     6.7
             7.36
                      2.558
                                                                                             0.000
                    0.111
   16.5
             7.34
                                                                                           0.000
     6.9
             7.53
                       0.606
                                0.237 0.335
                                                          0.034 0.000
                                                                                 0.000
                                                                                             0.000
   17.7
             7.52
                       0.017
                                 0.014
                                               0.002
                                                          0.000
                                                                  0.000
                                                                                 0.000
                                                                                             0.000
Summary statistics for above 0.2s PSA deaggregation, R=distance, e=epsilon:
Contribution from this GMPE(%): 15.7
 Mean src-site R= 7.5 km; M= 6.99; eps0= 1.54. Mean calculated for all sources.
Modal src-site R=
                          6.6 km; M= 7.02; eps0= 1.40 from peak (R,M) bin
 MODE R*= 6.7km; M*= 7.02; EPS.INTERVAL: 1 to 2 sigma % CONTRIB.= 1.862
Principal sources (faults, subduction, random seismicity having > 3% contribution)
Source Category:
                          % contr. R(km)
                                                              M epsilon0 (mean values).
California B-faults Char
                                             9.19
                                                        7.4
                                                                7.12
                                                                          1.46
California B-faults GR
                                             5.99
                                                        7.6
                                                              6.88
                                                                           1.60
Individual fault hazard details if its contribution to mean hazard > 2%:
                                        % contr. Rcd(km) M epsilon0 Site-to-src azimuth(d)
                                                     7.5 6.88 1.60
Santa Ynez (West) Char
                                            1.43
                                                                                   -47.7
Santa Ynez (East) Char
                                             1.89
                                                       5.9 7.14 1.14
                                                                                         9.3
Mission Ridge-Arroyo Parida-Sant 0.67
                                                      0.3 6.77 1.65
                                                                                        6.9
Red Mountain Char
                                           1.32
                                                      7.3 7.40 1.45
                                                                                    -179.3
Pitas Point (Lower)-Montalvo Cha 1.12
Santa Ynez Connected Char 1.47
                                                       9.1 7.24 1.45
                                                                                    175.7
                                                       5.9 7.34 1.16
                                                                                       9.3
                                                    2.7 6.65 1.67
6.7 6.86 1.46
7.5 6.96 1.60
Mission Ridge-Arroyo Parida-Sa G 0.41
                                                                                    173.7
Santa Ynez (East) GR
                                            0.66
                                                                                      39.9
                                            1.44
Red Mountain GR
                                                                                    -172.1
Pitas Point (Lower)-Montalvo GR
                                                       9.1 6.84 1.64
                                           1.67
                                                                                      175.6
                                                     6.2 7.00 1.33
```

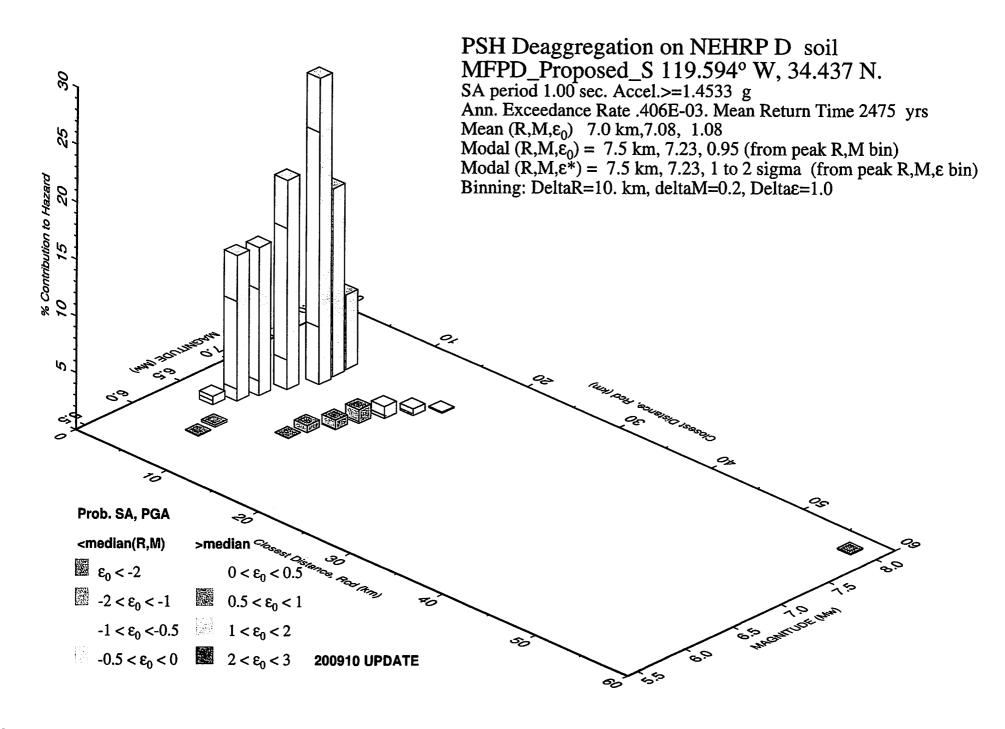
PSHA Deaggregation. % Contributions. Site: MFPD\_Proposed\_S long: 119.594 d W., lat: 34.437 N. Input Vs30 (m/s) = 270.0 (some WUS atten. models use Site Class not Vs30). NSHMP 2007-08 update. See USGS OFR 2008-1128. Analysis on DaMoYr:17/02/2011 Mean Return Period: 2475 years. 0.20 s. PSA =2.0777 g. Weight \* Computed\_Rate\_Ex 0.147E-03

1.31

#\*\*\*\*\*\*End of deaggregation corresponding to Campbell-Bozorgnia 2008 \*\*\*\*\*\*\*#

Santa Ynez Connected GR

```
#Pr[at least one eq with median motion>=PSA in 50 yrs]=0.00117
#This deaggregation corresponds to Chiou-Youngs 2008
DIST(km) MAG(Mw) ALL_EPS EPSILON>2 1<EPS<2 0<EPS<1 -1<EPS<0 -2<EPS<-1 EPS<-2
    7.7
          5.05
                  0.092
                            0.092
                                     0.000
                                              0.000
                                                       0.000
                                                                0.000
                                                                         0.000
    7.8
          5.20
                  0.191
                            0.191
                                     0.000
                                              0.000
                                                       0.000
                                                                0.000
                                                                         0.000
    7.9
                                                       0.000
          5.40
                  0.188
                            0.188
                                     0.000
                                              0.000
                                                                0.000
                                                                         0.000
   12.2
                            0.022
                                                       0.000
          5.40
                  0.022
                                     0.000
                                              0.000
                                                                0.000
                                                                         0.000
          5.60
                           0.175
                                              0.000
                                                       0.000
    8.0
                  0.176
                                     0.001
                                                                0.000
                                                                         0.000
   12.3
          5.60
                           0.028
                                     0.000
                                              0.000
                  0.028
                                                       0.000
                                                                0.000
                                                                         0.000
   8.0
          5.80
                  0.158
                           0.150
                                     0.009
                                             0.000
                                                      0.000
                                                               0.000
                                                                         0.000
                                                               0.000
   12.6
          5.80
                  0.032
                          0.032
                                    0.000
                                             0.000
                                                      0.000
                                                                         0.000
   7.8
          6.01
                  0.192
                           0.182
                                     0.009
                                             0.000
                                                      0.000
                                                                0.000
                                                                         0.000
   14.0
          5.99
                  0.029
                           0.029
                                     0.000
                                             0.000
                                                       0.000
                                                                0.000
                                                                         0.000
   7.5
          6.20
                  0.227
                           0.217
                                              0.000
                                                       0.000
                                     0.010
                                                                0.000
                                                                         0.000
   15.3
          6.21
                  0.031
                           0.031
                                     0.000
                                             0.000
                                                      0.000
                                                                0.000
                                                                         0.000
   5.8
          6.43
                  0.377
                           0.273
                                    0.094
                                             0.009
                                                      0.000
                                                               0.000
                                                                         0.000
   13.2
          6.44
                  0.095
                          0.083
                                  0.012
                                             0.000 0.000
                                                               0.000
                                                                         0.000
   5.7
          6.62
                  4.638
                         1.504
                                             0.255 0.000
                                                                         0.000
                                    2.879
                                                               0.000
   12.9
          6.61
                  0.377
                          0.331
                                    0.046
                                             0.000 0.000
                                                               0.000
                                                                         0.000
   6.8
          6.80
                         1.089
                                     2.296
                                             0.281
                                                      0.000
                  3.666
                                                               0.000
                                                                         0.000
   13.7
          6.79
                           0.317
                  0.371
                                    0.054
                                             0.000
                                                      0.000
                                                               0.000
                                                                         0.000
   7.1
          7.01
                  5.789
                                                      0.000
                           1.326
                                     3.441
                                             1.022
                                                               0.000
                                                                         0.000
   14.1
          6.98
                  0.464
                          0.349
                                             0.000
                                                      0.000
                                                               0.000
                                                                         0.000
                                    0.115
   8.0
          7.21
                  7.943
                          1.177
                                    4.206
                                             2.560
                                                      0.000
                                                               0.000
                                                                         0.000
   15.3
          7.16
                  0.390
                           0.237
                                             0.000
                                                      0.000
                                     0.153
                                                               0.000
                                                                         0.000
   7.4
          7.37
                  7.890
                           1.070
                                             2.200
                                     4.604
                                                      0.016
                                                               0.000
                                                                         0.000
   16.3
          7.34
                  0.206
                           0.132
                                     0.073
                                             0.000
                                                      0.000
                                                               0.000
                                                                         0.000
   7.2
          7.54
                  2.395
                           0.272
                                             0.868
                                    1.211
                                                      0.043
                                                               0.000
                                                                         0.000
  17.6
          7.52
                  0.036
                           0.024
                                     0.011
                                             0.000
                                                      0.000
                                                               0.000
                                                                         0.000
Summary statistics for above 0.2s PSA deaggregation, R=distance, e=epsilon:
Contribution from this GMPE(%):
                                 36.1
                    7.6 km; M= 7.04; eps0=
Mean src-site R=
                                             0.99. Mean calculated for all sources.
                    8.0 km; M= 7.21; eps0= 0.65 from peak (R,M) bin
Modal src-site R=
           7.4km; M*= 7.36; EPS.INTERVAL: 1 to 2 sigma % CONTRIB.= 4.604
Principal sources (faults, subduction, random seismicity having > 3% contribution)
Source Category:
                                % contr. R(km)
                                                   М
                                                       epsilon0 (mean values).
California B-faults Char
                                  20.01
                                            7.4
                                                  7.21
                                                          0.88
California B-faults GR
                                  14.31
                                            7.8
                                                  6.94
                                                          1.03
Individual fault hazard details if its contribution to mean hazard > 2%:
Fault ID
                                           Rcd(km) M
                                % contr.
                                                        epsilon0 Site-to-src azimuth(d)
Santa Ynez (West) Char
                                   0.83
                                            7.5
                                                  6.90
                                                                   -47.7
                                                          1.78
Santa Ynez (East) Char
                                   1.47
                                            5.9
                                                  7.16
                                                          1.22
                                                                      9.3
                                            0.3 6.77
Mission Ridge-Arroyo Parida-Sant
                                   2.14
                                                          1.08
                                                                      6.9
Red Mountain Char
                                   7.24
                                           7.3 7.41
                                                          0.53
                                                                  -179.3
Pitas Point (Lower)-Montalvo Cha
                                                          0.63
                                   5.21
                                           9.1 7.25
                                                                   175.7
Santa Ynez Connected Char
                                   1.31
                                           5.9 7.35
                                                          1.18
                                                                     9.3
Mission Ridge-Arroyo Parida-Sa G
                                   0.94
                                           2.2 6.65
                                                          1.28
                                                                   173.7
Santa Ynez (East) GR
                                   0.39
                                                  6.88
                                            6.4
                                                          1.59
                                                                    39.9
Red Mountain GR
                                   5.79
                                            7.4
                                                  7.04
                                                          0.84
                                                                  -172.1
                                   5.74
Pitas Point (Lower) - Montalvo GR
                                            9.1
                                                  6.89
                                                          0.99
                                                                   175.6
Santa Ynez Connected GR
                                   0.93
                                            6.1
                                                  7.03
                                                          1.41
                                                                     8.7
#*****End of deaggregation corresponding to Chiou-Youngs 2008
```



```
*** Deaggregation of Seismic Hazard at One Period of Spectral Accel. ***
*** Data from U.S.G.S. National Seismic Hazards Mapping Project, 2008 version ***
PSHA Deaggregation. % Contributions. Site: MFPD Proposed S long: 119.594 d W., lat: 34.437 N.
Input Vs30 (m/s) = 270.0 (some WUS atten. models use Site Class not Vs30).
NSHMP 2007-08 update. See USGS OFR 2008-1128. Analysis on DaMoYr:17/02/2011
Mean Return Period: 2475 years. 1.00 s. PSA =1.4533 g. Weight * Computed Rate Ex 0.406E-03
#Pr[at least one eq with median motion>=PSA in 50 yrs]=0.00002
#This deaggregation corresponds to Mean Hazard w/all GMPEs
DIST(km) MAG(Mw) ALL EPS EPSILON>2 1<EPS<2 0<EPS<1 -1<EPS<0 -2<EPS<-1 EPS<-2
           6.02
                  0.083
                           0.082
                                    0.001
                                             0.000
                                                      0.000
                                                               0.000
    6.8
           6.21
                  0.184
                           0.169
                                    0.015
                                             0.000
                                                      0.000
                                                              0.000
                                                                       0.000
    4.0
           6.45
                  0.728
                           0.374
                                    0.306
                                                      0.000
                                             0.048
                                                              0.000
                                                                       0.000
   12.3
           6.45
                  0.062
                           0.062
                                    0.000
                                             0.000
                                                      0.000
                                                              0.000
                                                                       0.000
    4.9
           6.62
                12.822
                           4.040
                                                   0.000
                                    7.733
                                            1.049
                                                              0.000
                                                                       0.000
   12.6
          6.61
                 0.612 0.596
                                   0.016 0.000 0.000
                                                              0.000
                                                                       0.000
    5.5
          6.79
                13.039 3.699
                                   8.058 1.282 0.000
                                                              0.000
                                                                       0.000
   13.8
           6.79
                 0.824 0.763
                                   0.061
                                           0.000 0.000
                                                              0.000
                                                                       0.000
    6.3
          7.01
                 18.387 4.209
                                   11.577
                                             2.599
                                                     0.003
                                                              0.000
                                                                       0.000
           6.98
   14.4
                 1.219
                           1.035
                                   0.184
                                             0.000
                                                     0.000
                                                              0.000
                                                                       0.000
   7.5
          7.23
                 26.880
                         4.805
                                   17.011
                                             5.060
                                                     0.004
                                                              0.000
                                                                       0.000
   15.2
          7.17
                 1.040
                        0.777
                                   0.264
                                             0.000
                                                     0.000
                                                              0.000
                                                                       0.000
   7.3
          7.39
                        2.398
                 16.511
                                   10.665
                                             3.449
                                                     0.000
                                                              0.000
                                                                       0.000
   16.5
          7.35
                         0.439
                 0.599
                                   0.160
                                             0.000
                                                     0.000
                                                              0.000
                                                                       0.000
    7.2
          7.54
                  6.577
                           0.844
                                    4.014
                                             1.719
                                                     0.000
                                                              0.000
                                                                       0.000
   17.8
          7.52
                  0.119
                           0.089
                                    0.030
                                             0.000
                                                     0.000
                                                              0.000
                                                                       0.000
   57.3
          7.99
                  0.110
                           0.110
                                    0.000
                                             0.000
                                                     0.000
                                                              0.000
                                                                       0.000
Summary statistics for above 1.0s PSA deaggregation, R=distance, e=epsilon:
Contribution from this GMPE(%): 100.0
 Mean src-site R=
                   7.0 \text{ km}; M = 7.08; eps0 =
                                            1.08. Mean calculated for all sources.
Modal src-site R=
                    7.5 km; M= 7.23; eps0= 0.95 from peak (R,M) bin
 MODE R*= 7.5km; M*= 7.23; EPS.INTERVAL: 1 to 2 sigma % CONTRIB.= 17.011
Principal sources (faults, subduction, random seismicity having > 3% contribution)
Source Category:
                                % contr. R(km)
                                                 M epsilon0 (mean values).
California B-faults Char
                                  60.67
                                            6.7
                                                 7.18
                                                         1.01
California B-faults GR
                                  38.25
                                           7.4
                                                 6.93
                                                         1.17
Individual fault hazard details if its contribution to mean hazard > 2%:
Fault ID
                               % contr. Rcd(km) M
                                                       epsilon0 Site-to-src azimuth(d)
Santa Ynez (West) Char
                                   3.19
                                           7.5
                                                6.91
                                                        1.74
                                                                  -47.7
Santa Ynez (East) Char
                                  7.15
                                          5.9
                                                 7.16
                                                         1.08
                                                                    9.3
Mission Ridge-Arroyo Parida-Sant
                                 10.08
                                          0.3 6.78
                                                         0.80
                                                                    6.9
                                           7.3
                                                       0.78
Red Mountain Char
                                  17.15
                                                 7.41
                                                                 -179.3
Pitas Point (Lower) - Montalvo Cha 12.36
                                          9.1 7.25 0.87
                                                                 175.7
Santa Ynez Connected Char
                                 6.37
                                          5.9 7.35
                                                        1.03
                                                                    9.3
Mission Ridge-Arroyo Parida-Sa G
                                  4.08
                                          2.0
                                                 6.66
                                                         1.04
                                                                  176.1
Red Mountain GR
                                 13.54
                                           7.4
                                                 7.04
                                                         1.06
                                                                 -172.5
Pitas Point (Lower)-Montalvo GR
                                 13.54
                                           9.1
                                                 6.89
                                                         1.16
                                                                  175.6
Santa Ynez Connected GR
                                  4.23
                                           6.0
                                                 7.05
                                                         1.27
                                                                    8.9
#******End of deaggregation corresponding to Mean Hazard w/all GMPEs *******#
PSHA Deaggregation. % Contributions. Site: MFPD Proposed_S long: 119.594 d W., lat: 34.437 N.
Input Vs30 (m/s) = 270.0 (some WUS atten. models use Site Class not Vs30).
NSHMP 2007-08 update. See USGS OFR 2008-1128. Analysis on DaMoYr:17/02/2011
Mean Return Period: 2475 years. 1.00 s. PSA =1.4533 g. Weight * Computed_Rate_Ex 0.144E-03
#Pr[at least one eq with median motion>=PSA in 50 yrs]=0.00000
#This deaggregation corresponds to Boore-Atkinson 2008
DIST(km) MAG(Mw) ALL EPS EPSILON>2 1<EPS<2 0<EPS<1 -1<EPS<0 -2<EPS<-1 EPS<-2
   6.5
          6.21
                  0.050
                          0.050
                                  0.000
                                            0.000
                                                     0.000
                                                              0.000
   5.5
          6.43
                  0.143
                           0.117
                                   0.026
                                            0.000
                                                     0.000
                                                              0.000
                                                                       0.000
```

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12.2
           6.45
                   0.021
                            0.021
                                      0.000
                                               0.000
                                                        0.000
                                                                 0.000
                                                                           0.000
                   3.964
                            1.269
                                      2.643
                                               0.052
                                                        0.000
                                                                 0.000
                                                                           0.000
    6.7
           6.61
                                               0.000
                                                        0.000
                                                                 0.000
                                                                           0.000
   12.8
           6.62
                   0.265
                            0.247
                                      0.018
           6.79
                            1.368
                                               0.317
                                                        0.000
                                                                 0.000
                                                                           0.000
    6.0
                   5.389
                                      3.704
   14.0
           6.80
                   0.372
                                               0.000
                                                        0.000
                                                                 0.000
                                                                           0.000
                            0.340
                                     0.032
    6.8
           7.01
                   6.950
                                               0.846
                                                        0.000
                                                                 0.000
                                                                          0.000
                            1.483
                                      4.621
   14.3
           6.97
                   0.460
                            0.382
                                     0.078
                                               0.000
                                                        0.000
                                                                 0.000
                                                                          0.000
    7.7
           7.23
                   9.603
                            1.609
                                     6.350
                                              1.644
                                                        0.000
                                                                 0.000
                                                                          0.000
   15.4
           7.17
                   0.358
                            0.286
                                     0.073
                                               0.000
                                                        0.000
                                                                 0.000
                                                                          0.000
   37.0
           7.17
                   0.020
                            0.020
                                      0.000
                                               0.000
                                                        0.000
                                                                 0.000
                                                                           0.000
    7.1
           7.39
                   5.483
                            0.766
                                      3.570
                                               1.148
                                                        0.000
                                                                 0.000
                                                                           0.000
           7.35
   16.3
                   0.154
                            0.123
                                      0.031
                                              0.000
                                                        0.000
                                                                 0.000
                                                                          0.000
    7.2
           7.54
                   2.073
                            0.283
                                     1.347
                                              0.442
                                                        0.000
                                                                 0.000
                                                                          0.000
   17.9
           7.52
                   0.030
                            0.026
                                     0.004
                                              0.000
                                                        0.000
                                                                 0.000
                                                                          0.000
   57.3
           7.81
                   0.023
                            0.023
                                     0.000
                                              0.000
                                                        0.000
                                                                 0.000
                                                                          0.000
   57.3
           7.99
                   0.036
                            0.036
                                     0.000
                                               0.000
                                                        0.000
                                                                 0.000
                                                                           0.000
Summary statistics for above 1.0s PSA deaggregation, R=distance, e=epsilon:
Contribution from this GMPE(%):
                                  35.5
 Mean src-site R=
                     7.5 km; M = 7.07; eps0=
                                              1.09. Mean calculated for all sources.
                     7.7 km; M= 7.23; eps0= 0.93 from peak (R,M) bin
Modal src-site R=
           7.7km; M*= 7.23; EPS.INTERVAL: 1 to 2 sigma % CONTRIB.= 6.350
Principal sources (faults, subduction, random seismicity having > 3% contribution)
Source Category:
                                 % contr. R(km)
                                                    M epsilon0 (mean values).
California B-faults Char
                                   19.98
                                             7.1
                                                    7.20
                                                            1.06
California B-faults GR
                                   15.15
                                             7.7
                                                    6.92
                                                            1.12
Individual fault hazard details if its contribution to mean hazard > 2%:
Fault ID
                                 % contr. Rcd(km) M
                                                          epsilon0 Site-to-src azimuth(d)
Santa Ynez (West) Char
                                             7.5
                                    1.22
                                                   6.90
                                                                     -47.7
                                                           1.71
                                                            1.05
Santa Ynez (East) Char
                                    2.66
                                             5.9
                                                                       9.3
                                                   7.15
Mission Ridge-Arroyo Parida-Sant
                                   2.21
                                             0.3
                                                   6.79
                                                            1.10
                                                                       6.9
Red Mountain Char
                                    5.72
                                             7.3
                                                   7.40
                                                            0.81
                                                                    -179.3
Pitas Point (Lower)-Montalvo Cha
                                    4.57
                                             9.1
                                                   7.25
                                                            0.84
                                                                     175.7
Santa Ynez Connected Char
                                    2.10
                                             5.9
                                                   7.35
                                                            1.06
                                                                       9.3
                                             2.2
Mission Ridge-Arroyo Parida-Sa G
                                    1.00
                                                   6.67
                                                                     176.1
                                                            1.26
Red Mountain GR
                                    5.32
                                             7.4
                                                   7.01
                                                           1.01
                                                                    -172.5
Pitas Point (Lower)-Montalvo GR
                                    6.10
                                             9.1
                                                   6.87
                                                           1.05
                                                                     175.6
Santa Ynez Connected GR
                                    1.60
                                             6.1
                                                   7.03
                                                            1.25
                                                                       8.9
#*******End of deaggregation corresponding to Boore-Atkinson 2008
PSHA Deaggregation. % Contributions. Site: MFPD Proposed S long: 119.594 d W., lat: 34.437 N.
Input Vs30 (m/s) = 270.0 (some WUS atten. models use Site Class not Vs30).
NSHMP 2007-08 update. See USGS OFR 2008-1128. Analysis on DaMoYr:17/02/2011
Mean Return Period: 2475 years. 1.00 s. PSA =1.4533 g. Weight * Computed Rate Ex 0.126E-03
#Pr[at least one eq with median motion>=PSA in 50 yrs]=0.00005
#This deaggregation corresponds to Campbell-Bozorgnia 2008
DIST(km) MAG(Mw) ALL EPS EPSILON>2 1<EPS<2 0<EPS<1 -1<EPS<0 -2<EPS<-1 EPS<-2
    6.7
          6.21
                   0.031
                            0.031
                                     0.000
                                              0.000
                                                       0.000
                                                                 0.000
                                                                          0.000
   3.1
          6.47
                  0.246
                            0.114
                                     0.102
                                              0.030
                                                       0.000
                                                                 0.000
                                                                          0.000
   4.5
          6.61
                  3.936
                            1.324
                                     2.030
                                              0.582
                                                       0.000
                                                                 0.000
                                                                          0.000
  12.5
          6.60
                  0.159
                            0.155
                                     0.003
                                              0.000
                                                       0.000
                                                                 0.000
                                                                          0.000
   4.1
          6.78
                  4.607
                            1.280
                                     2.629
                                              0.697
                                                       0.000
                                                                 0.000
                                                                          0.000
  13.7
          6.79
                  0.249
                            0.240
                                     0.009
                                              0.000
                                                       0.000
                                                                 0.000
                                                                          0.000
   5.7
          7.00
                  5.803
                            1.434
                                     3.441
                                              0.926
                                                       0.003
                                                                 0.000
                                                                          0.000
  14.3
          6.97
                  0.373
                            0.315
                                     0.059
                                              0.000
                                                       0.000
                                                                 0.000
                                                                          0.000
   7.3
          7.21
                  6.322
                           1.171
                                     3.798
                                                       0.004
                                              1.350
                                                                 0.000
                                                                          0.000
```

15.3

7.1

16.8

7.16

7.37

7.34

0.383

0.258

6.478

0.276

1.195

0.184

0.107

4.300

0.074

0.000

0.983

0.000

0.000

0.000

0.000

0.000

0.000

0.000

0.000

0.000

0.000

- -- - - - - -

```
7.1
           7.54
                   2.058
                            0.283
                                     1.327
                                              0.448
                                                       0.000
                                                                0.000
                                                                         0.000
                                                                0.000
   17.8
           7.52
                   0.049
                            0.034
                                     0.015
                                              0.000
                                                       0.000
                                                                         0.000
   57.3
           7.98
                   0.057
                            0.057
                                     0.000
                                              0.000
                                                       0.000
                                                                0.000
                                                                         0.000
   57.3
           8.19
                   0.018
                            0.018
                                     0.000
                                              0.000
                                                       0.000
                                                                0.000
                                                                         0.000
Summary statistics for above 1.0s PSA deaggregation, R=distance, e=epsilon:
Contribution from this GMPE(%): 31.1
 Mean src-site R=
                   6.6 km; M= 7.07; eps0=
                                              1.11. Mean calculated for all sources.
Modal src-site R=
                     7.1 km; M = 7.37; eps0= 1.00 from peak (R,M) bin
 MODE R*= 7.1km; M*= 7.36; EPS.INTERVAL: 1 to 2 sigma % CONTRIB.= 4.300
Principal sources (faults, subduction, random seismicity having > 3% contribution)
Source Category:
                                % contr. R(km)
                                                  M epsilon0 (mean values).
California B-faults Char
                                   19.99
                                             6.2
                                                   7.16
                                                           1.02
California B-faults GR
                                   10.80
                                             6.9
                                                   6.93
                                                           1.24
Individual fault hazard details if its contribution to mean hazard > 2%:
                                                         epsilon0 Site-to-src azimuth(d)
                                 % contr.
                                            Rcd(km) M
Santa Ynez (West) Char
                                            7.5
                                    1.06
                                                   6.91
                                                           1.73
                                                                   -47.7
                                             5.9
Santa Ynez (East) Char
                                    2.76
                                                   7.16
                                                           1.00
                                                                      9.3
Mission Ridge-Arroyo Parida-Sant
                                    4.27
                                            0.3
                                                   6.78
                                                           0.66
                                                                      6.9
                                    4.77
Red Mountain Char
                                            7.3
                                                  7.41
                                                          0.90
                                                                   -179.3
Pitas Point (Lower) - Montalvo Cha
                                   3.02
                                           9.1
                                                  7.26
                                                          1.06
                                                                   175.7
                                                  7.36
6.66
7.04
Santa Ynez Connected Char
                                   2.57
                                           5.9
                                                           0.92
                                                                      9.3
                                            2.0
Mission Ridge-Arroyo Parida-Sa G
                                   1.75
                                                          0.88
                                                                    176.1
Red Mountain GR
                                    3.55
                                             7.4
                                                          1.19
                                                                   -172.5
Pitas Point (Lower)-Montalvo GR
                                    3.00
                                             9.1
                                                   6.90
                                                          1.39
                                                                    175.6
Santa Ynez Connected GR
                                    1.54
                                             6.0
                                                  7.07
                                                           1.20
                                                                      8.9
#******End of deaggregation corresponding to Campbell-Bozorgnia 2008 *******#
PSHA Deaggregation. % Contributions. Site: MFPD_Proposed S long: 119.594 d W., lat: 34.437 N.
Input Vs30 (m/s) = 270.0 (some WUS atten. models use Site Class not Vs30).
NSHMP 2007-08 update. See USGS OFR 2008-1128. Analysis on DaMoYr:17/02/2011
Mean Return Period: 2475 years. 1.00 s. PSA =1.4533 g. Weight * Computed Rate Ex 0.136E-03
#Pr[at least one eq with median motion>=PSA in 50 yrs]=0.00000
#This deaggregation corresponds to Chiou-Youngs 2008
DIST(km) MAG(Mw) ALL EPS EPSILON>2 1<EPS<2 0<EPS<1 -1<EPS<0 -2<EPS<-1 EPS<-2
    7.4
           5.81
                  0.023
                           0.023
                                    0.000
                                             0.000
                                                      0.000
                                                               0.000
                                                                         0.000
    7.2
           6.02
                  0.055
                           0.055
                                    0.000
                                             0.000
                                                      0.000
                                                               0.000
                                                                         0.000
    7.1
           6.20
                  0.103
                          0.103
                                    0.000
                                             0.000
                                                      0.000
                                                               0.000
                                                                         0.000
                           0.185
    5.3
           6.44
                  0.258
                                    0.056
                                             0.017
                                                      0.000
                                                               0.000
                                                                        0.000
   12.5
          6.44
                  0.026
                           0.026
                                    0.000
                                             0.000
                                                      0.000
                                                               0.000
                                                                        0.000
    4.2
          6.62
                  4.465
                           1.444
                                    2.654
                                             0.367
                                                      0.000
                                                               0.000
                                                                        0.000
   12.5
          6.60
                  0.172
                           0.167
                                   0.005
                                             0.000
                                                      0.000
                                                               0.000
                                                                        0.000
                  3.671
   5.6
          6.80
                          1.156
                                   2.199
                                             0.316
                                                      0.000
                                                               0.000
                                                                        0.000
   13.4
          6.80
                  0.256
                         0.246
                                    0.010
                                             0.000
                                                      0.000
                                                               0.000
                                                                        0.000
   6.4
          7.01
                  5.889
                           1.427
                                    3.636
                                             0.826
                                                      0.000
                                                               0.000
                                                                        0.000
   14.2
          6.99
                  0.294
                           0.247
                                    0.047
                                             0.000
                                                      0.000
                                                               0.000
                                                                        0.000
   7.8
          7.22
                  7.817
                           1.339
                                    4.760
                                             1.719
                                                      0.000
                                                               0.000
                                                                        0.000
   14.9
          7.16
                  0.327
                           0.243
                                   0.084
                                             0.000
                                                      0.000
                                                               0.000
                                                                        0.000
                  7.399
   7.4
          7.37
                           1.008
                                   4.725
                                             1.666
                                                      0.000
                                                               0.000
                                                                        0.000
  16.7
          7.35
                 0.217
                           0.163
                                   0.055
                                             0.000
                                                      0.000
                                                               0.000
                                                                        0.000
   7.2
          7.54
                  2.390
                           0.255
                                    1.306
                                             0.829
                                                      0.000
                                                               0.000
                                                                        0.000
  17.5
          7.53
                  0.036
                           0.026
                                    0.010
                                             0.000
                                                      0.000
                                                               0.000
                                                                        0.000
Summary statistics for above 1.0s PSA deaggregation, R=distance, e=epsilon:
Contribution from this GMPE(%): 33.4
Mean src-site R= 7.0 km; M= 7.09; eps0=
                                             1.04. Mean calculated for all sources.
Modal src-site R=
                    7.8 km; M= 7.22; eps0= 0.89 from peak (R,M) bin
```

MODE R\*= 7.7km; M\*= 7.21; EPS.INTERVAL: 1 to 2 sigma % CONTRIB.= 4.760

Principal sources (faults, subduct	ion, ran	dom seis	micity	y having >	· 3% contribution)
Source Category: %	contr.	R(km)	M	epsilon0	(mean values).
California B-faults Char	20.70	6.7	7.19	0.95	
California B-faults GR	12.29	7.4	6.95	1.16	
Individual fault hazard details if	its con	tributio	n to r	mean hazar	d > 2%:
Fault ID %	contr.	Rcd(km	) M	epsilon0	Site-to-src azimuth(d)
Santa Ynez (West) Char	0.91	7.5	6.91	1.79	-47.7
Santa Ynez (East) Char	1.72	5.9	7.16	1.25	9.3
Mission Ridge-Arroyo Parida-Sant	3.60	0.3	6.78	0.79	6.9
Red Mountain Char	6.66	7.3	7.41	0.68	-179.3
Pitas Point (Lower)-Montalvo Cha	4.77	9.1	7.26	0.79	175.7
Santa Ynez Connected Char	1.70	5.9	7.36	1.15	9.3
Mission Ridge-Arroyo Parida-Sa G	1.32	1.9	6.66	1.08	176.1
Red Mountain GR	4.66	7.4	7.07	1.02	-172.5
Pitas Point (Lower)-Montalvo GR	4.45	9.1	6.91	1.16	175.6
Santa Ynez Connected GR	1.09	6.1	7.06	1.40	8.9
#*******End of deaggregation cor	respondi	ng to Ch	iou-Yo	oungs 2008	*****#

\*\*\*\*\*\*\*\*\*\*\* Southern California \*

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## EQS\_MFPDStn3\_PGA.txt

\*\*\*\*\*\*\* \* EQSEARCH Version 3.00 \*\*\*\*\*\*\*

**ESTIMATION OF** PEAK ACCELERATION FROM CALIFORNIA EARTHQUAKE CATALOGS

132-002 JOB NUMBER:

DATE: 02-18-2011

JOB NAME: MFPD Stn 3

EARTHQUAKE-CATALOG-FILE NAME: ALLQUAKE.DAT

MAGNITUDE RANGE:

MINIMUM MAGNITUDE: 4.00 MAXIMUM MAGNITUDE: 9.00

SITE COORDINATES:

SITE LATITUDE: 34.4369 SITE LONGITUDE: 119.5944

**SEARCH DATES:** 

START DATE: 1800 END DATE: 2008

SEARCH RADIUS:

62.1 mi 100.0 km

ATTENUATION RELATION: 3) Boore et al. (1997) Horiz. - NEHRP D (250) UNCERTAINTY (M=Median, S=Sigma): M Number of Sigmas: 0.0 ASSUMED SOURCE TYPE: BT [SS=Strike-slip, DS=Reverse-slip, BT=Blind-thrust]

O Depth Source: A Campbell SSR:

SCOND:

Basement Depth: .15 km Campbell SHR:

COMPUTE PEAK HORIZONTAL ACCELERATION

MINIMUM DEPTH VALUE (km): 0.0

Page 1

raye	<b>_</b>								
		 	 	TIME		 	SITE	SITE	APPROX.
FILE	:	LONG.	DATE	(UTC)	DEPTH	QUAKE		MM	DISTANCE
CODE	NORTH	WEST	1	н м Sec	(km)	MAG.	g	INT.	mi [km]
	+	+  1110	+					++	4.06.7.9
DMG T-A			07/01/1941  06/01/1893		0.0	5.90 5.00	0.275 0.151	IX	4.9( 7.8) 6.1( 9.8)
T-A			06/25/1855		0.0	4.30	0.104	VII	6.1( 9.8)
T-A	34.5000	119.6700	07/09/1885	0 0 0.0	0.0	4.30	0.104	VII	6.1(9.8)
T-A			05/31/1854					VII	6.1( 9.8)
T-A	34.5000	119.6700	02/09/1902	15 0 0.0	0.0	4.30	0.104	VII	6.1(9.8)
T-A	34.5000	119.6700	03/14/1857	23 0 0.0	0.0	4.30	0.104	VII	6.1(9.8)
MGI	34.4000	119.7000	03/25/1806	8 0 0.0	0.0	5.00	0.145	VIII	6.5(10.5)
MGI			08/09/1926		0.0	4.00	0.086	VII	6.5( 10.5)
MGI	134.4000	119.7000	06/24/1926	1530 0.0	0.0	4.00	0.086	VII	6.5(10.5)
MGI			08/26/1927		0.0		0.086 0.086	VII	6.5(10.5)
MGI DMG	34.4000	119.7000	07/06/1926  09/16/1962	1/43 U.U    181235 2	13.3		0.085	VII	6.5( 10.5) 6.6( 10.6)
DMG			12/05/1920		0.0	4.50	0.107	VII	6.9( 11.1)
DMG			08/05/1930		0.0	5.00	0.140	VIII	6.9( 11.1)
DMG	34.5000	119.5000	06/29/1926	2321 0.0	0.0	5.50	0.182	VIII	6.9( 11.1)
DMG	134.3330	119.5830	07/01/1941	9 5 0.0	0.0	4.00	0.080	VII	7.2( 11.6)
DMG	[34.3330]	119.5830	07/01/1941	858 0.0	0.0	4.00	0.080	VII	7.2(11.6)
DMG	34.3330	119.5830	09/08/1941		0.0	4.00	0.080	VII	7.2(11.6)
DMG	134.3330	119.5830	09/14/1941	14518.0	0.0	4.00	0.080	VII	7.2( 11.6)
DMG			09/25/1941		0.0	4.00	0.080	VII	7.2(11.6)
DMG DMG	34.3330	110 5830	07/01/1941 11/18/1941	848 0.0	0.0	4.00	0.080 0.080	VII	7.2( 11.6) 7.2( 11.6)
DMG			07/01/1941	945 0.0	0.0	4.00	0.080	VII	7 2 11 6
DMG	34.3330	119.5830	07/01/1941		0.0	4.00	0.080	i viii	7.2( 11.6) 7.2( 11.6)
DMG			07/01/1941	1025 0.0	0.01	4.00	0.080	VII	7.2( 11.6)
DMG	34.3330	119.5830	07/01/1941	2354 0.0	0.0	4.50	0.105	VII	7.2( 11.6)
DMG			07/01/1941		0.0	4.00	0.080	VII	7.2( 11.6)
DMG			07/02/1941		0.0	4.00	0.080	VII	7.2( 11.6)
DMG			07/01/1941		0.0	4.00	0.080	VII	7.2( 11.6)
DMG	34.3330	119.5830	10/02/1938	1845 0.0	0.0	4.00	0.080	VII	7.2( 11.6)
DMG DMG	134.3330	119.3630    110.5830	09/08/1941 11/21/1941	31245.0	0.0	4.50	0.105 0.080	VII    VII	7.2( 11.6) 7.2( 11.6)
DMG	134.3330	119 5830	09/15/1941	137 2.0	0.0	4.00	0.080	VII	7.2( 11.6)
DMG	34.3330	119.5830	07/01/1941	830 0.0	0.0	4.00	0.080	VII	7.2( 11.6)
DMG	34.3330	119.5830	07/12/1941	1618 0.0	0.0	4.50	0.105	VII	7.2( 11.6) 7.2( 11.6) 7.2( 11.6) 7.2( 11.6)
DMG	34.3330	119.5830	07/03/1941	1926 0.0	0.0	4.00	0.080	VII	7.2(11.6)
USG			09/07/1984		9.5	4.00	0.080	VII	7.3(11.8)
MGI	34.5000	119.7000	08/26/1919	1457 0.0	0.0	4.00	0.079	VII	7.4( 11.9)
MGI	34.5000	110 7000	07/29/1925	14 0 0.0	0.0	4.00	0.079	VII	7.4( 11.9)
MGI DMG	34.3000	110 4020	08/26/1919 07/14/1958	TATA 0.01	0.0	4.00	0.079 0.105	VII	7.4( 11.9)
PAS	34.3430	119 6960	08/13/1978	225453 41	12.8	5.10		VIII	8.4( 13.5) 8.5( 13.7)
1 73	37.37/0	110.0900	00/ T3/ T3/ 0	Pag		2. TO	0.163	1 4 7 7 7 1	0.3( 13.7)
				. 49					

DMG
34.4710   119.7570   11/16/19   34.3810   119.4350   07/24/20   34.3170   119.7000   10/21/19   34.3500   119.7670   11/10/19   34.2670   119.5670   06/29/19   34.4000   119.8000   09/09/19   34.4020   119.8020   03/10/19   34.3250   119.7610   08/09/19   34.2670   119.5170   04/12/19   34.2550   119.6140   07/31/19
EQS_MFPDStn3_PGA /1958   934 6.1   15.2   /2004   125519.9   3.0   /1953   16 238.0   0.0   /1940   102510.0   0.0   /1968   191357.0   10.0   /1929   515 0.0   0.0   /1936   153316.3   18.0   /1940   153316.3   18.0   /1941   153310.0   0.0   /1968   224445.3   15.0
A. txt 4.000 4.000 4.000 4.000 4.000 4.000
0.067 0.076 0.059 0.071 0.071 0.078 0.060 0.055 0.055
55555555
9.5(1 10.2(1 11.5(1 11.8(1 12.0(1 12.1(1 12.1(1 12.2(1 12.5(2)
15.4) 16.5) 18.5) 19.0) 19.0) 19.3) 19.3) 20.2)

DMG	FILE CODE	Page
34.2540 34.2540 34.2550 34.2550 34.2550 34.2550 34.2550 34.3500 35.3500 36.3500 36.3500 36.3500 36.3500 36.3500 36.3500 36.	LAT.	2
119.6280 119.5820 119.5820 119.5020 119.5000 119.5000 119.6980 119.8000 119.8000 119.8330 119.8330 119.3000	LONG. WEST	1 1 1 1 1 1 1 1
07/08/1968 07/08/1968 06/29/1968 06/29/1968 06/29/1968 06/26/19/1996 06/26/1991	DATE	# f f l l l
91837.2 0 0 0 84247.0 203633.6 153242.8 659 0.0 359 0.0 191221.3 1220929.4 144216.0 1638 0.0 1638 0.0 1638 0.0 1638 0.0 163752.0 181111.2 1120 0.0 1330 0.0 1749 0.0 1749 0.0 1749 0.0 1749 0.0 1935 0.0 193232.8 23614.1 193232.8 23614.1 193232.0 1052 0.0 1818	TIME (UTC)	 
15.7 16.4 16.4 17.6 17.6 17.6 17.6 17.6 17.6 17.6 17.6	DEPTH (km)	 
\$\frac{1}{2}\$\frac	QUAKE	! 
0.054 0.054 0.053 0.056 0.056 0.056 0.056 0.056 0.045 0.045 0.045 0.045 0.045 0.045 0.045 0.045 0.045 0.045 0.045 0.045 0.045 0.045 0.045 0.045 0.045 0.045	SITE ACC. g	; ; ; ; ; ; ;
< <hr/> < <hr/> < <hr/> < <hr/> < <hr/>	SITE MM INT.	         
12.8 12.8 12.8 12.9 13.2 14.0 14.0 15.0 14.1 15.0 15.0 16.5 17.0 18.7 19.3 19.5 19.3	APPROX. DISTANCE mi [km]	1 1 1 1 1 1 1 1 1

			í	EQS_MFPDSt	:n3_PGA	.txt				
DMG	34.8410 119	.2400 01/1				4.00	0.026	V	34.4(	55.4)
DMG	34.4830 118				0.0	4.50	0.033	v	34.9(	56.2)
DMG	34.4830 118				0.0	4.50	0.033	v	34.9(	56.2)
PAS	34.5410 118				11.7	4.10	0.027	V	35.2(	56.6)
DMG	33.9170 119				0.0	4.80	0.038	V	36.3(	58.4)
PAS	34.7360 120				0.0	4.00	0.024	V	37.6(	60.5)
DMG	34.8000 119				0.0	6.00	0.069	VI	37.6(	60.6)
PAS	34.7370 120				6.0	4.50	0.031	V	37.7(	60.6)
DMG	34.6830 119				0.0	4.00	0.024	V	37.8(	60.9)
DMG	34.7000 119				0.0	5.50	0.052	VI	38.4(	61.7)
T-A	34.4200 118	.9200   03/2	9/1917	8 6 0.0	0.0	4.30	0.028	V	38.4(	61.8)
DMG	34.0000 120	.0170   04/0	1/1945	234342.0	0.0	5.40	0.049	VI	38.60	62.2)
DMG	34.7170 118	.9670   06/1	1/1935	1810 0.0	0.0	4.00	0.023	IV	40.60	65.3)
DMG	34.0650 119	.0350 02/2	1/1973	144557.3	8.0	5.90	0.061	VI	41.0(	65.9)

Pag	e	3

Page	3								
	     <del>.</del>	1 0115		TIME	 		SITE	SITE	
FILE CODE		LONG. WEST	DATE	UTC)		QUAKE MAG.		MM   INT.	DISTANCE mi [km]
	NOKIN +	WESI	! ╊		(NIII) 	MAG.   	- 9 	±141 •   	
DMG	34.6000	118.9000	05/18/1940	91512.0	0.0	4.00		IV	41.1(66.1)
DMG			03/07/1939					IV	42.8( 68.8)
DMG			12/18/1934		0.0		0.022	IV	43.2(69.5)
DMG			12/17/1934		0.0		0.028	V	43.2( 69.5)
DMG			06/01/1946		0.0	4.10	0.023	IV	43.4( 69.8)
DMG	133.9900	1119.0580	05/29/1955	164335.4	17.4	4.10	0.023	IV	43.5( 70.0)
DMG	34.9220	1119.1030	01/09/1963	6 4 3.8	8.7	4.00	0.021	IV	43.6( 70.1)
DMG	134.7000	120.3000	01/12/1915	431 0.0	0.0	5.50	0.047	VI	44.0( 70.9)
DMG			07/31/1902 11/29/1936		0.0 10.0		0.047 0.021	VI     IV	44.0( 70.9) 44.1( 70.9)
DMG PAS			05/23/1978	91650.8	6.0	4.00	0.021	IV	44.1( 70.9)
DMG	33.3000	119.1000	07/21/1952		0.0	4.30	0.025	l v	44.2(71.2)
DMG	134.8830	119 0330	08/20/1952	84747.0	0.0		0.024	IV	44.3(71.3)
DMG	134 9000	119 0500	07/22/1952		0.0		0.025	ľv	44.5(71.6)
PAS			04/13/1982		16.6		0.021	IV	44.6( 71.8)
DMG			05/08/1939		10.0		0.027	ivi	45.1( 72.6)
PAS			10/26/1984		13.3	4.60	0.029	ivi	45.2( 72.7)
DMG	34.0000	119.0000	09/24/1827	4 0 0.0	0.0	7.00	0.101	i viii	45.4(73.1)
MGI	34.0000	119.0000	12/14/1912	0 0 0.0	0.0	5.70	0.051	VI	45.4( 73.1)
DMG	34.9330	119.0670	02/10/1954	235838.0	0.0		0.027	V	45.5(73.2)
DMG			02/23/1939		10.0	4.50	0.027	V	45.7(73.5)
DMG			07/27/1972	03117.4	8.0	4.40	0.025	V	46.1(74.1)
DMG			04/16/1948		0.0	4.70	0.030	] v [	46.1(74.1)
DMG			01/24/1950		0.0	4.00	0.021	IV	46.1( 74.2)
PAS	35.0120	119.1790	11/10/1981	2237 5.0	9.4	4.20	0.023	IV	46.2( 74.3)
GSP	34.9180	119.0200	12/24/2000	010421.9	14.0	4.40	0.025	v	46.5( 74.9)
DMG			08/19/1952		0.0	4.50	0.026	<u>v</u>	47.0(75.7)
GSB			04/16/2005		10.0	4.60	0.028	<u>  V</u>	47.1( 75.8)
GSP			02/19/1995		15.0	4.30 6.30	0.024	IV	47.1( 75.8) 47.2( 75.9)
MGI MGI			08/01/1902   07/28/1902	330 0.0 657 0.0	0.0	6.30	$0.068 \\ 0.068$	VI     VI	47.2( 75.9)
GSP			05/06/2005		11.0	4.10	0.021	ĭv	47.3( 76.1)
MGI			09/11/1902	530 0.0	0.01	4.00	0.020	İİVİ	47.3( 76.1)
MGI			09/11/1902	7 0 0.0	0.0	4.00	0.020	ÎV	47.3( 76.1)
PAS			11/10/1981		3.1	4.50	0.026	ľvi	47.7( 76.7)
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		i	EQS_MFPDSt	n3 PGA	.txt			
PAS	[35.0000]119.1030]	05/13/1975	02135.6	$1\overline{9}.1$	4.50	0.026	V	47.8(77.0)
DMG	34.8670 118.9330		1953 7.2	0.0	5.20	0.038	v	47.9(77.1)
DMG	34.9110 118.9730	02/23/1939	84551.7	10.0	4.50	0.026	V	48.1(77.4)
DMG	34.9500 119.0170		181225.0	0.0	4.10	0.021	IV	48.3( 77.7)
DMG	35.0000 119.0830		85535.0	0.0	4.60	0.027	V	48.5( 78.1)
DMG	34.9000 118.9500			0.0	5.10	0.035	٧	48.6( 78.2)
PAS	35.0350 119.1370	06/16/1978	42131.6	1.8	4.30	0.023	IV	48.8( 78.5)
DMG	35.0500 119.1670			0.0	4.40	0.024	V	48.8( 78.5)
DMG	34.9410 118.9870			10.7	5.00	0.033	V	49.0( 78.8)
DMG	34.9320 118.9760			13.9	5.00	0.033	V	49.0( 78.9)
DMG	34.9280 118.9700			9.1	4.30	0.023	IV	49.1(78.9)
DMG	35.0830 119.2330			0.0	4.20	0.022	IV	49.1(79.0)
GSB	35.0380 119.1300			12.0	4.60	0.027	V	49.2(79.1)
DMG	34.9830 119.0330			0.0	4.50	0.025	V	49.4( 79.4)
DMG	35.0000 119.0500			0.0	4.50	0.025	V	49.7( 79.9)
DMG	34.4450 120.4670		45457.9	10.0	4.00	0.019	IV	49.7(80.0)
GSP	34.3040 118.7370	01/19/1994	091310.9	13.0	4.10	0.020	IV	49.7(80.0)
DMG	35.0500 119.1330	05/23/1953	75255.0	0.0	4.20	0.022	IV	49.8( 80.1)

Page	4
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FILE CODE		LONG. WEST	DATE	TIME (UTC) H M Sec		QUAKE MAG.		SITE    MM    INT.	APPROX. DISTANCE mi [km]
DMG DMG DMG DMG DMG DMG DMG DMG DMG DMG	35.0500   34.9670   35.0330   35.0330   35.0330   35.0330   35.0000   35.0000   35.0000   35.0000   35.0000   34.3790   34.3040   34.3790   34.3600   34.9200   34.9200	119.1330   119.0000   119.1000   119.1000   119.1000   119.1000   119.0330   119.0330   119.0330   119.0330   119.0330   119.0330   119.0330   119.0380   118.7110   118.7220   119.0500   120.4170   118.9000   118.9000   118.9200   118.9200   118.9200   119.0170   119.0170   119.0170   119.0170   119.0170   118.8670   118.9500	08/06/1953 09/02/1952 09/02/1953 02/07/1954 01/12/1954 01/13/1954 03/04/1963 07/21/1952 07/21/1952 07/21/1952 07/21/1952 07/21/1952 07/21/1952 07/21/1952 07/21/1952 01/19/1994 01/17/1994 01/17/1994 01/19/1994 10/23/1916 05/23/1857 01/20/1857 01/20/1857 01/12/1954 05/25/1953 07/21/1952 07/22/1952 10/16/1952 05/10/1911	1120 4.0  204556.0  152756.0   0 953.0  234037.0  14531.0  201042.3  1154 0.0  1159 0.0  1157 0.0  1158 0.0  2 2 0.0  1155 0.0  2 2 0.0  1155 0.0  2 2 0.0  1155 0.0  2 2 0.0  1 2 2 0.0  1 2 2 0.0  1 2 2 0.0  1 2 2 0.0  1 2 2 0.0  1 3 5 0.0  2 10928.6  2 21922.3  2 2059.0  1 85315.0  0 44314.5  2 44 0.0  0 0 0.0  0 0 0.0  0 0 0.0  2 33349.0  3 24 1.0  1 5214.0  7 4455.0  1 222 7.0  1 222 7.0	0.0	4.40		IV	49.8( 80.1) 49.8( 80.1) 49.8( 80.1) 49.8( 80.1) 49.8( 80.1) 49.8( 80.1) 49.9( 80.4) 50.3( 80.9) 50.3( 80.9) 50.3( 80.9) 50.3( 80.9) 50.3( 80.9) 50.3( 80.9) 50.3( 80.9) 50.3( 80.9) 50.6( 81.4) 50.6( 81.4) 50.6( 81.4) 50.6( 81.4) 50.6( 81.7) 50.8( 81.7) 50.8( 81.7) 50.8( 81.7) 50.8( 81.7) 50.8( 81.7) 50.8( 81.7) 50.8( 81.7) 50.8( 81.7) 50.8( 81.7) 50.8( 81.7) 50.8( 81.8) 50.9( 81.9) 50.9( 81.9) 50.9( 82.0)
GSP GSP DMG	34.3540 34.3770	118.7040 118.6980	05/01/1996  01/18/1994  05/23/1954	194956.4 004308.9	14.0 11.0 0.0	4.10 5.20	0.020 0.036 0.034	IV     V     V	51.0( 82.1) 51.2( 82.4) 51.2( 82.5)

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EQS_MFPDS 11611.0 144010.0 1311.0 1442.0 1442.0 1442.0 1442.0 11415.0 11542.0 11542.0 11542.0 11542.0 11542.0 11543.0 11557.0
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EARTHQUAKE SEARCH RESULTS

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APPROX. DISTANCE mi [km]	21.27 22.27
SITE MM INT.	222>>222
SITE ACC. 9	0.021 0.021 0.020 0.020 0.020 0.021 0.021 0.021 0.021 0.021 0.021 0.021
QUAKE	444444444750 100 100 100 100 100 100 100 1
DEPTH (km)	000000000000000000000000000000000000000
TIME (UTC) H M Sec	14 6 0.0 12 9 0.0 12 9 0.0 12 8 0.0 12 12 0.0 12 12 0.0 12 12 0.0 12 12 0.0 12 12 0.0 12 12 0.0 12 12 0.0 12 12 0.0 12 12 0.0 12 12 0.0 12 12 0.0 12 12 0.0 12 12 0.0 12 12 12 0.0 12 12 12 0.0 12 12 12 0.0 12 12 12 0.0 12 12 12 0.0 12 12 12 0.0 12 12 12 0.0 12 12 12 0.0 12 12 12 0.0 12 12 12 0.0 12 12 12 0.0 12 12 12 0.0 12 12 12 0.0 12 12 12 0.0 12 12 12 0.0 13 14 12 12 0.0 14 15 12 12 0.0 15 12 12 0.0 16 12 12 12 0.0 17 12 12 12 0.0 17 12 12 12 0.0 18 12 0.0 18 12 0.0
DATE	07/21/1952 07/21/1952
LONG. WEST	119.0000 119.0000 119.0000 119.0000 1119.0000 1119.0000 1119.0000 1119.0000 1119.0000 1119.0000 1118.9500 118.9500
LAT. NORTH	35.0000 35.0000 35.0000 35.0000 35.0000 35.0000 35.0000 35.0000 35.0000 35.0000 35.0000 35.0000 35.0000 35.0000 35.0000 35.0000 35.0000
FILE	DWG ————————————————————————————————————

	EQS_MFPDStn3_PGA.txt							
GSP	34.3690 118.6720 04/3	26/1997	1103730.7	16.0	5.10	0.033	V	52.8( 84.9)
DMG	34.4560 120.5210 10/	01/1959	43535.0	14.2	4.50	0.024	į v į	52.8( 84.9)
DMG	34.4610 120.5210 11/			10.0	4.50	0.024	V	52.8( 84.9)
GSP	34.3940 118.6690 06/			13.0	5.00	0.031	V	52.8( 85.0)
DMG	35.0670 119.0670 02/			0.0	4.50	0.024	V	52.8( 85.0)
MGI	35.2000 119.5000 12/0			0.01	4.60	0.025	V	53.0(85.2)
DMG	35.2000 119.5000 06/0			0.0	4.00	0.018	IV	53.0(85.2)
DMG	35.0170 118.9830 08/			0.0	4.10	0.019	IV	53.0(85.3)
DMG	35.0330 119.0000 07/2			0.0	4.10	0.019	IV	53.2( 85.6)
GSP	35.0430 119.0130 09/			11.0	4.70	0.027	V	53.3(85.7)
GSB	34.3430 118.6660 01/			8.0	4.30	0.022	IV	53.3(85.8)
DMG	35.0660 119.0490 01/2			6.4	4.30	0.021	IV	53.3(85.8)
DMG	33.6670 119.5000 11/		64251.0	0.0	4.00	0.018	IV	53.4( 86.0)
PAS	34.8680 120.3760 09/2			3.0	4.00	0.018	IV	53.4( 86.0)
GSP	33.6740 119.7600 07/2	24/2005	125942.9	6.0	4.10	0.019	IV	53.5( 86.1)
GSP	34.3610 118.6570 01/2			14.0	4.20	0.020	IV	53.7( 86.3)
DMG	35.0450 119.0040 03/2			12.1	4.30	0.021	IV	53.7( 86.4)
PAS	34.3470 118.6560 04/0	08/1976	152138.1	14.5	4.60	0.025	V	53.8(86.6)
PAS	35.0460 119.0010 06/0			9.0	4.10	0.019	IV	53.9(86.7)
DMG	34.6670 120.5000 06/			0.0	4.40	0.022	IV	53.9(86.7)
DMG	34.6670 120.5000 06/3			0.0	4.00	0.018	IV	53.9(86.7)
DMG	34.6670 120.5000 06/1			0.0	4.60	0.025	V	53.9( 86.7)
DMG	35.0670 119.0330 07/2			0.0	4.10	0.019	IV	53.9(86.8)
DMG	35.0670 119.0330 07/2			0.0	4.10	0.019	IV	53.9(86.8)
GSP	34.3770 118.6490 04/2			15.0	4.80	0.028	V	54.0(86.9)
DMG	35.1000 119.0830 07/2	24/1946	019 8.0	0.01	4.00	0.018	IV	54.2( 87.2)

Page	6
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FILE		LONG. WEST	DATE	TIME   (UTC)   H M Sec		QUAKE MAG.		SITE    MM    INT.	APPROX. DISTANCE mi [km]
DMG DMG DMG DMG DMG DMG GSP DMG GSP DMG GSP DMG GSP DMG GSP DMG GSP DMG GSP DMG GSP DMG GSP	34.9500   34.5290   34.9830   34.3680   34.3440   34.0000   34.3590   33.6660   34.3630   34.3740   35.0670   34.3580   34.3780   34.3780   34.3780   34.3780	118.8670   118.6440   118.9000   118.6370   118.6360   120.4000   118.6290   119.3300   118.6270   118.6220   118.6220   118.6220   118.6230   118.6230   118.6230	12/06/1934 07/21/1952 02/07/1956 03/23/1953 07/24/1952 01/17/1994 02/09/1971 03/29/1911 11/27/1852 01/24/1994 03/16/2002 01/24/1994 10/29/1936 01/17/1994 01/18/1994 01/18/1994 01/18/1994 01/18/1994 01/18/1994 03/29/1928	121936.0 21656.5 17 637.0 95032.0 194353.4 143436.1 425 0.0 0 0 0.0 055024.3 213323.8 055421.1 223536.1 155410.8 194750.0 040126.8 223133.0 211144.9 072356.0		5.30 4.20 4.00	0.036 0.020 0.018	IV	54.2( 87.2) 54.4( 87.6) 54.5( 87.8) 54.5( 87.8) 54.7( 88.1) 55.0( 88.5) 55.0( 88.5) 55.1( 88.7) 55.3( 88.9) 55.3( 89.1) 55.3( 89.1) 55.5( 89.3) 55.6( 89.4) 55.6( 89.4) 55.6( 89.5) 55.7( 89.6) 55.7( 89.6) 55.8( 89.7) 55.8( 89.8) 55.8( 89.8)
DMG DMG GSP	35.0500	118.9500	08/17/1952 11/14/1952 03/20/1996	2334 1.4	0.0 0.0 13.0	4.00 4.00 4.10	$0.018 \\ 0.018 \\ 0.019$	IV   IV   IV	55.9( 90.0) 55.9( 90.0) 56.0( 90.2)

		EQS_MFPDSt	:n3_PGA	.txt			
GSP	34.3970 118.6090 07/22/199			4.001	0.018	IV	56.2(90.4)
GSB	34.2850 118.6240 01/17/199			4.70	0.025	ĺν	56.3( 90.6)
DMG	35.0330 118.9170 07/23/195		0.0	4.10	0.019	IV	56.3(90.6)
GSP	34.3000 118.6200 08/09/200		4.0	4.40	0.022	IV	56.3(90.6)
GSP	35.1490 119.1040 05/28/199	3   044740.6	21.0	5.20	0.033	V	56.5(90.9)
DMG	35.1830 119.1740 06/04/195	6   83319.3	14.3	4.00	0.017	IV	56.8( 91.3)
DMG	34.5860 118.6130 02/07/195		2.6	4.60	0.024	V	56.8(91.4)
DMG	35.1000 119.0000 07/22/195		0.0	4.30	0.020	IV	56.9(91.5)
DMG	35.1000 119.0000 07/24/195		0.01	4.10	0.018	IV	56.9(91.5)
GSP	34.2780 118.6110 01/29/199	4 121656.4	2.0	4.30	0.020	IV	57.1(91.9)
DMG	33.8500 120.3000 08/27/194	9 155428.0	0.0	4.00	0.017	IV	57.2(92.0)
DMG	35.0670 118.9330 07/23/195		0.0	4.10	0.018	IV	57.4(92.4)
DMG	34.3000 118.6000 04/04/189		0.0	6.00	0.050	VI	57.5(92.5)
DMG	34.8570 120.4700 06/21/196	6  94625.9	2.1	4.10	0.018	IV	57.6(92.6)
DMG	35.0500 118.9000 09/25/195		0.0	4.10	0.018	IV	57.8( 93.1)
DMG	35.1000 118.9670 08/25/195		0.0	4.70	0.025	V	58.0(93.3)
DMG	35.1500 119.0500 11/11/195	2 1722 8.0	0.0	4.20	0.019	IV	58.1(93.5)
DMG	35.0000 118.8330 12/01/195		0.0	4.40	0.021	IV	58.1( 93.5)
DMG	35.0000 118.8330 07/23/195		0.0	5.20	0.032	V	58.1(93.5)
DMG	35.0000 118.8330 07/23/195		0.0	5.40	0.036	V	58.1( 93.5)
GSP	34.2180 118.6070 01/18/199		12.0	4.20	0.019	IV	58.3(93.8)
GSB	34.3600 118.5710 01/19/199		2.0	4.50	0.022	IV	58.5( 94.2)
PAS	35.2700 119.4020 09/26/198		5.0	4.10	0.018	IV	58.5( 94.2)
GSP	34.3050 118.5790 01/29/199		1.0	5.10	0.030	V	58.6( 94.3)
DMG	35.1840 119.0990 07/01/195		9.0	4.70	0.025	V	58.7( 94.5)
DMG	34.3700 120.6230 11/22/193		10.0	4.50	0.022	IV	58.8( 94.6)
GSP	34.3790 118.5630 01/18/199		7.0	4.40	0.021	IV	58.9( 94.8)
DMG	35.0330 118.8500 10/07/195		0.01	4.90	0.027	V	59.0( 94.9)
GSP	34.3790 118.5610 01/18/199		7.0	4.80	0.026	v	59.0( 94.9)
GSG	34.4080 118.5590 01/17/199	4 200205.4	0.0	4.00	0.017	IV	59.0( 94.9)

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	i	i	1	l TIME			SITE	SITE	APPROX.
FILE	LAT.	LONG.	DATE		DEPTH	QUAKE	ACC.	MM	DISTANCE
CODE		WEST	j -/	H M Sec			g	INT.	mi [km]
	 	,	, L		(Nm)	MAG:		TT	[17.11.]
GSP	134.5000	118.5600	07/05/1991	174157.1	11.0	4.10	0.018	i ıv i	59.0( 95.0)
GSP			01/17/1994		16.0		0.018	İŸ	59.2( 95.3)
DMG	134 2650	1118 5770	04/15/1971	111432 0			0.019	İİVİ	59.2( 95.3)
DMG			08/14/1952		0.0	:	0.019	İİV	59.3( 95.5)
DMG			08/17/1952				0.020	İİVİ	59.3( 95.5)
GSP			04/21/2005		6.0	4.00	0.017	İİVİ	59.4( 95.6)
GSB			01/17/1994		9.0	:	0.032	i tv i	59.4( 95.6)
GSB			01/18/1994		1.0	4.50	0.022	ΙΫ́Ι	59.6( 95.9)
PAS			06/10/1988		6.8		0.035	l tv l	59.6( 96.0)
PAS			09/04/1981		5.0	5.30	0.033	l v l	59.7( 96.0)
GSB			01/24/1994		6.0	4.80	0.035	Ivi	59.7( 96.1)
GSP			01/27/1994		14.0	4.60	0.023	IV	59.9( 96.3)
GSP			01/17/1994		19.0	4.60	0.023	İİVİ	60.0( 96.5)
DMG			01/09/1857		0.0	7.90	0.130	VIII	60.7( 97.7)
PAS			05/06/1985		24.4	4.40	0.020	IV	61.0( 98.2)
GSP			01/17/1994		0.0	4.60	0.023	ĪV	61.1( 98.4)
DMG	134.4850	118.5210	07/16/1965	74622.4	15.1	4.00	0.016	İİV	61.2( 98.5)
DMG	34.2730	118.5320	06/21/1971	16 1 8 5	4.1	4.00	0.016	İİVİ	61.6( 99.1)
GSP					14.0	4.50	0.021	İİVİ	61.7( 99.2)
	GSP  34.2610 118.5340 01/17/1994 123939.8  14.0  4.50  0.021   IV   61.7( 99.2)								

# EQS\_MFPDStn3\_PGA.txt

DMG |34.2840|118.5280|04/02/1971| 54025.0| 3.0| 4.00| 0.016 | IV | 61.7( 99.3)

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

-END OF SEARCH- 338 EARTHQUAKES FOUND WITHIN THE SPECIFIED SEARCH AREA.

TIME PERIOD OF SEARCH:

1800 TO 2008

LENGTH OF SEARCH TIME:

209 years

THE EARTHQUAKE CLOSEST TO THE SITE IS ABOUT 4.9 MILES (7.8 km) AWAY.

LARGEST EARTHQUAKE MAGNITUDE FOUND IN THE SEARCH RADIUS: 7.9

LARGEST EARTHQUAKE SITE ACCELERATION FROM THIS SEARCH: 0.275 g

COEFFICIENTS FOR GUTENBERG & RICHTER RECURRENCE RELATION: a-value= 3.103 b-value= 0.727

beta-value= 1.675

# TABLE OF MAGNITUDES AND EXCEEDANCES:

Earthquake Magnitude	Number of Times   Exceeded	Cumulative   No. / Year
4.0 4.5 5.0 5.5 6.0 6.5	338 142 57 26 12	1.61722 0.67943 0.27273 0.12440 0.05742 0.02392
7.0 7.5	2	0.02392 0.00957

\*\*\*\*\* EZ-FRISK \*\*\*\*\*

\*\*\*\*\* SEISMIC HAZARD ANALYSIS DEFINITION \*\*\*\*\*

\*\*\*\*\* RISK ENGINEERING, INC. \*\*\*\*\*

\*\*\*\*\* BOULDER, CO USA \*\*\*\*\*

\*\*\*\*\*\*\*\*\*\*

#### PROGRAM VERSION

EZ-FRISK 7.51 Build 001

#### **ANALYSIS TITLE:**

MFPD Proposed Station 3

#### ANALYSIS TYPE:

Single Site Analysis

# SITE COORDINATES

Latitude 34.4363

Longitude -119.594

INTENSITY TYPE: Maximum Rotated Component of Spectral Response @ 5% Damping

## HAZARD DEAGGREGATION

Status: OFF

## SOIL AMPLIFICATION

Method: Do not use soil amplification

# ATTENUATION EQUATION SITE PARAMETERS

Depth[Vs=1000m/s] (m): 1

Estimate Z1 from Vs30 for AS NGA: 1

Estimate Z1 from Vs30 for CY NGA: 1

Vs30 (m/s): 270 Vs30 Is Measured: 0 z25 (km): 0.15 AMPLITUDES - Acceleration (g) 0.0001 0.001 0.01 0.02 0.05 0.07 0.1 0.2 0.3 0.4 0.5 0.7 1 2 3 PERIODS (s) PGA 5.e-002 0.1 0.2 0.3 0.4 0.5

0.6

- 0.8
- 0.9
- 1.
- 1.2
- 1.4
- 1.6
- 1.8
- 2.
- 3.
- 4.

# **DETERMINISTIC FRACTILES**

- 0.5
- 0.84

# PLOTTING PARAMETERS

Period at which to plot PGA: 0.030303

# CALCULATIONAL PARAMETERS

Fault Seismic Sources -

Maximum inclusion distance : 1000 km

Down dip integration increment : 1 km

Horizontal integration increment : 1 km

Number rupture length per earthquake: 1

Subduction Interface Seismic Sources -

Maximum inclusion distance : 1000 km

Down dip integration increment : 5 km

Horizontal integration increment : 5 km

Number rupture length per earthquake: 1

Subduction Slab Seismic Sources -

Maximum inclusion distance : 1000 km

Down dip integration increment : 5 km

Horizontal integration increment : 20 km

Number rupture length per earthquake: 1

Area Seismic Sources -

Maximum inclusion distance : 1000 km

Vertical integration increment : 3 km

Number of rupture azimuths : 3

Minimum epicentral distance step : 0.5 km

Maximum epicentral distance step : 10 km

Gridded Seismic Sources -

Maximum inclusion distance : 200 km

Default number of rupture azimuths : 10

Maximum distance for default azimuths: 20 km

Minimum distance for one azimuth : 70

Use binned calcuations if possible : true

Bins per decade in distance (km) : 20

All Seismic Sources -

Magnitude integration step : 0.1 M

Apply magnitude scaling : NO

Include near-source directivity : YES

Method : Somerville et al. (1997) + Abrahamson(2000)

Component : Fault Normal

Hypocenter integration increment : 5 km

#### ATTENUATION EQUATIONS

Name: Abrahamson-Silva (2008) NGA MRC

Database: C:\Program Files\EZ-FRISK 7.51\Files\standard.bin-attendb

Base: FEMA P-750 Table C21.2-1 Truncation Type: No Truncation

Truncation Value: 0

Magnitude Scale: Moment Magnitude

Distance Type: Distance To Rupture

Name: Boore-Atkinson (2008) NGA USGS 2008 MRC

Database: C:\Program Files\EZ-FRISK 7.51\Files\standard.bin-attendb

Base: FEMA P-750 Table C21.2-1

Truncation Type: No Truncation

Truncation Value: 0

Magnitude Scale: Moment Magnitude

Distance Type: Distance To Rupture

Name: Campbell-Bozorgnia (2008) NGA USGS 2008 MRC

Database: C:\Program Files\EZ-FRISK 7.51\Files\standard.bin-attendb

Base: FEMA P-750 Table C21.2-1
Truncation Type: No Truncation

Truncation Value: 0

Magnitude Scale: Moment Magnitude

Distance Type: Distance To Rupture

Name: Chiou-Youngs (2007) NGA USGS 2008 MRC

Database: C:\Program Files\EZ-FRISK 7.51\Files\standard.bin-attendb

Base: FEMA P-750 Table C21.2-1

Truncation Type: No Truncation

Truncation Value: 0

Magnitude Scale: Moment Magnitude

Distance Type: Distance To Rupture

SEISMIC SOURCES

Name: California Gridded, Char, 2.1, Reverse

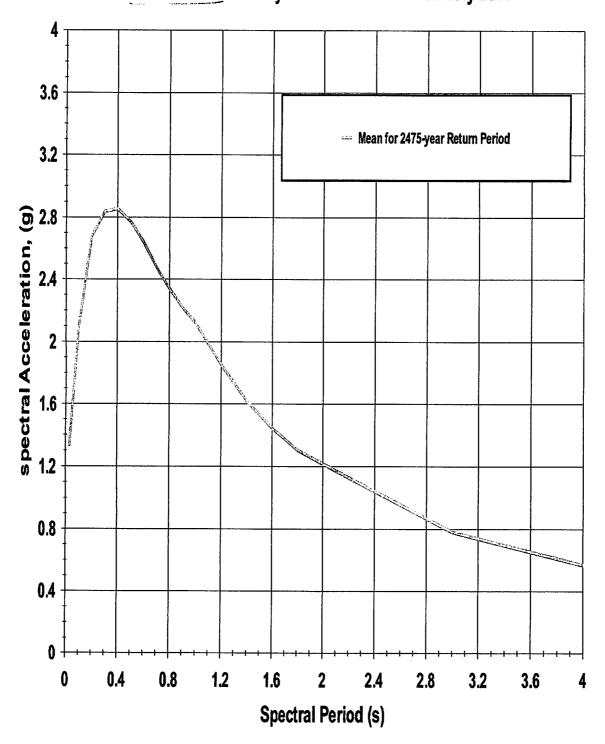
Region: USGS 2008 California

Category:Gridded

Database: C:\Documents and Settings\Mike\Local Settings\Application Data\Risk

Uniform Hazard Spectra

Spectral Response @ 5% Damping - Maximum Rotated Horizontal Component with Near Source Directivity MFPD Station 3 - February 2011



# Probabilistic Spectra results for EZ-FRISK 7.51 Build 001

ANNUAL FREQUENCY OF EXCEEDANCE: 4.041e-004

RETURN PERIOD: 2474.9

PROBABILITY OF EXCEEDENCE: 2.0% IN 50.0 YEARS

Column 1: Spectral Period

Column 2: Acceleration (g) for: Mean

Column 3: Acceleration (g) for: Abrahamson-Silva (2008) NGA MRC

Column 4: Acceleration (g) for: Boore-Atkinson (2008) NGA USGS 2008 MRC Column 5: Acceleration (g) for: Campbell-Bozorgnia (2008) NGA USGS 2008 MRC

Column 6: Acceleration (g) for: Chiou-Youngs (2007) NGA USGS 2008 MRC

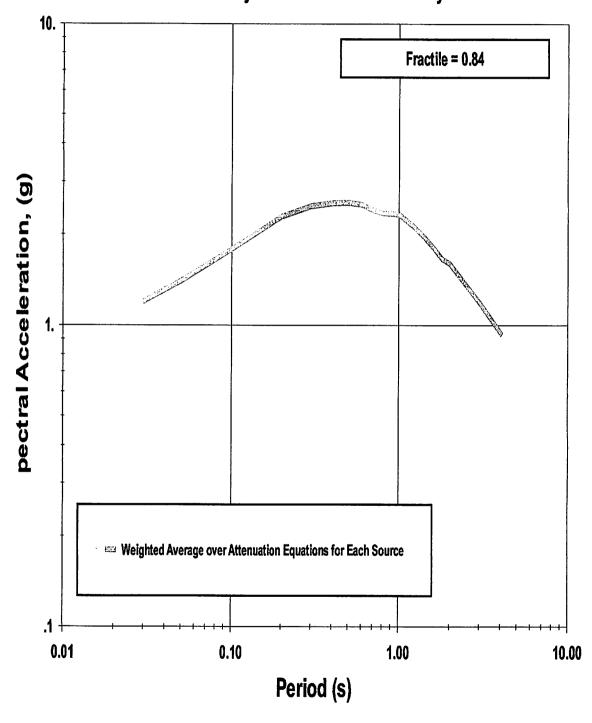
•		(9)			
1 PGA	2 1.339e+000	3 1.544e+000	4 1.180e+000	5 1.108e+000	6
1.475e+000 5.e-002	1.561e+000	1.703e+000	1.426e+000	1.238e+000	
1.834e+000 0.1	2.094e+000	2.155e+000	2.091e+000	1.653e+000	
2.347e+000 0.2	2.679e+000	2.845e+000	2.750e+000	2.161e+000	
2.914e+000 0.3	2.838e+000	* 3.139e+000	2.987e+000	2.236e+000	
2.934e+000 0.4	2.854e+000	* 3.226e+000	* 3.060e+000	2.281e+000	
2.797e+000 0.5	2.772e+000	* 3.107e+000	* 3.028e+000	2.308e+000	
2.609e+000 0.6	2.637e+000	2.982e+000	2.863e+000	2.196e+000	
2.463e+000 0.7	2.476e+000	2.784e+000	2.690e+000	2.081e+000	
2.305e+000 0.8	2.338e+000	2.630e+000	2.485e+000	1.969e+000	
2.210e+000 0.9	2.218e+000	2.517e+000	2.271e+000	1.840e+000	
2.142e+000 1.	2.118e+000	2.419e+000	2.106e+000	1.740e+000	
2.072e+000 1.2	1.852e+000	2.211e+000	1.775e+000	1.491e+000	
1.780e+000 1.4	1.619e+000	2.023e+000	1.539e+000	1.327e+000	
1.528e+000 1.6	1.442e+000	1.842e+000	1.359e+000	1.185e+000	
1.329e+000 1.8	1.304e+000	1.702e+000	1.215e+000	1.061e+000	
1.180e+000 2.	1.218e+000	1.658e+000	1.107e+000	9.562e-001	

1.068e+000				
3.	7.809e-001	9.887e-001	7.668e-001	6.007e-001
7.186e-001				
	5.667e-001	6.667e-001	5.850e-001	4.487e-001
5.441e-001				

Deterministic Spectra

Spectral Response @ 5% Damping - Maximum Rotated Horizontal Component with

Near Source Directivity MFPD Station 3 - February 2011



Deterministic Spectra Results using EZ-FRISK 7.51 Build 001

Largest Amplitudes of Ground Motions Considering All Sources Calculated using Weighted Mean of Attenuation Equations

Amplitude Units: Acceleration (g)

Fractile: 0.5				
Period	Amplitude	Magnitude	Closest	Region
Controlling Sour	rce	-		
		1	Distance(k	m)
PGA	6.650e-001	7.40 Mw	7.23	USGS 2008 California
Red Mountain				
5.e-002	7.741e-001	7.40 Mw	7.23	USGS 2008 California
Red Mountain				
0.1	9.808e-001	7.40 Mw	7.23	USGS 2008 California
Red Mountain				
0.2	1.262e+000	7.40 Mw	7.23	USGS 2008 California
Red Mountain				
0.3	1.364e+000	7.40 Mw	7.23	USGS 2008 California
Red Mountain				
0.4	1.418e+000	7.40 Mw	7.23	USGS 2008 California
Red Mountain				
0.5	1.439e+000	6.90 Mw	0.33	USGS 2008 California
Mission Ridge-Ar		Sa		
0.6	1.412e+000	6.90 Mw	0.33	USGS 2008 California
Mission Ridge-Ar	royo Parida-			
0.7	1.345e+000	6.90 Mw	0.33	USGS 2008 California
Mission Ridge-Ar	royo Parida-	Sa		
	1.309e+000	6.90 Mw	0.33	USGS 2008 California
Mission Ridge-Ar	royo Parida-	Sa		
0.9	1.300e+000	6.90 Mw	0.33	USGS 2008 California
Mission Ridge-Ar				
1.	1.287e+000	6.90 Mw	0.33	USGS 2008 California
Mission Ridge-Ar	_	Sa		
1.2	1.170e+000	6.90 Mw	0.33	USGS 2008 California
Mission Ridge-Ar	-	Sa		
1.4	1.065e+000	6.90 Mw	0.33	USGS 2008 California
Mission Ridge-Ar	_	Sa		
1.6	9.668e-001	6.90 Mw	0.33	USGS 2008 California
Mission Ridge-Ar				
1.8	8.933e-001	7.40 Mw	5.91	USGS 2008 California
Santa Ynez Conne				
2.	8.554e-001	7.40 Mw	5.91	USGS 2008 California
Santa Ynez Conne				
3.	6.373e-001	7.40 Mw	5.91	USGS 2008 California
Santa Ynez Conne	ected			

4. Santa Ynez Conne	5.059e-001 cted	7.40 Mw	5.91	USGS	2008	California
Fractile: 0.84						
Period	Amplitude	Magnitud	e Closest	τ	Regio	•
Controlling Sour	-	Magnin cuu	e CIOSESC		Neg I O	••
			Distance(k	m)		
PGA	1.205e+000	7.40 Mw	•	•	2008	California
Red Mountain						
5.e-002	1.403e+000	7.40 Mw	7.23	USGS	2008	California
Red Mountain						
0.1	1.782e+000	7.40 Mw	7.23	USGS	2008	California
Red Mountain						
0.2	2.288e+000	7.40 Mw	7.23	USGS	2008	California
Red Mountain						
0.3	2.479e+000	7.40 Mw	7.23	USGS	2008	California
Red Mountain 0.4	0 526-1000	7 40 16-	7.23	***	0000	G. 11 G
Red Mountain	2.536e+000	7.40 Mw	7.23	USGS	2008	California
0.5	2.546e+000	6.90 Mw	0.33	TTCCC	2008	California
Mission Ridge-Ar:			0.33	USGS	2008	Callionnia
0.6	2.510e+000	6.90 Mw	0.33	TTGCG	2008	California
Mission Ridge-Ar:			0.55	0565	2000	Calliolnia
0.7	2.401e+000	6.90 Mw	0.33	USGS	2008	California
Mission Ridge-Ar			0.00	3333		04444
0.8	2.349e+000	6.90 Mw	0.33	USGS	2008	California
Mission Ridge-Ar	royo Parida-	Sa				
0.9	2.339e+000	6.90 Mw	0.33	USGS	2008	California
Mission Ridge-Arr	royo Parida-	Sa				
1.	2.325e+000	6.90 Mw	0.33	USGS	2008	California
Mission Ridge-Arr	-	Sa				
	2.138e+000	6.90 Mw	0.33	USGS	2008	California
Mission Ridge-Arr	_					
1.4	1.967e+000	6.90 Mw	0.33	USGS	2008	California
Mission Ridge-Arr	_					
1.6	1.805e+000	6.90 Mw	0.33	USGS	2008	California
Mission Ridge-Ari	_		0.00			
1.8	1.657e+000	6.90 Mw	0.33	USGS	2008	California
Mission Ridge-Arı	1.598e+000	7.40 Mw	5.91	11000	2000	California
Santa Ynez Connec		7.40 MW	5.91	USGS	2008	California
3.	1.187e+000	7.40 Mw	5.91	TTECE	2008	California
Santa Ynez Connec		7.40 MW	J. 31	0000	2000	California
4.	9.421e-001	7.40 Mw	5.91	USGS	2008	California
Santa Ynez Connec		2211	3.31	JJ35		

Largest Amplitudes of Ground Motions Considering Sources Calculated with Abrahamson-Silva (2008) NGA MRC Amplitude Units: Acceleration (g)

Fractile: 0.5					
Period	Amplitude	Magnitude	Closest	Regio	n
Controlling Sour		-		_	
		1	Distance(k	m)	
PGA	7.981e-001	7.40 Mw	5.91	USGS 2008	California
Santa Ynez Conne	ected				
5.e-002	8.542e-001	7.40 Mw	5.91	USGS 2008	California
Santa Ynez Conne	ected				
0.1	1.022e+000	7.20 Mw	5.90	USGS 2008	California
Santa Ynez (East	t)				
0.2	1.316e+000	7.30 Mw	7.84	USGS 2008	California
Pitas Point (Lov	wer, West)				
0.3	1.506e+000	7.30 Mw	7.84	USGS 2008	California
Pitas Point (Lov	ver, West)				
0.4	1.642e+000	7.40 Mw	7.23	USGS 2008	California
Red Mountain					
0.5	1.686e+000	7.40 Mw	7.23	USGS 2008	California
Red Mountain					
0.6	1.659e+000	7.40 Mw	7.23	USGS 2008	California
Red Mountain				-	
0.7	1.618e+000	7.40 Mw	5.91	USGS 2008	California
Santa Ynez Conne	ected				
0.8	1.617e+000	7.40 Mw	5.91	USGS 2008	California
Santa Ynez Conne	ected				
0.9	1.607e+000	7.40 Mw	5.91	USGS 2008	California
Santa Ynez Conne	ected				
1.	1.595e+000	7.40 Mw	5.91	USGS 2008	California
Santa Ynez Conne	ected				
1.2	1.530e+000	7.40 Mw	5.91	USGS 2008	California
Santa Ynez Conne	ected				
1.4	1.443e+000	7.40 Mw	5.91	USGS 2008	California
Santa Ynez Conne	ected				
1.6	1.375e+000	7.40 Mw	5.91	USGS 2008	California
Santa Ynez Conne	ected				
1.8	1.318e+000	7.40 Mw	5.91	USGS 2008	California
Santa Ynez Conne	ected				
2.	1.314e+000	7.40 Mw	5.91	USGS 2008	California
Santa Ynez Conne	ected				
3.	8.442e-001	7.40 Mw	5.91	USGS 2008	California
Santa Ynez Conne	cted				
4.	5.979e-001	7.40 Mw	5.91	USGS 2008	California

#### Santa Ynez Connected

Fractile: 0.8	4			
Period	Amplitude	Magnitude	Closest	Region
Controlling Sou	rce	-		-
			Distance(k	m)
PGA	1.446e+000	7.40 Mw	5.91	USGS 2008 California
Santa Ynez Conn	ected			
5.e-002	1.548e+000	7.40 Mw	5.91	USGS 2008 California
Santa Ynez Conn	ected			
0.1	1.852e+000	7.20 Mw	5.90	USGS 2008 California
Santa Ynez (Eas	•			
0.2	2.384e+000	7.30 Mw	7.84	USGS 2008 California
Pitas Point (Lo				
0.3	2.728e+000	7.30 Mw	7.84	USGS 2008 California
Pitas Point (Lo				
	2.918e+000	7.40 Mw	7.23	USGS 2008 California
Red Mountain				
0.5	2.942e+000	7.40 Mw	7.23	USGS 2008 California
Red Mountain				
0.6	2.902e+000	7.40 Mw	7.23	USGS 2008 California
Red Mountain				
0.7	2.822e+000	7.40 Mw	5.91	USGS 2008 California
Santa Ynez Conn				
0.8	2.815e+000	7.40 Mw	5.91	USGS 2008 California
Santa Ynez Conn		<b>7</b> 40 44	<b>5</b> 04	
0.9	2.795e+000	7.40 Mw	5.91	USGS 2008 California
Santa Ynez Conn				
1.	2.769e+000	7.40 Mw	5.91	USGS 2008 California
Santa Ynez Conne				
1.2	2.688e+000	7.40 Mw	5.91	USGS 2008 California
Santa Ynez Conne		7 40 14	F 01	
1.4	2.565e+000	7.40 Mw	5.91	USGS 2008 California
Santa Ynez Conne		7 40 14-	F 01	77000 0000 0-1 (C
	2.475e+000	7.40 Mw	5.91	USGS 2008 California
Santa Ynez Conne	2.403e+000	7 40 16-	F 01	Maga 0000 g-1:5
— · -		7.40 Mw	5.91	USGS 2008 California
Santa Ynez Conne		7 40 16-	5 01	77000 0000 0:1:5: ·
Santa Ynez Conne	2.425e+000	7.40 Mw	5.91	USGS 2008 California
		7 40 16-	E 01	Maga 0000 galifamia
3.	1.541e+000	7.40 Mw	5.91	USGS 2008 California
Santa Ynez Conne	1.083e+000	7.40 Mw	5.91	USGS 2008 California
Santa Ynez Conne		7.40 MW	5.91	USGS ZUUG CALIFORNIA
Santa Inez Conne	ec cea			

Largest Amplitudes of Ground Motions Considering Sources Calculated with Boore-Atkinson (2008) NGA USGS 2008 MRC

Amplitude Units: Acceleration (g)

Fractile: 0.5					
Period	Amplitude	Magnitude	Closest	Regio	n
Controlling Sour	ce				
			Distance(k	=	
PGA	5.758e-001	7.40 Mw	7.23	USGS 2008	California
Red Mountain					
5.e-002	7.105e-001	7.40 Mw	7.23	USGS 2008	California
Red Mountain					
0.1	9.843e-001	7.40 Mw	7.23	USGS 2008	California
Red Mountain					
0.2	1.312e+000	7.40 Mw	7.23	USGS 2008	California
Red Mountain					
0.3	1.466e+000	7.40 Mw	7.23	USGS 2008	California
Red Mountain					
0.4	1.485e+000	7.40 Mw	7.23	USGS 2008	California
Red Mountain					
0.5	1.449e+000	7.40 Mw	7.23	USGS 2008	California
Red Mountain	4 000 .000				
0.6	1.383e+000	7.40 Mw	7.23	USGS 2008	California
Red Mountain	1 005 .000	- 40			
0.7	1.295e+000	7.40 Mw	7.23	USGS 2008	California
Red Mountain	1 107-1000	7 40 14	п 00		
0.8	1.197e+000	7.40 Mw	7.23	USGS 2008	California
Red Mountain	1 107-1000	6 00 14	0.00	******	a. 1 · a
0.9	1.127e+000	6.90 Mw	0.33	USGS 2008	California
Mission Ridge-Ar			0 22		0.3:6
1.	1.082e+000	6.90 Mw	0.33	USGS 2008	California
Mission Ridge-Ar	_		5 00		
1.2	9.541e-001	7.20 Mw	5.90	USGS 2008	California
Santa Ynez (East	8.987e-001	7 00 16-	F 00	*******	0-146
Santa Ynez (East		7.20 Mw	5.90	USGS 2008	California
1.6	8.476e-001	7.40 Mw	5.91	******	G-1: 6
Santa Ynez Conne		7.40 MW	5.91	USGS 2008	California
1.8	7.917e-001	7.40 Mw	5.91	11000 2000	California
Santa Ynez Conne		7.40 PW	5.91	05G5 2008	Calliornia
2.	7.449e-001	7.40 Mw	5.91	TT000 0000	California
Santa Ynez Conne		7.40 MW	5.91	05G5 2008	California
3.	6.682e-001	7.40 Mw	5.91	TTECE 2000	California
Santa Ynez Conne		7.40 MW	J. 91	<b>USGS 2008</b>	Calliornia
4.	5.832e-001	7.40 Mw	5.91	11909 2009	California
Santa Ynez Conne		720 PIW	J. 31	03G3 2008	Callionnia

Fractile: 0.84	<u> </u>			
Period	Amplitude	Magnitude	Closest	Region
Controlling Sour	ce			
			Distance(k	-
PGA	1.043e+000	7.40 Mw	7.23	USGS 2008 California
Red Mountain	4 000 .000			
5.e-002	1.288e+000	7.40 Mw	7.23	USGS 2008 California
Red Mountain 0.1	1 900-1000	7 40 16-	7 02	W000 0000 0-145
Red Mountain	1.802e+000	7.40 Mw	7.23	USGS 2008 California
0.2	2.377e+000	7.40 Mw	7.23	USGS 2008 California
Red Mountain	2.3776+000	7.40 MW	1.23	USGS 2008 California
0.3	2.683e+000	7.40 Mw	7.23	USGS 2008 California
Red Mountain	2.003e+000	7.40 PW	1.23	USGS 2006 California
0.4	2.705e+000	7.40 Mw	7.23	USGS 2008 California
Red Mountain	2170501000	7.40 1111	,.25	Obdb 2000 Carriornia
0.5	2.670e+000	7.40 Mw	7.23	USGS 2008 California
Red Mountain				
0.6	2.585e+000	7.40 Mw	7.23	USGS 2008 California
Red Mountain				
0.7	2.446e+000	7.40 Mw	7.23	USGS 2008 California
Red Mountain				
0.8	2.271e+000	7.40 Mw	7.23	USGS 2008 California
Red Mountain				
0.9	2.134e+000	6.90 Mw	0.33	USGS 2008 California
Mission Ridge-Ar		Sa		
1.	2.046e+000	6.90 Mw	0.33	USGS 2008 California
Mission Ridge-Ar				
1.2	1.804e+000	7.20 Mw	5.90	USGS 2008 California
Santa Ynez (East	•			
1.4	1.711e+000	7.20 Mw	5.90	USGS 2008 California
Santa Ynez (East	-	<b>7</b> 40 44		
1.6	1.623e+000	7.40 Mw	5.91	USGS 2008 California
Santa Ynez Conne		7 40 16-	F 01	**************************************
Santa Ynez Conne	1.524e+000	7.40 Mw	5.91	USGS 2008 California
2.	1.440e+000	7.40 Mw	5.91	Maga 2000 galifamia
Santa Ynez Conne		7.40 MW	5.91	USGS 2008 California
3.	1.269e+000	7.40 Mw	5.91	USGS 2008 California
Santa Ynez Conne		7.40 PW	J. 31	COGO ZOUG CALITOTIIIA
4.	1.101e+000	7.40 Mw	5.91	USGS 2008 California
Santa Ynez Conne			3.32	TOO LOOF COLLECTION

Largest Amplitudes of Ground Motions Considering Sources Calculated with

### Campbell-Bozorgnia (2008) NGA USGS 2008 MRC Amplitude Units: Acceleration (g)

Fractile: 0.5

Period Amplitude	Magnitude	Closest	Region
Controlling Source	_		_
		Distance(k	m)
PGA 6.152e-00		0.33	USGS 2008 California
Mission Ridge-Arroyo Parid			
5.e-002 6.691e-00		0.33	USGS 2008 California
Mission Ridge-Arroyo Parid			
0.1 7.314e-00		0.33	USGS 2008 California
Mission Ridge-Arroyo Parid			
0.2 9.415e-00	1 7.30 Mw	7.84	USGS 2008 California
Pitas Point (Lower, West)			
0.3 1.103e+00		0.33	USGS 2008 California
Mission Ridge-Arroyo Parid			
0.4 1.287e+00		0.33	USGS 2008 California
Mission Ridge-Arroyo Parid			
0.5 1.444e+00		0.33	USGS 2008 California
Mission Ridge-Arroyo Parid			
0.6 1.438e+00		0.33	USGS 2008 California
Mission Ridge-Arroyo Parid			
0.7 1.396e+00		0.33	USGS 2008 California
Mission Ridge-Arroyo Parid			
0.8 1.367e+00		0.33	USGS 2008 California
Mission Ridge-Arroyo Parid			
0.9 1.347e+00		0.33	USGS 2008 California
Mission Ridge-Arroyo Parid			
1. 1.329e+00		0.33	USGS 2008 California
Mission Ridge-Arroyo Parid			
1.2 1.206e+00		0.33	USGS 2008 California
Mission Ridge-Arroyo Parid			
1.4 1.112e+00		0.33	USGS 2008 California
Mission Ridge-Arroyo Parid			
1.6 1.006e+000		0.33	USGS 2008 California
Mission Ridge-Arroyo Parida			
1.8 8.961e-00		0.33	USGS 2008 California
Mission Ridge-Arroyo Parida		0.00	
2. 8.080e-003		0.33	USGS 2008 California
Mission Ridge-Arroyo Parida 3. 5.470e-003		0.33	77000 0000 0 7 1 5
		0.33	USGS 2008 California
Mission Ridge-Arroyo Parida 4. 4.144e-001		0.33	11000 0000 G-1:5- :
		0.33	USGS 2008 California
Mission Ridge-Arroyo Parida	1-5a		

Fractile: 0.84	
Period Amplitude Magnitude	Closest Region
Controlling Source	
	Distance(km)
PGA 1.115e+000 6.90 Mw	0.33 USGS 2008 California
Mission Ridge-Arroyo Parida-Sa	
5.e-002 1.212e+000 6.90 Mw	0.33 USGS 2008 California
Mission Ridge-Arroyo Parida-Sa	
0.1 1.325e+000 6.90 Mw	0.33 USGS 2008 California
Mission Ridge-Arroyo Parida-Sa	
0.2 1.706e+000 7.30 Mw	7.84 USGS 2008 California
Pitas Point (Lower, West)	
0.3 1.998e+000 6.90 Mw	0.33 USGS 2008 California
Mission Ridge-Arroyo Parida-Sa	
0.4 2.287e+000 6.90 Mw	0.33 USGS 2008 California
Mission Ridge-Arroyo Parida-Sa	
0.5 2.519e+000 6.90 Mw	0.33 USGS 2008 California
Mission Ridge-Arroyo Parida-Sa	
0.6 2.520e+000 6.90 Mw	0.33 USGS 2008 California
Mission Ridge-Arroyo Parida-Sa	
0.7 2.457e+000 6.90 Mw	0.33 USGS 2008 California
Mission Ridge-Arroyo Parida-Sa	
0.8 2.420e+000 6.90 Mw	0.33 USGS 2008 California
Mission Ridge-Arroyo Parida-Sa	
0.9 2.404e+000 6.90 Mw	0.33 USGS 2008 California
Mission Ridge-Arroyo Parida-Sa	
1. 2.388e+000 6.90 Mw	0.33 USGS 2008 California
Mission Ridge-Arroyo Parida-Sa	
1.2 2.193e+000 6.90 Mw	0.33 USGS 2008 California
Mission Ridge-Arroyo Parida-Sa	
1.4 2.040e+000 6.90 Mw	0.33 USGS 2008 California
Mission Ridge-Arroyo Parida-Sa	
1.6 1.863e+000 6.90 Mw	0.33 USGS 2008 California
Mission Ridge-Arroyo Parida-Sa	
1.8 1.676e+000 6.90 Mw	0.33 USGS 2008 California
Mission Ridge-Arroyo Parida-Sa	
2. 1.524e+000 6.90 Mw	0.33 USGS 2008 California
Mission Ridge-Arroyo Parida-Sa	
3. 1.028e+000 6.90 Mw	0.33 USGS 2008 California
Mission Ridge-Arroyo Parida-Sa	
4. 7.769e-001 6.90 Mw	0.33 USGS 2008 California
Mission Ridge-Arroyo Parida-Sa	

Largest Amplitudes of Ground Motions Considering Sources Calculated with Chiou-Youngs (2007) NGA USGS 2008 MRC

#### Amplitude Units: Acceleration (g)

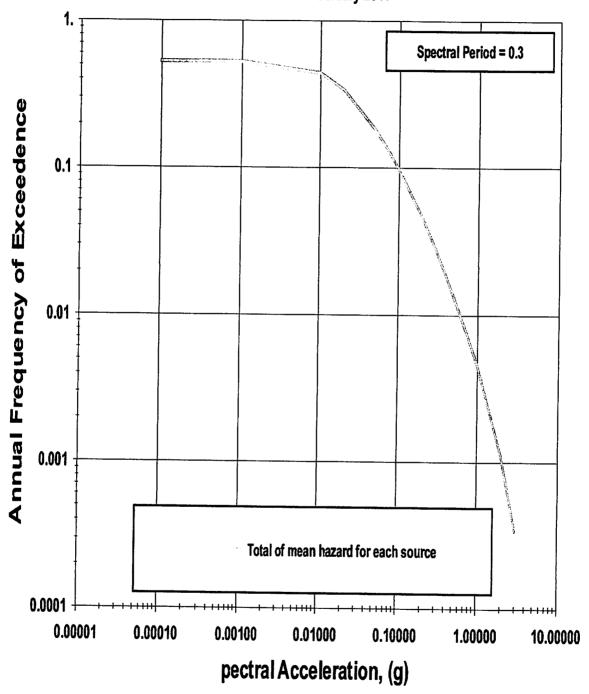
Fractile: 0.	5				
Period	Amplitude	Magnitude	Closest	Region	L
Controlling So	urce				
			Distance(k	•	
PGA	8.501e-001	7.40 Mw	7.23	USGS 2008	California
Red Mountain					
5.e-002	1.041e+000	7.40 Mw	7.23	USGS 2008	California
Red Mountain					
0.1	1.279e+000	7.40 Mw	7.23	USGS 2008	California
Red Mountain					
0.2	1.542e+000	7.40 Mw	7.23	USGS 2008	California
Red Mountain					
0.3	1.555e+000	7.40 Mw	7.23	USGS 2008	California
Red Mountain					
0.4	1.540e+000	7.40 Mw	7.23	USGS 2008	California
Red Mountain					
0.5	1.490e+000	7.40 Mw	7.23	USGS 2008	California
Red Mountain					
0.6	1.409e+000	7.40 Mw	7.23	USGS 2008	California
Red Mountain	1 240-1000	c 00 14	0.00		
0.7	1.348e+000	6.90 Mw	0.33	USGS 2008	California
Mission Ridge-					
0.8	1.334e+000	6.90 Mw	0.33	USGS 2008	California
Mission Ridge-					
0.9	1.353e+000	6.90 Mw	0.33	USGS 2008	California
Mission Ridge-			0.00		
1.	1.357e+000	6.90 Mw	0.33	USGS 2008	California
Mission Ridge-					
1.2	1.249e+000	6.90 Mw	0.33	USGS 2008	California
Mission Ridge-					
1.4	1.130e+000	6.90 Mw	0.33	USGS 2008 (	California
Mission Ridge-					
1.6	1.013e+000	6.90 Mw	0.33	USGS 2008 (	California
Mission Ridge-					
1.8	9.111e-001	6.90 Mw	0.33	USGS 2008 (	California
Mission Ridge-	_				
2.	8.299e-001	6.90 Mw	0.33	USGS 2008 (	California
Mission Ridge-	_				
3.	6.381e-001	6.90 Mw	0.33	USGS 2008 (	California
Mission Ridge-A					
4.	5.139e-001	6.90 Mw	0.33	USGS 2008 (	California
Mission Ridge-A	Arroyo Parida-S	Sa			

Fractile: 0.84

Period	Amplitude	Magnitude	Closest	Region
Controlling Sour	cce		Distance(k	m)
PGA	1.540e+000	7.40 Mw	7.23	m, USGS 2008 California
Red Mountain	1.5400.000	7.40 110	7.23	ODGO ZOOO CALILOIMIA
5.e-002	1.887e+000	7.40 Mw	7.23	USGS 2008 California
Red Mountain		, , , , ,		
0.1	2.317e+000	7.40 Mw	7.23	USGS 2008 California
Red Mountain				
0.2	2.795e+000	7.40 Mw	7.23	USGS 2008 California
Red Mountain				
0.3	2.818e+000	7.40 Mw	7.23	USGS 2008 California
Red Mountain				
0.4	2.737e+000	7.40 Mw	7.23	USGS 2008 California
Red Mountain				
0.5	2.599e+000	7.40 Mw	7.23	USGS 2008 California
Red Mountain				
0.6	2.464e+000	7.40 Mw	7.23	USGS 2008 California
Red Mountain				
0.7	2.361e+000	6.90 Mw	0.33	USGS 2008 California
Mission Ridge-Ar				
0.8	2.358e+000	6.90 Mw	0.33	USGS 2008 California
Mission Ridge-Ar				
0.9	2.415e+000	6.90 Mw	0.33	USGS 2008 California
Mission Ridge-Ar				
1.	2.447e+000	6.90 Mw	0.33	USGS 2008 California
Mission Ridge-Ar				
1.2	2.276e+000	6.90 Mw	0.33	USGS 2008 California
Mission Ridge-Ar				
1.4	2.082e+000	6.90 Mw	0.33	USGS 2008 California
Mission Ridge-Ar	royo Parida-:	sa 6.90 Mw	0.33	H000 0000 G-1:5
Mission Ridge-Ar			0.33	USGS 2008 California
1.8	1.714e+000	6.90 Mw	0.33	USGS 2008 California
Mission Ridge-Ar			0.33	USGS 2008 California
2.	1.579e+000	6.90 Mw	0.33	USGS 2008 California
Mission Ridge-Ar			0.33	USGS 2006 CATITOTHIA
3.	1.253e+000	6.90 Mw	0.33	USGS 2008 California
Mission Ridge-Ar			0.33	ODGS 2000 CATITOLINA
4.	1.035e+000	6.90 Mw	0.33	USGS 2008 California
Mission Ridge-Ar			5.25	TTT EVO GUZZZOZIIZU

Largest Amplitudes of Ground Motions for Each Source

Total Hazard
Spectral Response @ 5% Damping - Maximum Rotated Horizontal Component
MFPD Station 3 - February 2011



## CAMPBELL.GEO, INC.

ENGINEERING GEOLOGY · HYDROLOGY · GEOENVIRONMENTAL SERVICES

### **TRANSMITTAL**

To: Montecito Fire Protection District

595 San Ysidro Road Montecito, CA 93108

Attn: Chief Kevin Wallace

Subject: Geologic Hazards and Preliminary Geotechnical Evaluation of the

Proposed MFPD Station 3 Project

2500 East Valley Road Montecito, California

We are transmitting: one copy of the above-referenced report. We conclude that the proposed project is feasible with respect to geologic hazards and geotechnical constraints. Specific recommendations for the design engineer are included in the Conclusions/Recommendations section of the report.

The southern fence and site boundary prevented subsurface investigation more than 30 feet south of the main proposed structure. Typically, borings and trenches extend 50 feet laterally from development footprints to verify the absence of the surface rupture hazard from faults, to be consistent with state and local policy and regulations. The exploratory trenching and boring program was extended to the north to allow the development footprint to be shifted northward.

Please contact me if you have any questions.

By: Show Com

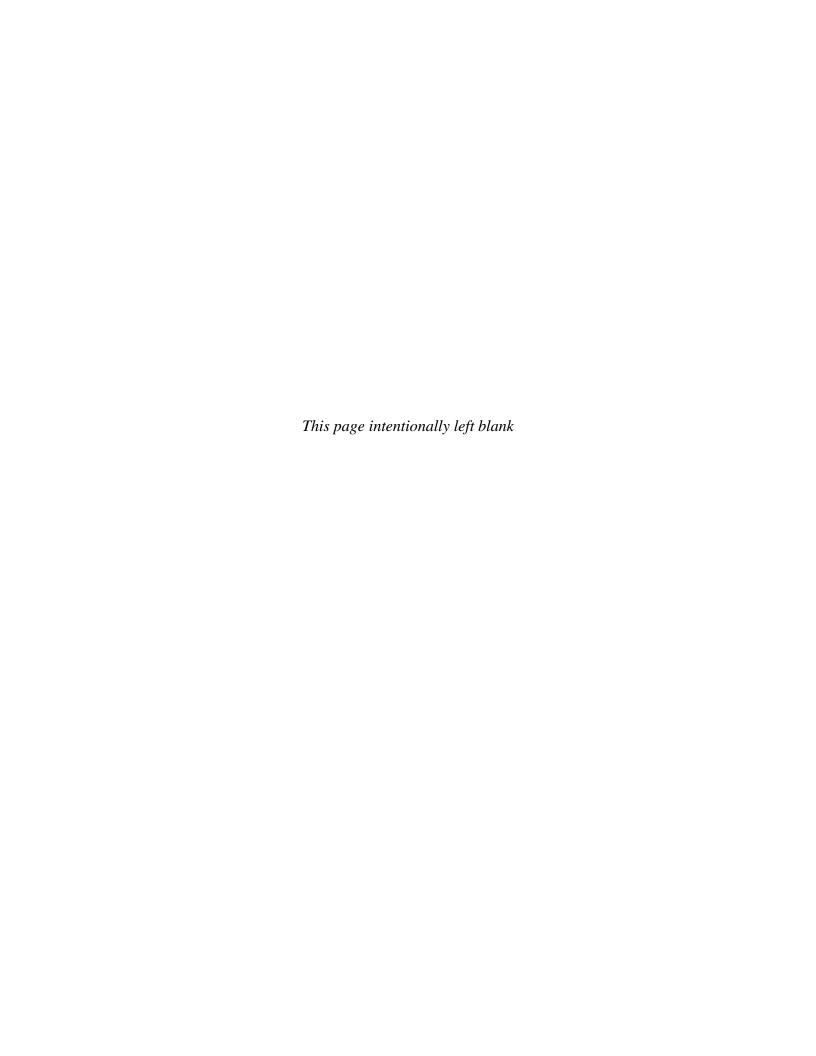
Steve Campbell Principal Geologist

**Date:** March 7, 2011

Clients\MFPD Stn 3-Geo\Transmittals\ T3.doc

cc:

AMEC Earth and Environmental Attn: Mr. Dan Gira, Program Manager





PHASE I ENVIRONMENTAL SITE ASSESSMENT

## CAMPBELL.GEO, INC.

ENGINEERING GEOLOGY · HYDROLOGY · GEOENVIRONMENTAL SERVICES

#### Phase I Environmental Site Assessment

Proposed Montecito Fire Protection District – Station 3
Portion of 2500 East Valley Road
(APN 155-070-008)
Montecito, California

**December 15, 2010** 

#### Prepared for:

Montecito Fire Protection District 595 San Ysidro Road Santa Barbara, CA 93108

Attention: Chief Kevin Wallace

#### Prepared by:

CAMPBELL · GEO, INC.

### CAMPBELL.GEO, INC.

ENGINEERING GEOLOGY · HYDROLOGY · GEOENVIRONMENTAL SERVICES

December 15, 2010

Montecito Fire Protection District 595 San Ysidro Road Santa Barbara, CA 93108

Attn: Chief Kevin Wallace

Subject:

Phase I Environmental Site Assessment

Proposed MFPD Station 3

Portion of 2500 East Valley Road (APN 155-070-008)

Montecito, California

Dear Mr. Wallace:

#### **EXECUTIVE SUMMARY**

Campbell Geo, Inc. has completed a Phase I Environmental Site Assessment of a 2.5-acre portion of the 2500 East Valley Road property in Montecito, California. The land use history of the site since at least the 1920s has been as a citrus orchard. Based on our records review, site reconnaissance, and an interview with the owner's representative, there are no recognized environmental conditions on the investigated portion of the parcel.

#### INTRODUCTION

This report presents the results of a Phase I Environmental Site Assessment of the above-referenced 2.5-acre site (to be referred to as "the project site") under evaluation for a new MFPD station in Montecito, California. The project site is located near the southwest corner of a 76.87 acre parcel (APN 155-070-008) in an unincorporated portion of the County of Santa Barbara, California (see Plate 1 - Site Location Map). The larger parcel is part of the Rancho San Carlos. It is our understanding that MFPD is in the process of acquiring the 2.5-acre property. The property ownership is currently listed by the County of Santa Barbara Assessor's office to be the Palmer G. Jackson Trust. At your request, Campbell-Geo, Inc. has investigated current and historic land uses that could have resulted in the release of materials causing chemical contamination of soil or groundwater. Our work has been conducted in general conformance with guidelines published by ASTM (Standard E-1527-05) for the Phase I Environmental Site Assessment process. In accordance with our

proposal, dated October 1, 2010 and approved on the same day, our work consisted of the following:

- 1) Examined selected historical aerial photographs and historical topographic maps of the site available from in-house or commercial sources.
- 2) Reviewed in-house unpublished reports and United States Geological Survey water resources data.
- 3) Reviewed building permit files provided by the County of Santa Barbara Building and Safety Department.
- 4) Reviewed information available at the County Agricultural Commissioner's office pertaining to use and storage of pesticides.
- Verified the absence of file data available for 2500 East Valley Road from the LUFT, SMU and Hazardous Materials programs at Santa Barbara County Fire Department, Fire Prevention Division.
- 6) Obtained information pertaining to old, abandoned solid waste disposal facilities from Santa Barbara County Environmental Health Services.
- 7) Reviewed the State of California Regional Water Quality Control Board listing of environmental cleanup sites and the state GeoTracker database.
- 8) Examined the California Division of Oil, Gas and Geothermal Resources well location map to verify the absence of oil wells or test hole sites on or near the property.
- Obtained information from databases and lists published by State and Federal agencies to verify the absence of records of waste material generated on the site and to review listed facilities in the site vicinity where hazardous waste spills may have occurred.

- 10) Reviewed an historical street directory and verified the absence of historical Sanborn Fire Insurance Maps for the site or area.
- 11) Conducted a reconnaissance level site visit to observe current conditions relative to known storage and use of hazardous chemical substances. Conducted interviews with the property owner's representative.
- 12) Prepared a report summarizing the data in the available reports/sources, the data obtained from file review at the various agencies, our site observations, and interviews.

#### SITE DESCRIPTION

#### Location

The property is located in Section 10, Township 4 North, Range 26 West, on the USGS 7½' "Carpinteria" quadrangle, dated 1995, which is reproduced as Plate 1 of this report. The approximate coordinates of the site are latitude N34.4363° and longitude W119.5944°. The overall parcel property area totals 76.87 acres, as indicated by the assessor's parcel map included in the appendix of this report. The street address for the overall parcel is 2500 East Valley Road, Santa Barbara, California. The project site area is 2.5 acres, as shown on the RRM Design Group illustration, dated August 10, 2010, also appended to this report. Currently no structures exist on the project site and it is occupied by a lemon orchard.

#### **Property Features**

The project site is gently sloping towards the south and southwest. On the western side of the project site, there is an unnamed drainage channel, which flows from north to south. The project site elevation ranges from approximately 310 feet to 330 feet above sea level, based on the AMEC Earth and Environmental topographic map (see Plate 2).

Drainage is mostly controlled and directed south towards East Valley Road or west towards the unnamed drainage channel.

#### Adjacent Properties

The property is located in a rural area of Montecito with primarily agricultural land use. The 2005 aerial photo that we reviewed shows the existence of lemon orchards to the north, east, and west of the project site, and a residence/ranch to the south with a horse track, which is consistent with our site observations in 2010. Photographs of the adjacent property areas are included with this report.

#### GEOLOGIC AND HYDROGEOLOGIC SETTING

The property is located in the Transverse Range geomorphic province of California. The Transverse Ranges are characterized by east-west trending geologic structures, including the Santa Ynez Mountain Range. The site overlies Pleistocene-age to recent alluvial deposits (Dibblee, 1986 and USGS, 2009). The consolidated rocks in the vicinity of the site structurally trend east-west and the stratigraphic beds dip to the south under the subject property. The east-west trending Arroyo Parida Fault is mapped approximately 600 feet south of the property (Dibblee, 1986); however the USGS (Minor, et al) shows the Arroyo Parida trend approximately 200 feet north of East Valley Road at the project site. The Fernald Point Fault is also shown on the USGS map, trending from the southwest to the northeast, possibly through the southeast corner of the project site, and merging with the Arroyo Parida. The USGS indicates that the map location of both faults is questionable and that the faults are concealed beneath the alluvial deposits in this area.

The site overlies Storage Unit 1 of the Montecito Groundwater Basin (Hoover, 1980). The Arroyo Parida Fault marks the boundary between Storage Units 1 and 2, the latter located to the south. The basin is divided vertically (from oldest to youngest units) into the Casitas formation, and alluvial deposits. Unconsolidated deposits are at least 370

feet thick, under the south edge of the site. This information is based on subsurface exploration conducted in November 2010 by this office as part of a separate geologic hazards investigation that is in progress as of the date of this Phase I report. Surface outcrops of the Oligocene-age Sespe formation bedrock are present east of the property. The basin is utilized by water wells serving municipal and private entities.

The subject parcel is served by the Montecito Water District. No water wells are shown on the site by USGS maps. Based on our October 2010 site visit and conversations with the ranch manager, there are no active water wells on the project site. A nearby inactive well, located approximately 200 feet west of the project site, was found by our measurement to have a water level of 94 feet below ground surface in November 2010.

#### REVIEW OF PUBLIC AND PRIVATE AGENCY RECORDS

United States Environmental Protection Agency/State of California Environmental Protection Agency

Information obtained from environmental data bases maintained by Environmental Data Resources, Inc. (EDR) was reviewed to evaluate the subject parcel and nearby facilities that are recorded on Federal and State EPA site lists. No Federal or State listed sites were reported to exist in the vicinity of the project site. Among the various listings is the "HIST UST" database, created from historical underground storage tanks (USTs) that were registered. A property listed as "Feather Hill Ranch, 2300 East Valley Road" on the HIST UST database, appears to apply to a property approximately ¼ mile to the west of the project site. The UST is reported to have held unleaded gasoline and no leak is reported in the EDR report. Other "unmapped" sites were listed, but most are known to be significantly distant from the property. Pertinent portions of the EDR database are included in the appendix of this report along with a key to the acronyms for the listed references.

#### State of California Regional Water Ouality Control Board

An "Active Local and Regional Underground Tank Case" list, dated June 16, 1997, prepared by the Central Coast Regional Water Quality Control Board, was reviewed. The subject site was not included on the list. Regional board staff has directed our inquiries for more recent data to the State of California "GeoTracker" system.

#### SWRCB GeoTracker

The State of California Water Resources Control Board (SWRCB) maintains a database called "GeoTracker" that contains data about drinking water supplies, underground fuel tanks, fuel pipelines, land disposal sites, Department of Defense sites, and "SLIC" sites. Our review of the data available on the GeoTracker site (posted October 7, 2010) indicates that the subject site is not listed.

#### California Division of Oil, Gas, and Geothermal Resources

This state agency's well location map #W3-2 (dated August 12, 2003) was reviewed. The closest oil well activity shown on the map is greater than ½ mile southwest of the project site, where a dry test hole (Ortega Oil Company: "Well No. 1") was drilled. No drilling date is specified on that map.

#### Santa Barbara County Fire Prevention Division

Information was reviewed on the Santa Barbara County Fire Prevention Division (SBCFPD) list of underground tank cleanup sites (dated October 12, 2009) and the list of Site Mitigation Unit (SMU and SMU-2) cleanup sites (dated May 12, 2010). The subject property is not included on any of these three lists. SBCFPD staff has directed our inquiries for more recent LUFT data to the State of California GeoTracker system.

A November 11, 2010 telephone conversation with the FPD file custodian (Ms. Judy Fitzjerrall) indicates that there are no LUFT or SMU case files for the 2500 East Valley

Road address, but she did indicate her computer database showed an underground storage tank (UST) on the 2500 East Valley Road property that was removed in September of 1994. The ranch manager has confirmed that this tank was located on the east side of the 2500 East Valley Road property and not on the project site. Ms. Fitzjerrall indicated her database showed it was a 2,500-gallon UST, the tank manufacturer was unknown, it stored leaded gasoline, and had an estimated last dated use of 1989. Upon tank removal, there was no soil sampling, according to SBCFPD. That agency reports no paper files were created.

#### Santa Barbara County Building and Safety Department

Based on our October 7, 2010 permit history search on the County of Santa Barbara Planning and Development web site, there have been five building permits, a planning permit, and an enforcement action associated with APN 155-070-008 between the years of 1999 and 2010. A summary of the permit history is included in the appendix. The five building permits were for a single-family dwelling, retaining wall, tree protection, electrical work, and grading. Based on our conversation with the ranch manager on December 6, 2010, there have been no buildings or structures associated with the MFPD project site area since his presence on the ranch, dating back to 1980.

#### Santa Barbara County Environmental Health Services

No private water well or water system file exists for the referenced site address and assessors parcel number, based on our communication with this agency (Mr. Norman Fujimoto, in a memo dated October 4, 2010).

Based on an October 4, 2010 memo from Ms. Lisa Sloan at this agency, no ranch dumps or other waste disposal facilities are known to exist on this property.

#### Santa Barbara County Agricultural Commissioner

In response to our request for the entire applicable file from this county office in Carpinteria, pesticide use reports dating from January 2002 through September 2010 were obtained from the Santa Barbara County Agricultural Commissioner's Office website. Those reports are attached in the appendix of this report and apply to the entire ranch parcel. Therefore, some of the listed chemicals may not have been used on the smaller project site area. A telephone conversation with the Santa Barbara County Agricultural Commissioner's office on October 25, 2010 confirmed that there were no inspection or violation reports on file for the "Petan Company," and that older paper files (i.e., pre-2002), if any, would be archived in the Santa Maria office. Given the absence of indicated significant environmental spills associated with agricultural chemicals, no visit to Santa Maria was made to determine the existence of those files.

#### Aerial Photographs

Aerial photographs covering the project site and property area from the years 1928, 1938, 1947, 1954, 1967, 1975, 1989, 1994, 2002, and 2005 were reviewed to evaluate historic land use and indications of site features associated with hazardous material use or storage. The photographs were obtained at reported scales varying from 1" = 166' to 1" = 666'. The 1928 photo shows the project site to be mostly cultivated land planted with orchards. The photo also shows a drainage channel beyond the western boundary of the project site, East Valley Road adjacent to the south and more orchards to the north and east. The 1938, 1947, 1954, 1967, 1975, 1989, 1994, 2002, and 2005 photos do not indicate any major land use changes. The 1975 photo indicates some new structures and development to the south of East Valley Road, but no land use changes to the project site. These structures south of East Valley Road are visible in the 1989, 1994, 2002, and 2005 photos as well.

#### Historical Address Directory

A commercially available address directory (Environmental Data Resources, Inc.) was reviewed for the 2500 East Valley Road address. No address listings for this property were found prior to 1955. In 1955, this address was listed as "Jackson Chas H Jr," "Mullins Dean C," "Newman Rollo H," "Petan Co ranch," "Rancho San Carlos," "Rancho San Carlos farm cen ter," "Rancho San Carlos stables," "Roberts Wm," "Ruiz Vincent,' and "Stevens Roger." The address was also listed in 1965, 1975, 1985, 1990, and 2002 with Petan Co. and Rancho San Carlos listed in all of those years. Other various individuals are also listed in those years and there was a "Silvercreek Ranch ranch lands" listed in 1975 and 1985 for 2500 East Valley Road. Surrounding addresses included 2525 East Valley Road, 480 Ortega Ridge Road, and 484 Ortega Ridge Road as residences. 2525 East Valley Road was only listed in 1951, 480 Ortega Ridge Road was only listed in 2002, and 484 Ortega Ridge Road was listed in 1974, 1981, 1985, 1990, and 2002.

#### **Historical Maps**

Sanborn Fire Insurance Company maps, which often show the location of underground tanks, were not available for this area. The fire insurance company maps generally cover areas that have been urbanized for at least 40 or 50 years. The EDR, Inc. database has confirmed the absence of Sanborn maps for this area.

Historical USGS topographic maps dated 1903, 1910, 1947, 1952, 1967, 1988, and 1995 were reviewed for this area. The 1903 map indicates East Valley Road to the south of the project site and possibly one structure at the southeastern portion of the property, but not on the project site. The 1947 map indicates a cemetery to the west of the property. The 1952 and 1967 maps indicate orchards on the project site. The 1988 and 1995 maps indicate a track (most likely an equestrian facility) to the south of the project site.

CAMPBELL·GEO, INC.

Chief Kevin Wallace, Montecito Fire Protection District

Phase I Environmental Site Assessment – Station 3

2500 East Valley Road, Montecito

December 15, 2010

Page 10

Site Reconnaissance/Site Owner and Occupant Interviews

We conducted a reconnaissance level site visit on October 25, 2010 to observe

existing activities and features on the property. Our visit entailed walking the accessible

portions of the site with the property owner's representative and ranch manager, Mr. Sam

Frye. Photos of selected site features and adjacent properties are included in the appendix of

this report.

An interview with standardized questions contained in ASTM Standard E 1528

(Transaction Screen Questionnaire) was conducted with Mr. Frye, who has lived on or near

the property for over 30 years. No obvious signs of issues related to hazardous materials or

potentially regulated/hazardous waste came from our site walk and the interview. Some

metal, asphalt, and concrete debris were noted in and near the drainage channel on the

western boundary of the site.

CONCLUSIONS

Based on our site reconnaissance and information obtained, no environmental

conditions are recognized for the project site. By definition, this Phase I Environmental Site

Assessment has included no subsurface investigation or collection of soil, soil gas or

groundwater for chemical analysis. Permitted herbicides and pesticides have been used at

the project site. Significant releases of hazardous chemicals or petroleum products on the

project site have not been observed or reported.

QUALIFICATIONS OF THE ENVIRONMENTAL PROFESSIONALS

Campbell Geo, Inc. personnel preparing this report include Mr. Steven Campbell,

Principal Geologist (State of California Professional Geologist #5576, Certified Engineering

CAMPBELL.GEO, INC.

Page 11

Geologist #1729, and Certified Hydrogeologist #82) and Mr. Michael Maguire, Jr., Project

Geologist. Mr. Campbell has over 20 years experience in the geoenvironmental profession

and Mr. Maguire has nearly six years experience. Both individuals hold bachelor's degrees

in the geologic sciences, obtained from the University of California at Santa Barbara. The

professional skills and experience of both individuals meet the requirements of an

"environmental professional" as outlined in ASTM E 1527-05, Appendix X2.

**LIMITATIONS** 

Although we have performed a detailed and diligent search for data pertinent to

hazardous material storage and use and hazardous waste generation, we can provide no

warranty that all sources of hazardous materials or waste have been identified on or near the

property. Asbestos, lead paint, and radon issues have not been evaluated. The property

value has not been compared to the purchase price. Land title records have not been

evaluated for the existence of environmental liens or other issues affecting the property.

Geologic hazards have not been evaluated as part of this report.

This report has been prepared in general conformance with ASTM Standard E 1527-

05. We trust that this report satisfies your requirements for a Phase I Environmental Site

Assessment.

CAMPBELL.GEO, INC.

Please contact us if you have any questions or if we can be of further service.

STEVEN H. CAMPBELL
NO. 5576
EXP 6/31/12

W No. 1729
ENGINEERING
GEOLOGIST
EXP 6/31/12

W No. 82
CERTIFIED
HYDROGEDLOGIST
EXP 6/31/12

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Sincerely, Campbell·Geo, Inc.

Steve Campbell
Professional Geologist
State of California, #5576
Certified Engineering Geologist
State of California, #1729

Certified Hydrogeologist State of California, #82

Mike Maguire, Jr. Project Geologist

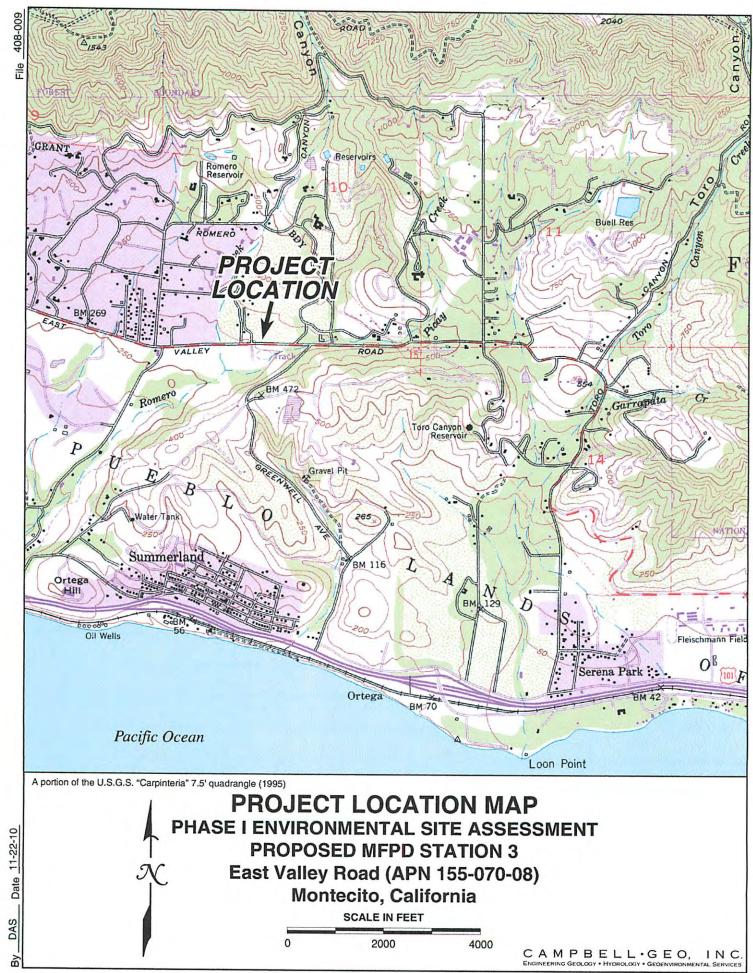
SHC/ rig Clients\MFPD Stn 3 Phase I\Reports\MFPD Stn 3\_R1.doc

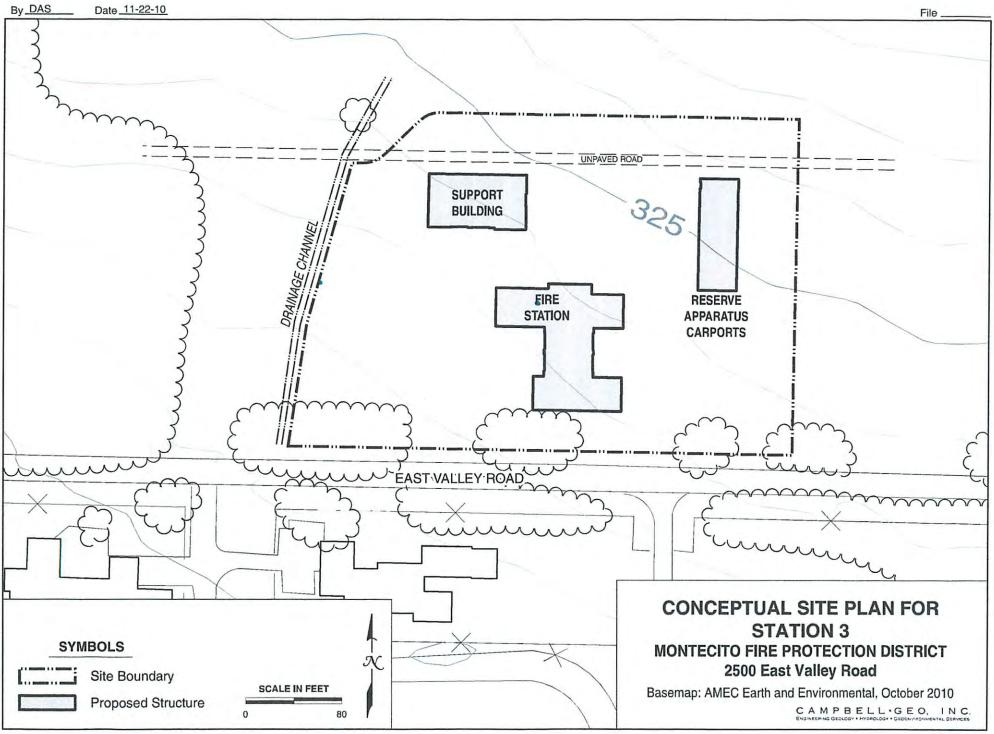
Attachments: Plates (2)

Appendix

#### **REFERENCES CITED**

- Dibblee, T.W., Jr., 1986, Geologic Map of the Carpinteria Quadrangle, Dibblee Foundation Map #DF-04.
- Hoover, M.F., 1980, "Safe Yield Evaluation of the Montecito Basin and Toro Canyon Area," March 1980.
- Minor, S.A., Kellogg, K.S., Stanley, R.G., Gurrola, L.D., Keller, E.A., and Brandt, T.R. 2009, "Geologic Map of the Santa Barbara Coastal Plain, Santa Barbara County, California," U.S. Geological Survey Scientific Investigations Map 3001, Scale 1:24,000.





#### **APPENDIX**

Assessor's Parcel Map and Conceptual Site Layout

EDR Database Profile Without "Geocheck" Addendum

Santa Barbara County Agricultural Commissioner's Permit and Use Data, 2002-2010

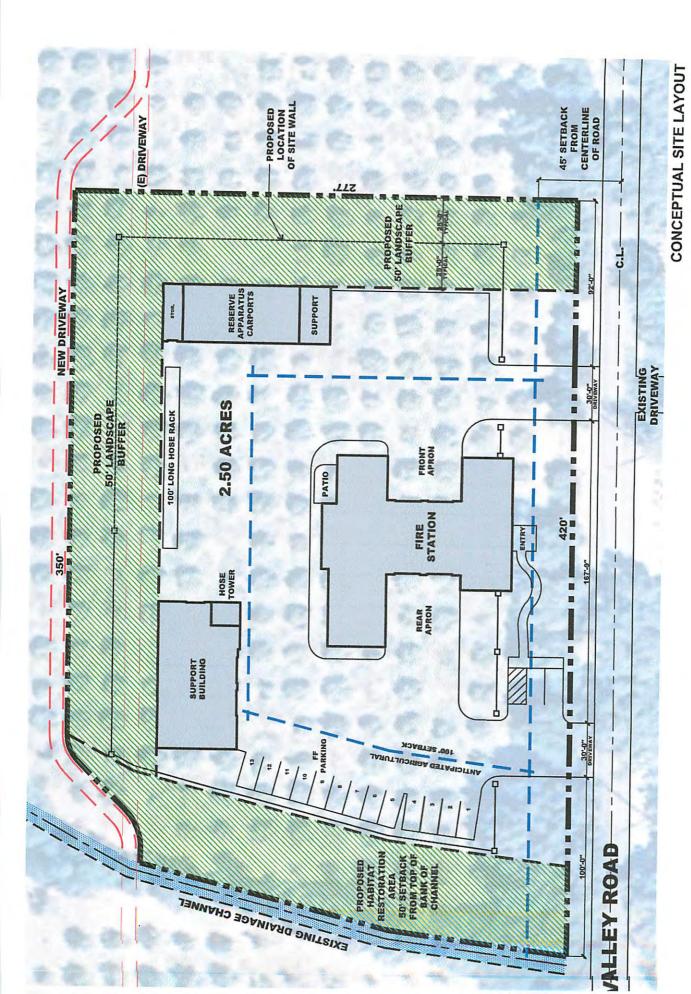
> Santa Barbara County Building and Safety Permit History

> > Site Photographs

# ASSESSOR'S PARCEL MAP AND CONCEPTUAL SITE LAYOUT

S19"25"00"E 149 20 S2612"00"M

6/99) 4, 15 & 16 to New Pg. 25



SCALE 1:40 AUGUST 10, 2010

# EDR DATABASE PROFILE

## MFPD STN 3

2500 East Valley Road Santa Barbara, CA 93108

Inquiry Number: 2885047.2s

October 04, 2010

The EDR Radius Map™ Report with GeoCheck®



## **TABLE OF CONTENTS**

SECTION	PAGE
Executive Summary	ES1
Overview Map	2
Detail Map.	3
Map Findings Summary.	4
Map Findings.	7
Orphan Summary.	
Government Records Searched/Data Currency Tracking.	GR-1
GEOCHECK ADDENDUM - SECTION DMITTED	
Physical Setting Source Addendum	A-1
Physical Setting Source Summary	A-2
Physical Setting SSURGO Soil Map	A-5
Physical Setting Source Map	A-13
Physical Setting Source Map Findings.	A-15
Physical Setting Source Records Searched.	A-55

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-05) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

#### TARGET PROPERTY INFORMATION

### **ADDRESS**

2500 EAST VALLEY ROAD SANTA BARBARA, CA 93108

#### **COORDINATES**

Latitude (North): 34.436300 - 34° 26' 10.7" Longitude (West): 119.594400 - 119° 35' 39.8"

Universal Tranverse Mercator: Zone 11 UTM X (Meters): 261609.6 UTM Y (Meters): 3813391.2

Elevation: 313 ft. above sea level

### **USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY**

Target Property Map: 34119-D5 CARPINTERIA, CA

Most Recent Revision: 1988

### **AERIAL PHOTOGRAPHY IN THIS REPORT**

Photo Year: 2005 Source: USDA

### TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

#### **DATABASES WITH NO MAPPED SITES**

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

#### STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list	
NPL	National Priority List

Proposed NPL..... Proposed National Priority List Sites NPL LIENS Federal Superfund Liens Federal Delisted NPL site list Delisted NPL...... National Priority List Deletions Federal CERCLIS list CERCLIS\_\_\_\_\_\_Comprehensive Environmental Response, Compensation, and Liability Information System FEDERAL FACILITY\_\_\_\_\_\_Federal Facility Site Information listing Federal CERCLIS NFRAP site List CERC-NFRAP...... CERCLIS No Further Remedial Action Planned Federal RCRA CORRACTS facilities list CORRACTS Corrective Action Report Federal RCRA non-CORRACTS TSD facilities list RCRA-TSDF......RCRA - Treatment, Storage and Disposal Federal RCRA generators list RCRA-LQG.....RCRA - Large Quantity Generators RCRA-CESQG\_\_\_\_\_RCRA - Conditionally Exempt Small Quantity Generator Federal institutional controls / engineering controls registries US ENG CONTROLS..... Engineering Controls Sites List US INST CONTROL..... Sites with Institutional Controls Federal ERNS list ERNS..... Emergency Response Notification System State- and tribal - equivalent NPL RESPONSE...... State Response Sites State- and tribal - equivalent CERCLIS ENVIROSTOR \_\_\_\_\_ EnviroStor Database State and tribal landfill and/or solid waste disposal site lists SWF/LF..... Solid Waste Information System State and tribal leaking storage tank lists LUST...... Geotracker's Leaking Underground Fuel Tank Report

SLIC Statewide SLIC Cases

INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

#### State and tribal registered storage tank lists

UST..... Active UST Facilities

AST..... Aboveground Petroleum Storage Tank Facilities INDIAN UST...... Underground Storage Tanks on Indian Land

FEMA UST..... Underground Storage Tank Listing

#### State and tribal voluntary cleanup sites

INDIAN VCP...... Voluntary Cleanup Priority Listing VCP...... Voluntary Cleanup Program Properties

#### ADDITIONAL ENVIRONMENTAL RECORDS

#### Local Brownfield lists

US BROWNFIELDS...... A Listing of Brownfields Sites

### Local Lists of Landfill / Solid Waste Disposal Sites

DEBRIS REGION 9...... Torres Martinez Reservation Illegal Dump Site Locations

ODI...... Open Dump Inventory

WMUDS/SWAT...... Waste Management Unit Database

SWRCY..... Recycler Database

HAULERS...... Registered Waste Tire Haulers Listing

INDIAN ODI\_\_\_\_\_ Report on the Status of Open Dumps on Indian Lands

### Local Lists of Hazardous waste / Contaminated Sites

..... Clandestine Drug Labs HIST Cal-Sites Database

SCH......School Property Evaluation Program

Toxic Pits Cleanup Act Sites ..... Clandestine Drug Labs

US HIST CDL..... National Clandestine Laboratory Register

#### Local Lists of Registered Storage Tanks

CA FID UST..... Facility Inventory Database SWEEPS UST..... SWEEPS UST Listing

#### Local Land Records

LIENS 2..... CERCLA Lien Information

LUCIS.....Land Use Control Information System

LIENS..... Environmental Liens Listing DEED...... Deed Restriction Listing

#### Records of Emergency Release Reports

HMIRS..... Hazardous Materials Information Reporting System CHMIRS...... California Hazardous Material Incident Report System

LDS..... Land Disposal Sites Listing MCS..... Military Cleanup Sites Listing

#### Other Ascertainable Records

RCRA-NonGen..... RCRA - Non Generators DOT OPS...... Incident and Accident Data DOD\_\_\_\_\_ Department of Defense Sites FUDS\_\_\_\_\_ Formerly Used Defense Sites

CONSENT..... Superfund (CERCLA) Consent Decrees

ROD...... Records Of Decision UMTRA..... Uranium Mill Tailings Sites MINES..... Mines Master Index File

TRIS...... Toxic Chemical Release Inventory System

TSCA...... Toxic Substances Control Act

FTTS......FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide

Act)/TSCA (Toxic Substances Control Act)

HIST FTTS..... FIFRA/TSCA Tracking System Administrative Case Listing

SSTS..... Section 7 Tracking Systems

ICIS...... Integrated Compliance Information System

PADS\_\_\_\_\_ PCB Activity Database System MLTS..... Material Licensing Tracking System RADINFO...... Radiation Information Database

FINDS...... Facility Index System/Facility Registry System RAATS\_\_\_\_\_RCRA Administrative Action Tracking System

CA BOND EXP. PLAN..... Bond Expenditure Plan CA WDS...... Waste Discharge System NPDES\_\_\_\_\_\_NPDES Permits Listing

Cortese Hazardous Waste & Substances Sites List

HIST CORTESE..... Hazardous Waste & Substance Site List

Notify 65..... Proposition 65 Records DRYCLEANERS..... Cleaner Facilities

WIP..... Well Investigation Program Case List

HAZNET..... Facility and Manifest Data ..... Emissions Inventory Data INDIAN RESERV......Indian Reservations
SCRD DRYCLEANERS..... State Coalition for Remediation of Drycleaners Listing

PROC..... Certified Processors Database

MWMP..... Medical Waste Management Program Listing

COAL ASH DOE...... Sleam-Electric Plan Operation Data

COAL ASH EPA..... Coal Combustion Residues Surface Impoundments List HWT...... Registered Hazardous Waste Transporter Database

HWP..... EnviroStor Permitted Facilities Listing FINANCIAL ASSURANCE.... Financial Assurance Information Listing PCB TRANSFORMER...... PCB Transformer Registration Database

### **EDR PROPRIETARY RECORDS**

#### **EDR Proprietary Records**

Manufactured Gas Plants..... EDR Proprietary Manufactured Gas Plants EDR Historical Auto Stations.. EDR Proprietary Historic Gas Stations EDR Historical Cleaners..... EDR Proprietary Historic Dry Cleaners

#### **SURROUNDING SITES: SEARCH RESULTS**

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in bold italics are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

### **ADDITIONAL ENVIRONMENTAL RECORDS**

### Local Lists of Registered Storage Tanks

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there is 1 HIST UST site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
FEATHER HILL RANCH	2300 E VALLEY RD	W 1/8 - 1/4 (0.247 mi.)	1	7

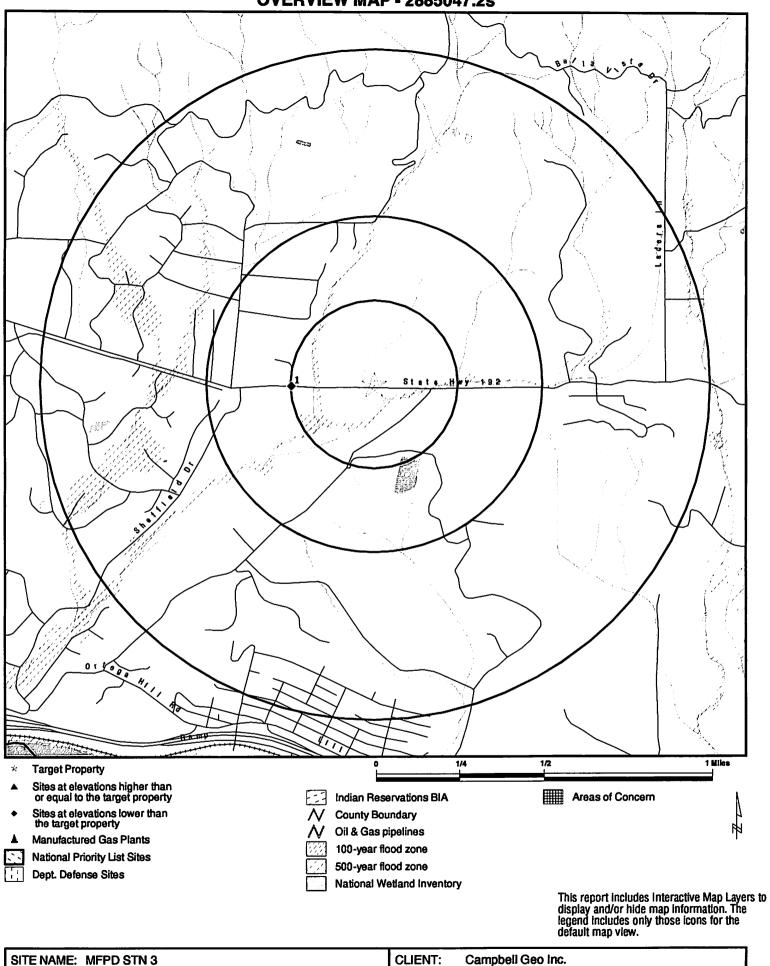
Due to poor or inadequate address information, the following sites were not mapped:

Site Name

REDEVELOPMENT AGENCY PROP UCSB BLDG 429, TANK 3 FEDERAL LEASE OCSP 0240 GORDON PROPERTY ILLEGAL DUMP BIRNAM WOOD GOLF CLUB Database(s)

HIST CORTESE LUST, MCS CERCLIS, RCRA-SQG, FINDS, HAZNET SWF/LF LUST

# **OVERVIEW MAP - 2885047.2s**



ADDRESS:

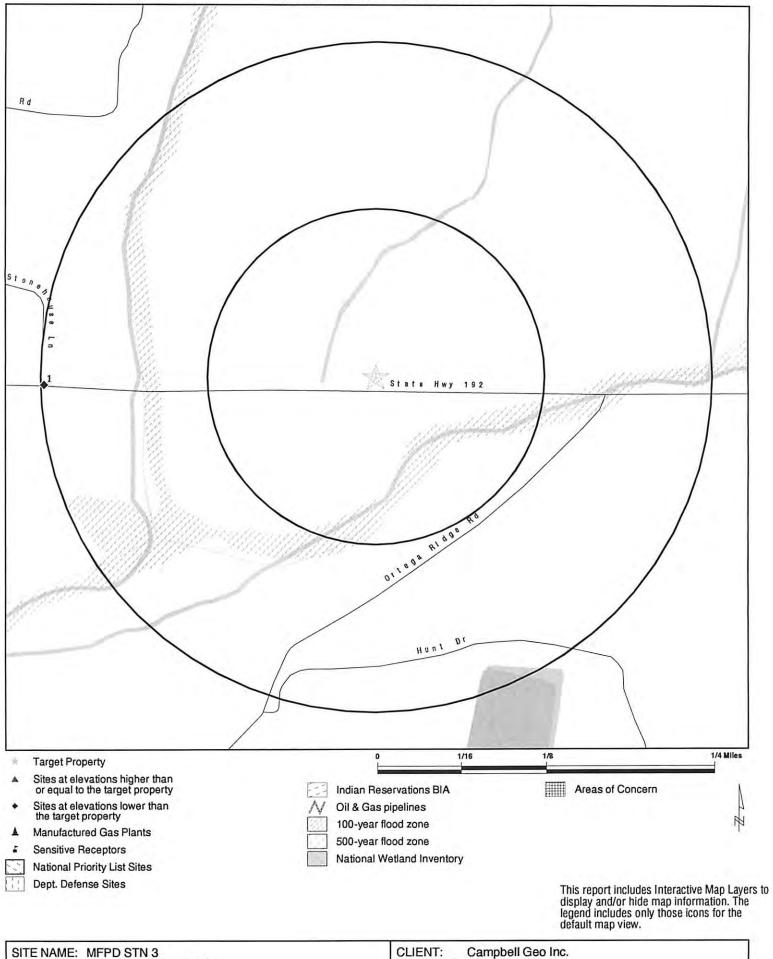
2500 East Valley Road Santa Barbara CA 93108

LAT/LONG: 34.4363 / 119.5944 CLIENT: Campbell G CONTACT: Mike Maguir INQUIRY #: 2885047.2s Campbell Geo Inc. Mike Maguire

October 04, 2010 12:54 pm DATE:

Copyright © 2010 EDR. Inc. © 2010 Tele Atlas Rel. 07/2009.

# **DETAIL MAP - 2885047.2s**



ADDRESS: 2500 East Valley Road Santa Barbara CA 93108

LAT/LONG:

34.4363 / 119.5944

CLIENT: Campbell Geo Inc CONTACT: Mike Maguire INQUIRY #: 2885047.2s

DATE: October 04, 2010 12:55 pm

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# **MAP FINDINGS SUMMARY**

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	<u>1/2 - 1</u>	>1	Total Plotted
STANDARD ENVIRONMENT	AL RECORDS							
Federal NPL site list								
NPL Proposed NPL NPL LIENS		1.000 1.000 TP	0 0 NR	0 0 NR	0 0 NR	0 0 NR	NR NR NR	0 0 0
Federal Delisted NPL site	e list							
Delisted NPL		1.000	0	0	0	0	NR	0
Federal CERCLIS list								
CERCLIS FEDERAL FACILITY		0.500 1.000	0 0	0 0	0 0	NR 0	NR NR	0 0
Federal CERCLIS NFRAP	site List							
CERC-NFRAP		0.500	0	0	0	NR	NR	0
Federal RCRA CORRACT	TS facilities lis	t						
CORRACTS		1.000	0	0	0	0	NR	0
Federal RCRA non-CORF	RACTS TSD fac	cilities list						
RCRA-TSDF		0.500	0	0	0	NR	NR	0
Federal RCRA generators	s list							
RCRA-LQG RCRA-SQG RCRA-CESQG		0.250 0.250 0.250	0 0 0	0 0 0	NR NR NR	NR NR NR	NR NR NR	0 0 0
Federal institutional cont engineering controls regi								
US ENG CONTROLS US INST CONTROL		0.500 0.500	0 0	0 0	0 0	NR NR	NR NR	0 0
Federal ERNS list								
ERNS		TP	NR	NR	NR	NR	NR	0
State- and tribal - equival	lent NPL							
RESPONSE		1.000	0	0	0	0	NR	0
State- and tribal - equival	lent CERCLIS							
ENVIROSTOR		1.000	0	0	0	0	NR	0
State and tribal landfill ar solid waste disposal site								
SWF/LF		0.500	0	0	0	NR	NR	0
State and tribal leaking s	torage tank lis	its						
LUST SLIC		0.500 0.500	0 0	0 0	0 0	NR NR	NR NR	0 0

# **MAP FINDINGS SUMMARY**

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	<u>&gt; 1</u>	Total Plotted
INDIAN LUST		0.500	0	0	0	NR	NR	0
State and tribal registere	d storage tai	nk iists						
UST AST INDIAN UST FEMA UST		0.250 0.250 0.250 0.250	0 0 0 0	0 0 0 0	NR NR NR NR	NR NR NR NR	NR NR NR NR	0 0 0
State and tribal voluntary	/ cleanup site	es						
INDIAN VCP VCP		0.500 0.500	0 0	0 0	0 0	NR NR	NR NR	0 0
ADDITIONAL ENVIRONMEN	TAL RECORD	<u>s</u>						
Local Brownfield lists								
US BROWNFIELDS		0.500	0	0	0	NR	NR	0
Local Lists of Landfill / S Waste Disposal Sites	olid							
DEBRIS REGION 9 ODI WMUDS/SWAT SWRCY HAULERS INDIAN ODI		0.500 0.500 0.500 0.500 TP 0.500	0 0 0 0 NR 0	0 0 0 0 NR 0	0 0 0 0 NR 0	NR NR NR NR NR	NR NR NR NR NR NR	0 0 0 0
Local Lists of Hazardous Contaminated Sites	waste /							
US CDL HIST Cal-Sites SCH Toxic Pits CDL US HIST CDL		TP 1.000 0.250 1.000 TP TP	NR 0 0 0 NR NR	NR 0 0 0 NR NR	NR 0 NR 0 NR NR	NR 0 NR 0 NR NR	NR NR NR NR NR	0 0 0 0 0
Local Lists of Registered	l Storage Tar	ıks						
CA FID UST HIST UST SWEEPS UST		0.250 0.250 0.250	0 0 0	0 1 0	NR NR NR	NR NR NR	NR NR NR	0 1 0
Local Land Records								
LIENS 2 LUCIS LIENS DEED		TP 0.500 TP 0.500	NR 0 NR 0	NR 0 NR 0	NR 0 NR 0	NR NR NR NR	NR NR NR NR	0 0 0
Records of Emergency R	Release Repo	rts						
HMIRS CHMIRS LDS		TP TP TP	NR NR NR	NR NR NR	NR NR NR	NR NR NR	NR NR NR	0 0 0

# **MAP FINDINGS SUMMARY**

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	<u>&gt; 1</u>	Total Plotted
MCS		TP	NR	NR	NR	NR	NR	0
Other Ascertainable Rec	ords							
RCRA-NonGen		0.250	0	0	NR	NR	NR	0
DOT OPS		TP	NR	NR	NR	NR	NR	0
DOD		1.000	0	0	0	0	NR	0
FUDS CONSENT		1.000	0	0	0	0 0	NR	0 0
ROD		1.000 1.000	0 0	0 0	0 0	0	NR NR	0
UMTRA		0.500	Ö	Ö	Ö	NR	NR	Ö
MINES		0.250	Ŏ	Ŏ	NŘ	NR	NR	Ŏ
TRIS		TP	NR	NR	NR	NR	NR	Ŏ
TSCA		TP	NR	NR	NR	NR	NR	Ö
FTTS		TP	NR	NR	NR	NR	NR	0
HIST FTTS		TP	NR	NR	NR	NR	NR	0
SSTS		TP	NR	NR	NR	NR	NR	0
ICIS		TP	NR	NR	NR	NR	NR	0
PADS		TP	NR	NR	NR	NR	NR	0
MLTS		TP	NR	NR	NR	NR	NR	0
RADINFO FINDS		TP TP	NR NR	NR NR	NR NR	NR NR	NR NR	0 0
RAATS		TP	NR NR	NR NR	NR NR	NR NR	NR NR	0
CA BOND EXP. PLAN		1.000	0	0	0	0	NR	0
CA WDS		TP	NR	NR	NŘ	NR	NR	Ö
NPDES		TP	NR	NR	NR	NR	NR	Ŏ
Cortese		0.500	0	0	0	NR	NR	Ō
HIST CORTESE		0.500	0	0	0	NR	NR	0
Notify 65		1.000	0	0	0	0	NR	0
DRYCLEANERS		0.250	0	0	NR	NR	NR	0
WIP		0.250	0	0	NR	NR	NR	0
HAZNET		TP	NR	NR	NR	NR	NR	0
EMI		TP	NR	NR	NR	NR	NR	0
INDIAN RESERV		1.000	0	0	0 0	0 NR	NR NR	0 0
SCRD DRYCLEANERS PROC		0.500 0.500	0 0	0 0	0	NR NR	NR	0
MWMP		0.250	0	0	NR	NR	NR	0
COAL ASH DOE		TP	NR	NR	NR	NR	NR	Ö
COAL ASH EPA		0.500	0	0	0	NR	NR	Ŏ
HWT		0.250	Ō	Ō	NR	NR	NR	0
HWP		1.000	0	0	0	0	NR	0
FINANCIAL ASSURANCE		TP	NR	NR	NR	NR	NR	0
PCB TRANSFORMER		TP	NR	NR	NR	NR	NR	0
EDR PROPRIETARY RECOR	RDS							
EDR Proprietary Records	5							
Manufactured Gas Plants		1.000	0	0	0	0	NR	0
EDR Historical Auto Statio	ns	0.250	0	0	NR	NR	NR	0
EDR Historical Cleaners		0.250	0	0	NR	NR	NR	0

# NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Map ID MAP FINDINGS Direction

Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

**FEATHER HILL RANCH** HIST UST U001580612 West 2300 E VALLEY RD N/A

1/8-1/4 SANTA BARBARA, CA 93108

0.247 mi. 1306 ft.

**HIST UST:** Relative:

Region: STATE Lower Facility ID: 00000052485 Actual:

Facility Type: Other 282 ft. Other Type: **AGRICULTURAL RANCH** 

Total Tanks: 0001

Contact Name: RICHARD MORGAN

Telephone: 8059692258

Owner Name: PALMER G. JACKSON Owner Address: 2300 EAST VALLEY ROAD SANTA BARBARA, CA 93108 Owner City,St,Zip:

001 Tank Num: **Container Num:** 1 Year Installed: 1978 Tank Capacity: 00000550 Tank Used for: **PRODUCT** Type of Fuel: **UNLEADED** Tank Construction: 12 gauge Leak Detection: None

### ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
CARPINTERIA	1000438896		FEDERAL LEASE OCSP 0240	93013	CERCLIS, RCRA-SQG, FINDS, HAZN
SANTA BARBARA	S109821488	GORDON PROPERTY ILLEGAL DUMP	CLARK RD		SWF/LF
SANTA BARBARA	S106716420	BIRNAM WOOD GOLF CLUB	575 EASTGATE LN	93108	LUST
SANTA BARBARA	S105026419	REDEVELOPMENT AGENCY PROP	321327 STATE VACANTLOT		HIST CORTESE
SANTA BARBARA	S104548961	UCSB BLDG 429, TANK 3	3 UCSB BLDG		LUST, MCS

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

Source: EPA

#### STANDARD ENVIRONMENTAL RECORDS

#### Federal NPL site list

**NPL: National Priority List** 

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 07/02/2010 Date Data Arrived at EDR: 07/14/2010

Telephone: N/A Date Made Active in Reports: 10/04/2010

Number of Days to Update: 82

Last EDR Contact: 07/14/2010

Next Scheduled EDR Contact: 10/25/2010 Data Release Frequency: Quarterly

**NPL Site Boundaries** 

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)

Telephone: 202-564-7333

**EPA Region 1 EPA Region 6** 

Telephone 617-918-1143 Telephone: 214-655-6659

**EPA Region 3 EPA Region 7** 

Telephone 215-814-5418 Telephone: 913-551-7247

**EPA Region 4 EPA Region 8** 

Telephone 404-562-8033 Telephone: 303-312-6774

**EPA Region 9 EPA Region 5** 

Telephone: 415-947-4246 Telephone 312-886-6686

**EPA Region 10** 

Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 07/02/2010 Date Data Arrived at EDR: 07/14/2010

Date Made Active in Reports: 10/04/2010

Number of Days to Update: 82

Source: EPA Telephone: N/A

Last EDR Contact: 07/14/2010

Next Scheduled EDR Contact: 10/25/2010 Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991 Date Data Arrived at EDR: 02/02/1994 Date Made Active in Reports: 03/30/1994

Number of Days to Update: 56

Source: EPA Telephone: 202-564-4267

Last EDR Contact: 08/16/2010

Next Scheduled EDR Contact: 11/29/2010 Data Release Frequency: No Update Planned

#### Federal Delisted NPL site iist

**DELISTED NPL: National Priority List Deletions** 

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 07/02/2010
Date Data Arrived at EDR: 07/14/2010
Date Made Active in Reports: 10/04/2010

Number of Days to Update: 82

Source: EPA Telephone: N/A

Last EDR Contact: 07/14/2010

Next Scheduled EDR Contact: 10/25/2010 Data Release Frequency: Quarterly

#### Federal CERCLIS list

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 01/29/2010 Date Data Arrived at EDR: 02/09/2010 Date Made Active in Reports: 04/12/2010

Number of Days to Update: 62

Source: EPA

Telephone: 703-412-9810 Last EDR Contact: 10/01/2010

Next Scheduled EDR Contact: 01/10/2011 Data Release Frequency: Quarterly

#### FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPAa??s Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 06/23/2009 Date Data Arrived at EDR: 01/15/2010 Date Made Active in Reports: 02/10/2010

Number of Days to Update: 26

Source: Environmental Protection Agency

Telephone: 703-603-8704 Last EDR Contact: 07/21/2010

Next Scheduled EDR Contact: 10/25/2010 Data Release Frequency: Varies

#### Federal CERCLIS NFRAP site List

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 06/23/2009 Date Data Arrived at EDR: 09/02/2009 Date Made Active in Reports: 09/21/2009

Number of Days to Update: 19

Source: EPA

Telephone: 703-412-9810 Last EDR Contact: 10/01/2010

Next Scheduled EDR Contact: 12/13/2010 Data Release Frequency: Quarterly

#### Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 05/25/2010 Date Data Arrived at EDR: 06/02/2010 Date Made Active in Reports: 10/04/2010

Number of Days to Update: 124

Source: EPA

Telephone: 800-424-9346 Last EDR Contact: 08/16/2010

Next Scheduled EDR Contact: 11/29/2010 Data Release Frequency: Quarterly

### Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 02/17/2010 Date Data Arrived at EDR: 02/19/2010 Date Made Active in Reports: 05/17/2010

Number of Days to Update: 87

Source: Environmental Protection Agency

Telephone: (415) 495-8895 Last EDR Contact: 08/19/2010

Next Scheduled EDR Contact: 10/18/2010 Data Release Frequency: Quarterly

#### Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 02/17/2010 Date Data Arrived at EDR: 02/19/2010 Date Made Active in Reports: 05/17/2010

Number of Days to Update: 87

Source: Environmental Protection Agency

Telephone: (415) 495-8895 Last EDR Contact: 08/19/2010

Next Scheduled EDR Contact: 10/18/2010 Data Release Frequency: Quarterly

#### RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 02/17/2010 Date Data Arrived at EDR: 02/19/2010 Date Made Active in Reports: 05/17/2010

Number of Days to Update: 87

Source: Environmental Protection Agency

Telephone: (415) 495-8895 Last EDR Contact: 08/19/2010

Next Scheduled EDR Contact: 10/18/2010 Data Release Frequency: Quarterly

#### RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 02/17/2010
Date Data Arrived at EDR: 02/19/2010
Date Made Active in Reports: 05/17/2010

Number of Days to Update: 87

Source: Environmental Protection Agency

Telephone: (415) 495-8895 Last EDR Contact: 08/19/2010

Next Scheduled EDR Contact: 10/18/2010 Data Release Frequency: Varies

#### Federal institutional controls / engineering controls registries

### US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 12/20/2009 Date Data Arrived at EDR: 01/20/2010 Date Made Active in Reports: 04/12/2010

Number of Days to Update: 82

Source: Environmental Protection Agency

Telephone: 703-603-0695 Last EDR Contact: 09/13/2010

Next Scheduled EDR Contact: 12/27/2010 Data Release Frequency: Varies

#### US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 12/20/2009 Date Data Arrived at EDR: 01/20/2010 Date Made Active in Reports: 04/12/2010

Number of Days to Update: 82

Source: Environmental Protection Agency

Telephone: 703-603-0695 Last EDR Contact: 09/13/2010

Next Scheduled EDR Contact: 12/27/2010 Data Release Frequency: Varies

#### Federal ERNS list

#### **ERNS: Emergency Response Notification System**

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 07/09/2010 Date Data Arrived at EDR: 07/09/2010 Date Made Active in Reports: 08/17/2010

Number of Days to Update: 39

Source: National Response Center, United States Coast Guard

Telephone: 202-267-2180 Last EDR Contact: 07/09/2010

Next Scheduled EDR Contact: 10/18/2010 Data Release Frequency: Annually

#### State- and tribai - equivalent NPL

#### **RESPONSE: State Response Sites**

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 08/18/2010 Date Data Arrived at EDR: 09/16/2010 Date Made Active in Reports: 09/29/2010

Number of Days to Update: 13

Source: Department of Toxic Substances Control

Telephone: 916-323-3400 Last EDR Contact: 09/16/2010

Next Scheduled EDR Contact: 11/22/2010 Data Release Frequency: Quarterly

#### State- and tribal - equivalent CERCLIS

#### **ENVIROSTOR:** EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 08/18/2010 Date Data Arrived at EDR: 09/16/2010 Date Made Active in Reports: 09/29/2010

Number of Days to Update: 13

Source: Department of Toxic Substances Control

Telephone: 916-323-3400 Last EDR Contact: 09/16/2010

Next Scheduled EDR Contact: 11/22/2010 Data Release Frequency: Quarterly

#### State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inventory of solid waste disposal facilities or landfills. These may be active or inactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 08/23/2010 Date Data Arrived at EDR: 08/24/2010 Date Made Active in Reports: 09/29/2010

Number of Days to Update: 36

Source: Department of Resources Recycling and Recovery

Telephone: 916-341-6320 Last EDR Contact: 08/24/2010

Next Scheduled EDR Contact: 12/06/2010 Data Release Frequency: Quarterly

### State and tribal leaking storage tank lists

LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001 Date Data Arrived at EDR: 04/23/2001 Date Made Active in Reports: 05/21/2001

Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)

Telephone: 858-637-5595 Last EDR Contact: 09/27/2010

Next Scheduled EDR Contact: 01/10/2011
Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004 Date Data Arrived at EDR: 02/26/2004 Date Made Active in Reports: 03/24/2004

Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)

Telephone: 760-776-8943 Last EDR Contact: 08/02/2010

Next Scheduled EDR Contact: 11/15/2010
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005 Date Data Arrived at EDR: 06/07/2005 Date Made Active in Reports: 06/29/2005

Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)

Telephone: 760-241-7365 Last EDR Contact: 09/13/2010

Next Scheduled EDR Contact: 09/27/2010
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing

For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003 Date Data Arrived at EDR: 09/10/2003 Date Made Active in Reports: 10/07/2003

Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)

Telephone: 530-542-5572 Last EDR Contact: 09/13/2010

Next Scheduled EDR Contact: 12/27/2010
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008 Date Data Arrived at EDR: 07/22/2008 Date Made Active in Reports: 07/31/2008

Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)

Telephone: 916-464-4834 Last EDR Contact: 10/04/2010

Next Scheduled EDR Contact: 01/17/2011 Data Release Frequency: Quarterly

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control

Board's LUST database.

Date of Government Version: 09/07/2004 Date Data Arrived at EDR: 09/07/2004 Date Made Active in Reports: 10/12/2004

Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)

Source: California Regional Water Quality Control Board Central Coast Region (3)

Telephone: 213-576-6710 Last EDR Contact: 09/07/2010

Next Scheduled EDR Contact: 12/20/2010 Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003 Date Data Arrived at EDR: 05/19/2003 Date Made Active in Reports: 06/02/2003

Number of Days to Update: 14

Telephone: 805-542-4786

Last EDR Contact: 07/19/2010

Next Scheduled EDR Contact: 11/01/2010 Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List

Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa

Clara, Solano, Sonoma counties,

Date of Government Version: 09/30/2004 Date Data Arrived at EDR: 10/20/2004 Date Made Active in Reports: 11/19/2004

Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)

Telephone: 510-622-2433 Last EDR Contact: 09/20/2010

Next Scheduled EDR Contact: 01/03/2011 Data Release Frequency: Quarterly

**LUST REG 1: Active Toxic Site Investigation** 

Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information,

please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001 Date Data Arrived at EDR: 02/28/2001 Date Made Active in Reports: 03/29/2001

Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)

Telephone: 707-570-3769 Last EDR Contact: 08/02/2010

Next Scheduled EDR Contact: 11/15/2010 Data Release Frequency: No Update Planned

LUST: Geotracker's Leaking Underground Fuel Tank Report

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state. For more information on a particular leaking underground storage tank sites, please contact the appropriate regulatory agency.

Date of Government Version: 07/23/2010 Date Data Arrived at EDR: 07/23/2010 Date Made Active in Reports: 08/12/2010

Number of Days to Update: 20

Source: State Water Resources Control Board

Telephone: see region list Last EDR Contact: 09/21/2010

Next Scheduled EDR Contact: 01/03/2011 Data Release Frequency: Quarterly

**LUST REG 8: Leaking Underground Storage Tanks** 

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005 Date Data Arrived at EDR: 02/15/2005 Date Made Active in Reports: 03/28/2005

Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)

Telephone: 909-782-4496 Last EDR Contact: 07/19/2010

Next Scheduled EDR Contact: 11/01/2010 Data Release Frequency: Varies

SLIC: Statewide SLIC Cases

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality

from spills, leaks, and similar discharges.

Date of Government Version: 07/23/2010 Date Data Arrived at EDR: 07/23/2010 Date Made Active in Reports: 08/12/2010

Number of Days to Update: 20

Source: State Water Resources Control Board

Telephone: 866-480-1028 Last EDR Contact: 09/21/2010

Next Scheduled EDR Contact: 01/03/2011 Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality

from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003 Date Data Arrived at EDR: 04/07/2003 Date Made Active in Reports: 04/25/2003

Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)

Telephone: 707-576-2220 Last EDR Contact: 08/02/2010

Next Scheduled EDR Contact: 11/15/2010

Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality

from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004 Date Data Arrived at EDR: 10/20/2004 Date Made Active in Reports: 11/19/2004

Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)

Telephone: 510-286-0457 Last EDR Contact: 09/20/2010

Next Scheduled EDR Contact: 01/03/2011 Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality

from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006 Date Data Arrived at EDR: 05/18/2006 Date Made Active in Reports: 06/15/2006

Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)

Telephone: 805-549-3147 Last EDR Contact: 07/19/2010

Next Scheduled EDR Contact: 11/01/2010

Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality

from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004 Date Data Arrived at EDR: 11/18/2004 Date Made Active in Reports: 01/04/2005

Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)

Telephone: 213-576-6600 Last EDR Contact: 10/04/2010

Next Scheduled EDR Contact: 01/17/2011 Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality

from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005 Date Data Arrived at EDR: 04/05/2005 Date Made Active in Reports: 04/21/2005

Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)

Telephone: 916-464-3291 Last EDR Contact: 09/13/2010

Next Scheduled EDR Contact: 12/27/2010 Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality

from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005 Date Data Arrived at EDR: 05/25/2005 Date Made Active in Reports: 06/16/2005

Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch

Telephone: 619-241-6583 Last EDR Contact: 08/16/2010

Next Scheduled EDR Contact: 11/29/2010 Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality

from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004 Date Data Arrived at EDR: 09/07/2004 Date Made Active in Reports: 10/12/2004

Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region

Telephone: 530-542-5574 Last EDR Contact: 08/16/2010

Next Scheduled EDR Contact: 11/29/2010
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality

from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004 Date Data Arrived at EDR: 11/29/2004 Date Made Active in Reports: 01/04/2005

Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region

Telephone: 760-346-7491 Last EDR Contact: 08/02/2010

Next Scheduled EDR Contact: 11/15/2010
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality

from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008 Date Data Arrived at EDR: 04/03/2008 Date Made Active in Reports: 04/14/2008

Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)

Telephone: 951-782-3298 Last EDR Contact: 09/13/2010

Next Scheduled EDR Contact: 12/27/2010 Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality

from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007 Date Data Arrived at EDR: 09/11/2007 Date Made Active in Reports: 09/28/2007

Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)

Telephone: 858-467-2980 Last EDR Contact: 08/09/2010

Next Scheduled EDR Contact: 11/22/2010 Data Release Frequency: Annually

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 08/05/2010 Date Data Arrived at EDR: 08/06/2010 Date Made Active in Reports: 10/04/2010

Number of Days to Update: 59

Source: EPA Region 10 Telephone: 206-553-2857 Last EDR Contact: 08/02/2010

Next Scheduled EDR Contact: 11/15/2010 Data Release Frequency: Quarterly

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 02/19/2009 Date Data Arrived at EDR: 02/19/2009 Date Made Active in Reports: 03/16/2009

Number of Days to Update: 25

Source: EPA Region 1 Telephone: 617-918-1313 Last EDR Contact: 08/02/2010

Next Scheduled EDR Contact: 11/15/2010 Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 05/24/2010 Date Data Arrived at EDR: 05/27/2010 Date Made Active in Reports: 08/09/2010

Number of Days to Update: 74

Source: EPA Region 8 Telephone: 303-312-6271 Last EDR Contact: 08/02/2010

Next Scheduled EDR Contact: 11/15/2010 Data Release Frequency: Quarterly

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 08/05/2010 Date Data Arrived at EDR: 08/06/2010 Date Made Active in Reports: 10/04/2010

Number of Days to Update: 59

Source: EPA Region 6 Telephone: 214-665-6597 Last EDR Contact: 08/02/2010

Next Scheduled EDR Contact: 11/15/2010 Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 08/27/2010
Date Data Arrived at EDR: 08/30/2010
Date Made Active in Reports: 10/04/2010

Number of Days to Update: 35

Source: EPA Region 4 Telephone: 404-562-8677 Last EDR Contact: 08/02/2010

Next Scheduled EDR Contact: 11/15/2010 Data Release Frequency: Semi-Annually

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 08/30/2010 Date Data Arrived at EDR: 08/30/2010 Date Made Active in Reports: 10/04/2010

Number of Days to Update: 35

Source: Environmental Protection Agency Telephone: 415-972-3372

Last EDR Contact: 08/02/2010

Next Scheduled EDR Contact: 11/15/2010 Data Release Frequency: Quarterly

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 11/04/2009
Date Data Arrived at EDR: 05/04/2010
Date Made Active in Reports: 07/07/2010

Number of Days to Update: 64

Source: EPA Region 7 Telephone: 913-551-7003 Last EDR Contact: 08/11/2010

Next Scheduled EDR Contact: 11/15/2010 Data Release Frequency: Varies

State and tribai registered storage tank lists

**UST: Active UST Facilities** 

Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 09/20/2010
Date Data Arrived at EDR: 09/21/2010
Date Made Active in Reports: 09/30/2010

Number of Days to Update: 9

Source: SWRCB Telephone: 916-480-1028 Last EDR Contact: 09/21/2010

Next Scheduled EDR Contact: 01/03/2011 Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities

Registered Aboveground Storage Tanks.

Date of Government Version: 08/01/2009 Date Data Arrived at EDR: 09/10/2009 Date Made Active in Reports: 10/01/2009

Number of Days to Update: 21

Source: State Water Resources Control Board

Telephone: 916-341-5712 Last EDR Contact: 07/12/2010

Next Scheduled EDR Contact: 10/25/2010 Data Release Frequency: Quarterly

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 08/05/2010 Date Data Arrived at EDR: 08/06/2010 Date Made Active in Reports: 10/04/2010

Number of Days to Update: 59

Source: EPA Region 10 Telephone: 206-553-2857 Last EDR Contact: 08/02/2010

Next Scheduled EDR Contact: 11/15/2010 Data Release Frequency: Quarterly

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 08/30/2010 Date Data Arrived at EDR: 08/30/2010 Date Made Active in Reports: 10/04/2010

Number of Days to Update: 35

Source: EPA Region 9 Telephone: 415-972-3368 Last EDR Contact: 08/02/2010

Next Scheduled EDR Contact: 11/15/2010 Data Release Frequency: Quarterly

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 05/24/2010 Date Data Arrived at EDR: 05/27/2010 Date Made Active in Reports: 08/09/2010

Number of Days to Update: 74

Source: EPA Region 8 Telephone: 303-312-6137 Last EDR Contact: 08/02/2010

Next Scheduled EDR Contact: 11/15/2010 Data Release Frequency: Quarterly

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 04/01/2008 Date Data Arrived at EDR: 12/30/2008 Date Made Active in Reports: 03/16/2009

Number of Days to Update: 76

Source: EPA Region 7 Telephone: 913-551-7003 Last EDR Contact: 08/11/2010

Next Scheduled EDR Contact: 11/15/2010 Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 08/03/2010 Date Data Arrived at EDR: 08/04/2010 Date Made Active in Reports: 10/04/2010

Number of Days to Update: 61

Source: EPA Region 6 Telephone: 214-665-7591 Last EDR Contact: 08/02/2010

Next Scheduled EDR Contact: 11/15/2010 Data Release Frequency: Semi-Annually

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 02/11/2010 Date Data Arrived at EDR: 02/11/2010 Date Made Active in Reports: 04/12/2010

Number of Days to Update: 60

Source: EPA Region 5 Telephone: 312-886-6136 Last EDR Contact: 08/02/2010

Next Scheduled EDR Contact: 11/15/2010 Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 08/27/2010 Date Data Arrived at EDR: 08/30/2010 Date Made Active in Reports: 10/04/2010

Number of Days to Update: 35

Source: EPA Region 4 Telephone: 404-562-9424 Last EDR Contact: 08/02/2010

Next Scheduled EDR Contact: 11/15/2010 Data Release Frequency: Semi-Annually

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 02/19/2009 Date Data Arrived at EDR: 02/19/2009 Date Made Active in Reports: 03/16/2009

Number of Days to Update: 25

Source: EPA, Region 1 Telephone: 617-918-1313 Last EDR Contact: 08/02/2010

Next Scheduled EDR Contact: 11/15/2010 Data Release Frequency: Varies

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010 Date Data Arrived at EDR: 02/16/2010 Date Made Active in Reports: 04/12/2010

Number of Days to Update: 55

Source: FEMA

Telephone: 202-646-5797 Last EDR Contact: 07/19/2010

Next Scheduled EDR Contact: 11/01/2010 Data Release Frequency: Varies

State and tribal voluntary cleanup sites

INDIAN VCP R7: Voluntary Cleanup Priority Lisiting

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008 Date Data Arrived at EDR: 04/22/2008 Date Made Active in Reports: 05/19/2008

Number of Days to Update: 27

Source: EPA, Region 7 Telephone: 913-551-7365 Last EDR Contact: 04/20/2009

Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 08/18/2010 Date Data Arrived at EDR: 09/16/2010 Date Made Active in Reports: 09/29/2010

Number of Days to Update: 13

Source: Department of Toxic Substances Control

Telephone: 916-323-3400 Last EDR Contact: 09/16/2010

Next Scheduled EDR Contact: 11/22/2010 Data Release Frequency: Quarterly

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 04/02/2008 Date Data Arrived at EDR: 04/22/2008 Date Made Active in Reports: 05/19/2008

Number of Days to Update: 27

Source: EPA, Region 1 Telephone: 617-918-1102 Last EDR Contact: 10/04/2010

Next Scheduled EDR Contact: 01/17/2011

Data Release Frequency: Varies

#### ADDITIONAL ENVIRONMENTAL RECORDS

#### Local Brownfield lists

### US BROWNFIELDS: A Listing of Brownfields Sites

Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities—especially those without EPA Brownfields Assessment Demonstration Pilots—minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become Brownfields Cleanup Revolving Loan Fund (BCRLF) cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: 06/24/2010 Date Data Arrived at EDR: 06/25/2010 Date Made Active in Reports: 08/17/2010

Number of Days to Update: 53

Source: Environmental Protection Agency

Telephone: 202-566-2777 Last EDR Contact: 09/29/2010

Next Scheduled EDR Contact: 01/10/2011 Data Release Frequency: Semi-Annually

#### Local Lists of Landfill / Solid Waste Disposal Sites

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258

Subtitle D Criteria.

Date of Government Version: 06/30/1985 Date Data Arrived at EDR: 08/09/2004 Date Made Active in Reports: 09/17/2004

Number of Days to Update: 39

Source: Environmental Protection Agency

Telephone: 800-424-9346 Last EDR Contact: 06/09/2004 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009 Date Data Arrived at EDR: 05/07/2009 Date Made Active in Reports: 09/21/2009

Number of Days to Update: 137

Source: EPA, Region 9 Telephone: 415-947-4219 Last EDR Contact: 09/27/2010

Next Scheduled EDR Contact: 01/10/2011

Data Release Frequency: Varies

#### WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000 Date Data Arrived at EDR: 04/10/2000 Date Made Active in Reports: 05/10/2000

Number of Days to Update: 30

Source: State Water Resources Control Board

Telephone: 916-227-4448 Last EDR Contact: 08/16/2010

Next Scheduled EDR Contact: 11/29/2010 Data Release Frequency: Quarterly

SWRCY: Recycler Database

A listing of recycling facilities in California.

Date of Government Version: 07/23/2010 Date Data Arrived at EDR: 09/21/2010 Date Made Active in Reports: 09/29/2010

Number of Days to Update: 8

Source: Department of Conservation

Telephone: 916-323-3836 Last EDR Contact: 09/21/2010

Next Scheduled EDR Contact: 01/03/2011 Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing A listing of registered waste tire haulers.

Date of Government Version: 07/19/2010 Date Data Arrived at EDR: 07/21/2010 Date Made Active in Reports: 08/12/2010

Number of Days to Update: 22

Source: Integrated Waste Management Board

Telephone: 916-341-6422 Last EDR Contact: 09/20/2010

Next Scheduled EDR Contact: 12/06/2010

Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998 Date Data Arrived at EDR: 12/03/2007 Date Made Active in Reports: 01/24/2008

Number of Days to Update: 52

Source: Environmental Protection Agency

Telephone: 703-308-8245 Last EDR Contact: 09/07/2010

Next Scheduled EDR Contact: 11/22/2010 Data Release Frequency: Varies

### Local Lists of Hazardous waste / Contaminated Sites

#### US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 05/07/2010 Date Data Arrived at EDR: 06/18/2010 Date Made Active in Reports: 08/17/2010

Number of Days to Update: 60

Source: Drug Enforcement Administration

Telephone: 202-307-1000

Last EDR Contact: 09/17/2010

Next Scheduled EDR Contact: 12/20/2010 Data Release Frequency: Quarterly

#### HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005 Date Data Arrived at EDR: 08/03/2006 Date Made Active in Reports: 08/24/2006

Number of Days to Update: 21

Source: Department of Toxic Substance Control

Telephone: 916-323-3400 Last EDR Contact: 02/23/2009

Next Scheduled EDR Contact: 05/25/2009 Data Release Frequency: No Update Planned

#### SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 08/18/2010 Date Data Arrived at EDR: 09/16/2010 Date Made Active in Reports: 09/29/2010

Number of Days to Update: 13

Source: Department of Toxic Substances Control

Telephone: 916-323-3400 Last EDR Contact: 09/16/2010

Next Scheduled EDR Contact: 11/22/2010 Data Release Frequency: Quarterly

#### TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995 Date Data Arrived at EDR: 08/30/1995 Date Made Active in Reports: 09/26/1995

Number of Days to Update: 27

Source: State Water Resources Control Board

Telephone: 916-227-4364 Last EDR Contact: 01/26/2009

Next Scheduled EDR Contact: 04/27/2009 Data Release Frequency: No Update Planned

#### CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 08/19/2010 Date Data Arrived at EDR: 08/23/2010 Date Made Active in Reports: 09/29/2010

Number of Days to Update: 37

Source: Department of Toxic Substances Control

Telephone: 916-255-6504 Last EDR Contact: 10/04/2010

Next Scheduled EDR Contact: 01/17/2011 Data Release Frequency: Varies

#### US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 09/01/2007 Date Data Arrived at EDR: 11/19/2008 Date Made Active in Reports: 03/30/2009

Number of Days to Update: 131

Source: Drug Enforcement Administration

Telephone: 202-307-1000 Last EDR Contact: 03/23/2009

Next Scheduled EDR Contact: 06/22/2009 Data Release Frequency: No Update Planned

#### Local Lists of Registered Storage Tanks

#### CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994 Date Data Arrived at EDR: 09/05/1995 Date Made Active in Reports: 09/29/1995

Number of Days to Update: 24

Source: California Environmental Protection Agency

Telephone: 916-341-5851 Last EDR Contact: 12/28/1998 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 09/23/2009 Date Data Arrived at EDR: 09/23/2009 Date Made Active in Reports: 10/01/2009

Number of Days to Update: 8

Source: Department of Public Health

Telephone: 707-463-4466 Last EDR Contact: 09/07/2010

Next Scheduled EDR Contact: 12/20/2010 Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990 Date Data Arrived at EDR: 01/25/1991 Date Made Active in Reports: 02/12/1991

Number of Days to Update: 18

Source: State Water Resources Control Board

Telephone: 916-341-5851 Last EDR Contact: 07/26/2001 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994 Date Data Arrived at EDR: 07/07/2005 Date Made Active in Reports: 08/11/2005

Number of Days to Update: 35

Source: State Water Resources Control Board

Telephone: N/A

Last EDR Contact: 06/03/2005 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

#### Local Land Records

#### LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 05/06/2010 Date Data Arrived at EDR: 05/11/2010 Date Made Active in Reports: 08/09/2010

Number of Days to Update: 90

Source: Environmental Protection Agency

Telephone: 202-564-6023 Last EDR Contact: 08/02/2010

Next Scheduled EDR Contact: 11/15/2010 Data Release Frequency: Varies

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 12/09/2005 Date Data Arrived at EDR: 12/11/2006 Date Made Active in Reports: 01/11/2007

Number of Days to Update: 31

Source: Department of the Navy Telephone: 843-820-7326 Last EDR Contact: 09/08/2010

Next Scheduled EDR Contact: 12/06/2010 Data Release Frequency: Varies

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 07/27/2010 Date Data Arrived at EDR: 08/13/2010 Date Made Active in Reports: 08/20/2010

Number of Days to Update: 7

Source: Department of Toxic Substances Control

Telephone: 916-323-3400 Last EDR Contact: 07/19/2010

Next Scheduled EDR Contact: 11/01/2010 Data Release Frequency: Varies

#### **DEED: Deed Restriction Listing**

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 09/14/2010 Date Data Arrived at EDR: 09/15/2010 Date Made Active in Reports: 09/29/2010

Number of Days to Update: 14

Source: Department of Toxic Substances Control

Telephone: 916-323-3400 Last EDR Contact: 09/15/2010

Next Scheduled EDR Contact: 12/27/2010 Data Release Frequency: Semi-Annually

### Records of Emergency Release Reports

### HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 04/06/2010 Date Data Arrived at EDR: 04/07/2010 Date Made Active in Reports: 05/27/2010

Number of Days to Update: 50

Source: U.S. Department of Transportation

Telephone: 202-366-4555 Last EDR Contact: 07/09/2010

Next Scheduled EDR Contact: 10/18/2010 Data Release Frequency: Annually

### CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 12/31/2009 Date Data Arrived at EDR: 07/21/2010 Date Made Active in Reports: 08/20/2010

Number of Days to Update: 30

Source: Office of Emergency Services

Telephone: 916-845-8400 Last EDR Contact: 08/02/2010

Next Scheduled EDR Contact: 11/15/2010 Data Release Frequency: Varies

### LDS: Land Disposal Sites Listing

The Land Disposal program regulates of waste discharge to land for treatment, storage and disposal in waste management units.

Date of Government Version: 07/23/2010 Date Data Arrived at EDR: 07/23/2010 Date Made Active in Reports: 08/12/2010

Number of Days to Update: 20

Source: State Water Quality Control Board

Telephone: 866-480-1028 Last EDR Contact: 09/21/2010

Next Scheduled EDR Contact: 01/03/2011 Data Release Frequency: Quarterly

### MCS: Military Cleanup Sites Listing

The State Water Resources Control Board and nine Regional Water Quality Control Boards partner with the Department of Defense (DoD) through the Defense and State Memorandum of Agreement (DSMOA) to oversee the investigation and remediation of water quality issues at military facilities.

Date of Government Version: 07/23/2010 Date Data Arrived at EDR: 07/23/2010 Date Made Active in Reports: 08/12/2010

Number of Days to Update: 20

Source: State Water Resources Control Board

Telephone: 866-480-1028 Last EDR Contact: 09/21/2010

Next Scheduled EDR Contact: 01/03/2011 Data Release Frequency: Quarterly

#### Other Ascertainable Records

RCRA-NonGen: RCRA - Non Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste

Date of Government Version: 02/17/2010 Date Data Arrived at EDR: 02/19/2010 Date Made Active in Reports: 05/17/2010

Number of Days to Update: 87

Source: Environmental Protection Agency

Telephone: (415) 495-8895 Last EDR Contact: 08/19/2010

Next Scheduled EDR Contact: 10/18/2010 Data Release Frequency: Varies

**DOT OPS: Incident and Accident Data** 

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 01/12/2010 Date Data Arrived at EDR: 02/09/2010 Date Made Active in Reports: 04/12/2010

Number of Days to Update: 62

Source: Department of Transporation, Office of Pipeline Safety

Telephone: 202-366-4595 Last EDR Contact: 08/11/2010

Next Scheduled EDR Contact: 11/22/2010

Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 11/10/2006 Date Made Active in Reports: 01/11/2007

Number of Days to Update: 62

Source: USGS Telephone: 703-692-8801 Last EDR Contact: 07/22/2010

Next Scheduled EDR Contact: 11/01/2010 Data Release Frequency: Semi-Annually

**FUDS: Formerly Used Defense Sites** 

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 12/31/2008 Date Data Arrived at EDR: 09/30/2009 Date Made Active in Reports: 12/01/2009

Number of Days to Update: 62

Source: U.S. Army Corps of Engineers Telephone: 202-528-4285

Last EDR Contact: 09/14/2010

Next Scheduled EDR Contact: 12/27/2010 Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 04/11/2010 Date Data Arrived at EDR: 04/19/2010 Date Made Active in Reports: 05/17/2010

Number of Days to Update: 28

Source: Department of Justice, Consent Decree Library

Telephone: Varies

Last EDR Contact: 10/04/2010

Next Scheduled EDR Contact: 01/17/2011 Data Release Frequency: Varies

**ROD: Records Of Decision** 

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 06/01/2010 Date Data Arrived at EDR: 06/16/2010 Date Made Active in Reports: 08/17/2010

Number of Days to Update: 62

Source: EPA

Telephone: 703-416-0223 Last EDR Contact: 09/15/2010

Next Scheduled EDR Contact: 12/27/2010 Data Release Frequency: Annually

**UMTRA: Uranium Mill Tailings Sites** 

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 12/14/2009 Date Data Arrived at EDR: 09/29/2010 Date Made Active in Reports: 10/04/2010

Number of Days to Update: 5

Source: Department of Energy Telephone: 505-845-0011 Last EDR Contact: 09/01/2010

Next Scheduled EDR Contact: 12/13/2010 Data Release Frequency: Varies

MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 05/07/2010 Date Data Arrived at EDR: 06/09/2010 Date Made Active in Reports: 08/30/2010

Number of Days to Update: 82

Source: Department of Labor, Mine Safety and Health Administration

Telephone: 303-231-5959 Last EDR Contact: 09/09/2010

Next Scheduled EDR Contact: 12/20/2010 Data Release Frequency: Semi-Annually

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2008 Date Data Arrived at EDR: 01/13/2010 Date Made Active in Reports: 02/18/2010

Number of Days to Update: 36

Source: EPA Telephone: 202-566-0250 Last EDR Contact: 09/01/2010

Next Scheduled EDR Contact: 12/13/2010 Data Release Frequency: Annually

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2002 Date Data Arrived at EDR: 04/14/2006 Date Made Active in Reports: 05/30/2006

Number of Days to Update: 46

Source: EPA

Telephone: 202-260-5521 Last EDR Contact: 10/01/2010

Next Scheduled EDR Contact: 01/10/2011 Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA,

TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009 Date Data Arrived at EDR: 04/16/2009 Date Made Active in Reports: 05/11/2009

Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances

Telephone: 202-566-1667 Last EDR Contact: 08/30/2010

Next Scheduled EDR Contact: 12/13/2010 Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009 Date Data Arrived at EDR: 04/16/2009 Date Made Active in Reports: 05/11/2009

Number of Days to Update: 25

Source: EPA

Telephone: 202-566-1667 Last EDR Contact: 08/30/2010

Next Scheduled EDR Contact: 12/13/2010 Data Release Frequency: Quarterly

#### HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006 Date Data Arrived at EDR: 03/01/2007 Date Made Active in Reports: 04/10/2007

Number of Days to Update: 40

Source: Environmental Protection Agency

Telephone: 202-564-2501 Last EDR Contact: 12/17/2007

Next Scheduled EDR Contact: 03/17/2008 Data Release Frequency: No Update Planned

#### HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006 Date Data Arrived at EDR: 03/01/2007 Date Made Active in Reports: 04/10/2007

Number of Days to Update: 40

Source: Environmental Protection Agency

Telephone: 202-564-2501 Last EDR Contact: 12/17/2008

Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

### SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2008 Date Data Arrived at EDR: 01/06/2010 Date Made Active in Reports: 02/10/2010

Number of Days to Update: 35

Source: EPA

Telephone: 202-564-4203 Last EDR Contact: 08/16/2010

Next Scheduled EDR Contact: 11/15/2010 Data Release Frequency: Annually

#### ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 04/24/2010 Date Data Arrived at EDR: 04/29/2010 Date Made Active in Reports: 05/17/2010

Number of Days to Update: 18

Source: Environmental Protection Agency

Telephone: 202-564-5088 Last EDR Contact: 09/27/2010

Next Scheduled EDR Contact: 01/10/2011 Data Release Frequency: Quarterly

### PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 02/01/2010 Date Data Arrived at EDR: 04/22/2010 Date Made Active in Reports: 08/09/2010

Number of Days to Update: 109

Source: EPA

Telephone: 202-566-0500 Last EDR Contact: 07/30/2010

Next Scheduled EDR Contact: 11/01/2010 Data Release Frequency: Annually

### MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 03/18/2010 Date Data Arrived at EDR: 04/06/2010 Date Made Active in Reports: 05/27/2010

Number of Days to Update: 51

Source: Nuclear Regulatory Commission

Telephone: 301-415-7169 Last EDR Contact: 09/13/2010

Next Scheduled EDR Contact: 12/27/2010 Data Release Frequency: Quarterly

### **RADINFO: Radiation Information Database**

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/13/2010 Date Data Arrived at EDR: 07/14/2010 Date Made Active in Reports: 08/09/2010

Number of Days to Update: 26

Source: Environmental Protection Agency

Telephone: 202-343-9775 Last EDR Contact: 07/14/2010

Next Scheduled EDR Contact: 10/25/2010 Data Release Frequency: Quarterly

#### FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 04/14/2010 Date Data Arrived at EDR: 04/16/2010 Date Made Active in Reports: 05/27/2010

Number of Days to Update: 41

Source: EPA

Telephone: (415) 947-8000 Last EDR Contact: 09/15/2010

Next Scheduled EDR Contact: 12/27/2010 Data Release Frequency: Quarterly

#### RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995 Date Data Arrived at EDR: 07/03/1995 Date Made Active in Reports: 08/07/1995

Number of Days to Update: 35

Source: EPA

Telephone: 202-564-4104 Last EDR Contact: 06/02/2008

Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

### **BRS: Biennial Reporting System**

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2007 Date Data Arrived at EDR: 02/25/2010 Date Made Active in Reports: 05/12/2010

Number of Days to Update: 76

Source: EPA/NTIS Telephone: 800-424-9346 Last EDR Contact: 08/24/2010

Next Scheduled EDR Contact: 12/06/2010 Data Release Frequency: Biennially

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989 Date Data Arrived at EDR: 07/27/1994 Date Made Active in Reports: 08/02/1994

Number of Days to Update: 6

Source: Department of Health Services

Telephone: 916-255-2118 Last EDR Contact: 05/31/1994 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

CA WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007 Date Data Arrived at EDR: 06/20/2007 Date Made Active in Reports: 06/29/2007

Number of Days to Update: 9

Source: State Water Resources Control Board

Telephone: 916-341-5227 Last EDR Contact: 08/30/2010

Next Scheduled EDR Contact: 12/13/2010 Data Release Frequency: Quarterly

NPDES: NPDES Permits Listing

A listing of NPDES permits, including stormwater.

Date of Government Version: 08/24/2010 Date Data Arrived at EDR: 08/24/2010 Date Made Active in Reports: 09/29/2010

Number of Days to Update: 36

Source: State Water Resources Control Board

Telephone: 916-445-9379 Last EDR Contact: 08/24/2010

Next Scheduled EDR Contact: 12/06/2010 Data Release Frequency: Quarterly

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites). This listing is no longer updated by the state agency.

Date of Government Version: 07/08/2010 Date Data Arrived at EDR: 07/09/2010 Date Made Active in Reports: 08/12/2010

Number of Days to Update: 34

Source: CAL EPA/Office of Emergency Information

Telephone: 916-323-3400 Last EDR Contact: 07/09/2010

Next Scheduled EDR Contact: 10/18/2010 Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES].

Date of Government Version: 04/01/2001 Date Data Arrived at EDR: 01/22/2009 Date Made Active in Reports: 04/08/2009

Number of Days to Update: 76

Source: Department of Toxic Substances Control

Telephone: 916-323-3400 Last EDR Contact: 01/22/2009 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

NOTIFY 65: Proposition 65 Records

Proposition 65 Notification Records. NOTIFY 65 contains facility notifications about any release which could impact drinking water and thereby expose the public to a potential health risk.

Date of Government Version: 10/21/1993 Date Data Arrived at EDR: 11/01/1993 Date Made Active in Reports: 11/19/1993

Number of Days to Update: 18

Source: State Water Resources Control Board

Telephone: 916-445-3846 Last EDR Contact: 09/27/2010

Next Scheduled EDR Contact: 01/10/2011
Data Release Frequency: No Update Planned

**DRYCLEANERS: Cleaner Facilities** 

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 09/15/2010 Date Data Arrived at EDR: 09/16/2010 Date Made Active in Reports: 09/29/2010

Number of Days to Update: 13

Source: Department of Toxic Substance Control

Telephone: 916-327-4498 Last EDR Contact: 09/13/2010

Next Scheduled EDR Contact: 12/27/2010 Data Release Frequency: Annually

WIP: Well Investigation Program Case List

Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009 Date Data Arrived at EDR: 07/21/2009 Date Made Active in Reports: 08/03/2009

Number of Days to Update: 13

Source: Los Angeles Water Quality Control Board

Telephone: 213-576-6726 Last EDR Contact: 07/09/2010

Next Scheduled EDR Contact: 10/18/2010

Data Release Frequency: Varies

**HAZNET: Facility and Manifest Data** 

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method.

Date of Government Version: 12/31/2009 Date Data Arrived at EDR: 07/07/2010 Date Made Active in Reports: 08/12/2010

Number of Days to Update: 36

Source: California Environmental Protection Agency

Telephone: 916-255-1136 Last EDR Contact: 07/21/2010

Next Scheduled EDR Contact: 11/01/2010 Data Release Frequency: Annually

**EMI: Emissions Inventory Data** 

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2007 Date Data Arrived at EDR: 07/14/2009 Date Made Active in Reports: 07/23/2009

Number of Days to Update: 9

Source: California Air Resources Board

Telephone: 916-322-2990 Last EDR Contact: 09/29/2010

Next Scheduled EDR Contact: 01/10/2011

Data Release Frequency: Varies

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 12/08/2006 Date Made Active in Reports: 01/11/2007

Number of Days to Update: 34

Source: USGS

Telephone: 202-208-3710 Last EDR Contact: 07/22/2010

Next Scheduled EDR Contact: 11/01/2010 Data Release Frequency: Semi-Annually

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 05/12/2010 Date Data Arrived at EDR: 05/13/2010 Date Made Active in Reports: 08/17/2010

Number of Days to Update: 96

Source: Environmental Protection Agency

Telephone: 615-532-8599 Last EDR Contact: 08/23/2010

Next Scheduled EDR Contact: 11/08/2010

Data Release Frequency: Varies

PROC: Certified Processors Database A listing of certified processors.

> Date of Government Version: 07/23/2010 Date Data Arrived at EDR: 09/21/2010 Date Made Active in Reports: 09/29/2010

Number of Days to Update: 8

Source: Department of Conservation

Telephone: 916-323-3836 Last EDR Contact: 09/21/2010

Next Scheduled EDR Contact: 01/03/2011 Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing

The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 09/03/2010 Date Data Arrived at EDR: 09/16/2010 Date Made Active in Reports: 09/29/2010

Number of Days to Update: 13

Source: Department of Public Health

Telephone: 916-558-1784 Last EDR Contact: 09/14/2010

Next Scheduled EDR Contact: 12/27/2010 Data Release Frequency: Varies

COAL ASH DOE: Sleam-Electric Plan Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 08/07/2009 Date Made Active in Reports: 10/22/2009

Number of Days to Update: 76

Source: Department of Energy Telephone: 202-586-8719 Last EDR Contact: 07/21/2010

Next Scheduled EDR Contact: 11/01/2010 Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 11/09/2009 Date Data Arrived at EDR: 12/18/2009 Date Made Active in Reports: 02/10/2010

Number of Days to Update: 54

Source: Environmental Protection Agency

Telephone: N/A

Last EDR Contact: 09/15/2010

Next Scheduled EDR Contact: 12/27/2010 Data Release Frequency: Varies

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 07/21/2010 Date Data Arrived at EDR: 07/21/2010 Date Made Active in Reports: 08/12/2010

Number of Days to Update: 22

Source: Department of Toxic Substances Control

Telephone: 916-440-7145 Last EDR Contact: 07/21/2010

Next Scheduled EDR Contact: 11/01/2010 Data Release Frequency: Quarterly

HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 08/09/2010 Date Data Arrived at EDR: 08/11/2010 Date Made Active in Reports: 08/20/2010

Number of Days to Update: 9

Source: Department of Toxic Substances Control

Telephone: 916-323-3400 Last EDR Contact: 08/11/2010

Next Scheduled EDR Contact: 11/22/2010 Data Release Frequency: Quarterly

FINANCIAL ASSURANCE 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 07/16/2010 Date Data Arrived at EDR: 07/19/2010 Date Made Active in Reports: 08/12/2010

Number of Days to Update: 24

Source: California Integrated Waste Management Board

Telephone: 916-341-6066 Last EDR Contact: 09/20/2010

Next Scheduled EDR Contact: 12/06/2010 Data Release Frequency: Varies

FINANCIAL ASSURANCE: Financial Assurance Information Listing

Financial Assurance information

Date of Government Version: 03/01/2007 Date Data Arrived at EDR: 06/01/2007 Date Made Active in Reports: 06/29/2007

Number of Days to Update: 28

Source: Department of Toxic Substances Control

Telephone: 916-255-3628 Last EDR Contact: 08/13/2010

Next Scheduled EDR Contact: 11/15/2010 Data Release Frequency: Varies

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 02/06/2006 Date Made Active in Reports: 01/11/2007

Number of Days to Update: 339

Source: U.S. Geological Survey Telephone: 888-275-8747 Last EDR Contact: 07/22/2010

Next Scheduled EDR Contact: 11/01/2010

Data Release Frequency: N/A

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 01/01/2008 Date Data Arrived at EDR: 02/18/2009 Date Made Active in Reports: 05/29/2009

Number of Days to Update: 100

Source: Environmental Protection Agency

Telephone: 202-566-0517 Last EDR Contact: 08/10/2010

Next Scheduled EDR Contact: 11/15/2010 Data Release Frequency: Varies

#### **EDR PROPRIETARY RECORDS**

#### **EDR Proprietary Records**

Manufactured Gas Plants: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A Date Data Arrived at EDR: N/A Date Made Active in Reports: N/A

Number of Days to Update: N/A

Source: EDR, Inc. Telephone: N/A Last EDR Contact: N/A

Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

EDR Historical Auto Stations: EDR Proprietary Historic Gas Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc.

Date of Government Version: N/A Date Data Arrived at EDR: N/A Date Made Active in Reports: N/A

Number of Days to Update: N/A

Source: EDR. Inc. Telephone: N/A Last EDR Contact: N/A

Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

EDR Historical Cleaners: EDR Proprietary Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc.

Date of Government Version: N/A Date Data Arrived at EDR: N/A

Date Made Active in Reports: N/A Number of Days to Update: N/A

Source: EDR. Inc. Telephone: N/A Last EDR Contact: N/A

Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

#### **COUNTY RECORDS**

#### ALAMEDA COUNTY:

#### **Contaminated Sites**

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 07/14/2010 Date Data Arrived at EDR: 07/16/2010 Date Made Active in Reports: 08/12/2010

Number of Days to Update: 27

Source: Alameda County Environmental Health Services

Telephone: 510-567-6700 Last EDR Contact: 10/04/2010

Next Scheduled EDR Contact: 01/17/2011 Data Release Frequency: Semi-Annually

#### **Underground Tanks**

Underground storage tank sites located in Alameda county.

Date of Government Version: 07/14/2010 Date Data Arrived at EDR: 07/16/2010 Date Made Active in Reports: 08/12/2010

Number of Days to Update: 27

Source: Alameda County Environmental Health Services

Telephone: 510-567-6700 Last EDR Contact: 10/04/2010

Next Scheduled EDR Contact: 01/17/2011 Data Release Frequency: Semi-Annually

#### CONTRA COSTA COUNTY:

#### Site List

List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 08/16/2010 Date Data Arrived at EDR: 08/17/2010 Date Made Active in Reports: 08/20/2010

Number of Days to Update: 3

Source: Contra Costa Health Services Department

Telephone: 925-646-2286 Last EDR Contact: 08/09/2010

Next Scheduled EDR Contact: 11/22/2010 Data Release Frequency: Semi-Annually

#### FRESNO COUNTY:

#### **CUPA Resources List**

Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 07/19/2010 Date Data Arrived at EDR: 07/21/2010 Date Made Active in Reports: 08/12/2010

Number of Days to Update: 22

Source: Dept. of Community Health Telephone: 559-445-3271 Last EDR Contact: 07/19/2010

Next Scheduled EDR Contact: 11/01/2010 Data Release Frequency: Semi-Annually

#### KERN COUNTY:

Underground Storage Tank Sites & Tank Listing Kern County Sites and Tanks Listing.

> Date of Government Version: 08/31/2010 Date Data Arrived at EDR: 09/01/2010 Date Made Active in Reports: 09/30/2010

Number of Days to Update: 29

Source: Kem County Environment Health Services Department

Telephone: 661-862-8700 Last EDR Contact: 08/30/2010

Next Scheduled EDR Contact: 11/29/2010 Data Release Frequency: Quarterly

#### LOS ANGELES COUNTY:

#### San Gabriel Valley Areas of Concern

San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 03/30/2009 Date Data Arrived at EDR: 03/31/2009 Date Made Active in Reports: 10/23/2009

Number of Days to Update: 206

Source: EPA Region 9 Telephone: 415-972-3178 Last EDR Contact: 09/27/2010

Next Scheduled EDR Contact: 01/10/2011
Data Release Frequency: No Update Planned

#### **HMS: Street Number List**

Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 12/31/2009 Date Data Arrived at EDR: 04/13/2010 Date Made Active in Reports: 05/18/2010

Number of Days to Update: 35

Source: Department of Public Works

Telephone: 626-458-3517 Last EDR Contact: 07/19/2010

Next Scheduled EDR Contact: 11/01/2010 Data Release Frequency: Semi-Annually

#### List of Solid Waste Facilities

Solid Waste Facilities in Los Angeles County.

Date of Government Version: 07/26/2010 Date Data Arrived at EDR: 08/10/2010 Date Made Active in Reports: 08/20/2010

Number of Days to Update: 10

Source: La County Department of Public Works

Telephone: 818-458-5185 Last EDR Contact: 07/26/2010

Next Scheduled EDR Contact: 11/08/2010

Data Release Frequency: Varies

#### City of Los Angeles Landfills

Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 03/05/2009 Date Data Arrived at EDR: 03/10/2009 Date Made Active in Reports: 04/08/2009

Number of Days to Update: 29

Source: Engineering & Construction Division

Telephone: 213-473-7869 Last EDR Contact: 08/25/2010

Next Scheduled EDR Contact: 12/06/2010

Data Release Frequency: Varies

#### Site Mitigation List

Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 02/09/2010 Date Data Arrived at EDR: 02/12/2010 Date Made Active in Reports: 03/04/2010

Number of Days to Update: 20

Source: Community Health Services Telephone: 323-890-7806 Last EDR Contact: 07/26/2010

Next Scheduled EDR Contact: 11/08/2010 Data Release Frequency: Annually

City of El Segundo Underground Storage Tank

Underground storage tank sites located in El Segundo city.

Date of Government Version: 07/27/2010 Date Data Arrived at EDR: 07/28/2010 Date Made Active in Reports: 08/12/2010

Number of Days to Update: 15

Source: City of El Segundo Fire Department

Telephone: 310-524-2236 Last EDR Contact: 07/26/2010

Next Scheduled EDR Contact: 11/08/2010 Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank

Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 03/28/2003 Date Data Arrived at EDR: 10/23/2003 Date Made Active in Reports: 11/26/2003

Number of Days to Update: 34

Source: City of Long Beach Fire Department

Telephone: 562-570-2563 Last EDR Contact: 08/02/2010

Next Scheduled EDR Contact: 11/15/2010 Data Release Frequency: Annually

City of Torrance Underground Storage Tank

Underground storage tank sites located in the city of Torrance.

Date of Government Version: 07/07/2010 Date Data Arrived at EDR: 07/30/2010 Date Made Active in Reports: 08/12/2010

Number of Days to Update: 13

Source: City of Torrance Fire Department

Telephone: 310-618-2973 Last EDR Contact: 07/19/2010

Next Scheduled EDR Contact: 11/01/2010 Data Release Frequency: Semi-Annually

#### MARIN COUNTY:

**Underground Storage Tank Sites** 

Currently permitted USTs in Marin County.

Date of Government Version: 07/19/2010 Date Data Arrived at EDR: 08/16/2010 Date Made Active in Reports: 09/30/2010

Number of Days to Update: 45

Source: Public Works Department Waste Management

Telephone: 415-499-6647 Last EDR Contact: 07/12/2010

Next Scheduled EDR Contact: 10/25/2010 Data Release Frequency: Semi-Annually

#### NAPA COUNTY:

Sites With Reported Contamination

A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 07/09/2008 Date Data Arrived at EDR: 07/09/2008 Date Made Active in Reports: 07/31/2008

Number of Days to Update: 22

Source: Napa County Department of Environmental Management

Telephone: 707-253-4269 Last EDR Contact: 09/07/2010

Next Scheduled EDR Contact: 12/20/2010

Data Release Frequency: No Update Planned

Closed and Operating Underground Storage Tank Sites

Underground storage tank sites located in Napa county.

Date of Government Version: 01/15/2008 Date Data Arrived at EDR: 01/16/2008 Date Made Active in Reports: 02/08/2008

Number of Days to Update: 23

Source: Napa County Department of Environmental Management

Telephone: 707-253-4269 Last EDR Contact: 09/07/2010

Next Scheduled EDR Contact: 12/20/2010 Data Release Frequency: No Update Planned

#### **ORANGE COUNTY:**

List of Industrial Site Cleanups

Petroleum and non-petroleum spills.

Date of Government Version: 08/05/2010 Date Data Arrived at EDR: 08/23/2010 Date Made Active in Reports: 09/29/2010

Number of Days to Update: 37

Source: Health Care Agency Telephone: 714-834-3446 Last EDR Contact: 08/17/2010

Next Scheduled EDR Contact: 11/29/2010 Data Release Frequency: Annually

List of Underground Storage Tank Cleanups

Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 08/05/2010 Date Data Arrived at EDR: 08/23/2010 Date Made Active in Reports: 09/29/2010

Number of Days to Update: 37

Source: Health Care Agency Telephone: 714-834-3446 Last EDR Contact: 08/17/2010

Next Scheduled EDR Contact: 11/29/2010 Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities

Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 08/05/2010 Date Data Arrived at EDR: 08/23/2010 Date Made Active in Reports: 09/30/2010

Number of Days to Update: 38

Source: Health Care Agency Telephone: 714-834-3446 Last EDR Contact: 08/17/2010

Next Scheduled EDR Contact: 11/29/2010 Data Release Frequency: Quarterly

#### PLACER COUNTY:

Master List of Facilities

List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 09/13/2010 Date Data Arrived at EDR: 09/14/2010 Date Made Active in Reports: 09/29/2010

Number of Days to Update: 15

Source: Placer County Health and Human Services

Telephone: 530-889-7312 Last EDR Contact: 09/13/2010

Next Scheduled EDR Contact: 12/27/2010 Data Release Frequency: Semi-Annually

#### RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites

Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 08/04/2010 Date Data Arrived at EDR: 08/13/2010 Date Made Active in Reports: 08/20/2010

Number of Days to Update: 7

Source: Department of Public Health Telephone: 951-358-5055 Last EDR Contact: 09/27/2010

Next Scheduled EDR Contact: 01/10/2011 Data Release Frequency: Quarterly

Underground Storage Tank Tank List

Underground storage tank sites located in Riverside county.

Date of Government Version: 08/04/2010 Date Data Arrived at EDR: 08/13/2010 Date Made Active in Reports: 09/30/2010

Number of Days to Update: 48

Source: Health Services Agency Telephone: 951-358-5055 Last EDR Contact: 09/27/2010

Next Scheduled EDR Contact: 01/10/2011 Data Release Frequency: Quarterly

#### SACRAMENTO COUNTY:

Toxic Site Clean-Up List

List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 06/30/2010 Date Data Arrived at EDR: 07/21/2010 Date Made Active in Reports: 08/12/2010

Number of Days to Update: 22

Source: Sacramento County Environmental Management

Telephone: 916-875-8406 Last EDR Contact: 07/22/2010

Next Scheduled EDR Contact: 10/25/2010 Data Release Frequency: Quarterly

Master Hazardous Materials Facility List

Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 07/26/2010 Date Data Arrived at EDR: 08/16/2010 Date Made Active in Reports: 08/20/2010

Number of Days to Update: 4

Source: Sacramento County Environmental Management

Telephone: 916-875-8406 Last EDR Contact: 07/22/2010

Next Scheduled EDR Contact: 10/25/2010 Data Release Frequency: Quarterly

#### SAN BERNARDINO COUNTY:

#### **Hazardous Material Permits**

This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 09/07/2010 Date Data Arrived at EDR: 09/08/2010 Date Made Active in Reports: 09/29/2010

Number of Days to Update: 21

Source: San Bernardino County Fire Department Hazardous Materials Division Telephone: 909-387-3041

Last EDR Contact: 08/16/2010

Next Scheduled EDR Contact: 11/29/2010 Data Release Frequency: Quarterly

#### SAN DIEGO COUNTY:

Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 09/09/2010 Date Data Arrived at EDR: 09/15/2010 Date Made Active in Reports: 09/29/2010

Number of Days to Update: 14

Source: Hazardous Materials Management Division

Telephone: 619-338-2268 Last EDR Contact: 09/15/2010

Next Scheduled EDR Contact: 12/27/2010 Data Release Frequency: Quarterly

#### Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 10/01/2009 Date Data Arrived at EDR: 12/04/2009 Date Made Active in Reports: 01/18/2010

Number of Days to Update: 45

Source: Department of Health Services

Telephone: 619-338-2209 Last EDR Contact: 08/02/2010

Next Scheduled EDR Contact: 11/15/2010 Data Release Frequency: Varies

#### **Environmental Case Listing**

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010 Date Data Arrived at EDR: 06/15/2010 Date Made Active in Reports: 07/09/2010

Number of Days to Update: 24

Source: San Diego County Department of Environmental Health

Telephone: 619-338-2371 Last EDR Contact: 09/23/2010

Next Scheduled EDR Contact: 12/27/2010 Data Release Frequency: Varies

#### SAN FRANCISCO COUNTY:

#### **Local Oversite Facilities**

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008 Date Data Arrived at EDR: 09/19/2008 Date Made Active in Reports: 09/29/2008

Number of Days to Update: 10

Source: Department Of Public Health San Francisco County

Telephone: 415-252-3920 Last EDR Contact: 08/16/2010

Next Scheduled EDR Contact: 11/29/2010 Data Release Frequency: Quarterly

#### **Underground Storage Tank Information**

Underground storage tank sites located in San Francisco county.

Date of Government Version: 09/08/2010 Date Data Arrived at EDR: 09/10/2010 Date Made Active in Reports: 09/30/2010

Number of Days to Update: 20

Source: Department of Public Health Telephone: 415-252-3920 Last EDR Contact: 08/30/2010

Next Scheduled EDR Contact: 11/29/2010 Data Release Frequency: Quarterly

#### SAN JOAQUIN COUNTY:

#### San Joaquin Co. UST

A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 05/14/2010 Date Data Arrived at EDR: 06/09/2010 Date Made Active in Reports: 07/09/2010

Number of Days to Update: 30

Source: Environmental Health Department

Telephone: N/A

Last EDR Contact: 09/27/2010

Next Scheduled EDR Contact: 01/10/2011 Data Release Frequency: Semi-Annually

#### SAN MATEO COUNTY:

#### **Business Inventory**

List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 07/15/2010 Date Data Arrived at EDR: 07/16/2010 Date Made Active in Reports: 08/12/2010

Number of Days to Update: 27

Source: San Mateo County Environmental Health Services Division

Telephone: 650-363-1921 Last EDR Contact: 06/21/2010

Next Scheduled EDR Contact: 01/03/2011 Data Release Frequency: Annually

#### **Fuel Leak List**

A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 09/20/2010
Date Data Arrived at EDR: 09/21/2010
Date Made Active in Reports: 09/29/2010

Number of Days to Update: 8

Source: San Mateo County Environmental Health Services Division

Telephone: 650-363-1921 Last EDR Contact: 09/20/2010

Next Scheduled EDR Contact: 10/04/2010 Data Release Frequency: Semi-Annually

#### SANTA CLARA COUNTY:

#### HIST LUST - Fuel Leak Site Activity Report

A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005 Date Data Arrived at EDR: 03/30/2005 Date Made Active in Reports: 04/21/2005

Number of Days to Update: 22

Source: Santa Clara Valley Water District

Telephone: 408-265-2600 Last EDR Contact: 03/23/2009

Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

#### **LOP Listing**

A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 05/29/2009 Date Data Arrived at EDR: 06/01/2009 Date Made Active in Reports: 06/15/2009

Number of Days to Update: 14

Source: Department of Environmental Health

Telephone: 408-918-3417 Last EDR Contact: 09/07/2010

Next Scheduled EDR Contact: 12/20/2010 Data Release Frequency: Annually

#### Hazardous Material Facilities

Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 08/31/2009 Date Data Arrived at EDR: 08/31/2009 Date Made Active in Reports: 09/18/2009

Number of Days to Update: 18

Source: City of San Jose Fire Department

Telephone: 408-535-7694 Last EDR Contact: 09/13/2010

Next Scheduled EDR Contact: 11/29/2010 Data Release Frequency: Annually

#### SOLANO COUNTY:

#### Leaking Underground Storage Tanks

A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 09/07/2010 Date Data Arrived at EDR: 09/10/2010 Date Made Active in Reports: 09/29/2010

Number of Days to Update: 19

Source: Solano County Department of Environmental Management

Telephone: 707-784-6770 Last EDR Contact: 09/07/2010

Next Scheduled EDR Contact: 12/20/2010 Data Release Frequency: Quarterly

#### **Underground Storage Tanks**

Underground storage tank sites located in Solano county.

Date of Government Version: 09/07/2010 Date Data Arrived at EDR: 09/14/2010 Date Made Active in Reports: 09/30/2010

Number of Days to Update: 16

Source: Solano County Department of Environmental Management

Telephone: 707-784-6770 Last EDR Contact: 09/07/2010

Next Scheduled EDR Contact: 12/20/2010
Data Release Frequency: Quarterly

#### SONOMA COUNTY:

Leaking Underground Storage Tank Sites

A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 07/12/2010
Date Data Arrived at EDR: 07/13/2010
Date Made Active in Reports: 08/12/2010

Number of Days to Update: 30

Source: Department of Health Services

Telephone: 707-565-6565 Last EDR Contact: 10/04/2010

Next Scheduled EDR Contact: 01/17/2011 Data Release Frequency: Quarterly

#### SUTTER COUNTY:

**Underground Storage Tanks** 

Underground storage tank sites located in Sutter county.

Date of Government Version: 09/13/2010 Date Data Arrived at EDR: 09/14/2010 Date Made Active in Reports: 09/30/2010

Number of Days to Update: 16

Source: Sutter County Department of Agriculture

Telephone: 530-822-7500 Last EDR Contact: 09/13/2010

Next Scheduled EDR Contact: 12/27/2010 Data Release Frequency: Semi-Annually

#### **VENTURA COUNTY:**

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks

The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 07/26/2010 Date Data Arrived at EDR: 09/01/2010 Date Made Active in Reports: 09/29/2010

Number of Days to Update: 28

Source: Ventura County Environmental Health Division

Telephone: 805-654-2813 Last EDR Contact: 08/24/2010

Next Scheduled EDR Contact: 12/06/2010 Data Release Frequency: Quarterly

Inventory of Illegal Abandoned and Inactive Sites

Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 08/01/2009 Date Data Arrived at EDR: 10/05/2009 Date Made Active in Reports: 10/13/2009

Number of Days to Update: 8

Source: Environmental Health Division

Telephone: 805-654-2813 Last EDR Contact: 09/27/2010

Next Scheduled EDR Contact: 11/15/2010 Data Release Frequency: Annually

Listing of Underground Tank Cleanup Sites

Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008 Date Data Arrived at EDR: 06/24/2008 Date Made Active in Reports: 07/31/2008

Number of Days to Update: 37

Source: Environmental Health Division

Telephone: 805-654-2813 Last EDR Contact: 08/24/2010

Next Scheduled EDR Contact: 12/06/2010 Data Release Frequency: Quarterly

**Underground Tank Closed Sites List** 

Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 08/31/2010 Date Data Arrived at EDR: 09/21/2010 Date Made Active in Reports: 09/30/2010

Number of Days to Update: 9

Source: Environmental Health Division

Telephone: 805-654-2813 Last EDR Contact: 09/21/2010

Next Scheduled EDR Contact: 01/03/2011
Data Release Frequency: Quarterly

#### YOLO COUNTY:

**Underground Storage Tank Comprehensive Facility Report** Underground storage tank sites located in Yolo county.

Date of Government Version: 07/20/2010 Date Data Arrived at EDR: 09/16/2010 Date Made Active in Reports: 09/30/2010

Number of Days to Update: 14

Source: Yolo County Department of Health

Telephone: 530-666-8646 Last EDR Contact: 09/27/2010

Next Scheduled EDR Contact: 01/10/2011 Data Release Frequency: Annually

#### **OTHER DATABASE(S)**

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 12/31/2007 Date Data Arrived at EDR: 08/26/2009 Date Made Active in Reports: 09/11/2009

Number of Days to Update: 16

Source: Department of Environmental Protection

Telephone: 860-424-3375 Last EDR Contact: 08/25/2010

Next Scheduled EDR Contact: 12/06/2010 Data Release Frequency: Annually

NJ MANIFEST: Manifest Information Hazardous waste manifest information.

> Date of Government Version: 12/31/2009 Date Data Arrived at EDR: 07/22/2010 Date Made Active in Reports: 08/26/2010

Number of Days to Update: 35

Source: Department of Environmental Protection

Telephone: N/A

Last EDR Contact: 07/22/2010

Next Scheduled EDR Contact: 11/01/2010 Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 07/28/2010 Date Data Arrived at EDR: 08/11/2010 Date Made Active in Reports: 09/24/2010

Number of Days to Update: 44

Source: Department of Environmental Conservation

Telephone: 518-402-8651 Last EDR Contact: 08/11/2010

Next Scheduled EDR Contact: 11/22/2010 Data Release Frequency: Annually

PA MANIFEST: Manifest Information Hazardous waste manifest information.

> Date of Government Version: 12/31/2008 Date Data Arrived at EDR: 12/01/2009 Date Made Active in Reports: 12/14/2009

Number of Days to Update: 13

Source: Department of Environmental Protection

Telephone: 717-783-8990 Last EDR Contact: 08/23/2010

Next Scheduled EDR Contact: 12/06/2010 Data Release Frequency: Annually

RI MANIFEST: Manifest information Hazardous waste manifest information

> Date of Government Version: 12/31/2009 Date Data Arrived at EDR: 07/19/2010 Date Made Active in Reports: 08/26/2010

Number of Days to Update: 38

Source: Department of Environmental Management

Telephone: 401-222-2797 Last EDR Contact: 08/30/2010

Next Scheduled EDR Contact: 12/13/2010 Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2009 Date Data Arrived at EDR: 07/06/2010 Date Made Active in Reports: 07/26/2010

Number of Days to Update: 20

Source: Department of Natural Resources

Telephone: N/A

Last EDR Contact: 09/20/2010

Next Scheduled EDR Contact: 01/03/2011 Data Release Frequency: Annually

Oll/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data Source: Rextag Strategies Corp. Telephone: (281) 769-2247

U.S. Electric Transmission and Power Plants Systems Digital GIS Data

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

#### AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services,

a federal agency within the U.S. Department of Health and Human Services.

#### **Nursing Homes**

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

#### **Public Schools**

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary

and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

**Private Schools** 

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services

Telephone: 916-657-4041

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2009 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

Scanned Digital USGS 7.5' Topographic Map (DRG)

Source: United States Geologic Survey

A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

### STREET AND ADDRESS INFORMATION

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## MFPD STN 3

2500 East Valley Road Santa Barbara, CA 93108

Inquiry Number: 2885047.3

October 04, 2010

# **Certified Sanborn® Map Report**



## Certified Sanborn® Map Report

10/04/10

Site Name: Client Name: MFPD STN 3 Campbell Geo

MFPD STN 3 Campbell Geo Inc.
2500 East Valley Road 327A East Haley Street

Santa Barbara, CA 93108 Santa Barbara, CA 93101-1712

EDR Inquiry # 2885047.3 Contact: Mike Maguire



The complete Sanborn Library collection has been searched by EDR, and fire insurance maps covering the target property location provided by Campbell Geo Inc. were identified for the years listed below. The certified Sanborn Library search results in this report can be authenticated by visiting www.edrnet.com/sanborn and entering the certification number. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by Sanborn Library LLC, the copyright holder for the collection.

#### Certified Sanborn Results:

Site Name: MFPD STN 3

Address: 2500 East Valley Road City, State, Zip: Santa Barbara, CA 93108

**Cross Street:** 

P.O. # NA

Project: MFPD STN 3
Certification # 30B3-49B7-8346



Sanborn® Library search results Certification # 30B3-49B7-8346

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This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

The Sanborn Library includes more than 1.2 million Sanborn fire insurance maps, which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

✓ Library of Congress

✓ University Publications of America

✓ EDR Private Collection

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## TABLE OF CONTENTS

## SECTION

Executive Summary Findings

Thank you for your business.

Please contact EDR at 1-800-352-0050 with any questions or comments.

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## 2009 Enhancements to EDR City Directory Abstract

New for 2009, the EDR City Directory Abstract has been enhanced with additional information and features. These enhancements will make your city directory research process more efficient, flexible, and insightful than ever before. The enhancements will improve the options for selecting adjoining properties, and will speed up your review of the report.

**City Directory Report.** Three important enhancements have been made to the EDR City Directory Abstract:

- 1. Executive Summary. The report begins with an Executive Summary that lists the sources consulted in the preparation of the report. Where available, a parcel map is also provided within the report, showing the locations of properties researched.
- 2. Page Images. Where available, the actual page source images will be included in the Appendix, so that you can review them for information that may provide additional insight. EDR has copyright permission to include these images.
- 3. Findings Listed by Location. Another useful enhancement is that findings are now grouped by address. This will significantly reduce the time you need to review your abstracts. Findings are provided under each property address, listed in reverse chronological order and referencing the source for each entry.

**Options for Selecting Adjoining Properties.** Ensuring that the right adjoining property addresses are searched is one of the biggest challenges that environmental professionals face when conducting city directory historical research. EDR's new enhancements make it easier for you to meet this challenge. Now, when you place an order for the EDR City Directory Abstract, you have the following choices for determining which addresses should be researched.

- 1. You Select Addresses and EDR Selects Addresses. Use the "Add Another Address" feature to specify the addresses you want researched. Your selections will be supplemented by addresses selected by EDR researchers using our established research methods. Where available, a digital map will be shown, indicating property lines overlaid on a color aerial photo and their corresponding addresses. Simply use the address list below the map to check off which properties shown on the map you want to include. You may also select other addresses using the "Add Another Address" feature at the bottom of the list.
- 2. *EDR Selects Addresses*. Choose this method if you want EDR's researchers to select the addresses to be researched for you, using our established research methods.
- 3. You Select Addresses. Use this method for research based solely on the addresses you select or enter into the system.
- 4. Hold City Directory Research Option. If you choose to select your own adjoining addresses, you may pause production of your EDR City Directory Abstract report until you have had a chance to look at your other EDR reports and sources. Sources for property addresses include: your Certified Sanborn Map Report may show you the location of property addresses; the new EDR Property Tax Map Report may show the location of property addresses; and your field research can supplement these sources with additional address information. To use this capability, simply click "Hold City Directory research" box under "Other Options" at the bottom of the page. Once you have determined what addresses you want researched, go to your EDR Order Status page, select the EDR City Directory Abstract, and enter the addresses and submit for production.

Questions? Contact your EDR representative at 800-352-0050. For more information about all of EDR's 2009 report and service enhancements, visit <a href="https://www.edrnet.com/2009enhancements">www.edrnet.com/2009enhancements</a>

## MFPD STN 3

2500 East Valley Road Santa Barbara, CA 93108

Inquiry Number: 2885047.5

October 07, 2010

## The EDR Aerial Photo Decade Package



## **EDR Aerial Photo Decade Package**

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

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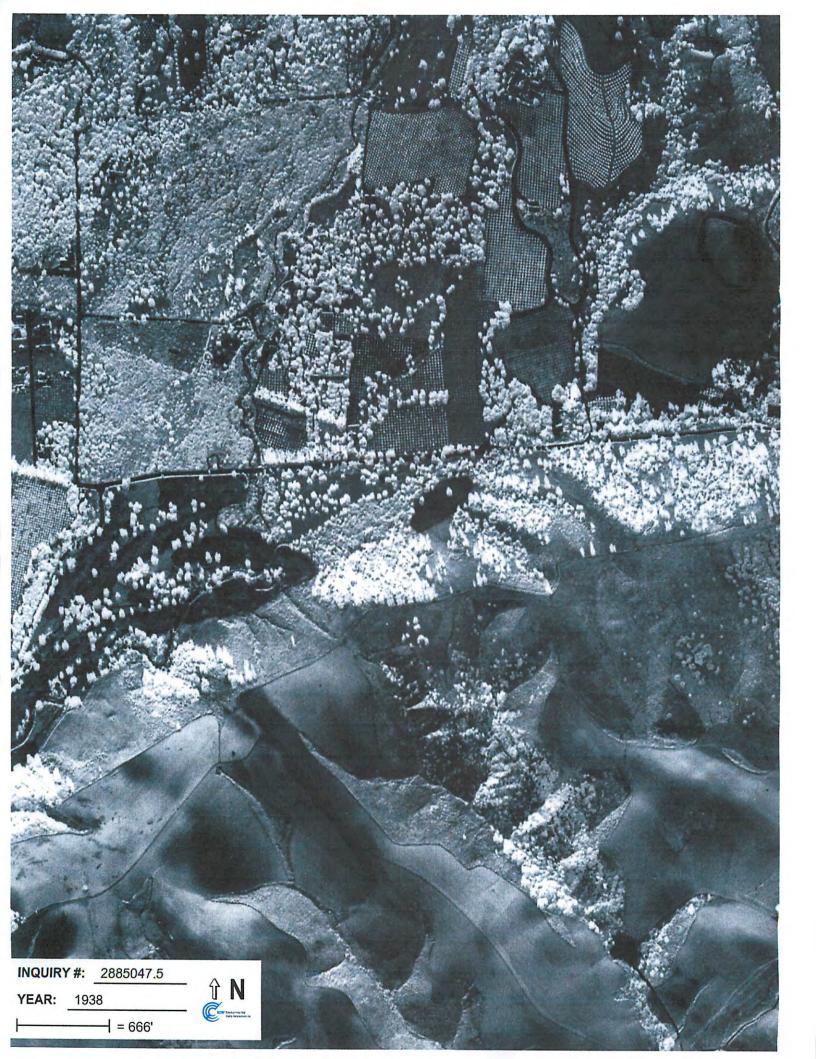
## **Date EDR Searched Historical Sources:**

Aerial Photography October 07, 2010

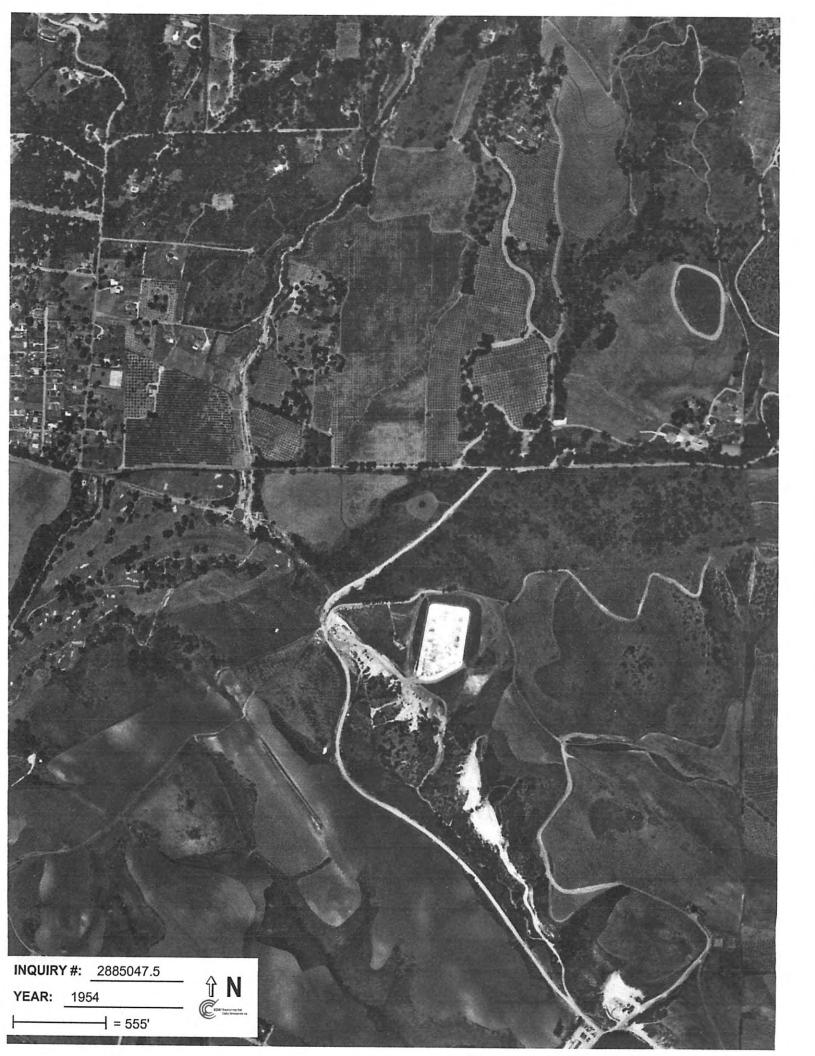
**Target Property:** 2500 East Valley Road Santa Barbara, CA 93108

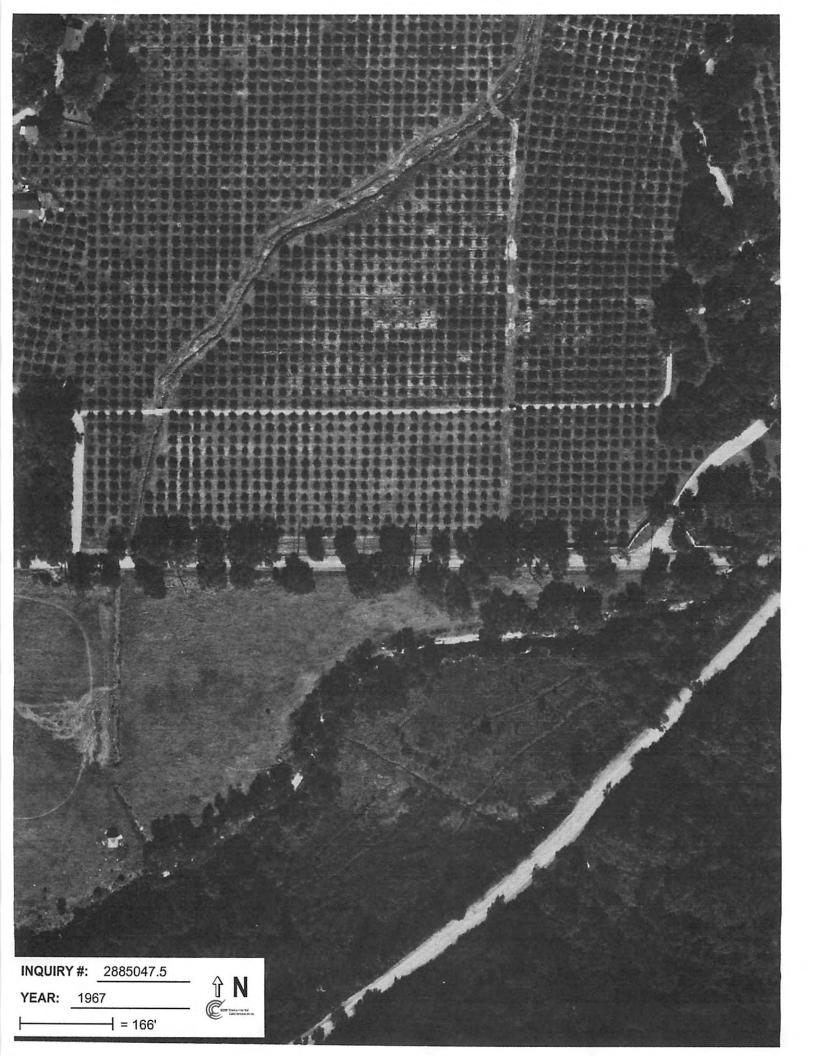
<u>Year</u>	<u>Scale</u>	<u>Details</u>	<u>Source</u>
1928	Aerial Photograph. Scale: 1"=500'	Flight Year: 1928	Fairchild
1938	Aerial Photograph. Scale: 1"=666'	Flight Year: 1938	Fairchild
1947	Aerial Photograph. Scale: 1"=666'	Flight Year: 1947	Tubis
1954	Aerial Photograph. Scale: 1"=555'	Flight Year: 1954	Pacific Air
1967	Aerial Photograph. Scale: 1"=166'	Flight Year: 1967	Mark Hurd
1975	Aerial Photograph. Scale: 1"=333'	Flight Year: 1975	Mark Hurd
1989	Aerial Photograph. Scale: 1"=666'	Flight Year: 1989	USGS
1994	Aerial Photograph. Scale: 1"=666'	Flight Year: 1994	USGS
2002	Aerial Photograph. Scale: 1"=666'	Flight Year: 2002	USGS
2005	Aerial Photograph. Scale: 1"=604'	Flight Year: 2005	EDR

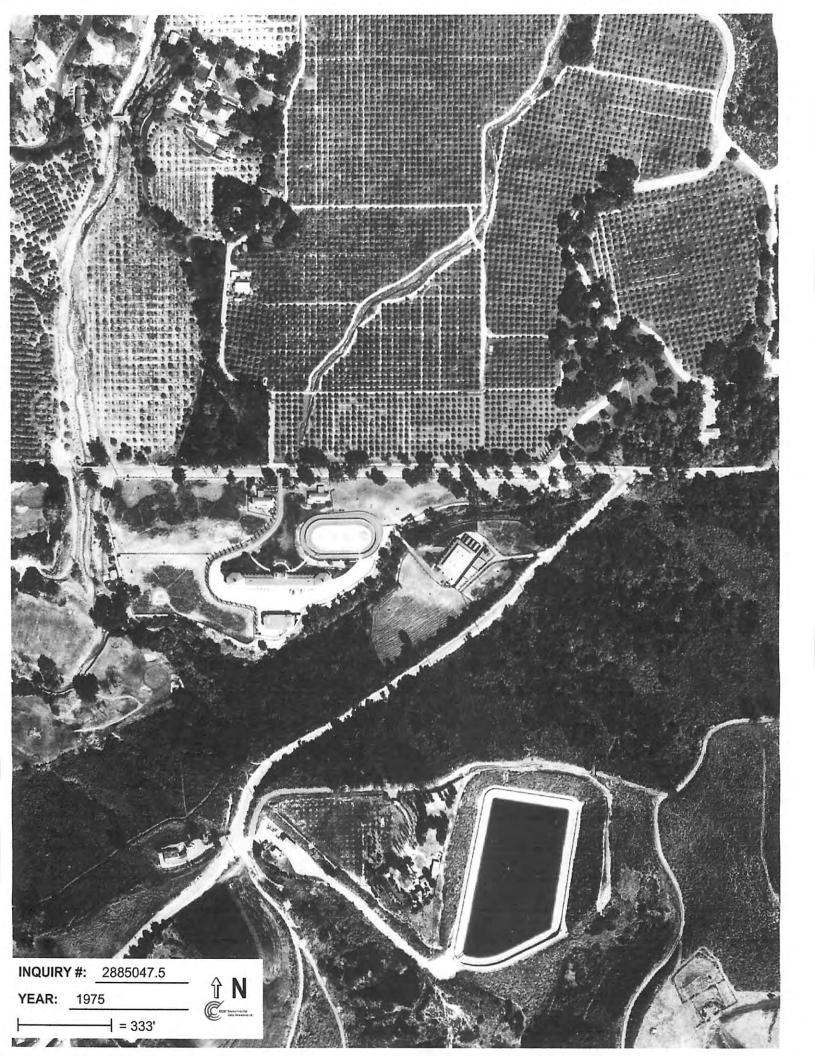




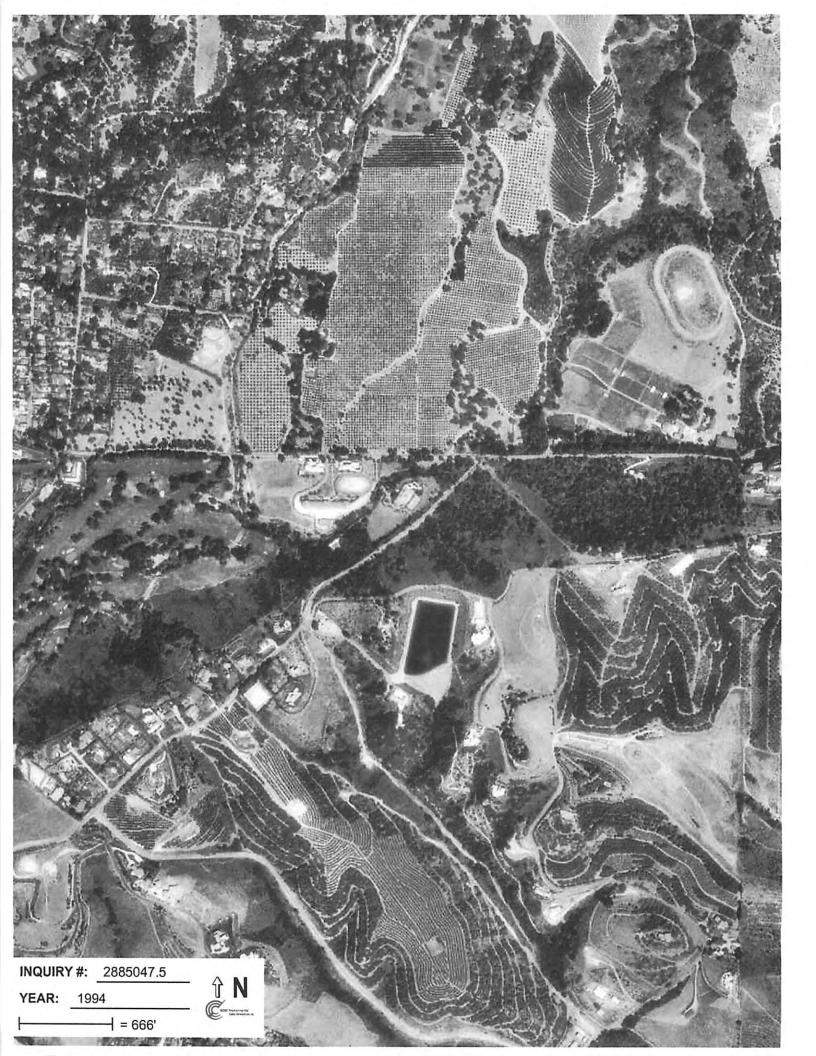


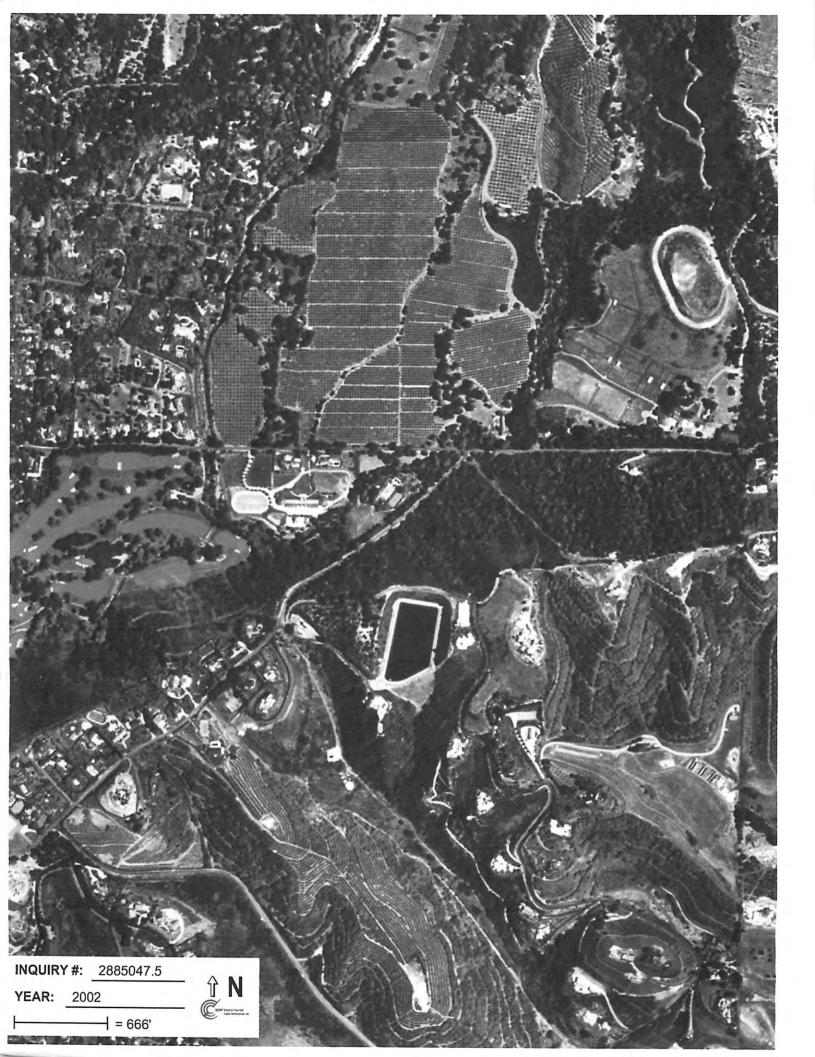


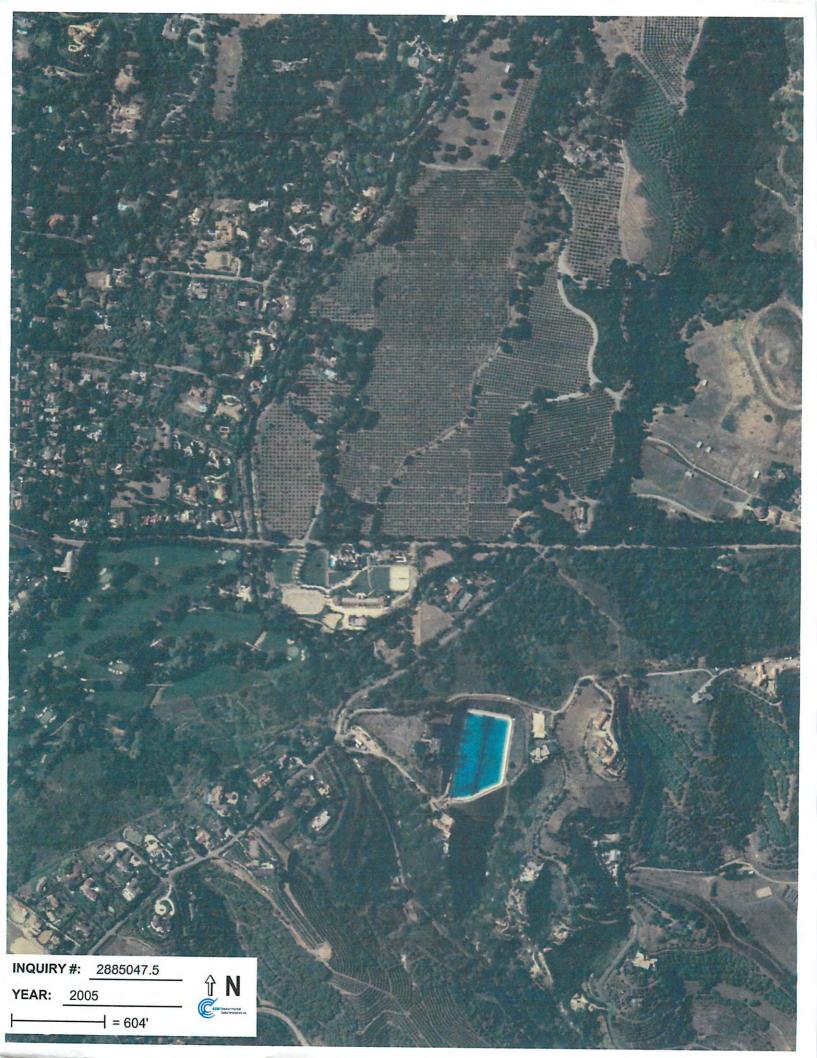












## MFPD STN 3

2500 East Valley Road Santa Barbara, CA 93108

Inquiry Number: 2885047.4

October 04, 2010

# **EDR Historical Topographic Map Report**



## **EDR Historical Topographic Map Report**

Environmental Data Resources, Inc.s (EDR) Historical Topographic Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topographic Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the early 1900s.

**Thank you for your business.**Please contact EDR at 1-800-352-0050 with any questions or comments.

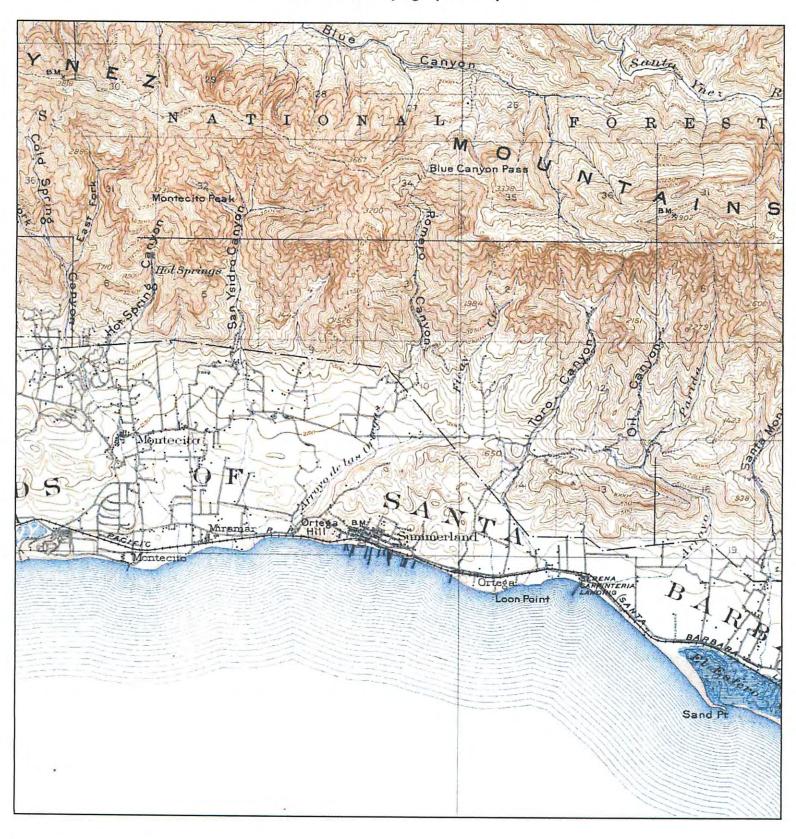
### **Disclaimer - Copyright and Trademark Notice**

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## Historical Topographic Map



N

TARGET QUAD

NAME: SANTA BARBARA

MAP YEAR: 1903

SERIES: 15

SCALE: 1:62500

SITE NAME: MFPD STN 3

ADDRESS: 2500 East Valley Road

Santa Barbara, CA 93108

LAT/LONG: 34.4363 / -119.5944

CLIENT: Campbell Geo Inc. CONTACT: Mike Maguire

INQUIRY#: 2885047.4

RESEARCH DATE: 10/04/2010

## Historical Topographic Map



N

TARGET QUAD

NAME: SOUTHERN CA SHEET 3

MAP YEAR: 1910

SERIES: 60

SCALE: 1:250000

SITE NAME: MFPD STN 3

ADDRESS: 2500 East Valley Road

Santa Barbara, CA 93108

LAT/LONG: 34.4363 / -119.5944

CLIENT: Campbell Geo Inc.
CONTACT: Mike Maguire
INQUIRY#: 2885047.4

RESEARCH DATE: 10/04/2010



N

TARGET QUAD

NAME: CARPINTERIA

MAP YEAR: 1947

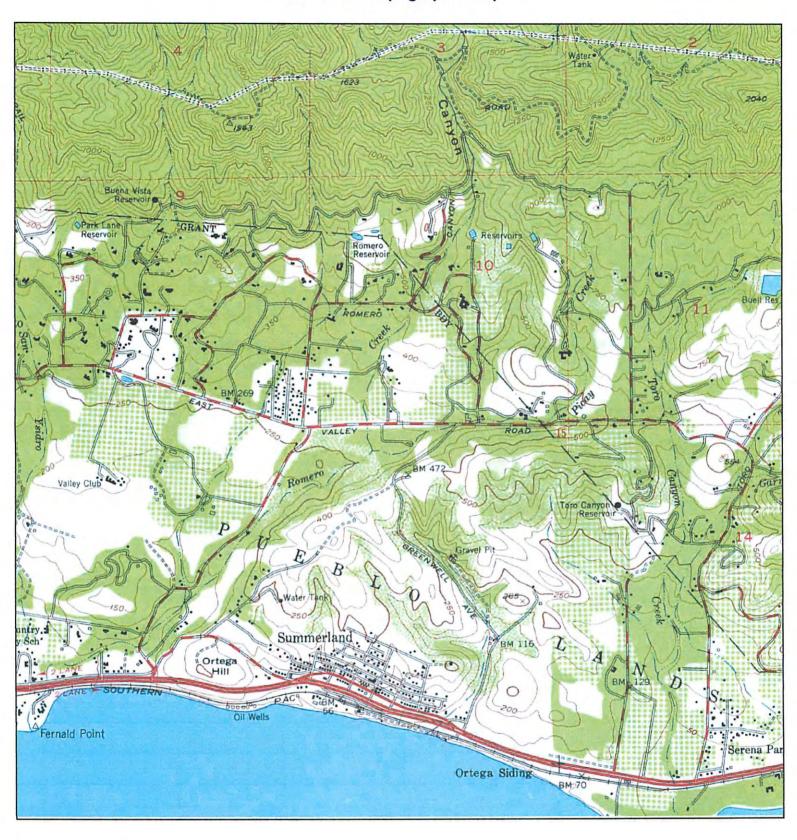
SERIES: 7.5 SCALE: 1:25000 SITE NAME: MFPD STN 3

ADDRESS: 2500 East Valley Road

Santa Barbara, CA 93108

LAT/LONG: 34.4363 / -119.5944

CLIENT: Campbell Geo Inc.
CONTACT: Mike Maguire
INQUIRY#: 2885047.4
RESEARCH DATE: 10/04/2010





TARGET QUAD

NAME: CARPINTERIA

MAP YEAR: 1952

SERIES: 7.5 SCALE: 1:24000 SITE NAME: MFPD STN 3

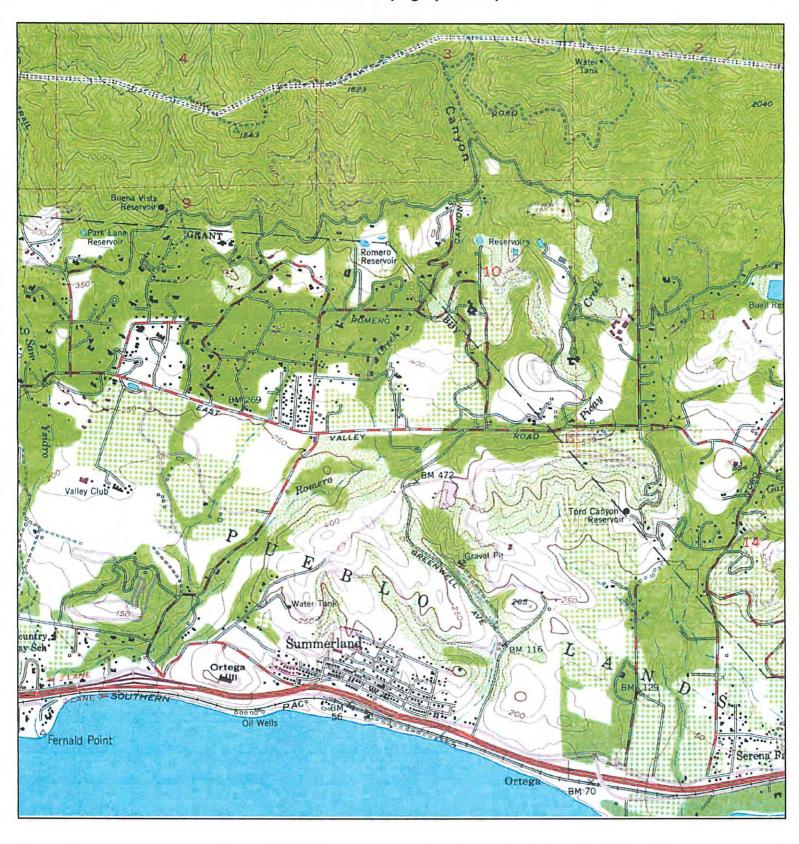
ADDRESS: 2500 East Valley Road

Santa Barbara, CA 93108

LAT/LONG: 34.4363 / -119.5944

CLIENT: Campbell Geo Inc.
CONTACT: Mike Maguire

INQUIRY#: 2885047.4 RESEARCH DATE: 10/04/2010



N

TARGET QUAD

NAME: CARPINTERIA

MAP YEAR: 1967 PHOTOREVISED:1952

SERIES: 7.5 SCALE: 1:24000 SITE NAME: MFPD STN 3

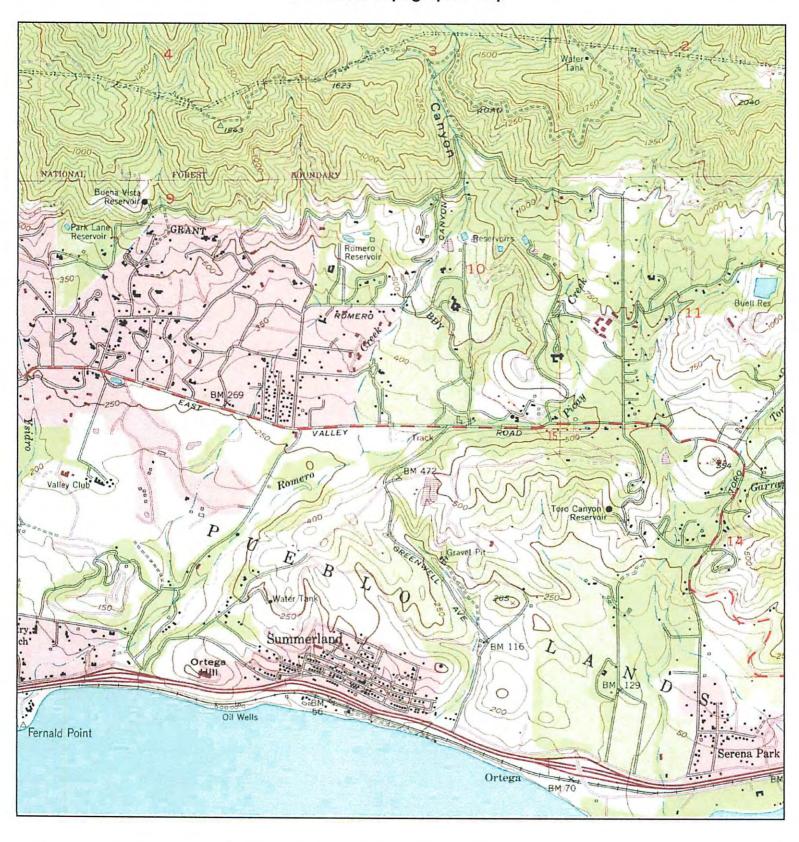
ADDRESS: 2500 East Valley Road

Santa Barbara, CA 93108

LAT/LONG: 34.4363 / -119.5944

CLIENT: Campbell Geo Inc. CONTACT: Mike Maguire

INQUIRY#: 2885047.4 RESEARCH DATE: 10/04/2010



N

TARGET QUAD

NAME: CARPINTERIA

MAP YEAR: 1988 PHOTOREVISED:1952

SERIES: 7.5 SCALE: 1:24000 SITE NAME: MFPD STN 3

ADDRESS: 2500 East Valley Road

Santa Barbara, CA 93108

LAT/LONG: 34.4363 / -119.5944

CLIENT: Campbell Geo Inc.
CONTACT: Mike Maguire
INQUIRY#: 2885047.4

RESEARCH DATE: 10/04/2010



TARGET QUAD

NAME: CARPINTERIA

MAP YEAR: 1995

SERIES: 7.5 SCALE: 1:24000 SITE NAME: MFPD STN 3

ADDRESS: 2500 East Valley Road

Santa Barbara, CA 93108

LAT/LONG: 34.4363 / -119.5944 CLIENT: Campbell Geo Inc. Mike Maguire CONTACT: INQUIRY#: 2885047.4

RESEARCH DATE: 10/04/2010

#### SANTA BARBARA COUNTY AGRICULTURAL COMMISSIONER'S PERMIT AND USE DATA, 2002-2010

# -010 USE 11/10 Athrough 9/25/10

Report#	PCO License	PCO Branch	Permit	Location	Commodity Code	Commodity Seed	Application Date	Application Method	Treated Quantity	Treated Units	Restricted	EPA Firm No.	EPA Pesticide Code	EPA Alpha Code	EPA Auxillary Code	Quentity Use	Use Unit	Section	Township	
	£.00.100						5/26/2010	^	5	Δ.		64864	33	AA	0	50	GA	10		25W
226815			4205033	1	2006	U						100	898	ΔΔ	0	486	oz	10	04N	25W
226816			4205033	1	2004	0	5/24/2010		59.6				33		ŏ			10	04N	25W
226817			4205033	1	2005	0	5/25/2010	G	5	A		64864								25W
			4205033	•	2004	0	3/29/2010	G	12	A	N	524	549		0		GA			
5234475						ŏ			59.6	A	N	5481	511	AA	0	1200	LB		• • • • • • • • • • • • • • • • • • • •	25W
5236318			4205033	1	2004	•	.,	_		Ä	N	5481	511	AA	0	20	LB	10	04N	25W
5236319			4205033	1	28000	0		-				100	898		ō	315	07	10	04N	25W
5237404			4205033	1	28000	0	5/11/2010	Α	30	A	N				_					25W
			4205033	•	28000	0	5/11/2010	A	30	A	N	5905	368		0		GA		•	
5237404						Š	5/11/2010		30	A	N	5905	50073	AA	0	90	oz		• • • • • • • • • • • • • • • • • • • •	25W
5237404			4205033	1	28000					Ä	N	524	549	AA	0	2	GA	10	04N	25W
5238321			4205033	1	2005	0	5/11/2010					524	549		ō	5.5	GA	10	04N	25W
5238322			4205033	1	28000	0	5/14/2010	G	15		N				ŏ		GA			25W
5239323			4205033	1	2004	0	5/28/2010	G	47.6	A	N	524	549	AA	U		GA.			

Base Line Meridean		<del>-</del>	Planting Year	Reentry	Reentry (D	Preharves t	Preharves t Code	Applicatio n Time	Permittee	Applicator Type	Label Name	PCO Name	Commodit y Name
					_	_		42.00	PETAN COMPANY	c	UNI-PAR '	-	'ORANGE'
S	5 A	0	10	(		U				-			'LEMON'
c	59.6 A	^	10		3	0		12:30	PETAN COMPANY	C	'AGRI-MEK 0.15 EC MITICIDE/INSECTICIDE		
3		ž				Ā		12:00	PETAN COMPANY	C	UNLPAR '	•	'LIME'
S	5 A	0	10	,	,	U					ROUNDUP POWERMAX HERBICIDE		'LEMON'
e	59.6 A	0	10	(	0	0		16:00	PETAN COMPANY	w		_	
-					_	•		16:00	PETAN COMPANY	w	DEADLINE M-PS	•	LEMON"
S	59.6 A	U	10	,	,						DEADLINE M-PS	•	'AVOCADO'
S	30 A	0	10		0	0			PETAN COMPANY				
-		-	10		n	0		9:30	PETAN COMPANY	U	'AGRI-MEK 0.15 EC MITICIDE/INSECTICIDE		AVOCADO.
5	30 A	·			-				PETAN COMPANY		OMNI OIL 6-E	•	'AVOCADO'
S	30 A	0	10		0	0						_	'AVOCADO'
-	30 A		10		n .	0		9:30	PETAN COMPANY	U	SILWET L-77 SURFACTANT		
5	30 A				_				PETAN COMPANY		ROUNDUP POWERMAX HERBICIDE		'LIME'
S	5 A	0	10		9	U							'AVOCADO'
Ž	30 A		10		D.	0		16:00	PETAN COMPANY	w	ROUNDUP POWERMAX HERBICIDE		
5					-			16:00	PETAN COMPANY	w	ROUNDUP POWERMAX HERBICIDE		LEMON'
•	50 A A	C	10		U	U		10.00	LEIUI COMPUNI	••			

2009 USE through 12/31

Report#	PCO License	PCO Branch	Permit	Location	Commodity Code	Commodity Seed	Application Date	Application Method	Treated Quantity	Treated Units	Restricted	NO.	Code	EPA Alpha Code	EPA Auxillary Code	Quantity Use	Use Unit	Section	Townsh
215091 215107 215109	1360 1360 1360	0 0 0	4205033 4205033 4205033	1 1 1	2006 2004 2004	ō	5/13/2009 5/12/2009 5/11/2009	G	5 5 59.6	Α		64864 64864 5905	33 33 368	AA	0		I GA 3 GA 2 GA	10	04N 04N

.

_	Base Line	Planted Planted		Planting	Reentry	Reentry	Preharves Preharves	Applicatio n Time	Permittee	Applicator Type	Label Name	PCO Name	Commodity Name
Range	Meridean	Quantity Units	Seq. No.	Year	-	ID.	, ,,,,,,,,		ETAN COMPANY	c.		'OXNARD PEST CONTRO	
	_		0	9	0		0				'UNI-PAR	'OXNARD PEST CONTRO	IL' "LEMON"
5W	S	5 A	_	. 6	0		0		ETAN COMPANY		Olth Dit		
5W	S	5 A	U		v		ō	15:00 P	ETAN COMPANY	С	'OMNI SUPREME SPRAY	ONIMAD FEST CONTRO	
Frat		50 A A	0	9	υ		•						

2008 through 12/31/2008

Report#	PCO License	PCO Branch	Permit	Location	Commodity Code	Commodity Seed	Application Date	Application Method	Treated Quantily	Treated Units	Restricted	EPA Firm No.	EPA Pesticido Code	EPA Alpha Code	EPA Auxillary Code	Quantity Use	Use Unit	Section	n To	wr
212296	1360	0	4205033	1	2006	0	12/5/2008	G	. 5	A		64864	33 /	4A	0	50.4	GA		10 04	N
212292	1360	0	4205033	1	2004	0	12/4/2008	G	59.6	A		5905	368	AA	0	856.8	GA		10 04	
212292	1360	0	4205033	1	2004	0	12/4/2008	G	59.6	A		55146	62 /	<b>₽</b> A	0	612	oz		10 04	
212293	1360	0	4205033	1	2005	0	12/4/2008	G	5 .	A		64864	33 /	AA	0	64.4	GA	•	10 04	N
203181	1360	0	4205033	1	2006	0	5/9/2008	G	5 .	A		64864	33 /	<b>₽</b> A	0	58	GA		10 04	N
203187	1360	0	4205033	1	2005	0	5/9/2008	G	5 .	A		64864	33 /	44	0	67.2	GA	•	10 04	N
203188	1360	Ō	4205033	1	2004	0	5/9/2008	G	59.6	A		5905	368	<b>*</b> A	0	714	GA	•	10 04	N

Range		Planted Planted Quantity Units	Planting Seq. No.	Planting Year	Reentry	Reentry ID	Preharves t	Proherves t Code	Applicatio n Time	Permittee	Applicator Type	Label Namo	PCO Name	Commodity Name
25W	S	5 A	0	8	0		0		11:50	PETAN COMPANY	C	'UNI-PAR	'OXNARD PEST CONTROL'	100411051
25W	S	59.6 A	0	8	0		0			PETAN COMPANY	-			
25W	S	59.6 A	0	8	0		0			PETAN COMPANY			'OXNARD PEST CONTROL'	
25W	S	5 A	0	8	0		0		12:30	PETAN COMPANY	Ċ		'OXNARD PEST CONTROL'	
25W	S	5 A	.0	8	0		0		13:00	PETAN COMPANY	С		'OXNARD PEST CONTROL'	
?5W	S	5 A	0	8	0		0		12:30	PETAN COMPANY	С		'OXNARD PEST CONTROL'	
25W	S	59.6 A	0	8	0		0		14:20	PETAN COMPANY	С			

through 12/13/2007

Report#	PCO License	PCO Branch	Permit	Location	Commodity Code	Commodity Seed	Application Date	Application Method	Treated Quantity	Treated Units	Restricted	EPA Firm No.	EPA Pesticide Codo	EPA Alpha Code	EPA Auxillery Code	Quantity Use	Use Unit	Section	Township	Rangr
190712	5048	0	4205033	1	28000	0	6/30/2007	A	30 A		N	100	898	ZA	0	2.48	GA	10	04N	25W
190712	5048	0	4205033	1	28000	0	6/30/2007	Α	30 A		N	5905	368 /	NA.	0	67.5	GA	10	04N	25W
190712	5048	0	4205033	1	28000	0	6/30/2007	A	30 A		N	36208	,50025 A	44	0	0.7	GA	10	04N	25W
189816			4205033	1	2005	0	5/29/2007	G	5 A		N	5905	/ 388 2	ZA	0	67.2	GA	10	04N	25W
189819			4205033	1	2006	0	5/29/2007	G	5 A	١.	N	5905	368 2	ZA	0	50.4	GA	10	04N	25W

ase Line 4eridean	Planted Quantity	Planted Units	Planting Seq. No.	Planting Year	Reentry	Reentry ID	Preharves t	Preharves t Code	Application n Time	Permittee	Applicator Type	Label Name		PCO Name	Commodity Namo
	30	A	0	7	0		0		8:50	PETAN COMPANY	С	'AGRI-MEK 0.15 EC MITICIDE	E/INSECTICID	E'ASPEN AG HELICOPTERS INC'	'AVOCADO'
	30 .	A	0	7	0		0		8:50	PETAN COMPANY	C ·	'OMNI SUPREME SPRAY		'ASPEN AG HELICOPTERS INC'	'AVOCADO'
	30 .	A	0	7	0		0		8:50	PETAN COMPANY	С	SILWET L-77	•	'ASPEN AG HELICOPTERS INC'	'AVOCADO'
	5 .	A	0	7	0		0		10:00	PETAN COMPANY	C	'OMNI OIL 6-E	•	•	JUME'
	5 /	A	0	7	0		0		12:00	PETAN COMPANY	С	'OMNI OIL 8-E	•	•	'ORANGE'

**4.** 

Report#	PCO License	PCO Branch	Permit	Location	Commodit y Code	Commodit y Seed	Application Date	Applicatio n Method	Treated Quantity	Treated Units	Restricted	EPA Firm No.	EPA Pesticide Code	EPA Alpha Code	EPA Auxillary Code	Quantity Use	Use Unit	Section	a Tov
180368			4205033	1	2004	0	10/6/2006	G	59.6	A	N	5905	368 /	VA.	0	882	GA	1	10 O4N
180368			4205033	1	2004	0	10/6/2006	G	59.6	A	N	55146	62 /	VA.	0	630	OZ	1	0 041
180369			4205033	1	2005	0	10/4/2006	G	5 /	A	N	64864	33 /	VA.	0	71.4	GA		IO 04N
180370			4205033	1	2006	0	10/4/2006	G	5 /	A	N	64864	33 /	VA.	0	50.4	GA		10 041
174673			4205033	1	28000	0	6/27/2006	G	22 /	A	N	64864	33 /	VA.	0	80	GA	1	IO 04N
172820			4205033	1	2005	0	5/24/2006	G	5 /	A	N	64864	33 /	VA .	0	49.8	GA		0 041
172822			4205033	1	2006	0	5/24/2006	G	5 4	A	N	64864	33 /	VA.	0	70.55	GA		10 O4h
172819			4205033	1	2004	0	5/19/2006	G	16	A	N	5905	368 /	VA .	0	224.1	GA		IO 04N
172824			4205033	1	2004	0	5/19/2006	G	25.1	A	N	5905	368 /	VA.	0	365.2	GA		IO 04h
172823			4205033	1	2004	0	5/18/2006	G	18.5	A	N	5905	368 /	VA.	0	265.6	GA	1	10 O4N
																		\	

p Range	Base Line Meridean	Planted Quantity	Planted Units	Planting Seq. No.	Planting Year	Reentry	Reentry (D	Preharves t	Preharves t Code	Applicatio n Time	Permittee	Applicator Type	Label Name	PCO Name	Commodity Name
25W	e	59.6	Δ	0	6	0		0		15:30	PETAN COMPANY		'OMNI SUPREME SPRAY	-	"LEMON"
25W	9	59.6		ŏ	6	ō		O		15:30	PETAN COMPANY		'GIBGRO 4LS	•	"LEMON"
25W	Š	55.5		ŏ	6	ō		Ó		15:30	PETAN COMPANY		'UNI-PAR	•	"LIME"
25W	Š	5		ŏ	6	0		0		10:50	PETAN COMPANY		UNI-PAR	•	'ORANGE'
25W	š	30		Ö	6	0		0		13:00	PETAN COMPANY		'UNI-PAR	•	'AVOCADO'
25W	Š	5		o	6	0		0		8:00	PETAN COMPANY		UNI-PAR	•	LIME'
25W	Š	5	A	0	6	0		0		8:45	PETAN COMPANY		UNI-PAR	•	*ORANGE*
25W	Š	59.6	A	0	6	0		0			PETAN COMPANY		OMNI SUPREME SPRAY	•	"LEMON"
25W	Š	59.6	A	0	6	0		0			PETAN COMPANY		OMNI SUPREME SPRAY		LEMON.
25W	S	59.6	A	0	6	0		0		12:00	PETAN COMPANY		'OMNI SUPREME SPRAY	•	LEMON.

through 12/16/10

Report#	PCO License	PCO Branch	Permit	Location	Commodit y Code	Commodit y Seod	Application	Application	Treated Quantity	Treated Units	Restricted	EPA Firm No.	EPA Pesticide Code	EPA Alpha Code	EPA Auxillary Code	Quantity Use	Use Unit	Section	Township		E
450000	5048		4205033	1000000	28000	0	6/4/2005	5 Δ	30	Δ	N	100	898	ZA	0	2.81	GA	10	04N	25W	٤
156322		·				ĭ					N	36208	50025	Δ Δ	0	0.63	GA	10	04N	25W	۶
156322	5048	0	4205033	1000000	28000	U	6/4/2005	) A	30												
156322	5048	0	4205033	1000000	28000	0	6/4/2005	5 A	30 /	A.	N	64864	33	ZA	0	67.5	GA	10	04N	25W	2
			4205033	1000000	2004	Š	6/9/2005		59.6	Δ.	N	5905	368	AA	0	89	GA	10	04N	25W	٤
156959	1360	U				v										833.25	C4	10	04N	25W	•
156959	1360	0	4205033	1000000	2004	0	6/10/2005	5 G	59.6	Α	N	5905	368 .	A.A	U						
		Ā	4205033	1000000	2006	0	6/11/2005		5	Δ.	N	64864	33 /	AA	0	48.5	GA	10	04N	25W	٤
156962	1360	U				-			_		N		33		•	74.25	GA.	10	04N	25W	
156964	1360	0	4205033	1000000	2005	0	6/10/2005	5 G	5 .	A.	N	64864			U		-				•
157706	1360	0	4205033	1000000	2006	0	6/11/2005	5 G	5 .	A.	N	64884	33 .	AA	0	49.5	GA	10	04N	25W	٤

Planted Quantity	Planted Units	Planting Seq. No.	Planting Year	Roontry	Reentry ID	Proharves t	Preharves t Code	Applicatio n Time	Permitteo	Appli cator Typo		PCO Namo	Commodity Name
20			-			0		11:10	PETAN COMPANY		'AGRI-MEK 0.15 EC MITICIDE/INSECTICIDE	'ASPEN AG HELICOPTERS INC'	
30 /		v	5			ŏ			PETAN COMPANY		SILWET L-77	'ASPEN AG HELICOPTERS INC'	
30 / 30 /		ŭ	5	ň		ŏ			PETAN COMPANY		"LEFFINGWELL SUPREME 415 OIL "	'ASPEN AG HELICOPTERS INC'	AVOCADO.
59.6 /		ň	5	0		ō		15:15	PETAN COMPANY		'OMNI SUPREME SPRAY '	'OXNARD PEST CONTROL'	LEMON.
59.6 /	-	ň	5	ō		ō		15:00	PETAN COMPANY		'OMNI SUPREME SPRAY '	'OXNARD PEST CONTROL'	LEWON,
55.0 /		ň	5	ō	ı	ō		8:45	PETAN COMPANY		"UNI-PAR '	'OXNARD PEST CONTROL'	'ORANGE'
5 /		ň	5	ŏ	п	ō		11:30	PETAN COMPANY		"UNI-PAR "	'OXNARD PEST CONTROL'	LIME'
5 /		ň	š	ň	ı	ō		8:00	PETAN COMPANY		"UNI-PAR"	'OXNARD PEST CONTROL'	'ORANGE'

2004 through 9/26/04

Report#	PCO Licenso	PCO Branch	Permit	Location	Commodit y Code	Commodit y Seed	Applicatio n Date	Applicatio n Method	Treated Quantity	Treated Units	Restricted	EPA Firm No.	EPA Pesticide Code	EPA Alpha Code	EPA Auxillary Code	Quantity Uso	Use Unit	Section	Township	Range	Base Medi
131971			4205033	1	2005	0	5/20/2004	G	5 .	A	N	64864	33 /	4A	0	66	GA		04N	25W	S
131973			4205033	1	2006	0	5/20/2004	G	5 /	A	N	64864	33 /	AA	0	57.75			04N	25W	s
131975			4205033	1	2004	0	5/19/2004	G	59.6	A	N	5905	368 /	4A	0	878,63	GA	10	04N	25W	S
138307	5048	0	4205033	1000000	28000	0	6/23/2004	A	30 /	A	N	100	888 2	ZA	0	4.69	GA	10	04N	25W	S
138307	5048	0	4205033	1000000	28000	0	6/23/2004	A	30 /	A	N	5905	50087	44	0	0,53	GA	10	04N	25W	s
138307	5048	0	4205033	1000000	28000	0	6/23/2004	A	30 .	A	N	64864	33 2	ZA	0	60	GA	10	04N	25W	S

Planted Quantity	Planted Units	Planting Seq. No.	Planting Year	Reentry	Reentry ID	Proherves Preha		Permittee	Appli cator Typo		Label Name		PCO Name	Commodity Name	,
5 .	A	0	4	0		0	0:00	PETAN COMPANY	•	'UNI-PAR			-	LIME'	
5		ā	4	ō		0	11:35	PETAN COMPANY	•	'UNI-PAR			-	"CRANGE"	
59.6		Ď	4	ō		Ö	8:45	PETAN COMPANY		<b>OMNI SUPREME</b>	SPRAY '		-	"LEMON"	
30		Ď	4	ō		ō	11:20	PETAN COMPANY		'AGRI-MEK 0.15 E	C MITICIDE/INSECTION	CIDE .	'ASPEN AG HELICOPTERS	INC'	'AVOCADO'
30		ň	Ā	ŏ		ō	11:20	PETAN COMPANY		KINETIC	•		'ASPEN AG HELICOPTERS	INC'	'AVOCADO'
30		ň	à	ñ		ň		PETAN COMPANY		LEFFINGWELL S	UPREME 415 OIL	•	'ASPEN AG HELICOPTERS	(NC'	'AVOCADO'

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## 2003 USE through 10/1/2003

Report#	PCO License	PCO Branch	Permit	Location	Commodit y Code	Commodit y Seed		Applicatio n Method		Treated Units	Restricted	EPA Firm No.	EPA Pesticide	EPA Alpha	EPA Auxillary	Quantity Use	Use Unit	Section	Bas Me
102034		0		1			1/23/2003		59.6		N	10967	Code 50002 A		Code 0	540	LB	10	0 S
102034 102034		0		1	2004 2004		1/23/2003		59.6 A		N N	11160 46923	50001 A		0	180		10	0 S
102290		·	4205033	i	28000		1/13/2003		30 /		N	40923 524	2 A 512 A		0	540 8.16			0 S 0 S
102291			4205033	1	2004		1/30/2003		59.6	١.	N	524	512 A	A	0	21.7	GA		DS
102292 103894			4205033 4205033	1	2006 2004		1/3/2003 2/11/2003		5 A 59.6 A		N N	524 64864	512 A 38 A		0	1.63			0 S
103895			4205033	1	2005	0	2/7/2003	G	5 A		N	524	512 A		0	1570 260			) S
103896 107779			4205033	1	28000		2/11/2003		1.4		N	64864	38 A	A	0	20	LB		S
107781			4205033 4205033	1	2004 2004		5/5/2003 5/7/2003		1.3 A 30.7 A		N N	34704 34704	464 A 464 A		0	16			S
107783			4205033	1	2005	0	5/9/2003	G	5 A		N	64864	33 A		0	432 ( 64 (			S
107785 107788			4205033	1	2004		5/13/2003		27.6 A		N	34704	464 A	A	0	384 (	GA		s
110987			4205033 4205033	1	2006 2004		5/12/2003 6/30/2003		5 A 40 A		N N	64864 524	33 A 512 A		0	48 (			S
110988			4205033	i	28000		6/16/2003		1 A		N	524	512 A		0	14.29 ( 42 (			S
111350 111350			4205033	1	28000		5/15/2003		5 A		N	524	512 A	A	0	156 (	oz	10	S
111358			4205033 4205033	1	28000 2004		5/20/2003 5/30/2003		1 A 59.6 A		N N	64864 36029	38 A 50005 A		0	20 (			S
111358			4205033	1	28000	0	5/8/2003	G	2 A	1	N	36029	50005 A		0	346 ( 10 (		{ 10	S
111368 113982			4205033 4205033	1	2005 2004		5/20/2003		5 A		N	64864	38 A	A	0	140 i	LB	10	S
			4200000		2004	U	7/8/2003	G	19.6 A	1	N	524	512 A	A	0	5.94 (	GA	10	S
							•.	:											

anted	Planted	Planting	Planting		Reentry	Preharves !	Preharves	Applicatio	Permittee	Applic	Label Name		PCO Name	Commodity
entity	Units	Seq. No.	Year	Reentry	ID	t	t Code	n Time	remittee	ator	Label Maine		PCO Name	Name
				_		_				Турв				
59.6		0	3	0		0			PETAN COMPANY		'COLTON HYDRATED LIME		'OXNARD PEST CONTROL'	
59.6	۹.	0	3	0		0			PETAN COMPANY		'S-K-H AGRICULTURAL ADHESIVE		'OXNARD PEST CONTROL'	
59.6	4	0	3	0		0		14:15	PETAN COMPANY		BASIC COPPER SULFATE		'OXNARD PEST CONTROL'	
30 /	4	0	3	0		0		16:00	PETAN COMPANY		ROUNDUP ULTRAMAX HERBICIDE	•	•	AVOCADO.
59.6	4	0	3	0		0		0:00	PETAN COMPANY		'ROUNDUP ULTRAMAX HERBICIDE	•	•	"LEMON"
5 /	4	0	3	0		0		16:00	PETAN COMPANY		'ROUNDUP ULTRAMAX HERBICIDE	•	•	'ORANGE'
59.6	4	Ō	3	0		0		16:00	PETAN COMPANY		'DEADLINE M-PS '		•	LEMON'
5 /	4	0	3	0		0		16:00	PETAN COMPANY		'ROUNDUP ULTRAMAX HERBICIDE	•	•	'LIME'
30 /	١.	0	3	0		0		16:00	PETAN COMPANY		'DEADLINE M-PS '		•	'AVOCADO'
1.3 /	4	0	3	0		0		10:30	PETAN COMPANY		*CLEAN CROP SUPER 94 SPRAY OIL	•	•	"LEMON"
30.7	4	0	3	0		0		14:03	PETAN COMPANY		'CLEAN CROP SUPER 94 SPRAY OIL	•		"LEMON"
5 /	4	0	3	0		0		15:00	PETAN COMPANY		'UNI-PAR '		-	'LIME'
27.6	4	0	3	0		0		0:02	PETAN COMPANY		'CLEAN CROP SUPER 94 SPRAY OIL	•	•	LEMON.
5 /	٠.	0	3	0		0		13:03	PETAN COMPANY		'UNI-PAR '		•	'ORANGE'
59.6 /	4	0	3	0		0		7:00	PETAN COMPANY		'ROUNDUP ULTRAMAX HERBICIDE	•	•	LEWON.
30 /	١	0	3	0		0		7:00	PETAN COMPANY		'ROUNDUP ULTRAMAX HERBICIDE	•	•	'AVOCADO'
30 /	١	0	3	0		0		7:00	PETAN COMPANY		'ROUNDUP ULTRAMAX HERBICIDE	•	•	'AVOCADO'
30 A	١	0	3	0		0		7:00	PETAN COMPANY		'DEADLINE M-PS '		•	'AVOCADO'
59.6	١	0	3	0		0		7:00	PETAN COMPANY		WILCO GOPHER GETTER BAIT RESTRICT	ED USE '	•	"LEMON"
30 /	١	0	3	0		0		7:00	PETAN COMPANY		WILCO GOPHER GETTER BAIT RESTRICT	'ED USE	-	'AVOCADO'
5 /	١.	0	3	0		0		9:00	PETAN COMPANY		'DEADLINE M-PS		•	LIME.
59.6	4	0	3	0		0		7:00	PETAN COMPANY		'ROUNDUP ULTRAMAX HERBICIDE	•	•	FEWON.

Report#	PCO License	PCO Branch	Permit	Location	Commodit y Code	Commodit y Seed	Application Date	Applicatio n Method	Treated Quantity	Treated Units	Restricted	EPA Firm No.	EPA Pesticide Code	EPA Alpha Code	EPA Auxillary Code	Quantity Use	Use Unit	Sı
1			4205033	1	2004	0	9/5/2002	G	15.6	4	N	64864	38 /	<b>AA</b>	0	431	LB	
1			4205033	1	2004	0	9/30/2002	G	59.6	4	N	36029	50005 /	AA	0	108	oz	
1			4205033	1	2006	0	9/11/2002	G	5 /	4	N	36029	50005 /	<b>AA</b>	0	2	oz	
1			4205033	1	28000	0	6/17/2002	G	1 /	4	N	524	512 /	4A	0	21	oz	
1			4205033	1	28000	0	6/26/2002	G	1 /	١.	N	36029	50005 /	4A	0		LB	
1			4205033	1	28000	0	9/10/2002	G	0.5	١.	N	36029	50005 A	4A	0		oz	
100111	1360	0	4205033	1	2006	0	10/29/2002	G	5 /	١.	N	64864	33 /	4A	0	40		
100112	1360	0	4205033	1	2005	0	10/30/2002	G	5 /	4	N	64864	33 /		. 0		GA	
100113	1360	0	4205033	1	2004	0	10/31/2002	G	59.6	4	N	36208	50025 /	4A	0	114	oz	
100113	1360	0	4205033	1	2004	0	10/31/2002	G	59.6	١	N	55146	62 /	4A	0	760		
100114	1360	0	4205033	1	2004	0	10/31/2002	G	59.6	4	N	34704	464 /	4A	0	480		
100115	1360	0	4205033	1	2004	0	11/4/2002	G	59.6	4	N	34704	464 A	<b>4</b> A	0	520	GA	
100362			4205033	1	2004	0	10/17/2002	G	59.6	١.	N	524	512 A	<b>₽</b> A	0	18.85	GA	
100362			4205033	1	2006	0	10/21/2002	G	5 /	١.	N	524	512 A	<b>A</b> A	0	130	ΟZ	
100362			4205033	1	28000	0	10/20/2002	G	3 /	١.	N	524	512 A	<b></b> AA	0	57	oz	
102261			4205033	1	2004	0	11/12/2002	G	59.6	١.	N	36029	50005 A	NA.	0	92	oz	
102262			4205033	1	2006	0	11/13/2002	G	5 /	١.	N	36029	50005 A		0		oz	
102263			4205033	1	28000	0	11/14/2002	G	0.5 /	١.	N	36029	50005 A		0		oz	
103805			4205033	1	2004	0	12/12/2002	G	59.6	١.	N	36029	50005 A		0	146		
103806			4205033	1	2006	0	12/5/2002	G	5 /	١.	N	36029	50005 A		0		OZ	
103807			4205033	1	28000	0	12/9/2002	G	1 /	١.	N	36029	50005 A	<b></b> AA	0	4	oz	

Base Line Meridean	Planted Quantity	Planted Units	Planting Seq. No.	Planting Year	Reentry	Reentry ID	Preharves t	Preharves t Code	Applicatio n Time	Permittee	Label Name	PCO Name	Commodity Name
) S	59.6	Δ	0	2	0		0		0:00	PETAN COMPAI	Y 'DEADLINE M-PS '	•	"LEMON"
) S	59.6		ŏ	2	Ō		0		16:00	PETAN COMPA	Y WILCO	•	'LEMON'
S	5		ŏ	2	ō		0		16:00	PETAN COMPA	Y WILCO	• •	'ORANGE'
S	30		ň	2	ŏ		0		16:00	PETAN COMPA	Y ROUNDUP ULTRAMAX HERBICIDE	•	AVOCADO,
S	30		ŏ	2	ō		0		16:00	PETAN COMPA	Y WILCO	•	AVOCADO,
S	30		ŏ	2	ŏ		0		16:00	PETAN COMPA	Y WILCO	•	AVOCADO.
) S	5		ŏ	- 2	ŏ		Ō		11:15	PETAN COMPA	Y UNI-PAR '	'OXNARD PEST CONTROL'	
S	5		ŏ	2	ŏ		0		0:45	PETAN COMPA	IY 'UNI-PAR '	'OXNARD PEST CONTROL'	
S	59.6		ň		ŏ		0		15:30	PETAN COMPA	Y 'SILWET L-77	'OXNARD PEST CONTROL'	"LEMON"
S	59.6		ň		ŏ		0		15:30	PETAN COMPA	Y 'GIBGRO 4LS '	'OXNARD PEST CONTROL'	"LEMON"
S	59.6		ň	5	ŏ		ō		13:52	PETAN COMPA	IY "CLEAN CROP SUPER 94 SPRAY O	L 'OXNARD PEST CONTROL'	LEMON'
) S	59.6		ŏ	2	ŏ		Ō		15:15	PETAN COMPA	IY "CLEAN CROP SUPER 94 SPRAY O	L 'OXNARD PEST CONTROL'	
S			ŏ	2	ň		ŏ		16:00	PETAN COMPA	Y ROUNDUP ULTRAMAX HERBICIDE	•	"LEMON"
	59.6		ŭ	5	ň		ō		16:00	PETAN COMPA	Y ROUNDUP ULTRAMAX HERBICIDE	-	'CRANGE'
) S	5		ŭ	2	ŏ		ň			PETAN COMPA			'AVOCADO'
) S	30		v	2	,		ň			PETAN COMPA		•	"LEMON"
) S	59.6		v	2	,		ň			PETAN COMPA		•	'ORANGE'
) S	5		Ü				ň			PETAN COMPA		•	'AVOCADO'
S	30		Ü	2			ň			PETAN COMPA		•	JEMON.
0 S	59.6		0	2	0		ŏ			PETAN COMPA		•	'ORANGE'
) S n s	5 30		0	2	0		Ö			PETAN COMPA		•	AVOCADO.

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Permit	Effective Date	Expiration Date	Permittee	Last Name	First Name	Middle Initial	Contact Address	Contact City	Contact State	Contact Zip	Mail Address	Mail City	Mail State	Mail Zip	Phone 1	Phone 2	Seasonal	Job	Non-Ag Justificatio n
4205033 4205033 4205033 4205033 4205033 4205033 4205033 4205033 4205033	1/1/2010 1/1/2010 1/1/2010 1/1/2010 1/1/2010 1/1/2010 1/1/2010	12/31/2010 PE 12/31/2010 PE 12/31/2010 PE 12/31/2010 PE 12/31/2010 PE 12/31/2010 PE 12/31/2010 PE 12/31/2010 PE	TAN COMPANY TAN COMPANY TAN COMPANY TAN COMPANY TAN COMPANY TAN COMPANY TAN COMPANY TAN COMPANY TAN COMPANY TAN COMPANY TAN COMPANY TAN COMPANY TAN COMPANY	FRYE FRYE FRYE FRYE FRYE FRYE FRYE FRYE	Sam Sam Sam Sam Sam Sam Sam Sam Sam Sam		2500 EAST VALLEY ROAD 2500 EAST VALLEY ROAD 2500 EAST VALLEY ROAD 2500 EAST VALLEY ROAD 2500 EAST VALLEY ROAD 2500 EAST VALLEY ROAD 2500 EAST VALLEY ROAD 2500 EAST VALLEY ROAD 2500 EAST VALLEY ROAD 2500 EAST VALLEY ROAD 2500 EAST VALLEY ROAD 2500 EAST VALLEY ROAD	SANTA BARBA SANTA BARBA SANTA BARBA SANTA BARBA SANTA BARBA SANTA BARBA SANTA BARBA SANTA BARBA	3 3 3 3 3 3 3 3 3	93108-166 93108-166 93108-166 93108-166 93108-166 93108-166 93108-166	PO BOX 5580 PO BOX 5580 PO BOX 5580 PO BOX 5580 PO BOX 5580 PO BOX 5580 PO BOX 5580 PO BOX 5580 PO BOX 5580 PO BOX 5580	SANTA BA SANTA BA SANTA BA SANTA BA SANTA BA SANTA BA SANTA BA SANTA BA	ICA ICA ICA ICA ICA ICA ICA ICA ICA ICA	9.32E+08 9.32E+08 9.32E+08 9.32E+08 9.32E+08 9.32E+08 9.32E+08 9.32E+08 9.32E+08 9.32E+08		(805)969-034( (805)969-034( (805)969-034( (805)969-034( (805)969-034( (805)969-034( (805)969-034( (805)969-034( (805)969-034(	3 X 3 X 3 X 3 X 3 X 3 X		Y Y Y Y Y Y Y

Х ф <del>о</del> ф	Н	OUES	Employee s Handle	Field Worker	Create Date	Location	Commodit y Code	Commodit y Sood Township	Range	Section	Planted Amount	Planted Units	Base Line Moridean	Location Narrative	District	Inactive Date	Pesticide Code	Pesticide Name	Commodity Name
	R	god.	Pest.	Type						10	59.6		s	2500 EAST VALLEY RD	CA		5540	STRYCHNINE	LEMON
		24	Y	F	12/30/2002	1	2004	0 04N	25W	10			•						
		24			12/30/2002	1	2004	0 04N	25W	10	59.6	A	S	2500 EAST VALLEY RD	CA		99900 .	NON-RESTRICTED USE	LEMON
				F						40	5		ė	2500 EAST VALLEY RD	CA		5540 "	'STRYCHNINE'	1UME'
		24	Y	F	12/30/2002	1	2005	0 04N	25W	10			•						
		24	Ü	c	12/30/2002	1	2005	0 04N	25W	10	5	A	S	2500 EAST VALLEY RD	CA				
				r						10	5	٨		2500 EAST VALLEY RD	CA		5540 1	'STRYCHNINE'	*ORANGE*
		24	Y	F	12/30/2002	,	2006	0 04N	25W				9						'ORANGE'
		24	~	c	12/30/2002	1	2006	0 04N	25W	10	5	A	S	2500 EAST VALLEY RD	CA				
				r.		:				10	0.25		e	2500 EAST VALLEY RD	CA		5540 '	'STRYCKNINE'	KWr
		24	Υ	F	12/30/2002	1	6018	0 04N	25W				9						KIWE
		24	~	e	12/30/2002	1	6018	D 04N	25W	10	0.25	A	S	2500 EAST VALLEY RD	CA				
						:			25W	10	30	A	e	2500 EAST VALLEY RD	CA		5540 1	STRYCKNINE	'AVOCADO'
		24	Υ	F	12/30/2002	1	28000	0 04N		10			3						'AVOCADO'
		24	Y	F	12/30/2002	1	28000	0 04N	25W	10	30	A	S	2500 EAST VALLEY RD	CA		88800	NON-RESTRICTED USE	AVOCADO



Permit	Effective Date	Expiration Date	Permitee	Last Name	First Name	Middle Initial	Contact Address	Contact City	Contact State	Contact Zip	Mail Address	Mail City	Mail State	Mail Zip	Phone 1	Phone 2	Sessonal	Job
4205033			PETAN COMPANY		SAM		2500 EAST VALLEY ROAD					SANTA BA		931505580 931505580		(805)969-0346		
4205033	1/13/2009	12/31/2009	PETAN COMPANY PETAN COMPANY	FRYE	SAM		2500 EAST VALLEY ROAD 2500 EAST VALLEY ROAD		CA	93108-166	PO BOX 5	E SANTA BA E SANTA BA	CA	931505580	(	(805)969-0346	X	
4205033	1/13/2009	12/31/2009	PETAN COMPANY	FRYE	SAM		2500 EAST VALLEY ROAD 2500 EAST VALLEY ROAD	SANTA BA	CA			K SANTA BA K SANTA BA		931505580 931505580		(805)969-0346 (805)969-0346		
			PETAN COMPANY PETAN COMPANY		SAM		2500 EAST VALLEY ROAD	SANTA BA	CA	93108-166	PO BOX 5	SANTA BA	CA	931505580 931505580		(805)969-0346 (805)969-0346		
			PETAN COMPANY PETAN COMPANY		SAM		2500 EAST VALLEY ROAD 2500 EAST VALLEY ROAD			93108-166	PO BOX 5	: SANTA BA	CA	931505580	( ) ·	(805)969-0346	X	
4205033	1/13/2009	12/31/2009	PETAN COMPANY	FRYE	SAM		2500 EAST VALLEY ROAD 2500 EAST VALLEY ROAD					S: SANTA BA S: SANTA BA		931505580 931505580		(805)969-0346 (805)969-0346		

## 2009 IIB

NOI Required	of Hours		Field Worker	Creste Date	Location	Commodit y Code	Commodit y Seed Township	Range	Section	Planted Amount	Planted Units	Base Line Meridean	Sito Namativo	Location Namative	District	Inactive Date	Pesticide Code	Pesticide Name	Commodit y Name
	Reg.	Past.	Tvoe	12/30/2002		2004	0 04N	25W	10	59.6	Δ	5			CA		5540	"STRYCHNINE"	'LEMON'
Y	24	Y	F									-					00000	NON-RESTRICTED USE	LEMON
Y	24	Y	F	12/30/2002	1	2004	0 04N	25W	10	59.6	A	5			CA				
÷	24		Ė	12/30/2002	1	2005	0 04N	25W	10	5	A	S			CA			"STRYCHNINE"	TIME.
			<u>'</u>	12/30/2002		2005	0 04N	25W	10	5	Δ	9			CA		99900	NON-RESTRICTED USE	TIME'
Y	24	Y	F									-					6040	STRYCHNINE'	'ORANGE'
ν	24	~	F	12/30/2002	1	2006	0 04N	25W	10	5	A	S			CA				
÷	24		Ė	12/30/2002	1	2006	0 04N	25W	10	5	A	S			CA			NON-RESTRICTED USE	
			-			6018	0 04N	25W	10	0.25	Δ	9			CA		5540	'STRYCHNINE'	KIWI
Y	24	Y	r	12/30/2002								-					00000	NON-RESTRICTED USE	KWI
Y	24	Υ	F	12/30/2002	1	6018	0 04N	25W	10	0.25	A	S			CA				
Ý	24		F	12/30/2002	1	28000	0 04N	25W	10	30	A	S			CA			"STRYCHNINE"	AVOCADO,
Ÿ	24		F	12/30/2002	1	28000	0 04N	25W	10	30	A	S			CA		99900	NON-RESTRICTED USE	'AVOCADO'

)( ,irod	Hou		nployee Handle		Creste Date	Location	Commodit y Code	Commodit Tov	wnship Ren	ge Section	Planted Amount	Planted Units	Base Line Meridean	Sile Namative	Location Namativo	District	inactive Date	Pesticide Code	Pesticide Name	Commodity Name
	Rec		Pest.	Type		_			25W	10	59.6	Δ.	Q			CA		5540	'STRYCHNINE'	"LEMON"
		24 Y		F	12/30/2002	7	2004	0 04N					-			CA		00000	<b>"NON-RESTRICTED USE"</b>	7 EMONE
		24 Y		F	12/30/2002	1	2004	0 04N	25W	10	59.6	A	3							
				_	12/30/2002	•	2005	0 04N	25W	10	5	A	S			CA		5540	STRYCHNINE	LIME.
		24 Y		r						10			•			CA		89900	<b>NON-RESTRICTED USE</b>	"LOKE"
		24 Y		F	12/30/2002	1	2005	0 Q4N			5		3						"STRYCHNINE"	'ORANGE'
		24 Y		E	12/30/2002	1	2006	0 04N	25W	10	5	A	S			CA				
				_		- :	2006	0 04N		10	5	A	S			CA		99900	"NON-RESTRICTED USE"	'ORANGE'
		24 Y		۲	12/30/2002								ē			CA		5540	"STRYCHNINE"	'KWI'
		24 Y		F	12/30/2002	1	6018	0 04N	25W	10			3						NON-RESTRICTED USE	
		24 Y		ė	12/30/2002	1	6018	0 04N	1 25W	10	0.25	A	S			CA				
				_		:		0.04N		10	30	Δ	9			CA		5540	STRYCHNINE	'AVOCADO'
		24 Y		F	12/30/2002	1	28000						=			CA		00000	NON-RESTRICTED USE	'AVOCADO!
		24 Y		F	12/30/2002	1	28000	0 04N	1 25W	10	30	A	S			CA.		55500	MONTES INCITED COL	ATOURDO

2007 Permit

Permit	Effective Date	Expiration Date	Permitos	Last Name	First Namo	Middle Initial	Contact Address	Contact City	Contact State	Contact Zip	Meil Address		Mail State	•	Phone 1		Seasonal	Job	Non-Ag Justificatio n	a
4205033	1/1/2007	12/31/2007 PE	ETAN COMPANY	FRYE	SAM		2500 EAST VALLEY ROAD			93108-166				9.32E+08		(605)969-0			Ţ	,
4205033	1/1/2007		ETAN COMPANY		SAM		2500 EAST VALLEY ROAD	SANTA BA		93108-166				9.32E+08		(805)969-0			Ţ	
4205033	1/1/2007		ETAN COMPANY		SAM		2500 EAST VALLEY ROAD	SANTA BA		93108-166				9.32E+08		(805)969-0			Ţ	
4205033	1/1/2007		ETAN COMPANY		SAM		2500 EAST VALLEY ROAD	SANTA BA	CA	93108-166	PO BOX 5	SANTA BA	CA	9.32E+08	• •	(805)969-0			Y	
4205033	1/1/2007		ETAN COMPANY		SAM		2500 EAST VALLEY ROAD	SANTA BA	CA	93108-166	PO BOX 5	SANTA BA	CA	9.32E+08		(805)969-0			Y	
	1/1/2007		ETAN COMPANY		SAM		2500 EAST VALLEY ROAD			93108-166	PO BOX 5	SANTA BA	CA	9.32E+08	( ) -	(805)969-0	X		Y	
4205033	1/1/2007		ETAN COMPANY		SAM		2500 EAST VALLEY ROAD			93108-166	PO BOX 5	SANTA BA	CA	9.32E+08	( ) -	(805)969-0	X		Y	
4205033	.,		ETAN COMPANY		SAM		2500 EAST VALLEY ROAD			93108-166	PO BOX 5	SANTA BA	CA	9.32E+08	( ) -	(805)969-0	X		Y	
4205033	1/1/2007				SAM		2500 EAST VALLEY ROAD			93108-166	PO BOX 5	SANTA BA	CA	9.32E+08	() ·	(805)969-0	X		Y	
4205033	1/1/2007		ETAN COMPANY				2500 EAST VALLEY ROAD			93108-166				9.32E+08	( ) -	(805)969-0	IX.		Y	
4205033	1/1/2007	12/31/2007 PI	ETAN COMPANY	PRIE	SAM		2900 EAST VALLET ROAD	SANIA D	<u>~</u>	30100100				•	• •	• • • • • • • • • • • • • • • • • • • •				

ed	NOI No. of Hours Roa.	Employee s Handle Past.	Field Worker Type	Cresto Date	Location	Commodit y Code	Commodit y Soed Township	Range	Section	Planted Amount	Planted Units	Base Line Meridean	Site Narrativo	Location Namative	District	Insctivo Oste	Pesticide Code	Pesticide Name	Commodity Name
	24		- 1700	12/30/2002	1	2004	0 04N	25W	10	59.6 A		S			CA		5540	STRYCHNINE	LEMON
	24		-	12/30/2002		2004	0 04N	25W	10	59.6 A		Š			CA		99900	NON-RESTRICTED USE	LEMON
			-	12/30/2002		2005	0 04N	25W	10	5 A		Š			CA		5540	STRYCHNINE	LIME
	24		<u>-</u>	12/30/2002		2005	0 04N	25W	10	5 A		ě			ČÄ		99900	NON-RESTRICTED USE	LDME
	24		<u> </u>		- :	2005	0 04N	25W	10	5 A		ě			CA			STRYCHNINE	ORANGE
	24		<u>-</u>	12/30/2002	- :		0 04N	25W	10	5 A		ĕ			CA		99900	NON-RESTRICTED USE	ORANGE
	24		F	12/30/2002	1	2006						ž			ČĀ			STRYCHNINE	KWI
	24	Y	F	12/30/2002	1	6018	0 04N	25W	10	0.25 4		3							
	24	Y	F	12/30/2002	1	6018	0 04N	25W	10	0.25 A	١	S			CA			NON-RESTRICTED USE	
	24	Ÿ	Ē	12/30/2002	1	28000	0 04N	25W	10	30 A		S			CA			STRYCHNINE	AVOCADO
	24		F	12/30/2002	i	28000	0 04N	25W	10	30 A		S			CA		99900	NON-RESTRICTED USE	AVOCADO

2006 Permits

Per	mã (	Effective Date	Expiration Date	Permitee	Last Name	First Name	Middle Initial	Contact Address	Contact City	Contact State	Contact Zip	Mail Address	Mail City	Mail State	Mail Zip	Phone 1	Phone 2	Seasonal	Job	Non-Ag Justificatio n	N Req
420	5033	1/1/2007	12/31/2007	PETAN COMPANY	FRYE	SAM		2500 EAST VALLEY ROAD	SANTA BAC	CA.	93108-166	PO BOX 5	SANTA BA	CA	9.32E+08	( ) -	(805)969-	) X			Y
420	5033	1/1/2007	12/31/2007	PETAN COMPANY	FRYE	SAM		2500 EAST VALLEY ROAD	SANTA BAC	A:	93108-166	PO BOX 5	SANTA BA	CA	9.32E+08	( ) ·	(805)969-	X			Y
420	5033	1/1/2007	12/31/2007	PETAN COMPANY	FRYE	SAM		2500 EAST VALLEY ROAD	SANTA BAC	CA.	93108-166	PO BOX 5	SANTA BA	CA	9.32E+08	( ) -	(805)969-	DΧ			Y
420	5033	1/1/2007	12/31/2007	PETAN COMPANY	FRYE	SAM		2500 EAST VALLEY ROAD	SANTA BAC	:A	93108-166	PO BOX 5	SANTA BA	CA	9.32E+08	( ) ·	(805)969-	X			Y
420	5033	1/1/2007	12/31/2007	PETAN COMPANY	FRYE	SAM		2500 EAST VALLEY ROAD	SANTA BAC	:A	93108-166	PO BOX 5	SANTA BA	CA	9.32E+08	( ) -	(805)969-	X			Y
420	5033	1/1/2007	12/31/2007	PETAN COMPANY	FRYE	SAM		2500 EAST VALLEY ROAD	SANTA BAC	:A	93108-166	PO BOX 5	SANTA BA	CA	9.32E+08	ii-	(805)969-(	X			Y
420	5033	1/1/2007	12/31/2007	PETAN COMPANY	FRYE	SAM		2500 EAST VALLEY ROAD	SANTA BAC	CA.	93108-166	PO BOX 5	SANTA BA	CA	9.32E+08	( j -	(805)969-(	x			Y
420	5033	1/1/2007	12/31/2007	PETAN COMPANY	FRYE	SAM		2500 EAST VALLEY ROAD	SANTA BAC	A.	93108-166	PO BOX 5	SANTA BA	CA	9.32E+08	( ) -	(805)969-0	X			Y
420	5033	1/1/2007	12/31/2007	PETAN COMPANY	FRYE	SAM		2500 EAST VALLEY ROAD	SANTA BAC	:A	93108-166	PO BOX 5	SANTA BA	CA	9.32E+08	Ċi.	(805)969-0	x			Y
420	5033	1/1/2007	12/31/2007	PETAN COMPANY	FRYE	SAM		2500 EAST VALLEY ROAD	SANTA BAC	A	93108-166	PO BOX 5	SANTA BA	CA	9.32E+08		(805)969-0				Y
	-		A																	\	

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ad	NOI No. of Hours	s Handle		Croato Date	Location	Commodit v Code	Commodit v Soed Township	Range	Section	Planted Amount	Planted Units	Base Line Meridean	Site Namative	Location Namative	District	Inactive Dato	Pesticide Code	Pesticide Name	Commodity Name
~	Roq.	Post.	Туро			•						_			CA		5540	"STRYCHNINE"	LEMON
	24	Y	F	12/30/2002	1	2004	0 D4N	25W	10	59.6		3							
	24			12/30/2002	1	2004	0 D4N	25W	10	59.6	A	S			CA			'NON-RESTRICTED L	
			_		- :	2005	D 04N	25W	10	5	Δ	S			CA		5540	'STRYCHNINE'	"LIME"
	24	Υ	F	12/30/2002	,							č			CA		00000	'NON-RESTRICTED L	ISF' 1.IME'
	24	Y	F	12/30/2002	1	2005	0 04N	25W	10	5		5							'ORANGE'
	24			12/30/2002	4	2006	0 04N	25W	10	5	A	S			CA			'STRYCHNINE'	
			r					25W	10	5	<b>A</b>	•			CA		99900	'NON-RESTRICTED L	ISE 'ORANGE'
	24	Y	F	12/30/2002	1	2006	0 04N					-					EE40	'STRYCHNINE'	'KWI'
	24	v	F	12/30/2002	1	6018	0 04N	25W	10	0.25	A	S			CA				
			_	12/30/2002	4	6018	0 D4N	25W	10	0.25	A	S			CA		99900	NON-RESTRICTED L	
	24		r						10	30		ē			CA		5540	"STRYCHNINE"	'AVOCADO'
	24	Υ	F	12/30/2002	- 1	28000	0 04N	25W				3						NON-RESTRICTED L	HEE! MANOCADO!
	24	Y	F	12/30/2002	1	28000	0 04N	25W	10	30	A	S			CA		99900	NON-RESTRICTED	JOE AVOCADO

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2005 Permit

Pormit	Effective Date	Expiration Date	Permitoo	Last Name	First Namo	Middle Initial	Contact Address	Contact City	Contact State	Contact Zip	Mail Address	Mail City	Mail State		Phone 1	Phone 2		Job	Non-Ag Justificatio
4205033	1/1/2005	12/31/2005	PETAN COMPANY	FRYE	SAM		2500 EAST VALLEY ROAD	SANTA BA	CA	93108-166				9.32E+08		(805)969-0			
4205033	1/1/2005	12/31/2005	PETAN COMPANY	FRYE	SAM		2500 EAST VALLEY ROAD	SANTA BA	CA	93108-166				9.32E+08		(805)969-0			
4205033			PETAN COMPANY		SAM		2500 EAST VALLEY ROAD	SANTA BA	CA	93108-166				9.32E+08		(805)969-0			
4205033	1/1/2005		PETAN COMPANY		SAM		2500 EAST VALLEY ROAD	SANTA BA	CA	93108-166	PO BOX 5	SANTA B	CA	9.32E+08		(805)969-0			
4205033	1/1/2005		PETAN COMPANY		SAM		2500 EAST VALLEY ROAD	SANTA BA	CA	93108-166	PO BOX 5	SANTA B	CA	9.32E+08	( ) -	(805)969-0	X		
4205033	1/1/2005		PETAN COMPANY		SAM		2500 EAST VALLEY ROAD	SANTA BA	CA	93108-166	PO BOX 5	SANTA B	CA	9.32E+08	()-	(805)969-0	X		\
4205033	1/1/2005		PETAN COMPANY		SAM		2500 EAST VALLEY ROAD	SANTA BA	CA	93108-166	PO BOX 5	SANTA BA	CA	9.32E+08	( ) -	(805)969-0	X		`
4205033	1/1/2005		PETAN COMPANY		SAM		2500 EAST VALLEY ROAD			93108-166	PO BOX 5	SANTA BA	CA .	9.32E+08	( ) -	(805)969-0	X		
4205033	1/1/2005		PETAN COMPANY		SAM		2500 EAST VALLEY ROAD	SANTA BA	CA	93108-166	PO BOX 5	SANTA B	CA	9.32E+08	( ) •	(805)969-0	X		
4205033	1/1/2005		PETAN COMPANY		SAM		2500 EAST VALLEY ROAD			93108-168	PO BOX 5	SANTA B	CA	9.32E+08	( ) -	(805)969-0	X		

NOI Required	House	Employee s Handle Pest.		Create Date	Location	Commodit y Code	Commodit y Seed	Township	Rango	Section	Planted Amount	Planted Units	Base Lino Moridosn	Sito Narrative	Location Narrative	District	Inactive Date	Pesticide Code	Pesticide Name	Commodity Name
Y	24	Y	F	12/30/2002	1	2004	0	04N	25W	10	59.6	A	S			CA		5540	'STRYCHNINE'	'LEMON'
Ý	24	Ý	F	12/30/2002	1	2004	0	04N	25W	10	59.6	A	S			CA		99900	'NON-RESTRICTED USE'	LEMON
Ý	24	Ý	F	12/30/2002	1	2005	0	D4N	25W	10	5	Α	s			CA		5540	'STRYCHNINE'	"LIME"
Ý	24		F	12/30/2002	1	2005	Ó	04N	25W	10	5	A	S			CA		99900	'NON-RESTRICTED USE'	'LIKE'
Ý	24	Ý	F	12/30/2002	1	2006	Ó	04N	25W	10	5	A	S			CA		5540	'STRYCHNINE'	'ORANGE'
Ý	24	Ý	F	12/30/2002	1	2006	0	04N	25W	10	5	Α	S			CA		99900	'NON-RESTRICTED USE'	'ORANGE'
Ÿ	24		F	12/30/2002	1	6018	ō	04N	25W	10	0.25	A	S			CA		5540	'STRYCHNINE'	TKIWIT
Ý	24		F	12/30/2002	1	6018	ō	04N	25W	10	0.25	A	S			CA		99900	'NON-RESTRICTED USE'	'KIWI'
Ý	24		F	12/30/2002	1	28000	ō	04N	25W	10	30	Α	S			CA			'STRYCHNINE'	'AVOCADO'
Ÿ	24		F	12/30/2002	i	28000		O4N	25W	10	30	A	S			CA		99900	'NON-RESTRICTED USE'	'AVOCADO'

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2004 Permits

Permit	Effective Date	Expiration Date	Permitos	Last Name	First Name	Middle Initial	Contact Address	Contact City	Contact State	Contact Zip	Mail Address	Mall City	Mai Stato	Mall Zip	Phone 1	Phone 2	Seasonal	Job	No Just
4205033	1/1/2004	12/31/2004	PETAN COMPANY	FRYE	SAM		2500 EAST VALLEY ROAD	SANTA BA	CA	93108-166	PO BOX 5	SANTA B	P ÇA	9.32E+08	()-	(805)969-0	x		
4205033	1/1/2004	12/31/2004	PETAN COMPANY	FRYE	SAM		2500 EAST VALLEY ROAD	SANTA BA	CA	93108-166	PO BOX 5	SANTA B	P CA	9.32E+08	( ) -	(805)969-0	x		
4205033	1/1/2004	12/31/2004	PETAN COMPANY	FRYE	SAM		2500 EAST VALLEY ROAD	SANTA BA	CA	93108-166	PO BOX 5	SANTA B	P CA	9.32E+08	( ) ·	(805)969-0	×		
4205033	1/1/2004	12/31/2004 (	PETAN COMPANY	FRYE	SAM		2500 EAST VALLEY ROAD	SANTA BA	CA	93108-166	PO BOX 5	SANTA B	P CA	9.32E+08	( ) -	(805)969-0	x		
4205033	1/1/2004	12/31/2004	PETAN COMPANY	FRYE	SAM		2500 EAST VALLEY ROAD	SANTA BA	CA	93108-166	PO BOX 5	SANTA B	A CA	9.32E+08	( ) ·	(805)969-0	x		
4205033	1/1/2004	12/31/2004	PETAN COMPANY	FRYE	SAM		2500 EAST VALLEY ROAD	SANTA BA	CA AC	93108-166	PO BOX 5	SANTA B	A CA	9.32E+08	( ) -	(805)969-0	x		
4205033	1/1/2004	12/31/2004 1	PETAN COMPANY	FRYE	SAM		2500 EAST VALLEY ROAD	SANTA BA	CA	93108-166	PO BOX 5	SANTA B	CA CA	9.32E+08	( ) -	(805)969-0	x	1	
4205033	1/1/2004	12/31/2004	PETAN COMPANY	FRYE	SAM		2500 EAST VALLEY ROAD	SANTA BA	CA	93108-166	PO BOX 5	SANTA B	P CA	9.32E+08	( ) -	(805)969-0	x	1	
4205033	1/1/2004	12/31/2004	PETAN COMPANY	FRYE	SAM		2500 EAST VALLEY ROAD	SANTA BA	:A	93108-166	PO BOX 5	SANTA B	CA	9.32E+08	( ) -	(805)969-0	x		
4205033	1/1/2004	12/31/2004 1	PETAN COMPANY	FRYE	SAM		2500 EAST VALLEY ROAD	SANTA BA	:A	93108-166	PO BOX 5	SANTA B	CA	9.326+08	( ) ·	(805)969-0	x		
4205033	1/1/2004	12/31/2004	PETAN COMPANY	FRYE	SAM		2500 EAST VALLEY ROAD	SANTA BA	A	93108-166	PO BOX 5	SANTA B	CA	9.32E+08	( ) -	(805)969-0	X		

# 2004 16B

NO! :equired	NOI No. of Hours Req.	Employoe s Handle Pest.	Field Worker Type	Create Date	Commodit y Code	Commodit y Sood Township	Range	Section	Planted Amount	Planted Units	Base Line Meridean	Site Narrative	Location Nametive	District	Inactive Date	Pesticide Code	Pesticide Name	Commodity Name
	24 '	Y		12/30/2002	2004	0 04N	25W	10	59.6	4	S			CA		5540	'STRYCHNINE'	"LEMON"
	24 '	Y		12/30/2002	2004	0 04N	25W	10	59.6	4	S			CA		99900	NON-RESTRICTED USE	LEMON
	24 '			12/30/2002	2005	0 04N	25W	10	5 /	4	S			CA		5540	"STRYCHNINE"	"LIME"
	24 '			12/30/2002	2005	0 04N	25W	10	5 /	4	S			CA		99900	NON-RESTRICTED USE	. FIME.
	24 '			12/30/2002	2006	0 04N	25W	10	5 /	4	S			CA		5540	'STRYCHNINE'	'ORANGE'
	24 '			12/30/2002	2006	0 04N	25W	10	5 /	4	S			CA		99900	NON-RESTRICTED USE	'ORANGE'
	24 '			12/30/2002	6016	0 04N	25W	10	0.25 /	4	S			CA		5540	"STRYCHNINE"	KWr
	24 '			12/30/2002	6018	0 04N	25W	10	0.25 /	4	S			CA	•	99900	NON-RESTRICTED USE	'KWI'
	24 '			12/30/2002	28000	0 04N	25W	10	30 /	۹.	S			CA		5540	"STRYCHNINE"	'AVOCADO'
	24 '			12/30/2002	28000	0 04N	25W	10	30 /	4	S			CA		22545	SEC 18 AGRIMEN	'AVOCADO'
	24 '	Y		12/30/2002	28000	0 04N	25W	10	30 /	4	S			CA		99900	NON-RESTRICTED USE	AVOCADO,

Permit	Effective Date	Expiration Data	Permitee	Last Name	First Name	Middle Initial	Contact Address	Contact City	Contact State	Contact Zip	Mail Address	Mail City	Mail State	Mail Zip	Phone 1	Phono 2	Seasonal	Job	No Just
4205033	12/30/2002	12/31/2003 PE	TAN COMPANY	FRYE	SAM		2500 EAST VALLEY ROAD	SANTA BA	CA	93108-166	PO BOX55	SANTA B	CA	93150-558	( ) -	(805)969-0	x		
4205033	12/30/2002	12/31/2003 PE	TAN COMPANY	FRYE	SAM		2500 EAST VALLEY ROAD	SANTA BA	CA	93108-166	PO BOX55	SANTA B	CA	93150-558	( ) -	(805)969-0	X		
4205033	12/30/2002	12/31/2003 PE	TAN COMPANY	FRYE	SAM		2500 EAST VALLEY ROAD	SANTA BA	CA	93108-166	PO BOX55	SANTA B	CA	93150-558	( ) -	(605)969-0	X		
4205033	12/30/2002	12/31/2003 PE	TAN COMPANY	FRYE	SAM		2500 EAST VALLEY ROAD	SANTA BA	CA	93108-166	PO BOX55	SANTA B	CA	93150-558	( ) -	(805)969-0	X		
4205033	12/30/2002	12/31/2003 PE	TAN COMPANY	FRYE	SAM		2500 EAST VALLEY ROAD	SANTA BA	CA	93108-166	PO BOX55	SANTA B	CA	93150-558	( ) -	(805)969-0	x		
4205033	12/30/2002	12/31/2003 PE	TAN COMPANY	FRYE	SAM		2500 EAST VALLEY ROAD	SANTA BA	CA	93108-166	PO BOX55	SANTA B	CA	93150-558	( ) -	(805)969-0	X		
4205033	12/30/2002	12/31/2003 PE	TAN COMPANY	FRYE	SAM		2500 EAST VALLEY ROAD	SANTA BA	CA	93108-166	PO BOX55	SANTA B	CA	93150-558	( ) -	(805)969-0	X		
4205033	12/30/2002	12/31/2003 PE	TAN COMPANY	FRYE	SAM		2500 EAST VALLEY ROAD	SANTA BA	CA	93108-166	PO BOX55	SANTA B	CA	93150-558	( ) -	(805)969-0	X		
4205033	12/30/2002	12/31/2003 PE	TAN COMPANY	FRYE	SAM		2500 EAST VALLEY ROAD	SANTA BA	CA	93108-166	PO BOX55	SANTA B	CA	93150-558	( ) -	(805)969-0	X		
4205033	12/30/2002	12/31/2003 PE	TAN COMPANY	FRYE	SAM		2500 EAST VALLEY ROAD	SANTA BA	CA	93108-166	PO BOX55	SANTA B	CA	93150-558	( ) -	(805)969-0	X		
4205033	12/30/2002	12/31/2003 PE	TAN COMPANY	FRYE	SAM		2500 EAST VALLEY ROAD	SANTA BA	CA	93108-166	PO BOX55	SANTA B	CA	93150-558	( ) -	(805)969-0	X		

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NOI Required	NOI No. of Employee Hours s Handle		Create Date	Commoditi y Code	Commodil Township	Range	Section	Planted Amount	Planted Units	Base Line Meridean	Site Narrative	Location Namative	District	Inactivo Date	Pesticide Code	Pesticide Name	Commodity Name
	Rog. Pest.	Type		-	0 04N	25W	10	59.6		s			CA		5540	'STRYCHNINE'	"LEMON"
Y	24 Y		12/30/2002	2004						-			CA		99900	<b>'NON-RESTRICTED USE</b>	1 FMON
Y	24 Y		12/30/2002	2004	0 04N	25W	10	59.6		5							"LIME"
ċ	24 Y		12/30/2002	2005	0 04N	25W	10	5 /	4	S			CA			STRYCHNINE	
					0 04N	25W	10	5 /	1	S			CA		99900	<b>NON-RESTRICTED USE</b>	. LIME'
Y	24 Y		12/30/2002							-			CA		5540	'STRYCHNINE'	'ORANGE'
Y	24 Y		12/30/2002	2006	0 04N	25W	10	5 /		3						'NON-RESTRICTED USE	
Ü	24 Y		12/30/2002	2006	0 04N	25W	10	5 /	A.	s			CA				
						25W	10	0.25	a.	S			CA		5540	'STRYCHNINE'	KWI
Υ	24 Y		12/30/2002							-			CA		00000	<b>NON-RESTRICTED USE</b>	TKMP
ν	24 Y		12/30/2002	6018	0 04N	25W	10	0.25	٩.	5							'AVOCADO'
Ċ	24 Y		12/30/2002	28000	D 04N	25W	10	30 /	Α	S			CA			'STRYCHNINE'	
7						25W	10	30		8			CA		22545	'SEC 18 AGRIMEK'	'AVOCADO'
Υ	24 Y		12/30/2002	28000	0 04N					ŭ					00000	NON-RESTRICTED USE	'AVOCADO'
~	24 Y		12/30/2002	28000	0 04N	25W	10	30 /	۹.	5			CA		99900	NON-NEO-INOTED COL	

2002 Permits

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Y	24 Y	28000	0 04N	25W	10	30 A	S	CA	99900 NON-RESTRICTED USE'	'AVOCADO'

#### SANTA BARBARA COUNTY BUILDING AND SAFETY PERMIT HISTORY



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Building & Safety

Energy

Long Range Planning

#### Related Links

# Permit History for Parcel 155-070-008

Parcel Information

Reference Address 2500 EAST VALLEY RD, SANTA BARBARA

1

Legal Description Not Available

Acreage 76.87 Supervisorial District

Zoning 2-E-1

Parcel Geographical Data

**BAR Jurisdiction** All or portion within Montecito BAR

California Natural Diversity Check CNDDB - May Apply **Database** 

Comprehensive Plan SRR-0.5

Creeks Check Hydro and Wetland layers - May Exist **Critical Habitat** Check Critical Habitat Overlays - May Apply

**ESH RC Overlay** Check ESH and RC Overlays - May Apply Flood Hazard Check Flood Hazard Overlay - May Apply

High Fire Hazard Area Check Fire Hazard Maps

HMA All or portion within the South Coast HMA

Home Exemption Value 0.00

Plan Area All or portion Within Montecito Community Plan

Personal Value

Check Important Farmland Layer for Prime **Prime Farmland** 

Farmland

Tax Rate Area 078012

**Trails** Trail Corridor Likely, Check Trail Layers

Urban All or portion within Urban Area

Use Code 4113

Special Districts and Other Information of Interest (derived from the Tax Rate Area number)

MONTECITO UNION ELEM. SCHOOL

SANTA BARBARA HIGH SCHOOL MONTECITO FIRE PROTECTION

MONTECITO SANITARY
SANTA BARBARA COUNTY WATER AGENCY
MONTECITO COUNTY WATER

Parcel Holds NO HOLDS

#### **Permit History**

Case Number	Dept	Filed	Planner	Project Name or Work Description	Status
00BP5- 03607-00628	В	02/14/2000	CD	PHALEN / NEW SFD	Closed
00CR0- 00000-01750	В	04/28/2000			Closed
00GR5- 04180-01585	В	04/18/2000	CD		Clearance approved
02PMC- 00000-00082	Р	03/16/2002	TE	99-LUS-731	Closed
03ZEV- 00000-00020	E	01/23/2003	NF	GRADING/HABITAT DESTRUCTION-ROMERO CREEK	Closed
99GR5- 03607-05110	В	12/16/1999	CD		Clearance approved

 $B = Building \ E = Enforcement \ P = Planning \ R = pRoject \ U = Unknown$ 

Accela Cases - Current automated permit tracking system. Tracks Building (B), Planning (P) and Enforcement (E) activity by parcel number.

#### **Building Cases**

Application Number	Description	Issuance Date	Finaled Date	Status	Planner
00-00628	DW	06/06/00	00/00/00	Α	
00-01585	RET WALL	05/04/00	00/00/00	Α	
00-01750	TPP	05/04/00	01/06/06	E	
05110	GR-LOT#2	01/21/00	00/00/00	Α	
258081	ELECT	05/29/96	05/30/96	F	E

LIX Cases - Previous permit tracking system. Permit activity categorized as LIX Building Cases.

#### **Planning Cases**

Application Number	Description	Submittal Date	Action Date	Status	Planner
95-GP -003	COMPCHNG	03/03/95	11/28/95	Α	KSK
95-RZ -003	REZONE	03/03/95	11/28/95	Α	KSK

LIX Cases - Previous permit tracking system. Permit activity categorized as LIX Planning Cases.

#### SITE PHOTOGRAPHS

### Phase I - Proposed MFPD Station 3

a portion of 2500 East Valley Road Montecito, California

Site Visit October 25, 2010



View to the north of the project site



View to the east from the western boundary of the project site

## Phase I - Proposed MFPD Station 3

a portion of 2500 East Valley Road Montecito, California

Site Visit October 25, 2010



View to the south-southwest across the project site towards East Valley Road

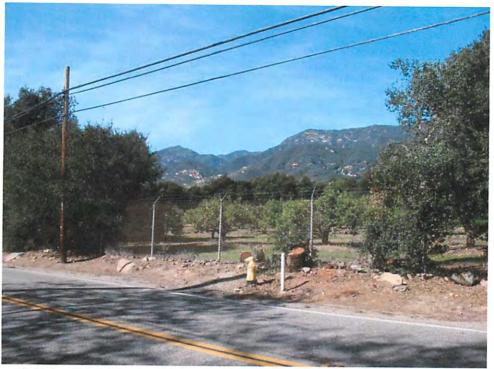


View to the west from the western boundary of the project site

## Phase I - Proposed MFPD Station 3

a portion of 2500 East Valley Road Montecito, California

Site Visit October 25, 2010



View to the northwest across East Valley Road towards the project site



View to the southwest across East Valley Road looking at property to the south of the project site

## CAMPBELL.GEO, INC.

ENGINEERING GEOLOGY · HYDROLOGY · GEOENVIRONMENTAL SERVICES

### **TRANSMITTAL**

To: Montecito Fire Protection District

595 San Ysidro Road Santa Barbara, CA 93108

Attention: Chief Kevin Wallace

Subject: Phase I Environmental Site Assessment

Proposed Fire Station 3 Site - Portion of 2500 East Valley Road

Montecito, California

We are transmitting: one copy of the above-referenced report. No recognized environmental conditions were found.

Please contact me if you have any questions.

By:

Steven H. Campbell Principal Geologist

Date: December 15, 2010

MFPD Sta 3 T4.doc Enclosures

cc: Price, Postel and Parma

Attn: Mr. Todd Amspoker (electronic copy)

AMEC Environmental

Attn: Mr. Dan Gira (electronic copy)

# APPENDIX I TRAFFIC IMPACT ANALYSIS

Richard L. Pool, P.E. Scott A. Schell, AICP

July 28, 2010 0902802.L02

Dan Gira AMEC 104 West Anapamu Street, Suite 204A Santa Barbara, CA 93101

# TRAFFIC IMPACT ANALYSIS FOR THE MONTECITO FIRE STATION 3 PROJECT EIR, COUNTY OF SANTA BARBARA

Associated Transportation Engineers (ATE) is submitting the following traffic impact analysis for the Montecito Fire Station 3 Project EIR. It is understood that the results of the study will be incorporated into the EIR being prepared by AMEC.

#### PROJECT DESCRIPTION

The Montecito Fire Protection District (MFPD) is proposing to construct a new fire station on the north side of East Valley Road in the Montecito area of Santa Barbara County. Figure 1 (attached) illustrates the location of the project site. Figure 2 illustrates the project site plan. The proposed project includes a fire station with an apparatus bay, garage, and staff parking areas. The projected emergency equipment would consist of a front line engine, a reserve engine, a wildland engine, and a water tender. Except for large scale emergencies, only one unit would be used at a time. The fire station would be staffed 24/7 with 3 suppression personnel. During periods of high threat of wildland fire, staffing would increase to 4 suppression personnel. The District also anticipates one eight-hour staff person working 8:00 A.M. to 5 P.M. in the future (2-4 years) as well as increasing the suppression personnel to 4 in the future (5-20 years).

#### SETTING

#### Street Network

The circulation system serving the project site is comprised of regional highways, arterial streets, and collector roads (see Figure 1). Access to the fire station is planned via East Valley Road. The following text briefly describes the key roadways in the project vicinity.

<u>East Valley Road (SR 192)</u> is two-lane State Highway that runs east-west through the Montecito area. The proposed fire station would take access on East Valley Road.

<u>Sheffield Drive</u> is a two-lane arterial that extends in a north-south direction between East Valley Road and U.S. Highway 101.

#### **Roadway Operations**

"Levels of Service" (LOS) A through F are used to rate roadway operations, with LOS A indicating free flow operations and LOS F indicating congested operations. The County's roadway classification system for the Montecito area is divided into two main designations, Primary and Secondary roadways. Each of these designations is further subdivided into three subclasses dependent on roadway size, function, and surrounding uses. The following text describe the existing roadway operations for the key roadways in the project vicinity. Traffic volumes and levels of service were derived from the traffic analysis prepared for the Montecito Growth Management Extension Draft SEIR.

<u>East Valley Road</u> is classified as a Primary 3 roadway by the County. The roadway segment adjacent to the site carries approximately 3,900 average daily trips (ADT) and operates at LOS A.

<u>Sheffield Drive</u> is classified as Secondary 3 roadway by the County. The segment south of East Valley Road carries approximately 3,550 ADT and operates at LOS A.

#### **Intersection Operations**

<u>East Valley Road/Sheffield Drive</u>. This intersection is controlled by a STOP-sign on the Sheffield Drive approach. The intersection operates at LOS B during the A.M. and P.M. peak hour periods, as shown in Table 1.

Table 1
Existing Intersection Operations

East Valley Road (SR 192)	486 EPA EEA Option to the propriete and a lateral account of the propriete and a lateral account of the propriete and a lateral account of the propriete account of the pro
@ Sheffield Drive	Existing LOS
A.M. Peak Hour:	LOS B
P.M. Peak Hour:	LOS B

#### **IMPACT THRESHOLDS**

The County of Santa Barbara impact thresholds were used to determine impacts related to the Project. The County's thresholds are outlined in the following text.

A. If the addition of project traffic to an intersection increases the (V/C) ratio by the values listed in the following table, then it is considered a significant project-specific impact.

Significant Change	Significant Changes in Levels of Service								
Intersection Level of Service	Increase in V/C or Trips								
(Including Project)	Greater Than								
LOS A	0.20								
LOS B	0.15								
LOS C	0.10								
LOS D	15 Trips								
LOS E	10 Trips								
LOS F	5 Trips								

- B. The project's access to a major road or arterial road would require access that would create an unsafe situation, a new traffic signal or major revisions to an existing traffic signal.
- C. The project adds traffic to a roadway that has design features (e.g., narrow width, road-side ditches, sharp curves, poor sight distance, inadequate pavement structure) that would become a potential safety problem with the addition of project traffic.
- D. Project traffic would utilize a substantial portion of an intersection's capacity where the intersection is currently operating at acceptable LOS (A-C) but with cumulative traffic would degrade to or approach LOS D (V/C 0.80) or lower. Substantial is defined as a minimum change of 0.03 for an intersection which would operate from 0.80 to 0.85, a change of 0.02 for an intersection which would operate from 0.86 to 0.90 and a change of 0.01 for an intersection which would operate greater than 0.90.

#### PROJECT-SPECIFIC IMPACTS

#### **Trip Generation**

Trip generation estimates were developed for the proposed project based on operational information provided by the Montecito Fire Protection District since there are no published trip generation studies for fire stations. A copy of the proposed operations for the fire station is attached, along with the associated trip generation calculations. Table 2 summarizes the trip generation estimates for the project.

Table 2
Project Trip Generation

Land Use	Average Daily Trips	A.M. Peak Hour Trips	P.M. Peak Hour Trips
Fire Station	32	11	3

Trip generation based on operational information.

As shown in Table 2, the proposed project is forecast to generate 32 ADT, with 11 trips during the A.M. peak hour period and 3 trips during the P.M. peak hour period.

#### Roadway Impacts

Existing and Existing + Project roadway volumes and levels of service are shown in Table 3. As shown, the relatively minor amount of project-added traffic would not change levels of service on the area roadways. Thus, the project would not generate significant roadway impacts based on County thresholds.

Table 3
Existing & Existing + Project Roadway Operations

Roadway Segment	Existing ADT/LOS	Project-Added ADT	Existing + Project ADT/LOS	Impact?
East Valley Road (SR 192)(a)	3,900 ADT/LOS A	32 ADT	3,932 ADT/LOS A	No
Sheffield Drive(b)	3,550 ADT/LOS A	6 ADT	3,556 ADT/LOS A	No

<sup>(</sup>a) Assumes 100% of project traffic on East Valley Road (SR 192).

#### **Intersection Impacts**

Existing and Existing + Project levels of service for the East Valley Road/Sheffield Drive are shown in Table 4. As shown, this STOP-sign controlled intersection is forecast to operate at LOS B during the A.M. and P.M. peak hour period under Existing + Project conditions. Thus, the project would not generate significant intersection impacts based on County thresholds.

<sup>(</sup>b) Assumes 20% of project traffic on Sheffield Drive.

Table 4
Existing + Project Intersection Operations

East Valley Road (SR 192)	AND DELINEATION OF THE CONTROL OF THE STATE	Project-Added	Existing	
@ Sheffield Drive	Existing LOS	Trips	+ Project LOS	Impact?
A.M. Peak Hour	LOS B	10	LOS B	No
P.M. Peak Hour	LOS B	3	LOS B	No

#### Site Access

As shown on Figure 2 (Project Site Plan), access for the fire station is proposed via two driveways on East Valley Road (SR 192). The segment of East Valley Road adjacent to the project site has one travel lane in each direction with dirt shoulders. ATE coordinated with Caltrans staff and County staff to determine the need for turn lanes at the proposed station. The team agreed that turn lanes are not warranted based on: 1) the volume of traffic on East Valley Road (SR 192); 2) the volume of traffic generated by the proposed project; and 3) the sight distances that are available at the driveway connections. The following text reviews the sight distance analysis completed for each driveway.

Sight Distance Criteria. The driver of a vehicle departing the project driveways should have an unobstructed view along SR 192 sufficient in length to anticipate and avoid potential collisions. The corner sight distance standards in the Caltrans Highway Design Manual<sup>1</sup> were used to determine minimum sight distance requirements for the fire station driveways. Speed surveys were conducted in the vicinity of the site to ascertain actual vehicle speeds (data attached). The 85th percentile speed of vehicles traveling on the road is used to determine the required sight distances. The speed surveys found that the 85th percentile speed for eastbound traffic is 49 MPH and the 85th percentile speed for westbound traffic is 47 MPH (speed surveys attached for reference). Based on the criteria contained in the Caltrans manual, 550 feet is the minimum required sight distance for an 85th percentile speed of 50 MPH. This criteria is applied to the sight distance analyses at the two driveways.

A field review found that there are utility poles and oak trees located along the north side of SR 192 that would obstruct a driver's view of approaching vehicles from the east and west at both of the proposed driveways. With relocation of the utility poles and trimming of the trees, the sight distance looking to the east on SR 192 is limited by a vertical curve on the road and the sight distance looking to the west is limited by a horizontal curve at the bridge that crosses Romero Creek (Caltrans Bridge #51-110). The following text reviews the sight distance analysis completed for each driveway.

Highway Design Manual, California Department of Transportation, Sixth Edition, 2006.

Eastern Driveway. Outbound traffic using the Eastern Driveway would include fire station employees and visitors. The sight distance looking to the east from this driveway is obstructed by a utility pole and oak trees (see attached Photos #1 & #2). The utility pole would need to be relocated. There are oaks trees along the fence line just east of the driveway that would need to be trimmed. Further to the east, past the fire hydrant that is located just east of the driveway, the oak trees that line the road would need to be trimmed up from ground level so that drivers can see under the canopies. The overhanging limbs would need to be trimmed (and the trimming maintained) to provide adequate sight distance. There would be 1,100 feet of sight distance looking east to the vertical curve on SR 192 assuming these changes, which exceeds the 550 feet required by the Caltrans standards.

The sight distance looking to the west from the Eastern Driveway is limited by overhanging limbs of 3 oak trees just to the west (see Photos #3 & #4). The overhanging limbs would need to be trimmed (and the trimming maintained) to provide adequate sight distance. There would be 1,025 feet of sight distance looking west to the horizontal curve on SR 192 at the bridge with the oak trees trimmed as recommended, which exceeds the 550 feet required by the Caltrans standards.

Western Driveway. Outbound traffic at the Western Driveway would include fire trucks and emergency vehicles as well as fire station employees and visitors. The sight distance looking to the east is obstructed by a utility pole, which the site plan shows would be relocated, as well as oak trees (see Photos #5 & #6). There is a small grouping of scrub oaks (less than 1-foot diameter) along the fence line just east of the utility pole that would need to be removed or trimmed. Further to the east, the oak trees that line the road would need to be trimmed up from ground level (and the trimming maintained) so that drivers can see under the canopies. There would be 1,225 feet of sight distance looking east to the vertical curve on SR 192 assuming these changes, which exceeds the 550 feet required by the Caltrans standards.

The sight distance looking to the west from the Western Driveway is limited by the overhanging limbs of the oak trees that line the road (see Photos #7 #8). The overhanging limbs would need to be trimmed (and the trimming maintained) to provide adequate sight distance. There would be 900 feet of sight distance looking west to the horizontal curve on SR 192 at the bridge with the oak trees trimmed as recommended, which exceeds the 550 feet required by the Caltrans standards.

#### **CUMULATIVE IMPACTS**

Cumulative traffic volumes and levels of service were derived from the traffic analysis prepared for the Montecito Growth Management Extension Draft SEIR, which forecast cumulative traffic to Year 2030. The following text addresses potential cumulative impacts associated with the Montecito Fire Station 3 Project.

#### **Roadway Impacts**

<u>East Valley Road (SR 192)</u> is forecast to carry 5,210 ADT and operate at LOS A in Year 2030. The Montecito Fire Station 3 Project would add 32 ADT to the roadway and the roadway would operates at LOS A under Cumulative + Project conditions. Thus, the project would not generate cumulative impacts based on County thresholds.

<u>Sheffield Drive</u> is forecast to carry 6,480 ADT and operate at LOS D in Year 2030. The Montecito Fire Station 3 Project would add 6 ADT to the roadway. The project's contribution to future volumes equates to a net increase of 1/10th of 1%. Thus, the project would not generate cumulative impacts based on County thresholds.

#### **Intersection Impacts**

<u>East Valley Road (SR 192)/Sheffield Drive</u>. This intersection is forecast to operate at LOS B in Year 2030, as shown in Table 5. The Montecito Fire Station 3 Project would add 10 trips to the intersection during the A.M. peak hour and 3 trips during the P.M. peak hour. These traffic additions would not generate cumulative impacts based on County thresholds.

Table 5
Cumulative + Project Intersection Operations

East Valley Road (SR 192)  @ Sheffield Drive	Cumulative LOS	Project-Added Trips	Cumulative + Project LOS	Impact?
A.M. Peak Hour	LOS B	10	LOS B	No
P.M. Peak Hour	LOS B	3	LOS B	No

#### CONGESTION MANAGEMENT PROGRAM ANALYSIS

The Santa Barbara County Association of Governments (SBCAG) has developed a set of traffic impact thresholds to assess the impacts of land use decisions made by local jurisdictions on regional transportation facilities located within the Congestion Management Program (CMP) roadway system. According to the CMP Land Use Analysis Program, projects that generate less than 500 ADT and less than 50 peak hour trips are considered to be consistent with the CMP. The Montecito Fire Station 3 Project would generate 32 ADT, 11 A.M. peak hour trips and 3 P.M. peak hour trips. The project would not impact the CMP facilities in the area.

This concludes our traffic impact analysis for the Montecito Fire Station 3 Project EIR. We appreciate the opportunity to assist the District with the project.

Associated Transportation Engineers

Scott A. Schell, AICP, PTP

Vice President

SAS/DLD

attachments



### ASSOCIATED TRANSPORTATION ENGINEERS

100 N. Hope Avenue, Suite 4, Santa Barbara, CA 93110 • [805] 687-4418 • FAX [805] 682-8509

Richard L. Pool, P.E. Scott A. Schell, AICP, PTP

November 25, 2009

0902801.L01

Todd Amspoker Price, Postel & Parma, LLC 200 East Carrillo Street, Suite 400 Santa Barbara, CA 93101

#### SIGHT DISTANCE ANALYSIS FOR THE MONTECITO FIRE STATION PROJECT, COUNTY OF SANTA BARBARA

Associated Transportation Engineers (ATE) has prepared the following sight distance analysis for the Montecito Fire Station Project. The project is proposing to construct a new fire station on the north side of State Route 192 (East Valley Road) in the Montecito area of Santa Barbara County. Access to the fire station is proposed via two new driveways on SR 192. The sight distance analysis was prepared for "Site A, Palmer Jackson East, Conceptual Site Configuration, Option 4," as shown on Figure 1 (attached).

#### SIGHT DISTANCE ANALYSIS

#### Criteria

The driver of a vehicle departing from either of the 2 project driveways should have an unobstructed view along SR 192 sufficient in length to anticipate and avoid potential collisions. The corner sight distance standards in the Caltrans Highway Design Manual<sup>1</sup> were used to determine minimum sight distance requirements for the fire station driveways. Speed surveys were conducted in the vicinity of the site to ascertain actual vehicle speeds (data attached). The 85th percentile speed of vehicles traveling on the road is used to determine the required sight distances. The speed surveys found that the 85th percentile speed for eastbound traffic is 49 MPH and the 85th percentile speed for westbound traffic is 47 MPH (speed surveys attached for reference). Based on the criteria contained in the Caltrans manual, 550 feet is the minimum required sight distance for an 85th percentile speed of 50 MPH. This criteria is applied to the sight distance analyses at the two driveways.

Highway Design Manual, California Department of Transportation, Sixth Edition, 2006.

#### Sight Distances

The following text reviews the sight distance analysis completed for each driveway. The field review found that there are utility poles and oak trees located along the north side of SR 192 that would obstruct a driver's view of approaching vehicles to the east and west at both of the proposed driveways. With relocation of the utility poles and trimming of the trees, the sight distance looking to the east on SR 192 is limited by a vertical curve on the road and the sight distance looking to the west is limited by a horizontal curve at the bridge that crosses a Romero Creek (Caltrans Bridge #51-110).

<u>Eastern Driveway</u>. Outbound traffic using the Eastern Driveway would include fire station employees and visitors. The sight distance looking to the east from this driveway is obstructed by a utility pole and oak trees (see attached Photos #1 & #2). The utility pole would need to be relocated. There are oaks along the fence line just east of the driveway that would need to be trimmed. Further to the east, past the fire hydrant that is located just east of the driveway, the oak trees that line the road would need to be trimmed up from ground level so that drivers can see under the canopies. The overhanging limbs would need to be trimmed (and the trimming maintained) to provide adequate sight distance. There would be 1,100 feet of sight distance looking east to the vertical curve on SR 192 assuming these changes, which exceeds the 550 feet required by the Caltrans standards.

The sight distance looking to the west from the Eastern Driveway is limited by overhanging limbs of 3 oak trees just to the west (see Photos #3 & #4). The overhanging limbs would need to be trimmed (and the trimming maintained) to provide adequate sight distance. There would be 1,025 feet of sight distance looking west to the horizontal curve on SR 192 at the bridge with the oak trees trimmed as recommended, which exceeds the 550 feet required by the Caltrans standards.

Western Driveway. Outbound traffic at the Western Driveway would include fire trucks and emergency vehicles as well as fire station employees and visitors. The sight distance looking to the east is obstructed by a utility pole, which the site plan shows would be relocated, as well as oak trees (see Photos #5 & #6). There is a small grouping of scrub oaks (less than 1-foot diameter) along the fence line just east of the utility pole that would need to be removed or trimmed. Further to the east, the oak trees that line the road would need to be trimmed up from ground level (and the trimming maintained) so that drivers can see under the canopies. There would be 1,225 feet of sight distance looking east to the vertical curve on SR 192 assuming these changes, which exceeds the 550 feet required by the Caltrans standards.

The sight distance looking to the west from the Western Driveway is limited by the overhanging limbs of the oak trees that line the road (see Photos #7 #8). The overhanging limbs would need to be trimmed (and the trimming maintained) to provide adequate sight distance. There would be 900 feet of sight distance looking west to the horizontal curve on SR 192 at the bridge with the oak trees trimmed as recommended, which exceeds the 550 feet required by the Caltrans standards.

This concludes our sight distance analysis for "Site A, Palmer Jackson East, Conceptual Site Configuration, Option 4," for the Montecito Fire Station Project.

Associated Transportation Engineers

Scott A. Schell, AICP, PTP

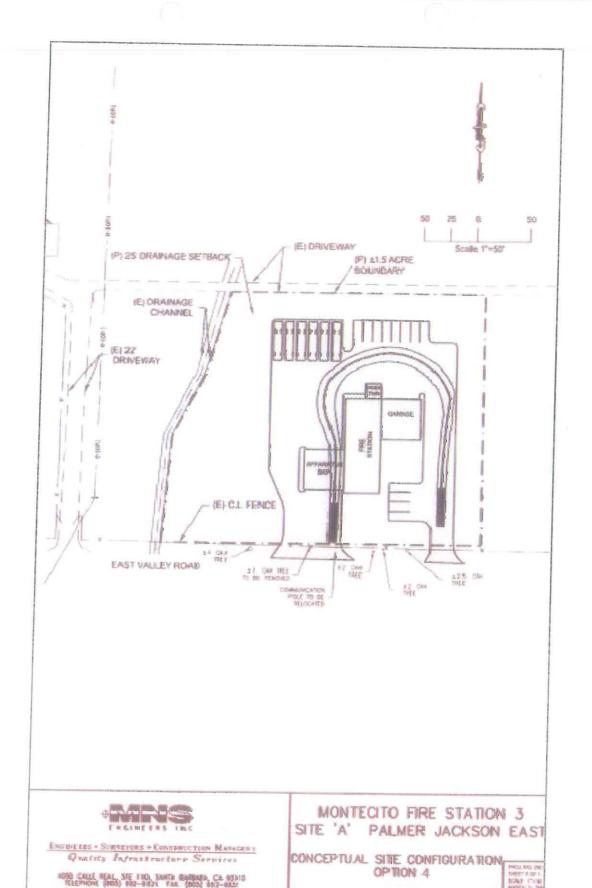
Principal Transportation Planner

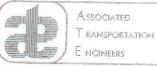
SAS/DLD

Attachments:

Speed Survey Data

Photos #1 - #9





PROJECT SITE PLAN

FIGURE



# Spot Speed Study Prepared by: Southland Car Counters

#### City of Santa Barbara

DATE: 5/27/2009

Location: 2370 East Valley Road (Eastbound)

DAY: Monday Posted Speed: 55 mph Project #: 09028

#### **Spot Speeds** Speed ALL mph Vehicles <=10 23 24 25 26 27 28 29 30 32 33 34 36 Speed - MPH 50 54 55 57 58 59 64

	,			SI	PEED PARAM	WETERS				1
Class	Count	Average Speed	Range	50th Percentile	85th Percentile	10 MPH Page	# in Pace	Percent in	#1% Below Pace	# / % Above
ALL	100	40.8	30 - 54	41 mph	46 mph	35 - 44	69	69%	10% / 10	21% / 21

Number of Vehicles

# Spot Speed Study Prepared by: Southland Car Counters

#### City of Santa Barbara

DATE: 5/27/2009

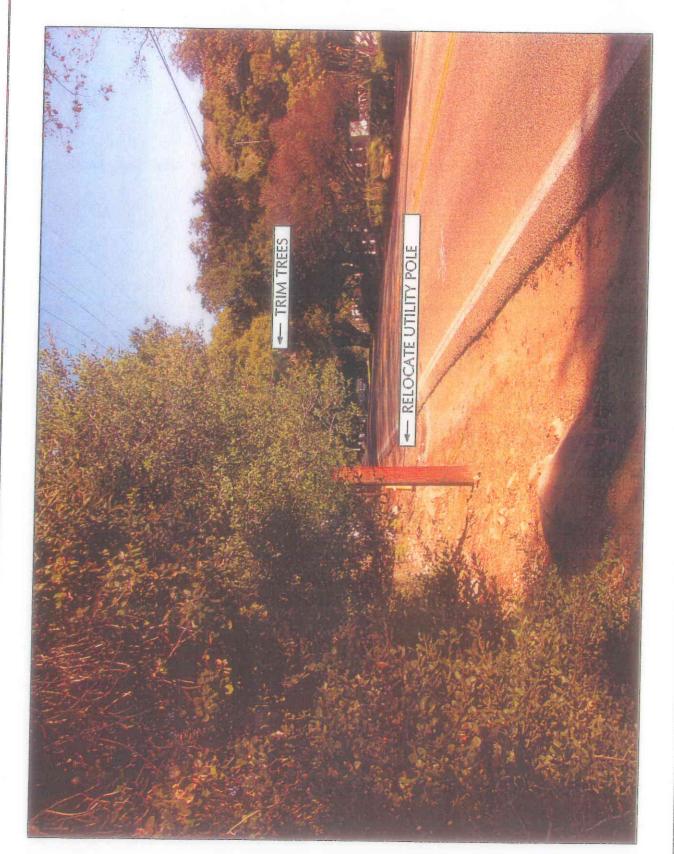
Location: 2370 East Valley Road (Westbound)

DAY: Monday Posted Speed: 55 mph

Project #: 09028

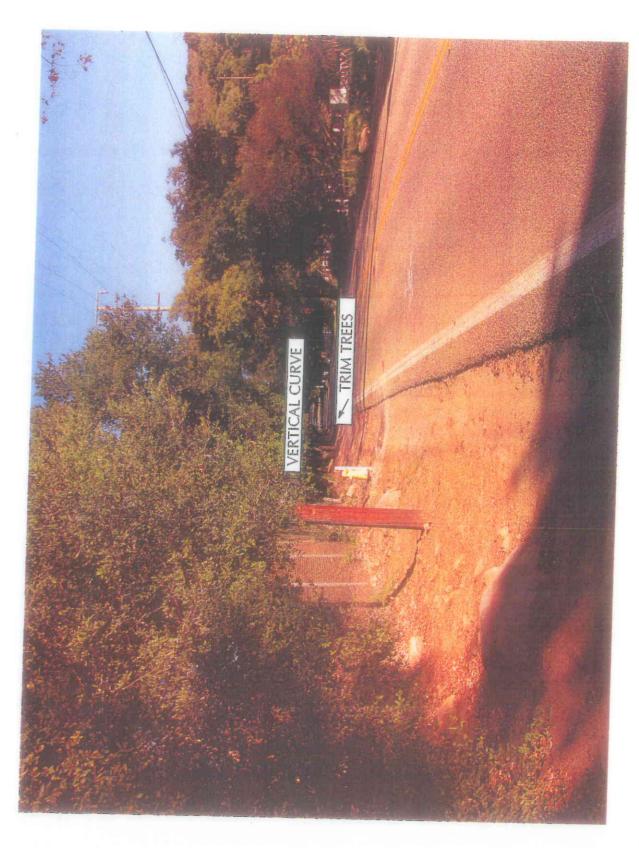
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ALL	100	42.0	25 - 59	42 mph	49 mph	38 - 47	57	57%	23% / 23	20% / 20



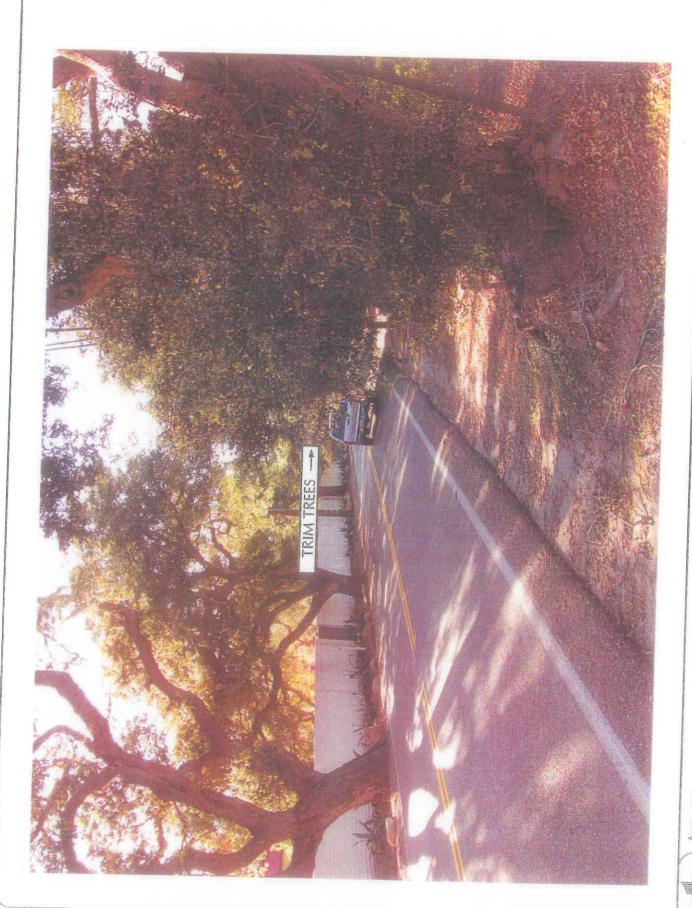
LOOKING EAST FROM DRIVERS EYE AT EAST DRIVEWAY

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(APPROXIMATE SIGHT DISTANCE WITH RECOMMENDED CHANGES) LOOKING EAST FROM EAST DRIVEWAY TO VERTICAL CURVE

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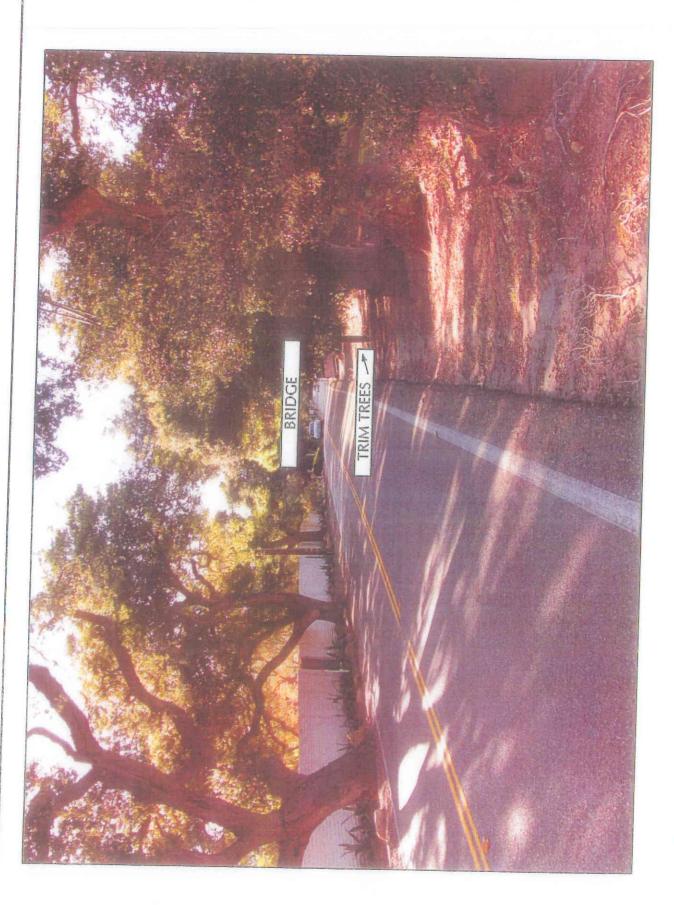


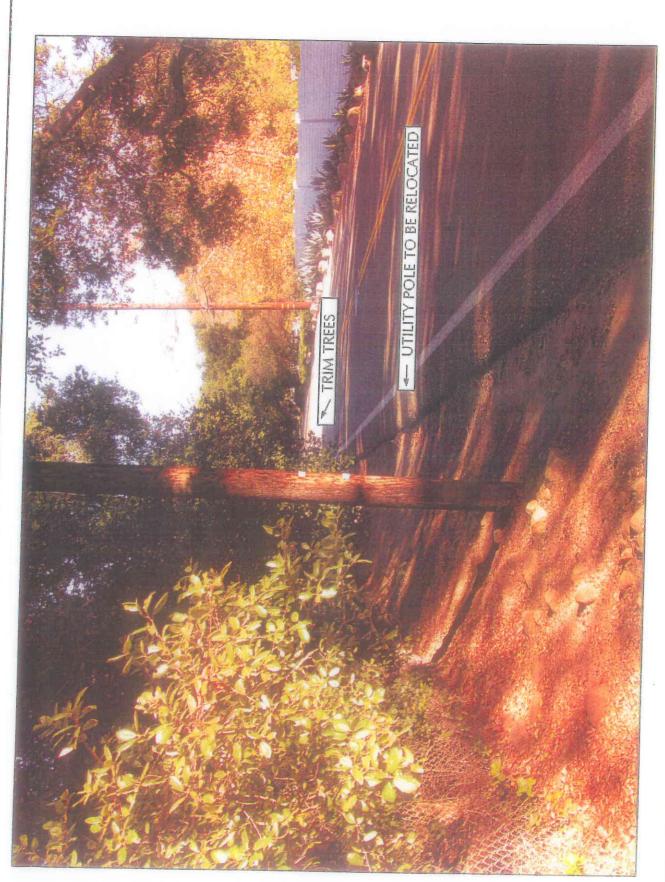




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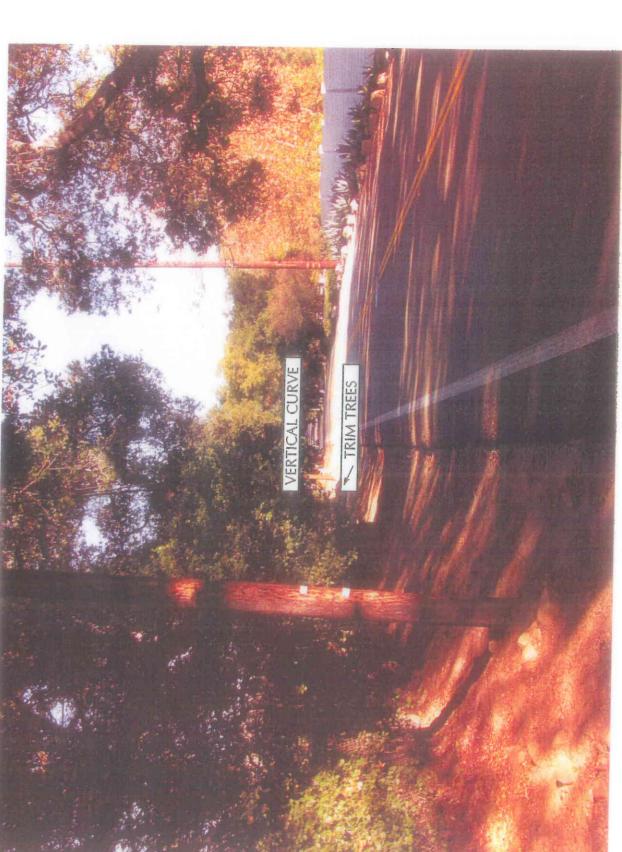
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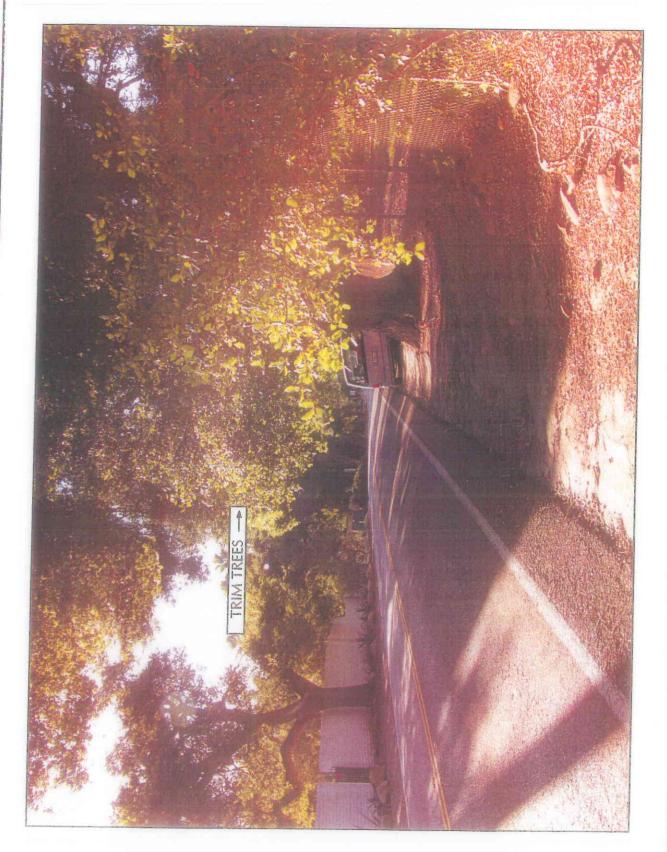










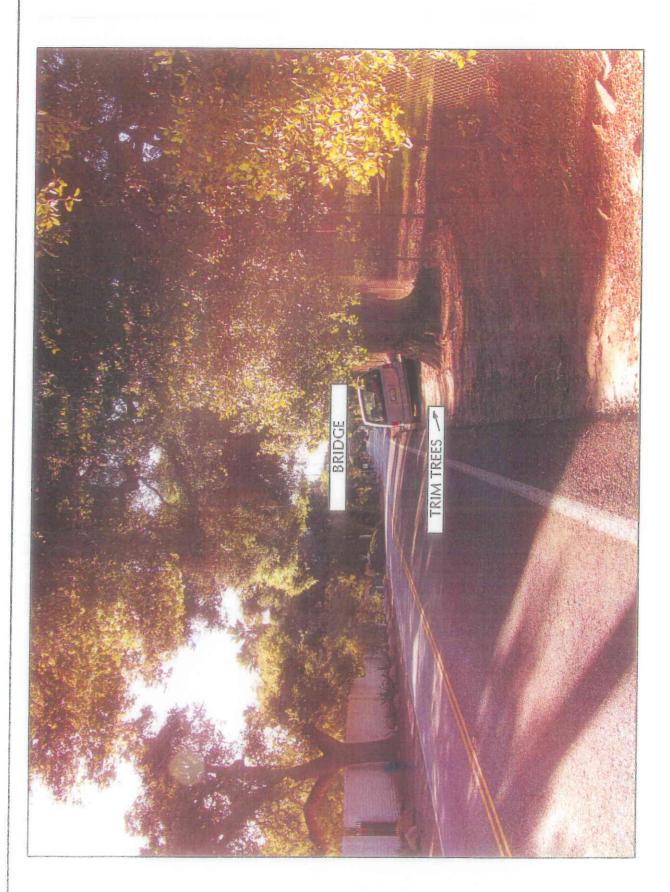


LOOKING WEST FROM DRIVERS EYE AT WEST DRIVEWAY

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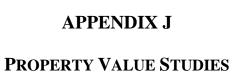
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# PHILLIPS FRACTOR GORMAN

ECONOMICS, STATISTICS, MANAGEMENT, & FINANCE RESEARCH, CONSULTING, & TESTIMONY A PARTNERSHIP OF CORPORATIONS

Montecito Fire Station Project
Report on Academic Literature

prepared for

Dan Gira

AMEC Earth and Environmental

Santa Barbara, CA

# **Executive Summary**

A broad investigation of academic literature revealed that fire station presence in a neighborhood typically adds to the value of that neighborhood rather than detracting from it. While some drawbacks of placing a fire station in a neighborhood (such as noise) clearly exist, studies indicate that the benefits of having nearby fire protection outweigh the costs. Relevant research fell into several categories: a directly-applicable case study, several studies on the economic impact of fire stations on nearby properties, studies using hedonic models to identify the specific impact of 'neighborhood variables', studies pertaining to insurance, studies on ambient noise pollution, studies evaluating the impact of non-fire station public facilities on surrounding neighborhoods, studies on how to correctly site emergency service facilities, and studies concerning the impact of wildfire risk on property values. In each of these categories, the research indicated that the presence of a fire station would not be harmful to a community.

The examined case study (page 3) found that in four cities, residents viewed fire stations as a "stabilizing element" of their neighborhood with benefits that outweighed concerns about noise, traffic, and pollution. Further, the location of a fire station in a community had no negative economic impacts and, in some cases, numerous positive economic impacts on the community.

Economics-based studies of fire stations (page 8) found that, among other things, fire station benefits to properties increase as distance to the fire station lowers, and that satisfaction with fire services leads to higher property values.

Of the several hedonic models evaluating the impact of public services on property prices, one (page 14) specifically found that the presence of fire stations positively impacted surrounding property values. Other research (page 17) indicates that, more generally, public amenities such as fire stations tend to increase property values.

Using a different approach, a study using the Insurance Services Office's Public Protection Classification (page 22) indicates that having a high-quality fire station nearby is generally associated with the benefit of having lower fire insurance costs.

Studies on ambient noise pollution (page 26) identified that residential properties near highways and airports incur both benefits and drawbacks, and that property value diminishes with rising ambient noise levels, but generally agree that ambient noise levels of less than 55 decibels do not tend to negatively affect property values. However, these studies did not focus on short duration sounds such as fire sirens.

Three studies on the impact of other types of public facilities on property values help confirm the above research. Two studies on the presence of mental health hospitals in a community (page 36 and 37) concluded that tolerance of even these "stigmatized" institutions increased with exposure, indicating that public institutions like fire stations would likely also gain acceptance in a neighborhood over time. The other study reported an increase in property values in a neighborhood after the introduction of a sports stadium (page 39).

Several different methods (page 42) have been proposed in the literature for siting fire stations and similar institutions to maximize the benefit to surrounding communities. They take alternative approaches to addressing both quantitative and qualitative problems of siting emergency service facilities.

Finally, it is clear from the literature that wildfires occurring close to a property decrease the property value (page 46), possibly due to increased perceptions of risk, but also due to the decreased amenity level of living near a burned area. From this, one can assume that the presence of a fire station nearby that could protect properties from the above harm would be of significant perceived and actual value.

# **Case Study**

The first case study examined four cities with growing fire station districts and found that residents' acceptance of fire stations outweighed their concerns about noise, traffic, and pollution. Additionally, research shows that the location or relocation of a fire station had no negative economic impacts on a given neighborhood. In several cases, the study found a number of positive economic impacts related to fire stations and public investment within a community. For example, residents had a perceived increase in public safety due to the presence of a nearby fire station. Finally, the study observed that residents viewed the presence of fire stations as a "stabilizing element" in the neighborhood, and therefore accepted the noise and activity level that is typical of any fire station.

The second case study is a summary appraiser's report which includes interviews of residents who live near fire stations. The qualitative evidence is that the proximity to fire stations had no impact on property values.

## Fire Station #1 Relocation Real Estate / Economic Impact Report

Integra Realty Resources - Portland, SERA Architects, Inc., and The Bookin Group. "Fire Station #1 Relocation Real Estate / Economic Impact Report." Portland Development Commission, 13 Apr. 2004. Web. June 2011.

Four cities, Seattle, WA, Austin, TX, San Diego, CA, and Charlotte, NC, were examined in this report because the fire stations in these cities are located "within a growing entertainment district and within areas that have experienced significant revitalization over the last two-to-three decades."

The study states that "while some stations do receive complaints from neighbors regarding noise, traffic, light pollution, and exhaust, these concerns have been outweighed by each community's acceptance of, or enthusiasm for, a fire station in its midst. In none of the cases studied were negative economic impacts reported as being caused by the location (or relocation) of a fire station within a given neighborhood. Further, in several cases, positive economic impacts were cited as being related to the significant public investment within a community that a fire station represents. Lastly, all cases reported a perceived increase in public safety due to the 24/7 presence of an operating fire station."

In Seattle, Pioneer Square has become one of Seattle's most popular nightlife districts and one of its hottest housing markets despite the noise, light pollution, and traffic generated by Fire Station 10. However, the city considers the fire station to be "inadequate to accommodate modern fire-fighting apparatus" and a new site has been chosen for Station 10. "According to the Downtown Neighborhood District Coordinator, the residents and businesses of Pioneer Square do not worry overly about the station's relocation, primarily because it will be moving only a few blocks away...The Program Manager for the City of Seattle's Fleets and Facilities Department

explains that residents and businesses there 'welcome the services and sense of security a fire station will bring' to their neighborhood."

In Austin, new condominiums have been built across the street from Fire Station 1, located one block from the center of the Sixth Street entertainment district. The occupants view the station as "a stabilizing element in the neighborhood, and they accept the noise and activity level that are typical of any fire station. According to a representative of the Avenue Lofts Homeowners Association, 'The fire department provides security by having a 24 hour-a-day presence.' With regard to impacts caused by the fire station, he said that the owners recognized that the station has been there so long that it is simply part of the urban landscape—it is just something that one has to consider when choosing to live downtown."

In Charlotte, Fire Station 2, located in historic South End, does not receive the complaints about noise and light pollution that other station in Charlotte does, even though it is considered to be one of the busier stations. "One of the fire station's captains attributes the neighborhood's acceptance of the station to the general liveliness of the district, of which the occasional sirens, flashing lights, and engine noise are only a part. According to a manager within the City's Economic Development Division, the station actually contributes to the South End scene: 'Fire stations and firefighters are seen as cool, as part of what makes South End neighborhood a fun and interesting nightlife area in which to hang out." The staff in South End performs outreach to the community, "including giving regular tours of the station to school, church, and youth groups; they also fund a 'Fire Explorers' program to teach area youth about fire safety and fire operations." The station is also a designated "Safe Place" for those in need such as runaways and victims of abuse. Station representatives often attend community meetings and functions, are invited to neighborhood parties and barbecues, and are "flooded" with gifts during the holidays.

"As a show of support for the station, the community successfully defeated a proposal in the late 1990s that would have relocated the Station 2 operations elsewhere. As the City's Employment and Business Services Manager explains, residents believe that you can't have a neighborhood center without certain types of civic buildings, such as a post office or a fire station."

The report does not discuss in detail the effect that fire stations have had on residential property values.

## Summary Appraisal Report of Montecito Fire Station No. 3 Site

"Summary Appraisal Report of Rancho San Carlos (the Petan Company Property) Proposed Montecito Fire Protection District No. 3 Site 2500 and 2600 East Valley Road, Montecito, California, Report dated November, 2009."

Schenberger, Taylor, McCormick & Jecker, Inc., November, 2009, Rep. Print. July 2011

A fire station proximity study was included in this appraisal report. The objective of that study was to determine the potential impact or damages generated by the operation of a proposed fire station on the value of nearby properties. Four fire stations, two from the Montecito fire Protection district and two from the Santa Barbara County, were chosen as comparable stations.

All four stations had similar locations and land uses compared to the proposed fire station. A market data survey was conducted to identify sales of properties surrounded those fire stations.

From 2003 to 2009, there were six sales of properties that were proximate to those fire stations: adjacent, across the street, or one lot away from the fire stations. No statistical analysis of impact of fire station on proximate properties' value was performed. Instead, the appraiser directly interviewed brokers and/or buyers of those six properties. According to all of the interviewees, those fire stations had no impact on the marketability or price of those properties. Hence, the

appraiser concluded that there was no evidence that show that fire stations have an adverse

impact on the values of adjacent or surrounding properties.

#### **Fire Services Economic Studies**

A variety of studies have explored the economic aspects of fire services. Charles Tiebout's theory of fiscal decentralization is one of the pioneer works in this area. His theory identified that benefits from a fire station diminish when properties are located further from the fire station. One study summarized below performs a cost and demand analysis of fire protection services through a sample fire station in New York. Another discusses the relationship between the appreciation rate of properties and special districts such as fire, water, and sewer. A positive relationship between satisfaction with fire services and property values is also found in one of the studies below.

#### **Economic Theory of Fiscal Decentralization**

Tiebout, Charles M. "An Economic Theory of Fiscal Decentralization." Public Finances: Needs, Sources, and Utilization. National Bureau of Economic Research, 1961. Web. June 2011.

This paper discusses fiscal federalism—fiscal decentralization—from the point of view of economic efficiency. The author introduces a set of assumptions: there are no states, countries, metropolitan authorities, etc., and private goods are produced by activities organized along the lines of a Losch spatial patterning.

The author discusses the implications of two communities with similar tastes that want different amounts of fire protection due to one community having a higher level of income than does the other. The wealthier community may have a larger geographic fire district with more output.

The author uses the costs associated with police protection to illustrate the two sources of potential cost increases. The first is an increase in output, or protection, the second an increase in the area served. The relevant cost is simply the cost per resident. A larger population lowers the cost per resident, but not the amount of the pure public service received.

A table in this article shows that for each level of output per resident there is one precinct size where cost per person is lowest (minimum average cost). The author points out that fire protection, air raid sirens, emergency hospital treatment, and parks are examples of benefits that diminish with distance. In the case of a fire station, protection falls as the distance from the fire station increases. In terms of the cost of providing fire or police protection, the total cost of providing the same per capita amount of protection will go up as more people are added to a given size fire or police precinct, but it is not clear whether it will cost more or less per resident. According to the author, communities with high levels of public service tend to have high rental

and housing prices. Finally, the existence of positive externalities, or "benefit spillovers," indicates that one community's wellbeing depends on the public goods provided by its neighbors. The author fails to discuss the implications that fire stations, police stations, hospitals, or parks have on residents and residential property values.

#### Cost and Factor Substitution in the Provision of Local Fire Services

Duncombe, William D. "Costs and Factor Substitution in the Provision of Local Fire Services."The Review of Economics and Statistics 74.1 (1992): 180-84. Web. 6 July 2011.

This study conducts a cost and demand analysis of fire protection services at a sample fire department in New York. Its objective is to find evidence on "factor substitution and demand in the production of local fire services." The study also tests the effects of physical and socioeconomic environment on cost and factor substitution.

The author used a framework developed by Bradford, Malt, and Oates to estimate the public production and cost function. The public services cost function is derived from the translog cost function of Christensen, Jorgensen, and Lau. The empirical results from the sample show that "neither CES, Cobb-Douglas nor Leontief productions functions fit production technology for fire protection". This happens because "costs are not homogenous with respect to output" and "factor substitution falls between the restriction imposed by Leontief and Cobb-Douglas technology". The author also found that socio-economic variables can significantly affect "the public sector cost and the estimates of factor substitution".

Intrametropolitan Decentralization: Is Government Structure Capitalized in Residential Property Values?

Billings, Stephen, and Thomas G. Thibodeau. "Intrametropolitan Decentralization: Is

Government Structure Capitalized in Residential Property Values?" The Journal of Real

Estate Finance and Economics 42.4 (2009): 416-50. 10 Sept. 2009. Web. 28 June 2011.

This paper's objective is to test the effects of decentralizing local public good providers on residential housing appreciation rates. The author resolved issues that often arise in previous studies by comparing the appreciation rate of property values on both areas that add and don't add new local government, and by limiting the self-selection of areas that decentralize government. The result shows that intrametropolitan decentralization has no effect on the appreciation rate of property values. Also, special districts such as recreation, fire, water, and sewer have no impact on the appreciation rates of properties.

# Public Services Satisfaction and Single-Family House Prices in the USA

James E. Larsen, John P. Blair, (2010) "Public services satisfaction and single-family house prices in the USA", International Journal of Housing Markets and Analysis, Vol. 3 Iss: 4, pp.278 – 289

The two authors performed an empirical study on the effects of public services satisfaction on residential housing values. This research is developed from Tiebout's theory about consumers' choice of location, which is based on location characteristics. Many studies have been conducted to test Tiebout's theory but few of them explored the effect of specific public services on property value. Surveys were conducted in 2007 in 59 neighborhoods around Dayton, Ohio in order to identify the satisfaction level of residents with seven public services: fire protection, paramedic services, police protection, trash removal, snow removal, street maintenance, and neighborhood parks. These seven satisfaction measures were then grouped into three variables that corresponded with the departments providing the services. In this hedonic analysis, real transaction prices of residential house in 2007 were regressed against those three satisfaction variables as well as against other characteristics of the properties. All three satisfaction measures were positively related to transactional prices. This result strongly supports Tiebout's theory, even in the case of non-education public services.

# **Fire Station Hedonic Price Model**

There are a few hedonic price studies that explore the effects of neighborhood variables on residential housing value. However, only one study included fire stations as a variable in its model. In this instance, regression analysis showed that fire stations had a positive impact on the value of surrounding properties.

#### **Neighborhood Impacts on Suburban Housing Values**

Sucahyono, Hadi. "Neighborhood Impacts on Suburban Housing Values." Diss. Ohio State University, 2006. Web. 27 June 2011.

This author performed a hedonic price study on the housing markets of Delaware County, Ohio. With data available from the Geographical Information System (GIS) and Census 2000 data, the study explored the impact of six different categories of neighborhood variables on single-family housing values. Those categories were: "house characteristics and conditions, amenities, accessibilities, socio-economic characteristics, existing land use, and land-use regulations (zoning and comprehensive planning)". Neighborhood units were formed by three circular buffers that surround each single-family housing unit, with radii of 100 meters, 400 meters, and 1 mile.

There were two models estimated: "the individual neighborhood model" and "multineighborhood model". The first model considered each neighborhood separately, while the
second model utilized all the significant variables from the first model. The first model included
fifty variables and was estimated with 3144 observations. It used OLS estimation, with property
sales values in natural logarithm form as the dependent variable. The first models found that
accessibility of single houses to fire stations had a significant positive impact on the house prices
of all neighborhood types. The second model consisted of 30 variables that were statistically
significant in the first model. Fire stations also had a "significant and positive" impact on
residential value. A possible explanation for this result is that people feel safer when they stay
closer to a fire station, which makes them willing to pay more for a property.

The study did a marvelous job using a hedonic price model to explain the impact of neighborhood characteristics on property values. The method is quite different from previous

studies since it uses the circular buffer surrounding each housing unit to form three different neighborhood units. It also utilizes the GIS tool to converted neighborhood data and Census data into buffers.

#### **Hedonic Price Models**

According to one study, the market value of a residential property is a function of (1) characteristics of the lot, (2) characteristics of the improvement, (3) neighborhood amenities, (4) proximity variables, and (5) the period when the housing data were collected. Fire stations would be considered a neighborhood amenity. Location characteristics also influence home prices, one of which is the quality of municipal services, such as police and fire departments. One study found that hedonic price models that omit accessibility, congestion, pollution, and unsightliness characteristics produce biased estimates of house prices. These studies emphasize the importance of including location characteristics as well as neighborhood amenities and disamenities, as they do have an effect on residential property values.

Another study found that there are no hedonic pricing studies relating to the impact of the presence of a fire station on nearby residential properties. However, the author argues that having a fire station near one's home is a mixed blessing, as fire stations generate sudden, loud noises, but also provide safety benefits.

# **Age-Related Heteroskedasticity in Hedonic House Price Equations**

Goodman, Allen C., and Thomas G. Thibodeau. "Age-Related Heteroskedasticity in Hedonic House Price Equations." Journal of Housing Research 6.1 (1995): 25-42. Web. June 2011.

The results of this study were obtained with a semilog hedonic house price equation from data on nearly 8,500 transactions of single-family homes in Dallas. The article is an example of a hedonic equation for home values as determined by five housing characteristics.

A hedonic equation for homes relates an "estimate of the property's market value to the various characteristics that determine its value. Housing characteristics can be loosely grouped into five categories: (1) characteristics of the lot, (2) characteristics of the improvement, (3) neighborhood amenities, (4) proximity variables, and (5) the period when the housing data were collected." The market value of the property is a function of these five characteristics.

Neighborhood amenities include "percentage of improved land area in the neighborhood allocated to owner-occupied homes, percentage nonresidential, percentage undeveloped, employment density, public school achievement scores, police and fire department response times, crime rates, etc."

This article does not focus on the effect that neighborhood amenities have on the value of homes. Rather, it focuses on age-related heteroskedasticity and depreciation in hedonic housing models.

#### **Analysis of Spatial Autocorrelation in House Prices**

Basu, Sabyasachi G., and Thomas G. Thibodeau. "Analysis of Spatial Autocorrelation in House Prices." The Journal of Real Estate Finance and Economics 17.1 (1998): 61-85. Web. June 2011.

Hedonic house price equations are used to explain variation in home prices using property structural and location characteristics. Location characteristics, such as distance to transportation, quality public schools, crime rates, and so on, are more difficult to measure than structural characteristics and are thus "rarely included in publicly available data."

According to the author, home prices are spatially autocorrelated for two reasons: "First, neighborhoods tend to be developed at the same time, so neighborhood properties have similar structural characteristics...Second, neighborhood residential properties share location amenities. For example, the same police and fire departments protect area residents, and neighborhood children have access to the same public schools."

# Key Passage:

"Location characteristics that influence house prices include: neighborhood characteristics, accessibility, and proximity externalities. Neighborhood characteristics include socioeconomic variables (for example, average household income, percent of households whose heads have a high school or college degree, and so on). Predominate neighborhood land use (such as percentage of land area that is undeveloped, devoted to residential uses, devoted to single-family detached homes, percent owner-occupied, and so on), and the quality of municipal services (such as quality of police and fire departments and neighborhood public schools). Accessibility determinants of house prices include distances to employment centers, to transportation networks, and to recreation and shopping facilities. Proximity externalities may have either positive or negative influences on house prices. Examples of proximity externalities include distance to nearby nonresidential land uses (parks, commercial properties, highways, and so on) as well as area levels of air and noise pollution."

According to the author, there are a variety of ways of incorporating location characteristics in hedonic house price equations.

## Key Passage:

"Li and Brown (1980) separated the positive influence that accessibility has on residential real estate values from the negative effect that proximity to nonresidential use has on residential property values. They established that house price studies that omit accessibility, congestion, pollution, and unsightliness characteristics produce biased estimates of house prices. Proximity variables included in the Li and Brown study are proximity to a corner grocery store, neighborhood park, school, river, ocean, conservation land, expressway interchange, or major thruway. Dubin and Sung (1990) group neighborhood characteristics into three broad categories--socioeconomic status of neighborhood residents (for example, household income, education, and occupation), quality of municipal services (such as education and public safety), and racial composition. Using data on 486 sales of Baltimore homes in 1978, they test the relative importance of these neighborhood characteristics in determining house prices. They conclude socioeconomic status and racial composition are more important than the quality of public services in determining house prices."

According to the author, "many empirical hedonic house price studies omit some or all of these important location characteristics. If these attributes are capitalized in house prices, then omitting them may produce spatially autocorrelated residuals."

The article does not discuss the size of the effect of location characteristics on housing prices or if the omission of location characteristics increases or decreases the value of homes.

Rethinking Ward and At-large Elections in Cities: Total Spending, the Number of Locations of Selected City Services, and Policy Types

Langbein, Laura I., Philip Crewson, and Charles Niel Brasher. "Rethinking Ward and At-large Elections in Cities: Total Spending, the Number of Locations of Selected City Services, and Policy Types." Public Choice 88.3-4 (1996): 275-93. JSTOR. Web. June 2011.

According to the author, "there are no hedonic pricing studies of the impact of location next to a fire station on residential property values. Having a fire station next to your home is expected to be a mixed blessing, however. On one hand, fire stations generate sudden, loud noise (as do aircraft); but they also engender safety benefits - in case of fire or other emergency, location next to fire and rescue services may well be an advantage."

McMillan, Reid, and Gillen's (1980) hedonic pricing study showed that aircraft noise significantly reduces property values and that "public safety (measured as the relative absence of crime) raises home values (and rents) when other variables are held constant (Clark and Cosgrove, 1990). Overall, then, while parks are expected to be an instance of locally provided 'pork' and community centers and libraries are expected to be instances of [locally unwanted land uses], the expectation for fire stations is not clear."

#### **Insurance Related Issues**

The Insurance Services Office (ISO) has created the Public Protection Classification (PPC), which categorizes fire protection services on a scale of 1 through 10, 1 indicating superior fire protection and 10 indicating the need for improvement. One important factor the PPC considers is the fire department, including equipment, staffing, training, and geographic distribution of fire companies.

ISO's PPC information plays an important role in the decisions insurers make affecting the availability and price of property insurance. In general, the price of fire insurance in a community with a good PPC is substantially lower than in a community with a poor PPC, assuming all other factors are equal. Finally, the PPC program provides an economic benefit and an incentive for communities to invest in their firefighting services.

## **Insurance Services Office – PPC Program**

Fire Protection Class ISO PPC Program." Insurance Services Office, 2011. Web. June 2011.

"Fire Suppression Rating Schedule FSRS Overview." Insurance Services Office, 2011. Web.

"ISO's PPC Program - Page 3." ISO - Information about Property Casualty Insurance Risk.

Insurance Services Office, 2011. Web. June 2011.

- "ISO's PPC Program Page 5." ISO Information about Property Casualty Insurance Risk.

  Insurance Services Office, 2011. Web. June 2011.
- "ISO's PPC Program." ISO Information about Property Casualty Insurance Risk. Insurance Services Office, 2011. Web. June 2011.

The Insurance Services Office (ISO) is an advisory organization that collects information regarding property/casualty insurance risk. ISO collects information on municipal fire-protection efforts and analyzes the data using its Fire Suppression Rating Schedule (FSRS), which measures the major elements of a community's fire-suppression system: water supply, fire department, fire service communications, fire safety control, climate, and divergence between fire department and water supply. It then assigns a Public Protection Classification from 1 to 10. Class 1 indicates superior property fire protection and Class 10 indicates that the area's fire-suppression program does not meet ISO's minimum criteria. ISO's PPC information plays an important role in the decisions insurers make, which affect the availability and price of property insurance.

In general, the price of fire insurance in a community with a good PPC is substantially lower than in a community with a poor PPC, assuming all other factors are equal. On average across the country, the cost of fire losses for homeowner policies in communities graded Class 9 is 65% higher than in communities graded Class 5\*. A Community's PPC depends on: fire alarm and communication systems, including telephone systems, telephone lines, staffing, and

dispatching systems; the fire department, including equipment, staffing, training, and geographic distribution of fire companies; the water supply system including condition and maintenance of hydrants, and a careful evaluation of the amount of available water compared with the amount needed to suppress fires. The PPC program provides an economic benefit and an incentive for communities to invest in their firefighting services. Classifying communities' ability to suppress fires allows them to measure the effectiveness of their public fire-protection services. The program provides an objective, countrywide standard that helps fire departments in planning and budgeting for facilities, equipment, and training. The PPC program also has a significant effect on losses: statistical data on insurance losses shows that excellent fire protection (as measured by the PPC program) reduces fire loss.

\*According to loss data collected by ISO from insurance companies for accident years 1994 to 1998.

Excerpt from When a Fire District Improves its PPC, the Entire Community Can Benefit Economically:

"If a fire district improves its PPC, homeowners and businesses in the community often save money on their insurance premiums. If property owners spend their savings in the community, the extra cash can help improve the local economy. And a community with improved fire protection may find it easier to attract new business, increasing jobs and boosting the economy even more.

"In 2000, the Rural Fire Protection Work Group, a committee appointed by Arkansas Governor Mike Huckabee, quantified the economic benefits of improved fire protection for that state. The work group considered a series of measures designed to improve the Public Protection Classifications of rural Arkansas communities. In its final report, submitted to Governor

Huckabee in August 2000, the work group estimated the statewide cost of those projects at about \$150 million — or \$15 million a year for 10 years. Next, the work group projected the reduction in property insurance premiums when each of 839 rural fire departments has improved its PPC to Class 7. According to that analysis, the statewide savings would total more than \$100 million per year. More than 425,000 homeowners would share the benefits, with an average annual savings of \$235 per household.

"The Arkansas work group projected increased economic activity at more than \$2 billion over a period of 13 years. According to the work group's analysis, that economic activity would generate additional state and local sales-tax revenue more than offsetting the cost of the improvements."

Other than the Arkansas example, the ISO fails to prove empirically the amount by which a better PPC rating lowers insurance rates. Also, the ISO does not discuss the drawbacks of having more fire stations and the effect this has on homeowners.

#### **Ambient Noise Pollution**

Hedonic price studies have shown that airport and highway noise have an overall negative impact on residential property values. However, accessibility to airports and highways provides some value. For example, residents located near an airport can benefit from employment opportunities as well as from ease of access to the airport. Thus, a major airport may have both positive and negative effects on property values. Highway accessibility is convenient for nearby residences, but highway noise can be a nuisance if properties are too close to the highway.

One study reveals that a property located at 55 decibels (dB) would sell for about 10 to 12 percent less if it were located at 75 dB, all other things held constant. In other words, under these same circumstances, a \$200,000 house located at 75 dB would sell for \$20,000 to \$24,000 less than one located at 55 dB, which yields a hedonic price of \$1000 to \$1200 per decibel.

Another study discusses the depreciation sensitivity index (NDSI), which calculates the percentage value change caused by a 1 dB decrease in noise exposure. They found that property values rise by an average of 0.4 percent if road traffic noise is reduced by 1 dB, and by 0.6 percent if noise from air traffic decreases 1 dB.

Another study found that if sound levels exceed 65 dB, prices appear to be substantially affected by traffic noise. Most studies agree that sound levels below 55 dB do not harm property prices, but for each additional decibel, the property loses on average 0.4 percent of its value.

Environmental Conditions, Reservation Prices, and Time on the Market for Housing

Huang, Ju-Chin, and Raymond B. Palmquist. "Environmental Conditions, Reservation Prices,
and Time on the Market for Housing." Journal of Real Estate Finance and Economics

22.2 (2001): 203-19. SpringerLink. Web. June 2011.

The objective of this paper was to investigate the impact of environmental disamenities on property values and duration of sales by "taking into account the interrelationship between prices and time to sell." The author focuses on highway noise and its effect on reservation prices and the duration of sales.

In another study, "Nelson (1982) reviews nine studies of the impact of highway noise on property values and selling time. He concludes that noise has a significant impact on property values but that there is no significant noise effect on selling time." According to the author, "...certain environmental disamenities, such as noise, can have a strong effect on the probability of receiving an offer in a given time period since a portion of potential home buyers may simply rule out the possibility of purchasing a house with such disamenities."

The authors studied "an upper-middle-class suburb east of Seattle, Washington." The area was mainly single-family homes, and Interstate highway I-405 traverses the neighborhood. "The distance of houses from I-405 in [the] sample ranges from less than 100 feet to 5,900 feet. The neighborhood is relatively homogeneous. There was no other noticeable undesirable land use in the area during the period studied..." The authors used decibels (dB) to measure noise. In both models (traditional hedonic price equation and hedonic reservation price model) the "NOISE coefficient" is negative and significant at .001, which means highway noise negatively affects the sale price of a home.

In the study of the housing market in Kingsgate, Washington, highway noise had no significant impact on market duration. "This result may support our analytical model that the duration of sales of noisy houses can be influenced by two conflicting effects: the higher probability of accepting an offer due to a relatively lower reservation price and the lower probability of receiving an acceptable offer. In contrast, highway noise shows a significant negative impact on reservation and sale prices—as expected."

Although highway accessibility is convenient for nearby residences, highway noise can be a nuisance if properties are too close to the highway. The author's results reveal that highway noise has a significant negative impact on forming reservation prices and predicting sale prices, but it does not have a significant effect on duration of sales.

This article focused mostly on the duration of homes staying on the market and on sellers' reservation prices.

## **Highway Noise and Property Values:**

Nelson, Jon P. "Highway Noise and Property Values: A Survey of Recent Evidence." *Journal of Transport Economics and Policy* 16.2 (1982): 117-38. Print.

The paper analyzed the noise effect of highways on residential property values based on the evidence found in previous studies covering 14 different housing samples from Canada and the United States. The first part of the paper discussed underlining assumptions of hedonic pricing models on residential housing values. Then, the author reviewed previous empirical studies concerning the relationship between traffic noise and property values. There were three common issues addressed by those studies: the problem of randomly selecting a homogenous sample that possesses a co-variation between traffic noise and property sales price, of measuring traffic noise levels as well as find an adequate noise index; and taking into account the pros and cons of having a freeway in order to "derive an unbiased cost for noise". In addition, the author also reviews three other studies on other adverse effects of highway noise housing values; and suggests that there is no negative effect of highway noise on the time on the market for property. He concludes that the estimates are fairly consistent with the economic theory of land rents.

# Meta-Analysis of Airport Noise and Hedonic Property Value

Nelson, Jon P. "Meta-Analysis of Airport Noise and Hedonic Property Values." Journal of Transport Economics and Policy 38.1 (2004): 1-28. Web. June 2011.

The author studied twenty hedonic property value studies, covering 33 estimates of the noise discount for 23 airports in Canada and the United States. "About one-third of the estimates have not been previously reported in the literature or were not included in previous meta-analyses. A meta-regression analysis examines the variability in the noise discounts that might be due to country, year, sample size, model specification, mean property value, data aggregation, or accessibility to airport employment and travel opportunities. The analysis indicates that country and model specification have some effect on the measured noise discount, but the other variables have little systematic effect."

Since proximity to an airport provides access to travel and employment opportunities, "a major airport might be expected to have both positive and negative effects on property values. Ignoring accessibility could result in a downward bias for the effect of noise alone." The Environmental Protection Agency (EPA, 1982) cautions that at noise levels above 75 dB, severe health effects may occur for some portion of the population, including temporary hearing loss. "Those persons who are frequently outdoors are of greatest concern, including young children, retired people in warm climates, and people in certain outdoor occupations."

Consumers reveal the implicit value they place on quietness by the explicit choices they make in the housing market.

#### Key Passage:

"The willingness to pay for quietness and other amenities are part of the asset price of the 'housing bundle,' and econometric techniques are available that unbundle complex products and thereby reveal the implicit or hedonic price. It is rare that two residential properties will be identical in all respects, except for the

pollutant in question. Consequently, in order to isolate a given hedonic price, it is necessary to control statistically for other influences on property values, such as the size of house and lot, quality of construction, design of the house, merits of the neighborhood, quality of local schools, crime rates, governmental services, and so on.

"Given differences in statistical methods, samples, time periods, and urban locations, empirical studies have not produced a singular value for the effects of airport noise on property values. However, hedonic price studies have shown that airport noise has a negative impact on residential property values, and central tendencies can be determined based on the distribution of estimates. Further, meta-analysis can establish the extent to which the variation is systematic.

"The findings of empirical studies of airport noise can be summarized by means of a Noise Depreciation Index (NDI), which is the percentage rate of depreciation per dB (Walters, 1975). For two properties that differ except for their level of noise exposure, the absolute amount of housing depreciation per decibel (the unit cost of noise) is given by D = (difference in the total noise discount) / (difference in noise exposure in dB). Dividing D by the price of the given house (or an average house price), the percentage rate of depreciation is given by NDI = (D / property value) x <math>100 = (difference in total percentage depreciation) / (difference in noise exposure in dB).

"Major airports are commercial facilities that have the potential to create significant travel and employment opportunities. Employment opportunities exist at the airport site as well as at commercial facilities, which develop in the vicinity of a major airport. For individuals who might work at (or near) the airport or who use the airport for travel, the benefits of proximity can be reflected in residential property values. Because it is possible for an airport to have negative and positive effects on property values, the net effect can be negative or positive. The empirical problem is the extent to which a particular empirical study has separated out the effect of noise from the effect of accessibility (if any). Failure to allow for accessibility could lead to a downward bias in the hedonic price of airport noise.

"Previous studies have addressed the accessibility problem in a variety of ways. DeVany (1976) was the first to investigate this issue, and he proposed a solution using a dummy variable specification. Nelson (1979) suggested another solution based on the elongated shape of aircraft noise contours and sampling for limited areas with more or less the same degree of accessibility. Li and Brown (1980) examined the general effects of disamenities and accessibility on property values in the Greater Boston metropolitan area. Several studies of the Manchester Airport (UK) have reached conflicting conclusions about the importance of accessibility and noise. In particular, Tomkins et al. (1998) used straight-line distance to the airport as a measure of accessibility. The NDI was 0.78 per cent, but they found that the effect of accessibility was greater for certain properties. Hence, for some properties, the net effect of the Manchester Airport on property values was positive.

"The results in the present study are consistent with an earlier contribution by the author (Nelson, 1980), which concluded that the noise discount was about 0.50 to 0.60 per cent per dB. The present study expands the sample of estimates from 18 to 33, including a doubling of the number of estimates for US airports. Although a number of estimates...employ data for the 1970s, there does not seem to a measurable effect of time on the NDIs. Hence, a given property located at 55 dB would sell for about 10 to 12 per cent less if it was located at 75 dB, all other things held constant. Stated differently, under these same circumstances, a \$200,000 house would sell for \$20,000 to \$24,000 less, which yields a hedonic price of \$1000 to \$1200 per dB. The noise discount in Canada appears to be greater, 0.80 to 0.90 per cent per dB, and may reflect differences in legal rules as well as other economic differences.

"It remains to be seen whether the results in this paper are robust in the face of other analytical methods, such as GIS studies, contingent valuation methods, and new hedonic studies that consider spatial autocorrelation of housing prices (Salvi, 2003)...Lastly, caution should be exercised in applying the estimates in this paper to residential areas near airports that are affected by noise in excess of 75 dB. Survey studies by Feitelson et al. (1996) and Frankel (1991) suggests that the noise discount per dB could be substantially higher where the level of noise exposure makes land virtually unsuitable for any residential use."

# Planes, Trains, and Automobiles: The Impact of Traffic Noise on House Prices

Theebe, Marcel A. J. "Planes, Trains, and Automobiles: The Impact of Traffic Noise on House Prices." The Journal of Real Estate Finance and Economics 28.2/3 (2004): 209-34.

SpringerLink. Web. June 2011.

The author discusses the depreciation sensitivity index (NDSI), which calculates the percentage value change caused by a 1-decibel decrease in noise exposure. In two review studies (1980, 1982), Nelson "found that property values rise with on average 0.4 percent if road traffic noise is reduced by 1 dB, and with 0.6 percent if noise from air traffic decreases 1 dB. According to Nelson, the different NDSI's for road and air traffic noise are due to differences in methodology and data, although the higher price for airplane noise is in line with the higher perceived annoyance from air traffic for the same sound level of road traffic...Palmquist (1980) on the other hand suggested that property prices in high-income areas will show a larger discount than properties in low-income areas."

The study found that if the sound level exceeded 65 dB, prices appeared to be substantially affected by traffic noise.

#### Key Passage:

"This is in line with the 68-dB level Bateman et al. (2001) found for Scotland. The negative impact rises with the sound level, but the maximum price impact is rather modest, between 5 and 6 percent. This is in accordance with the results of most other studies too, if we assume a NDSI value of 0.4 percent per decibel, an ambient noise level of 65 dB, and maximum noise of just above 75 dB. However, since the discount does not rise linearly with sound level, it is not correct to assume a constant price per decibel. Remarkable is the premium for very quiet locations. In between 40 and 65 dB, the impact of noise is insignificant or is smaller than 1 percent."

Some literature also suggests that high-income areas will be more affected by noise than low-income areas. This study's results indicate a lower noise tolerance for high-income

municipalities, but "the premium for quiet locations is only significant for the submarket with the highest income."

## Key Passage:

"Most studies found that sound levels below 55 dB do not harm property prices, but for each additional decibel, the property loses 0.4 percent of its value, on average...Usage of spatial autoregression techniques will yield more accurate estimates than conventional estimation techniques. Moreover, we use dummy variables for noise ranges instead of one noise index, to allow for a nonlinear relationship between noise level and property prices. No study known to us has ever tried this intuitive approach before. We also include accessibility variables to correct for positive effects of the infrastructure."

The study found that traffic noise had a significant impact on property prices.

# Key Passage:

"Noise levels above 65dB appear to be capitalized into prices, with a maximum discount of approximately 12 percent, if extremes are ignored. Not including distances to highway on ramps and railway stations, which are positively correlated to noise, yields only slightly different estimates. For properties confronted with traffic noise levels between 41 and 65 dB, the actual noise level does not matter. However, if the property is located in a very quiet area (below 40 dB), it might sell at a premium up to 6.5 percent. Estimated prices per reduction of noise (NDSI) depend on the original noise level, but range between 0.3 and 0.5 percent. These findings are in line with literature."

The study found "weak evidence that properties in high-income areas are affected more by traffic noise than properties in low-income areas. Residents of high-income areas are annoyed with lower noise levels than other residents. Since high-income areas have a larger percentage of detached single-family properties and will have a lower address density than other areas, more or less the same results are found if sub-markets are created with these other dimensions."

Additionally, "most results indicate that traffic noise will impact property prices if it exceeds 65 dB. Moreover, most specifications show a maximum impact on property prices up to 12 percent.

# Hedonic Property Value Studies of Transportation Noise: Aircraft and Road Noise

Ramirez, Jose Vincent., Caroline Schaerer, Philippe Thalmann, and Andrea Baranzini. "Hedonic Property Value Studies of Transportation Noise: Aircraft and Road Noise." Hedonic Methods in Housing Markets: Pricing Environmental Amenities and Segregation. New York: Springer, 2008. 57-82. Print.

The authors summarized the above Theebe (2004) article as follows: "Correcting for spatial autocorrelation, Theebe (2004) finds that traffic noise has little effect on house prices at sound levels below 65 dB. Above 65 dB, the NDI varies from 0.3% to 0.5% per dB."

#### **Similar Public Facilities**

Looking at studies of similar public facilities provides us with some perspectives about how fire stations can possibly affect property values. For instance, mental health hospitals are usually considered to be stigmatized urban facilities. A majority of the studies about mental health hospitals perform comparative analysis of attitudes of residents of neighborhoods that host and do not host mental health hospitals. Surveys about the level of tolerance as well as the desire for similar facilities, such as fire stations and police stations, are also conducted in those studies. The results from this research show that with experience, people often become more tolerant of stigmatized urban facilities. Also, a study about the effects of stadiums on property values is included in this section. In different case studies, stadiums are found to increase the value of surrounding properties.

Neighborhood Responses to Stigmatized Urban Facilities: A Private Mental Hospital and Other Facilities in Pheonix, Arizona

Gordon, Rena J., and Leonard Gordon. "NEIGHBORHOOD RESPONSES TO STIGMATIZED URBAN FACILITIES: A Private Mental Hospital and Other Facilities in Phoenix, Arizona." Journal of Urban Affairs 12.4 (1990): 437-47. Print.

The authors conducted a survey to compare the attitudes of residents in a neighborhood hosting a mental hospital with one without such a facility. Both neighborhoods were middle class areas of Phoenix, Arizona, and each contained three zones: 1 block, 2-6 blocks, and 7-12 blocks, from the mental hospital. Survey questions also explored people's views on other public urban facilities such as general hospitals, sewage treatment plants, fire stations, etc.

The results of the survey indicated no significant differences between host and non-host neighborhoods regarding their desire for a mental hospital. However, the host neighborhood responded to impact variables such as traffic, noise, and value of property far less negatively than did the non-host neighborhood. Among the other public facilities, the non-host neighborhood fire station was the most desirable public facility. That fire station is located adjacent to the non-host neighborhood while the host neighborhood is not close to such facility. The findings support the hypothesis that "experiences tend to change perception toward more tolerance."

#### **External Effects of Mental Health Facilities**

Dear, Michael, S. Martin Taylor, and G. B. Hall. "External Effects Of Mental Health

Facilities." *Annals of the Association of American Geographers* 70.3 (1980): 342-52.

Web. 6 July 2011.

The paper used a survey to study the attitude of a community in Toronto, Ontario toward a mental health facility hosted in the community. A significant number of respondents believed that such facilities had no impact on their community. Residents were most worried about the negative effects of the facilities on their property values, traffic volumes and residential satisfaction. Those who were aware of the existence of the mental health facility showed more tolerance in their attitudes towards the facilities. Also, the closer to the mental health facilities the residents were, the more they believed the facility would negatively affect their neighborhood. This study lacks a comparative analysis with other public services as well as with a non-host community.

## Neighborhood Economic Impacts of the Proposed San Jose Stadium

Neighborhood Economic Impacts of the Proposed San Jose Stadium. Bay Area Economics, Nov. 2006. Web. June 2011.

For its report for The San Jose Redevelopment Agency, Bay Area Economics researched a number of cities with newly built stadiums, focusing mainly on San Francisco's AT&T Park. The study on Jacob's Field in Cleveland, OH found that "the economic development in a stadium can come at the expense of other neighborhoods." The study on Coors Field in Denver, CO found that "rents for residential and commercial space doubled and sometimes tripled between 1995 and 1997...However, the dramatic increase in housing units suggests that these factors have not alienated residents." One lesson learned from the Coors Field study is that "a stadium district can help uplift an entire Downtown...Today Lower Downtown's active street life creates a sense of security and promotes a larger trend of urban living, shopping, and entertainment." It also found that "rising rents can push out desired uses and tenants. While in general rising rents connote a thriving, popular area, high costs can force out businesses and residents that the neighborhood may value...Cities should be aware of the changes rising rents can effect in a stadium district."

In the study on the Home Depot Center in Carson, CA, Bay Area Economics interviewed the City of Carson's Economic Development Director, Lance Burkholder, who said that "property values in Carson have risen sharply since the Center opened in 2003, although at rates in line with other nearby cities. The new Dominguez Hills Village housing development, completed in 2005, just north of the Home Depot Center, sold out quickly." Also, noise canceling design elements were helpful in lessening the impact of the stadium's noise on the surrounding residents' homes.

Bay Area Economics studied San Francisco's AT&T Park, located in South Beach, because AT&T Park and the proposed San Jose stadium had similar characteristics, making it an appropriate model for the study.

## Key Passage:

"This analysis focuses exclusively on condominiums as they make up virtually all the units in South Beach. In addition, the analysis only includes units built prior to the construction of AT&T Park in 2000. This conservative methodology effectively excludes newer units which might represent a different product type and price point, thereby masking actual appreciation rates in older projects...The data finds that South Beach condominiums consistently command higher sale prices than comparable condominiums citywide. In any given year between 2000 and 2006, the median price of South Beach units was 15 to 44 percent greater than units throughout San Francisco. In terms of appreciation following the ballpark construction, South Beach units generally appreciated at a comparable rate to San Francisco units as a whole...In 2001, prices in both South Beach and San Francisco corrected to coincide with the regional economic slowdown. Between 2001 to 2006, a more economically stable period, average annual appreciation rates in South Beach and San Francisco were identical at 6.4 percent. A more detailed look at specific projects in South Beach shows that some properties have appreciated at a greater rate than condominiums throughout San Francisco. For example, the median sale price of units in 301 Bryant Street appreciated from \$864,000 to \$1.1 million between 2000 and 2006, a 4.2 percentage average annual increase. Over the same years, units at 1 Clarence Street appreciated from \$779,500 to \$1.1 million, a 5.9 percent average annual increase. These findings suggest that AT&T Park contributes to higher home values in South Beach compared to condominiums throughout the city. However, appreciation rates in both South Beach and the city as whole generally remained comparable following construction of the ballpark...The data show that South Beach apartments have commanded higher average rents than comparable units throughout the city since 2002. The difference ranges from 1.0 to 10.8 percent. with the gap growing every year since 2002. Before 2002, South Beach and San Francisco apartments showed similar average rents, with a difference of only 1.2 to 1.7 percent. While both geographies saw rents fall between 2000 and 2006, South Beach apartments experienced a less dramatic decline. Between 2000 and 2006, South Beach rents fell by an average annual rate of 1.0 percent, compared to 2.9 percent for rents throughout San Francisco. South Beach rents also recovered more rapidly after both areas saw sharp drops in 2001. Between 2003 and 2006, South Beach rents climbed by an average of 5.9 percent per year, compared to 3.7 percent a year for San Francisco rents. These findings suggest that AT&T Park generally contributes to a positive effect on the South Beach residential rental market relative to the city as a whole. The ballpark's positive impact may be more pronounced on the rental than ownership market because

younger households who are more likely to be renters may prefer living near AT&T Park and its surrounding amenities such as bars and restaurants."

According to the report, "brokers consistently stated that AT&T Stadium has had a positive effect on the retail real estate market in South Beach. One interviewee declared that prior to the ballpark's opening in 2000, retail space in the area typically leased for \$1.50 to \$2.00 per square foot, compared to \$3.00 to \$4.00 today. Brokers also reported that the number of eateries and retail outlets has expanded since construction of AT&T Stadium, and properties near the stadium continue to attract strong demand from tenants."

The report emphasizes, "...The more successful case studies, including AT&T Park in San Francisco, weaved the stadium into the urban fabric, surrounding the development with new residential and commercial projects. While the stadium and associated infrastructure improvements may lay the groundwork for this development, ultimately it is the new residents and local workers that sustain the local economy."

## **Siting Fire Stations**

One of the major issues that has usually been addressed in studies about fire stations is how to solve the location problem of emergency service facilities, including fire stations. An early researcher decided to use response time as the primary constraint to locate emergency service facilities. By using linear algebra, the researcher was able to find a solution for that problem. Since then, different problems have also been raised, including: location set covering problems, additional coverage problems, and the probabilistic covering problem. Later studies were able to develop models to solve those problems. However, those studies rarely took into account the effects of those emergency service facilities on surrounding properties when they developed the model to locate ambulances and fire companies.

# Siting Ambulance and Fire Companies: New Tools for Planners

ReVelle, Charles. "Siting Ambulances and Fire Companies: New Tools for Planners." Journal of the American Planning Association 57.4 (1991): 471-84. Web. 27 June 2011.

The study focuses on different approaches to siting new fire stations. There are three main models: Primary Covering Models, Additional Coverage Models, and Probabilistic (Reliability) Models. Each model addresses a specific problem. Primary covering models focus on the number of fire stations within time or distance standards and where the stations, engines and truck companies within a specific distance should be located. On the other hand, additional coverage models consider the deployment of ambulances. Probabilistic models apply new constraints to try to find the actual availability of a coverer for an individual demand area within a time or distance standard. The study also discusses possible improvements to emergency service siting models.

# The Locations of Emergency Service Facilities

Toregas, C., R. Swain, C. ReVelle, and L. Bergman. "The Location of Emergency Service Facilities." *Operations Research* 19.6 (1971): 1363-373. Print.

The objective of this paper was to determine the location for emergency facilities based on time response constraints, to ensure that no more than a specified time period would elapse before a response could occur to any fire. Linear programming was used to solve the coverage problems.

44

# Siting a Fire Station by Leveraging Soft Constraints and Supporting Science

Richard L Hewitt. "Siting a fire station by leveraging soft constraints and supporting science." *Interfaces* 32.4 (2002): 69-74. ABI/INFORM Global, ProQuest. Web. 20 Jun. 2011.

The author recommended taking a non-technical approach for obtaining approval for building a new fire station. His new fire station-siting method offered solutions for the political, interpersonal, and perception-based issues that have been seen in previous cases. His method received positive feedback from the chief of a fire department in Denver as well as from city council persons and other firefighters.

#### Wildfire Risk

The presence of wildfire risk, even without fire damage to property, should theoretically be capitalized in the price of a home. If a wildfire burns the forest area surrounding homes, for instance, the aesthetic amenities of the forest are destroyed and there are fewer recreational opportunities, as well as decreased water quality, even if no homes are burned.

One study summarized below found that home prices drop approximately 9.71% after one wildfire occurs, and 22.7% after a second wildfire. According to the study, the second wildfire causes an initial drop in property values followed by an increase in property values. Most of this is attributed to homeowners selling their homes and new, less risk-averse homeowners moving in. Wildfires also increase demand for fire resistant roofing and siding.

Another study found that prior to a wildfire, households placed a premium on living near a forest area, and that that the presence of a wildfire had no effect on the overall value that homeowners place on living near the forest. However, the value for living near the burned area did fall in response to the decreased amenity level.

Do Repeated Wildfires Change Homebuyers' Demand for Homes in High-Risk Areas? A Hedonic Analysis of the Short and Long Term Effects of Repeated Wildfires on House Prices in Southern California

Mueller, Julie, John Loomis, and Armando González-Cabán. "Do Repeated Wildfires Change Homebuyers' Demand for Homes in High-Risk Areas? A Hedonic Analysis of the Short and Long-Term Effects of Repeated Wildfires on House Prices in Southern California."

The Journal of Real Estate Finance and Economics 38.2 (2009): 155-72. SpringerLink.

Web. June 2011.

This study looks at whether the drop in residential property values from a second wildfire is equal to the drop in property values from one wildfire, and if so, whether the second wildfire has a different effect than the first on the demand for homes and thus home prices in high-risk areas.

Previous research found that wildfires have a negative initial impact on home prices. Based on the study's hedonic pricing model, home prices drop approximately 9.71% after one wildfire and 22.7% after a second wildfire. For example, with a mean deflated sale price of \$151,907, the marginal effect of one wildfire within 1.75 miles is an initial decrease in home price of \$14,744. A second wildfire within 1.75 miles causes an additional decrease of \$34,453 in home prices. The aggregate effect of the two wildfires on the selling price of an average house is a \$49,198 drop.

The study also found that elevation and proximity to open space have a negative effect on home prices. The study used hedonic pricing models to analyze both the immediate and long-term effects of repeated wildfires on home prices in Los Angeles County.

The authors discuss the importance of the public's perception of wildfire risk and argue

that a lack of information on natural disaster risk contributes to the public's inaccurate perception of the probability of loss. For example, Bin and Polasky (2004) found that "after a natural disaster, increased risk perception causes a decrease in the value of houses located in high-risk areas." One explanation is that homeowners believe that the first wildfire is going to be the only wildfire near their home for a long time, so they remain in their homes. When the second wildfire occurs, homeowners realize that they are living in a high-risk area and that their homes are at a greater risk for wildfires than they previously perceived. As the authors explain, "a single wildfire may not be a sufficient stimulus to cause homeowners to move, while a second wildfire causes more risk-averse homeowners to move to areas less prone to wildfire...In other words, it takes more than one wildfire to induce a permanent reaction (in the form of moving) from current homebuyers."

According to the study, "the first wildfire causes an initial drop followed by a continued decrease in house price, but the second wildfire causes an initial drop followed by a subsequent increase in house prices...It takes between 5 and 7 years for house prices to recover after a second fire." After a second wildfire, risk-averse homeowners sell their homes to less risk-averse homeowners and home prices begin to recover, which explains the subsequent recovery of home prices after two wildfires. The authors also conclude that the wave of homeowners who sell their homes after the second wildfire never wanted to live in an area with repeated wildfires and that they may not have been fully aware of the actual wildfire risk. The authors view this as a market failure because the homebuyers had an inaccurate view of the risks associated with the homes purchased.

Fortunately, the patterns in home price losses and recovery do not appear to be affected by fire insurance considerations. "Insurance companies have not changed their requirements on

homeowners living in fire prone areas of Southern California. Regular homeowners insurance
policies still cover wildfire losses."

# Fire in the Wildland-Urban Interface: An Examination of the Effects of Wildfire on Residential Property Markets

Hugget, Jr., Robert James. "Fire in the Wildland-Urban Interface: An Examination of the Effects of Wildfire on Residential Property Markets." Diss. North Carolina State University, 2003. Web. June 2011.

According to the author, only one study previously analyzed the behavior of housing prices in response to a wildfire event: "In early 2001, PricewaterhouseCoopers performed an analysis of how the Los Alamos, New Mexico real estate market responded to the Cerro Grande fire that occurred the previous summer." The results of this study showed that housing prices did drop temporarily after the fire. However, the author found flaws in the PricewaterhouseCoopers study, the most important being that only a simple dummy variable – before fire versus after fire – was used and the report did not attempt to determine the mechanism that brought about the decline.

According to the author, "the presence of wildfire risk alone (without the realization of fire) should be capitalized in the price of a residence." He studied the wildfire in Chelan, County, Washington to fill in the gap in the literature by attempting to "measure the relationship between wildfire and property markets by accounting for spatial variability in fire risk and the change in amenity level brought about by a fire event."

A wildfire that does not damage residential property has two impacts. First, the aesthetic amenities of the forest are destroyed. Second, there are fewer recreational opportunities, as well as decreased water quality, impaired wildlife habitat, and damaged trails and roads.

The author also discusses how wildfires "affect the valuation of private and public risk reduction." Individuals can privately take action by installing fire-resistant roofing and siding

material, and clearing combustible brush and debris. The author's results show "an increasing willingness to pay for a Class A fire resistant roof for two years following the fires." Public risk reduction includes "restrictions on development in high-risk areas and ordinances on materials used in housing construction (roofing, siding, windows). However, these may not be well-accepted solutions if homeowners and residents view government mandates as intrusive and overbearing." This has important policy implications: "Should government institutions allocate funds to collectively reduce risk, or should households be left to their own devices to mitigate risk on their own individual properties?"

The study shows that "prior to the fires households placed a premium on living near the forest area that burned." And, "...while the fire had no impact on the overall value that households place on living near the national forest, the value for living near the burned area did fall in response to the decreased amenity level."

# Wildfire Risk and Housing Prices: A Case Study from Colorado Springs

Donovan, Geoffrey H., Patricia A. Champ, and David T. Bury. "Wildfire Risk and Housing Prices: A Case Study from Colorado Springs." *Land Economics* 83.2 (2007): 217-33. Web. 6 July 2011.

The author examines the relationship between wildfire risk and property values in Colorado Springs, CO. There was very little research done previously to this study because of the difficulty of measuring wildfire risk. In 2000, the Colorado Springs Fire Department developed a method to estimates the wildfire risk of 35,000 parcels in the area, and the resulting information was made available online for homeowners. The wildfire risk measurement model consists of 25 different variables, but four of them are the most important contributors to the rating system: "construction material, proximity to dangerous topography, vegetation density around the house and the average slope of the surrounding area." A hedonic price model is built to test the effect of the wildfire risk ratings and the underlying variables on the housing price.

A hedonic price model is usually used to estimate the effect of environmental amenities on property values. In this study, four models are estimated. Two of them focus on finding the effect of the overall rating system on residential price both before and after the rating is available online. The other two estimate the "effect on housing price of the four underlying variables" which are used in the rating system both pre- and post-web site.

The results from the regression show that the overall wildfire risk ratings, in the pre-web site period, are positively related to the housing price. In other words, "positive amenity value of the house and neighborhood characteristics that affect a house's wildfire risk outweighed the perceived loss in household utility from increased wildfire risk." However, this relationship is not significant in the post-web period, suggesting that the availability of the rating increased

awareness of wildfire risk. Awareness is measured by the "change in preferences for roof and siding". Those results also recommend that researchers should account for amenity values when considering the effect of wildfire risk on property values.

#### References

- "Fire Protection Class ISO PPC Program." Insurance Services Office, 2011. Web. June 2011.
- "Fire Suppression Rating Schedule FSRS Overview." Insurance Services Office, 2011. Web.
- "ISO's PPC Program Page 3." ISO Information about Property Casualty Insurance Risk.

  Insurance Services Office, 2011. Web. June 2011.
- "ISO's PPC Program Page 5." ISO Information about Property Casualty Insurance Risk.

  Insurance Services Office, 2011. Web. June 2011.
- "ISO's PPC Program." ISO Information about Property Casualty Insurance Risk. Insurance Services Office, 2011. Web. June 2011.
- "Neighborhood Economic Impacts of the Proposed San Jose Stadium." Bay Area Economics, Nov. 2006. Web. June 2011.
- "Summary Appraisal Report of Rancho San Carlos (the Petan Company Property)."

  Schenberger, Taylor, McCormick & Jecker, Inc., November 25, 2009
- Basu, Sabyasachi G., and Thomas G. Thibodeau. "Analysis of Spatial Autocorrelation in House Prices." The Journal of Real Estate Finance and Economics 17.1 (1998): 61-85. Web. June 2011.
- Billings, Stephen, and Thomas G. Thibodeau. "Intrametropolitan Decentralization: Is

  Government Structure Capitalized in Residential Property Values?" The Journal of Real

  Estate Finance and Economics 42.4 (2009): 416-50. 10 Sept. 2009. Web. 28 June 2011.
- Donovan, Geoffrey H., Patricia A. Champ, and David T. Bury. "Wildfire Risk and Housing Prices: A Case Study from Colorado Springs." *Land Economics* 83.2 (2007): 217-33. Web. 6 July 2011.
- Duncombe, William D. "Costs and Factor Substitution in the Provision of Local Fire

- Services."The Review of Economics and Statistics 74.1 (1992): 180-84. Web. 6 July 2011.
- Dear, Michael, S. Martin Taylor, and G. B. Hall. "External Effects Of Mental Health Facilities." *Annals of the Association of American Geographers* 70.3 (1980): 342-52. Web. 6 July 2011.
- Goodman, Allen C., and Thomas G. Thibodeau. "Age-Related Heteroskedasticity in Hedonic House Price Equations." Journal of Housing Research 6.1 (1995): 25-42. Web. June 2011.
- Gordon, Rena J., and Leonard Gordon. "NEIGHBORHOOD RESPONSES TO STIGMATIZED URBAN FACILITIES: A Private Mental Hospital and Other Facilities in Phoenix, Arizona." Journal of Urban Affairs 12.4 (1990): 437-47. Print.
- Hewitt, Richard L. "Siting a fire station by leveraging soft constraints and supporting science." *Interfaces* 32.4 (2002): 69-74. ABI/INFORM Global, ProQuest. Web. 20 Jun. 2011.
- Huang, Ju-Chin, and Raymond B. Palmquist. "Environmental Conditions, Reservation Prices, and Time on the Market for Housing." Journal of Real Estate Finance and Economics 22.2 (2001): 203-19. SpringerLink. Web. June 2011.
- Hugget, Jr., Robert James. "Fire in the Wildland-Urban Interface: An Examination of the Effects of Wildfire on Residential Property Markets." Diss. North Carolina State University, 2003. Web. June 2011.
- Integra Realty Resources Portland, SERA Architects, Inc., and The Bookin Group. "Fire Station #1 Relocation Real Estate / Economic Impact Report." Portland Development Commission, 13 Apr. 2004. Web. June 2011.

- Langbein, Laura I., Philip Crewson, and Charles Niel Brasher. "Rethinking Ward and At-large Elections in Cities: Total Spending, the Number of Locations of Selected City Services, and Policy Types." Public Choice 88.3-4 (1996): 275-93. JSTOR. Web. June 2011.
- Larsen, James E., and John P. Blair, (2010) "Public services satisfaction and single-family house prices in the USA", International Journal of Housing Markets and Analysis, Vol. 3 Iss: 4, pp.278 289.
- Mueller, Julie, John Loomis, and Armando González-Cabán. "Do Repeated Wildfires Change Homebuyers' Demand for Homes in High-Risk Areas? A Hedonic Analysis of the Short and Long-Term Effects of Repeated Wildfires on House Prices in Southern California."

  The Journal of Real Estate Finance and Economics 38.2 (2009): 155-72. SpringerLink. Web. June 2011.
- Nelson, Jon P. "Highway Noise and Property Values: A Survey of Recent Evidence." *Journal of Transport Economics and Policy* 16.2 (1982): 117-38. Print.
- Nelson, Jon P. "Meta-Analysis of Airport Noise and Hedonic Property Values." Journal of Transport Economics and Policy 38.1 (2004): 1-28. Web. June 2011.
- Ramirez, Jose Vincent., Caroline Schaerer, Philippe Thalmann, and Andrea Baranzini. "Hedonic Property Value Studies of Transportation Noise: Aircraft and Road Noise." Hedonic Methods in Housing Markets: Pricing Environmental Amenities and Segregation. New York: Springer, 2008. 57-82. Print.
- ReVelle, Charles. "Siting Ambulances and Fire Companies: New Tools for Planners." Journal of the American Planning Association 57.4 (1991): 471-84. Web. 27 June 2011.
- Sucahyono, Hadi. "Neighborhood Impacts on Suburban Housing Values." Diss. Ohio State University, 2006. Web. 27 June 2011.

- Theebe, Marcel A. J. "Planes, Trains, and Automobiles: The Impact of Traffic Noise on House Prices." The Journal of Real Estate Finance and Economics 28.2/3 (2004): 209-34.

  SpringerLink. Web. June 2011.
- Tiebout, Charles M. "An Economic Theory of Fiscal Decentralization." Public Finances: Needs, Sources, and Utilization. National Bureau of Economic Research, 1961. Web. June 2011.
- Toregas, C., R. Swain, C. ReVelle, and L. Bergman. "The Location of Emergency Service Facilities." *Operations Research* 19.6 (1971): 1363-373. Print.

#### Appendix: A Quick Introduction to Hedonic Regression Analysis

Hedonic Regression Analysis is a statistical method used to explain variation in prices across otherwise similar goods by looking at different features or characteristics of those goods. Hedonic models, also called "Hedonic Price Indexes", have been used to explain differences in property values, automobile prices, wage rates, and even interest rates charged on corporate debt. Hedonic modeling is widely used including by the United States Department of Labor to account for technological changes when computing the Consumer Price Index. Many communities use hedonic regression to estimate real estate prices for purposes of mass appraisal. The method is also widely used to analyze the impact of specific environmental or local factors (such as fire stations) on local property values. Hedonic regression is now a standard technique, taught widely in economics programs throughout the world.

The method can be traced at least back to Frederick V. Waugh's 1929 Doctoral Dissertation at Columbia University. In his "Quality as a determinant of vegetable prices", he used measures of quality (e.g., the color and size of a tomato) to explain variations in produce prices. A. T. Court, working for the Automobile Manufacturer's Association, is credited as the first to use use the term "Hedonic Price Indexes" when he presented a paper of that name at a national conference on "The Dynamics of Automobile Demand" in 1938. Following his work, the applications for hedonic regression continued to expand and, with the advent of widely available computer based statistical software, the application of hedonic regression became almost commonplace in the 1970s and beyond.

A basic hedonic regression is estimated in the following way. First, a measure of price for a good or service is obtained. This might be a price per unit, a price per square foot, a change in price, or even a percentage interest rate. Second, various explanatory variables are identified which are intended to reflect the aspects of the good or service which are considered by consumers. Third, mathematical techniques are used to decompose the price into an equation which is related to the explanatory variables.

Perhaps the simplest example of a hedonic model is a "component pricing model". Suppose that cream, skim milk, and packaging are all separately available at a store. Then, the price for a quart of milk could be explained as some combination of the prices of cream, skim milk, and packaging reflecting how much of each are found in that quart of milk. The difference between a component pricing model and a more usual hedonic model is that a component pricing model begins with the observed prices of the component goods and aggregates them to find the price of the "bundled good" (e.g., noting the price of cream and such then figuring out what the proper price would be for milk). The hedonic model begins with the price of the bundled good and the amounts of each attribute found in the good to solve backwards for the prices associated with each attribute. If the prices for a quart of whole milk, a gallon of 2% milk, and a pint of light cream were all known, then knowing how much cream, skim milk, and packaging were in each bundle would allow mathematically solving for the prices of cream, skim milk, and packaging. The hedonic model uses statistical techniques to solve for the implicit prices of the attributes. (A wide range of hedonic models are described in various Bureau of Labor Statistics papers linked at http://www.bls.gov/cpi/cpihqablsbib.pdf.)

In real estate, a measure of property value (say, price per square foot) is related to various attributes. These might include characteristics of structures on the property, distance to freeways, environmental variables, social variables, even the names associated with the property development. There would also be a "constant term" to reflect the average value of any attributes that were not included in the model. Using statistical methods, the impact on overall value can be teased out, just like finding the value of cream or skim milk. This way, econometricians are able to identify whether or not there is an impact on price from attributes included in the model. For example, proximity to some attributes (e.g., parks, freeway on-ramps) may have statistically important values but proximity to other attributes (e.g., telephone poles) might have statistically unimportant values. By estimating a hedonic equation, testing whether or not the price associated with an attribute is statistically significant, and then assessing whether the impact would be to raise or lower the value of the good being analyzed, econometricians are able to assess the overall economic impact of a wide variety of features including parks, zoning laws, public buildings, environmental features, and even relative sizes of buildings in the neighborhood. (A further discussion of hedonic methods used in real estate is available in the Appraisal Institute's The Appraisal of Real Estate, 13e, chapters 14 and 28.)

While conceptually simple, properly implementing hedonic price models can be difficult requiring carefully collected data, a properly specified statistical model, and adequate testing of the results to show that the results are valid. (More detailed discussions are available in numerous econometrics texts, such as Ramanathan's <u>Introductory Econometrics with Applications</u>, chapter 6, or numerous examples throughout Halcoussis' Understanding Econometrics.)

Consider the following hypothetical application offered to illustrate typical steps in hedonic modeling. Suppose one is interested in estimating the impact of a public good, say a fire station, on surrounding properties.

First, one would determine whether the study was primarily focusing on residential or commercial properties. For this purpose, assume that the analysis focuses primarily on residential property values. Then, one approach is to identify a group of similar communities in terms of sociodemographic variables such as average income, education levels, and perhaps population. Then, identify the locations of various public facilities including fire stations as well as locations of potential wildfire areas. Historical property transactions data are obtained for the identified communities. The distance from each transacted property to the fire station and to the wildfire areas would be computed.

Using statistical methods, an equation modeling transaction prices for the properties would be estimated. Predictive variables might include property specific characteristics, local demographic variables, national or regional economic data, the distances of each location to the environmental and public good characteristics identified for the model, and a variety of binary variables for zoning, market prestige, and such. The overall equation would be estimated and statistical tests would be performed to determine whether the "fire station" variables were significant or not. If they were significant, then the coefficients could be analyzed to obtain estimates of the impact (positive or negative) of the fire station proximity to the property being studied including estimates of the "plus or minus" factors associated with the estimated values.

#### SUMMARY APPRAISAL REPORT

OF

#### **RANCHO SAN CARLOS**

(THE PETAN COMPANY PROPERTY)
PROPOSED MONTECITO FIRE PROTECTION DISTRICT
FIRE STATION NO. 3 SITE
2500 AND 2600 EAST VALLEY ROAD
MONTECITO, CALIFORNIA

for

# MR. TODD A. AMSPOKER, ATTORNEY AT LAW PRICE POSTEL & PARMA, LLP 200 EAST CARRILLO STREET, SUITE 400 SANTA BARBARA, CALIFORNIA 93101-2190

DATE OF VALUE: NOVEMBER 9, 2009

DATE OF REPORT: NOVEMBER 25, 2009

By

SCHENBERGER, TAYLOR, McCORMICK AND JECKER, INC.
REAL ESTATE APPRAISERS AND CONSULTANTS

1306 HIGUERA STREET

SAN LUIS OBISPO, CALIFORNIA 93401-3122

# Severance Damages to Remainder

# Highest and Best Use

The highest and best use of the remainder will not be affected by the proposed fire station site acquisition. All potential uses remain as in the "before" condition. The main difference will be 1.50 acres less of 2.00-units-per-acre-density land.

Parcel Size per Zoning (Acres)	Acreage "Before"	Acreage "After"	<del>:</del>	Density	=	Development Potential
2	119 <sup>1</sup>	118.50		0.50		59
3	27	27.00		0.33		8
5	_89	89.00		0.20		<u>17</u>
Total	235	234.50				84

From a clustered development standpoint, both density calculations on a "before" and "after" basis provide a development density estimate in excess of the maximum of 82<sup>2</sup> potential residential development units for Rancho San Carlos.

# **Shape**

The shape of the remainder property will be affected with a "notch" removed along the southern property line. The notch will result in some loss of integrated use of the area directly adjacent to the fire station site.

This impact on use will result from proximity of the property line and fencing surrounding the fire station site.

A buffer strip will be necessary in order to provide a setback and avoid conflicts with the fire station fence.

These conflicts could arise due to farm equipment, development equipment, etc.

# **Buffer Strip**

To mitigate this impact, a 10%± buffer strip is assumed on each side of the fire station site. Therefore, for the 250±-foot depth of the fire station site, a 25±-foot buffer strip is assumed, as well as 25 feet along the rear of the fire station site.

The affected area is estimated based on a 25-foot width and 760 perimeter feet (250 + 250 + 260 = 760). This provides the acreage as follows:

25 feet x  $760 \pm$  feet = 19,000 \pm square feet (0.44 acre)

 $<sup>^{1}</sup>$  141 – 22 (Featherhill Ranch) = 119

 $<sup>^{2}</sup>$  93 – 11 (Featherhill Ranch) = 82

# **Buffer Strip Impact**

This strip will remain in fee simple ownership, but its utility will be limited as a setback, a border road, and a buffer strip.

This area is estimated to reflect a 50% impact on the fee simple interest in the land value and a 10% interest in the orchard improvements.

# Fire Station Proximity Impact

The potential impact or damages to the remainder resulting from noise, lights, traffic, and other factors associated with this type of institutional use were considered.

A comprehensive fire station proximity study was completed as part of this appraisal. The reader is referred to the full study, which follows this section. This study has determined that there is no evidence of an adverse impact on adjacent or nearby properties as a result of the existence of a fire station site. In fact, almost all of the anecdotal information indicated a positive perception of the nearby fire station.

Therefore, there is no measurable damages to the remainder due to the fire station impact.

# Fire Station Proximity Study

#### Overview

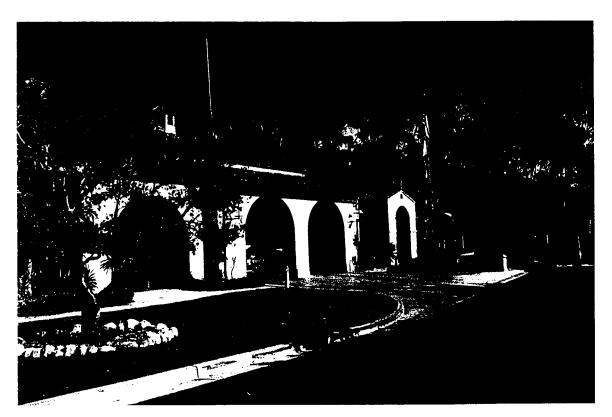
An analysis of similar fire stations was completed in order to analyze any impacts associated with the proposed fire station site and any potential impacts to the remainder parcel due to construction and operation of a fire station on the adjacent property.

## **Fire Station Survey**

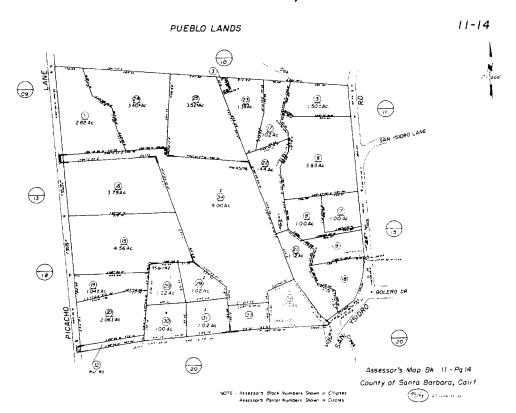
A total of four similar fire station locations were identified for this study. These stations were chosen as they represent the most similar location and land uses when compared to the location of the proposed Montecito Fire Protection District Station No. 3 to be located on a portion of the subject Rancho San Carlos.

Characteristics of each of the comparable stations are identified in the following survey.

**Fire Station Sites** 



Fire Station Site 1 595 San Ysidro Road, Montecito



## FIRE STATION SITE 1

**JURISDICTION:** Montecito Fire Protection District

STATION ID: Station No. 1

**ADDRESS:** 595 San Ysidro Road, Montecito

**APN:** 011-140-026

**ZONING:** Public Utilities (PU)

DATE ESTABLISHED: 1991

SITE ACREAGE: 1.25 acres

**BUILDING SIZE:** 10,000 square feet

**BUILDING HEIGHT:** 2 stories

**EQUIPMENT:** 1 engine and 1 paramedic

STAFF: 7

**ADJACENT USES:** Residential and water district office

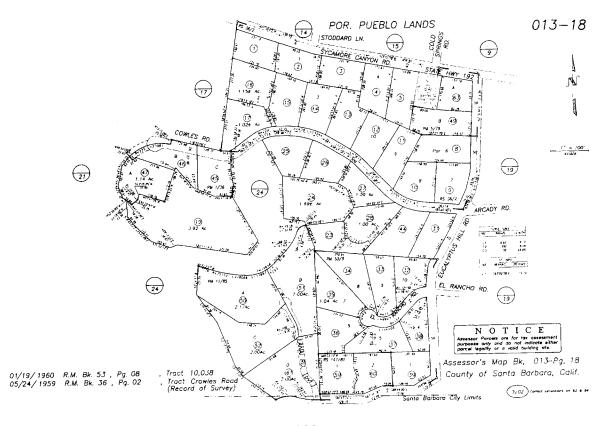
CODE 3 RESPONSES: 700 per year

**COMMENTS**: This is the main station and administrative headquarters for the Montecito Fire Protection District, located on the northern edge of the Montecito Village commercial district. The station is on the west line of San Ysidro Road, just southwest of the Bolero Drive intersection.

The station was relocated to this site from a bit to the south when the new station/headquarters were built in 1991.



Fire Station Site 2 2300 Sycamore Canyon Road, Montecito



200

## **FIRE STATION SITE 2**

JURISDICTION:

Montecito Fire Protection District

STATION ID:

Station No. 2

**ADDRESS:** 

2300 Sycamore Canyon Road, Montecito

APN:

013-180-064

**ZONING:** 

2-E-1 (Santa Barbara County)

DATE ESTABLISHED:

1954; rebuilt in 2003

**SITE ACREAGE:** 

0.61 acre

**BUILDING SIZE:** 

8,000 square feet

**BUILDING HEIGHT:** 

1 story

**EQUIPMENT:** 

1 engine and 1 paramedic

STAFF:

3 to 4

**ADJACENT USES:** 

Residential, school, and garden estate

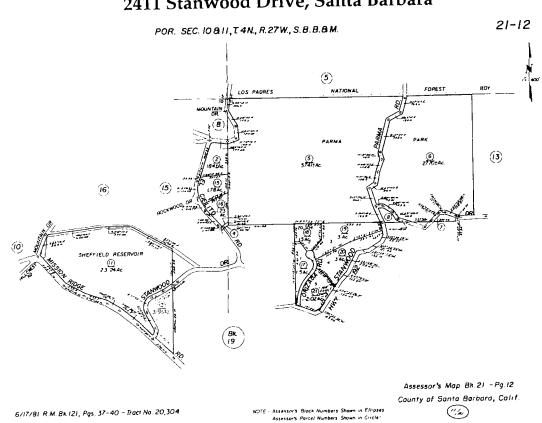
**CODE 3 RESPONSES:** 

500 per year

COMMENTS: This station is situated on the south line of Sycamore Canyon Road, at the intersection with Cold Springs Road in northwestern Montecito. It is bordered on three sides by residential uses, and across from Cold Spring School and Ganna Walska – Lotus Land Garden and Estate. The station was first built in 1954; in 2003, the station was completely rebuilt.



Fire Station Site 3 2411 Stanwood Drive, Santa Barbara



#### **FIRE STATION SITE 3**

JURISDICTION: Santa Barbara City

STATION ID: Station No. 7

ADDRESS: 2411 Stanwood Drive, Santa Barbara

**APN:** 021-120-012

**ZONING:** Public Utilities (PU)

DATE ESTABLISHED: 1950; later rebuilt

SITE ACREAGE: 3.19 acres

**BUILDING SIZE:** 6,000 square feet

**BUILDING HEIGHT:** 1 story

**EQUIPMENT:** 2 engines and 1 paramedic

STAFF: 4

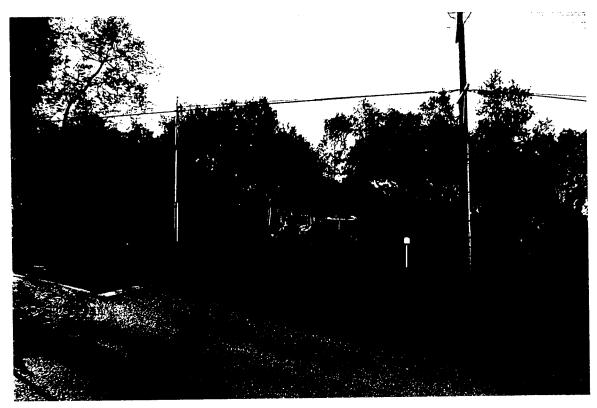
ADJACENT USES: Residential and public park

CODE 3 RESPONSES: 500 to 600 per year

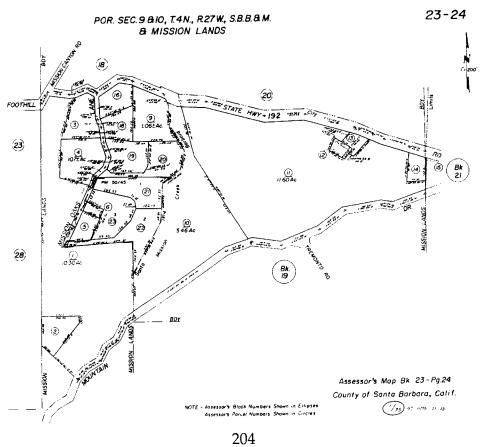
**COMMENTS**: This station is located on the northeastern corner of Stanwood Drive and Mission Ridge Road in northeastern Santa Barbara. It is situated directly across the street from Firescape Garden Public Park and Xerescape Demonstration Garden, located east of Sheffield Reservoir.

This station also features US Forest Service fire equipment and personnel 9 months a year.

Nearby uses also include residences adjacent and across the street (Stanwood Drive).



Fire Station Site 4 2491 Foothill Road, Santa Barbara



#### FIRE STATION SITE 4

JURISDICTION: Santa Barbara County

STATION ID: Station No. 15 (Mission Canyon)

ADDRESS: 2491 Foothill Road, Santa Barbara

**APN:** 023-240-001

**ZONING:** Public Utilities (PU)

DATE ESTABLISHED: 1970

SITE ACREAGE: 0.60± acre net; 10.30 acres gross (includes park)

**BUILDING SIZE:** 2,600 square feet

BUILDING HEIGHT: 1 story

**EQUIPMENT:** 2 engines

STAFF: 3

ADJACENT USES: Residential and public park

CODE 3 RESPONSES: 370 per year

**COMMENTS**: This station is located on the south line of Foothill Road, opposite Mission Canyon Road, in north-central Santa Barbara. The site is bracketed on two sides by single-family residences, plus Rocky Nook public park to the south. It shares the same parcel as the park. Equipment includes both Type 1 (urban) and Type 3 (rural) fire engines.

Fire Station Site Summary

	1	2	3	4
Fire Station Department	Montecito Fire Protection District	Montecito Fire Protection District	Santa Barbara City	Santa Barbara County
Station ID	1	2	7	15
Address	595 San Ysidro Road	2300 Sycamore Canyon Road	2411 Stanwood Drive	2491 Foothill Road
City	Montecito	Montecito	Santa Barbara	Santa Barbara
City APN	011-140-026	013-180-064	021-120-012	023-240-001
Date Established	1991	1954; rebuilt in 2003	1950; later rebuilt	1970
Site Acreage	1.25	0.61	3.19	0.60± <sup>N</sup>
Building Size (Square Feet)	10,000	8,000	6,000	2,600
Building Height	2 stories	1 story	1 story	1 story
Equipment	1 engine/ 1 paramedic	1 engine/ 1 paramedic	2 engines*/ 1 paramedic	2 engines
On-Duty Staff	7	3 to 4	4*	3
Code 3 Responses per Year	700	500	500-600	370

#### Fire Station Survey Recap

Montecito Fire Protection District Station No. 1 is located in the Montecito Village area, while the other three comparable fire stations are situated in more suburban residential/foothill locations like the subject. These are all fairly modern stations, although station sizes have increased substantially over the past 30 years to accommodate staffing and equipment requirements.

Montecito Fire Protection District Station No. 2 is the most representative of the proposed subject site and location (Fire Station No. 3).

# Fire Station Comparable Market Data Survey

An investigation into sales and listings of properties in the vicinity of the four comparable fire stations was undertaken in order to gauge any impacts to the remainder Rancho San Carlos property by virtue of the location and operation of an adjacent fire station.

A comparable market data survey was completed in order to identify sales of properties proximate to fire stations. A total of six sales are identified in Data Group E, Fire Station Proximity Sales.

<sup>\*</sup> Additional equipment and personnel from US Forest Service during 9 months of the year

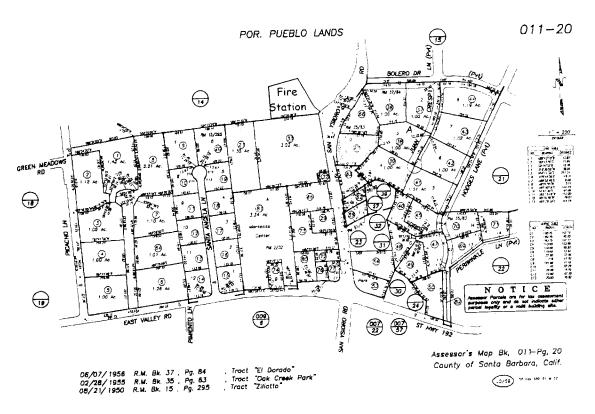
# Data Group E

**Fire Station Proximity Sales** 

<u>Data Group E</u> Fire Station Proximity Sales Location Map



Fire Station Proximity Sale E-1 600 San Ysidro Road, Montecito



LOCATION:

600 San Ysidro Road, Montecito

APN:

011-200-067

**GRANTOR:** 

600 SYR LLC/Richard Ortale

GRANTEE:

Jeffrey Young/Elizabeth Karlsberg

DATE OF TRANSFER:

September 12, 2003

SALE PRICE:

\$3,237,500

TERMS:

New conventional loan with Washington Mutual

RECORDING DATA:

Document No. 2003-124701

DATA SOURCE:

MetroScan/MLS/Jeffrey Young, buyer

CONFIRMED BY:

Todd O. Murphy

PROPERTY DESCRIPTION:

Single-family residence

PROPERTY SIZE:

 $0.70\pm$  acre (0.80 acre per MLS)

ZONING:

Residential Estate 2-E-1 (Santa Barbara County)

ACCESS:

Public, paved road

**UTILITIES:** 

Full public utilities

TOPOGRAPHY:

Level

**LEGAL PARCELS:** 

1

**COMMENTS:** This property is located on the east line of San Ysidro Road, just south of Bolero Drive, in the Village of Montecito. The site is mostly level.

A new, custom, 4,711-square-foot residence was built in 2003. There are also gardens, landscaping, walled courtyard, and a three-car garage.

This property was listed for sale March 2003 for \$3,900,000, and sold September 2003 for a reported price of \$3,237,500.

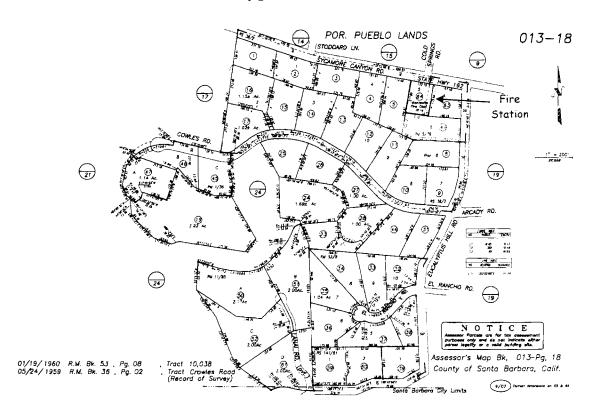
# FIRE STATION PROXIMITY SALE E-1, CONTINUED

#### FIRE STATION IMPACT

This site is located diagonally across the street from Montecito Fire Station No. 1. The buyer, Mr. Young, was interviewed regarding the fire station impact. He indicated that he viewed the fire station as a <u>positive</u> attribute due to concerns about fire protection in this area. He also indicated that there is some noise nuisance due to sirens, but that the fire department has been cooperative with regard to delaying siren use until the fire trucks are farther away.



Fire Station Proximity Sale E-2 3165 Eucalyptus Hill Road, Montecito



LOCATION:

3165 Eucalyptus Hill Road, Montecito

APN:

013-180-049

GRANTOR:

Theodorus and Anna Van Koppen

GRANTEE:

Donald and Noelle Burg

DATE OF TRANSFER:

March 10, 2006

SALE PRICE:

\$2,200,000

TERMS:

New loan

RECORDING DATA:

Document No. 2006-19131

DATA SOURCE:

MetroScan/MLS/Lynn Golden, listing agent

CONFIRMED BY:

Todd O. Murphy

PROPERTY DESCRIPTION:

Single-family residence

PROPERTY SIZE:

0.90± acre (0.93 acre per MLS)

ZONING:

Residential Estate 5-E-1 (Santa Barbara County)

ACCESS:

Public, paved road

**UTILITIES:** 

Full public utilities

TOPOGRAPHY:

Generally level

LEGAL PARCELS:

1

COMMENTS: This property is located on the west line of Eucalyptus Hill Road, south of Sycamore Canyon Road, in northwestern Montecito. The site is a generally level, extradeep lot that totals 0.90 acre (0.93 acre per MLS). Built in 1980, the 3,766-square-foot residence is a two-story, Tudor-style home with four bedrooms, three-and-one-half bathrooms, and a two-car garage, plus gardens, lawn, landscaping, spa, greenhouse, etc.

The property was listed for sale May 2005 for \$2,400,000 and sold March 2006 for \$2,200,000. The buyers have since completed a new remodel of the kitchen and added a three-pool/pond water feature and gardens.

### FIRE STATION PROXIMITY SALE E-2, CONTINUED

As of March 2009, the property was relisted for sale at \$3,249,000; the asking price is now \$2,750,000.

#### FIRE STATION IMPACT

The rear yard of this property lies adjacent to the rear of Montecito Fire Station No. 2, with about 122 feet of shared boundary.

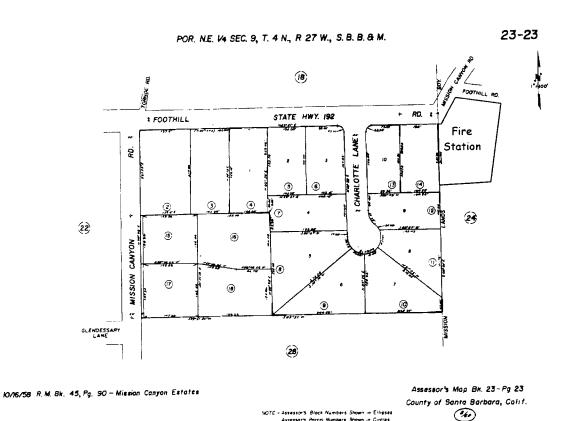
The original listing agent was Bryan Frederich with RE/MAX-Montecito.

The property has been relisted for sale through Lynn Golden with Village Properties-Montecito. Ms. Golden represented the buyers when they acquired the property in 2006. She indicated that to her knowledge, the adjacent fire station has not been an impact. She stated "Quite honestly, the property owners feel their house was saved, in part, due to its close proximity to the fire station during the Tea Fire of 2009. The fire station provided loudspeaker announcements and instructions for the neighborhood during the crisis."

Ms. Golden also indicated that the property owners "have only good things to say about the fire station as adjacent neighbors, with no negative impact."



Fire Station Proximity Sale E-3 780 Charlotte Lane, Santa Barbara



215

LOCATION: 780 Charlotte Lane, Santa Barbara

**APN:** 023-230-011

GRANTOR: Kamal and Harza Turan-Mirza

GRANTEE: Scott and Kimberly Grafton

DATE OF TRANSFER: June 30, 2006

**SALE PRICE:** \$1,875,000

TERMS: New loan

RECORDING DATA: Document No. 2006-51867

DATA SOURCE: MetroScan/MLS/Bruce Venturelli, listing agent

CONFIRMED BY: Todd O. Murphy

PROPERTY DESCRIPTION: Single-family residence

PROPERTY SIZE: 0.44± acre

**ZONING:** Residential Estate 20-R-1 (Santa Barbara County)

ACCESS: Public paved drive

UTILITIES: Public water, public sewer, electricity, gas, and

telephone at street

TOPOGRAPHY: Generally upsloping

LEGAL PARCELS: 1

COMMENTS: This property is located just off Foothill Road, near Mission Canyon Road, in northern Santa Barbara. The site is a level lot on a cul-de-sac backing up to a public open space/park area. Built in 1961, this is an attractive, architecturally significant, 2,300-square-foot ranch house-style residence. It features attractive gardens and a swimming pool.

The property was listed for sale in 2004 for \$1,895,000 and relisted for \$1,995,000 in 2006. It sold June 2006 for \$1,875,000.

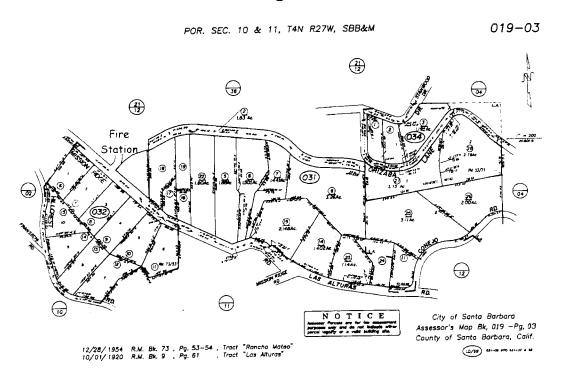
#### FIRE STATION PROXIMITY SALE E-3, CONTINUED

#### **FIRE STATION IMPACT**

The rear of the site is about 125 feet southwest of the rear of Santa Barbara County Fire Station No. 15. The listing agent (Bruce Venturelli) indicated that the fire station was not visually significant affecting this property. Regarding the impact on marketing the property, he indicated if anything, it is positive due to very quick fire response time. Also, the fire trucks delay their sirens so the impact is minimal.



Fire Station Proximity Sale E-4 830 Mission Ridge Road, Santa Barbara



LOCATION:

830 Mission Ridge Road, Santa Barbara

**APNS:** 

019-032-007

**GRANTOR:** 

Sittig Family Trust

GRANTEE:

Byrne Family Trust

**DATE OF TRANSFER:** 

February 26, 2009

**SALE PRICE:** 

\$1,437,500

TERMS:

Cash to new loan

RECORDING DATA:

Document No. 2009-10099

DATA SOURCE:

MetroScan/MLS/Fal Oliver, listing agent

CONFIRMED BY:

Todd O. Murphy

PROPERTY DESCRIPTION:

Single-family residence

PROPERTY SIZE:

1.00± acre

ZONING:

Residential A-1 (City of Santa Barbara)

**ACCESS:** 

Public, paved road

**UTILITIES:** 

Full public utilities

TOPOGRAPHY:

Mostly level; elevated above grade

**LEGAL PARCELS:** 

1

COMMENTS: This property is located on Mission Ridge Road in the Upper Rivera neighborhood in northeastern Santa Barbara. The site is situated across the street from the intersection of Mission Ridge Road and Stanwood Drive, which represents the route of Highway 192.

Built in 1984, the 2,280-square-foot residence is a good-quality, two-story Cap Cod design with four bedrooms, three bathrooms, bonus room over the two-car garage, large patio trellis, and gardens.

## FIRE STATION PROXIMITY SALE E-4, CONTINUED

The property was listed for sale May 2008 for \$1,825,000; the price later dropped to \$1,595,000. It sold February 2009 for \$1,437,500.

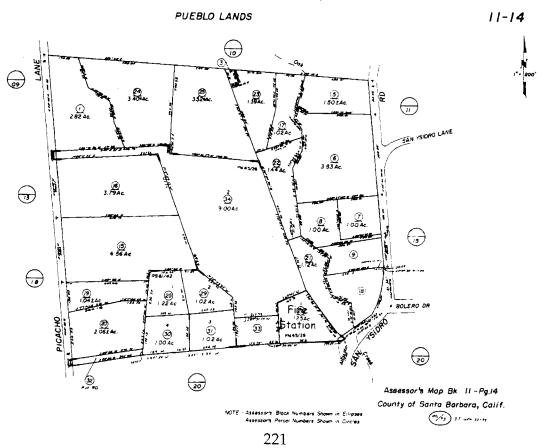
#### FIRE STATION IMPACT

This property is located directly across the street from Santa Barbara City Fire Station No. 7. According to the listing agent, Mr. Fal Oliver, there was <u>no</u> impact on the price or marketability of the property. Mr. Oliver stated "In fact, the buyers believed it was a <u>plus</u> due to close proximity for fire and paramedic rescue services."

Mr. Oliver indicated initially he thought the fire station would be an issue, but it did not raise any negative issues at all.



Fire Station Proximity Sale E-5 629 San Ysidro Road, Montecito



SCHENBERGER, TAYLOR, McCORMICK & JECKER, INC.

LOCATION: 629 San Ysidro Road, Montecito

**APN:** 011-140-018

GRANTOR: Eric Ratley, Trustee

GRANTEE: Thomas Clark/Christian Maloski-Clark

DATE OF TRANSFER: September 2, 2009

**SALE PRICE:** \$2,147,000

TERMS: Cash to new \$729,750 conventional loan

**RECORDING DATA:** Document No. 2009-53915

DATA SOURCE: MetroScan/MLS/Ryan Strehlow, listing agent

CONFIRMED BY: Todd O. Murphy

PROPERTY DESCRIPTION: Single-family residence and guesthouse

**PROPERTY SIZE:** 1.17± acres

**ZONING:** Residential Estate 3-E-1 (Santa Barbara County)

ACCESS: Public, paved road

UTILITIES: Full public utilities and water well

TOPOGRAPHY: Generally level and creek

LEGAL PARCELS: 1

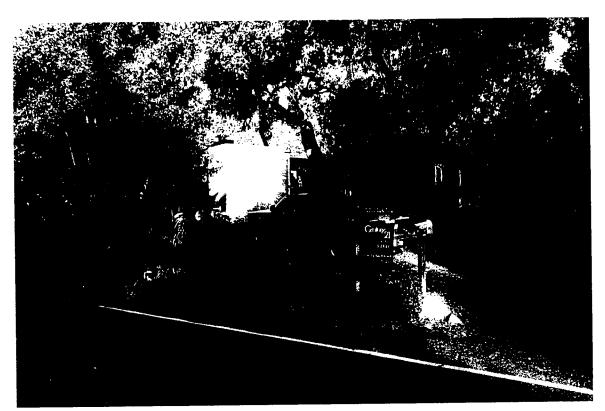
**COMMENTS:** This property is located on the west line of San Ysidro Road opposite Bolero Drive, just north of the Montecito Village. The site is bordered by Oak Creek to the west, with a pleasant setting.

There is an older, 1,500-square-foot, ranch-style residence; a stone well house converted to a guest residence; and a detached two-car garage. The property was originally listed on July 21, 2009, for \$1,875,000 and sold for more than the asking price. There were three overbid offers; the ultimate sale price was \$2,147,000.

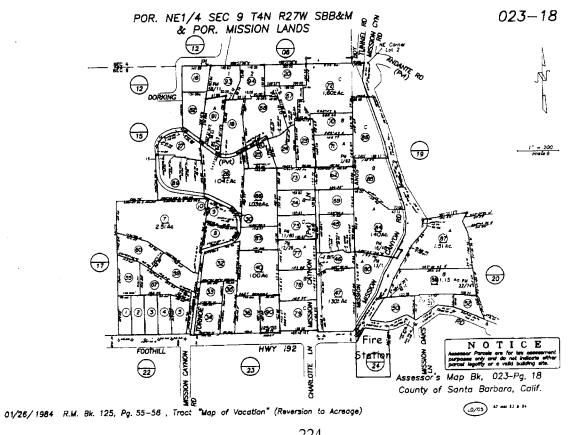
#### FIRE STATION PROXIMITY SALE E-5, CONTINUED

#### FIRE STATION IMPACT

This parcel is 1 lot northeast of Montecito Fire Station No. 1 (about 57 to 130 feet away) according to the listing agent. Some buyers mentioned the nearby fire station and there was possibly a slight negative perception; overall, the fire station featured <u>no</u> impact on the marketability or sale price of the property. This appears to be borne out by the fact the property was sold with three overbid offers.



Fire Station Proximity Sale E-6 2450 Foothill Road, Santa Barbara



LOCATION:

2450 Foothill Road, Santa Barbara

APNs:

023-180-051

**GRANTOR:** 

Richard Nordaker Trust

**GRANTEE:** 

Lorie White

**DATE OF TRANSFER:** 

November 6, 2009

**SALE PRICE:** 

\$635,000

TERMS:

Cash to \$305,000 conventional first trust deed

**RECORDING DATA:** 

Document No. 2009-67268

**DATA SOURCE:** 

MetroScan/MLS/Andy Adler Century 21 Butler

Realty, listing agent

CONFIRMED BY:

Todd O. Murphy

PROPERTY DESCRIPTION:

Single-family residence

**PROPERTY SIZE:** 

0.33± acre (0.28 acre per MetroScan)

**ZONING:** 

Residential Estate 1-E-1 (Santa Barbara County)

**ACCESS:** 

Public, paved road

**UTILITIES:** 

Full public utilities

TOPOGRAPHY:

Level, slightly above grade

**LEGAL PARCELS:** 

1

**COMMENTS:** This property is located on the north line of Foothill Road in the Mission Canyon area of Santa Barbara. The site is level with some traffic influence from Foothill Road (State Highway 192), an arterial connector road in northern Santa Barbara.

The residence is a modest, 972-square-foot, two-bedroom/one-bathroom, rustic-design cabin built in 1949. There is also a two-car garage. These buildings are in need of substantial repair/upgrade work. The basic bone structure is sound, but the house will need extensive work.

#### FIRE STATION PROXIMITY SALE E-6, CONTINUED

The property was listed for sale July 27, 2009, for \$745,000; entered escrow in September 2009; and sold in November 2009 for \$635,000. The buyer plans to retain and rehab the structures.

#### FIRE STATION IMPACT

The property is located diagonally across the street from Santa Barbara County Fire Station No. 15. The MLS sheet states "In area of high risk of fire (but close to Fire Station!)." The listing agent, Andy Adler, indicates that the nearby fire station had no impact on the marketability or sale price of the property.

## Data Table E Fire Station Proximity Sale Tabulation (Ranked by Date)

6-1-	Cala Data	Cala Deiaa	Residence Size (Square	Lot Size	Zanina	Fine Ctation Duncing to	
Sale	Sale Date	Sale Price	Feet)	(Acres)	Zoning	Fire Station Proximity	
E-1	9-03	\$3,237,500	· · · · · · · · · · · · · · · · · · ·				
1	600 San Ysidro Road, Montecito; APN 011-200-067; new, single-family residence; 600 SYR LLC/Richard Ortale to Jeffrey Young/Elizabeth Karlsberg (Document No. 2003-124701)						
E-2	3-06	2,200,000	3,766	$0.90\pm$	5-E-1	Adjacent to rear yard	
1	icalyptus Hill I nent No. 2006-1		; APN 013-180-	·049; moder	n, custom re	sidence; Van Koppen to Burg	
E-3	6-06	1,875,000	2,300	$0.44 \pm$	20-R-1	1 lot away from rear yard	
	780 Charlotte Lane, Santa Barbara; APN 023-230-011; older, good-quality, single-family residence; Turan-Mirza to Grafton (Document No. 2006-51867)						
E-4	. 2-09	1,437,500	2,280	$1.00 \pm$	A-1	Across street	
830 Mission Ridge Road, Santa Barbara; APN 019-032-007; custom, modern residence; Sittig Family Trust to Byrne Family Trust (Document No. 2009-10099)							
E-5	9-09	2,147,000	1,500	$1.17\pm$	3-E-1	1 lot away	
629 San Ysidro Road, Montecito; APN 011-140-018; older, single-family residence; Eric Ratley, Trustee, to Thomas Clark/Christian Maloski-Clark (Document No. 2009-53915)							
E-6	11-09	635,000	972	$0.33 \pm$	1-E-1	Across street (diagonal)	
	2450 Foothill Road, Santa Barbara; APN 023-180-051; modest, single-family residence and garage; Richard Nordaker Trust to White (Document No. 2009-67268)						

#### Fire Station Proximity Comparable Results

The results of this survey are recapped as follows:

Fire Station Proximity Comparable Analysis Summary

		Impact on		-
Comparable	Proximity	Marketability	Price	Comments
E-1	Across street	No	No	Buyer thought that it was a positive
E-2	Adjacent to rear yard	No	No	Buyer and brokers thought it was beneficial, especially during Tea Fire
E-3	1 lot away from rear yard	No	No	Broker thought if anything it was a positive
E-4	Across street	No	No	Buyer believed it was a plus
E-5	1 lot away	No	No	Some buyers mentioned as possible slight negative; overall, no impact
E-6	Across street (diagonal)	No	No	Agent believed there was no impact; MLS mentioned high fire area (but close to Fire Station!)

#### Fire Station Proximity Comparable Analysis and Conclusions

Due to the infrequency of sales and numerous variables affecting the price, a statistical analysis of fire station proximity market data was not feasible. Instead, direct interviews with brokers and/or buyers of six properties proximate to fire stations were conducted.

#### Severance Damages

Based on the available data comprising a sampling of six residential sales that sold in proximity to a fire station, there is <u>no evidence of an adverse impact</u> to the adjacent or surrounding properties. Therefore, no measurable severance damages will appear to affect the remainder property due to construction and operation of the proposed Montecito Fire Protection District Fire Station No. 3.

#### **Benefits**

The AMEC report identifies potential development review issues associated with the more lengthy fire response time. Construction of the proposed new Montecito Fire Protection District Fire Station No. 3 will likely provide a sufficient fire response time to facilitate development processing.

The actual monetary benefit is hard to measure at this point; however, there may well be potential future benefits to the subject property due to enhanced development processing.

# APPENDIX K AGRICULTURAL POLICY ANALYSIS

#### APPENDIX K

#### COUNTY AGRICULTURAL THRESHOLDS ANALYSIS

The County of Santa Barbara utilizes Agricultural Resource Guidelines to assess potential project-related impacts to agricultural resources. These Guidelines employ weighted factors such as parcel size, soils, water availability, land use designation and a range of other issues to help determine if projects would adversely affect significant agricultural resources. These Guidelines are included within the Santa Barbara County Environmental Thresholds and Guidelines Manual (Santa Barbara County, 2008). As outlined in Table 1 below, the proposed 2.5-acre project site, 76.87-acre APN 155-070-008 and 20.69-acre CC (03CC036) were assessed under the County Agricultural Resource Thresholds and Guidelines. The County's weighted point system uses a figure of 60 points to identify what constitutes a significant viable agricultural operation. Review of the project site indicates that it would receive a total of 54 points, which is below the County significance threshold.

The project site remained below the County significance thresholds primarily due to the very small acreage proposed for development, the site's residential land use designation of 2 acres (Semi-Rural Residential [SRR-0.5]), the inability of the site to qualify for agricultural preserve status due to its urban designation, and its small contribution to the site's overall combined farming operation. APN 155-070-008 was found to remain viable after loss of 2.5 acres as the site would retain more than 51 acres of active agriculture, a large parcel size, prime soils, relatively adequate water availability, and compatible surrounding uses. Similarly, the remaining 18+ acres of CC 03CC036 would remain viable after loss of the 2.5-acre project site for similar reasons, although its smaller parcel size would leave it less viable (e.g., 61 points), but still above the County's thresholds of 60 points.

**Table 1. Agricultural Viability Rating of the Proposed Project Site** 

	Possible Points	Points Assigned			
Criteria		APN 155- 070-008	03CC037	Project Site	Comment
Parcel Size	15	10	7	2	The project site's 2.5 acres is mid-way on available point scale of 1-3 points. Rating for existing APN or CC after loss of 2.5 acres would remain unchanged due to available acreage closely matching point scale.
Soil Classification	15	14	14	14	The site's Class II soils are highly suitable for orchards and have only moderate constraints for erosion and avocado root rot.
Water Availability	15	13	13	13	Adequate water supply is available to the project site through Montecito Water District, wells and stream diversions.
Crop Suitability	10	10	10	10	The project site is highly suitable for irrigated orchard crops.
Existing and Historic Land Use	5	5	5	5	Historic and existing lemon orchard cultivation on the project site and larger CC and APN.
Comprehensive Plan Designation	5	0	0	0	The project site is designated as Semi-Rural residential (SRR-0.5)
Adjacent Land Use	10	9	9	9	The project site is partially surrounded by agricultural operations with some urban uses adjacent, in a region with adequate support uses
Agricultural Preserve Potential	7	0	0	0	The project site is too small to qualify for prime agricultural preserve with adjacent parcels
Combined Farming Operations	5	5	3	1	The project site comprises a small component of a combined farming operation while the CC and APN constitute increasingly larger portions of the combined operation.
TOTAL	87	66	61	54	

Sources: Santa Barbara County 1993; 2008.

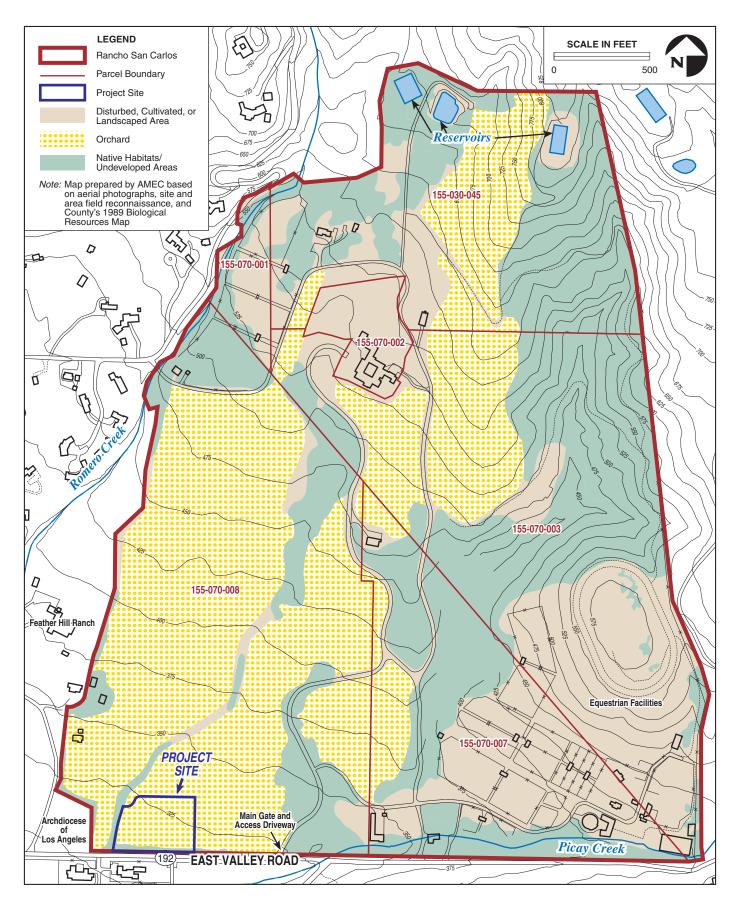


Figure 1. Rancho San Carlos — Existing Agricultural Operations

#### ARTICLE IV

ORDINANCE NO. 4210

AN ORDINANCE AMENDING SECTION 35-487,
ADOPTING A NEW ZONING MAP,
OF ARTICLE IV OF CHAPTER 35 OF THE CODE OF THE COUNTY OF
SANTA BARBARA, CALIFORNIA, BY ADOPTING BY REFERENCE
ONE ZONING MAP IDENTIFIED AS BOARD OF SUPERVISORS
EXHIBIT NO\$.35-40.1. TO REZONE ASSESSOR'S PARCEL NUMBERS
155-030-045, 155-070-01, 155-070-02, 155-070-03, 155-070-07,
155-070-08, 155-070-12, 155-070-13, AND 155-070-14
FROM A MIXTURE OF 3-E-1 AND 5-E-1 ZONING TO A MIXTURE OF
2-E-1, 3-E-1, AND 5-E-1 ZONING AND TO AMEND THE MONTECITO
ENVIRONMENTALLY SENSITIVE HABITAT (ESH) OVERLAY ZONE DISTRICT MAP
TO INCLUDE ESH AREAS ALONG PICAY CREEK AND ITS TRIBUTARIES

Case No. 95-RZ-003

The Board of Supervisors of the County of Santa Barbara ordains as follows:

#### SECTION 1

Section 35-487, "Ordinance Text Amendments/Rezones," of Article IV of Chapter 35 of the Code of the County of Santa Barbara, California, is hereby amended by the adoption by reference of one zoning map identified as Board of Supervisors Exhibit Nos 35-404. which rezones Assessor's Parcel Numbers 155-030-045, 155-070-01, 155-070-02, 155-070-03, 155-070-07, 155-070-08, 155-070-12, 155-070-13, and 155-070-14 from a mixture of 3-E-1 and 5-E-1 (Residential, 3 and 5-acre minimum parcel size) zoning to a mixture of 2-E-1, 3-E-1, and 5-E-1 (Residential, 2, 3, and 5-acre minimum parcel size) zoning, and to amend the Montecito Environmentally Sensitive Habitat Overlay Zone District Map to include the area along Picay Creek and its tributaries which include riparian woodland and chaparral; and which is made a part of said section by reference, with the same force and effect as if the boundaries, location, and lines of the districts therein delineated and all notations, references and other information shown on said Zoning Map were specifically and fully set out and described therein.

#### SECTION 2

The Chair of the Board of Supervisors is hereby authorized and directed to endorse said Exhibit Nos 35-404.7.1 to show that said map has been adopted by this Board.

#### SANTA BARBARA COUNTY ACENDA BOARD LEMBR

Clark of the Board of Sup Rooms 407 | 05 E. August (\$03) 364-2240



Agenda Number:

Report Date:

October 24, 1995

Department: Budget Unit:

P&D 4390

Agenda Date: Placement:

November 7, 1995 Departmental

Estimated Time Continued Item:

l hour NO

TO:

Board of Supervisors

FROM:

Albert J. McCurdy, Secretary to the Planning Commission Planning & Development Department

STAFF CONTACT: Dianne Meester (Ext. #2075)

SUBJECT:

Palmer Jackson General Plan Amendment and Rezone 95-GP-003 and 95-RZ-003

# RECOMMENDATIONS:

C.A. Recommendation:

That the Board of Supervisors:

- Adopt the required findings for the project as set forth in Attachment A of the Planning Commission A. Action Letter dated September 20, 1995, including CEQA findings; and B.
- Conceptually adopt Resolution (95-GP-003) attached to the Planning Commission Action Letter dated September 20, 1995, approving the land use designation change and text amendment; and C.
- Conceptually adopt the Ordinance (95-RZ-003) attached to the Planning Commission Action Letter dated September 20, 1995, approving the rezone; and, В.
- Continue 95-GP-003 and 95-RZ-003 to November 28, 1995 [WINDOW DATE] for consideration of final adoption. EXECUTIVE SUMMARY & DISCUSSION:

This proposed project is the result of a Memorandum of Understanding between Palmer Jackson and the County of Santa Barbara, which was entered into in an attempt to resolve litigation resulting from the County's adoption of the Montecito Community Plan. Approval of this project would result in the dismissal of lawsuits filed by Palmer Jackson in December of 1992 which challenged the validity of the Environmental Impact Report for the Montecito Community Plan and claimed that the downzoning of the subject property resulted in a taking.

On September 20, 1995, the Planning Commission considered the Palmer Jackson General Plan Amendment and Rezone request, and unanimously recommended approval of the request. The majority of the discussion at the hearing centered around the proposed text amendment. Commissioner Relis included a comment in



the Planning Commission Action Letter that the Board carefully consider the text amendment.

The Montecito Association heard the Palmer Jackson request on September 26, 1995, and both the Land Use Committee and Board of Directors voted to approve the request. Again, the majority of discussion focussed on the text amendment.

The proposed text amendment is intended to be a footnote in the Montecito Community Plan which indicates the County's intent to consider future development options on the property without changing the density of the development. Staff advised the Planning Commission and the Montecito Association that there currently is no provision in the zoning ordinance to accomplish this, other than to rezone the property to Planned Residential Development or Design Residential. Thus, the effect of this text amendment is to indicate a willingness of the County to entertain an alternative zone district for the property in the future, while maintaining the same density. Alternatively, if a zoning tool is adopted which would allow flexibility in parcel sizes, the use of such a tool on this property would be considered. With this understanding of the meaning of the text amendment, staff would support the proposal, including the text amendment language. FACILITATION DISCUSSION & OUTCOME: N/A.

MANDATES & SERVICE LEVELS: Government Code § 65358 and Article III, §35-325.

FISCAL AND FACILITIES IMPACTS: All processing costs paid by the applicant. SPECIAL INSTRUCTIONS:

- Clerk of the Board will forward a copy of the Minute Order, together with any pertinent documents 0 [i.e. Resolution/Ordinance] to Planning Commission Support Staff.
- Planning and Development will prepare all final action letters (condition letters) and otherwise notify all concerned parties of the Board of Supervisors' final action. Concurrences: N/A.

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# County of Santa Barbara Planning and Development

John Patton, Director

PLANNING COMMISSION Meeting of September 20, 1995

TO THE HONORABLE BOARD OF SUPERVISORS COUNTY OF SANTA BARBARA, CALIFORNIA

In the matter of: Hearing on the request of Palmer Jackson to consider:

- Case number 95-GP-003 [application filed 03/02/95] proposing to amend the Santa Barbara County Comprehensive Plan Land Use Element/Montecito Community Plan by changing the Land Use Designation from a mixture of SRR-0.33 and SRR-0.2 designations to a mixture of SRR-0.5, SRR-0.33, SRR-0.2 designations and to amend the text of the Montecito Community Plan under the provisions of Santa Barbara County Code Chapter 35 of Article IV; and
- Case number 95-RZ-003 [application filed 03/02/95] proposing to rezone from a mixture of 3-E-1 and 5-E-1 zoning to a mixture 2-E-1, 3-E-1, and 5-E-1 zoning under the provisions of Santa Barbara County Code Chapter 35 of Article IV; and
- Accept the addendum to 92-EIR-03 pursuant to the Guidelines for Implementation of the California Environmental Quality Act.
- The applications involve APN's 155-030-045, 155-070-01, -02, -03, -07, -08, -12, -13, and 155-070-14, located just east of Romero Canyon Road and north of East Valley Road and is known as 2500 East Valley Road, also known as Rancho San Carlos and the Featherhill Ranch. (GB)

Planning Commission Recommendations: Commissioner Wilde moved, seconded by Commissioner O'Neal and carried by a vote of 5 to 0\*\*, to recommend that the Board of Supervisors:

- A. Adopt the required findings for the project as set forth in Attachment A of staff's report dated September 11, 1995, including CEQA findings; and
- B. Adopt Resolution (95-GP-003) set forth in Attachment C and Ordinance (95-RZ-003) as indicated in Attachment D of staff's report, approving the land use designation and text

\*\*Commissioner Relis stated the following for the record:

"For the record I did support the motion, however, I would like to send a message to the Board that they carefully consider the text amendment request as I believe it is inconsistent with the current zoning and may set a negative precedent for other project applicants that come before the County."

The attached findings, draft Resolution (Attachment C) and draft Ordinance (Attachment D) reflect the Planning Commission's actions.

> 123 East Anapamu Street · Santa Barbara CA · 93101-2058 Phone: (805) 568-2000 Fax: (805) 568-2030

Palmer Jackson: 95-GP-003, 95-RZ-003 ATTACHMENT A - Findings Page A-4

# 3. The request is consistent with good zoning and planning practices.

The proposed project represents good planning practice at this time as it does reconfigure that Land Use and Zoning designations to consider the environmental constraints of the property. It also provides for the potential to further address environmental concerns by allowing for the potential for clustering of units away from biologically and visually sensitive areas by including the amended text language and by providing for designation of an ESH area along Picay Creek and its tributaries. In addition, the proposed zoning would be consistent with parcel sizes in the surrounding areas while maintaining larger parcel sizes in the steeper areas of the site. The current zoning would allow for smaller, 3 acre parcels in areas which are currently constrained by steep slopes and high value biological habitat. In addition, it should be noted that the proposed project does not negate the potential to reduce densities when appropriate to address environmental constraints. At the time future discretionary review would occur, for example when a tract map is submitted, further environmental review would occur and constraints and impacts to resources would be analyzed in detail at that time.

Palmer Jackson; 95:GP-003, 95-RZ-003 ATTACHMENT A Findings Page A-3

- 1.4.7 <u>Public Facilities</u>: Impacts to public facilities, specifically solid waste and schools, are considered to be significant and unavoidable (Class I). Standard statutory fees would partially offset impacts to schools, but not fully: A Statement of Overriding Considerations was adopted with the Montecito Community Plan EIR to address these impacts. Impacts to the sewer system and other infrastructure were considered to be less than significant (Class III), as the applicant would be responsible for the funding of these facilities and adequate capacity is available.
- 1.4.8 <u>Aesthetics/Visual Resources</u>: Impacts to visual resources due to the change in character of the area are considered to be significant and unavoidable (Class I). Implementation of policies included in the Montecito Community Plan along with the Montecito Architectural Guidelines would serve to lessen visual impacts associated with increased density by encouraging the minimization of grading and the obtrusiveness of structures. A Statement of Overriding Considerations was adopted with the Montecito Community Plan EIR to address these impacts.

## 2.0 LEGISLATIVE FINDINGS

## 2.1 ZONING ORDINANCE FINDINGS

Pursuant to Section 35:487.5 of the Article IV Zoning Ordinance, in order for the Planning Commission to recommend approval or for the Board of Supervisors to approve a Rezone or Text Amendment request, the following findings shall be made by the Planning Commission and Board of Supervisors.

1. The request is in the interests of the general community welfare.

The proposed project would reconfigure land use and zoning designations on the property to be more sensitive to environmental constraints that exist on the project site. In addition, the proposed text amendment and designation of areas along Picay Creek and its tributaries as environmentally sensitive habitat would serve to provide for the flexibility and insurance that future development on the site would be more sensitive to the environmental concerns and needs of the community by minimizing impacts to biological and visual resources through clustering or avoidance of sensitive resources.

2. The request is consistent with the Comprehensive Plan, the requirements of State

As discussed in the policy consistency section of this staff report, the general plan amendment and rezone is consistent with Comprehensive Plan Policies and Development Standards. The procedures followed in the adoption of this general plan amendment and rezone comply with the requirements of Article IV and State planning and zoning laws.

Palmer Jackson: 95-GP-003, 95-RZ-003 ATTACHMENT A - Findings Page A-2

- Air Quality: Implementation of policies in the Montecito Community Plan which require utilization of Beast Available Control Technology for all construction activities, and incorporation of dust control techniques into the project design would mitigate adverse impacts associated with construction activities (Class III). The project would add incrementally to the long-term generation of ozone precursors which was considered a cumulatively significant and unavoidable impact in the Montecito Community Plan EIR (92-EIR-03). A Statement of Overriding Consideration was adopted with the Montecito Community Plan EIR to address this impact.
- Biological Resources: Implementation of policies and development standards included in the Montecito Community Plan which apply to ESH areas as well as those which apply to General Resources would serve to partially mitigate potentially significant biological impacts. In summary, these policies call for the following:
  - Designation, protection, and preservation of ESH areas.
  - Specific habitat protection for riparian areas.
  - Encouragement of restoration projects.
  - Periodic updating of biological resources maps,
  - Prevention of fragmentation of significant biological communities.
  - Preservation of specimen and native trees, or trees which provide raptor roosting sites.
  - Preservation and protection of Oak Woodlands.
  - Encouragement of the use of conservation or open space easements and native landscaping.

In addition to these policies, designation of the area along Picay Creek and its tributaries as Environmentally Sensitive Habitat area (consistent with the Article IV Zoning Ordinance which requires said designation when sensitive habitat is discovered during review of a project) would serve to further mitigate biological impacts. However, residual biological impacts would be significant (Class I). Residual cumulative impacts resulting from the incremental loss of biological resources, which would inevitably occur as a result of the construction of 93 residential units, are considered to significant and unavoidable (Class I). A Statement of Overriding Considerations was adopted with the Montecito Community Plan EIR to address these impacts.

- 1.4.4 <u>Cultural Resources:</u> Implementation of Policy CR:M-2.1 and Development Standard CR-M-2.1.1 which call for the protection of cultural resources and identification of these resources through Phase I surveys would serve to mitigate potentially significant impacts to a level of insignificance (Class II).
- 1.4.5 Noise: Implementation of policies included in the Montecito Community Plan which call for a limitation on the hours of construction and protection of new noise sensitive land uses through sound shielding or proper siting would serve to mitigate potentially significant noise impacts to a level of insignificance (Class II).
- 1.4.6 Land Use: Impacts to agricultural resources are considered to be significant and unavoidable with no mitigation available. A Statement of Overriding Considerations was adopted with the Montecito Community Plan EIR to address these impacts.

#### PLANNING COMMISSION September 20, 1995

# PALMER JACKSON Case Nos. 95-GP-003 and 95-RZ-003

## ATTACHMENT A: FINDINGS

FINDINGS PURSUANT TO PUBLIC RESOURCES CODE SECTION 21081 AND THE CALIFORNIA ENVIRONMENTAL QUALITY ACT GUIDELINES SECTIONS 15090 AND 15091:

# 1.1 CONSIDERATION OF THE ADDENDUM AND FULL DISCLOSURE

The Board of Supervisors has considered the Addendum dated August 18, 1995 together with the previously certified Program EIR (92-EIR-03) for the Montecito Community Plan. The Addendum reflects the independent judgement of the Board of Supervisors and has been completed in compliance with CEQA. The Addendum, together with the Program EIR, is adequate for this proposal.

## 1.2 LOCATION OF DOCUMENTS

The documents and other materials which constitute the record of proceedings upon which this decision is based are in the custody of the Clerk of the Board, located at 105 E. Anapamu St., 4th Floor, Santa Barbara, CA 93101.

## 1.3 ENVIRONMENTAL REPORTING AND MONITORING PROGRAM

Public Resources Code Section 21081.6. requires the County to adopt a reporting or monitoring program for the changes to the project which it has adopted or made a condition of approval in order to mitigate or avoid significant effects on the environment. The only mitigation measure adopted as part of this project is the designation of Picay Creek corridor and its tributaries as an ESH Overlay area. This designation is a part of the adopted ordinance. An additional monitoring program will be adopted with discretionary approval of a development project on the site.

## 1.4 FINDINGS ADDRESSING ADDENDUM ISSUE AREAS

The Addendum prepared for the project addressed the following issues: air quality, biological resources, land use, public facilities (solid waste & schools), and aesthetic/visual resources, geology, cultural resources, and noise.

1.4.1 <u>Geologic Resources:</u> Implementation of policies included in the Montecito Community Plan which require minimization of cut and fill slopes, landscaping and revegetation plans for excessively graded areas, drainage plans on steep slopes, special engineering techniques to avoid seismic damage, and limitations on grading to enhance views would ensure that impacts are less than significant (Class III).

95-GP-003 and 95-RZ-003: Palmer Jackson Planning Commission Meeting of September 20, 1995 Page 3

Case Files: 95-GP-003 and 95-RZ-003 XC:

Permanent File

Richard Corral, Planning Technician Julie Ellison, Planning Technician

Dianne Meester

Address File: 2500 East Valley Road

Owner: Palmer Jackson, PO Box 5580, Santa Barbara, CA 93150

Agent/Attorney: Mullen & Henzell, ATN: R. Battles, PO Box 787, Santa Barbara, CA

Engineer: P&D Consultants, ATN: Patrick Callihan, 1100 Town & Country Road,

S.B. School District: Attn: William Hansult, Director of Planning & Operations Support,

723 E. Cota St., Santa Barbara, CA 93103

Interested Parties: Bowie, Arneson, Kadi, Wiles & Giannone, 4920 Campus Drive,

Newport Beach, CA 92660

Montecito Association Clerk of B/S

John Patton Al McCurdy

BOS Case File

Fire Department

Flood Control

Park Department Public Works

Environmental Health Services

APCD

Deputy County Counsel

County Surveyor

Planner: G. Bell

Attachments:

ATTACHMENT A: Findings ATTACHMENT C: Resolution (95-GP-003) ATTACHMENT D: Ordinance (95-RZ-003)

AJM:GB:DL:#3/4 PC\_STAFF\WP\PC\LETTERS\95GP003.920

## RESOLUTION OF THE BOARD OF SUPERVISORS COUNTY OF SANTA BARBARA, STATE OF CALIFORNIA

IN THE MATTER OF APPROVING SPECIFIC	)
AMENDMENTS TO THE LAND USE ELEMENT	) RESOLUTION NO. 95-540
OF THE SANTA BARBARA COUNTY	) CASE NO. 95-GP-003
COMPREHENSIVE PLAN	)
	)

#### WITH REFERENCE TO THE FOLLOWING:

- A. On December 20, 1980, by Resolution No. 80-566, the Board of Supervisors of the County of Santa Barbara adopted a Comprehensive Plan for the County of Santa Barbara.
- B. It is now deemed in the interest of the orderly development of the County and important to the preservation of the health, safety, and general welfare of the residents of said County to adopt an amendment to the Montecito Community Plan to amend the following:
  - 1. (95-GP-003) Amend the Land Use Designations on Assessor's Parcels 155-030-045, 155-070-01, 155-070-02, 155-070-03, 155-070-07, 155-070-08, 155-070-12, 155-070-13, and 155-070-14 from a mixture of SRR-0.33 (Semi-rural residential, 3 acres minimum parcel size) and SRR-0.2 (five acres minimum parcel size) to a mixture of SRR-0.5 (2 acres minimum parcel size), SRR-0.33, and SRR-0.2 zoning on 257 acres. The redesignation would result in 141 acres designated SRR-0.5, 27 acres designated SRR-0.33, and 89 acres designated SRR-0.2.
  - 2. (95-GP-003) Amend the text of the Montecito Community Plan Land Use Residential section to include the following language:
    - "In order to avoid onsite sensitive resources, minimize impacts, provide planning flexibility and be consistent with good planning practice, the County would consider a future development option for the Featherhill Ranch and Rancho San Carlos (APN # 155-030-045, 155-070-01, -02, -03, -07, -08, -12, -13, -14) which provides for development on smaller or larger parcels than otherwise permitted by current zoning, without altering the density of development permitted by the County's Comprehensive Plan."
  - 3. (95-GP-003) Amend the Montecito Community Plan Environmentally Sensitive Habitat Land Use Overlay Map to include the area along Picay Creek and its tributaries which include riparian woodland and chaparral.

- C. Public officials and agencies, civic organizations, and citizens have been consulted on and have advised the Planning Commission on the said proposed amendment(s) in noticed public hearing pursuant to Section 65353 of the Government Code, and the Planning Commission has sent its written recommendation to the Board pursuant to Section 65354 of the Government Code.
- D. This Board has held a duly noticed public hearing, as required by Section 65355 of the Government Code, on the proposed amendment(s), at which hearing the amendment(s) was/were explained and comments invited from the persons in attendance.

#### NOW, THEREFORE, IT IS HEREBY RESOLVED as follows:

- 1. The above recitations are true and correct.
- 2. Pursuant to the provisions of Section 65356 of the Government Code, the above described changes are hereby adopted as an amendment(s) to the Land Use Element of the Santa Barbara County Comprehensive Plan.
- 3. Pursuant to the provisions of Government Code Section 65357, the chair and the Clerk of this Board are hereby authorized and directed to sign and certify all maps, documents and other materials in accordance with this Resolution to reflect the above described action by the Board.
- 4. Pursuant to the provisions of Government Code Section 65357 the Clerk of the Board is hereby authorized and directed to send endorsed copies of said COMP-2 map to the planning agency of each city within this County.

PASSED, APPROVED, AND ADOPTED by the Board of Supervisors of the County of Santa Barbara, State of California, this 28th day of November, 1995, by the following vote:

AYES: Supervisors Schwartz, Graffy, Wallace, Staffel, Urbanske

NOES: None

ABSENT: None

Chairman of the Board of Supervisors

ATTEST:

CLERK OF THE BOARD OF SUPERVISORS

Zandra Cholmondeley

Deputy Clerk-!

APPROVED AS TO FORM:

STEPHEN SHANE STARK

County Counsel

Deputy County Councel

#### 4. AGRICULTURAL RESOURCE GUIDELINES (Approved by the Board of Supervisors

August 1993)

#### A. Introduction.

The State: California's 36,000,000 acres of agricultural land produce important economic and environmental benefits to the people of the state, nation, and world. Covering one-third of the state, agricultural land supports one of California's major industries and is responsible for the production of an important portion of the nation's food and fiber. The state is also a major exporter of produce to the rest of the world. A unique combination of geography, climate and soils enables California agriculture to produce many crops that are produced nowhere else in the United States.

The state's agricultural land also plays a critical environmental role. Farmland is an important filter for rain and snowfall runoff, allowing groundwater basins to recharge themselves. Farms and ranches are wildlife habitats for many common game and endangered species. Agricultural land provides valuable open space, giving visual relief for urban dwellers, and protecting the rural way of life important to farmers, ranchers, and small-town residents. Because of these great public benefits, the unnecessary and/or premature conversion of agricultural lands to urban uses should be discouraged.

Achieving the goal of agricultural land conservation requires wise and efficient land use, and a strong commitment to that goal by local officials. A California appeals court in Cleary vs. County of Stanislaus (1981) 118 Section App. 3d 348, has indicated that the conversion of agricultural land to nonagricultural uses may in itself be considered a significant environmental impact. To assure that the impacts of agricultural land conversion are considered in project decisions, environmental documents should contain information about the impacts of projects on agricultural land. Government officials can make better decisions affecting agricultural land when they have complete data about the land and its relationship to the agricultural economy.

**The County:** Agriculture continues to be Santa Barbara County's major producing industry with a gross production value for 1991 of more than \$500 million. This is an increase of nearly two hundred million dollars from the 1981 total. Santa Barbara County's agricultural industry includes vegetable, field, fruit and nut, and seed crops, nursery products, livestock, poultry, and aviary products. (Santa Barbara County 1991 Agricultural Report)

The diversity of our agriculture continues to provide a strong economic base through its multiplier effect on our local economy. With thirty-seven different commodities exceeding a million dollars in value, our local agricultural diversity provides stability against the cyclic nature of weather, pests, and especially market fluctuations which currently are plaguing agriculture in other parts of the nation. (Op cit)

Agricultural preservation in the County has been extremely successful to date in placing lands adjacent to urban areas, as well as more remote lands, under Williamson Act agreement which provides for taxation according to agricultural rather than market value of the land.

Qualifications for lands to be designated as agricultural preserves are found in "Criteria for Agricultural Preserves", adopted by the Santa Barbara County Board of Supervisors. The land must either be in a Class I or II Soil Capability classification, as prescribed by the U.S. Soil Conservation Service, or qualify for an 80 to 100 rating in the Storie Index System to be designated prime land, in which case the minimum size of a preserve is 40 acres. Land also can qualify as prime if it fulfills one of the following: it supports livestock at a density of one animal per acre; is in orchard use that can return at least \$200 per acre; or is devoted to other agricultural production that generally would return \$200 per acre. Farm

land not meeting these qualifications is classified as non-prime, and the minimum size for an agricultural preserve is 100 acres. However, in certain instances, super prime land of at least 5 acres in a separate ownership may be combined with adjacent prime land to meet the 40 acre minimum requirements.

#### **B.** Determination of Significant Effect.

CEQA Section 15064 states that:

- "(b) The determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the public agency involved, based to the extent possible on scientific and factual data. An ironclad definition of significant effect is not possible because the significance of an activity may vary with the setting. For example, an activity which may not be significant in an urban area may be significant in a rural area.
- (d) In evaluating the significance of the environmental effect of a project, the Lead Agency shall consider both primary or direct and secondary or indirect consequences.
  - (1) Primary consequences are immediately related to the project such as the dust, noise, and traffic of heavy equipment that would result from construction of a sewage treatment plant and possible odors from operation of the plant.
  - (2) Secondary consequences are related more to effects of the primary consequences than the project itself and may be several steps removed from the project in a chain of cause and effect. For example, the construction of a new sewage treatment plant may facilitate population growth in the service area due to the increase in sewage treatment capacity and may lead to an increase in air pollution."

CEQA Appendix G states that a project will normally have a significant impact on the environment if it will:

- 1. Conflict with adopted environmental plans and goals of the community where it is located.
- 2. Convert prime agricultural land to non-agricultural use or impair the agricultural productivity of prime agricultural land.

#### C. Comprehensive Plan Policies and Goals.

The following agricultural goals and policies are taken from the County's Comprehensive Plan Land Use Element, the Environmental Resources Management Element (ERME), the Local Coastal Plan, the Agricultural Element, and adopted Community Plans.

#### **Land Use Element**

<u>Agriculture</u>: In the rural areas, cultivated agriculture shall be preserved and, where conditions allow, expansion and intensification should be supported. Lands with both prime and non-prime soil shall be reserved for agricultural uses.

<u>Carpinteria - Summerland Area Goal</u>: The agricultural economy and the semi-rural qualities of the area should be preserved. Every effort should be made to preserve fertile lands for agriculture.

<u>Santa Ynez Valley Area Goal</u>: Agriculture should be preserved and protected as one of the primary economic bases of the Valley.

<u>Goleta Area Goal</u>: Existing orchards and groves should be preserved, and expansion of agricultural land use, particularly orchards and grazing, should be encouraged.

Lompoc Area Goal: Prime agricultural lands should be preserved for agricultural use only. Preservation

of lesser grades of presently producing or potential agricultural land should be actively encouraged.

#### **Environmental Resource Management Element (ERME)**

The Santa Barbara County Comprehensive Plan Environmental Resources Management Element (ERME) states that existing croplands on prime soils should be preserved. For agricultural lands on less than prime soil, is should be preserved insofar as possible.

Under Category A, Urbanization should be prohibited in:

- Existing croplands with a high agricultural suitability rating (within study areas) or a Class I or II soil capability classification. Modification to permit urban uses may be made, within Urban areas, on parcels of 10 acres or less.
- Agricultural preserves subject to Williamson Act agreements.

Under Category B, Urbanization should be prohibited except in a relatively few instances in:

- Existing croplands with a moderate or low agricultural suitability rating (in urban areas) or a Class III or IV soil capability classification.
- Lands highly suitable for expansion of cultivated agriculture.

It is noted that agricultural preserves, although not subject to environmental constraints, are included in Category A. The reason is that in entering into Williamson Act agreements, the County has made a legal commitment that the land will remain in agricultural use for a minimum of ten years, subject to automatic annual renewal.

#### **Agricultural Element**

The Agricultural Element Goals and Policies can be found on pages 7 - 14 of the document. These goals and policies are briefly summarized below:

Goal I speaks to the preservation, encouragement, and enhancement of agriculture. This is accomplished through policies which discourage incompatible uses, promote an agriculturalist's freedom for determining methods of operation, encouraging land improvement programs, supporting the Williamson Act, recognizing certain nuisances are part of agricultural operations, protecting the availability of resources for agriculture, and encouraging sustainable agricultural practices on agricultural land.

<u>Goal II</u> calls for agricultural land to be protected from adverse urban influence. This is accomplished through policies which prevent flooding and silting from urbanization, protect agricultural property from being illegally violated, discourage expansion of urban spheres of influence, and discouraging conversion of highly productive agricultural lands.

<u>Goal III</u> calls for the preservation of remaining agricultural lands in cases where it is necessary to convert agricultural lands to other uses. This accomplished through policies which discourage expansion of urban development into active agricultural lands, and to promote and retain productive agricultural land within urban boundaries.

<u>Goal IV</u> recognizes that agriculture can enhance and protect natural resources, and therefore these operations should be encouraged to incorporate resource protection techniques. This is accomplished through policies which encourage range improvement and fire reduction programs, the use of agriculture on certain slopes to prevent erosion, and preventing grading and brush clearing on hillsides which would cause excessive erosion.

<u>Goal V</u> calls for the County to allow for areas and installations of uses supportive to agriculture. It

accomplishes this through policies allowing the installation of commercial support uses on-farm, and allowing areas for supportive agriculture services within a reasonable distance to the farm user.

Goal VI calls for making provisions to allow for effective access to agricultural areas. This includes a policy which encourages the County to design roads in agricultural areas with agricultural vehicles in mind.

#### **Coastal Land Use Plan**

Agricultural policies in the Coastal Land Use Plan (CLUP) are found on Pages 106 - 113 of that document, and are listed as Policies 8-1 through 8-10. Briefly, these policies speak to the following issues:

- Defining the criteria for assigning agricultural land use designations in rural areas.
- Defining the criteria for allowing conversion of agriculturally designated land not contiguous with an urban/rural boundary.
- Defining the criteria for allowing conversion of agriculturally designated land contiguous with an urban/rural boundary.
- Defining the finding which must be made for approving a land division of any land designated as Agriculture I or II.
- Setting the criteria and findings for environmental review of greenhouse projects of 20,000 or more square feet.
- Setting setback and maximum lot coverage requirements for greenhouses, hothouses, and accessory structures.
- Setting landscaping and screening requirements for greenhouses and/or accessory buildings.
- Setting the criteria for the protection of large, non-prime agricultural operations of 10,000 acres or more in the Gaviota Coast or North Coast planning areas or large, non-prime operations in the Channel Islands planning area, including the findings and conditions which must be made/required in order to approve any development/land division on such property.
- Setting the criteria for subdivision of legal parcels of non-prime agricultural land in excess of 2,000 acres which are designated as AG-II-320.

#### **Goleta Community Plan**

<u>Policy LUA-GV-1</u>: Land designated for agriculture within the urban boundary shall be preserved for agricultural use, unless the County makes findings that the land is no longer appropriate for agriculture or there is an overriding public need for conversion to other uses for which there is no other land available in the Goleta urban area.

<u>Policy LUA-GV-2</u>: New development adjacent to agriculturally zoned property shall include buffers to protect agricultural operations.

<u>Policy LUS-GV-4</u>: In consideration of conversion of any agricultural land within the urban boundary to urban uses, the County shall first consider smaller, more isolated parcels with greater urban/agricultural conflicts prior to larger blocks of agricultural land.

#### **Summerland Community Plan**

Policy LUA-S-1: Existing land designated for agriculture shall be preserved for agricultural use.

<u>Policy LUA-S-2</u>: New development adjacent to agricultural zoned property shall include buffers to protect the viability of agricultural operations adjacent to the community.

#### **Montecito Community Plan**

<u>Policy LUG-M-2.1</u>: Agricultural activities on residential parcel that are consistent with the provisions of the applicable residential zone district shall be supported and encouraged by the County.

#### D. Methodology in Determining Agricultural Suitability and Productivity

The County Initial Study form contains two questions pertaining to impacts on agricultural resources. The first is as follows:

"10.d. Will the proposal result in the conversion of prime agricultural land to non-agricultural use, impairment of agricultural land productivity (whether prime or non-prime), or conflict with agricultural preserve programs?"

The following weighting system is provided to perform a preliminary screening of a project's agricultural impacts during the initial study process. The initial study screening looks at the value of a site's agricultural suitability and productivity, to determine whether the project's impact on loss or impairment of agricultural resources would be a potentially significant impact. These are guidelines, to be used with flexibility in application to specific sites, taking into account specific circumstances and specific agricultural uses.

The weighted point system is utilized to assign relative values to particular characteristics of a site's agricultural productivity (e.g., soil type, water supply, etc.). Where the points from the following formula total 60 or more, the following types of projects will be considered to have a potentially significant impact:

- A division of land (including Parcel and Final Maps, etc.) which is currently considered viable but would result in parcels which would not be considered viable using the weighting system.
- A Development Plan, Conditional Use Permit, or other discretionary act which would result in the conversion from agricultural use of a parcel qualifying as viable using the weighting system.
- Discretionary projects which may result in substantial disruption of surrounding agricultural operations.

If a potentially significant impact is identified using these criteria, further more detailed, site-specific evaluation of agricultural impacts is completed in an EIR. This analysis should focus upon the factors and criteria, but not the points, in the weighting system of these guidelines, and any other relevant factors such as the history of agricultural use on the site, land use trends, etc. Final determination of the project's level of impact will be based on this analysis.

As a general guideline, an agricultural parcel of land should be considered to be viable if it is of sufficient size and capability to support an agricultural enterprise independent of any other parcel. To qualify as agriculturally viable, the area of land in question need only be of sufficient size and/or productive capability to be economically attractive to an agricultural lessee. This productivity standard should take into consideration the cultural practices and leasehold production units in the area, as well as soil type and water availability. For dry land farming and grazing operations the production or carrying capacity should be based upon normal rainfall years only, not periods of drought or heavy rainfall. It should be noted that the Santa Barbara County Cattlemen's Association has stated that an appropriate threshold for impacts to grazing land in the County is the displacement or division of land capable of sustaining between 25 to 30 animal units per year. This "threshold" utilizes a carrying

capacity threshold similar to the weighting system below. Because of this, on grazing projects, detailed information of the number of animal units supportable on a particular parcel should also be considered in the project's environmental document.

The Agricultural Threshold is weighted toward physical environmental resources rather than economics. This emphasis is in keeping with CEQAs emphasis on physical environmental impacts and not social or economic impacts (State CEQA Guidelines Section 15131). Given high land values in the County and the subdivision and turnover of agricultural lands in some areas of the County, agricultural production on some lands may be economically marginal. Because of these factors, economics is considered primarily a planning issue and will not be addressed in environmental documents.

The following determination of agricultural land value is divided into nine components which are weighted according to their estimated resource value. These nine areas are:

Parcel size Agricultural Suitability Adjacent Land Uses
Soil Classification Existing & Historic Land Use Agricultural Preserve Potential
Water Availability Comprehensive Plan Designation Combined Farming Operations

1. Parcel Size. Large parcel size is, in general, an important indicator of potential agricultural suitability and productivity. However, because of the wide variability in the value of various agricultural products, suitable and productive parcel sizes also vary. Smaller parcels may be viable for high value crops, while significant acreage is necessary for viable grazing operations.

Project Parcel Size	Points Assigned
less than 5 acres	0 - 3
5 acres to less than 10 acres	4 - 6
10 acres to less than 40 acres	7 - 8
40 acres to less than 100 acres	9 - 10
100 acres to less than 500 acres	11 - 12
500 acres to less than 1000 acres	13 - 14
1000 acres or greater	15

**2. Soil Classification.** Points in this category are based primarily upon soil capability classes from the US Soil Conservation Services Soil Surveys.

The Soil Conservation Service has defined eight soil capability classes. Classes I and II are considered to be prime agricultural soils because they impose few limitations on agricultural production, and almost all crops can be grown successfully on these soils. More limited agricultural soils are grouped into Classes III and IV either because fewer crops can be grown on these soils, special conservation and production measures are required, or both these conditions exist. Classes V, VI, and VII include soils that are suited primarily for rangeland. (Class V is not found in the County.) Finally, soils and landforms that are unsuited for agricultural use are placed in Class VIII.

Where a variety of soil types are present on a site, weight should depend upon extent of useable prime/non-prime acreage. As appropriate, points may be assigned according to approximate percentages of site area containing various soil classifications.

Application of points within the ranges should be based on area and site-specific

considerations. For grazing land, the SCS survey should be checked for opinion on soil suitability, and site vegetation should be inspected for forage value. Sites with soils which can support good forage should be assigned higher points within the range. Similarly, sites with soils classified as non-prime, but which can support specialized high cash crops (e.g., strawberries, avocados and specialty crops) should be assigned higher points within the ranges.

In addition, initial studies should note whenever a site contains large, contiguous areas of prime soil, as this may constitute a separate significant impact.

Soil Classification	Points Assigned
Class I (prime)	14 - 15
Class II (prime)	11 - 13
Class III	8 - 10
Class IV	6 - 7
Class V	1 - 5
Class VI	1 - 5
Class VII	1 - 5
Class VIII	0

**3.** Water Availability. Availability of water of suitable quantity and quality is a critical component of agricultural suitability and productivity. Assignments of points within the ranges should take into account suitability of water resources for the type of agriculture practiced (i.e. crops or grazing).

Water Availability	Points Assigned
Land has an adequate water supply from on/offsite sources suitable for crops or grazing	12 - 15
Land has water, but may be marginal in quantity or quality suitable for crops or grazing	8 - 11
Land does not have developed water supply but an adequate supply is potentially available	3 - 7
Land does not have developed water and potential sources are of poor quality/quantity	0 - 2

**4. Agricultural Suitability.** Based upon the Conservation Element of the Comprehensive Plan (p. 195) County lands were assessed and mapped for agricultural suitability classifications based on a computer model which applied weighted factors, including soil classification, water availability, slope, and environmental constraints (flood hazard, local water resources, biological tolerance-intensity, and high groundwater).

Because the Conservation Element does not fully account for the effects of weather on crop suitability, the assessment of suitability should account for the approximate frequency and intensity of frosts and other climactic factors in applying points within the ranges. Parcels which are relatively frost free and may accommodate multiple croppings may be considered more suitable than those which can support only a single crop or limited crop types due to climactic factors.

Agricultural Suitability	Points Assigned
CROPS	
Highly suitable for irrigated grain, truck and field, orchard, or vineyard crops	8 - 10
Highly suitable for irrigated ornamentals, pasture, alfalfa, or dry farming	6 - 8
Moderately suitable for irrigated crops, orchard, ornamentals or dry farming	4 - 5
Low suitability for irrigated crops, orchard, ornamentals or dry farming	1 - 3
Unsuitable for crop production because of soil capabilities, environmental constraints, etc.	0
GRAZING	
Highly suitable for pasture or range	6 - 10
Moderately suitable for pasture or range	3 - 5
Low suitability for pasture or range	1 - 2
Unsuitable for pasture or range	0

**5. Existing and Historic Land Use.** Current or previous use of a property for agriculture can provide a practical measure of its suitability for agriculture, while urban development generally indicates a lack of suitability.

Existing and Historic Land Use	Points Assigned
In active agricultural production	5
In maintained range/pasture	5
Unmaintained, but productive within last ten years	3 - 5
Vacant land: fallow or never planted with range of suitabilities of agricultural potential	1 - 3
Substantial urban or agricultural industrial development onsite	0

6. Comprehensive Plan Designation. The County general plan land use maps designate property for long-range uses. Agricultural and open space designations generally provide an indicator of agricultural suitability. However, some older land use designations provide for smaller agricultural parcel sizes than are suitable or viable for sustaining agriculture today. Designations applied more recently by the County as part of community plan updates establish agricultural designations with more realistic parcel sizes. This should be taken into account in assessing suitability with this factor.

Comprehensive Plan Designation	Points Assigned
A - II	5
A-I	4
MA	3 - 4
Existing public/private open space or recreation	3 - 4
Proposed public/private open space or recreation	3 - 4
Open lands	3 - 4
Rural residential 40 - 100 acres	3 - 4
Residential Ranchette 5 - 20 acres	2
Residential less than 5 acres	0
Commercial, Industrial, Community Facility	0

7. Adjacent Land Uses (existing). Adjacent land uses can play an important role in the continuing suitability and productivity of a property for agricultural uses. In general, being surrounded by agricultural or open space is conducive to continued agricultural use, while encroachment of urban uses may be problematic. However, applying points within the ranges should be based on specific circumstances and uses, recognizing that some urban uses are more compatible with agricultural, (e.g., industrial, public facilities), while others conflict (e.g., residential). In addition, the existence or ability to create buffers between incompatible uses should be considered in assessing agricultural suitability with this factor. The adequacy of agricultural support in the vicinity may be another factor affecting agricultural suitability.

Adjacent Land Uses	Points Assigned
Surrounded by agricultural operations or open space in a region with adequate support uses	9 - 10
Surrounded by agricultural operations or open space in a region without adequate agricultural support uses	7 - 8
Partially surrounded by agriculture/open space with some urban uses adjacent, in a region with adequate agricultural support uses <sup>1, 2</sup>	7 - 8
Partially surrounded by agriculture/open space with some urban uses adjacent, in a region without adequate agricultural support uses <sup>1, 2</sup>	3 - 6
Immediately surrounded by urban uses, no buffers	0 - 2

#### Notes:

- 1. Various types of urban uses create more potential conflicts than others (e.g., residential could create more spraying problems than light industrial).
- 2. If project is well buffered, it may be agriculturally viable even with adjacent urban uses (e.g., stream, roadway).
- 8. Agricultural Preserve Potential. Qualifying for agricultural preserve designation under State Williamson Act agreement for prime and non-prime preserves entails meeting criteria for soil type, parcel size [individually or jointly with adjacent parcel(s)], and/or productivity/value on return. Agricultural preserves have constituted one of the most successful means of sustaining and preserving land in agriculture in California.

Agricultural Preserve Potential	Points Assigned
Can qualify for prime agricultural preserve by itself, or is in a preserve	5 - 7
Can qualify for non-prime agricultural preserve by itself	2 - 4
Can qualify for prime agricultural preserve with adjacent parcels	3 - 4
Can qualify for non-prime agricultural preserve with adjacent parcels	1 - 3
Cannot qualify	0

**9. Combined Farming Operations**<sup>1</sup>. This section is designed to award bonus points to parcels which provide a component of a combined farming operation. The reason these points are assigned as a bonus is to address cumulative impacts and to recognize the importance of combined farming operations in Santa Barbara County.

<sup>&</sup>lt;sup>1</sup> Combined farming operation refers to more than one separate parcel managed as a single agricultural operation.

<b>Bonus Points for Combined Farming Operations</b>	Points Assigned
Provides a significant component of a combined farming operation	5
Provides an important component of a combined farming operation	3
Provides a small component of a combined farming operation	1
No combined operation	0
Cannot qualify	0

#### E. Use of State Important Farmlands Map

A second question on agricultural land resources is included in the Initial Study under Land Use:

"e. Will the proposal result in any effect [potentially significant adverse effect] upon any unique or other farmland of State or Local Importance?"

The State Important Farmlands Map is used in answering this question. The map is also considered in applying points under the "Agricultural Suitability" category.

The map identifies lands in the following categories:

**Prime Farmland** - (Land with the best combination of physical and chemical features for the production of agricultural crops)

**Farmland of Statewide Importance** - (Land with a good combination of physical and chemical features for the production of agricultural crops)

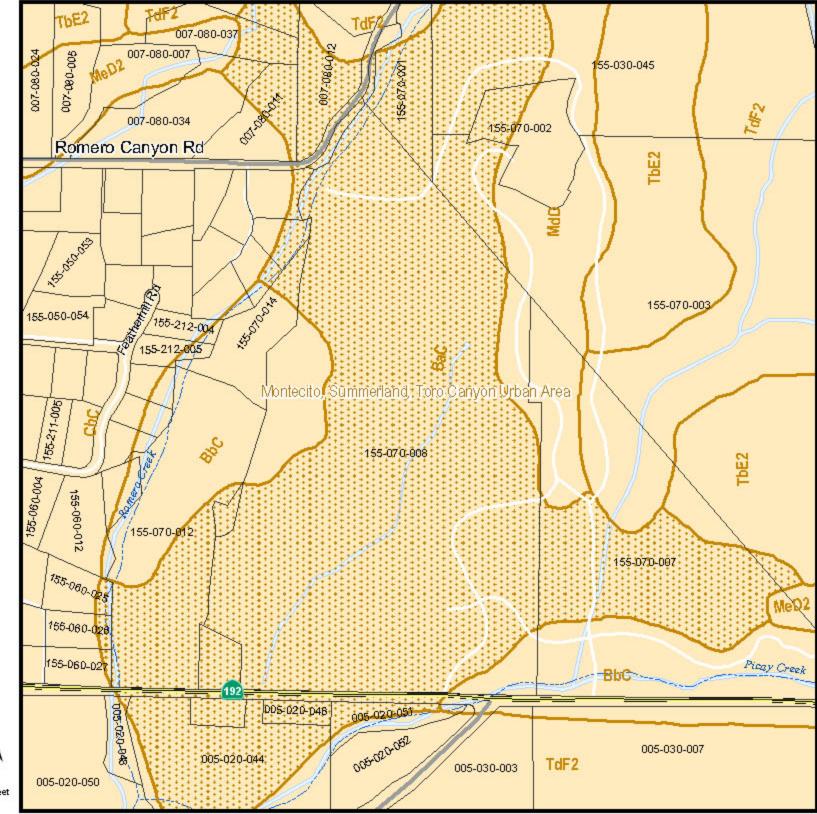
**Unique Farmland** - (Land of lesser quality soils used for the production of the State's leading agricultural cash crops)

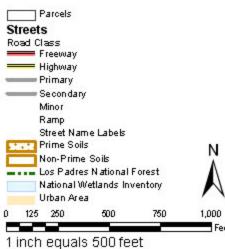
**Farmland of Local Importance** - (All dry land farming area and permanent pasture)

**Grazing Land** - (Land on which the existing vegetation is suited to the grazing of livestock)

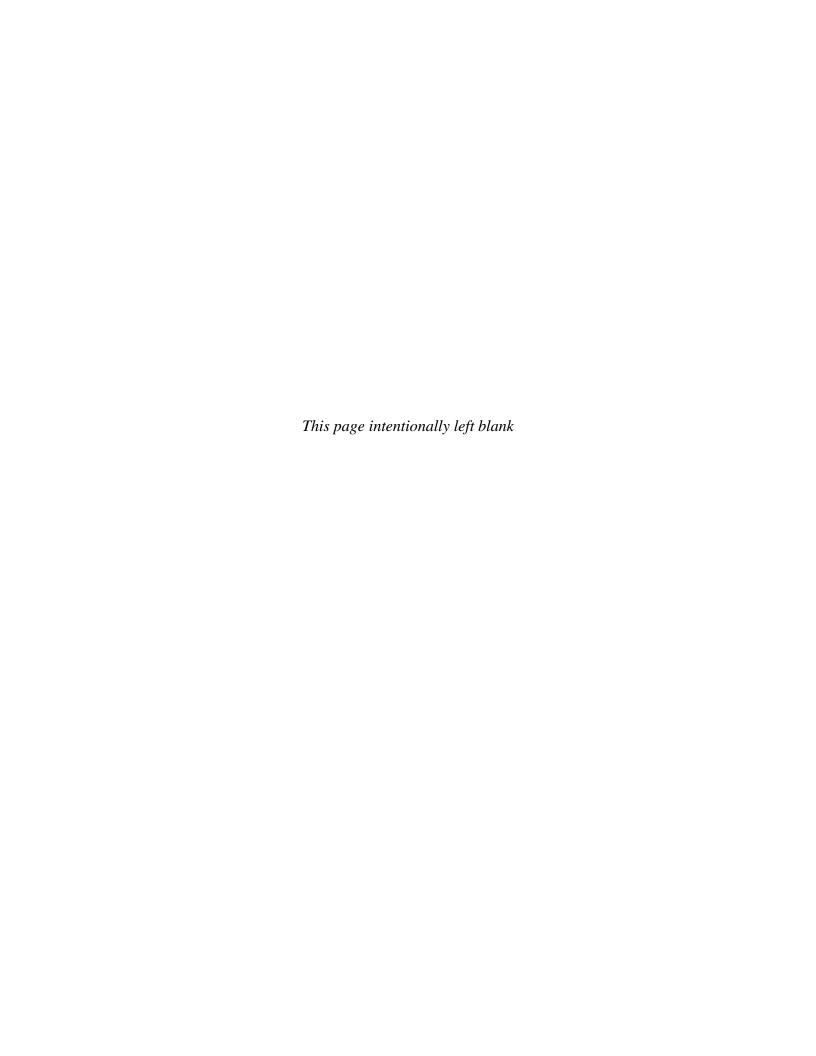
**Urban and Built-up Land** - (Land occupied by structures or infrastructure to accommodate a building density of at least one unit to one and one-half acres, or approximately six structures to ten acres)

**Other Land** - (Land which does not meet the criteria of any other category)





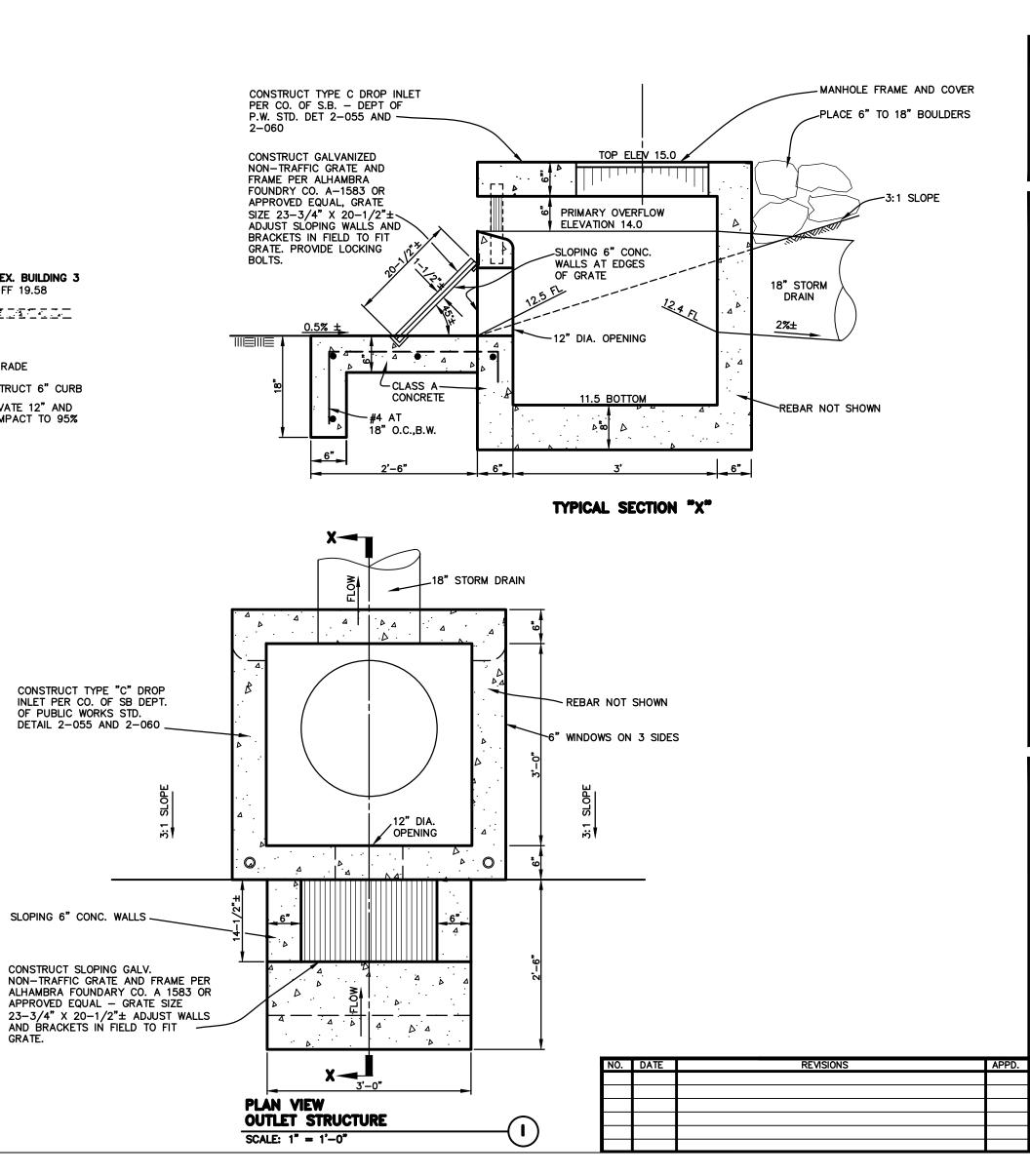




# APPENDIX L PROJECT HYDROLOGICAL DESIGN

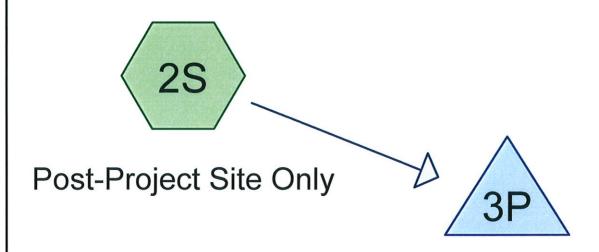
#### **Appendix L Contents:**

- 1. The HydroCAD calculations for 2-100 year storm events.
- 2. The detention basin outlet structure concept sketch, which will be further detailed in the final engineering phase.
- 3. Calculation for water quality treatment Flow through (for swale).
- 4. Calculation for water quality treatment detention basin.
- 5. County standard for storm water BMPs. On page 3, the minimum length for the vegetated swale is 100'. The proposed southerly swale is 105' long with no greater than 2% slope, which meet the requirement.
- 6. Post construction BMP (City), appendix G plant list recommendation for swale and basin. The project planting for swale and basin shall follow be in conformance with this guideline, which will be further designed by landscape consultant in final engineering phase.





Pre-Project Site Only



Basin









Prel Design 20120104 - Copy
Prepared by {enter your company name here}
HydroCAD® 8.50 s/n 003040 © 2007 HydroCAD Software Solutions LLC

Printed 3/14/2012 Page 2

#### Area Listing (selected nodes)

Area	CN	Description
(acres)		(subcatchment-numbers)
1.960	78	Row crops, straight row, Good, HSG B (1S)
0.740	79	<50% Grass cover, Poor, HSG B (2S)
1.220	92	Urban commercial, 85% imp, HSG B (2S)
3.920		TOTAL AREA

Prel Design 20120104 - Copy
Prepared by {enter your company name here}
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Printed 3/14/2012 Page 3

#### Soil Listing (selected nodes)

Area	Soil	Subcatchment
(acres)	Goup	Numbers
0.000	HSG A	-
3.920	HSG B	1S, 2S
0.000	HSG C	
0.000	HSG D	
0.000	Other	
3.920		TOTAL AREA

#### Prel Design 20120104 - Copy

Type I 24-hr SC-002yr Rainfall=3.20" Printed 3/14/2012

Prepared by {enter your company name here}
HydroCAD® 8.50 s/n 003040 © 2007 HydroCAD Software Solutions LLC

Page 4

Time span=0.00-48.00 hrs, dt=0.10 hrs, 481 points
Runoff by SBUH method, Split Pervious/Imperv.
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Subcatchment 1S: Pre-Project Site Only** 

Runoff Area=1.960 ac 0.00% Impervious Runoff Depth=1.27"
Tc=12.0 min CN=78/0 Runoff=1.17 cfs 0.208 af

Subcatchment 2S: Post-Project Site Only

Runoff Area=1.960 ac 52.91% Impervious Runoff Depth=2.09" Tc=12.0 min CN=75/98 Runoff=2.02 cfs 0.341 af

Pond 3P: Basin

Peak Elev=306.49' Storage=0.039 af Inflow=2.02 cfs 0.341 af Outflow=1.05 cfs 0.341 af

Total Runoff Area = 3.920 ac Runoff Volume = 0.549 af Average Runoff Depth = 1.68" 73.55% Pervious = 2.883 ac 26.45% Impervious = 1.037 ac

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Page 5

#### **Summary for Subcatchment 1S: Pre-Project Site Only**

Runoff

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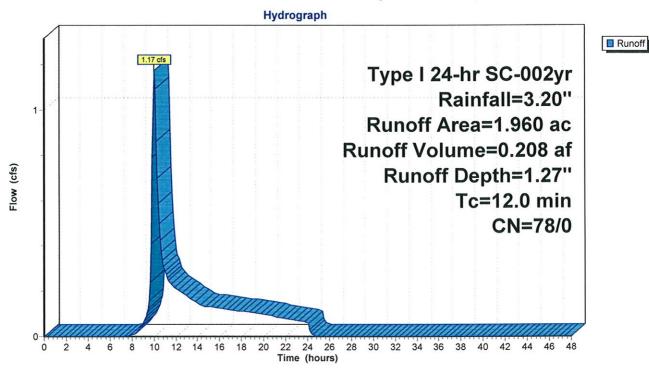
1.17 cfs @ 10.04 hrs, Volume=

0.208 af, Depth= 1.27"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-48.00 hrs, dt= 0.10 hrs Type I 24-hr SC-002yr Rainfall=3.20"

-	Area	(ac)	CN	Desc	ription			
	1.	960	78	Row	crops, stra	aight row, C	Good, HSG B	
	1.	960	78	Pervi	ious Area			
	_			•			<b>5</b>	
	Tc	9		lope	•		Description	
_	(min)	(fee	t) (	(ft/ft)	(ft/sec)	(cfs)		
	12.0						Direct Entry,	

#### **Subcatchment 1S: Pre-Project Site Only**



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#### **Summary for Subcatchment 2S: Post-Project Site Only**

Runoff = 2.0

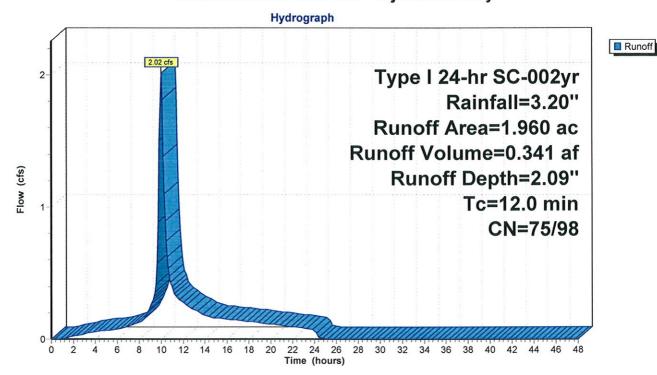
2.02 cfs @ 10.02 hrs, Volume=

0.341 af, Depth= 2.09"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-48.00 hrs, dt= 0.10 hrs Type I 24-hr SC-002yr Rainfall=3.20"

	Area (	(ac)	CN	Desc	cription				
	1.:	220	92	Urba	Urban commercial, 85% imp, HSG B				
	0.	740	79	<50%	<50% Grass cover, Poor, HSG B				
	1.5	960	87	Weig	hted Aver	age			
	0.	923	75	Perv	ious Area				
	1.	037	98	Impe	ervious Are	a			
						-			
	Тс	Leng		Slope	Velocity	Capacity	Description		
(	min)	(fee	et)	(ft/ft)	(ft/sec)	(cfs)			
	12.0						Direct Entry,		

#### **Subcatchment 2S: Post-Project Site Only**



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#### Summary for Pond 3P: Basin

Inflow Area = 1.960 ac, 52.91% Impervious, Inflow Depth = 2.09" for SC-002yr event

Inflow = 2.02 cfs @ 10.02 hrs, Volume= 0.341 af

Outflow = 1.05 cfs @ 10.33 hrs, Volume= 0.341 af, Atten= 48%, Lag= 18.3 min

Primary = 1.05 cfs @ 10.33 hrs, Volume= 0.341 af

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.10 hrs Peak Elev= 306.49' @ 10.33 hrs Surf.Area= 0.036 ac Storage= 0.039 af

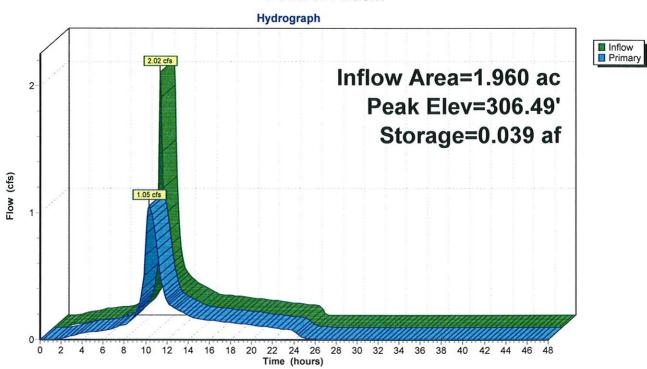
Plug-Flow detention time= 23.4 min calculated for 0.341 af (100% of inflow)

Center-of-Mass det. time= 22.4 min (772.3 - 749.9)

Volume	Invert	Avail.Storage	Storage Description
#1	305.00'	0.112 af	23.00'W x 33.00'L x 3.00'H Prismatoid Z=4.0
Device	Routing	Invert O	utlet Devices
#1	Primary	305.00' <b>6</b> .	0" Vert. Orifice/Grate C= 0.600

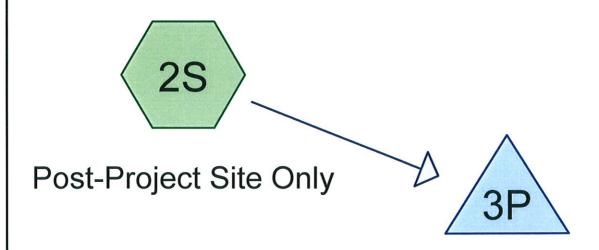
Primary OutFlow Max=1.05 cfs @ 10.33 hrs HW=306.49' (Free Discharge) 1=Orifice/Grate (Orifice Controls 1.05 cfs @ 5.36 fps)

#### Pond 3P: Basin





Pre-Project Site Only



Basin









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### Area Listing (selected nodes)

	Area	CN	Description	
	(acres)		(subcatchment-numbers)	
***************************************	1.960	78	Row crops, straight row, Good, HSG B (1S)	
	0.740	79	<50% Grass cover, Poor, HSG B (2S)	
	1.220	92	Urban commercial, 85% imp, HSG B (2S)	
	3.920		TOTAL AREA	

### Prel Design 20120104 - Copy

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### Soil Listing (selected nodes)

Area	Soil	Subcatchment
(acres)	Goup	Numbers
0.000	HSG A	
3.920	HSG B	1S, 2S
0.000	HSG C	
0.000	HSG D	
0.000	Other	
3.920		TOTAL AREA

#### Prel Design 20120104 - Copy

Type I 24-hr SC-005yr Rainfall=4.61" Printed 3/14/2012

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Page 4

Time span=0.00-48.00 hrs, dt=0.10 hrs, 481 points
Runoff by SBUH method, Split Pervious/Imperv.
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Pre-Project Site Only

Runoff Area=1.960 ac 0.00% Impervious Runoff Depth=2.38" Tc=12.0 min CN=78/0 Runoff=2.39 cfs 0.389 af

Subcatchment 2S: Post-Project Site Only

Runoff Area=1.960 ac 52.91% Impervious Runoff Depth=3.32" Tc=12.0 min CN=75/98 Runoff=3.27 cfs 0.542 af

Pond 3P: Basin

Peak Elev=306.74' Storage=0.049 af Inflow=3.27 cfs 0.542 af Outflow=2.00 cfs 0.542 af

Total Runoff Area = 3.920 ac Runoff Volume = 0.932 af Average Runoff Depth = 2.85" 73.55% Pervious = 2.883 ac 26.45% Impervious = 1.037 ac

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Page 5

1 4

#### **Summary for Subcatchment 1S: Pre-Project Site Only**

Runoff

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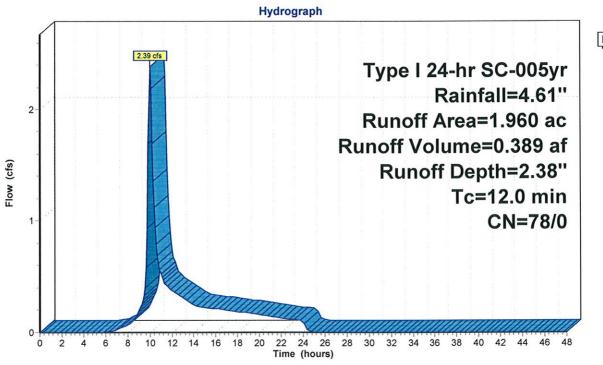
2.39 cfs @ 10.03 hrs, Volume=

0.389 af, Depth= 2.38"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-48.00 hrs, dt= 0.10 hrs Type I 24-hr SC-005yr Rainfall=4.61"

100	Area	(ac)	CN	Desc	cription			
	1.	960	78	Row	crops, stra	aight row,	Good, HSG B	
	1.	960	78	Perv	ious Area			
	Тс	Lengt	h	Slope	Velocity	Capacity	Description	
1500	(min)	(fee		(ft/ft)	(ft/sec)	(cfs)	Boodilption	
	12.0						Direct Entry,	

### **Subcatchment 1S: Pre-Project Site Only**





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Page 6

#### Summary for Subcatchment 2S: Post-Project Site Only

Runoff

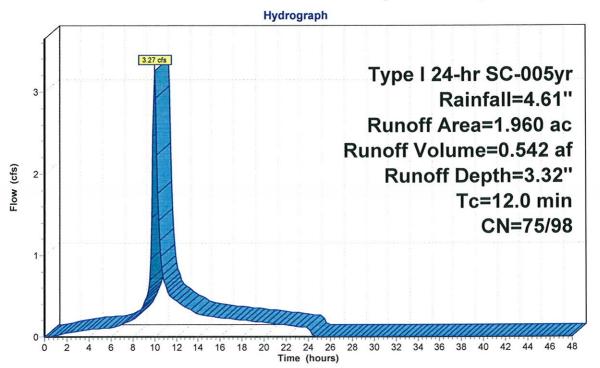
3.27 cfs @ 10.02 hrs, Volume=

0.542 af, Depth= 3.32"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-48.00 hrs, dt= 0.10 hrs Type I 24-hr SC-005yr Rainfall=4.61"

	Area	(ac)	CN	Desc	cription						
	1.	220	92	Urba	n commer	cial, 85% ir	imp, HSG B				
	0.	740	79	<50%	√ Grass co	over, Poor,	, HSG B				
	1.960 87			Weig	hted Aver	age					
	0.923 75			Perv	Pervious Area						
	1.037 98 Impervious Area					ea					
	Tc	Leng	th	Slope	Velocity	Capacity	Description				
_	(min)	(fee	et)	(ft/ft)	(ft/sec)	(cfs)					
	12.0						Direct Entry,				

#### **Subcatchment 2S: Post-Project Site Only**





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#### **Summary for Pond 3P: Basin**

Inflow Area = 1.960 ac, 52.91% Impervious, Inflow Depth = 3.32" for SC-005yr event

Inflow = 3.27 cfs @ 10.02 hrs, Volume= 0.542 af

Outflow = 2.00 cfs @ 10.25 hrs, Volume= 0.542 af, Atten= 39%, Lag= 13.8 min

Primary = 2.00 cfs @ 10.25 hrs, Volume= 0.542 af

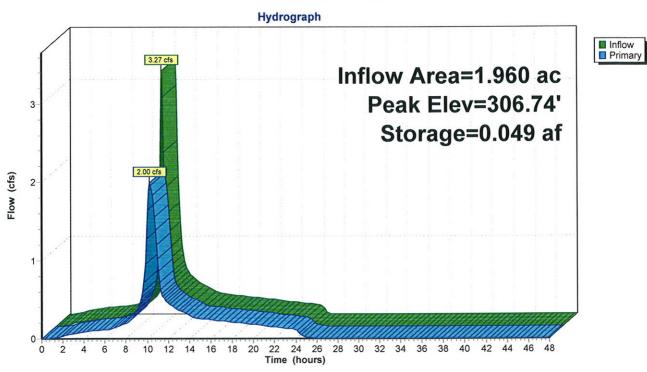
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.10 hrs Peak Elev= 306.74' @ 10.25 hrs Surf.Area= 0.040 ac Storage= 0.049 af

Plug-Flow detention time= 15.6 min calculated for 0.541 af (100% of inflow) Center-of-Mass det. time= 15.8 min (758.6 - 742.8)

Volume	Invert	Avail.Storage	Storage Description
#1	305.00'	0.112 af	23.00'W x 33.00'L x 3.00'H Prismatoid Z=4.0
Device	Routing	Invert O	utlet Devices
#1	Primary	305.00' <b>8.</b>	0" Vert. Orifice/Grate C= 0.600

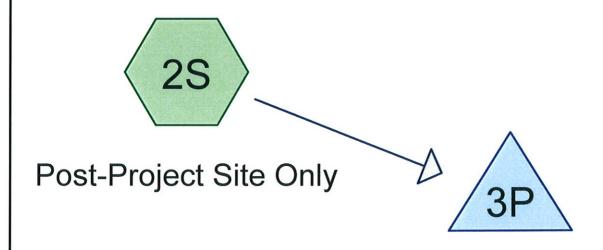
Primary OutFlow Max=1.99 cfs @ 10.25 hrs HW=306.73' (Free Discharge) 1=Orifice/Grate (Orifice Controls 1.99 cfs @ 5.70 fps)

#### Pond 3P: Basin





Pre-Project Site Only



Basin









Printed 3/14/2012 Page 2

### Area Listing (selected nodes)

Area	CN	Description
(acres)		(subcatchment-numbers)
1.960	78	Row crops, straight row, Good, HSG B (1S)
0.740	79	<50% Grass cover, Poor, HSG B (2S)
1.220	92	Urban commercial, 85% imp, HSG B (2S)
3.920		TOTAL AREA

Printed 3/14/2012 Page 3

# Soil Listing (selected nodes)

Area (acres)	Soil Goup	Subcatchment Numbers
0.000	HSG A	
3.920	HSG B	1S, 2S
0.000	HSG C	
0.000	HSG D	
0.000	Other	
3.920		TOTAL AREA

Type I 24-hr SC-010yr Rainfall=5.55" Printed 3/14/2012

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Page 4

Time span=0.00-48.00 hrs, dt=0.10 hrs, 481 points
Runoff by SBUH method, Split Pervious/Imperv.

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Pre-Project Site Only

Runoff Area=1.960 ac 0.00% Impervious Runoff Depth=3.18" Tc=12.0 min CN=78/0 Runoff=3.26 cfs 0.520 af

Subcatchment 2S: Post-Project Site Only

Runoff Area=1.960 ac 52.91% Impervious Runoff Depth=4.18" Tc=12.0 min CN=75/98 Runoff=4.14 cfs 0.682 af

Pond 3P: Basin

Peak Elev=306.68' Storage=0.046 af Inflow=4.14 cfs 0.682 af Outflow=2.95 cfs 0.682 af

Total Runoff Area = 3.920 ac Runoff Volume = 1.202 af Average Runoff Depth = 3.68" 73.55% Pervious = 2.883 ac 26.45% Impervious = 1.037 ac

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#### **Summary for Subcatchment 1S: Pre-Project Site Only**

Runoff

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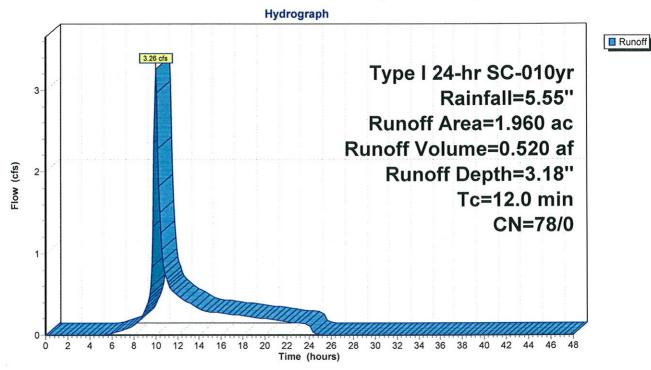
3.26 cfs @ 10.03 hrs, Volume=

0.520 af, Depth= 3.18"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-48.00 hrs, dt= 0.10 hrs Type I 24-hr SC-010yr Rainfall=5.55"

1000	Area	(ac)	CN	Desc	cription				
	1.960 78 Row crops, straight row, Good, HSG B								
850	1.960 78 Pervious Area								
	Тс	Lengt	h	Slope	Velocity	Capacity	Description		
	(min)	(fee	t)	(ft/ft)	(ft/sec)	(cfs)			
-	12.0						Direct Entry.		

# **Subcatchment 1S: Pre-Project Site Only**



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### Summary for Subcatchment 2S: Post-Project Site Only

Runoff

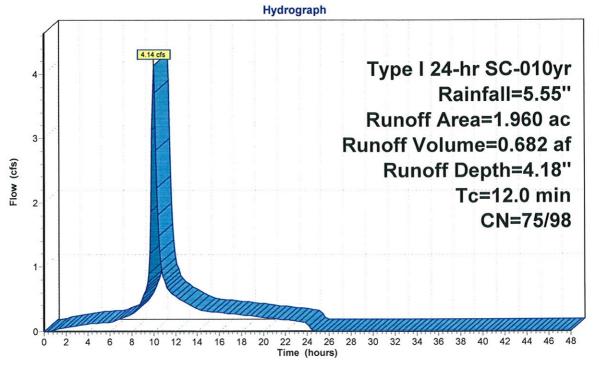
4.14 cfs @ 10.02 hrs, Volume=

0.682 af, Depth= 4.18"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-48.00 hrs, dt= 0.10 hrs Type I 24-hr SC-010yr Rainfall=5.55"

	Area	(ac)	CN	Desc	cription		
-	1.	220	92	Urba	n commer	cial, 85% ii	imp, HSG B
<u> </u>	0.	740	, HSG B				
	1.960 87 Weighted Average					age	
	0.923 75 Pervious Area						
	1.037 98 Impervious Area						
	1222						
	Тс	Leng		Slope	Velocity	Capacity	Description
	(min)	(fee	et)	(ft/ft)	(ft/sec)	(cfs)	
	12.0						Direct Entry,

#### Subcatchment 2S: Post-Project Site Only





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Page 7

### Summary for Pond 3P: Basin

Inflow Area = 1.960 ac, 52.91% Impervious, Inflow Depth = 4.18" for SC-010yr event

Inflow = 4.14 cfs @ 10.02 hrs, Volume= 0.682 af

Outflow = 2.95 cfs @ 10.20 hrs, Volume= 0.682 af, Atten= 29%, Lag= 10.6 min

Primary = 2.95 cfs @ 10.20 hrs, Volume= 0.682 af

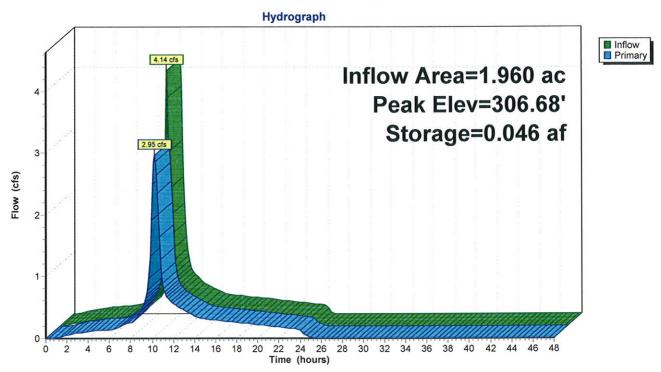
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.10 hrs Peak Elev= 306.68' @ 10.20 hrs Surf.Area= 0.039 ac Storage= 0.046 af

Plug-Flow detention time= 13.5 min calculated for 0.682 af (100% of inflow) Center-of-Mass det. time= 12.4 min (751.3 - 738.9)

Volume	Invert	Avail.Storage	Storage Description
#1	305.00'	0.112 af	23.00'W x 33.00'L x 3.00'H Prismatoid Z=4.0
Device	Routing	Invert O	utlet Devices
#1	Primary	305.00' 10	0.0" Vert. Orifice/Grate C= 0.600

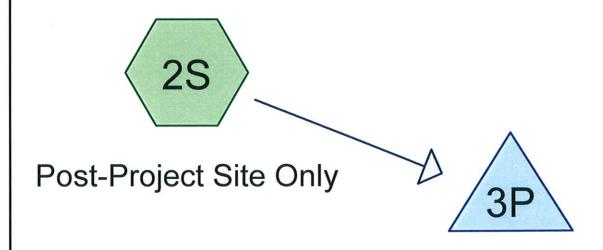
Primary OutFlow Max=2.95 cfs @ 10.20 hrs HW=306.68' (Free Discharge) 1=Orifice/Grate (Orifice Controls 2.95 cfs @ 5.41 fps)

#### Pond 3P: Basin





Pre-Project Site Only



Basin









Printed 3/14/2012 Page 2

# Area Listing (selected nodes)

Area	CN	Description
(acres)		(subcatchment-numbers)
1.960	78	Row crops, straight row, Good, HSG B (1S)
0.740	79	<50% Grass cover, Poor, HSG B (2S)
1.220	92	Urban commercial, 85% imp, HSG B (2S)
3.920	1	TOTAL AREA

Printed 3/14/2012 Page 3

# Soil Listing (selected nodes)

Area	Soil	Subcatchment
(acres)	Goup	Numbers
0.000	HSG A	
3.920	HSG B	1S, 2S
0.000	HSG C	
0.000	HSG D	
0.000	Other	
3.920		TOTAL AREA

Type I 24-hr SC-025yr Rainfall=6.71" Printed 3/14/2012

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Page 4

Time span=0.00-48.00 hrs, dt=0.10 hrs, 481 points
Runoff by SBUH method, Split Pervious/Imperv.
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Pre-Project Site Only

Runoff Area=1.960 ac 0.00% Impervious Runoff Depth=4.21" Tc=12.0 min CN=78/0 Runoff=4.38 cfs 0.688 af

Subcatchment 2S: Post-Project Site Only

Runoff Area=1.960 ac 52.91% Impervious Runoff Depth=5.26" Tc=12.0 min CN=75/98 Runoff=5.23 cfs 0.859 af

Pond 3P: Basin

Peak Elev=306.67' Storage=0.046 af Inflow=5.23 cfs 0.859 af Outflow=4.10 cfs 0.859 af

Total Runoff Area = 3.920 ac Runoff Volume = 1.547 af Average Runoff Depth = 4.74" 73.55% Pervious = 2.883 ac 26.45% Impervious = 1.037 ac

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Page 5

#### **Summary for Subcatchment 1S: Pre-Project Site Only**

Runoff

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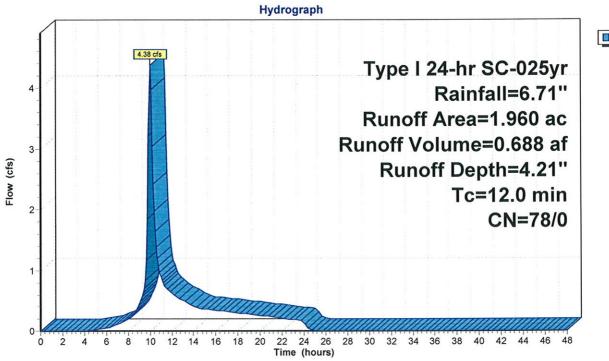
4.38 cfs @ 10.03 hrs, Volume=

0.688 af, Depth= 4.21"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-48.00 hrs, dt= 0.10 hrs Type I 24-hr SC-025yr Rainfall=6.71"

V	Area	(ac)	CN	Desc	cription			
-	1.	960	78	Row	crops, str	aight row,	Good, HSG B	
	1.	960	78	Perv	rious Area			
	Tc	Leng	th	Slope	Velocity	Capacity	Description	
	(min)	(fee		(ft/ft)	(ft/sec)	(cfs)	Becompain	
_	12.0						Direct Entry,	

# **Subcatchment 1S: Pre-Project Site Only**





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Page 6

#### **Summary for Subcatchment 2S: Post-Project Site Only**

Runoff

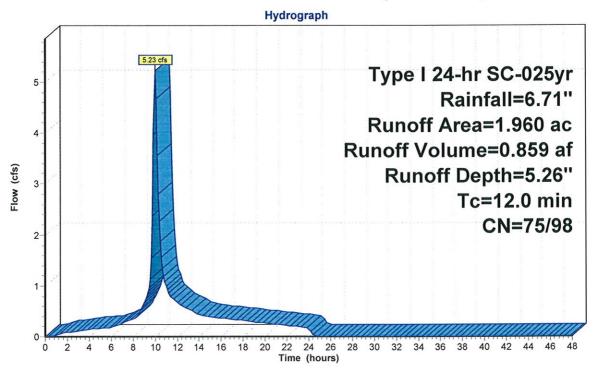
5.23 cfs @ 10.02 hrs, Volume=

0.859 af, Depth= 5.26"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-48.00 hrs, dt= 0.10 hrs Type I 24-hr SC-025yr Rainfall=6.71"

87 <u>0</u>	Area	(ac)	CN	Desc	cription			_			
7.5	1.	220	92	Urba	in commer	cial, 85% ii	imp, HSG B				
West of the second	0.	740	, HSG B	_							
///	1.960 87 Weighted Average					age					
	0.923 75			Perv	Pervious Area						
	1.037 98 Impervious Area					ea					
	Тс	Leng	ıth	Slope	Velocity	Capacity					
_	(min)	(fee	et)	(ft/ft)	(ft/sec)	(cfs)		_			
	12.0						Direct Entry,				

#### **Subcatchment 2S: Post-Project Site Only**





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#### Summary for Pond 3P: Basin

Inflow Area = 1.960 ac, 52.91% Impervious, Inflow Depth = 5.26" for SC-025yr event

Inflow = 5.23 cfs @ 10.02 hrs, Volume= 0.859 af

Outflow = 4.10 cfs @ 10.16 hrs, Volume= 0.859 af, Atten= 22%, Lag= 8.2 min

Primary = 4.10 cfs @ 10.16 hrs, Volume= 0.859 af

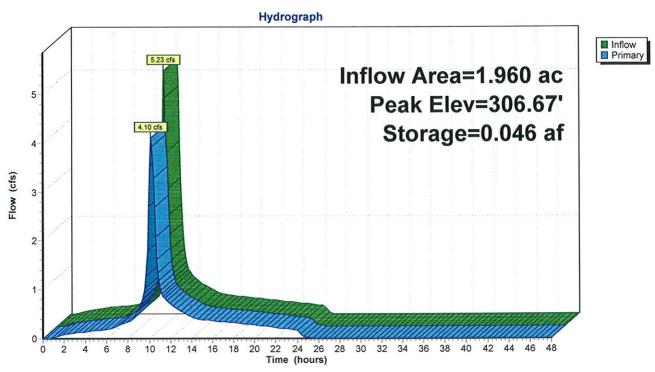
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.10 hrs Peak Elev= 306.67' @ 10.16 hrs Surf.Area= 0.039 ac Storage= 0.046 af

Plug-Flow detention time= 10.0 min calculated for 0.857 af (100% of inflow) Center-of-Mass det. time= 10.2 min (745.0 - 734.7)

Volume	Invert	Avail.Storage	Storage Description
#1	305.00'	0.112 af	23.00'W x 33.00'L x 3.00'H Prismatoid Z=4.0
Device	Routing	Invert Ou	utlet Devices
#1	Primary	305.00' <b>12</b>	.0" Vert. Orifice/Grate C= 0.600

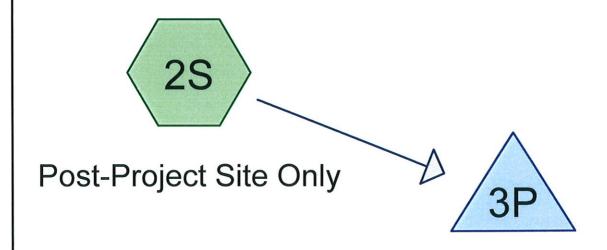
Primary OutFlow Max=4.06 cfs @ 10.16 hrs HW=306.65' (Free Discharge) 1=Orifice/Grate (Orifice Controls 4.06 cfs @ 5.17 fps)

#### Pond 3P: Basin





Pre-Project Site Only



Basin









Printed 3/14/2012 Page 2

### Area Listing (selected nodes)

Area	CN	Description
(acres)		(subcatchment-numbers)
1.960	78	Row crops, straight row, Good, HSG B (1S)
0.740	79	<50% Grass cover, Poor, HSG B (2S)
1.220	92	Urban commercial, 85% imp, HSG B (2S)
3.920		TOTAL AREA

Printed 3/14/2012 Page 3

# Soil Listing (selected nodes)

Area (acres)	Soil Goup	Subcatchment Numbers
0.000	HSG A	
3.920	HSG B	1S, 2S
0.000	HSG C	
0.000	HSG D	
0.000	Other	
3.920		TOTAL AREA

Type I 24-hr SC-050yr Rainfall=7.56" Printed 3/14/2012

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Page 4

Time span=0.00-48.00 hrs, dt=0.10 hrs, 481 points
Runoff by SBUH method, Split Pervious/Imperv.
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Pre-Project Site Only

Runoff Area=1.960 ac 0.00% Impervious Runoff Depth=4.99" Tc=12.0 min CN=78/0 Runoff=5.22 cfs 0.814 af

**Subcatchment 2S: Post-Project Site Only** 

Runoff Area=1.960 ac 52.91% Impervious Runoff Depth=6.06" Tc=12.0 min CN=75/98 Runoff=6.05 cfs 0.990 af

Pond 3P: Basin

Peak Elev=306.95' Storage=0.057 af Inflow=6.05 cfs 0.990 af Outflow=4.55 cfs 0.990 af

Total Runoff Area = 3.920 ac Runoff Volume = 1.804 af Average Runoff Depth = 5.52" 73.55% Pervious = 2.883 ac 26.45% Impervious = 1.037 ac

#### **Summary for Subcatchment 1S: Pre-Project Site Only**

Runoff

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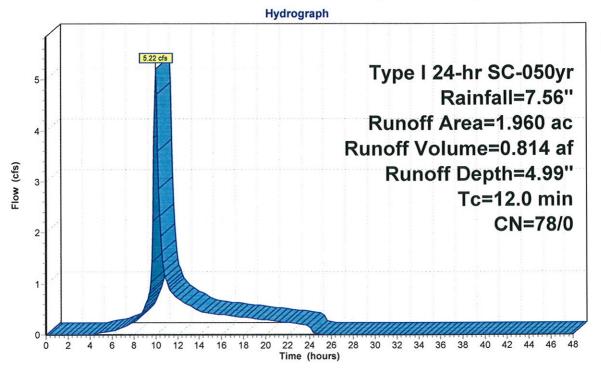
5.22 cfs @ 10.02 hrs, Volume=

0.814 af, Depth= 4.99"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-48.00 hrs, dt= 0.10 hrs Type I 24-hr SC-050yr Rainfall=7.56"

Area	(ac)	CN	Desc	cription			
1.	960	78	Row	crops, stra	aight row,	Good, HSG B	
1.	960	78	Perv	ious Area			
Тс	Lengt	h	Slope	Velocity	Canacity	Description	
(min)	(feet		(ft/ft)	(ft/sec)	(cfs)	Description	
12.0						Direct Entry,	

### **Subcatchment 1S: Pre-Project Site Only**





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#### Summary for Subcatchment 2S: Post-Project Site Only

Runoff

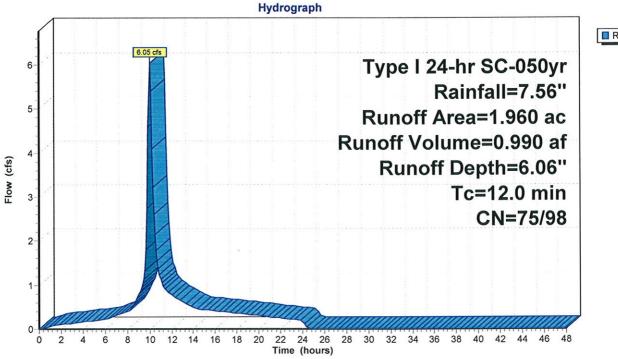
6.05 cfs @ 10.02 hrs, Volume=

0.990 af, Depth= 6.06"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-48.00 hrs, dt= 0.10 hrs Type I 24-hr SC-050yr Rainfall=7.56"

2000	Area	(ac)	CN	Desc	cription		
	1.	220	92	Urba	n commer	cial, 85% ii	imp, HSG B
2	0.	740	79	<50%	6 Grass co	over, Poor,	r, HSG B
	1.	960	87	Weig	hted Aver	age	
	0.	923	75	Perv	ious Area		
	1.	037	98	Impe	ervious Are	ea	
	Тс	Leng	jth	Slope	Velocity	Capacity	
_	(min)	(fee	et)	(ft/ft)	(ft/sec)	(cfs)	
	12.0						Direct Entry,

#### **Subcatchment 2S: Post-Project Site Only**





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Page 7

#### **Summary for Pond 3P: Basin**

Inflow Area = 1.960 ac, 52.91% Impervious, Inflow Depth = 6.06" for SC-050yr event

Inflow = 6.05 cfs @ 10.02 hrs, Volume= 0.990 af

Outflow = 4.55 cfs @ 10.17 hrs, Volume= 0.990 af, Atten= 25%, Lag= 9.3 min

Primary = 4.55 cfs @ 10.17 hrs, Volume= 0.990 af

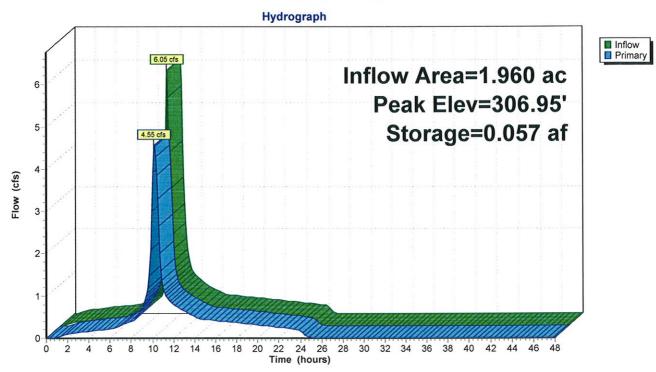
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.10 hrs Peak Elev= 306.95' @ 10.17 hrs Surf.Area= 0.043 ac Storage= 0.057 af

Plug-Flow detention time= 9.8 min calculated for 0.988 af (100% of inflow) Center-of-Mass det. time= 9.9 min (742.0 - 732.1)

Volume	Invert	Avail.Storage	Storage Description
#1	305.00'	0.112 af	23.00'W x 33.00'L x 3.00'H Prismatoid Z=4.0
Device	Routing	Invert Ou	itlet Devices
#1	Primary	305.00' <b>12</b> .	.0" Vert. Orifice/Grate C= 0.600

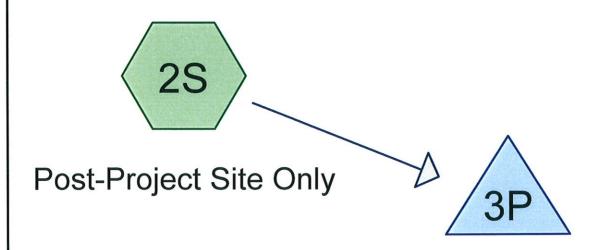
Primary OutFlow Max=4.52 cfs @ 10.17 hrs HW=306.93' (Free Discharge) 1=Orifice/Grate (Orifice Controls 4.52 cfs @ 5.75 fps)

#### Pond 3P: Basin





Pre-Project Site Only



Basin









Printed 3/14/2012 Page 2

### **Area Listing (selected nodes)**

Area	CN	Description
(acres)		(subcatchment-numbers)
1.960	78	Row crops, straight row, Good, HSG B (1S)
0.740	79	<50% Grass cover, Poor, HSG B (2S)
1.220	92	Urban commercial, 85% imp, HSG B (2S)
3.920		TOTAL AREA

Printed 3/14/2012 Page 3

### Soil Listing (selected nodes)

Area (acres)	Soil Goup	Subcatchment Numbers
0.000	HSG A	
3.920	HSG B	1S, 2S
0.000	HSG C	
0.000	HSG D	
0.000	Other	
3.920		TOTAL AREA

Type I 24-hr SC-100yr Rainfall=8.38" Printed 3/14/2012

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Page 4

Time span=0.00-48.00 hrs, dt=0.10 hrs, 481 points
Runoff by SBUH method, Split Pervious/Imperv.
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Pre-Project Site Only

Runoff Area=1.960 ac 0.00% Impervious Runoff Depth=5.74" Tc=12.0 min CN=78/0 Runoff=6.03 cfs 0.938 af

Subcatchment 2S: Post-Project Site Only

Runoff Area=1.960 ac 52.91% Impervious Runoff Depth=6.84" Tc=12.0 min CN=75/98 Runoff=6.84 cfs 1.118 af

Pond 3P: Basin

Peak Elev=306.79' Storage=0.050 af Inflow=6.84 cfs 1.118 af Outflow=5.65 cfs 1.118 af

Total Runoff Area = 3.920 ac Runoff Volume = 2.056 af Average Runoff Depth = 6.29" 73.55% Pervious = 2.883 ac 26.45% Impervious = 1.037 ac HydroCAD® 8.50 s/n 003040 © 2007 HydroCAD Software Solutions LLC

Page 5

#### Summary for Subcatchment 1S: Pre-Project Site Only

Runoff

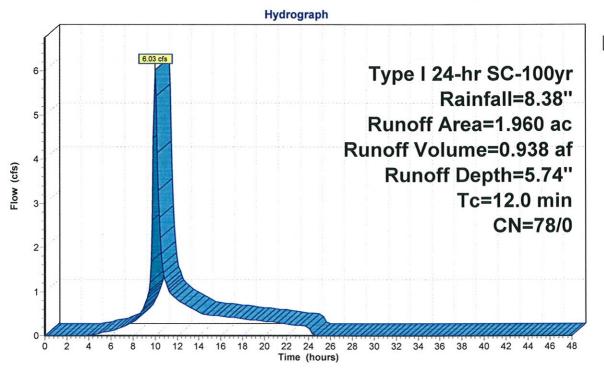
6.03 cfs @ 10.02 hrs, Volume=

0.938 af, Depth= 5.74"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-48.00 hrs, dt= 0.10 hrs Type I 24-hr SC-100yr Rainfall=8.38"

	Area	(ac)	CN	Desc	cription		
	1.	960	78	Row	crops, stra	aight row, (	Good, HSG B
	1.	960	78	Perv	ious Area		
	Тс	Lengt	th S	Slope	Velocity	Capacity	Description
100	(min)	(fee	et)	(ft/ft)	(ft/sec)	(cfs)	
	12.0						Direct Entry.

#### **Subcatchment 1S: Pre-Project Site Only**





#### **Summary for Subcatchment 2S: Post-Project Site Only**

Runoff

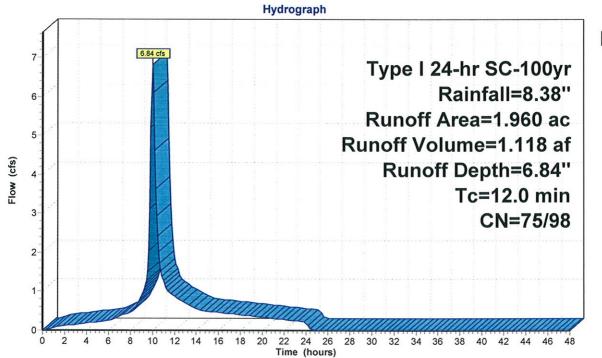
6.84 cfs @ 10.02 hrs, Volume=

1.118 af, Depth= 6.84"

Runoff by SBUH method, Split Pervious/Imperv., Time Span= 0.00-48.00 hrs, dt= 0.10 hrs Type I 24-hr SC-100yr Rainfall=8.38"

	Area	(ac)	CN	Desc	cription		
	1.	220	92	Urba	n commer	cial, 85% in	imp, HSG B
	0.	740	79	<50%	6 Grass co	over, Poor,	, HSG B
	1.	960	87	Weig	hted Aver	age	
	0.	923	75	Perv	ious Area	<u>-</u> .	
	1.	037	98	Impe	ervious Are	ea	
	Тс	Leng		Slope	Velocity	Capacity	10.0 cm 20.0 cm 20.0 cm 1 / 20.0 cm 20
_	(min)	(fee	et)	(ft/ft)	(ft/sec)	(cfs)	
	12.0						Direct Entry,

#### **Subcatchment 2S: Post-Project Site Only**





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Page 7

# Summary for Pond 3P: Basin

Inflow Area = 1.960 ac, 52.91% Impervious, Inflow Depth = 6.84" for SC-100yr event

Inflow = 6.84 cfs @ 10.02 hrs, Volume= 1.118 af

Outflow = 5.65 cfs @ 10.14 hrs, Volume= 1.118 af, Atten= 17%, Lag= 7.0 min

Primary = 5.65 cfs @ 10.14 hrs, Volume= 1.118 af

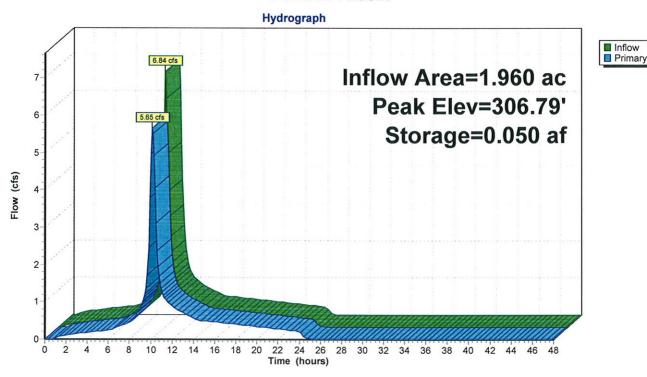
Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.10 hrs Peak Elev= 306.79' @ 10.14 hrs Surf.Area= 0.040 ac Storage= 0.050 af

Plug-Flow detention time= 9.7 min calculated for 1.118 af (100% of inflow) Center-of-Mass det. time= 8.6 min (738.4 - 729.8)

Volume	Invert	Avail.Storage	e Storage Description
#1	305.00'	0.112 a	f 23.00'W x 33.00'L x 3.00'H Prismatoid Z=4.0
Device	Routing	Invert C	Outlet Devices
#1	Primary	305.00' 1	4.0" Vert. Orifice/Grate C= 0.600

Primary OutFlow Max=5.57 cfs @ 10.14 hrs HW=306.75' (Free Discharge) 1=Orifice/Grate (Orifice Controls 5.57 cfs @ 5.21 fps)

#### Pond 3P: Basin



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#### COUNTY OF SANTA BARBARA

# STANDARD CONDITIONS FOR PROJECT PLAN APPROVAL –WATER QUALITY BMPS

- 1. All new residential, commercial, industrial, and transportation development projects, including redevelopment projects, must address water quality through the use of best management practices (BMPs) as determined by the Director of Planning & Development and/or the Public Works Director. BMPs shall be applied in the following order of priority: site design, source control, and treatment control. Examples of good site design include reducing directly connected impervious areas and incorporating drainage system elements into site design. Examples of source control include covered parking or use of Integrated Pest Management techniques in landscape maintenance. Examples of treatment control include systems that either detain or filter water to remove pollutants prior to discharge. Furthermore, projects will seek to reduce post-development runoff volumes from pre-development volumes through such measures as infiltration, evapotranspiration, and storage/reuse.
- 2. Treatment control BMPs shall meet the following specific design requirements unless otherwise approved by the Public Works Director.
- 3. At a minimum, these specific design requirements for treatment control BMPs apply to all new or redevelopment projects of the following sizes: residential 1 acre or greater in disturbance; and commercial industrial, and transportation / vehicle facilities which are 0.5 acres or greater in disturbance. Treatment control BMPs may be required on new development or redevelopment projects at the discretion of the Public Works Director, based upon the categories listed in Attachment A. The selection of BMPs shall be based upon the ultimate use of the drainage area, unless the facility will be re-built/sized during subsequent phases of construction.
- 4. Projects cannot be subdivided or phased to avoid complying with these requirements. Development and redevelopment of the same or adjacent property(ies) permitted within 5 years may be considered together for purposes of assessing the above criteria.
- 5. All water quality facilities will require regular maintenance. A Maintenance Plan shall be submitted to the Public Works Department, Water Resources Division for approval prior to Final Map Recordation or Zoning Clearance, whichever applies or comes first. The Maintenance Plan shall identify the person(s) responsible for maintenance, describe the long-term activities intended to maintain the performance requirements of the water quality facilities, and include a schedule for performing those activities. Maintenance records shall be retained by the property owner for the prior 5 years of record and shall be provided to the County of Santa Barbara upon request. Applicants are required to enter a maintenance agreement with Public Works, Water Resources

Division, to ensure adequate performance and to allow Public Works emergency access. The agreement is perpetual and requires the present and future owners of the property to be responsible for the construction, ownership, and maintenance of all private water quality facilities.

- 6. **Detention Basins**. Detention of storm water runoff allows for the settling of fine particles and associated pollutants. Detention times for water quality control are longer than for flood control. Although a detention system for water quality could be combined with a flood control system, the volume assigned for water quality control must meet minimum detention times. The required design volume for detention-based storm water quality treatment facilities is equal to the runoff volume that would occur from the contributing area from a 1.2-inch rainstorm event.
- a) The volume calculation will be computed as follows:

WQDV = (.05 + 0.9 x IMP) x 1.2" x A x 3630
where,

WQDV = water quality design volume (cubic feet)
IMP = total impervious area, expressed as a percentage
A = tributary area (acres)
3630 = factor to convert units from acre-inch to cubic feet

- b) The draw-down (or draining) time for the detention volume, which is intended to drain down completely (vs. permanent wet volume), shall be greater than or equal to 36 hours. For the top half of the detention volume, the drawdown time shall be greater than or equal to 12 hours. The remaining bottom-half of the detention volume must drain in no less than 24 hours. The outlet shall be sized using Figure 1 to achieve the required detention times and shall be large enough that clogging is unlikely to occur. Pipes less than 4 inches in diameter should not be used. Perforated risers are acceptable for controlling the flow rate. However, potential clogging of the perforations should be addressed in the maintenance plan.
- c) The detention system shall be designed to maximize the distance between the inlet and outlet, and to minimize "dead spaces" (areas where little or no exchange occurs during a storm event), thereby limiting short-circuiting. A minimum flow-path length to width ratio of 3 is recommended and can be achieved using internal berms or other means to prevent short-circuiting.
- d) For ponds designed to be permanently wet, the applicant must show a water balance that demonstrates that there will be sufficient dry weather flows to maintain the planned pool volume, without creating stagnate conditions. A Mosquito Management Plan or Service Contract must be approved or waived by the Santa Barbara Coastal Vector Control District for any facility that maintains a pool of water for 72 hours or more.

- e) For dry extended detention ponds, the applicant must show that the pond will be able to handle dry-weather flows (such as irrigation return flows) without causing a nuisance (visual eye sore, stagnate water, etc.).
- f) Detention based water quality systems are recommended to be off-line from flood conveyance. If they are to be on-line or combined with a flood detention facility, then the facility must be designed to pass the appropriate flood without damage to the facility, as well as to minimize re-entrainment of pollutants.
- 7. **Flow-through Facilities**. Flow-through based storm water quality facilities are ones where either the flow is passed with little or no storage through a filtration media or infiltrated into a subsurface soil matrix. The purpose is to remove, through filtration, the smaller sized fraction of particles. Examples of these BMPs include vegetated swales, infiltration facilities, bioretention filters, and some types of commercial filters.
  - a) The required flow rate for flow-through based storm water quality treatment facilities is the runoff that would be produced from a rainfall intensity of 0.3 inches per hour. Water quality treatment shall be maintained at this rate for a minimum of four hours. Flows above this rate can either be by-passed, or routed through the facility if it can be demonstrated that velocities will not re-entrain captured pollutants.
  - b) The flow-through based facility must be able to completely treat the flow rate based upon the following:

- c) Infiltration facilities shall only utilize highly permeable soils with significant pollutant removal capacities. The applicant must demonstrate that slope stability, groundwater quality, and depth to groundwater are suitable for infiltration facilities. Infiltration facilities will require periodic maintenance to maintain permeability.
- d) Vegetated (wetland/native plants and/or grass) swales shall be designed so that at the water quality flow rate (WQFR), the swale width is such that the flow depth is no greater than 4 inches and the hydraulic grade line is no greater than 2 percent (unless drop structures are employed) between structures. The inflow should be directed towards the upstream end of the swale as much as possible, but should at a minimum occur evenly over the length of the swale. The length of flow in the swale should be a minimum of 100 feet or the bioswale should provide 10 minutes of contact time with the vegetation.

- e) Bioretention filters are vegetated (landscaped) areas where runoff is directed through vegetation and soils for filtration. In most cases, unless there is shown to be adequate infiltration capacity, underdrains and overflow drains should be included to collect filtered runoff to discharge to the storm drainage system. The ponding depth should be 6 inches or less with a stabilized mulch layer of 2 to 3 inches. A sandy planting soil of 2 to 3 feet should be used. Each facility should have no more than 1 acre of tributary area, and shall be designed to convey larger flows in a manner that does not cause re-entrainment of trapped materials.
- f) Commercial (media) filters or such devices shall be accompanied by a certification from a licensed civil engineer that the filter/device will maintain an effluent quality of not exceeding 30 mg/L of total suspended solids with no visible oily sheen under design operating conditions.
- 8. Combination facilities, or treatment trains, are encouraged to provide better treatment capability. For example, short-term detention may be placed upstream of a flow-through facility to reduce the size of the flow-through facility. In such cases, each facility will be reduced in size accordingly based upon demonstrated water quality effectiveness for the pollutants of concern.
- 9. These are minimum requirements. If the County determines that additional controls and/or lower thresholds for developments are required to meet specific water quality regulatory requirements (NPDES, TMDL, etc.) in watersheds that drain to sensitive receiving waters (as defined by the Central Coast Regional Water Quality Control Board), additional requirements may be imposed. These may include design requirements that result in larger or more effective facilities as well as additional types of structural or non-structural controls. The design solution will be contingent upon the pollutants that are found to be impacting such water bodies and the regulatory status of the water body.
- 10. Easements, fencing, grading, access roads, ramps, etc. for water quality facilities shall be provided in accordance with current policies of the Flood Control District. Easements, if required, shall be dedicated on the Final Map or dedicated by a separate instrument. The Developer will pay the cost for easement acceptance by the County and processing through County Real Property Agents.
- 11. A Surety Bond for structural improvements in the public right-of way will be posted with the Public Works Department in an amount approved by the Public Works Director prior to recordation of the Final Map or Zoning Clearance. Bond amounts will be based on the submitted cost estimates of proposed drainage improvements to be constructed outside the Public Road right-of-way.
- 12. Water Resources Division shall be notified 5 working days in advance of storm drain and

attendant auxiliary construction of water quality facilities. Water Resources Division may provide periodic inspection during construction at the developers cost. A note shall be placed on the plans to this effect.

- 13. During the construction process, the Water Resources Division will review and approve in writing any significant design revisions to the approved Plans prior to construction of the proposed revisions.
- 14. Prior to occupancy clearance, the "As-Built" Plans shall be submitted to the Santa Barbara County Public Works Department, Water Resources Division.
- 15. A Flood Control Encroachment Permit is required for improvements in the Flood Control District right-of-way. An Encroachment Permit shall be executed prior to the start of construction within Flood Control District right-of-way. Flood Control District notification shall be required 5 working days prior to the start of construction. An Encroachment Permit fee is required. A note shall be placed in the plans to this effect.
- 16. Review by the Public Works Department, Water Resources Division, of plans and granting of encroachment permits does not relieve the applicant, developer, contractor and/or owner from the responsibility to obtain all other required permits and approvals required by law, including but not limited to grading permits, building permits, environmental review for CEQA/NEPA requirements, Fish & Game permits, Army Corps of Engineers permits and other City, CalTrans or other County department approvals and the approval of the underlining property owner(s) of record
- 17. The County reserves the right to modify these conditions as site conditions warrant.

STANDARD CONDITIONS OF APPROVAL FOR WATER QUALITY RECOMMENDED BY:

Robert Almy	
Water Agency Manager	
Signed copy on file Water Resources Div	vision
Thomas D. Fayram, P.E.	
Deputy Public Works Director	

#### Attachment A

All discretionary development and redevelopment\* projects defined by the Standard Conditions, or by the State Water Resources Control Board through the NPDES General Permit for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems, or that fall into one of the following categories are subject to these conditions of approval

- Single-Family Hillside Residences
- 100,000 Square Foot Commercial Developments
- Automotive Repair Shops
- Retail Gasoline Outlets
- Restaurants
- Home Subdivisions with 10 or more housing units
- Parking lots 5,000 square feet or more or with 25 or more parking spaces and potentially exposed to storm water runoff
- \* Redevelopment means the creation or addition of at least 5,000 sf of impervious area. Redevelopment includes, but is not limited to: the expansion of a building footprint or addition of a structure; structural development including an increase in gross floor area and/or exterior construction or remodeling; and land disturbing activities related with structural or impervious surfaces. Where redevelopment results in an increase of less than 50% of the impervious surfaces of a previously existing development, and the existing development was not subject to these Standard Conditions, these Standard Conditions apply only to the addition, and not to the entire development. (from WQO-2003-0005-DWQ -)

#### **APPENDIX G** LOCAL PLANT LIST

#### PLANT LIST RECOMMENDATIONS

#### **Green Roofs**

Note: The following list is from the Green Roofs - Cooling Los Angeles: Resource Guide and provides vegetated roof plants applicable to Santa Barbara. For more information visit, http://www.fypower.org/pdf/LA GreenRoofsResourceGuide.pdf. For roof garden plants, use sun and drought tolerant, self-sustaining native trees, shrubs and ecoroof plants.

Common Name Gold Tooth Aloe

Golden Barrel Cactus Hasse's Dudleya Beavertail Prickly Pear

Blue-blad Cactus Chalk Dudleya Felt Plant Ice Plant Lampranthus October Daphne

Oscularia Purple Stonecrop White Trailing Ice Plant

Brown Sedge Deer Grass Tussock Sedge

Many species of agave

Scientific Name Aloe nobilis

Echinocactus grusonii Dudleya hassei Opuntia basilaris

Opuntia violacea santa-rita Dudleya Pulverulenta Kalanchoe beharensis Delosperma cooperii Lampranthus productus

Sedum sieboldii Lampranthus deltoids Sedum spathulifolium Delosperma Alba Carex testacea Muhlenbergia rigens

Carex stricta

#### Bioretention Areas, Rain Gardens, Planter Boxes, Infiltration Basins, Vegetated Swales, Vegetated Filter Strips, and Dry Extended Detention Basins:

The plants listed in this section include native plantings that are suitable for areas that will receive short periods of inundation (e.g. 24 to 72 hours) as well as plants suitable for upland areas.

#### Native Plantings - Trees (Can Handle Short Periods of Inundation)

Common Name Western Sycamore Freemont Cottonwood Boxelder

Coast Live Oak

Scientific Name Platanus racemosa Populus fremontii Acer negundo Quercus agrifolia

#### Native Plantings - Shrubs & Grasses (Can Handle Short Periods of Inundation) Common Name

Scientific Name California Sagebrush Artemisia californica Mugwort Artemisia douglasiana Clustered Field Sedge Carex praegracilis Salt Grass Distichlis spicata California Fuschia Epilobium canum

California Meadow Barley Hordeum bachyantherum

Coast Goldenbush Isocoma manzeisii Mexican Rush Juncus mexicanus Common Rush Juncus patens Creeping Rye Grass Leymus triticoides Deerweed Lotus scoparius Coastal Bush Lupine Lupinus arboreus Sticky Monkey Flower Mimulus aurantiacus Fuschia-flowered Gooseberry Ribes speciosum

California Rose Rosa californica Blackberry Rubus ursinus Arroyo Willow Salix lasiolepis Yerba Buena Satureja douglasii Snowberry Symphoricarpus mollis Verbena Verbena lasiostachya

#### Upper Bank - Native Shrubs (Generally Suitable for Upland Areas)

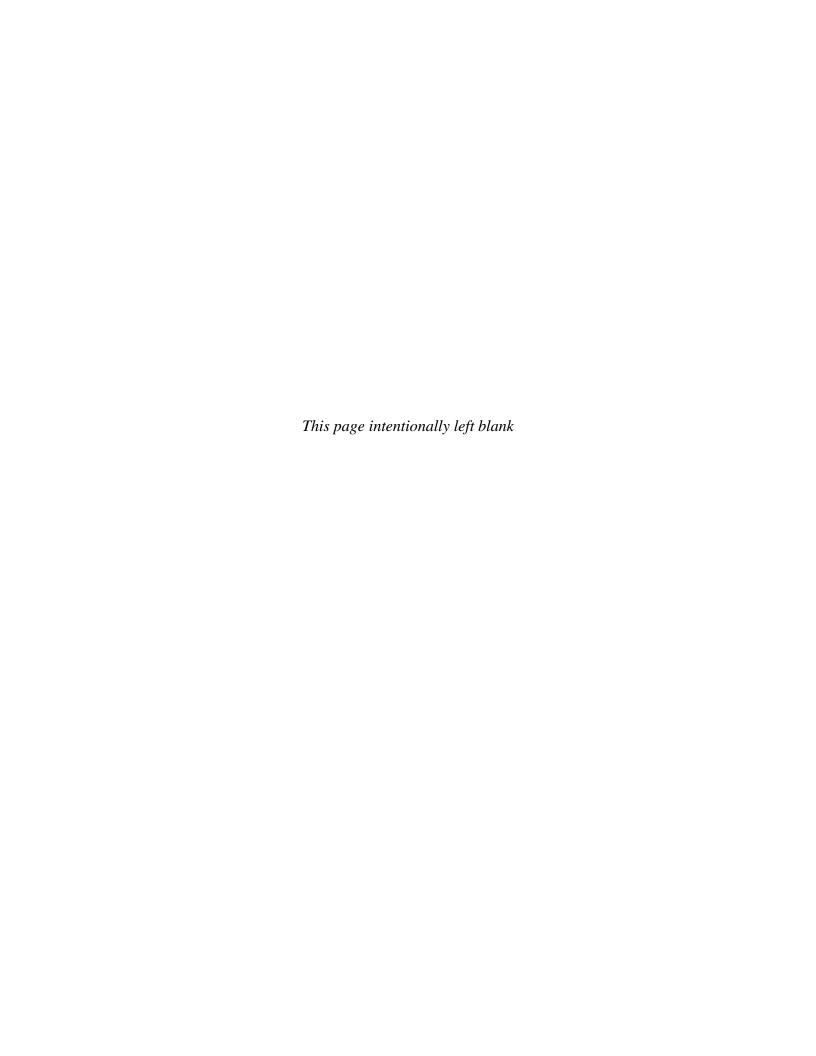
Common Name Scientific Name California Sagebrush Artemesia californica Coyote Bush Baccaris pilularis Monkeyflower Diplacus duranliucus Giant Ryegrass Elymus condensatus Wild Rye Leymus triticoides Catalina Cherry

Prunus Iyonii

Toyon Heteromeles arbutifolia Lemonade Berry

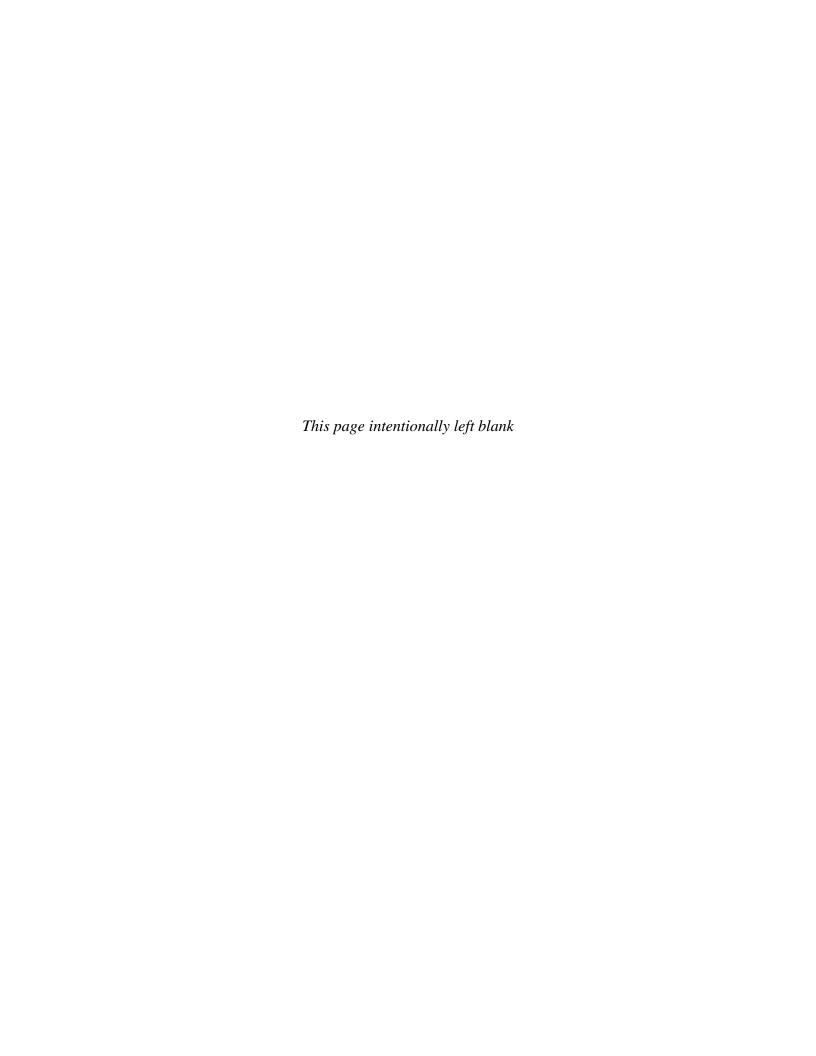
Rhus integrifolia Purple Needle Grass Nassela pulchra

Barkberry Berberis nenenii California Blackberry Rubis urnsinus Mugwort Artemesia douglasii





PUBLIC PARTICIPATION PROCESS



#### **Appendix M. Public Participation Process**

Please see the attached documents detailing the public information dissemination for the MFPD Station #3 siting and subsequent environmental review.

- Distribution lists (2) used for notification of residences in the vicinity of the site
- Public hearing notice/mailer regarding the Site Identification Study (1/22/08)
- Notice published in the Montecito Journal regarding a public hearing held 5/27/08
- Sign-in sheets for Public hearings/workshops (3/12/08; 5/27/08; 4/21/11)
- Copy of Distribution letter for Initial Study (10/20/10)
- Copy of Distribution letter for the Siting Study (4/8/11)
- Ad published in the Montecito Journal regarding the Environmental Impact Report (EIR) scoping hearing (3/31/11)
- Ad published in the SB News Press regarding the Notice of Preparation of the EIR (4/3/11)
- Copy of State Clearinghouse Notice of Preparation of the EIR (4/19/11)
- Copy of State Clearinghouse Notice of Completion of the Draft EIR (12/19/11)
- Copy of State Clearinghouse Acknowledgement of completion of state agency distribution

Below is a list of meetings and hearings regarding the siting and environmental analysis of proposed Fire Station #3.

- Jan 22, 2008 Regular meeting Public Briefing from AMEC on Station 3 property identification study unable to find sign in sheet
- March 12, 2008 Station 3 Public Workshop Time Certain 6:00 p.m. sign in sheet attached
- May 27, 2008 Station 3 Public Workshop Time Certain 6:00 p.m. Sign in sheet attached
- Aug 18, 2008 Station 3 Public Workshop Time Certain 6:00 p.m. unable to find sign in sheet
- Nov 17, 2008 Regular meeting: Consider Fire Chief's and District Counsel's recommendations to secure appraisals and site specific environmental and engineering analyses of Site A "Palmer Jackson East" and Site B "Archdiocese of Los Angeles" parcels as described in AMEC's "Final Station 3 Site Identification Study" prepared for the District earlier this year." unable to find sign in sheet
- Nov 24, 2008 Special Meeting Consider Fire Chief's and District Counsel's
  recommendations to secure appraisals and site specific environmental and engineering
  analyses of Site A "Palmer Jackson East" and Site B "Archdiocese of Los Angeles"
  parcels as described in AMEC's "Final Station 3 Site Identification Study" prepared for
  the District earlier this year." unable to find sign in sheet
- Jan 21, 2009 Adjourned Regular meeting Consider permanently removing all properties but Site A "Palmer Jackson East" and Site B "Archdiocese of Los Angeles"

- parcels as described in AMEC's "Final Station 3 Site Identification Study" from future consideration. unable to find sign in sheet
- Nov 30, 2009 Special Meeting Consider Preliminary Analysis by AMEC Earth & Environmental regarding a potential site for proposed Station 3 at: 2184 East Valley Road/605 Romero Canyon Road/615 Romero Canyon Road (APNs 007-162-009/010/011). unable to find sign in sheet
- April 21, 2011 Public scoping hearing for the EIR before the MFPD Board of Directors.
- January 17, 2012 Public hearing on the Draft EIR before the MFPD Board of Directors.
- February 21, 2012 Public hearing on the Recirculated Draft EIR before the MFPD Board of Directors.

#### Notice of Public Briefing on January 22, 8:30am Montecito Fire Protection District (MFPD)

On Jan 22<sup>nd</sup>, 2008, at the MFPD's main station (595 San Ysidro Road), the MFPD Board of Directors will receive a briefing on the status, schedule and general content of the Station 3 Site Identification Study. The goal of the Study is to provide the MFPD with a list of parcels in eastern Montecito which would be suitable for acquisition to support construction of a new fire station. Although no action will be taken by the Board at this briefing, members of the public are welcome to attend and provide input as appropriate.

Why is the Study Necessary?: Portions of eastern MFPD lie outside of the recommended 5 minute emergency response time of the MFPD's 2 existing fire stations. In order to address this issue, the MFPD has initiated the Station 3 Site Identification Study to establish a new Fire Station and provide improved levels of service.

**General Study Area Boundary:** The Study area encompasses the eastern portion of Montecito, generally bounded to the west by Sheffield Dr and Romero Canyon Rd, to the east by Ladera Lane, to the south by Jameson Lane, and to the north by East Valley and Feather Hill Roads.

**Study's Duration:** The Study will run for approximately 3 months, from January of 2008 through March 2008.

**Study Overview:** The Study will provide the following:

- A Population Forecast for the MFPD, focused on eastern Montecito;
- An emergency response time analysis from existing and potential new facilities focused on eastern Montecito that includes level of service comparisons to other areas in the community;
- Development of site selection criteria to prioritize factors for site acquisition; and
- A site specific constraints analysis to determine the suitability of available parcels

**Public Participation:** Interested parties will have further opportunities to provide input on this project after this initial Public briefing. For additional questions or concerns please contact MFPD Fire Chief Kevin Wallace at 969-7762.

#### Notice of Public Briefing on January 22, 8:30am Montecito Fire Protection District (MFPD)

On Jan 22<sup>nd</sup>, 2008, at the MFPD's main station (595 San Ysidro Road), the MFPD Board of Directors will receive a briefing on the status, schedule and general content of the Station 3 Site Identification Study. The goal of the Study is to provide the MFPD with a list of parcels in eastern Montecito which would be suitable for acquisition to support construction of a new fire station. Although no action will be taken by the Board at this briefing, members of the public are welcome to attend and provide input as appropriate.

Why is the Study Necessary?: Portions of eastern MFPD lie outside of the recommended 5 minute emergency response time of the MFPD's 2 existing fire stations. In order to address this issue, the MFPD has initiated the Station 3 Site Identification Study to establish a new Fire Station and provide improved levels of service.

**General Study Area Boundary:** The Study area encompasses the eastern portion of Montecito, generally bounded to the west by Sheffield Dr and Romero Canyon Rd, to the east by Ladera Lane, to the south by Jameson Lane, and to the north by East Valley and Feather Hill Roads.

**Study's Duration:** The Study will run for approximately 3 months, from January of 2008 through March 2008.

**Study Overview:** The Study will provide the following:

- A Population Forecast for the MFPD, focused on eastern Montecito;
- An emergency response time analysis from existing and potential new facilities focused on eastern Montecito that includes level of service comparisons to other areas in the community;
- Development of site selection criteria to prioritize factors for site acquisition; and
- A site specific constraints analysis to determine the suitability of available parcels

**Public Participation:** Interested parties will have further opportunities to provide input on this project after this initial Public briefing. For additional questions or concerns please contact MFPD Fire Chief Kevin Wallace at 969-7762.

#### REGULAR MEETING OF THE BOARD OF DIRECTORS OF THE MONTECITO FIRE PROTECTION DISTRICT

Held at Fire District Headquarters, 595 San Ysidro Road, January 22, 2008. The meeting was called to order by President Pro Tem Venable at 8:35 a.m. Present were Director Jensen, Director Venable and Director Newquist. Others present at the meeting: L Bass, D. Gira, E. Hvolbøll, K. Johnson, J. Langhorne, C. Lim, T. McElwee, K. Powell, K. Wallace and G. Ventura.

- 1. There was no public comment.
- 2. On a motion made by Director Newquist, seconded by Director Jensen, the minutes of the December 17, 2007 Regular Meeting were unanimously approved.
- 3. After a brief explanation of costs associated with renewal of CSDA membership, the warrants and claims for the month of December 2007 were unanimously approved on a motion made by Director Jensen, seconded by Director Newquist.
- 4. Dan Gira introduced himself and explained that AMEC has been gathering data, including a response time analysis for their report. There will be additional opportunities to comment on the process of gathering information at a public workshop that will be held in late February or early March. There will also be a public hearing at a board meeting sometime after the workshop. Mr. Gira advised that they plan to have all of their actions and information gathered transparent and readily available to the community. He explained that this study is to help the District identify the best possible location for a third station.

Currently, many addresses on the Eastern end of the district are well outside the current standards for acceptable response time, which is identified by NFPA as arriving within 4 minutes of alarm reciept. The focus of this study is to identify a location for a third station that would provide an adequate response to residents and properties that currently fall outside of that standard. Mr. Gira asked for questions from the audience.

Audience questions included:

What is the criteria being used for the study?

- *Meets response time criteria*
- Site size, configuration and location
- Acquisition / development costs
- Public safety / Traffic impacts
- Neighborhood concerns
- Land use constraints (zoning, County policies, permitting issues)
- Exposure to hazards
- Environmental impacts

What is the District's policy on public notification?

The District posts all Board meetings and Public notices at the entrance to Station One, and the Montecito Association and Montecito Water District are also provided copies to post as well. For this particular topic, workshops and hearings will be noticed in the Montecito Journal, and emailed to anyone who requests to be added to our notification list.

What is the response time of the furthest location in the District?

It takes approximately 10 minutes, 40 seconds to respond to Bella Vista at Ladera Lane.

Did the Montecito Masterplan identify the need and/or location for a third station?

Yes, the Montecito Masterplan does identify an additional fire station is needed in the east end of the District, but no specific site was identified.

Has the District found a willing seller?

Not at this time. Chief Wallace invited any interested sellers to arrange a meeting with him or District Counsel directly

Is there any preference to purchasing raw land vs. developed land? This will be one of factors considered when they develop a list of potential sites.

If the District doesn't find any willing sellers, will the District consider offering any incentives?

District Counsel advised that the District will gather as many facts that they can as well as gather input from the public when making their final decision. In terms of process, eminant domain is one of the options available to the Board, but the District will look for the most amacable way to handle the land aquisition.

Is the study going to rank the locations that are submitted in their report?

AMEC will be looking at all options within the study zone and narrow them down to up to 6 sites ranking the most optimum locations based on the criteria mentioned above.

Where is center of the response zone study?

East Valley at Sheffield, however all sites identified in the study zone map meet the response time criteria.

What is the predicted impact to property values of surrounding homes or near a fire station?

Mr. Gira advised that he has done studies in the past for similar projects and found there to be no impact to the value of surrounding properties, but the buy pool may be smaller.

Will neighborhood compatibility be considered?

District Counsel advised that this was a concern when Station One was built as well as the Station 2 remodel. The District has demonstrated on both accounts to make good neighbors. Additionally we hope to have a site large enough (1-1.5 acres) to create a buffer between neighboring properties as we have done at Station One (which is only 2/3 acres).

What is the District's policy on siren use, and how many calls does the District respond to on average?

At Station One, sirens aren't used until responding equipment reaches East Valley Road, unless traffic on San Ysidro necessitates it. We currently respond to approximately 1100-1200 calls per year, 3 calls on average, within a 24 hour day.

What will the staffing and building size be at the new station? The District projects that there will be 3 firefighters on duty 24/7, with a 4<sup>th</sup> firefighter during peak fire season (July-Sept). We hope to have a building similar to Station 2, but it wouldn't necessarily have to be 2 stories if the right lot were available. We also hope that we can provide

storage to infrequently used equipment.

Does the District have funding to purchase and build a third station? *The District has identified and budgeted for the purchase of the land, and has projected 4 years to aquire the funds necessary to complete that construction of the station.* 

The Board took no action.

- 5. President Pro Temp Venable closed the Public Briefing and called for a recess at 9:17 am.
- 6. The Board reconvened to open session at 9:29 am.
- 7. Chief Wallace asked the Board to consider authorizing the hiring of three additional firefighters. He explained that we expect to have two openings within the next year: one employee is expected to retire, and the other has a medical condition and may retire. Additionally, Chief Wallace advised that he would like to begin staffing for the 3<sup>rd</sup> station now. He explained that it would be difficult to hire and train the 9 new employees that would be necessary to staff the 3<sup>rd</sup> Station all at the same time. If we hired one or two additional firefighters each year, we would have the necessary (fully trained) employees to staff the new station by the time it was completed, without overburdening the shifts with too many probationary firefighters all at once.

Santa Barbara City Fire Department has agreed to let newly hired probationary firefighters attend their academy in May to give them their first two months of on the job training. (This is not to be confused with basic firefighter academy training; this or experience equal to a formal firefighter academy, along with EMT certification, is required before being hired as a firefighter here.) Chief Wallace explained that the hiring process entails much more work than it did in the past, and can often take more than 4 months before they can actually begin working for us.

Director Newquist stated that he felt it was premature to consider hiring for the third station as well as to assume a retirement just because someone reaches retirement age. He suggested that the District hire one firefighter at this time.

Director Newquist asked if the additional firefighters would help with shift rotation. Chief Wallace explained that this year we have had an increased number of force hires, and adding the extra staffing will relieve some of that pressure. Director Venable advised that he would like to approve two additional firefighters.

On a motion by Director Newquist, seconded by Director Venable, the Board approved hiring two additional firefighters.

- 8. Chief Wallace asked the Board to formally accept a donation in the amount of \$5,714.29 from David Gersh on behalf of Stella Zedah. On a motion made by Director Venable, seconded by Director Newquist, the Board unanimously accepted the unrestricted gift of \$5,714.29 from David Gersh on behalf of Stella Zedah.
- 9. Director Newquist advised that he is no longer a Board member for the Montecito Association. He advised that they added a public agency category at the rate of \$1,000 during their last meeting, and suggested that the District renew their membership at this rate. He advised that the Montecito Association works with the District to resolve problems, and has worked well as a tool to assist us with getting Fire District

information out to the community.

Director Jensen advised that he was concerned with the negative comments that are often made about the Montecito Association in the local media. Director Newquist advised that most of the negative comments have been directed at the Montecito Planning Commission, which is not part of the Montecito Association.

Director Venable advised that he does not think that it was wise for the District to jump from \$100 membership dues to the highest level of membership when we are currently in the process of investigating a large project that could affect many home owners in the community (Station 3). District Counsel advised that if the Board feels that the amount of their contribution could influence any District projects, they should avoid increasing their contribution.

On a motion by Director Newquist, seconded by Director Jensen the Board approved increasing membership dues to the Montecito Association to \$500. Director Venable abstained.

10. Chief Wallace explained that the Montecito Firemen's Association (MFA) participated in the recent Muscular Dystrophy Association(MDA) "Fill the Boot" fundraising campaign on December 15<sup>th</sup>. He apologized for not informing the Board of this prior to the event.

Keith Powell, MFA representative, provided the Board with background information on the Muscular Dystrophy Fill the Boot campaign. He advised that Montecito Fire District was the only Fire Department in Santa Barbara County that hadn't participated in the past. He reported that 9 off duty firefighters and 2 MDA representatives raised \$10,600.

Director Newquist suggested that the District put an article in the local media prior to the event next year.

The Board took no action.

- 11. Director Newquist requested that the new MFA Board introduce themselves at the February Board meeting. He also requested that the Employee Housing Property Management Company give report to the Board at the February meeting.
- 12. At 10:04 am, the Board went into closed session pursuant to Government Code Section 54957.6, conference with labor negotiator to review its position and instruct its negotiator regarding Employee Organization: Montecito Firemen's Association and Unrepresented Employees: Fire Chief, Division Chief/Fire Marshal, Division Chief/Operations, Battalion Chiefs, Accountant, and Administrative Secretary. Present were Board Negotiator: J. Venable, Board members R.J. Jensen, and D. Newquist, District Counsel, Eric Hvolbøll and Fire Chief K. Wallace (for a portion only).

At 10:57 a.m. the Board reconvened in open session. Director Jensen announced that the Board had reviewed its position with the Board Negotiator and no decisions were made.

- 13. Mr. Hvolbøll reviewed the proposed salary and benefit package for MFA for fiscal years 2007-2008 and 2008-2009. The proposal included;
- Two shift calendars per year per employee.

- Increase shift trades from 12 to 16, effective 1/1/08 (exclusive of school trades).
- All paramedics (current and those promoted to other positions represented by MFA) will be paid overtime for attending continuing education classes for state certification, PALS, ACLS and National registry certification. Reimburse tuition for PALS, ACLS, state licensing fee and national registry. Anyone who receives the money must be available for the District to use them as paramedics if the unexpected/short term need arises. Minimum staffing of paramedics is 5. The specifics will be determined at a later date as to time frame and how paramedic is chosen.
- Flex days taken can use vacation or holiday time hours.
- Holiday time ceiling of 23 days (552 hours), effective 7/1/08. No additional holiday hours may accrue until the employee's accrued and unused holiday benefits are used sufficiently so the total is less than 552 hours.
- Text messaging allowance of \$20 per month for those employees who turn in their pager. This allowance will be paid semi-annually, in arrears on Jan 1<sup>st</sup> and July 1<sup>st</sup>. All pagers returned by 8/1/07, will receive 5 month allowance (\$100) on 1/1/08. Pagers returned after 8/1/07, a monthly allowance will start accruing on 1/1/08.

#### Effective July 1, 2007

- 8% salary increase
- Longevity steps increased to 2.25% for each step

Current steps: 2%, 4%, 6%, 8%, 10%, 12%, 14%, 16% Approved steps: 2.25%, 4.5%, 6.75%, 9%, 11.25%, 13.5%, 15.75%, 18%

- Contribution of \$100 per month paid by the District to Hartford 457 plan for all full time employees after one year employment.
- Increase full time Wildland Specialist pay to equal Engineer/Inspector.
- Salary increase for Mechanic and Dispatchers of 5%. This is above and beyond raises negotiated by MFA.

#### Effective January 1, 2008

- 2% salary increase
- Increase the District's medical insurance contribution to \$204 per month per employee.
- Effective July 1, 2008
- 4% salary increase
- Longevity steps increased to 2.5% for each step

Current steps: 2.25%, 4.5%, 6.75%, 9%, 11.25%, 13.5%, 15.75%, 18%

Approved steps: 2.5%, 5%, 7.5%, 10%, 12.5%, 15%, 17.5%, 20%

#### Effective January 1, 2009

• Longevity steps increased to 2.75% for each step.

Current steps: 2.5%, 5%, 7.5%, 10%, 12.5%, 15%, 17.5%, 20% Approved steps: 2.75%, 5.5%, 8.25%, 11%, 13.75%, 16.5%, 19.25%, 22%

• Additional salary increase will be dependent upon increase in assessed valuation of the District for FY 08-09. If Assessed Value increases 10% or more, there will be a 2% salary increase.

On a motion made by Director Newquist, seconded by Director Jensen, the Board unanimously voted to approve and ratify the salary and benefits package for the Montecito Firemen's Association as submitted, effective July 1, 2007.

14. Mr. Hvolbøll advised that the same salary and benefits package approved for the MFA was proposed for unrepresented employees including: Fire Chief, Division Chief/Fire Marshal, Division Chief/Operations, Battalion Chiefs, Accountant, and Administrative Secretary.

On a motion made by Director Newquist, seconded by Director Jensen, the Board unanimously voted to approve and ratify the salary and benefits package for unrepresented employees including: Division Chief/Fire Marshal, Division Chief/Operations, Battalion Chiefs, Accountant, and Administrative Secretary as submitted, effective July 1, 2007.

15.	President Pro Tem Venable adjourned the meeting at 11:48.		
Rola	nd J. Jensen	John Venable	

Γ	Name	Address	Phone	e-mail
	1 John Bishup	2785 Bella Vista Pr	969-5524	jebishope mac.com
	2 Michael Hayes	335 Shuffield Da	450-0039	nayésmichae/emac.co.
L	Dave Kent	628 Stone Meadow	969-2149	davidkentleverizon. 4.
	4 JIM EBRGHT	2149 Boundary In	565-5928	
	TED KLEIN	P. O. 80x 50712 93/50	969.5703	
	STEVEN PINSKE	2 303 SGFFED A	. 868-614	SELEN. PINSTER @ GELS/Ca
	MARRY MOORE	575 GASTGATEW.	969-6966	Mr. Demarta, 2m. Noi
1	17- dias Cordner	-3021 Packing House	969-2223	mganduer@bugc.net
$\overline{}$	Jim Jackson	2500 R. Valley Rd ctsi		
$\overline{}$	BOB HARARD	2035 BINAY WOOD DE		roberthazard@nen.com
11	PALMIER FACKSON	V	969-2258	
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13	OENS SINSER	V353 EVR	V65-4146	SINSERGALL ADL, COS
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#### Notice of Public Workshop on March 12, 2008, 6pm Montecito Fire Protection District (MFPD)

On March 12, 2008, the Montecito Fire Protection District (MFPD) will hold a public workshop for the Station 3 Site Identification Study at the MFPD's headquarters located at 595 San Ysidro Road. The goal of the Study is to assess the suitability of a range of parcels in eastern Montecito which could support construction of a new fire station. The workshop will provide an opportunity for the public to review and provide input on a preliminary list of potential parcels in eastern Montecito that could be suitable for acquisition. Members of the public are encouraged to attend and provide input as appropriate.

Why is the Study Necessary? Portions of eastern MFPD lie outside of the recommended five-minute emergency response time of the MFPD's two existing fire stations. In order to address this issue, the MFPD has initiated the Station 3 Site Identification Study to assist in its establishment of a new fire station and provide improved levels of service.

**General Study Area Boundary:** The Study area encompasses the eastern portion of Montecito, generally bound on the west by Sheffield Drive and Romero Canyon Road, on the east by the MFPD boundary, on the south by Jameson Lane, and to the north by East Valley and Feather Hill roads.

**Study's Duration:** The Study will run for approximately 4 months, from January through April 2008.

**Public Participation:** Interested parties will have opportunities to provide input on this project during this public workshop. For additional questions please contact MFPD Fire Chief Kevin Wallace at 805-969-7762.

,,	Name ,	Address	Phone	e-mail
<u>\</u> 1	BOB HARARD	2035 BIRNAM WOOD	565-6093	POSERTHAZONO @ MSN, COM
2	RosimaryRice	2222 Featherhill Rd	969-6819	aandrrice @ aol. com
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4	James Elevight	2149 Bounday Dr.	565-5928	jimebie 1 @ mac. com
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7	, <del>-</del>		161 4146	SINSERGALL & ADL. CO MLM. DLM@VSRIZON. NET
8	MARTY MOORE	575 FAST GATE W.	969-6966	MLM. DLM@VERIZON. NET
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#### Notice of Public Hearing on May 27, 2008, 6pm Montecito Fire Protection District (MFPD)

On May 27<sup>th</sup>, 2008, the Montecito Fire Protection District (MFPD) will hold a public hearing to discuss the results and recommendations of the Draft Station 3 Site Identification Study at the MFPD's headquarters located at 595 San Ysidro Road. The goal of the Study is to assess the suitability of a range of parcels in eastern Montecito which could support construction of a new fire station. The Draft Study was made available to the public on May 20<sup>th</sup>, 2008 and can be viewed at www.montecitofire.com. In addition, hardcopies of the Draft Study were also made available on May 20<sup>th</sup> at the MFPD's headquarters. The hearing will provide an opportunity for the public to provide input on the results and recommendations of the Draft Study. Members of the public are encouraged to attend and provide input as appropriate.

Why is the Study Necessary? Portions of eastern MFPD lie outside of the recommended five-minute emergency response time of the MFPD's two existing fire stations. In order to address this issue, the MFPD initiated the Station 3 Site Identification Study to assist in its establishment of a new fire station and provide improved levels of service.

**General Study Area Boundary:** The Study area encompasses the eastern portion of Montecito, generally bound on the west by Sheffield Drive and Romero Canyon Road, on the east by the MFPD boundary, on the south by Jameson Lane, and to the north by East Valley and Feather Hill roads.

**Public Participation:** Interested parties will have opportunities to provide input on the Draft Study during this public hearing. For additional questions please contact MFPD Fire Chief Kevin Wallace at 805-969-7762.

#### ADJOURNED REGULAR MEETING OF THE BOARD OF DIRECTORS OF THE MONTECITO FIRE PROTECTION DISTRICT

Held at Fire District Headquarters, 595 San Ysidro Road, on August 18, 2008. The meeting was called to order by President Roy Jensen at 4:08 p.m. Present were Directors Roy Jensen, John Venable and Dana Newquist. Others present at beginning of meeting: Kevin Wallace, Eric Hvolbøll, Terry Utterback and several firefighters, one with his family.

- 1. During public comment, Chief Wallace presented a 20-year pin to Ed Fuentes. There was no discussion and no further public comment.
- 2. On a motion made by Director Venable, seconded by Director Jensen, the minutes of the May 27, 2008 meeting were approved. Director Newquist abstained.
- 3. On a motion made by Director Newquist and seconded by Director Venable, the minutes of the July 21, 2008 meeting were approved. Director Jensen abstained.
- 4. Chief Wallace noted that due to the outreach done by Curtis Vincent, the District was awarded a \$5,000 grant from Fireman's Fund.
- 5. In reviewing the budget, Director Newquist questioned the necessity for a semi-annual expense of \$3,000 for retaining a medical director for the District's paramedic program. Chief Wallace explained that the County requires each District to have a medical director and that the contract has a negotiated fee arrangement. There has been no fee increase in many years.

Chief Wallace noted that the cost for purchasing 20 sets of turnouts (i.e., coats, pants and suspenders) amounted to \$2,000 per set. These new turnouts have updated safety features with Kevlar type fabric which is more fire resistant and breathable. The turnouts being replaced are kept as backups.

Director Newquist questioned why the District is paying \$3,500 to the Santa Maria Fire District and Chief Wallace responded that this is for the Forest Service expanded service for which the County Chiefs organization agreed to share resources and is beneficial to the District.

The July budget showed a payroll expense of \$437,000 with regular over time at \$403,000 due to the unusual number of fires occurring during the month.

With no further discussion, the warrants and claims were unanimously approved for the month of July 2008 on a motion made by Director Newquist, seconded by Director Venable.

6. Discussion ensued regarding pay increases for the two hourly employees. Chief Wallace explained that their compensation is reimbursed by either the OES or the Forest Service, that they provide a valuable link and there is no financial incentive for these employees to work beyond 960 hours since they would lose their retirement benefits. After further discussion about the method of giving pay increases to the hourly employees, Director Newquist requested that the item be tabled.

On a motion by Director Venable, seconded by Director Jensen, the Board voted to approve the hourly wage increases. Director Newquist abstained.

7. Chief Wallace explained that the District adopts the price and population numbers provided by the State and County in order to determine the 2008-2009 appropriations limits pursuant to Proposition 4.

On a motion by Director Venable, seconded by Director Newquist, the Board unanimously adopted the percentage change in California per Capita personal income and the change in population within the unincorporated area of Santa Barbara County as to price and population factors to be used in the computation of the District's Proposition 4 limit for fiscal year 2008-09 by the following roll call vote:

Ayes: R.J.Jensen, J. Venable, D. Newquist

Noes: None Absent: None

#### 8. Fire Chief's Report.

Chief Wallace reported on several issues including the following: Directors Jensen and Newquist ran for reelection unopposed and will be appointed by the Board of Supervisors to another term; new fire fighter academy graduation; a fire last week on Canon View that included the response of five Santa Barbara City engines; engine taken out of service due to damages from the Canon View fire; reminder that can not serve notices had been sent out to residents in the slide area that would remain in effect until the slide area has been corrected; and a meeting with Peter Kavoian, the architect representing the owner of 2280 Bella Vista property regarding property lines and siting the house.

The Board did not discuss or take action on any items in the Fire Chief's Report.

9. Director Newquist noted that there was an omission in the letter to Supervisor Carbajal, namely that there is a safety issue in Manning Park and surrounding areas if there is no ranger or other person on site, and the Montecito Association has long been concerned about loitering and the deterioration of drainage systems and structures at the Park. Director Newquist asked to have this item put on the agenda for next regular Board meeting scheduled for September 15, 2008.

At 4:30, the Board took a dinner break and reconvened at 6:00 p.m. to continue with the Public Workshop discussing the final Station 3 Study prepared by AMEC. Approximately 15 members of the public, as well as two gentlemen from AMEC joined the meeting.

10. Chairman Roy Jensen reconvened the meeting at 6:00 p.m. and turned the meeting over to Chief Wallace. An audience member requested that Chief Wallace read aloud the letter that was hand delivered earlier (on August 18) by Palmer Jackson regarding the Station 3 land acquisition study.

Director Newquist asked if the study could be accepted as submitted and District Counsel responded that because the letters from Mr. Jackson and Mr. Amerikaner had not been addressed in the study, AMEC should prepare an addendum.

Dan Gira of AMEC gave a PowerPoint presentation of the findings and conclusions made in the final study. He restated the reasons for the study, namely the concern over emergency response time for the eastern portion of Montecito which is currently underserved and the potential for population growth and a larger number of homes being underserved for emergency services. The current response time standard is less than eight (8) minutes, the ideal is five (5) minutes.

Mr. Gira explained that there have been at least four public meetings conducted on this study in order to get the maximum public input on its search for suitable sites and willing sellers along the East Valley Road/Sheffield/Romero Canyon corridor. The objective site criteria were endorsed by the Board (though not adopted) with a minimum of 1-1/2 to 2 acres being the desirable size. AMEC's recommendations are that the Palmer Jackson East parcel (Site A), the Palmer Jackson West parcel (Site B) and the Cleese parcel are the top three sites under consideration pursuant to AMEC's analysis.

Attorney Steve Amerikaner, representing Birnam Wood, presented a letter to the Board in which he stated that the Birnam Wood site is (1) too small based on setbacks shown in a Penfield & Smith graphic, and (2) the County could not conclude that changes to the Birnam Wood golf course would not have an adverse impact on their oaks and creek protection policies or parks and recreation usage. Mr. Amerikaner requested that Birnam Wood be dropped from consideration as a site. Dan Gira responded that the oaks and creeks would be somewhat affected by realignment of the golf course, but that removing oak trees has not stopped the County from permitting removal of some oaks by homeowners on a case by case basis and he would not recommend dropping Birnam Wood from consideration.

#### Questions from the Audience:

Elden Dellanina asked how much the AMEC study cost?

The Fire Chief responded that the study cost approximately \$76,000.

Gene Sinser asked why the District is looking at this study now, and is this a reasonable need?

Mr. Gira responded that the need was actually identified twenty years ago (confirmed by Director Venable) but no action was taken. There is a potential for development of 375 homes in the eastern end of Montecito which is currently under served by the District. Chief Wallace added that a response time of five minutes to emergencies, especially medical emergencies, is critical.

Director Newquist discussed an AON Report of April 28, 2008 describing the process of dealing with government and layers of attorneys as being lengthy and expensive. He expressed his concern that should the District adopt GASB45 report, the unfunded liabilities on the District's ledgers would be exacerbated by the expense of building a third fire station. Director Newquist concluded that he would like to table the Station 3 study and consider funding the OPEB instead.

Mr. Dellanina concurred and stated that a new station would require more personnel, more equipment and more funding for benefits. He questioned the need for a response time in less than eight minutes. Chief Wallace responded that about 60% to 70% of their responses are for medical emergencies. Mr. Dellanina questioned why a big fire truck is necessary to respond to a medical emergency, especially when an AMR ambulance seems to always respond to the same incident at roughly the same time. Chief Wallace responded that AMR is under contract with the County to transport people, whereas the fire department is not. Also, AMR is allowed up to a 15 minute response time to meet their contractual obligations.

Director Venable mentioned that the Palmer Jackson property has the potential for developing 91 home sites.

District Counsel advised the District that among its options are the following:

1. Table the Station 3 proposal at this time; or

2. Get further information by hiring an engineer and appraiser to evaluate costs and develop more detailed site studies on the top 1-3 sites recommended by AMEC, following receipt of AMEC's addendum.

Director Venable requested that the Amerikaner and Jackson letters be added to the AMEC report and wants to continue the discussion of a potential Station 3. Director Jensen would like AMEC to evaluate the Jackson and Amerikaner letters and to get more information.

Director Newquist asked if the AMEC final report should be received. Counsel advised that AMEC will consider the letters from Amerikaner and Jackson (copies of which are attached to these minutes) and prepare an addendum to the report before it can be received. Dan Gira added that an addendum would take about 3 to 4 weeks to complete.

Chief Wallace mentioned that he will be attending a meeting on August 20, 2008 with the Archdiocese's real estate attorney to discuss their property.

The Board took no action on any matter pertaining to proposed Station 3.

Director Jensen adjourned the meeting at 7:30 p.m.



595 San Ysidro Rd \* Santa Barbara, California 93108 \* (805) 969-7762 \* FAX (805) 969-3598

October 20, 2010

HADID, YOLANDA JJ 2347 EAST VALLEY RD SANTA BARBARA, CA 93108

**RE:** Notice of Preparation of Environmental Documentation for Montecito Fire Protection District Fire Station 3

Dear Yolanda,

The Montecito Fire Protection District (MFPD) is preparing an Initial Study of the potential environmental impacts associated with development of MFPD Fire Station 3 under the California Environmental Quality Act. The MFPD welcomes your early comments regarding potential issues of concern related to the scope and content of the environmental information to be included within the draft Initial Study.

Fire Station 3 is proposed to be developed in the 2500 block of East Valley Road, on the mountain (north) side of the road, approximately 2,000 feet east of Sheffield Drive and 1,000 feet west of Ortega Ridge Road (refer to map below). The proposed project site is currently cultivated with a lemon orchard. The project would include a main fire station, a smaller support building, and a reserve apparatus carport located on approximately 2.5 acres of Assessors Parcel Number 155-070-008. Proposed structures would be consistent in size and architecture with typical Montecito residential structures.

Please submit any initial questions or comments not later than 29 November 2010 to the MFPD at 595 San Ysidro Road, Santa Barbara, CA 93108, attention Chief Kevin Wallace. Site surveys, geological testing, or other studies may be undertaken on-site in support of the Initial Study over the next several months prior to release of the draft environmental document. An additional formal public review period for the draft environmental document will occur upon release of the draft document and will be separately noticed.

For additional questions or concerns please contact me at 805-969-7762.

Respectfully,

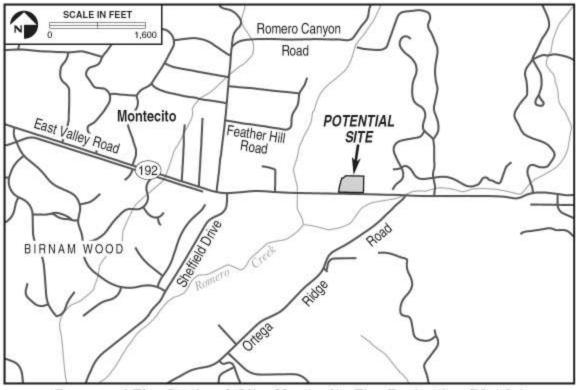
Kevin Wallace, Fire Chief

Kevri Waller



595 San Ysidro Rd \* Santa Barbara, California 93108 \* (805) 969-7762 \* FAX (805) 969-3598

Insert: Site location map for Proposed Station 3



Proposed Fire Station 3 Site, Montecito Fire Protection District



595 San Ysidro Rd \* Santa Barbara, California 93108 \* (805) 969-7762 \* FAX (805) 969-3598

October 20, 2010

HADID, YOLANDA JJ 2347 EAST VALLEY RD SANTA BARBARA, CA 93108

**RE:** Notice of Preparation of Environmental Documentation for Montecito Fire Protection District Fire Station 3

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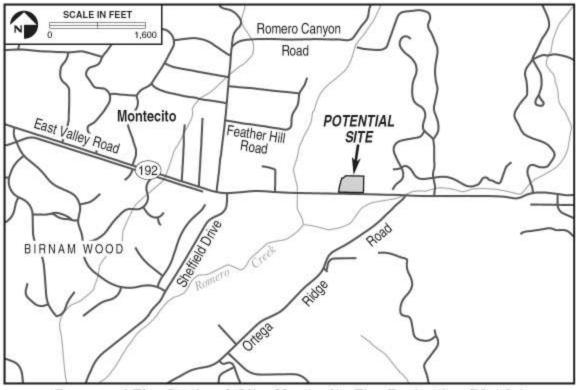
Kevin Wallace, Fire Chief

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595 San Ysidro Rd \* Santa Barbara, California 93108 \* (805) 969-7762 \* FAX (805) 969-3598

Insert: Site location map for Proposed Station 3



Proposed Fire Station 3 Site, Montecito Fire Protection District



595 San Ysidro Rd \* Santa Barbara, California 93108 \* (805) 969-7762 \* FAX (805) 969-3598

October 20, 2010

PINES TRUST 12/12/96 2351 EAST VALLEY RD SANTA BARBARA, CA 93108

**RE:** Notice of Preparation of Environmental Documentation for Montecito Fire Protection District Fire Station 3

Dear Property Owner,

The Montecito Fire Protection District (MFPD) is preparing an Initial Study of the potential environmental impacts associated with development of MFPD Fire Station 3 under the California Environmental Quality Act. The MFPD welcomes your early comments regarding potential issues of concern related to the scope and content of the environmental information to be included within the draft Initial Study.

Fire Station 3 is proposed to be developed in the 2500 block of East Valley Road, on the mountain (north) side of the road, approximately 2,000 feet east of Sheffield Drive and 1,000 feet west of Ortega Ridge Road (refer to map below). The proposed project site is currently cultivated with a lemon orchard. The project would include a main fire station, a smaller support building, and a reserve apparatus carport located on approximately 2.5 acres of Assessors Parcel Number 155-070-008. Proposed structures would be consistent in size and architecture with typical Montecito residential structures.

Please submit any initial questions or comments not later than 29 November 2010 to the MFPD at 595 San Ysidro Road, Santa Barbara, CA 93108, attention Chief Kevin Wallace. Site surveys, geological testing, or other studies may be undertaken on-site in support of the Initial Study over the next several months prior to release of the draft environmental document. An additional formal public review period for the draft environmental document will occur upon release of the draft document and will be separately noticed.

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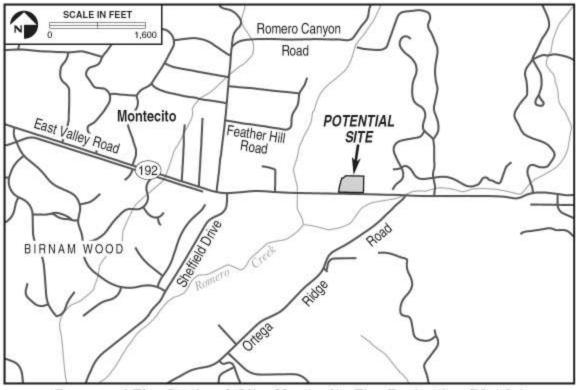
Kevin Wallace, Fire Chief

Kevri Waller



595 San Ysidro Rd \* Santa Barbara, California 93108 \* (805) 969-7762 \* FAX (805) 969-3598

Insert: Site location map for Proposed Station 3



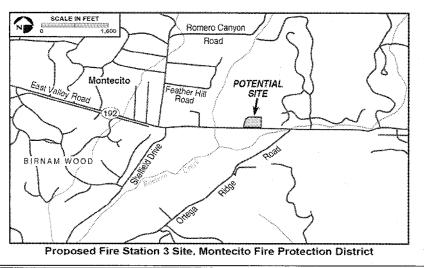
Proposed Fire Station 3 Site, Montecito Fire Protection District

#### Notice of Preparation of Environmental Documentation for Montecito Fire Protection District Fire Station 3

The Montecito Fire Protection District (MFPD) is preparing an Initial Study of the potential environmental impacts associated with development of MFPD Fire Station 3. An Initial Study is required under the California Environmental Quality Act (CEQA) to assess potential impacts related to development of a proposed project (described below). The MFPD welcomes your early comments as to the scope and content of the environmental information to be included within the draft Initial Study. Proposed Project: The MFPD proposes to develop Fire Station 3 in the 2500 block of East Valley Road, on the mountain (north) side of the road, approximately 2,000 feet east of Sheffield Drive and 1,000 feet west of Ortega Ridge Road (refer to map). The proposed project site is currently cultivated with a lemon orchard. The project would include a main fire station, a smaller support building, and a reserve apparatus carport located on approximately 2.5 acres of Assessors Parcel Number 155-070-008. Proposed structures would be consistent in size and architecture with typical Montecito residential structures

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> For additional questions, please contact MFPD Fire Chief Kevin Wallace at 805-969-7762



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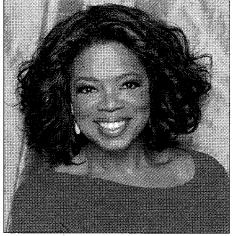
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#### **MISCELLANY** (Continued from page 7)



Oprah will reportedly star in new movie with Meryl Streep and Sandra Bullock

the City" films.

It's an ensemble comedy set in the world of a home shopping network, where characters, according to writer Mike Fleming, "make their way through the maze of mania that surrounds marketing, marriages and the media."

"To have access to these women, tell them this story and hear 'yes' from all of them was almost like a Greek mythological journey, with me going from one goddess to the next," says King. "....It's also appealing to craft a character for Oprah to come back and play that's not Oprah."

King is currently working on the script, which he hopes to complete by January, with filming tentatively scheduled for next fall, depending on the stars' commitments.

Oprah's last live action starring role was in Jonathan Demme's "Beloved," based on Toni Morrison's Pulitzer Prize-winning novel, in 1998. Her first was in Steven Spielberg's "The Color Purple," which got Oprah an Oscar nomination for best supporting actress, and went on to become a Broadway musical, on which she was credited as a producer...

"America's Grandeur"

Santa Barbara Historical Museum just opened a groundbreaking exhibition: "America's Grandeur."

the 45-year-old institution's history by a living artist.

"It really is a milestone," says executive director **David Bisol**. "Clyde sets the bar in contemporary landscape painting."

The landmark exhibit, which features 25 works and is curated by Diane Waterhouse and Daniel Calderon, captures magnificent vistas across Montana - where Aspevig lives-, Colorado, and even a few from our Eden by the Beach, including an exquisite rendering of Montecito's Casa del Herrero.

"I want to use my skills as an artist to awaken our senses to the beauty that surrounds us every day, to seek it out with a little vigor, like my father, who always kept an eye open for the beautiful and the unusual, even in a familiar place," Aspevig told me at the opening reception, where guests included Ed and Janet Sands, Marlene and Warren Miller, Eleanor Van Cott, board president, and Ernie and Gay Bryant.

The exhibition runs through February 6, 2011...

Cat Lessons

Montecito psychotherapist Jennifer Freed certainly had feelings for her feline.

Jennifer, a founder of the Academy of Healing Arts, had her magnificent moggy, Stanley, for 19 years until he went to the celestial kitty litter box in

And now, to mark his time with her, she has penned "Lessons From Stanley: Nine Lives of Everyday Wisdom," featuring illustrations by Tone Gellerstedt, a Swedish graphic designer.

"Stanley, named after the friend I got him from, was the love of my life," she told guests at the launch bash at Tecolote, the bustling bibliophile bastion in the Upper Village. "He continues to be my greatest teacher, as I believe his lessons are timeless."

Jennifer, who also wrote "The The show, by renowned plein-air Ultimate Personality Guide" five years painter Clyde Aspevig is the first in ago, started jotting down her thoughts

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# Notice of Preparation of Environmental Impact Report for Montecito Fire Protection District Fire Station 3

comments as to the scope and content of the environmental information to be included within the (EIR) of the potential environmental impacts associated with development of MFPD Fire Station The Montecito Fire Protection District (MFPD) is preparing an Environmental Impact Report 3 under the California Environmental Quality Act (CEQA). The MFPD welcomes your early

Valley Road, on the mountain (north) side of the road, approximately 2,000 feet east of Sheffield site is currently cultivated with a lemon orchard. The project would include a main fire station, of Assessor's Parcel Number 155-070-008. Proposed structures would be consistent in size and a smaller support building, and a reserve apparatus carport located on approximately 2.5 acres Drive and 1,000 feet west of Ortega Ridge Road (refer to map below). The proposed project Proposed Project: The MFPD proposes to develop Fire Station 3 in the 2500 block of East. architecture with typical Montecito residential structures. Public Participation: Please submit any initial questions or comments at the earliest possible meeting has been scheduled to allow for any interested parties to provide input on issues to be Development, at the Montecito Public Library (1469 East Valley Road, Montecito, California 93108), or upon request from Mr. Dan Gira at (805) 962-0992. Additionally, a public scoping 93101, attention Mr. Dan Gira. A copy of the formal Notice of Preparation for the proposed date but not later than April 27, 2011 to the consulting firm retained by the MFPD: AMEC discussed in the draft EIR. The public scoping meeting will take place on April 21, 2011 Earth & Environmental, Inc. at 104 West Anapamu Street, Suite 204A, Santa Barbara, CA project is available at the following website: http://www.montecitofire.com/Station\_3

draft EIR will occur upon noticed. Nearby property Ysidro Road, Montecito, additional formal public individuals interested in further information may release of the draft EIR at 7:00 P.M. at MFPD request a meeting with organizations, or other California 93108. An and will be separately. review period for the owners, community Station 1, 595 San MFPD staff. Proposed Fire Station 3 Site, Montecito Fire Protection District POTENTIAL. SITE Romero Canyon

hand and pull it up along the side of your body. Repeat this motion 10-15 Rows are a great exercise to work your upper back, shoulders and biceps, which are all important muscles for times, making sure to do both sides. paddling in the water.

nals and bring your butt down so your body is perfectly parallel to the strengthening the deep core muscles you'll rely on when you rotate your torso (these muscles include your Plank: While down on all fours, put your forearms on the ground and extend your legs straight out from underneath you. Pull in your abdomifloor. Try to hold for 30 to 60 seconds. Planks are great for stabilizing and abdominal muscles, lower back, and

keep your core engaged and try to do Burpees: While standing in place, drop down to the floor in a push-up position, then pop yourself back up to a standing position. Remember to this movement as fluidly as possible. A burpee mimics the movement that you will do on a paddleboard when you go to stand up.

Though it can sometimes seem difficult and intimidating, stand-up paddle orous workout that goes beyond gym fitness; and with proper preparation, paddle boarding can go quickly from a daunting prospect to an enjoyable and effective addition to your exercise boarding has the potential to be a riglifestyle. 8 April 2011

Montecito Association 1469 East Valley Road PO Box 5278 Montecito, CA 93150

Subject: Montecito Fire Protection District Station 3 Site Identification Study

Dear Board Member,

Enclosed please find the Montecito Fire Protection District Station 3 Site Identification Study (August 2008). We understand this project will be considered at the upcoming Montecito Association Board meeting.

If you have any questions regarding the technical information provided in this study, please do not hesitate to call Mr. Dan Gira at (805) 962-0992.

Sincerely,

Linn Zukor Assistant Project Manager

#### Governor says he's not inclined to support extension

islation he introduced.

### Prosecution to seek \$1.2 n

PADILLA

kidnapping was carried out for forced her into the car and d

"We made things

happen; we made

the impossible,

possible."

Michael McCracken

Navy Seabee who

operated a forklift during

the rescue

The wreckage of a big rig involved in a collision on Highway 101 is shown after falling 100 feet into the care and of a way. He told deputies the cirl killed in the crash.

#### IP officer: Rescue was 'an amazir

#### **CRASH**

Continued from Page A1

tions, while Sage suffered a broken right leg, fractured pelvis and mul-

tiple cuts and contusions. The luxury car was nearly sent over the bridge when a three-axle tractor towing an unloaded gravel trailer rear-ended them on Highway 101. Both vehicles were heading north in the left lane south of Santa Rosa Road. The tractor continued over the side and became fully engulfed in flames when it landed on the creek bed, killing the driver, according to the CHP.

The BMW was forced into the center concrete bridge railing and the three occupants, all from San Juan Capistrano, were trapped.

Charles Allison, 48, of Grover Beach was identified by the CHP as the driver of the big rig truck.

It may be several weeks before ongoing investigations can establish the reasons why Mr. Allison was unable to stop before hitting the car. "Commercial officers are now completely investigating the trailer to see if there

were any types of mechanical issues," Sgt. Clotworthy said. "We will also be checking into the condition of the

driver, his medical records and service hours. "It is just too early to make a final determination," he continued. "After we interview witnesses, we will be bringing all the information from the different sources and come up with the best possible solution."

Six Navy Seabees who were driving south to their base

in Port Hueneme pulled up to the scene right after the crash. They offered to help keep the car from taking a 100-foot plunge with the extendable-boom forklift they were transporting back to base.

Michael McCracken, a petty officer assigned to the Seabee unit, operated the forklift and kept the car from slipping over the bridge. "I walked right into the crash scene to see if they wanted us to help," he said. "The fire

chief was excited we have the lift; we were able to off load expedient manner and had

on scene to s the car. "We c lift the car be they had alre into it," he sa we just suppo to avoid any tional injuri in case the ca way." Seeir trapped girls out one-by-or a breathtakii ment, he said pecially wit 10-week-old

the Seabee said. "I have a 7-1 old son myself, and just seei firefighter holding the girl, it hit home. We made things ha we made the impossible, pos

As tragic as the situation n Sgt. Clotworthy said they we thankful they were able to the crisis and avoid further life. Speaking about the her forts of the Seabees, Sgt. Clot said this is just one of those



#### NOTICE OF AVAILABILITY AND PUBLIC HEARING FOR A DRAFT ENVIRONMENTAL IMPACT REPORT

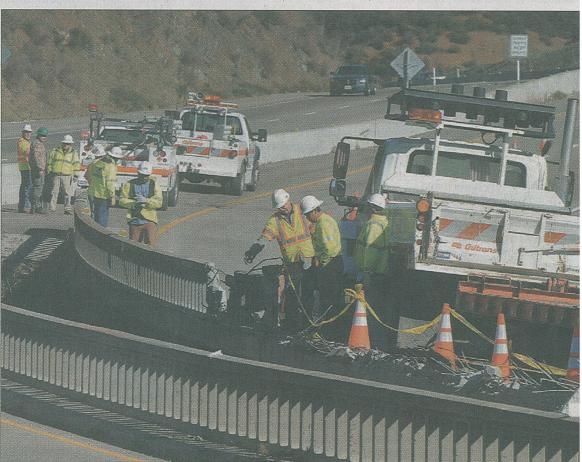
For the Station 3 Site Acquisition and Construction Project

The Montecito Fire Protection District (MFPD) has prepared a Draft Environmental Impact Report (EIR) which identifies the potential environmental impacts associated with the Station 3 Site Acquisition and Construction Project. The MFPD welcomes your participation and input

Proposed Project: The MFPD proposes acquisition of property and development of a District fire station (Station 3) on a site of approximately 2.55 acres located near 2500 East Valley Road in Montecito, California. Three structures of generally one to two stories in height and totaling approximately 12,000 square feet would include a main building containing the apparatus bay, offices and living quarters, and two supporting structures. Infrastructure would include approximately 0.78 acres of paved surfaces, including two entry/exit driveways to East Valley Road. Grading for the proposed project would involve approximately 8,000 cubic yards (cy) of cut and limited fill with an estimated 7,000 cy of export. The project would require approval of a the MFPD Board of Directors and subsequent consideration of a Major Conditional Use Permit and a Parcel Map Waiver, and issuance of a Certificate of Compliance by the County of Santa Public Participation: A public hearing on the Draft EIR is scheduled before the MFPD Board

of Directors on Tuesday, January 17, 2012 beginning at 8:30 AM at the Montecito Fire Protection District office at 595 San Ysidro Road, Santa Barbara, California. The public is encouraged to attend to discuss potential project impacts outlined in the EIR and provide input on the analysis provided in the EIR. Reference copies of the EIR are available at the Montecito Library at 1469 East Valley Road, and at the Montecito Fire Protection District office. A limited number of hard copies of the EIR are available and can be obtained from the MFPD office Electronic versions on CD are available at the MFPD office. The document is also available for review on MFPD's website at: http://www.montecitofire.com/Station\_3\_Development.htm The required 45-day public review period for the EIR will close Monday, February 6, 2012. Anyone interested in commenting on the report should attend the public hearing and/or submit a written statement to the MFPD, 595 San Ysidro Road, Santa Barbara CA 93108, Attention: Kevin Wallace, Fire Chief, by 5:00 PM, on February 6, 2012. Comments can also be submitted via email to: kwallace@montecitofire.com





Caltrans workers inspect the bridge and plan their course of action following the crash.

#### SANTA BARBARA NEWS PRESS **Proof of Publication** (2015.5C.C.P)

#### **Superior Court of** the State of California In and for The County of Santa Barbara

#### Envelope No. 41983

#### In the Matter of: Notice of Preparation of Environmental Impact Report

The undersigned, being the principal clerk of the printer of the Santa Barbara News Press, a newspaper of general circulation, print in the City of Santa Barbara, County of Santa Barbara newspaper has been adjudged a newspaper of general Superior Court in the County of Santa Barbara, State Number 47171; and that affiant is the principal clerk c News Press. That the printed notice hereto annexed v

SANTA BARBARA NEWS-PRESS, in the issues of the

**APRIL 3 / 2011** 

all in the year 2011 I hereby certify (or declare) perjury that that foregoing is true and correct.

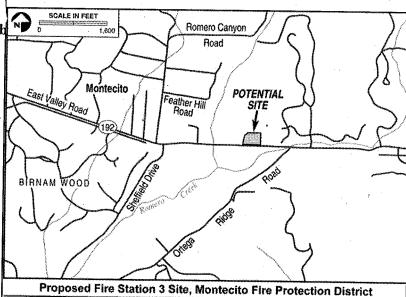
Notice of Preparation of Environmental Impact Report for Montecito Fire Protection District Fire Station 3

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Public Participation: Please submit any initial questions or comments at the earliest possible date but not later than April 27, 2011 to the consulting firm retained by the MFPD: AMEC Earth & Environmental, Inc. at 104 West Anapamu Street, Suite 204A, Santa Barbara, CA 93101, attention Mr. Dan Gira. A copy of the formal Notice of Preparation for the proposed project is available at the following website: http://www.montecitofire.com/Station\_3\_Development, at the Montecito Public Library (1469 East Valley Road, Montecito, California 93108), or upon request from Mr. Dan Gira at (805) 962-0992. Additionally, a public scoping meeting has been scheduled to allow for any interested parties to provide input on issues to be discussed in the draft EIR. The public scoping meeting will take place on April 21, 2011 at 7:00 P.M. at MFPD Station 1, 595 San Ysidro Road, Montecito, California 93108. An additional formal public review period for the draft EIR will occur upon release of the draft EIR and will be separately noticed. Nearby property owners, community organizations, or other individuals interested in further information may request a meeting with MFPD staff.





APRIL 3 / 2011 -- 41983

California Home Tuesday, April 19, 2011



#### Montecito Fire Protection District Fire Station 3 Site Acquisition and Construction

SCH Number: 2011031094

Document Type: NOP - Notice of Preparation

Project Lead Agency: Montecito Fire Protection District

#### **Project Description**

The proposed project would involve acquisition of 2.55 acres and the construction of a new fire station and accessory structures totaling ~14,000 sf to improve service to the Montecito area. Preliminary plans for the Station include construction of three buildings; a main station of 7,000 sf with apparatus bays, offices, and firefighter residential quarters; a support building of 4,800 sf with a hose drying tower of up to 35 feet in height, and an additional support building of 2,975 sf for carports and storage of reserve apparatus. Paved surfaces would occupy ~1.5 acres of the 2.55 acre site with landscaping covering~1 acre or ~40% of the site. Access would be available off East Valley Road via two driveways.

#### **Contact Information**

#### **Primary Contact:**

Chief Kevin Wallace Montecito Fire Protection District 805 969-7762 595 San Ysidro Road Santa Barbara, CA 93108

#### **Project Location**

County: Santa Barbara

City: Region:

Cross Streets: East Valley Road/Sheffield Drive Latitude/Longitude: 34° 26' 2" / 119° 35' 7" Map

Parcel No: 155-070-008

Township: 4N Range: 26W Section: Base:

Other Location Info: City/Nearest Community: Montecito

#### **Proximity To**

Highways: Hwy 192

Airports: Railways:

Waterways: Romero Creek/Picay Creek

Schools: Land Use:

#### **Development Type**

Other (Fire Station)

#### **Local Action**

Use Permit

#### **Project Issues**

Growth Inducing, Aesthetic/Visual, Agricultural Land, Air Quality, Archaeologic-Historic, Biological Resources, Drainage/Absorption, Flood Plain/Flooding, Forest Land/Fire Hazard, Geologic/Seismic, Noise, Public Services, Recreation/Parks, Sewer Capacity, Soil Erosion/Compaction/Grading, Solid Waste, Toxic/Hazardous, Traffic/Circulation, Vegetation, Water Quality, Water Supply, Wetland/Riparian, Landuse, Cumulative Effects

Reviewing Agencies (Agencies in Bold Type submitted comment letters to the State Clearinghouse)

Resources Agency; Cal Fire; Office of Historic Preservation; Department of Parks and Recreation; Department of Water Resources; Department of Fish and Game, Region 5; Office of Emergency Services; **Native American Heritage Commission**; California Highway Patrol; Caltrans, District 5; Regional Water Quality Control Board, Region 3

**Date Received:** 3/29/2011 **Start of Review:** 3/29/2011 **End of Review:** 4/27/2011

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5	SENE SINJER	2353 EAST VALLEY	80J-1254146	GENESINSER D'COX.NET
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## STATE OF CALIFORNIA Governor's Office of Planning and Research State Clearinghouse and Planning Unit



February 3, 2012

Kevin Wallace Montecito Fire Protection District 595 San Ysidro Road Santa Barbara, CA 93108

Subject: Fire Station 3 Site Acquisition and Construction

SCH#: 2011031094

Dear Kevin Wallace:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. The review period closed on February 2, 2012, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Sincerely,

Scott Morgan

Director, State Clearinghouse

#### Document Details Report State Clearinghouse Data Base

SCH# 2011031094

Project Title Fire Station 3 Site Acquisition and Construction

Lead Agency Montecito Fire Protection District

Type EIR Draft EIR

Description MFPD proposes acquisition of property and development of a District Fire station. Structures would

include a main building containing the apparatus bay, offices and living quarters, and two supporting structures. Infrastructure would include approximately 0.78 acres of non-structural paved surfaces, including two entry/exit driveways to East Valley Road. The western driveway would typically be used only for visitors and staff vehicle ingress and egress, while the eastern driveway would typically be used for staff vehicle and emergency vehicle ingress and egress. Grading would include approximately 16,500 cubic yards (cy) of cut and approximately 15,500 cy of fill; all grading would be balanced onsite. The project would require approval of a Major Conditional Use Permit and a Parcel

Fax

Map Waiver, and issuance of a Certificate of Compliance.

**Lead Agency Contact** 

Name Kevin Wallace

Agency Montecito Fire Protection District

Phone 805 969-7762

email

Address 595 San Ysidro Road

City Santa Barbara State CA Zip 93108

**Project Location** 

County Santa Barbara

City

Region

Lat / Long 34° 26' 12.37" N / 119° 35' 38.42" W
Cross Streets East Valley Road/Ortega Ridge Road

Parcel No. 155-070-008

Township Range Section Base

**Proximity to:** 

Highways Hwy 192

**Airports** 

Railways UPRR

Waterways Pacific Ocean

Schools

Land Use Present Land Use: Lemon Orchards. Zoning: 2-E-1, Estate Residential

Project Issues Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Biological Resources;

Drainage/Absorption; Flood Plain/Flooding; Forest Land/Fire Hazard; Geologic/Seismic; Noise; Public Services; Soil Erosion/Compaction/Grading; Toxic/Hazardous; Traffic/Circulation; Water Quality; Water

Supply; Wetland/Riparian; Landuse; Cumulative Effects

**Reviewing** Resources Agency; California Coastal Commission; Department of Conservation; Department of Fish **Agencies** and Game, Region 5; Cal Fire; Office of Historic Preservation; Department of Parks and Recreation;

Office of Emergency Management Agency, California; California Highway Patrol; Caltrans, District 5; Regional Water Quality Control Board, Region 3; Department of Toxic Substances Control; Native

American Heritage Commission; Public Utilities Commission

Date Received 12/20/2011 Start of Review 12/20/2011 End of Review 02/02/2012

Note: Blanks in data fields result from insufficient information provided by lead agency.