

Project-Specific Water Quality Management Plan

**FOR
TRACT 32535**

LOCATED WITHIN THE CITY OF WILDOMAR, COUNTY OF RIVERSIDE, CA

**DEVELOPMENT NO. TRACT 32535
DESIGN REVIEW NO. 13-0058**

Prepared For:

CV Inland Investments 1, LP
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Prepared by:

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A handwritten signature in black ink, appearing to be "E. Lenth", positioned below the professional seal.

Prepared:
December 11, 2013

OWNER'S CERTIFICATION

This project-specific Water Quality Management Plan (WQMP) has been prepared for:

CV Inland Investments 1, LP (Developer), for the project known as Tract 32535.

This WQMP is intended to comply with the requirements of the City of Wildomar, for Tract No. 32535, which includes the requirement for the preparation and implementation of a project-specific WQMP.

The undersigned, while owning the property/project described in the preceding paragraph, shall be responsible for the implementation of this WQMP and will ensure that this WQMP is amended as appropriate to reflect up-to-date conditions on the site. This WQMP will be reviewed with the facility operator, facility supervisors, employees, tenants, maintenance and service contractors, or any other party (or parties) having responsibility for implementing portions of this WQMP. At least one copy of this WQMP will be maintained at the project site or project office in perpetuity.

The undersigned is authorized to verify and to approve implementation of this WQMP. The undersigned is aware that implementation of this WQMP is enforceable under the, Water Quality Ordinance (Municipal Code Chapter 13.12.060).

If the undersigned transfers its interest in the subject property/project, its successor in interest the undersigned shall notify the successor in interest of its responsibility to implement this WQMP.

"I certify under penalty of law that the provision of this WQMP have been reviewed and accepted and that the WQMP will be transferred to future successors in interest.

Owner's Signature

Date

Owner's Printed name

Owner's Title/Position

CV Inland Investments 1, LP
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I. PROJECT DESCRIPTION

CV Inland Investments 1, LP, proposes the development of Tract 32535. The site is located just south of the intersection of Catt Road and Arnett Road, in the city of Wildomar, Riverside County, California. Entrance to the site will be provided at Arnett Road and Stable Lanes Road.

Specifically, the site is bounded by similar density single-family residential developments and existing low density rural residential land use.

The proposed development will include a total of 81 detached single-family residential dwellings and related improvements throughout the site, as shown in the WQMP Exhibit (Appendix B). Residential improvements will consist of various plan types including multi-level structures, with wood or metal frame, stucco, reinforced masonry, or similar type construction.

Other improvements include the construction of landscape slopes, driveways, curb, sidewalk and gutter, storm drain improvements, wet and dry utilities, one infiltration basin, one extended detention basin and various open space lots to accommodate existing vegetation, wetlands and riparian preservation containing 31.17 acres. Land summary is as follows:

<u>Impervious Percent Calculator</u>			
Land Use	Area (Ac)	% Impervious	Area Impervious (Ac)
Single-Family Residential	18.99	50%	9.495
Open Space/Basins	5.88	0%	0
Local Streets	6.30	90%	5.67
Total	31.17		15.165
Project Impervious Percentage			48.65%

Parking will be provided via residential garages located on each private lot. Total project parking proposed is consistent with the City of Wildomar parking requirements.

Outdoor activities for the project include common residential activities such as commuting, jogging, walking, cycling, running, and other residential related activities.

Since the project is not a commercial development no material storage areas, loading docks, or delivery areas have been proposed for the residential portions of the site.

Commonly owned lots are located throughout the project as lettered lots excepting the public streets. Portions of the slopes will be maintained by the individual lot owners where feasible.

In the pre-project condition, the site consists of approximately 5% impervious area. In the developed condition, the site is anticipated to consist of approximately 50% impervious area.

Normal residential use-related trash can be anticipated to be produced daily by each home's intended daily use. Such trash will be disposed of by each homeowner in designated trash and recycling receptacles and shall be placed curbside for collection by the local Waste Management as required by the City and will be removed from the receptacles on a weekly basis for proper disposal to a central trash disposal facility offsite.

Expected pollutants for the proposed site (per Riverside County WQMP, Exhibit B) include sediment/turbidity, nutrients, trash and debris, oxygen-demanding substances, bacteria and viruses, oil and grease, pesticides, and metals.

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Contact Person: Stephanie Love

Project Site Address: **Stable Lanes Road at Clinton Keith Road, Wildomar, CA**

Planning Area: **Not applicable**

Community Name: **North Ranch**

APN Number(s): **380-110-005-2, 380-110-006-3, 380-120-001-9, 380-120-02-0, 380-100-006-2, 380-100-005-1, 380-130-002-1, 380-130-018-6, 380-100-004-0**

Thomas Bros. Map: **Page 927; E-1**

Project Watershed: **Santa Margarita River Watershed**

Sub-watershed: **Murrieta Creek**

Project Site Size: **31.17 Acres**

Standard Industrial Classification (SIC) Code: **1521 – General Contractors – Single-Family Homes**

Formation of Home Owner’s Association (HOA) or Property Owners Association (POA): **Yes**

Additional Permits/Approvals required for the Project:

Agency	Permit required (yes or no)
State Department of Fish and Game, 1601 Streambed Alteration Agreement	YES (See Appendix A. Permit to be provided in Final WQMP)
State Water Resources Control Board, Clean Water Act (CWA) Section 401 Water Quality Certification	YES
US Army Corps of Engineers, CWA section 404 permit	YES
US Fish and Wildlife, Endangered Species Act Section 7 Biological Opinion	YES
Other (please list in the space below as required): SWRCB General Construction Permit City of Wildomar Grading Permit City of Wildomar Building Permit	YES YES YES

Appendix A of this project-specific WQMP will include a complete copy of the Conditions of Approval as approved by the County of Riverside.

Appendix B of this project-specific WQMP includes:

A Vicinity Map identifying the project site and surrounding planning areas in sufficient detail to allow the project site to be plotted on Co-Permittee base mapping; and

A Site Plan for the project. The Site Plan included as part of Appendix B depicts the following project features:

Location and identification of all structural BMP’s, Treatment Control BMP’s, landscaped areas, paved areas, intended uses (i.e., parking, sidewalks, etc.), number and type of structures and intended uses (i.e. buildings), infrastructure (i.e., streets, storm drains, etc.) that will revert to public agency ownership and operation, location of existing and proposed public and private storm drainage facilities (i.e., storm drains, channels, basins, etc.), location(s) of Receiving Waters to which the project directly or indirectly discharges, location of points where

onsite (or tributary offsite) flows exits the property/project site, proposed drainage area boundaries, tributary offsite area boundaries, location where flows exit the property/project site, tributary areas clearly denoted, pre and post development topography.

Appendix G of the project/specific Final WQMP shall include copies of Agreements and/or other mechanisms used to ensure the ongoing operation, maintenance, funding, transfer and implementation of the project-specific WQMP requirements.

II. SITE CHARACTERIZATION

Land Use Designation or Zoning: **Undeveloped, Single-Family**

Current Property Use: **Vacant and Single-Family Residential R1**

Proposed Property Use: **Single-Family Residential**

Availability of Soils Report: **Yes (Included in Appendix E)**

Phase 1 Site Assessment: Not available

Receiving Waters for Urban Runoff from Site: **Murrieta Creek, Santa Margarita River, Santa Margarita Lagoon, Pacific Ocean**

Receiving Waters for Urban Runoff from Site

Receiving Waters	303(d) Impairments	TMDL/Yr	Designated Beneficial Uses	Proximity to RARE Beneficial Use
Murrieta Creek (Hyd. Unit 2.22)	None	Metals/Nutrients/2019 Pesticides, Toxicity/2021	MUN, AGR, IND, REC 1, REC 2, WARM, COLD, WILD, RARE	0.4 Miles
Santa Margarita River (Hyd. Unit 2.31)	None	Pathogens/Nutrients/2021 Nutrients, Toxicity/2019	MUN, AGR, IND, REC 1, REC 2, WARM, COLD WILD, RARE	11.2 MILES
Santa Margarita Lagoon (Hyd. Unit 2.11)	None	Nutrients/2019	REC 1, REC 3, EST, WILD, RARE, MAR, MIGR, SPWN	39.4 MILES
Pacific Ocean Offshore Zone	None		IND, NAV, REC 1, REC 2, COMM, BIOL WILD, RARE, MAR, AQUA, MIGR, SPWN, SHELL	39.5 MILES

The project site resides within the jurisdiction of the San Diego Regional Water Quality Control Board Region 9.

III. POLLUTANTS OF CONCERN

The project proposes to treat all first flush and low flow runoff onsite in the proposed Infiltration Basin and Extended Detention Basin. The project has the potential to contribute the following pollutants commonly associated with single-family residential developments and urban runoff:

Potential Pollutants Generated by Land Use Type:
(from Exhibit B of the Riverside County Water Quality Management Plan)

Type of Development (Land Use)	Sediment/Turbidity	Nutrients	Organic Compounds	Trash & Debris	Oxygen Demanding Substances	Bacteria & Viruses	Oil & Grease	Pesticides	Metals
Detached Residential Development	P	P	N	P	P	P	P	P	P
Attached Residential Development	P	P	N	P	P ⁽¹⁾	P	P ⁽²⁾	P	N
Commercial Industrial Development	P ⁽¹⁾	P ⁽¹⁾	P ⁽⁵⁾	P	P ⁽¹⁾	P ⁽³⁾	P	P ⁽¹⁾	P
Automotive Repair Shops	N	N	P ^(4,5)	P	N	N	P	N	P
Restaurants	N	N	N	P	P	P	P	N	N
Hillside Development	P	P	N	P	P	P	P	P	N
Parking Lots	P ⁽¹⁾	P ⁽¹⁾	P ⁽⁴⁾	P	P ⁽¹⁾	P ⁽⁶⁾	P	P ⁽¹⁾	P
Streets, Highways & Freeways	P	P ⁽¹⁾	P ⁽⁴⁾	P	P ⁽¹⁾	P ⁽⁶⁾	P	P ⁽¹⁾	P

Abbreviations:

E= Expected P=Potential N=Not Expected

Notes:

- (1) A potential pollutant if landscaping or open area exists on the Project site.
- (2) A potential pollutant if the project includes uncovered parking areas.
- (3) A potential pollutant if land use involves animal waste.
- (4) Specifically, petroleum hydrocarbons.
- (5) Specifically, solvents.
- (6) Bacterial indicators are routinely detected in pavement runoff.

The expected stormwater and urban runoff pollutants reasonably expected to be associated with this project are sediment/turbidity, nutrients, trash and debris, oil/grease and pesticides.

Based on current receiving water impairments (303d List) and allowable discharge requirements (USEPA TMDL List), the project's **pollutants of concern** are Pathogens (bacteria and viruses) and Nutrients/Low Dissolved Oxygen.

To meet NPDES requirements, the proposed storm drain system will route first flush runoff (85th percentile) to an infiltration basin and an extended detention basin located on-site prior connection to the adjacent storm drain conveyance systems. These basins have been sized to treat the entire project's first flush volumes. Infiltration and Extended Detention Basin calculations are included in Appendix F of this PWQMP.

IV. HYDROLOGIC CONDITIONS OF CONCERN

Impacts to the hydrologic regime resulting from the Project may include increased runoff volume and velocity; reduced infiltration; increased flow frequency, duration, and peaks; faster time to reach peak flow; and water quality degradation. Under certain circumstances, changes could also result in the reduction in the amount of available sediment for transport; storm flows could fill this sediment-carrying capacity by eroding the downstream channel. These changes have the potential to permanently impact downstream channels and habitat integrity. A change to the hydrologic regime of the Project's site would be considered a hydrologic condition of concern if the change would have a significant impact on downstream erosion compared to the pre-development condition or have significant impacts on stream habitat, alone or as part of a cumulative impact from development in the watershed.

This project-specific WQMP must address the issue of Hydrologic Conditions of Concern unless one of the following conditions is met:

Condition A: Runoff from the project is discharged directly to a publicly-owned, operated and maintained MS4; the discharge is in full compliance with Co-Permittee requirements for connections and discharges to the MS4 (including both quality and quantity requirements); the discharge would not significantly impact stream habitat in proximate Receiving Waters; and the discharge is authorized by the Co-Permittee.

Condition B: The project disturbs less than one acre. The disturbed area calculation should include all disturbances associated with larger plans of development.

Condition C: The project's runoff flow rate, volume, velocity and duration for the post-development condition do not exceed the pre-development condition for the 2-year, 24-hour and 10-year, 24-hour rainfall events. This condition can be achieved by minimizing impervious area on a site and incorporating other site-design concepts that mimic pre-development conditions. This condition must be substantiated by hydrologic modeling methods acceptable to the Co-Permittee.

This project meets the following condition:

This Project meets Condition A. Runoff from the project will be discharged to the adjacent storm drain systems that are publicly-owned and maintained by the City and/or Riverside County Flood Control and Water Conservation District (RCFCWCD). The discharge will be in compliance with Co-Permittee MS4 connection requirements, including both quality and quantity requirements.

EXISTING CONDITIONS

The site consists of 31.17 acres located within the city of Wildomar, county of Riverside, state of California. The site is irregularly shaped and generally located northwesterly of the intersection of Clinton Keith Road and Stable Lanes Way. The site is currently occupied by several residential structures to be demolished with this proposed development. The site generally drains southwesterly with waters conveyed via natural defined drainage courses. The site currently receives off site runoff at three locations along its northeasterly property line. The largest tributary watershed is approximately 150 acres tributary from natural areas north of the 15 Freeway and existing commercial developments south of the freeway along Hidden Springs Road.

PROPOSED CONDITIONS

The project proposes 81 single-family residential lots with associated water, sewer, street and storm drain infrastructure. The project will convey all offsite runoff through the site without comingling with onsite runoff. This will be accomplished by maintaining existing natural drainage courses, by providing public storm drain systems specific to on and off site flows and by providing culverts where natural drainage courses cross proposed streets.

To meet NPDES requirements, on site runoff for first flush runoff (85th percentile) will be conveyed through public street improvements and on site storm drain systems to either an infiltration basin or extended detention basin proposed on site. Runoff in excess of first flush will be routed to an existing publicly maintained storm drain systems. Associated water quality information and calculations are provided in the Water Quality Management Plan prepared by MDS Consulting.

HYDROLOGY

The following preliminary hydrologic calculations within this report have been prepared using 2006 AES Rational Method software for Riverside County. Hydrologic variables include "B" "C" and "D" soil types. Rainfall intensities as follows: 10 yr - 10 min. = 2.32, 10 yr - 60 min. = 0.98, 100 yr - 10 min. = 3.54, 100 yr - 60 min. = 1.50. Calculations have been prepared for both the 10- and 100-year events.

Based on the hydrologic calculations, we conclude that the proposed project can be successfully protected from offsite flows from the north and that the project will have negligible impact on adjacent hydrologic and hydraulic conditions. Additionally, we conclude that the proposed onsite storm drain system will provide adequate conveyance for onsite runoff.

V. BEST MANAGEMENT PRACTICES

1. SITE DESIGN BMPS

Project proponents shall implement Site Design concepts that achieve each of the following:

Minimize Urban Runoff (Table 1 Concept 1):

- Portions of existing vegetation within the natural areas within lettered lots K, L, M & N will be preserved.
- Drought tolerant and native planting will be included in the general landscaping scheme thought the project's commonly owned and maintained lots.
- Portions of the natural drainage courses have been preserved within lots L & M.
- An extended detention and infiltration basin has been included within lots M & J.

Minimize Impervious Footprint (Table 1 Concept 2):

- Portions of existing vegetation within the natural areas within lettered lots K, L, M & N will be preserved.
- Project site will consist of detached multi-level homes site to minimize the amount of urban runoff.

Conserve Natural Areas (Table 1 Concept 3):

- Existing vegetation consists mostly of disturbed native and non-native grasses, with little to no native trees and shrubs present. The site will be preserved and/or re-vegetated with native and/or drought tolerant species as recommended by the landscape architect, in full compliance with all City of Wildomar landscaping requirements.
- Portions of the natural drainage courses and vegetation have been preserved within lots L & M.

Minimize Directly Connected Impervious Areas (DCIAs) (Table 1 Concept 4):

- Project proposes multi-level single-family homes, open space and various landscape areas to reduce the amount of Directly Connected Impervious Areas (DCIAs).
- An extended detention and infiltration basin has been included within lots M & J.

Table 1. Site Design BMPs

Design Concept	Technique	Specific BMP	Included	
			Yes	No
Site Design Concept 1	Minimize Urban Runoff			
		Maximize the permeable area (See Section 4.5.1 of the WQMP).		X ¹
		Incorporate landscaped buffer areas between sidewalks and streets		X ¹
		Maximize canopy interception and water conservation by preserving existing native trees and shrubs, and planting additional native or drought tolerant trees and large shrubs	X	
		Use natural drainage systems	X	
		Where soils conditions are suitable, use perforated pipe or gravel filtration pits for low flow infiltration.		X ^{2,3}
		Construct onsite ponding areas or retention facilities to increase opportunities for infiltration consistent with vector control objectives	X	
		Other comparable and equally effective site design concepts as approved by the Co-Permittee (Note: Additional narrative required to describe BMP and how it addresses Site Design concept.		X

Table 1. Site Design BMPs (Cont.)

Design Concept	Technique	Specific BMP	Included	
			Yes	No
Site Design Concept 2	Minimize Impervious Footprint			
		Maximize the permeable area (See Section 4.5.1 of the WQMP)		X ¹
		Construct walkways, trails, patios, overflow parking lots, alleys, driveways, low-traffic streets and other low-traffic areas with open-jointed paving materials or permeable surfaces, such as pervious concrete, porous asphalt, unit pavers, and granular materials		X ^{2, 3}
		Construct streets, sidewalks and parking lot aisles to the minimum widths necessary, provided that public safety and a walk able environment for pedestrians are not compromised.		X ²
		Reduce widths of street where off-street parking is available		X ²
		Minimize the use of impervious surfaces, such as decorative concrete, in the landscape design.		X ²
		Other comparable and equally effective site design concepts as approved by the Co-Permittee (Note: Additional narrative required describing BMP and how it addresses Site Design concept).	X	
Site Design Concept 3	Conserve Natural Areas			
		Conserve natural areas (See WQMP Section 4.5.1).	X	
		Maximize canopy interception and water conservation by preserving existing native trees and shrubs, and planting additional native or drought tolerant trees and large shrubs.	X	
		Use natural drainage systems.	X	
		Other comparable and equally effective site design concepts as approved by the Co-Permittee (Note: Additional narrative required describing BMP and how it addresses Site Design concept).		X ²

Table 1. Site Design BMPs (Cont.)

Design Concept	Technique	Specific BMP	Included	
			Yes	No
Site Design Concept 4	Minimize Directly Connected Impervious Areas (DCIAs)	Residential and commercial sites must be designed to contain and infiltrate roof runoff, or direct roof runoff to vegetative swales or buffer areas, where feasible.		X ^{2, 3}
		Where landscaping is proposed, drain impervious sidewalks, walkways, trails, and patios into adjacent landscaping.		X ²
		Increase the use of vegetated drainage swales in lieu of underground piping or imperviously lined swales		X ^{1, 2}
		Rural swale system: street sheet flows to vegetated swale or gravel shoulder, curbs at street corners, culverts under driveways and street crossings.		X ²
		Urban curb/swale system: streets slopes to curb; periodic swale inlets drain to vegetated swale/biofilter		X ²
		Dual drainage system: First flush captured in street catch basins and discharged to adjacent vegetated swale or gravel shoulder, high flows connect directly to MS4s.		X ²
		Design driveways with shared access, flared (single lane at street) or wheel strips (paving only under tires); or, drain into landscaping prior to discharging to the MS4		X ⁴
		Uncovered temporary or guest parking on private residential lots may be paved with a permeable surface, or designed to drain into landscaping prior to discharging to the MS4		X ^{2, 3}
		Where landscaping is proposed in parking areas, incorporate landscape areas into the drainage design.		X ⁵
		Overflow parking (parking stalls provided in excess of the Co-Permittee's minimum parking requirements) may be constructed with permeable paving.		X ⁶

Design Concept	Technique	Specific BMP	Included	
			Yes	No
		Other comparable and equally effective design concepts as approved by the Co-Permittee (Note: Additional narrative required describing BMP and how it addresses Site Design concept).	X	

The project includes the preservation of the drainage course

Justifications or alternatives for non-included BMPs

1. The proposed project is a medium-density community with minimal areas for vegetated swales and other natural drainages that serve slow runoff velocity and reduce runoff volume. As an alternative, the employment of an Infiltration and Extended Detention Basins will be used to provide the same runoff flow and volume reducing benefits as natural drainages.
2. The proposed project will include Infiltration and Extended Detention Basins. First flush and low flows (nuisance runoff) will be conveyed to these devices to provide effective treatment of the project's runoff.
3. Pervious pavement and perforated pipes were considered for use to reduce the quantity and velocity of runoff but not proposed due to the potential for saturation of adjacent soil and foundations from prolong exposure to nuisance flows without adequate drainage, lack of maintenance and potential for clogging of materials. The employment of an Infiltration and an Extended Detention Basin will be used to control the increase in runoff volume and velocity.
4. Due to separate private entity ownership of the private lots, no shared driveways are proposed for the project.
5. There are no proposed parking areas.
6. This proposed project does not provide overflow parking.

2. SOURCE CONTROL BMPS

Table 2. Source Control BMPs

BMP Name	Check One		If not applicable, state brief reason
	Included	Not Applicable	
Non-Structural Source Control BMPs			
Education for Property Owners, Operators, Tenants, Occupants, or Employees	X		
Activity Restrictions	X		
Irrigation System and Landscape Maintenance	X		
Common Area Litter Control	X		
Street Sweeping Private Streets and Parking Lots	X		
Drainage Facility Inspection and Maintenance	X		
Structural Source Control BMPs			
MS4 Stenciling and Signage	X		
Landscape and Irrigation System Design	X		
Protect Slopes and Channels	X		
Provide Community Car Wash Racks		X	No Car Wash Racks are proposed for the project
Property Design:			
Fueling Areas		X	Applies to commercial developments. Not proposed residential development.
Air/Water Supply Area Drainage		X	None proposed.
Trash Storage Areas		X	None proposed.
Loading Docks		X	Applies to commercial developments. Not proposed for residential development.
Maintenance Bays		X	Applies to commercial developments. Not proposed for residential development.
Vehicle and Equipment Wash Areas		X	None proposed.
Outdoor Material Storage Areas		X	None proposed.
Outdoor Work Areas or Processing Areas		X	None proposed.
Provide Wash Water Controls for Food Preparation Areas		X	Applies to commercial food service facilities. Not proposed for residential development.

Non-Structural BMPs

Detailed information regarding the implementation, maintenance requirements, responsibilities, and funding of all proposed Non-Structural BMPs are provided in Section VI, Table 4 of this WQMP.

Structural BMPs

Detailed information regarding the implementation, maintenance requirements and responsibilities, and funding of all proposed Structural BMPs are provided on the WQMP Site Plan and Section VI, Table 4 of this WQMP.

3. TREATMENT CONTROL BMPS

The project proposes an Infiltration Basin and an Extended Detention Basin for primary treatment of the project's first flush and low flow runoff. Runoff from the entire project streets, landscape areas, walkways and residential structures will be conveyed as sheet flow to proposed catch basins prior to discharging to these Basins. Runoff from the private lots will be directed to the adjacent streets and ultimately the proposed Infiltration and Extended Detention Basins.

Catch Basin Inserts (Flo-Gard Plus or approved equal)

The runoff entering the Infiltration Basin will be pre-treated with the Flo-Gard Plus type catch basin insert to removed larger trash and debris.

Infiltration Basin

An Infiltration Basin has been proposed within Open Space Lot J to treat the project's first flush and low flow runoff. Supporting calculations are provided in Appendix F of this WQMP.

Extended Detention Basin

An Extended Detention Basin has been proposed within Open Space Lot M. Supporting calculations are provided in Appendix F of this WQMP.

Operation, Maintenance, Implementation and funding information has been included on the WQMP Site Plan Appendix B, Section VI, Table 4 and Section VII of this WQMP.

Supporting calculations and Treatment Control BMP design details are included in Appendix F of this WQMP.

Table 3: Treatment Control BMP Selection Matrix ⁽¹⁾

Pollutant of Concern	Treatment Control BMP Categories ⁽²⁾							
	Veg. Swale & Veg. Filter Strips ⁽³⁾	Detention Basins ⁽⁴⁾ *B	Infiltration Basins, Infiltration Trenches, & Porous Pavement ⁽⁵⁾ *A	Wet Ponds or Wetlands ⁽⁶⁾	Sand Filter or Media Filters	Water Quality Inlets	Hydrodynamic Separator Systems ⁽⁷⁾	Manufactured / Proprietary Devices ⁽⁸⁾ **
Sediment/Turbidity Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	H/M <input type="checkbox"/>	M <input checked="" type="checkbox"/>	H/M <input checked="" type="checkbox"/>	H/M <input type="checkbox"/>	H/M <input type="checkbox"/>	L <input type="checkbox"/>	H/M (L for turbidity) <input type="checkbox"/>	U <input checked="" type="checkbox"/>
Nutrients Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	L <input type="checkbox"/>	M <input checked="" type="checkbox"/>	H/M <input checked="" type="checkbox"/>	H/M <input type="checkbox"/>	L/M <input type="checkbox"/>	L <input type="checkbox"/>	L <input type="checkbox"/>	U <input checked="" type="checkbox"/>
Organic Compounds Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	U <input type="checkbox"/>	U <input type="checkbox"/>	U <input type="checkbox"/>	U <input type="checkbox"/>	H/M <input type="checkbox"/>	L <input type="checkbox"/>	L <input type="checkbox"/>	U <input type="checkbox"/>
Trash & Debris Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	L <input type="checkbox"/>	M <input checked="" type="checkbox"/>	U <input checked="" type="checkbox"/>	U <input type="checkbox"/>	H/M <input type="checkbox"/>	M <input type="checkbox"/>	H/M <input type="checkbox"/>	U <input checked="" type="checkbox"/>
Oxygen Demanding Substances Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	L <input type="checkbox"/>	M <input checked="" type="checkbox"/>	H/M <input checked="" type="checkbox"/>	H/M <input type="checkbox"/>	H/M <input type="checkbox"/>	L <input type="checkbox"/>	L <input type="checkbox"/>	U <input checked="" type="checkbox"/>
Bacteria & Viruses Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	U <input type="checkbox"/>	U <input checked="" type="checkbox"/>	H/M <input checked="" type="checkbox"/>	U <input type="checkbox"/>	H/M <input type="checkbox"/>	L <input type="checkbox"/>	L <input type="checkbox"/>	U <input checked="" type="checkbox"/>
Oils & Grease Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	H/M <input type="checkbox"/>	M <input checked="" type="checkbox"/>	U <input checked="" type="checkbox"/>	U <input type="checkbox"/>	H/M <input type="checkbox"/>	M <input type="checkbox"/>	L/M <input type="checkbox"/>	U <input checked="" type="checkbox"/>
Pesticides (non-soil bound) Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	U <input type="checkbox"/>	U <input checked="" type="checkbox"/>	U <input checked="" type="checkbox"/>	U <input type="checkbox"/>	U <input type="checkbox"/>	L <input type="checkbox"/>	L <input type="checkbox"/>	U <input checked="" type="checkbox"/>
Metals Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	H/M <input type="checkbox"/>	M <input checked="" type="checkbox"/>	H <input checked="" type="checkbox"/>	H <input type="checkbox"/>	H <input type="checkbox"/>	L <input type="checkbox"/>	L <input type="checkbox"/>	U <input checked="" type="checkbox"/>

* BMP Drainage Area Boundary

** Offsite run-on and street portion pre-treatment.

Abbreviations:

L: Low removal efficiency H/M: High or medium removal efficiency U: Unknown removal efficiency

Notes:

- (1) Periodic performance assessment and updating of the guidance provided by this table may be necessary.
- (2) Project applicants should base BMP designs on the Riverside County Stormwater Quality Best Management Practice Design Handbook. However, project applicants may also wish to reference the California Stormwater BMP Handbook – New Development and Redevelopment (www.cabmphandbooks.com). The Handbook contains additional information on BMP operation and maintenance.
- (3) Includes grass swales, grass strips, wetland vegetation swales, and bioretention.
- (4) Includes extended/dry detention basins with grass lining and extended/dry detention basins with impervious lining. Effectiveness based upon minimum 36-48-hour drawdown time.
- (5) Projects that will utilize infiltration-based Treatment Control BMPs (e.g., Infiltration Basins, Infiltration Trenches, Porous Pavement, etc.) must include a copy of the property/project soils report as Appendix E to the project-specific WQMP. The selection of a Treatment Control BMP (or BMPs) for the project must specifically consider the effectiveness of the Treatment Control BMP for pollutants identified as causing an impairment of Receiving Waters to which the project will discharge Urban Runoff.
- (6) Includes permanent pool wet ponds and constructed wetlands.
- (7) Also known as hydrodynamic devices, baffle boxes, swirl concentrators, or cyclone separators.
- (8) Includes proprietary stormwater treatment devices as listed in the CASQA Stormwater Best Management Practices Handbooks, other stormwater treatment BMPs not specifically listed in this WQMP, or newly developed/emerging stormwater treatment technologies.

4. EQUIVALENT TREATMENT CONTROL ALTERNATIVES

Not applicable.

5. REGIONALLY-BASED TREATMENT CONTROL BMPS

Not applicable.

VI. OPERATION AND MAINTENANCE RESPONSIBILITY FOR TREATMENT CONTROL BMPS

During construction, the site developer shall be responsible for installing, inspecting and maintaining all BMPs. The developer will be responsible for the management of the project site plus implementation and maintenance of the BMPs required by the WQMP until such time as these responsibilities have been transferred other entities.

After all construction has been completed, the Homeowners Association (HOA) shall be responsible for all of the operation, implementation and maintenance of the BMPs required by the WQMP.

O & M Responsibility for all Structural BMPs are located on the WQMP Site Plan in Appendix B of this WQMP.

The contact information for the responsible parties will be provided upon WQMP approval.

TABLE NO. 4

BMP MAINTENANCE AND RESPONSIBILITY/FREQUENCY MATRIX

<u>BMP</u>	<u>RESPONSIBILITY</u>	<u>BMP START</u>	<u>FREQUENCY</u>
Education for Home Owners	Developer at initial sale of units. HOA thereafter.	At initial sale of homes.	At escrow and annual thereafter
Activity Restrictions	HOA	At initial sale of homes.	Continuous
Common Area Litter Control	HOA	Continuous during construction and at transfer of site responsibilities HOA.	Weekly trash pickup within project areas, landscape areas and parking areas. Daily inspection of trash receptacles to ensure that lids are closed and pick up any excess trash on the ground, noting trash violations by facility users and reporting violations to the owner/operator for investigation.
Drainage Facility Inspection and Maintenance	City of Wildomar	At transfer of site responsibilities to appropriate parties.	Per City guidelines.
Site Design and Landscape Planning	Developer during construction. HOA thereafter.	At transfer of site responsibilities to appropriate parties.	In conjunction with maintenance activities and prior to finalizing any replanting schemes, verify that plants continue to be grouped according to similar water requirements in order to reduce excess irrigation runoff.
Landscape Irrigation System Design	Developer during construction. HOA thereafter.	Once all areas have been stabilized. At transfer of site responsibilities to appropriate parties.	Once a week in conjunction with maintenance activities. Verify that runoff minimizing landscape design continues to function by checking that water sensors are functioning properly, that irrigation heads are adjusted properly to eliminate overspray to hardscape areas, and to verify that irrigation timing and cycle lengths are adjusted in accordance with water demands given the time of year, weather and day or night time temperatures.

TABLE NO. 4

BMP MAINTENANCE AND RESPONSIBILITY/FREQUENCY MATRIX

<u>BMP</u>	<u>RESPONSIBILITY</u>	<u>BMP START</u>	<u>FREQUENCY</u>
Storm Drain Signage and Stenciling	During construction the Developer shall be responsible for all stenciling and signage for all project catch basins. HOA thereafter.	At transfer of site responsibilities to appropriate parties.	Once every 6 months (or as necessary), inspect for re-stenciling needs and re-stencil as necessary.
Catch Basin Inserts	During construction the Developer shall be responsible for all maintaining all catch basin inserts until transfer to the City of Wildomar	Upon completion of installation and at transfer of site responsibilities to appropriate parties.	Monthly during the rainy season. Per Manufacturer's Guidelines.
Infiltration Basin A (Lot J) Storm drain lateral D-1 and F 33°35'45.83"N, 117°15'15.72"W	During construction the Developer shall be responsible for all maintenance of the infiltration basin and laterals until transfer to the HOA.	Annually and every six months.	Inspect for blockages, remove litter and debris. Remove and replace top few inches of sand as needed. Remove weeds and maintain vegetation.
Open Space/Wetlands/Riparian Lots (K, L & M)	During construction the Developer shall be responsible for all maintenance of the Open Space, Riparian and Wetland areas until transfer to the HOA.	Per Environmental recommendations	Per Environmental Recommendations.
Extended Detention Basin B (Lot M) Storm drain lateral B-1 and B-2 33°35'40.55"N, 117°15'8.40"W	During construction the Developer shall be responsible for all maintenance of the Extended Detention Basin and laterals until transfer to the HOA.	Monthly, before and after every significant storm event. Vegetation and weeding, weekly.	Inspect all inlets/outlets for blockage, remove litter and debris. Remove weeds and maintain vegetation.

VII. FUNDING

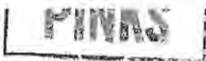
The HOA shall be responsible for funding the maintenance of the proposed Infiltration Basin and the Extended Detention Basin and all other elements described in this WQMP. The funding will be provided by the annual HOA dues and/or assessments.

The Catch basin insert located in the public street will be funded and maintained by the City of Wildomar.

A. Conditions of Approval

- County of Riverside
Dated Dec. 5, 2006

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9:56

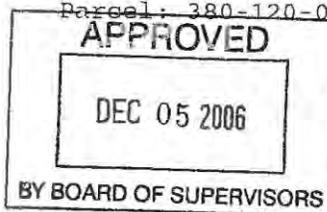


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10. GENERAL CONDITIONS

EVERY DEPARTMENT

10. EVERY. 1 MAP - DEFINITIONS

INEFFECT

The words identified in the following list that appear in all capitals in the attached conditions of Tentative Tract Map No. 32535 shall be henceforth defined as follows:

TENTATIVE MAP = Tentative Tract Map No. 32535, Amended No. 3, dated 8/24/06.

APPROVED EXHIBIT F = EXHIBIT F = Wall and Fence Plan for Tentative Tract Map No. 32535, Amended No. 1, dated 11/09/06.

APPROVED EXHIBIT L = EXHIBIT L = Comprehensive Landscape Plan for Tentative Tract Map No. 32535, Amended No. 1, dated 11/09/06.

APPROVED EXHIBIT M = EXHIBIT M = Maintenance Plan for Tentative Tract Map No. 32535, dated 11/09/06.

FINAL MAP = Final Map or Parcel Map for the TENTATIVE MAP whether recorded in whole or in phases.

10. EVERY. 2 MAP - PROJECT DESCRIPTION

INEFFECT

The land division hereby permitted is for a Schedule "A" subdivision of 31.40 gross acres into 84 single-family residential lots with a minimum lot size of 7,200 sq. ft., three (3) Water Quality Basin Lots totaling 1.04 acres, and three (3) Open Space Lots totaling 4.79 acres.

10. EVERY. 3 MAP - HOLD HARMLESS

INEFFECT

The land divider or any successor-in-interest shall defend, indemnify, and hold harmless the County of Riverside (COUNTY), its agents, officers, or employees from any claim, action, or proceeding against the COUNTY, its agents, officers, or employees to attack, set aside, void, or annul an approval of the COUNTY, its advisory agencies, appeal boards, or legislative body concerning the TENTATIVE MAP, which action is brought within the time period provided for in California Government Code, Section 66499.37. The COUNTY will promptly notify the land divider of any such claim, action, or proceeding against the COUNTY and will cooperate fully in the defense. If the COUNTY fails to promptly notify the land divider of any such claim, action,

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10. GENERAL CONDITIONS

10. EVERY. 3 MAP - HOLD HARMLESS (cont.) INEFFECT

or proceeding or fails to cooperate fully in the defense, the land divider shall not, thereafter, be responsible to defend, indemnify, or hold harmless the COUNTY.

10. EVERY. 4 MAP - 90 DAYS TO PROTEST INEFFECT

The land divider has 90 days from the date of approval of these conditions to protest, in accordance with the procedures set forth in Government Code Section 66020, the imposition of any and all fees, dedications, reservations and/or other exactions imposed on this project as a result of the approval or conditional approval of this project.

BS GRADE DEPARTMENT

10.BS GRADE. 1 MAP-GIN INTRODUCTION INEFFECT

Improvement such as grading, filling, over excavation and recompaction, and base or paving which require a grading permit are subject to the included Building and Safety Grading Division conditions of approval.

10.BS GRADE. 2 MAP-G1.2 OBEY ALL GDG REGS INEFFECT

All grading shall conform to the Uniform Building Code, Ordinance 457, and all other relevant laws, rules and regulations governing grading in Riverside County and prior to commencing any grading which includes 50 or more cubic yards, the applicant shall obtain a grading permit from the Building & Safety Department.

10.BS GRADE. 3 MAP-G1.3 DISTURBS NEED G/PMT INEFFECT

Ordinance 457 requires a grading permit prior to clearing, grubbing or any top soil disturbances related to construction grading.

10.BS GRADE. 4 MAP-G1.6 DUST CONTROL INEFFECT

All necessary measures to control dust shall be implemented by the developer during grading.

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10. GENERAL CONDITIONS

10.BS GRADE. 5 MAP-G2.5 2:1 MAX SLOPE RATIO INEFFECT

Grade slopes shall be limited to a maximum steepness ratio of 2:1 (horizontal to vertical) unless otherwise approved.

10.BS GRADE. 6 MAP-G2.8 MINIMUM DRAINAGE GRAD INEFFECT

Minimum drainage grade shall be 1% except on portland cement concrete where 0.35% shall be the minimum.

10.BS GRADE. 8 MAP-G2.10 SLOPE SETBACKS INEFFECT

Observe slope setbacks from buildings and property lines per the Uniform Building Code - as amended by Ordinance 457.

E HEALTH DEPARTMENT

10.E HEALTH. 1 MAP - WELL DESTRUCTION INEFFECT

Any existing water wells are to be destroyed under permit as per Riverside County Ordinance 682.3.

FIRE DEPARTMENT

10.FIRE. 1 MAP-#50-BLUE DOT REFLECTORS INEFFECT

Blue retroreflective pavement markers shall be mounted on private streets, public streets and driveways to indicate location of fire hydrants. Prior to installation, placement of markers must be approved by the Riverside County Fire Department.

10.FIRE. 2 MAP-#16-HYDRANT/SPACING INEFFECT

Schedule A fire protection approved standard fire hydrants, (6"x4"x2 1/2") located one at each street intersection and spaced no more than 330 feet apart in any direction, with no portion of any lot frontage more than 165 feet from a hydrant. Minimum fire flow shall be 1000 GPM for 2 hour duration at 20 PSI. Shall include perimeter streets at each intersection and spaced 660 feet apart.

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10. GENERAL CONDITIONS

FLOOD RI DEPARTMENT

10.FLOOD RI. 1

MAP FLOOD HAZARD REPORT

INEFFECT

Tract 32535 is a proposal to subdivide an approximately 31-acre site into single family residential lots along with several water quality basins and open space lots. The site is located in the Wildomar area between Catt Road and Palomar Road, west of Hidden Springs Road.

A large watercourse well defined watercourse with a tributary area of approximately 190-acres traverses through the central portion of the site. Tract 31353 is located along the southwest boundary of this development and proposes to collect and convey these flows through its' development in a large underground storm drain. Since this development is dependant on the downstream storm drain as an outlet if Tract 31353 has not constructed their storm drain then this tract shall. This applies to the storm drain proposed by Tract 31837 mentioned below. Tract 32535 proposes to extend this storm drain through its' development and collect the flows upstream of Arnett Road. Vehicular access to the flowline at the inlet shall be provided. A turnaround shall be provided outside of the nuisance flow area.

Another smaller watercourse is tributary to Arnett Road at the northern portion of the site. Tract 32535 proposes collecting these flows on the east side of Arnett Road and conveying these flows in an underground storm drain which will connect to a storm drain proposed with Tract 31837. Tract 31837 is also currently in plan check.

Another large watercourse traverses near the southerly property line. A culvert in Stable Lane Way is proposed to convey these flows. These flows would affect the open space lot at the end of Street "E".

Onsite flows are collected and conveyed into several smaller storm drains which discharges flows into water quality basins.

The site is located within the Murrieta Valley sub-watershed of the Murrieta Creek Area Drainage Plan (ADP) for which drainage fees have been established by the Board of Supervisors.

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10. GENERAL CONDITIONS

10.FLOOD RI. 4 MAP 10 YR CURB - 100 YR ROW INEFFECT

The 10 year storm flow shall be contained within the curb and the 100 year storm flow shall be contained within the street right of way. When either of these criteria is exceeded, additional drainage facilities shall be installed. The property shall be graded to drain to the adjacent street or an adequate outlet.

10.FLOOD RI. 5 MAP 100 YR SUMP OUTLET INEFFECT

Drainage facilities outletting sump conditions shall be designed to convey the tributary 100 year storm flows. Additional emergency escape shall also be provided.

10.FLOOD RI. 6 MAP PERP DRAINAGE PATTERNS INEFFECT

The property's street and lot grading shall be designed in a manner that perpetuates the existing natural drainage patterns with respect to tributary drainage areas, outlet points and outlet conditions. Otherwise a drainage easement shall be obtained from the affected property owners for the release of concentrated or diverted storm flows. A copy of the recorded drainage easement shall be submitted to the District for review.

10.FLOOD RI. 7 MAP COORDINATE DRAINAGE DESIGN INEFFECT

Development of this property shall be coordinated with the development of adjacent properties to ensure that watercourses remain unobstructed and stormwaters are not diverted from one watershed to another. This may require the construction of temporary drainage facilities or offsite construction and grading. A drainage easement shall be obtained from the affected property owners for the release of concentrated or diverted storm flows. A copy of the recorded drainage easement shall be submitted to the District for review.

10.FLOOD RI. 8 MAP OWNER MAINT NOTICE INEFFECT

The subdivider shall record sufficient documentation to advise purchasers of any lot within the subdivision that the owners of individual lots are responsible for the maintenance of the drainage facility within the drainage easements shown on the final map.

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10. GENERAL CONDITIONS

10.FLOOD RI. 10 MAP MAJOR FACILITIES INEFFECT

Major flood control facilities are being proposed. These shall be designed and constructed to District standards including those related to alignment and access to both inlets and outlets. The applicant shall consult the District early in the design process regarding materials, hydraulic design, and transfer of rights of way.

10.FLOOD RI. 18 MAP SUBMIT FINAL WQMP >PRELIM INEFFECT

In compliance with Santa Ana Region and San Diego Region Regional Water Quality Control Board Orders, and Beginning January 1, 2005, projects submitted within the western region of the unincorporated area of Riverside County for discretionary approval will be required to comply with the Water Quality Management Plan for Urban Runoff (WQMP). The WQMP addresses post-development water quality impacts from new development and redevelopment projects. The WQMP requirements will vary depending on the project's geographic location (Santa Ana, Santa Margarita or Whitewater River watersheds). The WQMP provides detailed guidelines and templates to assist the developer in completing the necessary studies. These documents are available on-line at:
www.floodcontrol.co.riverside.ca.us under Programs and Services, Stormwater Quality.

To comply with the WQMP a developer must submit a "Project Specific" WQMP. This report is intended to a) identify potential post-project pollutants and hydrologic impacts associated with the development; b) identify proposed mitigation measures (BMPs) for identified impacts including site design, source control and treatment control post-development BMPs; and c) identify sustainable funding and maintenance mechanisms for the aforementioned BMPs. A template for this report is included as 'exhibit A' in the WQMP. final Project Specific WQMP must be approved by the District prior to issuance of building or grading permits.

Projects requiring Project Specific WQMPs are required to submit a PRELIMINARY Project Specific WQMP along with the land-use application package. The format of the PRELIMINARY report shall mimic the format/template of the final report but can be less detailed. For example, points a, b & c above must be covered, rough calculations supporting sizing must be included, and footprint/locations for the BMPs must be identified on the tentative exhibit.

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10. GENERAL CONDITIONS

10.FLOOD RI. 18 MAP SUBMIT FINAL WQMP >PRELIM (cont.) INEFFECT

Detailed drawings will not be required. This preliminary project specific WQMP must be approved by the District prior to issuance of recommended conditions of approval.

The developer has submitted a report that minimally meets the criteria for a preliminary project specific WQMP. The report will need significant revisions to meet the requirements of a final project specific WQMP. Also, it should be noted that if 401 certification is necessary for the project, the Water Quality Control Board may require additional water quality measures.

10.FLOOD RI. 19 MAP WQMP ESTABL MAINT ENTITY INEFFECT

This project proposes BMP facilities that will require maintenance by a public agency or homeowner's association. To ensure that the public is not unduly burdened with future costs, prior to final approval or recordation of this case, the District will require an acceptable financial mechanism be implemented to provide for maintenance of treatment control BMPs in perpetuity. This may consist of a mechanism to assess individual benefiting property owners, or other means approved by the District. The site's treatment control BMPs must be shown on the project's improvement plans - either the street plans, grading plans, or landscaping plans. The type of improvement plans that will show the BMPs will depend on the selected maintenance entity.

PLANNING DEPARTMENT

10.PLANNING. 1 MAP - GEO NO.1497 INEFFECT

County Geologic Report (GEO) No. 1497, submitted for this project (TR32535), was prepared by Lawson & Associates, Inc and is entitled: "Preliminary Geotechnical Investigation of Proposed 85 Lot Residential Development, (Tentative Tract No. 32535), Riverside County, California", dated June 15, 2005, in addition Lawson & Associates also prepared

1."Geotechnical Response to the County of Riverside Geotechnical Review Comments Regarding the Preliminary Geotechnical Investigation of Proposed 85 Lot Residential Development, (Tentative Tract No. 32535), Riverside County, California", dated August 11, 2005.

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10. GENERAL CONDITIONS

10.PLANNING. 1

MAP - GEO NO.1497 (cont.)

INEFFECT

GEO No. 1497 concluded:

- 1.Active or potentially active faults were not encountered on the site during the preliminary geotechnical investigation. There is low potential for onsite faulting.
- 2.The active Elsinore-Temecula fault is located about 0.2 km southwest of the site. A potentially active strand of this fault has been mapped approximately 80 feet west of the site.
- 3.The proposed development will likely be subject to strong seismic-induced groundshaking from an earthquake on the nearby Elsinore-Temecula fault. The peak horizontal ground acceleration from an event on this fault is expected to be 0.75g.
- 4.The potential for liquefaction at this site low.
- 5.Proposed cut and fill slopes are considered to be stable as designed, but may be subject to surficial erosion.
- 6.Undocumented artificial fill, and compressible colluvium and alluvium are present on the site.
- 7.The expansion potential of onsite soils ranges from low to high.

GEO No. 1497 recommended:

- 1.The proposed development should be designed in accordance with the seismic parameters presented in the report.
- 2:All alluvium, colluvium, and undocumented fills shall be removed prior to receiving engineered structures or structural fill.
- 3.All cut slopes and excavations shall be geologically mapped during site grading so as to confirm stable slopes conditions, the nonexistence of faulting, and any other unforeseen geotechnical issues.
- 4.Additional testing for soil expansion shall be preformed during and after site grading. Post-tensioned slabs and

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10. GENERAL CONDITIONS

10.PLANNING. 1 MAP - GEO NO.1497 (cont.) (cont.) INEFFECT

soil improvement as recommended in the above referenced report shall be utilized to mitigate soil expansion.

GEO No. 1497 satisfies the requirement for a Geologic study for Planning/CEQA purposes. GEO No. 1497 is hereby accepted for Planning purposes. Engineering and other Uniform Building Code parameters where not included, as a part of this review or approval and this approval is not intended, and should not be misconstrued as approval for grading permit. Engineering and other building code parameters will be reviewed and additional comments and/or conditions may be imposed by the Building and Safety Department upon application for grading and/or building permits.

10.PLANNING. 2 MAP - MAP ACT COMPLIANCE INEFFECT

This land division shall comply with the State of California Subdivision Map Act and to all requirements of County Ordinance No. 460, Schedule A, unless modified by the conditions listed herein.

10.PLANNING. 3 MAP - FEES FOR REVIEW INEFFECT

Any subsequent review/approvals required by the conditions of approval, including but not limited to grading or building plan review or review of any mitigation monitoring requirement, shall be reviewed on an hourly basis, or other appropriate fee, as listed in County Ordinance No. 671. Each submittal shall be accompanied with a letter clearly indicating which condition or conditions the submittal is intended to comply with.

10.PLANNING. 5 MAP - LANDSCAPE MAINTENANCE INEFFECT

The land divider, or any successor-in-interest to the land divider, shall be responsible for maintenance and upkeep of all slopes, landscaped areas and irrigation systems within the land division until such time as those operations are the responsibility of the individual home owners, a homeowners association, or any other successor-in-interest.

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10. GENERAL CONDITIONS

10.PLANNING. 9 MAP - OFFSITE SIGNS ORD 679.4 INEFFECT

No offsite subdivision signs advertising this land division/development are permitted, other than those allowed under Ordinance No. 679.4. Violation of this condition of approval may result in no further permits of any type being issued for this subdivision until the unpermitted signage is removed.

10.PLANNING. 10 MAP - RES. DESIGN STANDARDS INEFFECT

The design standards for the subdivision are as follows:

- a. Lots created by this map shall conform to the design standards of the R-1 and R-5 zones.
- b. The front yard setback is 20 feet.
- c. The side yard setback is 5 feet.
- d. The street side yard setback is 10 feet.
- e. The rear yard setback is 10 feet, except where a rear yard abuts a street, then the setback shall be the same as the front yard setback, in accordance with Section 21.77 of Ordinance No. 348.
- f. The minimum average width of each lot is 65 feet.
- g. The maximum height of any building is 40 feet.
- h. The minimum parcel size is 7,200 square feet.
- i. No more than 50% of the usable pad area shall be covered by structure.
- j. Residential driveway approaches shall be a minimum of 12 feet and a maximum of 30 feet in width, and 20 feet of full height curb is required between driveways within any one property frontage, in accordance with Ord. No. 461, Standard No. 207.

EXCEPT AS ALLOWED BY ORDINANCE NO. 348, AND THE COUNTYWIDE DESIGN STANDARDS AND GUIDELINES, THERE SHALL BE NO ENCROACHMENT INTO ANY SETBACK.

10.PLANNING. 11 MAP - NPDES COMPLIANCE (1) INEFFECT

Since the project will disturb one (1) acre or more, the land divider/permit holder shall comply with all of the applicable requirements of the National Pollution Discharge Elimination System (NPDES) and shall conform to NPDES Best Management Practices for Stormwater Pollution Prevention Plans during the life of this permit.

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10. GENERAL CONDITIONS

10.PLANNING. 12 MAP - ORD NO. 659 (DIF) INEFFECT

Prior to the issuance of either a certificate of occupancy or prior to building permit final inspection, the applicant shall comply with the provisions of Riverside County Ordinance No. 659, which requires the payment of the appropriate fee set forth in the Ordinance. Riverside County Ordinance No. 659 has been established to set forth policies, regulations and fees related to the funding and construction of facilities necessary to address the direct and cumulative environmental effects generated by new development projects described and defined in this Ordinance, and it establishes the authorized uses of the fees collected. The fee shall be paid for each residential unit to be constructed within this land division.

In the event Riverside County Ordinance No. 659 is rescinded, this condition will no longer be applicable. However, should Riverside County Ordinance No. 659 be rescinded and superseded by a subsequent mitigation fee ordinance, payment of the appropriate fee set forth in that ordinance shall be required.

10.PLANNING. 13 MAP - ORD 810 OPN SPACE FEE INEFFECT

Prior to the issuance of either a certificate of occupancy or prior to building permit final inspection, the applicant shall comply with the provisions of Riverside County Ordinance No. 810, which requires payment of the appropriate fee set forth in the Ordinance. Riverside County Ordinance No. 810 has been established to set forth policies, regulations and fees related to the funding and acquisition of open space and habitat necessary to address the direct and cumulative environmental effects generated by new development projects described and defined in this Ordinance.

The fee shall be paid for each residential unit to be constructed within this land division.

In the event Riverside County Ordinance No. 810 is rescinded, this condition will no longer be applicable. However, should Riverside County Ordinance No. 810 be rescinded and superseded by a subsequent mitigation fee ordinance, payment of the appropriate fee set forth in that ordinance shall be required.

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10. GENERAL CONDITIONS

10.PLANNING. 14 MAP - REQUIRED MINOR PLANS INEFFECT

For each of the below listed items, a minor plot plan application shall be submitted and approved by the County Planning Department pursuant to Section 18.30.a. (1) of County Ordinance No. 348 (Plot Plans not subject to the California Environmental Quality Act and not subject to review by any governmental agency other than the Planning Department) along with the current fee.

1. Final Site Development Plan for each phase of development.
2. Model Home Complex Plan shall be filed and approved for each phase if models change between phases. A final site of development plot plan must be approved prior to approval, or concurrent with a Model Home Complex Plan.
3. Landscaping Plan for typical front yard/slopes/open space. These three plans may be applied for separately for the whole tract or for phases.
4. Landscaping plans totally in the road right-of-Way shall be submitted to the Planning and Transportation Departments.
5. Each phase shall have a separate wall and fencing plan.
6. Entry monument and gate entry plan.

NOTE: The requirements of the above plot plans may be accomplished as one, or, any combination of multiple plot plans required by these conditions of approval. However, each requirement shall be cleared individually with the applicable plot plan condition of approval in the "PRIOR TO BUILDING PERMIT" (80 series) conditions.

10.PLANNING. 15 MAP - DESIGN GUIDELINES INEFFECT

The project shall conform to Countywide Design Standards and Guidelines adopted January 13, 2004.

10.PLANNING. 16 MAP- OFF-HIGHWAY VEHICLE USE INEFFECT

No off-highway vehicle use shall be allowed on any lot created by this subdivision. The landowners shall secure

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10. GENERAL CONDITIONS

10.PLANNING. 16 MAP- OFF-HIGHWAY VEHICLE USE (cont.) INEFFECT

all lots created by this subdivision and shall prevent all off-highway vehicles from using the property.

10.PLANNING. 17 MAP - SUBMIT BUILDING PLANS INEFFECT

The developer shall cause building plans to be submitted to the TLMA- Land Use Section for review by the Department of Building and Safety - Plan Check Division. Said plans shall be in conformance with the approved TENTATIVE MAP.

10.PLANNING. 18 MAP - IF HUMAN REMAINS FOUND INEFFECT

If human remains are encountered, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The County Coroner shall be notified of the find immediately. If the remains are determined to be prehistoric, the coroner shall notify the Native American Heritage Commission, which will determine and notify the appropriate NATIVE AMERICAN TRIBE who is the most likely descendent. The descendent shall inspect the site of the discovery and make a recommendation as to the appropriate mitigation. After the recommendation has been made, the property owner, a Native American Tribe representative, and a County representative shall meet to determine the appropriate mitigation measures and corrective actions to be implemented.

TRANS DEPARTMENT

10.TRANS. 1 MAP - DRAINAGE 1 INEFFECT

The land divider shall protect downstream properties from damages caused by alteration of the drainage patterns, i.e., concentration or diversion of flow. Protection shall be provided by constructing adequate drainage facilities including enlarging existing facilities and/or by securing a drainage easement. All drainage easements shall be shown on the final map and noted as follows: "Drainage Easement - no building, obstructions, or encroachments by landfills are allowed". The protection shall be as approved by the Transportation Department.

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10. GENERAL CONDITIONS

10.TRANS. 2 MAP - DRAINAGE 2 INEFFECT

The land divider shall accept and properly dispose of all off-site drainage flowing onto or through the site. In the event the Transportation Department permits the use of streets for drainage purposes, the provisions of Article XI of Ordinance No. 460 will apply. Should the quantities exceed the street capacity or the use of streets be prohibited for drainage purposes, the subdivider shall provide adequate drainage facilities and/or appropriate easements as approved by the Transportation Department.

10.TRANS. 6 MAP - TS/EXEMPT INEFFECT

The Transportation Department has not required a traffic study for the subject project. It has been determined that the project is exempt from traffic study requirements.

10.TRANS. 7 MAP - STD INTRO 3(ORD 460/461) INEFFECT

With respect to the conditions of approval for the referenced tentative exhibit, the land divider shall provide all street improvements, street improvement plans and/or road dedications set forth herein in accordance with Ordinance 460 and Riverside County Road Improvement Standards (Ordinance 461). It is understood that the tentative map correctly shows acceptable centerline elevations, all existing easements, traveled ways, and drainage courses with appropriate Q's, and that their omission or unacceptability may require the map to be resubmitted for further consideration. These Ordinances and all conditions of approval are essential parts and a requirement occurring in ONE is as binding as though occurring in all. All questions regarding the true meaning of the conditions shall be referred to the Transportation Department.

10.TRANS. 8 MAP - OFF-SITE PHASE INEFFECT

Should the applicant choose to phase any portion of this project, said applicant shall provide off-site access roads to County maintained roads as approved by the Transportation Department.

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20. PRIOR TO A CERTAIN DATE

PLANNING DEPARTMENT

20.PLANNING. 2 MAP - EXPIRATION DATE INEFFECT

The conditionally approved TENTATIVE MAP shall expire three years after the County of Riverside Board of Supervisors original approval date, unless extended as provided by County Ordinance No. 460. Action on a minor change and/or revised map request shall not extend the time limits of the originally approved TENTATIVE MAP. A Land Management System (LMS) hold shall be placed on the TENTATIVE MAP, and a LMS hold shall be placed on any subsequent minor change or revised map, which shall be set to take effect on the expiration date. The LMS hold effective date shall be extended in accordance with any permitted extensions of time. The LMS hold shall be downgraded to a LMS notice upon recordation of the the first phase of the TENTATIVE MAP. The LMS hold or notice shall remain in effect until the recordation of the final phase of the TENTATIVE MAP. If the TENTATIVE MAP expires before the recordation of the final phase the LMS hold or notice shall remain in effect and no further FINAL MAP recordation shall be permitted.

50. PRIOR TO MAP RECORDATION

E HEALTH DEPARTMENT

50.E HEALTH. 1 MAP - WATER PLAN INEFFECT

A water system shall have plans and specifications approved by the water company and the Department of Environmental Health.

50.E HEALTH. 2 MAP - MONEY INEFFECT

Financial arrangements (securities posted) must be made for the water improvement plans and be approved by County Counsel.

50.E HEALTH. 3 MAP - SEWER PLAN - COUNTY INEFFECT

A sewer system shall have mylar plans and specifications as approved by the District, the County Survey Department and the Department of Environmental Health.

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50. PRIOR TO MAP RECORDATION

50.EPD. 3 MAP - ECS CONDITION (cont.) INEFFECT

ensure ambient lighting in the constraint areas is not increased."

FIRE DEPARTMENT

50.FIRE. 1 MAP-#46-WATER PLANS INEFFECT

The applicant or developer shall furnish one copy of the water system plans to the Fire Department for review. Plans shall be signed by a registered civil engineer, containing a Fire Department approval signature block, and shall conform to hydrant type, location, spacing and minimum fire flow. Once plans are signed by the local water company, the originals shall be presented to the Fire Department for signature.

50.FIRE. 2 MAP-#53-ECS-WTR PRIOR/COMBUS INEFFECT

Ecs map must be stamped by the Riverside County Surveyor with the following note: The required water system, including fire hydrants, shall be installed and accepted by the appropriate water agency prior to any combustible building material placed on an individual lot.

FLOOD RI DEPARTMENT

50.FLOOD RI. 2 MAP SUBMIT PLANS INEFFECT

A copy of the improvement plans, grading plans, final map, environmental constraint sheet, BMP improvement plans, and any other necessary documentation along with supporting hydrologic and hydraulic calculations shall be submitted to the District for review. All submittals shall be date stamped by the engineer and include a completed Flood Control Deposit Based Fee Worksheet and the appropriate plan check fee deposit.

50.FLOOD RI. 3 MAP ONSITE EASE ON FINAL MAP INEFFECT

Onsite drainage facilities located outside of road right of way shall be contained within drainage easements shown on the final map. A note shall be added to the final map stating, "Drainage easements shall be kept free of buildings and obstructions".

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50. PRIOR TO MAP RECORDATION

50.FLOOD RI. 4 MAP OFFSITE EASE OR REDESIGN INEFFECT

Offsite drainage facilities shall be located within dedicated drainage easements obtained from the affected property owner(s). Document(s) shall be recorded and a copy submitted to the District prior to recordation of the final map. If the developer cannot obtain such rights, the map should be redesigned to eliminate the need for the easement.

50.FLOOD RI. 5 MAP WRITTEN PERM FOR GRADING INEFFECT

Written permission shall be obtained from the affected property owners allowing the proposed grading and/or facilities to be installed outside of the tract boundaries. A copy of the written authorization shall be submitted to the District for review and approval.

50.FLOOD RI. 6 MAP ENCROACHMENT PERMIT REQ INEFFECT

An encroachment permit shall be obtained for any work within the District right of way or with District facilities. The encroachment permit application shall be processed and approved concurrently with the improvement plans.

50.FLOOD RI. 7 MAP 3 ITEMS TO ACCEPT FACILITY INEFFECT

Inspection and maintenance of the flood control facility/ies to be constructed with this tract must be performed by either the County Transportation Department or the Flood Control District. The engineer (owner) must request in writing that one of these agencies accept the proposed system. The request shall note the project number, location, briefly describe the system (sizes and lengths) and include an exhibit that shows the proposed alignment. The request to the District shall be addressed to the General Manager-Chief Engineer, Attn: Chief of the Planning Division.

If the District is willing to maintain the proposed facility three items must be accomplished prior to recordation of the final map or starting construction of the drainage facility: 1) the developer shall submit to the District the preliminary title reports, plats and legal descriptions for all right of way to be conveyed to the District and secure that right of way to the satisfaction of the District; 2) an agreement with the District and any

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50. PRIOR TO MAP RECORDATION

50.FLOOD RI. 7 MAP 3 ITEMS TO ACCEPT FACILITY (cont.) INEFFECT

maintenance partners must be executed which establishes the terms and conditions of inspection, operation and maintenance; and 3) plans for the facility must be signed by the District's General Manager-Chief Engineer. The plans cannot be signed prior to execution of the agreement. An application to draw up an agreement must be submitted to the attention of the District's Administrative Services Section. All right of way transfer issues must be coordinated with the District's Right of Way Section.

The engineer/developer will need to submit proof of flood control facility bonds and a certificate of insurance to the District's Inspection section before a pre-construction meeting can be scheduled.

50.FLOOD RI. 8 MAP ADP FEES INEFFECT

A notice of drainage fees shall be placed on the environmental constraint sheet and final map. The exact wording of the note shall be as follows:

NOTICE OF DRAINAGE FEES

Notice is hereby given that this property is located in the Murrieta Valley subwatershed of the Murrieta Creek Area Drainage Plan which was adopted by the Board of Supervisors of the County of Riverside pursuant to Section 10.25 of Ordinance 460 and Section 66483, et seq, of the Government Code and that said property is subject to fees for said drainage area.

Notice is further given that, pursuant to Section 10.25 of Ordinance 460, payment of the drainage fees shall be paid with cashier's check or money order only to the Riverside County Flood Control and Water Conservation District at the time of issuance of the grading or building permit for said parcels, whichever occurs first, and that the owner of each parcel, at the time of issuance of either the grading or building permit, shall pay the fee required at the rate in effect at the time of issuance of the actual permit.

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50. PRIOR TO MAP RECORDATION

PLANNING DEPARTMENT

50.PLANNING. 1 MAP - PREPARE A FINAL MAP INEFFECT

After the approval of the TENTATIVE MAP and prior to the expiration of said map, the land divider shall cause the real property included within the TENTATIVE MAP, or any part thereof, to be surveyed and a FINAL MAP thereof prepared in accordance with the current County Transportation Department - Survey Division requirements, the conditionally approved TENTATIVE MAP, and in accordance with Article IX of County Ordinance No. 460.

50.PLANNING. 2 MAP - FINAL MAP PREPARER INEFFECT

The FINAL MAP shall be prepared by a licensed land surveyor or registered civil engineer.

50.PLANNING. 3 MAP - SURVEYOR CHECK LIST INEFFECT

The County Transportation Department - Survey Division shall review any FINAL MAP and ensure compliance with the following:

A. All lots on the FINAL MAP shall be in substantial conformance with the approved TENTATIVE MAP relative to size and configuration.

B. All lots on the FINAL MAP shall have a minimum lot size of 7,200 square feet net.

C. All residential lot sizes and dimensions on the FINAL MAP shall be in conformance with the development standards of the R-1 zone, Conservation Lots 87, 89, and 90 as shown on the tentative map shall be in conformance to the development standards of the R-5 zone, and all lots shall conform with the Riverside County Integrated Project (RCIP).

D. All lots on the FINAL MAP shall comply with the length to width ratios, as established by Section 3.8.C. of County Ordinance No. 460.

E. All knuckle or cul-de-sac lots shall have a minimum of 40 feet of frontage measured at the front lot line.

F. The common open space areas shall be shown as a numbered lots on the FINAL MAP.

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50. PRIOR TO MAP RECORDATION

50.PLANNING. 4 MAP - REQUIRED APPLICATIONS INEFFECT

No FINAL MAP shall record until Change of Zone No. 7147 has been approved and adopted by the Board of Supervisors and has been made effective. This land division shall conform with the development standards of the zones ultimately applied to the property.

50.PLANNING. 7 MAP - ANNEX TO PARK DISTRICT INEFFECT

The land divider shall submit written proof to the County Planning Department - Development Review Division that the subject property has been annexed to County Service Area No. 152A.

50.PLANNING. 8 MAP - QUIMBY FEES (1) INEFFECT

The land divider shall submit to the County Planning Department - Development Review Division a duly and completely executed agreement with County Service Area No. 152A which demonstrates to the satisfaction of the County that the land divider has provided for the payment of parks and recreation fees and/or dedication of land for the TENTATIVE MAP in accordance with Section 10.35 of County Ordinance No. 460.

50.PLANNING. 12 MAP - ECS SHALL BE PREPARED INEFFECT

The land divider shall prepare an Environmental Constraints Sheet (ECS) in accordance with Section 2.2. E. & F. of County Ordinance No. 460, which shall be submitted as part of the plan check review of the FINAL MAP.

50.PLANNING. 18 MAP - ECS NOTE MAP CONSTRAINT INEFFECT

The following Environmental Constraints Note shall be placed on the ECS:

"No permits allowing any grading, construction, or surface alterations shall be issued which effect the delineated constraint areas without further investigation and/or mitigation as directed by the County of Riverside Planning Department. This constraint affects lots 87 and 89 as shown on the Environmental Constraints Sheet."

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50.PLANNING. 19 MAP - ECS NOTE NO FENCE WILDLF INEFFECT

The following Environmental Constraints Note shall be placed on the ECS:

"Fencing, which restricts the movement of wildlife, shall not be allowed in the wildlife Corridor. Prohibited fencing includes, but is not limited to, chainlink, barbed-wire, and solid wood."

50.PLANNING. 20 MAP - ECS NOTE MT PALOMAR LIGH INEFFECT

The following Environmental Constraints Note shall be placed on the ECS:

"This property is subject to lighting restrictions as required by County Ordinance No. 655, which are intended to reduce the effects of night lighting on the Mount Palomar Observatory. All proposed outdoor lighting systems shall be in conformance with County Ordinance No. 655."

50.PLANNING. 27 MAP - COMPLY WITH ORD 457 INEFFECT

The land divider shall provide proof to The Land Management Agency - Land Use Section that all structures for human occupancy presently existing and proposed for retention comply with Ordinance Nos. 457 and 348.

50.PLANNING. 29 MAP - FEE BALANCE INEFFECT

Prior to recordation, the Planning Department shall determine if the deposit based fees for the TENTATIVE MAP are in a negative balance. If so, any unpaid fees shall be paid by the land divider and/or the land divider's successor-in-interest.

50.PLANNING. 33 MAP - CC&R RES POA COM. AREA INEFFECT

The land divider shall (a) notify the Planning Department that the following documents shall be shortly, or have been, submitted to the Office of the County Counsel for the review and approval of that office, and (b) the land divider shall submit to the Office of the County Counsel the following documents:

1. A cover letter identifying the project for which approval is sought referencing the Planning Department case number(s) (a copy of this cover letter may be sent to the

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50. PRIOR TO MAP RECORDATION

50.PLANNING. 33

MAP - CC&R RES POA COM. AREA (cont.)

INEFFECT

Planning Department to serve as notification) and identifying one individual to represent the land divider if there are any questions concerning the review of the submitted documents; and

2. One (1) copy AND one (1) original, wet signed, notarized and ready for recordation declaration of covenants, conditions, and restrictions; attached to these documents there shall be included a legal description of the property included within the covenants, conditions and restrictions and a scaled map or diagram of such boundaries, both signed and stamped by a California registered civil engineer or licensed land surveyor; and

3. A sample document conveying title to the purchaser of an individual lot or unit which provides that the declaration of covenants, conditions, and restrictions is incorporated therein by reference; and,

4. A deposit equaling three (3) hours of the current hourly fee for the Review of Covenants, Conditions and Restrictions established pursuant to County Ordinance No. 671 at the time the above referenced documents are submitted to the Office of the County Counsel for review and approval.

The declaration of covenants, conditions and restrictions submitted for review shall a) provide for a minimum term of 60 years, b) provide for the establishment of a property owner's association comprised of the owners of each individual lot or unit as tenants in common, c) provide for the ownership of the common area by either the property owner's association or the owners of each individual lot or unit as tenants in common, and d) contain the following provisions verbatim:

"Notwithstanding any provision in this Declaration to the contrary, the following provisions shall apply:

The property owners' association established herein shall manage and continuously maintain the 'common area', more particularly described on the Tentative Map, attached hereto, and shall not sell or transfer the 'common area' or any part thereof, absent the prior written consent of the Planning Department of the County of Riverside or the County's successor-in-interest.

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50. PRIOR TO MAP RECORDATION

50.PLANNING. 33 MAP - CC&R RES POA COM. AREA (cont.) (cont.) INEFFECT

The property owners' association shall have the right to assess the owners of each individual lot or unit for the reasonable cost of maintaining such 'common area', and shall have the right to lien the property of any such owner who defaults in the payment of a maintenance assessment. An assessment lien, once created, shall be prior to all other liens recorded subsequent to the notice of assessment or other document creating the assessment lien.

This Declaration shall not be terminated, 'substantially' amended, or property deannexed therefrom absent the prior written consent of the Planning Director of the County of Riverside or the County's successor-in-interest. A proposed amendment shall be considered 'substantial' if it affects the extent, usage, or maintenance of the 'common area' established pursuant to the Declaration.

In the event of any conflict between this Declaration and the Articles of Incorporation, the Bylaws, or the property owners' association Rules and Regulations, if any, this Declaration shall control."

Once approved, the copy and the original declaration of covenants, conditions and restrictions shall be forwarded by the Office of the County Counsel to the Planning Department. The Planning Department will retain the one copy for the case file, and forward the wet signed and notarized original declaration of covenants, conditions and restrictions to the County Transportation Department - Survey Division - for safe keeping until the final map is ready for recordation. The County Transportation Department - Survey Division - shall record the original declaration of covenants, conditions and restrictions in conjunction with the recordation of the final map.

50.PLANNING. 34 MAP - ROW & SLOPES LS MAINT.

INEFFECT

The project proponent shall ensure that the following landscape maintenance mechanisms are in place prior to Final Map Recordation:

a) All Right-Of-Way (parkway) landscaping including off-site ROW shall be annex into the appropriate Landscape

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50. PRIOR TO MAP RECORDATION

50.TRANS. 4 MAP - PART-WIDTH (cont.) INEFFECT

Draft Standard No. 105, Section C.

50.TRANS. 5 MAP - OFF-SITE INFO INEFFECT

The off-site rights-of-way required for said access road(s) shall be accepted to vest title in the name of the public if not already accepted.

50.TRANS. 8 MAP - EASEMENT INEFFECT

Any easement not owned by a public utility, public entity or subsidiary, not relocated or eliminated prior to final map approval, shall be delineated on the final map in addition to having the name of the easement holder, and the nature of their interests, shown on the map.

50.TRANS. 10 MAP - STRIPING PLAN INEFFECT

A signing and striping plan is required for this project. The applicant shall be responsible for any additional paving and/or striping removal caused by the striping plan. Traffic signing and striping shall be performed by County forces with all incurred costs borne by the applicant, unless otherwise approved by the County Traffic Engineer.

50.TRANS. 11 MAP - STREET NAME SIGN INEFFECT

The land divider shall install street name sign(s) in accordance with County Standard No. 816 as directed by the Transportation Department.

50.TRANS. 16 MAP - SOILS 2 INEFFECT

The developer/owner shall submit a preliminary soils and pavement investigation report addressing the construction requirements within the road right-of-way.

50.TRANS. 17 MAP - INTERSECTION/50' TANGENT INEFFECT

All centerline intersections shall be at 90 degrees, plus or minus 5 degrees, with a minimum 50' tangent, measured from flowline/curbface or as approved by the Transportation Planning and Development Review Division Engineer.

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50. PRIOR TO MAP RECORDATION

50.TRANS. 18 MAP - OFF-SITE ACCESS 1 INEFFECT

The landowner/developer shall provide/acquire sufficient public off-site rights-of-way to provide for two paved access roads to a paved and maintained road. Said access roads shall be constructed in accordance with County Draft Standard No. 106. (32'/60') at a grade and alignment as approved by the Transportation Department. Should the applicant fail to provide/acquire said off-site right-of-way, the map shall be returned for redesign. The applicant shall provide the appropriate environmental clearances for said off-site improvements prior to recordation or the signature of any street improvement plans.

Said off-site access road shall be the northerly extension of Arnett Road to Catt Road.

Said off-site access road shall be the southeasterly extension of Stable Lane Way to Clinton Keith Road.

50.TRANS. 20 MAP - STREET SWEEPING INEFFECT

The project proponent shall contact the County Service Area (CSA) Project Manager to file an application for annexation or inclusion into CSA for street sweeping; or enter into a similar mechanism as approved by the Transportation Department.

50.TRANS. 21 MAP - STREETLIGHT PLAN INEFFECT

A separate street light plan is required for this project. Street lighting shall be designed in accordance with County Ordinance 460 and Streetlight Specification Chart found in Specification Section 22 of Ordinance 461. For projects within SCE boundaries use County of Riverside Ordinance 461, Standard No's 1000 or 1001. For projects within Imperial Irrigation District (IID) use IID's pole standard.

50.TRANS. 22 MAP - STREET LIGHTS-CSA/L&LMD INEFFECT

The project proponent shall contact the County Service Area (CSA) Project Manager who determines whether the development is within an existing CSA or will require annexation into the CSA.

If the project is outside boundaries of a CSA, the project proponent shall contact the Transportation Department L&LMD

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50. PRIOR TO MAP RECORDATION

50.TRANS. 39 MAP- UTILITY PLAN (cont.) INEFFECT

461, or as approved by the Transportation Department. The applicant is responsible for coordinating the work with the serving utility company. This also applies to existing overhead lines which are 33.6 kilovolts or below along the project frontage and between the nearest poles offsite in each direction of the project site. A disposition note describing the above shall be reflected on design improvement plans whenever those plans are required. A written proof for initiating the design and/or application of the relocation issued by the utility company shall be submitted to the Transportation Department for verification purposes.

60. PRIOR TO GRADING PRMT ISSUANCE

BS GRADE DEPARTMENT

60.BS GRADE. 1 MAP-G2.1 GRADING BONDS INEFFECT

Grading in excess of 199 cubic yards will require performance security to be posted with the Building and Safety Department. Single Family Dwelling units graded one lot per permit and proposing to grade less than 5,000 cubic yards are exempt.

60.BS GRADE. 2 MAP-G2.3SLOPE EROS CL PLAN INEFFECT

Erosion control- landscape plans, required for manufactured slopes greater than 3 feet in vertical height, are to be signed by a registered landscape architect and bonded per the requirements of Ordinance 457, see form 284-47.

60.BS GRADE. 3 MAP-G2.4GEOTECH/SOILS RPTS INEFFECT

Geotechnical soils reports, required in order to obtain a grading permit, shall be submitted to the Building and Safety Department's Grading Division for review and approval prior to issuance of a grading permit.

All grading shall be in conformance with the recommendations of the geotechnical/soils reports as approved by Riverside County.*

*The geotechnical/soils, compaction and inspection reports will be reviewed in accordance with the RIVERSIDE COUNTY

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60. PRIOR TO GRADING PRMT ISSUANCE

60.BS GRADE. 3 MAP-G2.4GEOTECH/SOILS RPTS (cont.) INEFFECT

GEOTECHNICAL GUIDELINES FOR REVIEW OF GEOTECHNICAL AND
GEOLOGIC REPORTS.

60.BS GRADE. 4 MAP-G2.7DRNAGE DESIGN Q100 INEFFECT

All grading and drainage shall be designed in accordance with Riverside County Flood Control & Water Conservation District's conditions of approval regarding this application. If not specifically addressed in their conditions, drainage shall be designed to accommodate 100 year storm flows.

Additionally, the Building and Safety Department's conditional approval of this application includes an expectation that the conceptual grading plan reviewed and approved for it complies or can comply with any WQMP (Water Quality Management Plan) required by Riverside County Flood Control and Water Conservation District.

60.BS GRADE. 7 MAP-G2.14OFFSITE GDG ONUS INEFFECT

Prior to the issuance of a grading permit, it shall be the sole responsibility of the owner/applicant to obtain any and all proposed or required easements and/or permissions necessary to perform the grading herein proposed.

60.BS GRADE. 12 MAP-G1.4 NPDES/SWPPP INEFFECT

Prior to issuance of any grading or construction permits - whichever comes first, the applicant shall provide the Building and Safety Department evidence of compliance with the following: "Effective March 10, 2003 owner operators of grading or construction projects are required to comply with the N.P.D.E.S. (National Pollutant Discharge Elimination System) requirement to obtain a construction permit from the State Water Resource Control Board (SWRCB). The permit requirement applies to grading and construction sites of "ONE" acre or larger. The owner operator can comply by submitting a "Notice of Intent" (NOI), develop and implement a STORM WATER POLLUTION PREVENTION PLAN (SWPPP) and a monitoring program and reporting plan for the construction site. For additional information and to obtain a copy of the NPDES State Construction Permit contact the SWRCB at (916) 657-1146.

Additionally, at the time the county adopts, as part of any

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60. PRIOR TO GRADING PRMT ISSUANCE

60.FIRE. 1 MAP-#004 FUEL MODIFICATION (cont.) MET

- e) a homeowner's association or appropriate district shall be responsible for maintenance of all fire protection measures within open space areas.

ANY HABITAT CONSERVATION ISSUE AFFECTING THE FIRE DEPARTMENT FUEL MODIFICATION REQUIREMENT, SHALL HAVE CONCURRENCE WITH THE RESPONSIBLE WILDLIFE AND/OR OTHER CONSERVATION AGENCY.

FLOOD RI DEPARTMENT

60.FLOOD RI. 2 MAP SUBMIT PLANS INEFFECT

A copy of the improvement plans, grading plans, BMP improvement plans and any other necessary documentation along with supporting hydrologic and hydraulic calculations shall be submitted to the District for review. The plans must receive District approval prior to the issuance of grading permits. All submittals shall be date stamped by the engineer and include a completed Flood Control Deposit Based Fee Worksheet and the appropriate plan check fee deposit.

60.FLOOD RI. 3 MAP EROS CNTRL AFTER RGH GRAD INEFFECT

Temporary erosion control measures shall be implemented immediately following rough grading to prevent deposition of debris onto downstream properties or drainage facilities. Plans showing these measures shall be submitted to the District for review.

60.FLOOD RI. 4 MAP OFFSITE EASE OR REDESIGN INEFFECT

Offsite drainage facilities shall be located within dedicated drainage easements obtained from the affected property owner(s). Document(s) shall be recorded and a copy submitted to the District prior to recordation of the final map. If the developer cannot obtain such rights, the map should be redesigned to eliminate the need for the easement.

60.FLOOD RI. 5 MAP ENCROACHMENT PERMIT REQ INEFFECT

An encroachment permit shall be obtained for any work within the District right of way or with District facilities. The encroachment permit application shall be

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60. PRIOR TO GRADING PRMT ISSUANCE

60.PLANNING. 7 MAP - SLOPE GRADING TECHNIQUES (cont.) INEFFECT

height of the slopes where drainage and stability permit such rounding.

4. Where cut and/or fill slopes exceed 300 feet in horizontal length, the horizontal contours of the slope shall be curved in a continuous, undulating fashion.

60.PLANNING. 15 MAP - SKR FEE CONDITION INEFFECT

Prior to the issuance of a grading permit, the land divider/permit holder shall comply with the provisions of Riverside County Ordinance No. 663, which generally requires the payment of the appropriate fee set forth in that ordinance. The amount of the fee required to be paid may vary depending upon a variety of factors, including the type of development application submitted and the applicability of any fee reduction or exemption provisions contained in Riverside County Ordinance No. 663. Said fee shall be calculated on the approved development project which is anticipated to be 31.4 acres (gross) in accordance with the TENTATIVE MAP. If the development is subsequently revised, this acreage amount may be modified in order to reflect the revised development project acreage amount. In the event Riverside County Ordinance No. 663 is rescinded, this condition will no longer be applicable. However, should Riverside County Ordinance No. 663 be rescinded and superseded by a subsequent mitigation fee ordinance, payment of the appropriate fee set forth in that ordinance shall be required.

60.PLANNING. 16 MAP - FEE BALANCE INEFFECT

Prior to issuance of grading permits, the Planning Department shall determine if the deposit based fees are in a negative balance. If so, any outstanding fees shall be paid by the applicant/developer.

60.PLANNING. 17 MAP - GRADING PLAN REVIEW INEFFECT

The land divider/permit holder shall cause a plan check application for a grading plan to be submitted to the County T.L.M.A - Land Use Division for review by the County Department of Building and Safety - Grading Division. Said grading plan shall be in conformance with the approved tentative map, in compliance with County Ordinance No. 457, and the conditions of approval for the

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60. PRIOR TO GRADING PRMT ISSUANCE

60.PLANNING. 17 MAP - GRADING PLAN REVIEW (cont.) INEFFECT

tentative map.

60.PLANNING. 20 MAP - NPDES COMPLIANCE (2) INEFFECT

Since this project will disturb one (1) or more acres, it will require a National Pollutant Discharge Elimination System (NPDES) Construction General Permit from the State Water Resources Control Board. Clearance for grading shall not be given until either the district or the Department of Building and Safety has determined that the project has complied with the current County requirements regarding the NPDES Construction General Permit.

60.PLANNING. 21 MAP - ARCHAEOLOGIST RETAINED INEFFECT

Prior to the issuance of grading permits, a qualified archaeologist shall be retained by the land divider for consultation and comment on the proposed grading with respect to potential impacts to unique cultural resources. Should the archaeologist, after consultation with the appropriate Native American tribe(s), find the potential is high for impact to unique archaeological resources (cultural resources and sacred sites), a pre-grading meeting between the archaeologist, the Native American moniotr(s), and the excavation and grading contractor shall take place. During grading operations, when deemed necessary in the professional opinion of the retained archaeologist (and/or as determined by the Planning Director), the archaeologist, the archaeologist's on-site representative(s) and the Native American Observer shall actively monitor all project related grading and construction and shall have the authority to temporarily divert, redirect, or halt grading activity to allow recovery of unique archaeological resources. Prior to the issuance of grading permits, the NAME, ADDRESS and TELEPHONE NUMBER of the retained archaeologist shall be submitted to the Planning Department and the B&S Grading Division. If the retained archaeologist, after consultation with the appropriate Native American tribe, finds no potential for impacts to unique archaeological resources, a letter shall be submitted to the Planning Department certifying this finding by the retained qualified archaeologist.

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60. PRIOR TO GRADING PRMT ISSUANCE

60.PLANNING. 23 MAP - REQUIRED APPLICATIONS INEFFECT

No grading permits shall be issued until Change of Zone No. 7147 has been approved and adopted by the Board of Supervisors and has been made effective.

60.PLANNING. 24 MAP - PLANNING DEPT REVIEW INEFFECT

As part of the plan check review of the proposed grading plan for the subject property, the Department of Building and Safety - Grading Division shall submit a copy of the proposed grading plan, along with the applicable Log/Permit Numbers for reference, to the County Planning Department to be reviewed for compliance with the approved tentative map.

60.PLANNING. 25 MAP - PALEONTOLOGIST REQUIRED INEFFECT

The land divider/permit holder shall retain a qualified paleontologist for consultation and comment on the proposed grading with respect to potential paleontological impacts. The developer shall submit the name, telephone number and address of the retained, qualified paleontologist to the Planning Department and the Department of Building and Safety. The paleontologist shall submit in writing to the Planning Department - Development Review Division the results of the initial consultation, and the paleontologist shall include details of the fossil recovery plan, if recovery was deemed necessary. Should the paleontologist find the potential is high for impact to significant resources, a pre-grade meeting between the paleontologist and the excavation and grading contractor shall be arranged. When necessary, in the professional opinion of the retained paleontologist (and/or as determined by the Planning Director), the paleontologist or representative shall have the authority to monitor actively all project related grading and construction and shall have the authority to temporarily divert, redirect, or halt grading activity to allow recovery of paleontological resources.

60.PLANNING. 26 MAP - SLOPE LS PLANS INEFFECT

Landscaping Plans for landscaping on any private side or rear yard slope greater than three feet (3') in height shall be reviewed and approved by the Planning Department.

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80. PRIOR TO BLDG PRMT ISSUANCE

BS GRADE DEPARTMENT

80.BS GRADE. 1 MAP-G3.1NO B/PMT W/O G/PMT INEFFECT

Prior to issuance of any building permit, the property owner shall obtain a grading permit and/or approval to construct from the Grading Divisin of the Building and Safety Department.

FIRE DEPARTMENT

80.FIRE. 1 MAP-#50C-TRACT WATER VERIFICA INEFFECT

The required water system, including all fire hydrant(s), shall be installed and accepted by the appropriate water agency and the Riverside County Fire Department prior to any combustible building material placed on an individual lot. Contact the Riverside County Fire Department to inspect the required fire flow, street signs, all weather surface, and all access and/or secondary. Approved water plans must be a the job site.

FLOOD RI DEPARTMENT

80.FLOOD RI. 2 MAP SUBMIT PLANS INEFFECT

A copy of the improvement plans, grading plans,BMP improvement plans and any other necessary documentation along with supporting hydrologic and hydraulic calculations shall be submitted to the District for review. The plans must receive District approval prior to the issuance of building permits. All submittals shall be date stamped by the engineer and include a completed Flood Control Deposit Based Fee Worksheet and the appropriate plan check fee deposit.

80.FLOOD RI. 3 MAP ADP FEES INEFFECT

Tract 32535 is located within the limits of the Murrieta Vally subwatershed of the Murrieta Creek Area Drainage Plan for which drainage fees have been adopted.

Drainage fees shall be paid with cashier's check or money order only to the District at the time of the issuance of grading permits for the approved parcels or at the time of issuance of building permits if no grading permits are issued for the parcels and may be paid, at the option of the land owner, in pro rata amounts. The amount of the

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80.FLOOD RI. 3 MAP ADP FEES (cont.) INEFFECT

drainage fee required to be paid shall be the amount that is in effect for the particular Area Drainage Plan at the time of issuance of the grading permits or issuance of the building permits if grading permits are not issued.

80.FLOOD RI. 4 MAP SUBMIT FINAL WQMP INEFFECT

A copy of the project specific WQMP shall be submitted to the District for review and approval.

PLANNING DEPARTMENT

80.PLANNING. 1 MAP - ROOF MOUNTED EQUIPMENT INEFFECT

Roof-mounted mechanical equipment shall not be permitted within the subdivision, however, solar equipment or any other energy saving devices shall be permitted with County Planning Department approval.

80.PLANNING. 2 MAP - FRONT YARD LANDSCAPING INEFFECT

All front yards shall be provided with landscaping and automatic irrigation, as defined by County Ordinance No. 348.

80.PLANNING. 3 MAP - UNDERGROUND UTILITIES INEFFECT

All utility extensions within a lot shall be placed underground.

80.PLANNING. 7 MAP - CONFORM FINAL SITE PLAN INEFFECT

Final clearance shall be obtained from the County Planning Department - Development Review Division stipulating that the building plans submitted conform to the approved Final Plan of Development.

80.PLANNING. 12 MAP - SCHOOL MITIGATION INEFFECT

Impacts to the Lake Elsinore Unified School District shall be mitigated in accordance with California State law.

80.PLANNING. 13 MAP - FEE BALANCE INEFFECT

Prior to issuance of building permits, the Planning Department shall determine if the deposit based fees are

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80.PLANNING. 13 MAP - FEE BALANCE (cont.) INEFFECT

in a negative balance. If so, any outstanding fees shall be paid by the applicant/developer.

80.PLANNING. 15 MAP - LANDSCAPE PLOT PLAN INEFFECT

The land divider/permit holder shall file seven (7) sets of a Landscaping and Irrigation Plan to the County Planning Department for review and approval. Said plan shall be submitted to the Department in the form of a plot plan application pursuant to County Ordinance No. 348, Section 18.30.a.(1) (Plot Plans not subject to the California Environmental Quality Act and not subject to review by any governmental agency other than the Planning Department), along with the current fee. The plan shall be in compliance with Section 18.12, Sections 19.300 through 19.304., and the TENTATIVE MAP conditions of approval.

When the proposal is located within a County Service Area (CSA), prior to landscape plan submittal to the Planning Department, the developer/permittee shall show evidence to the Planning Department that CSA No. 152A has approved said plans.

THE LANDSCAPE PLOT PLAN SHALL SUBSTANTIALLY CONFORM TO THE APPROVED EXHIBIT L.

The plan shall show all common open space areas. The plan shall address all areas and conditions of the tract requiring landscaping and irrigation to be installed including, but not limited to, (slope planting, common area and/or park landscaping; and individual front yard landscaping). Emphasis shall be placed on using plant species that are drought tolerant and low water using. The plans shall provide for the following:

1. Permanent automatic irrigation systems shall be installed on all landscaped areas requiring irrigation. Low water use systems are encouraged.
2. All utility service areas and enclosures shall be screened from view with landscaping and decorative barriers or baffle treatments, as approved by the Planning Department. Utilities shall be placed underground.
3. Any required landscape screening shall be designed to be opaque up to a minimum height of six (6) feet at

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80. PRIOR TO BLDG PRMT ISSUANCE

80.PLANNING. 15

MAP - LANDSCAPE PLOT PLAN (cont.)

INEFFECT

maturity.

4. Parkways and landscaped building setbacks shall be landscaped to provide visual screening or a transition into the primary use area of the site. Landscape elements shall include earth berming, ground cover, shrubs, and specimen trees in conjunction with meandering sidewalks, benches, and other pedestrian amenities where appropriate as approved by the Planning Department.

5. Landscaping plans shall incorporate the use of specimen accent trees at key visual focal points within the project.

6. Landscaping plans shall incorporate native and drought tolerant plants where appropriate.

7. All specimen trees and significant rock outcroppings on the subject property intended for retention shall be shown on the project's grading plans. Replacement trees for those to be removed shall also be shown.

8. All trees shall be minimum double-staked. Weaker and/or slow-growing trees shall be steel-staked.

9. Multi-programmable irrigation controllers which have enough programs to break up all irrigation stations into hydro zones shall be used. If practical and feasible, rain shutoff devices shall be employed to prevent irrigation after significant precipitation. Irrigation systems shall be designed so areas which have different water use requirements are not mixed on the same station (hydro zones). Assistance in implementing a schedule based on plant water needs is available from CIMIS or Mobile Lab. The use of drip irrigation should be considered for all planter areas that have a shrub density that will cause excessive spray interference of an overhead irrigation system. Use flow reducers to mitigate broken heads next to sidewalks, streets, and driveways. (BMP S2)

10. Plants with similar water requirements shall be grouped together in order to reduce excessive irrigation runoff and promote surface filtration, where possible. (BMP S3)

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80. PRIOR TO BLDG PRMT ISSUANCE

80.PLANNING. 15 MAP - LANDSCAPE PLOT PLAN (cont.) (cont.) INEFFECT

The Landscape plot plan may include the requirements of any other minor plot plan required by the subdivision conditions of approval. However, minor plot plan conditions of approval shall be cleared individually.

Landscaping plans for areas that are totally within the road right-of-way shall be submitted to the Planning and Transportation Departments.

80.PLANNING. 17 MAP - MODEL HOME COMPLEX INEFFECT

A plot plan application shall be submitted to the County Planning Department pursuant to Section 18.30.a.(1) of County Ordinance No. 348 (Plot Plans not subject to the California Environmental Quality Act and not subject to review by any governmental agency other than the Planning Department), along with the current fee.

The Model Home Complex plot plan shall contain the following elements:

1. An engineer's scaled plan showing the model home lots, lot numbers, tract number, and north arrow.
2. Show front, side and rear yard setbacks.
3. Provide two dementioned off street parking spaces per model and one parking space for office use. The plan must have one accessible parking space.
4. Show detailed fencing plan including height and location.
5. Show typical model tour sign locations and elevation.
6. Six (6) sets of photographic or color laser prints (8" X 10") of the sample board and colored elevations shall be submitted for permanent filing and agency distribution after the Planning Department has reviewed and approved the sample board and colored elevations in accordance with the approved Design Manual and other applicable standards. All writing must be legible. Six (6) matrix sheets showing structure colors and texture schemes shall be submitted.
7. Provide a Model Home Complex landscape and irrigation plan.

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80.PLANNING. 17 MAP - MODEL HOME COMPLEX (cont.) INEFFECT

NOTES: The Model Home Complex plot plan shall not be approved without Final Site Development Plan approval, or concurrent approval of both. See the Planning Department Model Home Complex application for detailed requirements.

The requirements of this plot plan may be incorporated with any minor plot plan required by the subdivision's conditions of approval. However, this MODEL HOME COMPLEX condition of approval shall be cleared individually.

80.PLANNING. 18 MAP - BUILDING SEPARATION 2 INEFFECT

Building separation between all buildings shall not be less than ten (10) feet. Additional encroachments are only allowed as permitted by County Ordinance No. 348.

80.PLANNING. 19 MAP - FINAL SITE PLAN INEFFECT

A plot plan application shall be submitted to the County Planning Department pursuant to Section 18.30.a.(1) of County Ordinance No. 348 (Plot Plans not subject to the California Environmental Quality Act and not subject to review by any governmental agency other than the Planning Department), along with the current fee.

Subdivision development shall conform to the approved and adopted Countywide Design Standards & Guidelines.

The plot plan shall be approved by the Planning Director prior to issuance of building permits for lots included within that plot plan.

The plot plan shall contain the following elements:

1. A final site plan (40' scale precise grading plan) showing all lots, building footprints, setbacks, mechanical equipment and model assignments on individual lots.
2. Each model floor plan and elevations (all sides).
3. Six (6) sets of photographic or color laser prints (8" x 10") of the sample board and colored elevations shall be

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80.PLANNING. 19

MAP - FINAL SITE PLAN (cont.)

INEFFECT

submitted for permanent filing and agency distribution after the Planning Department has reviewed and approved the sample board and colored elevations in accordance with the approved Design Manual and other applicable standards. All writing must be legible. Six (6) matrix sheets showing structure colors and texture schemes shall be submitted.

4. At a minimum there should be three different floor plans for tract maps with 50 or less units. Reverse floor plans are not included as different floor plan. For tract maps with from 51 to 99 units, there shall be at least four different floor plans. Tract maps with 100 units or more shall provide five different floor plans and an additional floor plan for every 100 dwelling units above 100 units. For development projects that are to constructed in phases, a phasing plan shall be submitted to assure that the requirements for the number of floor plans is being met.

5. Homes and garages shall be placed at varying distances from the street and have varying entry locations. Front yard setbacks shall average 20 feet and may be varied by up to 25%, in increments of any size. The minimum front yard setback shall not be less than 15 feet.

6. The colors and materials on adjacent residential structures should be varied to establish a separate identity for the dwellings. A variety of colors and textures of building materials is encouraged, while maintaining overall design continuity in the neighborhood. Color sample boards shall be submitted as a part of the application and review process.

7. All new residences with garages shall be provided with roll-up (i.e. on tracks) garage doors (either sectional wood or steel). At least 25% of the garage doors in any project should have windows.

NOTE: The requirements of this plot plan may be incorporated with any minor plot plan required by this subdivision's conditions of approval. However, this FINAL SITE DEVELOPMENT plot plan condition of approval shall be cleared individually.

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80. PRIOR TO BLDG PRMT ISSUANCE

80.PLANNING. 20

MAP - Walls/Fencing Plans

INEFFECT

The land divider/permit holder shall file seven (7) sets of a Wall/Fencing Plan to the County Planning Department for review and approval. Said plan shall be submitted to the Department in the form of a plot plan application pursuant to County Ordinance No. 348, Section 18.30.a.(1) (Plot Plans not subject to the California Environmental Quality Act and not subject to review by any governmental agency other than the Planning Department), along with the current fee. The plan shall be in compliance with Section 18.12, and the TENTATIVE MAP conditions of approval.

THE WALL/FENCING PLANS SHALL SUBSTANTIALLY CONFORM TO THE APPROVED EXHIBIT F.

A. The plan shall show all project fencing including, but not limited to, perimeter fencing, side and rear yard fencing, and open space or park fencing. A typical frontal view of all fences shall be shown on the fencing plan.

B. All utility service areas and enclosures shall be screened from view with landscaping or decorative barriers or baffle treatments, as approved by the Planning Department.

C. Front yard return walls shall be constructed of masonry (slump stone or material of similar appearance, maintenance, and structural durability) and shall be a minimum of five feet in height.

D. Side yard gates are required on one side of front yard, and shall be constructed of wrought iron, wood, vinyl or tubular steel. Side and rear yard fencing shall be masonry, slump stone or other material of similar appearance, maintenance, and structural durability. Chain link fencing is not permitted. All construction must be of good quality and sufficient durability with an approved stain and/or sealant to minimize water staining. (Applicants shall provide specifications that shall be approved by the Planning Department).

E. All new residences constructed on lots of less than 20,000 square feet shall include rear and side yard fencing constructed of masonry block that is a minimum of five (5) feet in height. The maximum height of walls or fencing shall be six (6) feet in height. In the desert areas, block walls are discouraged on the perimeter in favor of

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80.PLANNING. 20

MAP - Walls/Fencing Plans (cont.)

INEFFECT

increased setbacks with extensive drought tolerant landscaping, berms and fencing such as split rails.

F. Except for the desert areas, all lots having rear and/or side yards facing local streets or otherwise open to public view shall have fences or walls constructed of decorative block,

G. Corner lots shall be constructed with wrap-around decorative block wall returns. (Note: exceptions for the desert area discussed above.)

H. Side yard gates are required on one side of the home and shall be constructed of powder-coated wrought iron or tubular steel.

I. Wrought iron or tubular steel fence sections may be included within tracts where view opportunities and/or terrain warrant its use. Where privacy of views is not an issue, tubular steel or wrought iron sections should be constructed in perimeter walls in order to take advantage of casual view opportunities.

J. Return walls on Lots 1, 6, 12, 28, 30, 40, 44, 45, 49, 50, 63, 64, 70, 73, and 82 shall terminate at no more than 50% of the street side-yard frontage.

80.PLANNING. 21

MAP - ENTRY MONUMENT PLOT PLAN

INEFFECT

The land divider/permit holder shall file four (4) sets of an Entry Monument and Gate plot plan to the County Planning Department for review and approval. Said plan shall be submitted to the Department in the form of a plot plan application pursuant to County Ordinance No. 348, Section 18.30.a.(1) (Plot Plans not subject to the California Environmental Quality Act and not subject to review by any governmental agency other than the Planning Department), along with the current fee. The plan shall be in compliance with Section 18.12, and the TENTATIVE MAP conditions of approval.

The plot plan shall contain the following elements:

1. A color photosimulation of a frontal view of all/the entry monument(s) and gate(s) with landscaping.

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80. PRIOR TO BLDG PRMT ISSUANCE

80.PLANNING. 21 MAP - ENTRY MONUMENT PLOT PLAN (cont.) INEFFECT

2. A plot plan of the entry monuments) and/or gate(s) with landscaping drawn to an engineer's scale. If lighting is planned, the location of lights, their intended direction, and proposed power shall be indicated.

3. An irrigation plan for the entry monument(s) and/or gate(s).

NOTE: The requirements of this plot plan may be incorporated with any minor plot plan required by the conditions of approval for this subdivision. However, this ENTRY MONUMENT and GATES PLAN condition of approval shall be cleared individually.

80.PLANNING. 22 MAP - EXT ROW LS PLANS INEFFECT

Landscaping Plans for all exterior (perimeter) landscaping within the right-of-way, any right-of-way adjacent Open Space Areas/Lots, and entry medians shall be reviewed and approved by the Planning Department. These plans shall be in substantial conformance with the approved Comprehensive Landscaping Plan (EXHIBIT L).

80.PLANNING. 23 MAP - INT ROW LS PLANS INEFFECT

Landscape Plans for each phase of development for all project interior landscaping within the right-of-way and any right-of-way adjacent Open Space Areas/Lots shall be reviewed and approved by the Planning Department prior to the issuance of the first building permit (including models) within each phase of development. The plans shall be in substantial conformance with the approved Comprehensive Landscape Plan (EXHIBIT L).

80.PLANNING. 24 MAP - SLOPE LS INSTALL INEFFECT

Landscaping required on any private side or rear yard slope greater than three feet (3') in height shall be fully installed.

80.PLANNING. 25 MAP - OFF-SITE ROW LS PLANS INEFFECT

Landscape Plans for off-site right-of-way along Stable Lane Way and Arnett Road shall be reviewed and approved by the Planning Department. These plans shall be in substantial conformance with the approved Comprehensive Landscape Plan

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80. PRIOR TO BLDG PRMT ISSUANCE

80.PLANNING. 25 MAP - OFF-SITE ROW LS PLANS (cont.) INEFFECT
(EXHIBIT L).

TRANS DEPARTMENT

80.TRANS. 3 MAP - GARAGE DOOR 1 INEFFECT

Garage door setbacks for all residential zones shall be 20 feet for roll up doors, measured from the street right-of-way to the face of garage. If conventional swing out doors are used, an additional 4 feet will be required. Side entry garages shall comply with minimum building setback requirements.

90. PRIOR TO BLDG FINAL INSPECTION

BS GRADE DEPARTMENT

90.BS GRADE. 1 MAP-G4.1E-CL 4:1 OR STEEPER INEFFECT

Plant and irrigate all manufactured slopes steeper than a 4:1 (horizontal to vertical) ratio and 3 feet or greater in vertical height with grass or ground cover; slopes 15 feet or greater in vertical height shall be planted with additional shrubs or trees as approved by the Building & Safety Department's Erosion Control Specialist.

90.BS GRADE. 2 MAP-G4.2 1/2"/FT/3FT MIN INEFFECT

Finish grade shall be sloped to provide proper drainage away from all exterior foundation walls. The slope shall be not less than one-half inch per foot for a distance of not less than 3 feet from any point of exterior foundation. Drainage swales shall not be less than 1 1/2 inches deeper than the adjacent finish grade at the foundation.

FLOOD RI DEPARTMENT

90.FLOOD RI. 2 MAP BMP - EDUCATION INEFFECT

The developer shall distribute environmental awareness education materials on general good housekeeping practices that contribute to protection of stormwater quality to all initial residents. The developer may obtain NPDES Public Educational Program materials from the District's NPDES Section by either the District's website www.floodcontrol.co.riverside.ca.us, e-mail

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90. PRIOR TO BLDG FINAL INSPECTION

90.FLOOD RI. 2 MAP BMP - EDUCATION (cont.) INEFFECT

fcnpdes@co.riverside.ca.us, or the toll free number 1-800-506-2555. Please provide Project number, number of units and location of development. Note that there is a five-day minimum processing period requested for all orders.

The developer must provide to the District's PLAN CHECK Department a notarized affidavit stating that the distribution of educational materials to the tenants is assured prior to the issuance of occupancy permits.

90.FLOOD RI. 3 MAP IMPLEMENT WQMP INEFFECT

All structural BMPs described in the project-specific WQMP shall be constructed and installed in conformance with approved plans and specifications. It shall be demonstrated that the applicant is prepared to implement all non-structural BMPs described in the approved project specific WQMP and that copies of the approved project-specific WQMP are available for the future owners/occupants. The District will not release occupancy permits for any portion of the project exceeding 80% of the total recorded residential lots within the map or phase within the map prior to the completion of these tasks.

90.FLOOD RI. 4 MAP FACILITY COMPLETION INEFFECT

The District will not release occupancy permits for any residential lot within the map or phase within the map until downstream drainage facilities are functional. The District will not release occupancy permits for any lot exceeding the 80% of the total recorded residential lots within the map or phase within the map prior to the District's acceptance of the downstream drainage system for operation and maintenance.

PLANNING DEPARTMENT

90.PLANNING. 3 MAP - LANDSCAPING COMPLIANCE INEFFECT

The land divider/permit holder's landscape architect or other state licensed party responsible for preparing the landscape and irrigation plans shall provide a Compliance Letter to the County Planning Department and the County Department of Building and Safety stating that the landscape and irrigation system has been installed in

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90. PRIOR TO BLDG FINAL INSPECTION

90.PLANNING. 3 MAP - LANDSCAPING COMPLIANCE (cont.) INEFFECT

compliance with the approved landscaping and irrigation plans. The Compliance letter shall be submitted at least three (3) working days prior to final inspection of the structure or issuance of occupancy permit, whichever comes first.

90.PLANNING. 4 MAP - QUIMBY FEES (2) INEFFECT

The land divider/permit holder shall present certification to the Riverside County Planning Department that payment of parks and recreation fees and/or dedication of land for park use in accordance with Section 10.35 of County Ordinance No. 460 has taken place. Said certification shall be obtained from the County of Riverside Economic Development Agency (EDA) for CSA No. 152A.

90.PLANNING. 5 MAP - CONCRETE DRIVEWAYS INEFFECT

The land divider/permit holder shall cause all driveways to be constructed of cement concrete.

90.PLANNING. 6 MAP - FENCING COMPLIANCE INEFFECT

Fencing shall be provided throughout the subdivision in accordance with the approved final site development plans.

90.PLANNING. 11 MAP - SKR FEE CONDITION INEFFECT

Prior to the issuance of a certificate of occupancy, or upon building permit final inspection, whichever comes first, the land divider/permit holder shall comply with the provisions of Riverside County Ordinance No. 663, which generally requires the payment of the appropriate fee set forth in that ordinance. The amount of the fee required to be paid may vary, depending upon a variety of factors, including the type of development application submitted and the applicability of any fee reduction or exemption provisions contained in Riverside County Ordinance No. 663. Said fee shall be calculated on the approved development project which is anticipated to be 31.4 acres (gross) in accordance with TENTATIVE MAP. If the development is subsequently revised, this acreage amount may be modified in order to reflect the revised development project acreage amount. In the event Riverside County Ordinance No. 663 is rescinded, this condition will no longer be applicable. However, should Riverside County

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Parcel: 380-120-002

90. PRIOR TO BLDG FINAL INSPECTION

90.PLANNING. 11 MAP - SKR FEE CONDITION (cont.) INEFFECT

Ordinance No. 663 be rescinded and superseded by a subsequent mitigation fee ordinance, payment of the appropriate fee set forth in that ordinance shall be required.

90.PLANNING. 13 MAP- ROLL-UP GARAGE DOORS INEFFECT

All residences shall have automatic roll-up garage doors.

90.PLANNING. 14 MAP - EXT ROW LS INSTALL INEFFECT

Landscaping for all exterior (perimeter) landscaping within the right-of-way, any right-of-way adjacent Open Space Areas/Lots, and entry medians shall be fully installed prior to the first building final inspection clearance (including any model). Landscaping shall be installed in conformance with the approved landscaping plans.

90.PLANNING. 15 MAP - INT ROW LS INSTALL INEFFECT

Landscaping for all interior landscaping within the right-of-way and any right-of-way adjacent Open Space Areas/Lots shall be fully installed prior to the first building final inspection clearance (not including models) for each phase of development. Landscaping shall be installed in conformance with the approved landscaping plans.

90.PLANNING. 16 MAP - OFF-SITE ROW LS INSTALL INEFFECT

Off-site landscaping within the right-of-way along Stable Lane Way and Arnett Road shall be fully installed prior to the first building final inspection clearance (including any model). Landscaping shall be installed in conformance with the approved landscape plans.

TRANS DEPARTMENT

90.TRANS. 1 MAP - 80% COMPLETION INEFFECT

Occupancy releases will not be issued to Building and Safety for any lot exceeding 80% of the total recorded residential lots within any map or phase of map prior to completion of the following improvements:

- a) Primary and Alternate (secondary) access roads

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Parcel: 380-120-002

90. PRIOR TO BLDG FINAL INSPECTION

90.TRANS. 1 MAP - 80% COMPLETION (cont.) INEFFECT

shall be completed and paved to finish grade according to the limits indicated in the improvement plans and as noted elsewhere in these conditions.

- b) Interior roads shall be completed and paved to finish grade according to the limits indicated in the improvement plans and as noted elsewhere in these conditions. All curbs, gutters, sidewalks and driveway approaches shall be installed.
- c) Storm drains and flood control facilities shall be completed according to the improvement plans and as noted elsewhere in these conditions. Written confirmation of acceptance for use by the Flood Control District, if applicable, is required.
- d) Water system, including fire hydrants, shall be installed and operational, according to the improvement plans and as noted elsewhere in these conditions. All water valves shall be raised to pavement finished grade. Written confirmation of acceptance from water purveyor is required.
- e) Sewer system shall be installed and operational, according to the improvement plans and as noted elsewhere in these conditions. All sewer manholes shall be raised to pavement finished grade. Written confirmation of acceptance from sewer purveyor is required.
- f) Landscaping and irrigation, water and electrical systems shall be installed and operational in accordance with County Ordinance 461.

90.TRANS. 3 MAP - STREET SWEEPING INEFFECT

Street sweeping annexation or inclusion into CSA or similar mechanism as approved by the Transportation Department shall be completed.

90.TRANS. 4 MAP - STREET LIGHTS INSTALL INEFFECT

Install streetlights along the streets associated with development in accordance with the approved street lighting plan and standards of County Ordinance 460 and 461. For

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90. PRIOR TO BLDG FINAL INSPECTION

90.TRANS. 4 MAP - STREET LIGHTS INSTALL (cont.) INEFFECT

projects within Imperial Irrigation District (IID) use (IID's) pole standard.

Street light annexation into L&LMD or similar mechanism as approved by the Transportation Department shall be completed.

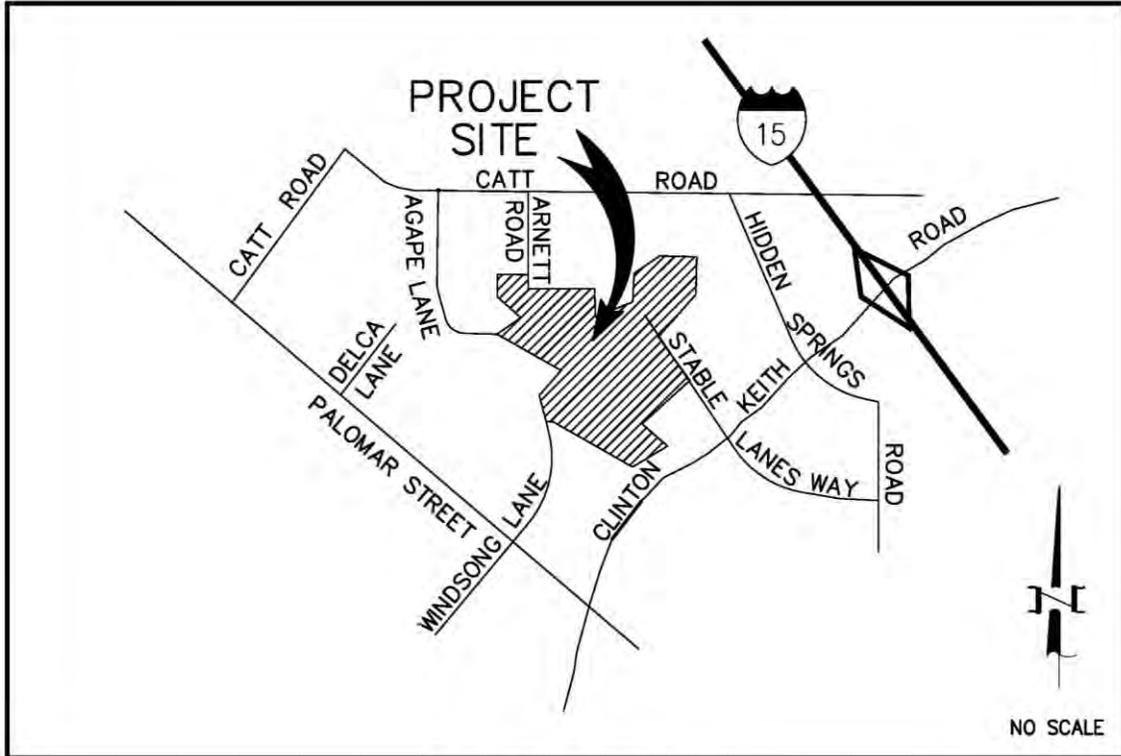
It shall be the responsibility of the Developer to ensure that streetlights are energized along the streets of those lots where the Developer is seeking Building Final Inspection (Occupancy).

90.TRANS. 5 MAP - UTILITY INSTALL INEFFECT

Electrical power, telephone, communication, street lighting, and cable television lines shall be placed underground in accordance with ordinance 460 and 461, or as approved by the Transportation Department. This also applies to existing overhead lines which are 33.6 kilovolts or below along the project frontage and between the nearest poles offsite in each direction of the project site.

A certificate should be obtained from the pertinent utility company and submitted to the Department of Transportation as proof of completion.

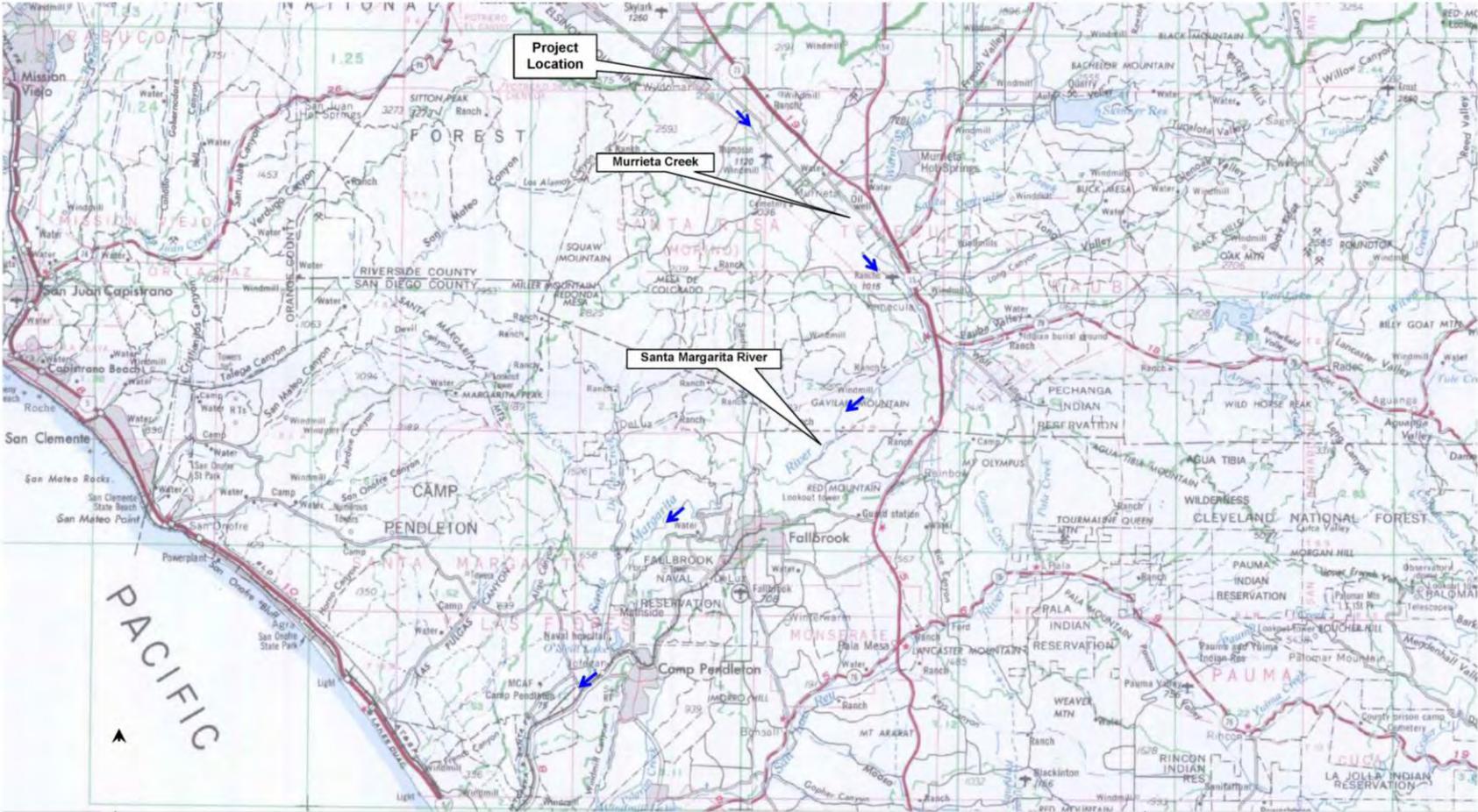
B. Vicinity Map, Receiving Waters Exhibit and Site Plan



VICINITY MAP

NOT TO SCALE
THOMAS GUIDE 2010
PAGE 927, E-1&2
SEC. 1, T. 7S., R. 4W

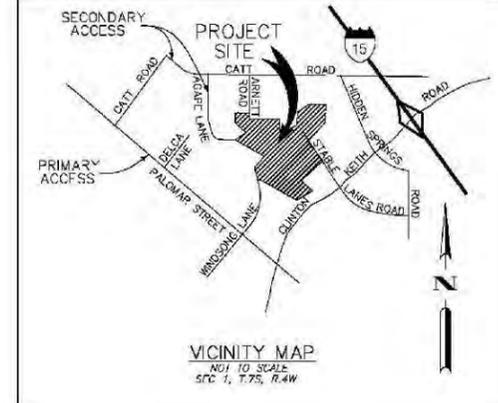
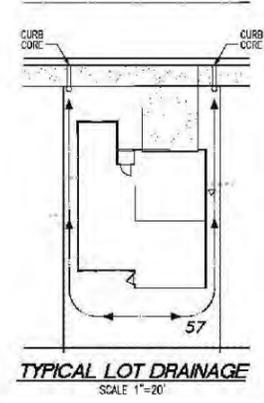
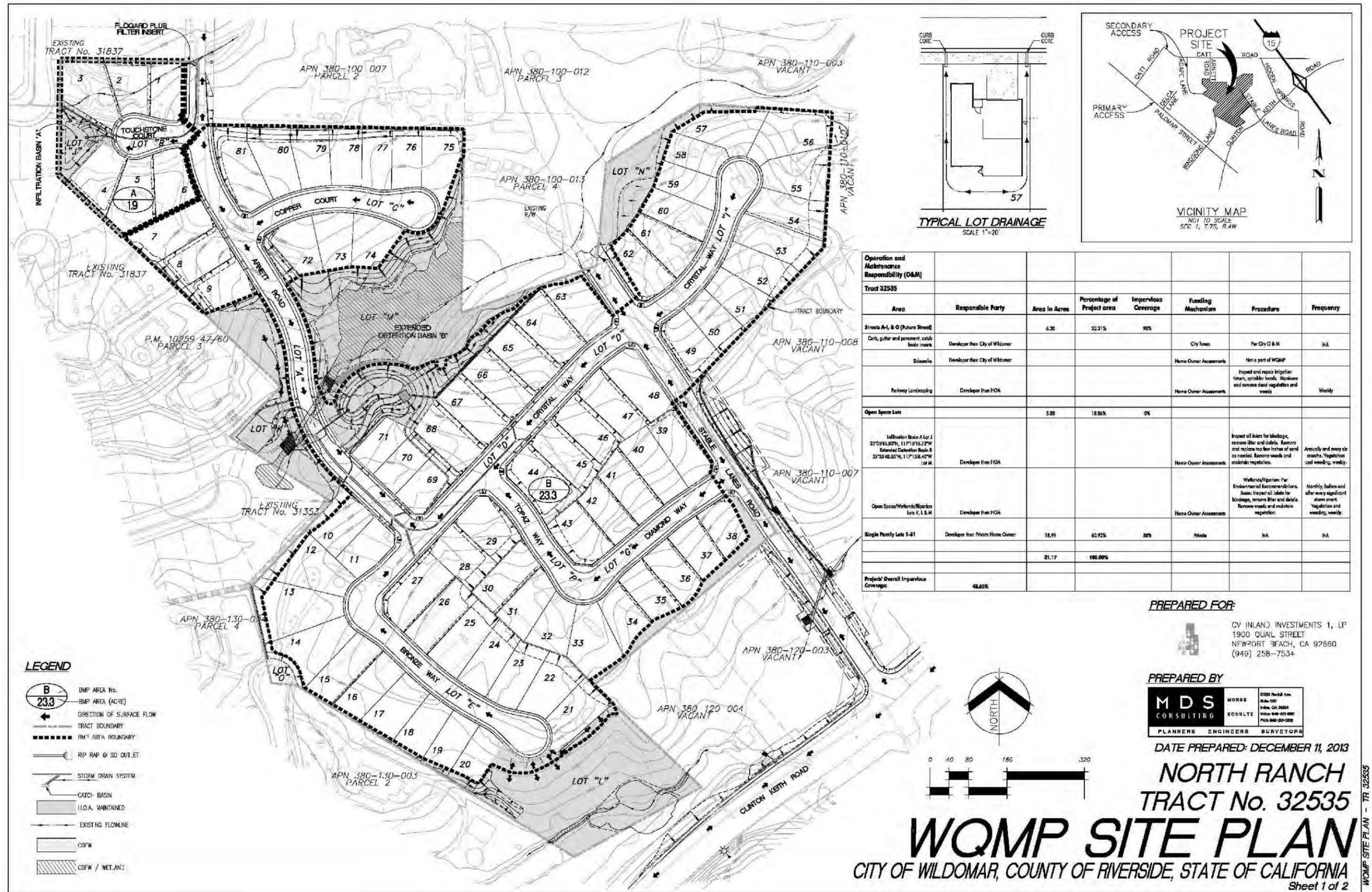
Project-Specific Water Quality Management Plan (WQMP)
North Ranch Tract No. 32535



N.T.S.

**RECEIVING WATERS EXHIBIT
FOR
TRACT 32535
CITY OF WILDOMAR
RIVERSIDE COUNTY, CA**





Operation and Maintenance Responsibility (O&M)						
Tract 32535						
Area	Responsible Party	Area in Acres	Percentage of Project area	Impervious Coverage	Funding Mechanism	Procedure
Streets A-I, & Q (Future Street)		6.30	20.2%	95%	City Taxes	Per City O&M
Curb, gutter and pavement catch basin inlets	Developer then City of Wildomar				Home Owner Assessment	Not a part of WQMP
Sidewalks	Developer then City of Wildomar				Home Owner Assessment	Inspect and repair irrigation timers, sprinkler heads. Maintain and remove dead vegetation and weeds
Rightway Landscaping	Developer then HOA				Home Owner Assessment	Weekly
Open Space Lots		5.88	18.86%	0%		
Infiltration Basin A Lot J 33°59'43.87"N, 117°18'12.22"W Extended Detention Basin B 33°58'40.55"N, 117°15'48.42"W Lot M	Developer then HOA				Home Owner Assessment	Inspect all inlets for blockage, remove filter and debris. Remove and replace top few inches of sand as needed. Remove weeds and maintain vegetation.
Open Space/Wetland/Retention Lots K, L & M	Developer then HOA				Home Owner Assessment	Wetland/Vegetation: Per Environmental Recommendations. Inspect all inlets for blockage, remove filter and debris. Remove weeds and maintain vegetation.
Single Family Lots 1-41	Developer then Home Owner	18.91	60.92%	30%	Home	NA
		31.17	100.00%			
Project Overall Impervious Coverage:		48.65%				

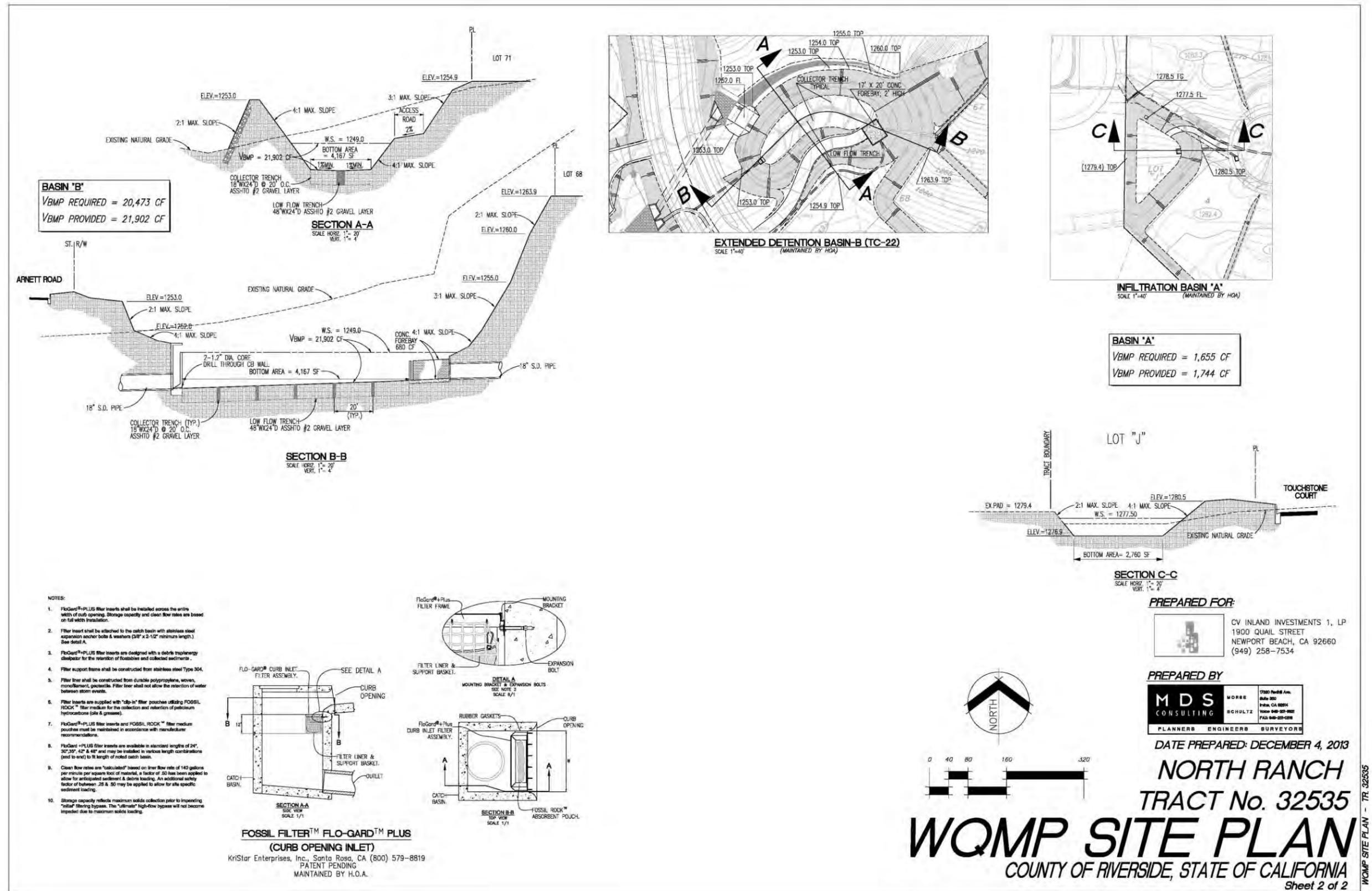
- LEGEND**
- BMP AREA No. B
 - BMP AREA (ACRE) 23.3
 - DIRECTION OF SURFACE FLOW
 - TRACT BOUNDARY
 - BMP AREA BOUNDARY
 - RIP RAP @ SD OUTLET
 - STORM DRAIN SYSTEM
 - CATCH BASIN (I.O.A. MAINTAINED)
 - EXISTING FLOWLINE
 - CDFW
 - CDFW / WETLAND

PREPARED FOR:
CV INLAND INVESTMENTS 1, LP
1900 QUAIL STREET
NEWPORT BEACH, CA 92660
(949) 258-7534

PREPARED BY:
MDS CONSULTING
PLANNERS ENGINEERS SURVEYORS

DATE PREPARED: DECEMBER 11, 2013

NORTH RANCH TRACT No. 32535
WQMP SITE PLAN
CITY OF WILDOMAR, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA
Sheet 1 of 2



C. Supporting Detail Related to Hydrologic Conditions of Concern

PROJECT WILL MEET CONDITION "A", AS ADDRESSED IN SECTION IV OF THIS WQMP.

D. Educational Materials

After the Storm

*A Citizen's Guide to
Understanding Stormwater*



What is stormwater runoff?



Stormwater runoff occurs when precipitation from rain or snowmelt flows over the ground. Impervious surfaces like driveways, sidewalks, and streets prevent stormwater from naturally soaking into the ground.

Why is stormwater runoff a problem?



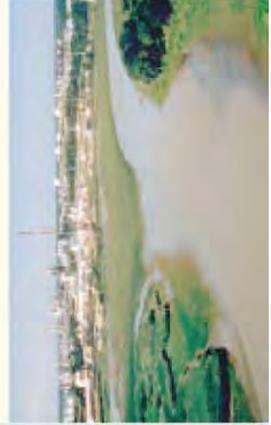
Stormwater can pick up debris, chemicals, dirt, and other pollutants and flow into a storm sewer system or directly to a lake, stream, river, wetland, or coastal water. Anything that enters a storm sewer system is discharged untreated into the waterbodies we use for swimming, fishing, and providing drinking water.

The effects of pollution



Polluted stormwater runoff can have many adverse effects on plants, fish, animals, and people.

- ◆ Sediment can cloud the water and make it difficult or impossible for aquatic plants to grow. Sediment also can destroy aquatic habitats.
- ◆ Excess nutrients can cause algae blooms. When algae die, they sink to the bottom and decompose in a process that removes oxygen from the water. Fish and other aquatic organisms can't exist in water with low dissolved oxygen levels.
- ◆ Bacteria and other pathogens can wash into swimming areas and create health hazards, often making beach closures necessary.
- ◆ Debris—plastic bags, six-pack rings, bottles, and cigarette butts—washed into waterbodies can choke, suffocate, or disable aquatic life like ducks, fish, turtles, and birds.
- ◆ Household hazardous wastes like insecticides, pesticides, paint, solvents, used motor oil, and other auto fluids can poison aquatic life. Land animals and people can become sick or die from eating diseased fish and shellfish or ingesting polluted water.
- ◆ Polluted stormwater often affects drinking water sources. This, in turn, can affect human health and increase drinking water treatment costs.



Stormwater Pollution Solutions

Residential



Recycle or properly dispose of household products that contain chemicals, such as insecticides, pesticides, paint, solvents, and used motor oil and other auto fluids. Don't pour them onto the ground or into storm drains.

Lawn care

Excess fertilizers and pesticides applied to lawns and gardens wash off and pollute streams. In addition, yard clippings and leaves can wash into storm drains and contribute nutrients and organic matter to streams.



- ◆ Don't overwater your lawn. Consider using a soaker hose instead of a sprinkler.
- ◆ Use pesticides and fertilizers sparingly. When use is necessary, use these chemicals in the recommended amounts. Use organic mulch or safer pest control methods whenever possible.
- ◆ Compost or mulch yard waste. Don't leave it in the street or sweep it into storm drains or streams.
- ◆ Cover piles of dirt or mulch being used in landscaping projects.

Septic systems

Leaking and poorly maintained septic

systems release nutrients and pathogens (bacteria and viruses) that can be picked up by stormwater and discharged into nearby waterbodies. Pathogens can cause public health problems and environmental concerns.

- ◆ Inspect your system every 3 years and pump your tank as necessary (every 3 to 5 years).
- ◆ Don't dispose of household hazardous waste in sinks or toilets.



Auto care

Washing your car and degreasing auto parts at home can send detergents and other contaminants through the storm sewer system. Dumping automotive fluids into storm drains has the same result as dumping the materials directly into a waterbody.

- ◆ Use a commercial car wash that treats or recycles its wastewater, or wash your car on your yard so the water infiltrates into the ground.
- ◆ Repair leaks and dispose of used auto fluids and batteries at designated drop-off or recycling locations.

Pet waste

Pet waste can be a major source of bacteria and excess nutrients in local waters.

- ◆ When walking your pet, remember to pick up the waste and dispose of it properly. Flushing pet waste is the best disposal method. Leaving pet waste on the ground increases public health risks by allowing harmful bacteria and nutrients to wash into the storm drain and eventually into local waterbodies.



Education is essential to changing people's behavior. Signs and markers near storm drains warn residents that pollutants entering the drains will be carried untreated into a local waterbody.

Residential landscaping

Permeable Pavement—Traditional concrete and asphalt don't allow water to soak into the ground. Instead these surfaces rely on storm drains to divert unwanted water. Permeable pavement systems allow rain and snowmelt to soak through, decreasing stormwater runoff.

Rain Barrels—You can collect rainwater from rooftops in mosquito-proof containers. The water can be used later on lawn or garden areas.



Rain Gardens and Grassy Swales—Specially designed areas planted

with native plants can provide natural places for rainwater to collect and soak into the ground. Rain from rooftop areas or paved areas can be diverted into these areas rather than into storm drains.



Vegetated Filter Strips—Filter strips are areas of native grass or plants created along roadways or streams. They trap the pollutants stormwater picks up as it flows across driveways and streets.



Dirt, oil, and debris that collect in parking lots and paved areas can be washed into the storm sewer system and eventually enter local waterbodies.

- ◆ Sweep up litter and debris from sidewalks, driveways and parking lots, especially around storm drains.
- ◆ Cover grease storage and dumpsters and keep them clean to avoid leaks.
- ◆ Report any chemical spill to the local hazardous waste cleanup team. They'll know the best way to keep spills from harming the environment.



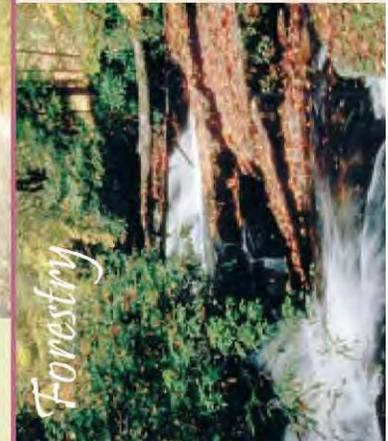
Erosion controls that aren't maintained can cause excessive amounts of sediment and debris to be carried into the stormwater system. Construction vehicles can leak fuel, oil, and other harmful fluids that can be picked up by stormwater and deposited into local waterbodies.

- ◆ Divert stormwater away from disturbed or exposed areas of the construction site.
- ◆ Install silt fences, vehicle mud removal areas, vegetative cover, and other sediment and erosion controls and properly maintain them, especially after rainstorms.
- ◆ Prevent soil erosion by minimizing disturbed areas during construction projects, and seed and mulch bare areas as soon as possible.



Lack of vegetation on streambanks can lead to erosion. Overgrazed pastures can also contribute excessive amounts of sediment to local waterbodies. Excess fertilizers and pesticides can poison aquatic animals and lead to destructive algae blooms. Livestock in streams can contaminate waterways with bacteria, making them unsafe for human contact.

- ◆ Keep livestock away from streambanks and provide them a water source away from waterbodies.
- ◆ Store and apply manure away from waterbodies and in accordance with a nutrient management plan.
- ◆ Vegetate riparian areas along waterways.
- ◆ Rotate animal grazing to prevent soil erosion in fields.
- ◆ Apply fertilizers and pesticides according to label instructions to save money and minimize pollution.



Improperly managed logging operations can result in erosion and sedimentation.

- ◆ Conduct preharvest planning to prevent erosion and lower costs.
- ◆ Use logging methods and equipment that minimize soil disturbance.
- ◆ Plan and design skid trails, yard areas, and truck access roads to minimize stream crossings and avoid disturbing the forest floor.
- ◆ Construct stream crossings so that they minimize erosion and physical changes to streams.
- ◆ Expedite revegetation of cleared areas.



Uncovered fueling stations allow spills to be washed into storm drains. Cars waiting to be repaired can leak fuel, oil, and other harmful fluids that can be picked up by stormwater.

- ◆ Clean up spills immediately and properly dispose of cleanup materials.
- ◆ Provide cover over fueling stations and design or retrofit facilities for spill containment.
- ◆ Properly maintain fleet vehicles to prevent oil, gas, and other discharges from being washed into local waterbodies.
- ◆ Install and maintain oil/water separators.



For more information contact:

or visit

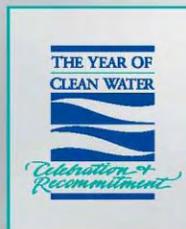
www.epa.gov/npdes/stormwater
www.epa.gov/nps



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January 2003

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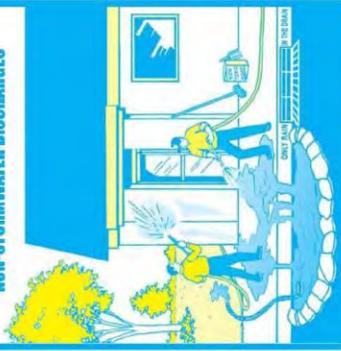


Stormwater Pollution

What you should know for...

OUTDOOR CLEANING ACTIVITIES

NON-STORMWATER DISCHARGES



For information:

LOCAL SEWERING AGENCIES

IN RIVERSIDE COUNTY:

- City of Beaumont (909) 769-8520
- Bellar Homeowners Association (909) 277-1114
- City of Banning (909) 822-3130
- City of Blythe (909) 822-6161
- City of Elythe (760) 367-6009
- Coacoma Valley Water District (760) 398-2651
- City of Corona (909) 727-3203
- Desert Center, CSA #51 (909) 828-3777
- Eastern Municipal Water District (909) 244-1198
- Elmore Valley MWD (909) 659-2143
- Farm Mutual Water Company (909) 658-7134
- Juipua Community Services Dist. (909) 658-3241
- Lake Hemet MWD (909) 277-1114
- Lee Lake Water District (909) 655-7000
- March Air Force Base (760) 329-6448
- Wilson Springs Water District (760) 323-8942
- City of Palm Springs (909) 793-9772
- Rancho Caballero (909) 892-4000
- Rancho California Water Dist. (909) 864-7580
- Rubidoux Community Services Dist. (909) 782-5391
- City of Riverside (909) 847-3501
- Shirley Valley Club, Inc (909) 847-2356
- Western Municipal Water District (909) 780-4170

- SPILL RESPONSE AGENCY: (909) 358-5055
- HAZ-MAT: (909) 358-5055
- TO REPORT ILLEGAL DUMPING OR A CLOGGED STORM DRAIN: 1-800-506-2555



Riverside County gratefully acknowledges the Bay Area Stormwater Management Agencies Association and the Cleaning Equipment Trade Association for information provided in this brochure.

Do you know... where the water should go?



Riverside County has two drainage systems - sanitary sewers and storm drains. The storm drain system is designed to prevent flooding by carrying excess rainwater away from streets... it's not designed to be a waste disposal system. Since the storm drain system does not provide for water treatment, it often serves the unintended function of transporting pollutants directly to our waterways.

Unlike sanitary sewers, storm drains are not connected to a treatment plant - they flow directly to our local streams, rivers and lakes.

Non-stormwater discharges such as washwater generated from outdoor cleaning projects often transport harmful pollutants into storm drains and our local waterways. Polluted runoff contaminates local waterways and poses a threat to groundwater resources.

Soaps, degreasers, automotive fluids, litter, and a host of other materials washed off buildings, sidewalks, plazas, parking areas, vehicles, and equipment can all pollute our waterways.

The Cities and County of Riverside StormWater/CleanWater Protection Program

Since preventing pollution is much easier, and less costly than cleaning up "after the fact," the Cities and County of Riverside StormWater/CleanWater Protection Program informs residents and businesses of pollution prevention activities such as those described in this pamphlet.

The Cities and County of Riverside have adopted ordinances for stormwater management and discharge control. In accordance with state and federal law, these local stormwater ordinances prohibit the discharge of wastes into the storm drain system or local surface waters. This includes non-stormwater discharges containing oil, grease, detergents, degreasers, paint, or other waste materials.



PLEASE NOTE: The discharge of pollutants into the street, gutters, storm drain system, or waterways - without a Regional Water Quality Control Board permit or waiver - is strictly prohibited by local ordinances and state and federal law.

Help Protect Our Waterways!

Use These Guidelines for Outdoor Cleaning Activities and Washwater Disposal

DO . . . Dispose of **small amounts of washwater from cleaning building exteriors, sidewalks, or plazas** onto landscaped or unpaved surfaces provided you have the owner's permission and the discharge will not cause flooding or nuisance problems, or flow into a storm drain.

DO NOT . . . Discharge **large amounts of these types of washwater** onto landscaped areas or soil where water may run to a street or storm drain. Washwater from exterior cleaning may be pumped to a sewer line with specific permission from the local sewerage agency.

DO . . . Check with your local sewerage agency's policies and requirements concerning waste water disposal. **Water from many outdoor cleaning activities** may be acceptable for disposal to the sewer system. See the list on the back of this flyer for phone numbers of the sewerage agencies in your area.

DO NOT . . . Pour **hazardous wastes or toxic materials** into the storm drain or sewer system. **Properly dispose of it instead.** When in doubt, contact the local sewerage agency! The agency will tell you what types of liquid wastes can be accepted.

DO . . . Understand that **water (without soap) used to remove dust from clean vehicles** may be discharged to a street or storm drain. **Washwater from sidewalk, plaza, and building surface cleaning** may go into a street or storm drain if **ALL** of the following conditions are met:

- 1) The surface being washed is free of residual oil stains, debris and similar pollutants by using dry cleanup methods (sweeping, and cleaning any oil or chemical spills with rags or other absorbent materials before using water).
- 2) Washing is done with water only - no soap or other cleaning materials.
- 3) You have not used the water to remove paint from surfaces during cleaning.

DO NOT . . . Dispose of **water containing soap or any other type of cleaning agent** into a storm drain or water body. This is a strict violation of state and/or local regulations. **Exclude washwater from cleaning parking areas or roadways** normally contains metallic brake pad dust, oil and other automotive fluids. It should never be discharged to a street, gutter, or storm drain.

DO . . . Understand that **mobile auto detailers** should divert washwater to landscaped or dirt areas. Note: Be aware that soapy washwater may adversely affect landscaping; consult with the property owner. Residual washwater may remain on paved surfaces to evaporate; sweep up any remaining residue. If there is sufficient water volume to reach the storm drain, collect the runoff and obtain permission to pump it into the sanitary sewer. Follow local sewerage agency's requirements for disposal.

DO NOT . . . Dispose of left over cleaning agents into the gutter, storm drain or sanitary sewer.

Regarding Cleaning Agents:

If you must use soap, use biodegradable/phosphate free cleaners. Avoid use of petroleum based cleaning products. Although the use of non-toxic cleaning products is strongly encouraged, do understand that these products can still degrade water quality and, therefore, the discharge of these products into



the street, gutters, storm drain system, or waterways is prohibited by local ordinances and the State Water Code.

Note: When cleaning surfaces with a high pressure washer or steam cleaning methods, additional precautions should be taken to prevent the discharge of pollutants into the storm drain system. These two methods of surface cleaning, as compared to the use of a low pressure hose, can remove additional materials that can contaminate local waterways.

OTHER TIPS TO HELP PROTECT OUR WATER . . .

SCREENING WASH WATER

A thorough dry cleanup before washing (without soap) surfaces such as building exteriors and docks without loose paint, sidewalks, or plaza areas, should be sufficient to protect storm drains. However, if any debris (solids) could enter storm drains or remain in the gutter or street after cleaning, washwater should first pass through a "20 mesh" or finer screen to catch the solid material, which should then be disposed of in the trash.

DRAIN INLET PROTECTION/CONTAINING & COLLECTING WASH WATER

- Sand bags can be used to create a barrier around storm drain inlets.
- Plugs or rubber mats can be used to temporarily seal storm drain openings.
- You can also use vacuum booms, containment pads, or temporary barriers to keep wash water away from the street, gutter, or storm drain.

EQUIPMENT AND SUPPLIES

Special materials such as absorbents, storm drain plugs and seals, small sump, pumps, and vacuum booms are available from many vendors. For more information check catalogs such as New Pig (800-469-4647), Lab Safety Supply (800-356-0783), C&H (800-538-9866), and W.V. Granger (800-994-9174) or call the Cleaning Equipment Trade Association (800-441-0111) or the Power Washers of North America (800-393-PWNA).

Stormwater Pollution Found in Your Area!

This is not a citation.

This is to inform you that our staff found the following pollutants in the storm sewer system in your area. This storm sewer system leads directly to

- Motor oil
- Oil filters
- Antifreeze/
transmission fluid
- Paint
- Solvent/degreaser
- Cooking grease
- Detergent
- Home improvement waste (concrete,
mortar)
- Pet waste
- Yard waste (leaves, grass, mulch)
- Excessive dirt and
gravel
- Trash
- Construction debris
- Pesticides and
fertilizers
- Other

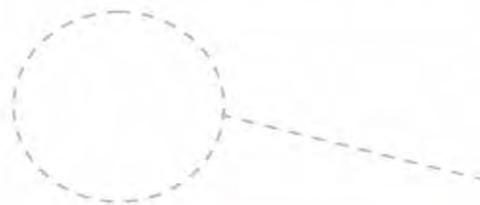


**For more information or to report
an illegal discharge of
pollutants, please call:**



www.epa.gov/npdes/stormwater

EPA 833-F-03-002
April 2003



Stormwater runoff is precipitation from rain or snowmelt that flows over the ground. As it flows, it can pick up debris, chemicals, dirt, and other pollutants and deposit them into a storm sewer system or waterbody.

Anything that enters a storm sewer system is discharged *untreated* into the waterbodies we use for swimming, fishing, and providing drinking water.

**Remember:
Only Rain Down the Drain**

To keep the stormwater leaving your home or workplace clean, follow these simple guidelines:

- ◆ Use pesticides and fertilizers sparingly.
- ◆ Repair auto leaks.
- ◆ Dispose of household hazardous waste, used auto fluids (antifreeze, oil, etc.), and batteries at designated collection or recycling locations.
- ◆ Clean up after your pet.
- ◆ Use a commercial car wash or wash your car on a lawn or other unpaved surface.
- ◆ Sweep up yard debris rather than hosing down areas. Compost or recycle yard waste when possible.
- ◆ Clean paint brushes in a sink, not outdoors. Properly dispose of excess paints through a household hazardous waste collection program.
- ◆ Sweep up and properly dispose of construction debris like concrete and mortar.





Protecting Water Quality from **URBAN RUNOFF**

Clean Water Is Everybody's Business

In urban and suburban areas, much of the land surface is covered by buildings and pavement, which do not allow rain and snowmelt to soak into the ground. Instead, most developed areas rely on storm drains to carry large amounts of runoff from roofs and paved areas to nearby waterways. The stormwater runoff carries pollutants such as oil, dirt, chemicals, and lawn fertilizers directly to streams and rivers, where they seriously harm water quality. To protect surface water quality and groundwater resources, development should be designed and built to minimize increases in runoff.

How Urbanized Areas Affect Water Quality Increased Runoff

The porous and varied terrain of natural landscapes like forests, wetlands, and grasslands traps rainwater and snowmelt and allows them to filter slowly into the ground. In contrast, impervious (nonporous) surfaces like roads, parking lots, and rooftops prevent rain and snowmelt from infiltrating, or soaking, into the ground. Most of the rainfall

The most recent National Water Quality Inventory reports that runoff from urbanized areas is the leading source of water quality impairments to surveyed estuaries and the third-largest source of impairments to surveyed lakes.

Did you know that because of impervious surfaces like pavement and rooftops, a typical city block generates more than 5 times more runoff than a woodland area of the same size?

and snowmelt remains above the surface, where it runs off rapidly in unnaturally large amounts.

Storm sewer systems concentrate runoff into smooth, straight conduits. This runoff gathers speed and erosional power as it travels underground. When this runoff leaves the storm drains and empties into a stream, its excessive volume and power blast out streambanks, damaging streamside vegetation and wiping out aquatic habitat. These increased storm flows carry sediment loads from construction sites and other denuded surfaces and eroded streambanks. They often carry higher water temperatures from streets, roof tops, and parking lots, which are harmful to the health and reproduction of aquatic life.

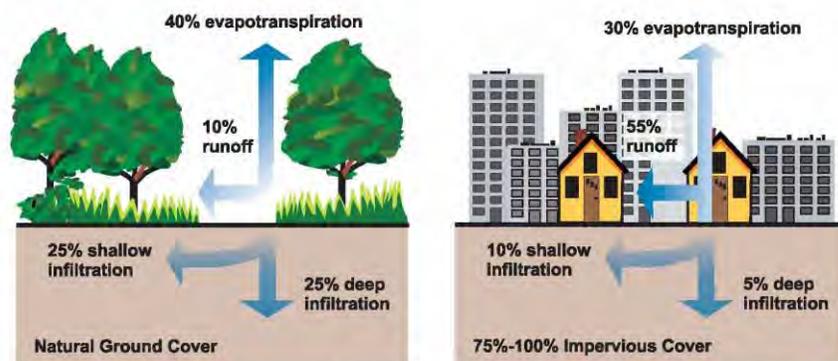
The loss of infiltration from urbanization may also cause profound groundwater changes. Although urbanization leads to great increases in flooding during and immediately after wet weather, in many instances it results in lower stream flows during dry weather. Many native fish and other aquatic life cannot survive when these conditions prevail.

Increased Pollutant Loads

Urbanization increases the variety and amount of pollutants carried into streams, rivers, and lakes. The pollutants include:

- Sediment
- Oil, grease, and toxic chemicals from motor vehicles
- Pesticides and nutrients from lawns and gardens
- Viruses, bacteria, and nutrients from pet waste and failing septic systems
- Road salts
- Heavy metals from roof shingles, motor vehicles, and other sources
- Thermal pollution from dark impervious surfaces such as streets and rooftops

These pollutants can harm fish and wildlife populations, kill native vegetation, foul drinking water supplies, and make recreational areas unsafe and unpleasant.



Relationship between impervious cover and surface runoff. Impervious cover in a watershed results in increased surface runoff. As little as 10 percent impervious cover in a watershed can result in stream degradation.

Managing Urban Runoff What Homeowners Can Do

To decrease polluted runoff from paved surfaces, households can develop alternatives to areas traditionally covered by impervious surfaces. Porous pavement materials are available for driveways and sidewalks, and native vegetation and mulch can replace high maintenance grass lawns. Homeowners can use fertilizers sparingly and sweep driveways, sidewalks, and roads instead of using a hose. Instead of disposing of yard waste, they can use the materials to start a compost pile. And homeowners can learn to use Integrated Pest Management (IPM) to reduce dependence on harmful pesticides.

In addition, households can prevent polluted runoff by picking up after pets and using, storing, and disposing of chemicals properly. Drivers should check their cars for leaks and recycle their motor oil and antifreeze when these fluids are changed. Drivers can also avoid impacts from car wash runoff (e.g., detergents, grime, etc.) by using car wash facilities that do not generate runoff. Households served by septic systems should have them professionally inspected

and pumped every 3 to 5 years. They should also practice water conservation measures to extend the life of their septic systems.

Controlling Impacts from New Development

Developers and city planners should attempt to control the volume of runoff from new development by using low impact development, structural controls, and pollution prevention strategies. Low impact development includes measures that conserve natural areas (particularly sensitive hydrologic areas like riparian buffers and infiltrable soils); reduce development impacts; and reduce site runoff rates by maximizing surface roughness, infiltration opportunities, and flow paths.

Controlling Impacts from Existing Development

Controlling runoff from existing urban areas is often more costly than controlling runoff from new developments. Economic efficiencies are often realized through approaches that target "hot spots" of runoff pollution or have multiple benefits, such as high-efficiency street sweeping (which addresses aesthetics, road safety,

and water quality). Urban planners and others responsible for managing urban and suburban areas can first identify and implement pollution prevention strategies and examine source control opportunities. They should seek out priority pollutant reduction opportunities, then protect natural areas that help control runoff, and finally begin ecological restoration and retrofit activities to clean up degraded water bodies. Local governments are encouraged to take lead roles in public education efforts through public signage, storm drain marking, pollution prevention outreach campaigns, and partnerships with citizen groups and businesses. Citizens can help prioritize the clean-up strategies, volunteer to become involved in restoration efforts, and mark storm drains with approved "don't dump" messages.



Related Publications

Turn Your Home into a Stormwater Pollution Solution!

www.epa.gov/nps

This web site links to an EPA homeowner's guide to healthy habits for clean water that provides tips for better vehicle and garage care, lawn and garden techniques, home improvement, pet care, and more.

National Management Measures to Control Nonpoint Source Pollution from Urban Areas

www.epa.gov/owow/nps/urbanmm

This technical guidance and reference document is useful to local, state, and tribal managers in implementing management programs for polluted runoff. Contains information on the best available, economically achievable means of reducing pollution of surface waters and groundwater from urban areas.

Onsite Wastewater Treatment System Resources

www.epa.gov/owm/onsite

This web site contains the latest brochures and other resources from EPA for managing onsite wastewater treatment systems (OWTS) such as conventional septic systems and alternative decentralized systems. These resources provide basic information to help individual homeowners, as well as detailed, up-to-date technical guidance of interest to local and state health departments.

Low Impact Development Center

www.lowimpactdevelopment.org

This center provides information on protecting the environment and water resources through integrated site design techniques that are intended to replicate preexisting hydrologic site conditions.

Stormwater Manager's Resource Center (SMRC)

www.stormwatercenter.net

Created and maintained by the Center for Watershed Protection, this resource center is designed specifically for stormwater practitioners, local government officials, and others that need technical assistance on stormwater management issues.

Strategies: Community Responses to Runoff Pollution

www.nrdc.org/water/pollution/storm/stoinx.asp

The Natural Resources Defense Council developed this interactive web document to explore some of the most effective strategies that communities are using around the nation to control urban runoff pollution. The document is also available in print form and as an interactive CD-ROM.

For More Information

U.S. Environmental Protection Agency
Nonpoint Source Control Branch (4503T)
1200 Pennsylvania Avenue, NW
Washington, DC 20460

www.epa.gov/nps

February 2003



Water-Efficient Landscaping:



Preventing
Pollution &
Using Resources
Wisely

A Message from the Administrator



Christine Todd Whitman

I believe water is the biggest environmental issue we face in the 21st Century in terms of both quality and quantity. In the 30 years since its passage, the Clean Water Act has dramatically increased the number of waterways that are once again safe for fishing and swimming. Despite this great progress in

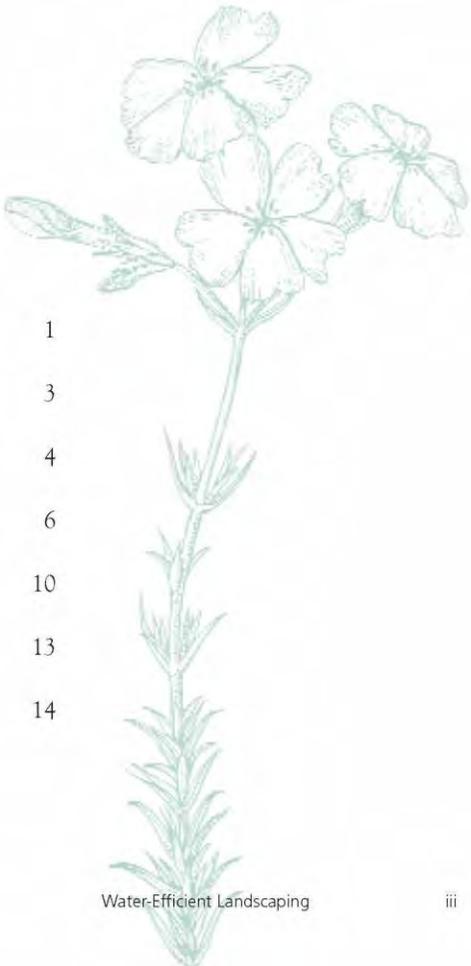
reducing water pollution, many of the nation's waters still do not meet water quality goals. I challenge you to join with me to finish the business of restoring and protecting our nation's waters for present and future generations.

United States Environmental Protection Agency
Office of Water (4204M)
EPA832-F-02-002
September 2002
www.epa.gov/owm/water-efficiency/index.htm



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Water-Efficient Landscaping



What is Water-efficient Landscaping?

Water, many agree, is our most precious natural resource; without it, life ceases. Yet judging by our water use and consumption practices, many of us in the United States seem to take it for granted. A typical household uses approximately 260 gallons of water per day. "Water conscious" individuals often install high-efficiency shower heads and toilets and wash only full loads of clothes and dishes to reduce consumption. But in the summer, the amount of water used outdoors by a household can exceed the amount used for all other purposes in the entire year. This is especially true in hot, dry climates.

Gardening and lawn care account for the majority of this seasonal increase, but other outdoor activities, such as washing cars and filling swimming pools, also contribute. According to the U.S. Geological Survey, of the 26 billion gallons of water consumed daily in the United States¹, approximately 7.8 billion gallons, or 30 percent², is devoted to outdoor uses. The majority of this is used for landscaping. In fact, it is estimated that the typical suburban lawn consumes 10,000 gallons of water above and beyond rainwater each year (Vickers, p 140).

Many mistakenly believe that stunning gardens and beautiful lawns are only possible through extensive watering, fertilization, and pesticide application. As this booklet will demonstrate, eye-catching gardens and landscapes that save water, prevent pollution, and

protect the environment are, in fact, easily achieved by employing water-efficient landscaping. Water-efficient landscaping produces attractive landscapes because it utilizes designs and plants suited to local conditions.

This booklet describes the benefits of water-efficient landscaping. It includes several examples of successful projects and programs, as well as contacts, references, and a short bibliography. For specific information about how to best apply water-efficient landscaping principles to your geographical area, consult with your county



Xeriscape garden at Denver Water

extension service and local garden and nursery centers. Local governments and water utilities also possess a wealth of information and suggestions for using water more efficiently in all aspects of your life, including landscaping.

1 W.B. Solley, R.R. Pierce, and H.A. Perlman. 1998. *Estimated Use of Water in the United States in 1995* (USGS Circular 1200). USGS. Reston, VA. p.27.

2 Amy Vickers. 2001. *Handbook of Water Use and Conservation*. WaterPlow Press. Amherst, MA. p. 140.



Xeriscaped front yard in Colorado Springs

Many terms and schools of thought have been used to describe approaches to water-efficient landscaping. Some examples include “water-wise,” “water-smart,” “low-water,” and “natural landscaping.” While each of these terms varies in philosophy and approach, they are all based on the same principles and are commonly used interchangeably. One of the first conceptual approaches developed to formalize these principles is known as “Xeriscape³ landscaping.” Xeriscape landscaping is defined as “quality landscaping that conserves water and protects the environment.” The word “Xeriscape” was coined and copyrighted by

Denver Water Department in 1981 to help make water conserving landscaping an easily recognized concept. The word is a combination of the Greek word “xeros,” which means “dry,” and “landscape.”

The seven principles upon which Xeriscape landscaping is based are:

- Proper planning and design
- Soil analysis and improvement
- Appropriate plant selection
- Practical turf areas
- Efficient irrigation
- Use of mulches
- Appropriate maintenance

The eight fundamentals of water-wise landscaping, below, illustrate the similarities in the underlying concepts and principles of Xeriscape landscaping and other water-efficient approaches.

- Group plants according to their water needs.
- Use native and low-water-use plants.
- Limit turf areas to those needed for practical uses.
- Use efficient irrigation systems.
- Schedule irrigation wisely.
- Make sure soil is healthy.
- Remember to mulch.
- Provide regular maintenance.

In short, plan and maintain your landscape with these principles of water efficiency in mind and it will continue to conserve water and be attractive.

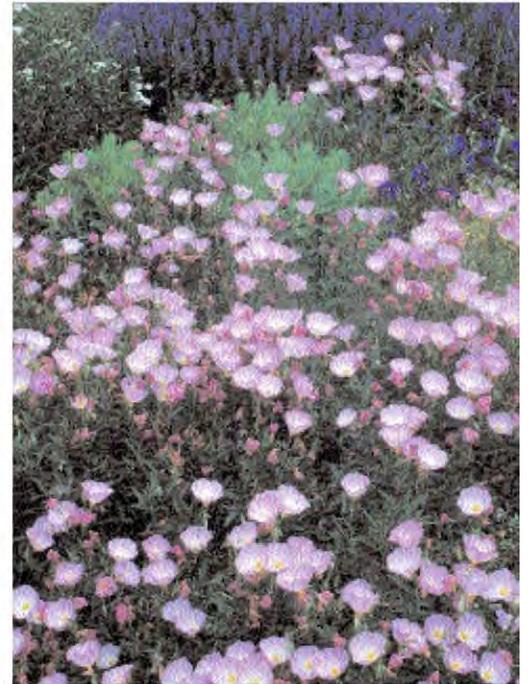
³ Denver Water welcomes the use of the term Xeriscape in books, articles, and speeches promoting water conserving landscape. EPA is using this term with permission from Denver Water. For permission to use “Xeriscape” in your publications, call Denver Water at 303 628-6330.

Why Use Water-efficient Landscaping?

Proper landscaping techniques not only create beautiful landscapes, but also benefit the environment and save water. In addition, attractive, water-efficient, low-maintenance landscapes can increase home values.

Water-efficient landscaping offers many economic and environmental benefits, including:

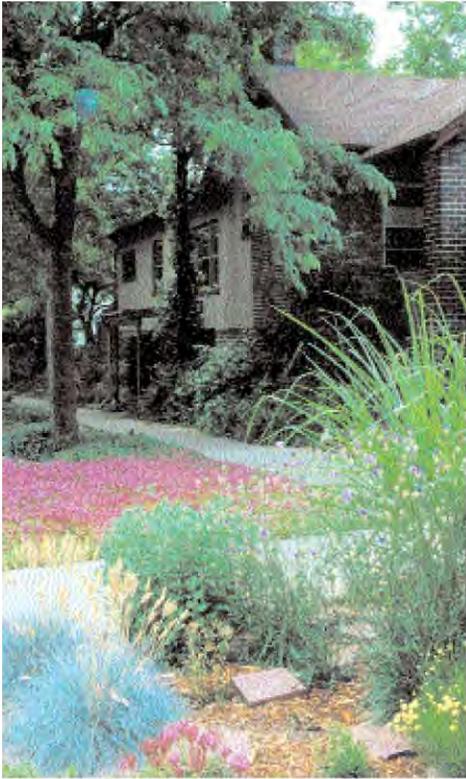
- Lower water bills from reduced water use.
- Conservation of natural resources and preservation of habitat for plants and wildlife such as fish and waterfowl.
- Decreased energy use (and air pollution associated with its generation) because less pumping and treatment of water is required.
- Reduced home or office heating and cooling costs through the careful placement of trees and plants.
- Reduced runoff of stormwater and irrigation water that carries top soils, fertilizers, and pesticides into lakes, rivers, and streams.
- Fewer yard trimmings to be managed or landfilled.
- Reduced landscaping labor and maintenance costs.
- Extended life for water resources infrastructure (e.g., reservoirs, treatment plants, groundwater aquifers), thus reduced taxpayer costs.



Meadow Sage (*Salvia pratensis*) is the background for New Mexico Evening Primrose (*Oenothera berlandieri* 'siskiyou')

How is Water-efficient Landscaping Applied?

Landscaping that conserves water and protects the environment is not limited to arid landscapes with only rocks and cacti.



Dragon's Blood Sedum (Sedum spurium) under Honeylocust Trees (Gleditsia triacanthos)

Through careful planning, landscapes can be designed to be both pleasing to the senses and kind to the environment. One simple approach to achieving this is applying and adopting the basic principles of water-efficient landscaping to suit your climatic region. The seven principles of Xeriscape landscaping are used below to describe these basic concepts in greater detail.

Proper planning and design

Developing a landscape plan is the first and most important step in creating a water-efficient landscape. Your plan

water-efficient landscapes and allow you to continually improve your landscape over time.

Soil analysis and improvements

Because soils vary from site to site, test your soil before beginning your landscape improvements. Your county extension service can analyze the pH levels; nutrient levels (e.g., nitrogen, phosphorus, potassium); and the sand, silt, clay, and organic matter content of your soil. It can also suggest ways to improve your soil's ability to support plants and retain water (e.g., through aeration or the addition of soil amendments or fertilizers).

Appropriate plant selection

Your landscape design should take into account your local climate as well as soil conditions. Focus on preserving as many existing trees and shrubs as possible because established plants usually require less water and maintenance. Choose plants native to your region. Native plants, once established, require very little to no additional water beyond normal rainfall. Also, because they are adapted to local soils and climatic conditions, native plants commonly do not require the addition of fertilizers and are more resistant to pests and disease.

When selecting plants, avoid those labeled "hard to establish," "susceptible to disease," or "needs frequent attention," as these types of plants frequently require large amounts of supplemental water, fertilizers, and pesticides. Be careful when selecting non-indigenous species as some of them may become invasive. An invasive plant might be a water guzzler and will surely choke out native species. Your state or county extension service or local nursery can help you select appropriate plants for your area.

The key to successful planting and transplanting is getting the roots to grow into the surrounding soil as quickly as possible. Knowing when and where to plant is crucial to speeding the establishment of new plants. The best time to plant will vary from species to species. Some plants will thrive when planted in a dormant or inactive state. Others succeed when planted during the season when root generation is highest and sufficient moisture is available to support new growth (generally, spring is the best season, but check plant tags or consult with your local nursery for specific species).

Practical turf areas

How and where turf is placed in the landscape can significantly reduce the amount of irrigation water needed to support the landscape. Lawns require a large amount of supplemental water and generally greater maintenance than other vegetation. Use turf where it aesthetically highlights the house or buildings and where it has practical function, such as in play or recreation areas. Grouping turf areas can increase watering efficiency and significantly reduce evaporative and runoff losses. Select a type of grass that can withstand drought periods and become dormant during hot, dry seasons. Reducing or eliminating turf areas altogether further reduces water use.

Efficient irrigation

Efficient irrigation is a very important part of using water efficiently outdoors, and applies in any landscape—whether Xeriscape or conventional. For this reason, an entire section of this booklet addresses efficient irrigation; it can be found on page 6.

Use of mulches

Mulches aid in greater retention of water by minimizing evaporation, reducing weed growth, moderating soil temperatures, and preventing erosion. Organic mulches also improve the condition of your soil as they decompose. Mulches are typically composed of wood bark chips, wood grindings, pine straws, nut shells, small



Wine Cup (Callirhoe involucrata) and Sunset Hyssop (Agastache rupestris) in the Denver Water Xeriscape Garden

gravel, or shredded landscape clippings. Avoid using rock mulches in sunny areas or around non-arid climate plants, as they radiate large amounts of heat and promote water loss that can lead to scorching. Too much mulch can restrict water flow to plant roots and should be avoided.

Appropriate maintenance

Water and fertilize plants only as needed. Too much water promotes weak growth and increases pruning and mowing requirements. Like any landscape, a water-efficient yard will require regular pruning, weeding, fertilization, pest control, and irrigation. As your water-efficient landscape matures, however, it will require less maintenance and less water. Cutting turf grass only when it reaches two to three inches promotes deeper root growth and a more drought-resistant lawn. As a rule of thumb, mow your turf grass before it requires more than one inch to be removed. The proper cutting height varies, however, with the type of grass, so you should contact your county extension service or local nursery to find out the ideal cutting height for your lawn. Avoid shearing plants or giving them high nitrogen fertilizers during dry periods because these practices encourage water-demanding new growth.

Water-efficient Landscape Irrigation Methods

With common watering practices, a large portion of the water applied to lawns and gardens is not absorbed by the plants. It is lost through evaporation, runoff, or being pushed beyond the root zone because it is applied too quickly or in excess of the plants' needs. The goal of efficient irrigation is to reduce these losses by applying only as much water as is needed to keep your plants healthy. This goal is applicable whether you have a Xeriscape or a conventional landscape.

To promote the strong root growth that supports a plant during drought, water deeply and only when the plant needs water. For clay soils, watering less deeply and more often is recommended. Irrigating with consideration to soil

type, the condition of your plants, the season, and weather conditions—rather than on a fixed schedule—significantly increases your watering efficiency. Grouping plants according to similar water needs also makes watering easier and more efficient.

Irrigating lawns, gardens, and landscapes can be accomplished either manually or with an automatic irrigation system. Manual watering with a hand-held hose tends to be the most water-efficient method. According to the AWWA Research Foundation's outdoor end use study, households that manually water with a hose typically use 33 percent less water outdoors than the average household. The study also showed that households with in-ground sprinkler systems used 35 percent more water, those with automatic timers used 47 percent more water, and those with drip irrigation systems used 16 percent more water than households without these types of systems. These results show that in-ground sprinkler and drip irrigation systems must be operated properly to be water-efficient.

You can use a hand-held hose or a sprinkler for manual irrigation. To reduce water losses from evaporation and wind, avoid sprinklers that produce a fine mist or spray high into the air. Soaker hoses can also be very efficient and effective when used properly. Use a hand-held soil moisture probe to determine when irrigation is needed.

To make automatic irrigation systems more efficient, install system controllers such as rain sensors that prevent sprinkler systems from turning on during and immediately after rainfall, or soil moisture sensors that activate sprinklers only when soil moisture levels drop below pre-programmed levels. You can also use a weather-



Purple Fountain Grass (Pennisetum setaceum "Rubrum") and Marigolds (Calendula officinalis) in planter bed

driven programming system. Drip-type irrigation systems are considered the most efficient of the automated irrigation methods because they deliver water directly to the plants' roots. It is also important to revise your watering schedule as the seasons change. Over-watering is most common during the fall when summer irrigation schedules have not been adjusted to the cooler temperatures.

To further reduce your water consumption, consider using alternative sources of irrigation water, such as gray water, reclaimed water, and collected rainwater. According to the AWWA Research Foundation, homes with access to alternative sources of irrigation reduce their water bills by as much as 25 percent.⁴ Graywater is untreated household waste water from bathroom sinks, showers, bathtubs, and clothes washing machines. Graywater systems pipe this used water to a storage tank for later outdoor watering use. State and local graywater laws and policies vary, so you should investigate what qualifies as gray water and if any limitations or restrictions apply. Reclaimed water is waste water that has been treated to levels suitable for nonpotable uses. Check with local water officials to determine if it is available in your area. Collected rainwater is rainwater collected in cisterns, barrels, or storage tanks. Commercial rooftop collection systems are available, but simply diverting your downspout into a covered

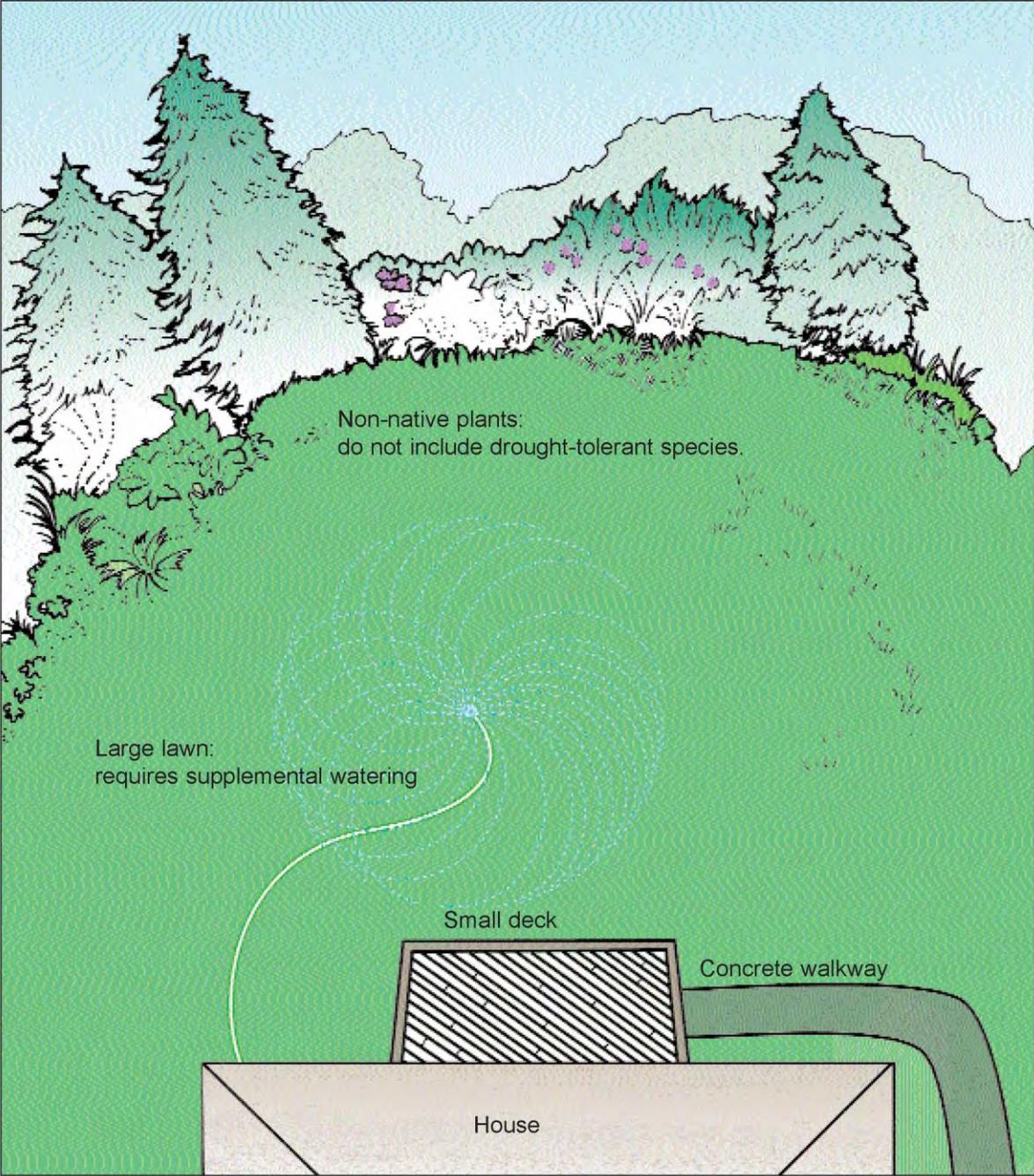


Red Valerian (Centranthus ruber)

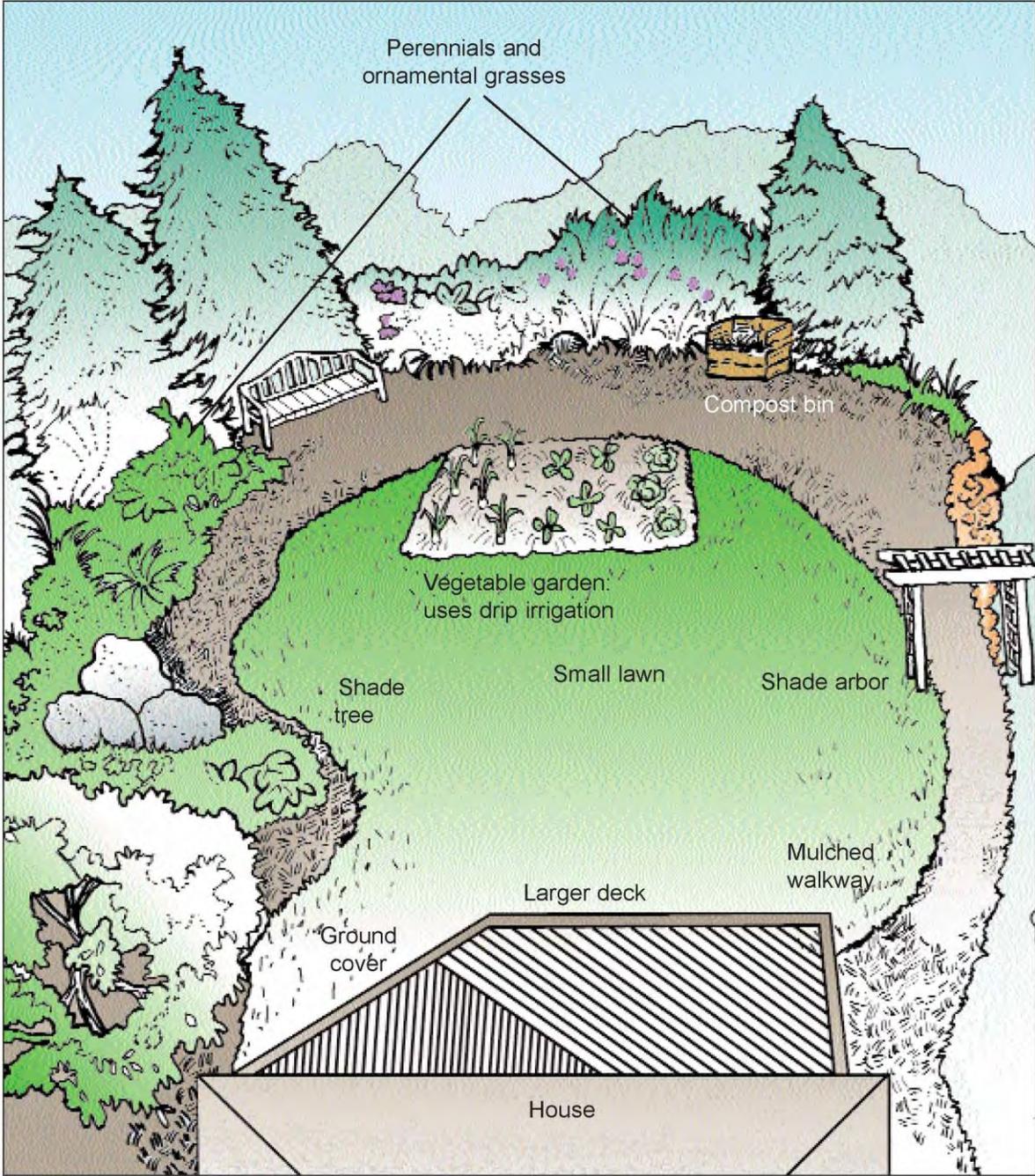
barrel is an easy, low-cost approach. When collecting rainwater, cover all collection vessels to prevent animals and children from entering and to prevent mosquito breeding. Some states might have laws which do not allow collection of rainwater, so be sure to check with your state's water resource agency before implementing a rainwater collection system.

⁴ AWWA Research Foundation. 1999. *Residential End Uses of Water*. <www.waterwiser.org>

Non-xeriscaping



Xeriscaping



Examples of Successful Water-efficient Landscaping Projects

Water-efficient landscaping techniques can be used by individuals, companies, state, tribal, and local governments, and businesses to physically enhance their properties, reduce long-term maintenance costs, and create environmentally conscious landscapes. The following examples illustrate how water-efficient landscapes can be used in various situations.



Oriental Poppies (Papaver orientale)

Homeowner–public/private partnership

- The South Florida Water Management District, the Florida Nurserymen and Growers Association, the Florida Irrigation Society, and local businesses worked together to produce a television video called “Plant It Smart with Xeriscape.” The video shows how a typical Florida residential yard can be retrofitted with Xeriscape landscaping to save energy, time,

and money. The showcase yard (selected from 70 applicants) had a history of heavy water use—more than 90,000 gallons per month. After the retrofit, the yard’s aesthetic value was enhanced; plus it now uses 75 percent less water and relies on yard trimmings for mulch and compost.

- The Southwest Florida Water Management District (SWFWMD), the City of St. Petersburg, and Pinellas County, Florida, produced a video called “Xeriscape It!” It shows a landscape being installed using the seven Xeriscape principles. The SWFWMD also funded several Xeriscape demonstration sites and maintains a Xeriscape demonstration garden at its Brooksville, Florida, headquarters. The garden features a variety of native and non-native plants and is available for public viewing, along with a landscape plant identification guide.
- Residents of Glendale, Arizona, can receive a \$100 cash rebate for installing or converting more than half of their landscapable area to non-grass vegetation. The Glendale Water Conservation Office conducts an inspection of the converted lawn to ensure compliance with rebate requirements and then issues a rebate check to the homeowner. The purpose of the Landscape Rebate Program is to permanently reduce the amount of water used to irrigate grass throughout Glendale.

State government

- Although perceived as a water-rich state, Florida became the first to enact a statewide Xeriscape law. Florida’s legislature recognized that its growing population and vulnerable environment necessitated legal safeguards for its water resources. The Xeriscape law requires Florida’s Departments of Management Ser-

vices and Transportation to use Xeriscape landscaping on all new public properties and to develop a 5-year program to phase in Xeriscape on properties constructed before July 1992. All local governments must also consider requiring the use of Xeriscape and offering incentives to install Xeriscaping.

- Texas also developed legislation requiring Xeriscape landscaping on new construction projects on state property beginning on or after January 1994. Additional legislation, enacted in 1995, requires the Department of Transportation to use Xeriscape practices in the construction and maintenance of roadside parks. All municipalities may consider enacting ordinances requiring Xeriscape to conserve water.

City government

In Las Vegas, Nevada, homeowners can receive up to \$1,000 for converting their lawn to Xeriscape, while commercial landowners can receive up to a \$50,000 credit on their water bill. The city and several other surrounding communities hope these eye-catching figures will help Las Vegas meet its goal of saving 25 percent of the water it would otherwise have used by the year 2010; to date, it has saved 17 percent. Local officials plan to reach the target with the assistance of incentive programs encouraging Xeriscape, a city ordinance limiting turf to no more than 50 percent of new landscapes, grassroots information programs, and a landscape awards program specifically for Xeriscaped properties. Preliminary results of a five-year study show that residents who converted a portion of their lawns to Xeriscape reduced total water consumption by an average of 33 percent. The xeric vegetation required less than a quarter of the water typically used and one-third the maintenance (both in labor and expenditures) compared to traditional turf.



Yellow Ice Plant (Delosperma nubigenum) close-up

Developers

Howard Hughes Properties (HHP), a developer and manager of more than 25,000 acres of residential, commercial, and office development property, has enthusiastically used drought tolerant landscaping on all of its properties since 1990. Most of the company's properties are located in Las Vegas, one of the country's fastest growing metropolitan areas. To conserve resources, the city and county have implemented regulations requiring developers to employ certain Xeriscape principles in new projects. Specifically, a limited percentage of grass can be used on projects, and it must be kept away from streets. As the area's first large-scale developer to recognize the need and value in incorporating drought tolerant landscaping in parks, streetscapes, and open spaces, HHP uses native and desert-adaptive plants that survive and thrive in the Las Vegas climate with minimal to moderate amounts of water.

Drip system irrigation controllers are linked to weather stations that monitor the evapotranspiration rate. This allows HHP to determine the correct amount of water to be applied to plants at any given time. HHP tests the irrigation systems regularly and adds appropriate soil amendments to promote healthy plant growth. The maintenance program also includes pest management, the use of mulching mowers, and the use of rock mulch top dressing on all non-turf planting areas. These measures combine to ensure a beautiful, healthy, and responsible landscape.

Public/private partnerships

Even the most water-conscious homeowners in Southern California are over-watering by 50 to

70 gallons per day. The excess water washes away fertilizers and pesticides, which pollute natural waterways. The quantity of water wasted (and the dollars that pay for it) are even more substantial for large-scale commercial properties and developments.

An innovative partnership in Orange County links landscape water management, green mate-

rial management, and non-point source pollution prevention goals into one program—the Landscape Performance Certification Program. This program emphasizes efficient landscape irrigation and features a “landscape irrigation budget” based on a property’s landscape area, type, and the daily weather. The Municipal Water District monitors actual water use through a system of 12,000 dedicated water meters installed by participating landscape managers.

Participants, including landscapers, property managers, and homeowner associations, can compare the actual cost of water used on their property with the calculated budget. Those staying within budget are awarded certification, a proven marketing tool. This new voluntary program is implemented by the Municipal Water District with input from the California Landscape Contractors’ Association, the Orange County Integrated Management Department, the Metropolitan Water District of Southern California, and local nurseries and has the support of 32 retailing water suppliers. The program is already credited with increasing the use of arid-climate shrubs and landscaping to accommodate drip irrigation, and has resulted in cost savings to water customers.



Miscanthus sinensis
(Miscanthus grass, also called Maiden grass) variety with leaves turning yellow for fall.



For More Information

The following list of organizations can provide more information on water-efficient landscaping. This is not meant to be an exhaustive list, rather it is intended to help you locate local information sources and possible technical assistance.

Water Management Districts or Utilities

Your local water management district often can provide information on water conservation, including water efficient landscaping practices. Your city, town, or county water management district can be found in the Blue Pages section of your local phone book or through your city, town, or county's Web site if it has one. If you do not know your city, town, or county's Web site, check for a link on your state's Web site. URLs for state Web sites typically follow this format: <www.state.(two letter state abbreviation).us>.

State/County Extension Services

Your state or county extension service is also an excellent source of information. Many extension services provide free publications and advice on home landscaping issues including tips on plant selection and soil improvement. Some also offer a soil analysis service for a nominal fee. Your county extension service can be found in the Blue Pages section of your local phone book under the county government section or through your county's Web site if it has one. The U.S. Department of Agriculture's Cooperative State Research, Education, and Extension Service (www.ree.usda.gov/statepartners/usa.htm) provides an online directory of land-grant universities which can help you locate your state extension service. Government Guide (www.governmentguide.com) is yet another online resource that might prove helpful in locating state or local agencies.

Organizations

The following is a partial list of organizations located across the United States that provide helpful information on water-efficient landscaping.

American Water Works Association (AWWA)

6666 West Quincy Avenue
Denver, CO 80235
Telephone: 303 794-7711

and

1401 New York Avenue, NW, Suite 640
Washington, DC 20005
Telephone: 202 628-8303
Web: <www.awwa.org>

Arizona Municipal Water Users Association (AMWUA)

Web: <www.amwua.org/program-xeriscape.htm>

BASIN

City of Boulder Environmental Affairs
P.O. Box 791
Boulder, CO 80306
Phone: 303 441-1964
E-mail: basin@bcn.boulder.co.us
Web: <bcn.boulder.co.us/basin/local/seven.html>

Denver Water

1600 West 12th Avenue
Denver, CO 80204
Phone: 303 628-6000
Fax: 303 628-6199
TDDY: 303 534-4116
Office of Water Conservation hotline:
303 628-6343

E-mail: jane.earle@denverwater.org
Web: <www.water.denver.co.gov/conservation/conservframe.html>

New Mexico Water Conservation Program/Water Conservation Clearinghouse

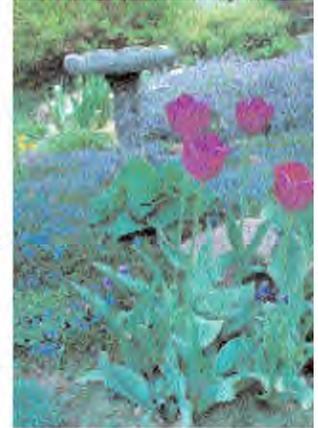
P. O. Box 25102
Santa Fe, NM 87504
Phone: 800 WATER-NM
E-mail: waternm@ose.state.nm.us
Fax: 505 827-3813
Web: <www.ose.state.nm.us/water-info/conservation/index.html>

Project WET - Water Education for Teachers

201 Culbertson Hall
Montana State University
Bozeman, MT 59717
Phone: 406 994-5392
Web: <www.montana.edu/wwwwet>

Rocky Mountain Institute

1739 Snowmass Creek Road
Snowmass, CO 81654-9199
Phone: 970 927-3851
Web: <www.rmi.org>



Turkish Speedwell (Veronica livianensis) in background and tulips in foreground.

Southern Nevada Water Authority
1001 S. Valley View Boulevard, Mailstop #440
Las Vegas, NV 89153
Phone: 702 258-3930
Web: <www.snwa.com>

Southwest Florida Water Management District
2379 Broad Street
Brooksville, FL 34604-6899
Phone: 352 796-7211 or 800 423-1476 (Florida only)
Web: <www.swfwmd.state.fl.us/watercon/xeris/swfxeris.html>

Sustainable Sources Green Building Program: Sustainable Building Source Book
E-mail: info@greenbuilder.com
Web: <www.greenbuilder.com/sourcebook/xeriscape.html>

Water Conservation Garden – San Diego County
12122 Cuyamaca College Drive West
El Cajon, CA 92019
Phone: 619 660-0614
Fax: 619 660-1687

E-mail: info@thegarden.org
Web: <www.thegarden.org/garden/xeriscape/index.html> and <www.sdcwa.org/manage/conservation-xeriscape.phtml>\

WaterWiser: The Water Efficiency Clearing House
(Operated by AWWA in cooperation with the U.S. Bureau of Reclamation)
6666 West Quincy Avenue
Denver, CO 80235
Phone: 800 559-9855
Fax: 303 794-6303
E-mail: bewiser@waterwiser.org
Web: <www.waterwiser.org>

Xeriscape Colorado!, Inc.
P.O. Box 40202
Denver, CO 80204-0202
Web: <www.xeriscape.org>

Resources

The following is a partial list of publications on resource efficient landscaping. For even more information, particularly on plants suited to your locale, consult your local library, county extension service, nursery, garden clubs, or water utility.

Ball, Ken and American Water Works Association Water Conservation Committee. *Xeriscape Programs for Water Utilities*. Denver: American Water Works Association, 1990.

Bennett, Jennifer. *Dry-Land Gardening: A Xeriscaping Guide for Dry-Summer, Cold-Winter Climates*. Buffalo: Firefly, 1998.

Bennett, Richard E. and Michael S. Hazinski. *Water-Efficient Landscape Guidelines*. Denver: American Water Works Association, 1993.

Brenzel, Kathleen N., ed. *Western Garden Book*, 2001 Edition. Menlo Park: Sunset Publishing Corporation, 2001.

City of Aurora, Colorado Utilities Department. *Landscaping for Water Conservation: Xeriscape!* Aurora: Colorado Utilities Department, 1989.

Johnson, Eric and Scott Millard. *The Low-Water Flower Gardener: 270 Unthirsty Plants for Color, Including Perennials, Ground Covers, Grasses & Shrubs*. Tucson: Ironwood Press, 1993.

Knopf, James M. *The Xeriscape Flower Gardener*. Boulder: Johnson Books, 1991.

Knopf, James M., ed. *Waterwise Landscaping with Trees, Shrubs, and Vines: A Xeriscape Guide for the Rocky Mountain Region, California, and the Desert Southwest*. Boulder: Chamisa Books, 1999.

Knox, Kim, ed. *Landscaping for Water Conservation: Xeriscape*. Denver: City of Aurora and Denver Water, 1989.

Nellis, David W. *Seashore Plants of South Florida and the Caribbean: A Guide to Identification and Propagation of Xeriscape Plants*. Sarasota: Pineapple Press, Inc., 1994.

Perry, Bob. *Landscape Plants for Western Regions: An Illustrated Guide to Plants for Water Conservation*. Claremont: Land Design Publishing, 1992.

Phillips, Judith. *Natural by Design: Beauty and Balance in Southwest Gardens*. Santa Fe: Museum of New Mexico Press, 1995.

- Phillips, Judith. *Plants for Natural Gardens: Southwestern Native & Adaptive Trees, Shrubs, Wildflowers & Grasses*. Santa Fe: Museum of New Mexico Press, 1995.
- Robinette, Gary O. *Water Conservation in Landscape Design and Maintenance*. New York: Nostrand Reinhold, 1984.
- Rumary, Mark. *The Dry Garden*. New York: Sterling Publishing Co., Inc., 1995.
- Springer, Lauren. *The Undaunted Garden: Planting for Weather-Resilient Beauty*. Golden: Fulcrum Publishing, 1994.
- Springer, Lauren. *Waterwise Gardening*. New York: Prentice Hall Gardening, 1994.
- Stephens, Tom, Doug Welsh, and Connie Ellefson. *Xeriscape Gardening, Water Conservation for the American Landscape*. New York: Macmillan Publishing, 1992.
- Sunset Books, eds. *Waterwise Gardening: Beautiful Gardens with Less Water*. Menlo Park: Lane Publishing Company, 1989.
- Vickers, Amy. *Handbook of Water Use and Conservation*. Amherst, MA: WaterPlo Press, 2001.
- Weinstein, Gayle. *Xeriscape Handbook: A How-To Guide to Natural, Resource-Wise Gardening*. Golden: Fulcrum Publishing, 1998.
- Williams, Sara. *Creating the Prairie Xeriscape*. Saskatchewan: University Extension Press, 1997.
- Winger, David, ed. *Xeriscape Plant Guide: 100 Water-Wise Plants for Gardens and Landscapes*. Golden: Fulcrum Publishing, 1998.
- Winger, David, ed. *Xeriscape Color Guide*. Golden: Fulcrum Publishing, 1998.
- Winger, David, ed. *Evidence of Care: The Xeriscape Maintenance Journal*, 2002, Vol. 1, Colorado WaterWise Council, 2001.

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U.S. Environmental Protection Agency
Ariel Rios Building, 1200 Pennsylvania Avenue, NW.
Washington, DC 20460

For more information regarding water efficiency, please contact:

Water Efficiency Program (4204M)
U.S. Environmental Protection Agency
Ariel Rios Building, 1200 Pennsylvania Avenue, NW.
Washington, DC 20460
<www.epa.gov/OWM/water-efficiency/index.htm>



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E. Soils Report

TABLE 1

Summary of Infiltration Testing

Boring Location	Calculated Infiltration Rate* (Inches/Hr)
LGC-HA-1	$0.16 \times 2 = 0.32$
LGC-HA-2	0.33

*Based on Factor of Safety of 2

It should be emphasized that infiltration test results are only representative of the location and depth where they are performed. Varying subsurface conditions may exist outside of the test locations which could alter the calculated infiltration rates indicated above. Infiltration tests are performed using relatively clean water free of particulates, silt, etc. Refer to the discussion provided in Section 6.11



February 14, 2013

Project No. 12129-01

Mr. Adam Smith
CV Communities
1900 Quail Street
Newport Beach, California 92660

Subject: *Updated Geotechnical Evaluation, Proposed 84 Lot Residential Development (Tentative Tract 32535), Riverside County, California*

In accordance with your request, LGC Geotechnical, Inc. has performed an updated geotechnical evaluation of the site conditions for Tentative Tract Map No. 32535 in the County of Riverside, California. This report presents the results of our evaluation and geotechnical analysis and provides a summary of our conclusions and recommendations relative to the proposed development of the site. The geotechnical recommendations provided herein supersede all previous unless specified otherwise.

We sincerely appreciate this opportunity to be of service. Should you have any questions, please do not hesitate to contact this office.

Respectfully,

LGC Geotechnical, Inc.

A handwritten signature in blue ink, appearing to read "Brad Zellmer".

Brad Zellmer, GE 2618
Project Engineer



A handwritten signature in blue ink, appearing to read "Kevin B. Colson".

Kevin B. Colson, CEG 2210
Vice President



BTZ/KBC/kmh

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1.0 INTRODUCTION

1.1 Purpose

LGC Geotechnical has performed a limited geotechnical evaluation to assess the current site geotechnical conditions for the proposed development of Tentative Tract Map No. 32535 in the County of Riverside, California (see Site Location Map, Figure 1). The purpose of this report is to provide updated geotechnical recommendations for development of the site in accordance with the 2010 California Building Code (CBC) and based on the current geotechnical conditions. This report presents the results of our evaluation and geotechnical analysis and provides a summary of our conclusions and recommendations relative to the proposed development of the site. The recommendations provided herein supersede all previous unless specified otherwise.

Our scope of services included:

- Review of pertinent, readily available geotechnical reports and geologic maps (Appendix A);
- Excavation, sampling and logging of two hand-augered, exploratory borings in the area of the proposed detention basins;
- Conversion of the two borings for performance of infiltration testing;
- Infiltration testing;
- Reconnaissance level geologic mapping of the site;
- Preparation of an Updated Geotechnical Map depicting the interpreted geologic conditions on the site;
- Geotechnical analysis of the data reviewed/obtained; and
- Preparation of this report presenting our findings, conclusions, and preliminary recommendations with respect to the proposed site development.

1.2 Project Description and Background

The site is an irregularly-shaped property located generally north of the intersection of Clinton Keith Road and Palomar Street in the unincorporated territory of the County of Riverside, California. The site is currently occupied by several residential structures and associated auxiliary structures, dirt access roads and drives, buried utilities, horse corals, various fences and landscaping. Site grading is anticipated to include remedial grading followed by excavation of cut and placement of fill soils to reach design grades for construction of the proposed residential structures, associated streets and utilities.

Site development will include grading of the site for 84 single-family home sites with associated interior streets and improvements, detention basins and open space. Onsite graded slopes will be of 2:1 (horizontal to vertical) inclinations or flatter. Generally, the maximum proposed cut is approximately 18 feet and the maximum proposed fill is approximately 15 feet (not accounting for remedial grading). The largest slope on the site will be a proposed fill slope on the order of 22 feet high in the northern portion of the development. The largest cut slope will also be on the order of approximately 14 feet high along the northern edge of the property. Two detention basins are planned in the western side of the site and a third on the eastern side.

Topographically, the site generally consists of a central drainage, which is the convergence of two smaller drainages that flow to the west. The remainder of the site consists of gently sloping hillsides which all drain to the central drainage.

At least two previous geotechnical evaluations have been performed on the site; one by Lawson and Associates Geotechnical Consulting, Inc. (Lawson, 2005), and a supplemental evaluation by LGC Inland (2006). In total, these two evaluations included excavation, sampling and logging of seventeen exploratory test pits, six exploratory borings, and six fault trenches. The data gathered in these studies has been reviewed and considered in preparation of this report. The pertinent geotechnical data from these evaluations has been incorporated herein. The approximate location of borings, test pits and fault trenches excavated on the site are depicted on our Geotechnical Map (Sheet 1). Logs of the excavations are presented in Appendix B. Laboratory test results are presented in Appendix C.

2.0 LIMITED GEOTECHNICAL EVALUATION

2.1 Field Evaluation

In order to evaluate the current site conditions, we have performed a limited geotechnical evaluation. Our evaluation included review of available geologic data and maps pertinent to the site, site reconnaissance mapping, and a limited subsurface evaluation. As part of our evaluation, we have excavated, sampled and logged two hand-augered borings in the location of two of the proposed detention basins. The borings were excavated to depths of approximately 5 feet below existing grades within the proposed site detention basin areas. The borings were sampled and logged by a representative from our firm. The soils encountered within the borings were generally consistent with the findings of the previous site geotechnical evaluations. Each of the borings was converted for in-situ infiltration testing for measurement of the approximate infiltration rates of the site materials. Approximate boring locations are presented on our Updated Geotechnical Map (Sheet 1).

2.2 Laboratory Testing

Laboratory test results from the previous site evaluations have been considered as part of this study. The previous laboratory test results are included in Appendix C.

2.3 Infiltration Testing

Infiltration testing consisted of the excavation of two hand-augered borings (LGC-HA-1 & LGC-HA-2) to depths of approximately 5 feet below existing grade at the location of the planned detention basins. Prior to conducting the infiltration testing, the borings were filled with water and topped-off periodically in order to presoak the surrounding materials. Infiltration testing was performed the following day over several consecutive monitoring intervals.

The following morning, each infiltration boring was filled with approximately 3 feet of water and, using a hand-held Solinst electronic sounder, the water level was measured and monitored for two 25 minute periods per boring. The results of this pre-testing indicated infiltration rates of 0.5 foot or greater for the time interval measured. The main testing was then performed, which included the refilling of each boring with approximately 3 feet of water. After 10 minutes the level of the water surface was recorded and the infiltration boring was refilled with water again. This was repeated six times per boring for a total infiltration duration of one hour each. The results are provided in Table 1.

TABLE 1

Summary of Infiltration Testing

Boring Location	Calculated Infiltration Rate* (Inches/Hr)
LGC-HA-1	0.16
LGC-HA-2	0.33

*Based on Factor of Safety of 2

It should be emphasized that infiltration test results are only representative of the location and depth where they are performed. Varying subsurface conditions may exist outside of the test locations which could alter the calculated infiltration rates indicated above. Infiltration tests are performed using relatively clean water free of particulates, silt, etc. Refer to the discussion provided in Section 6.11

3.0 GEOTECHNICAL CONDITIONS

3.1 Regional Geology

Regionally, the site is located within the Perris structural block of the Peninsular Ranges Geomorphic Province of California. The Peninsular Ranges are characterized by steep, elongated valleys that trend west to northwest. The northwest-trending topography is controlled by the Elsinore Fault Zone, which extends from the San Gabriel River Valley southeasterly to the United States/Mexico border. The Santa Ana Mountains lie along the western side of the Elsinore Fault Zone, while the Perris Block is located along the eastern side of the fault zone. The mountainous regions are underlain by Pre-Cretaceous, metasedimentary and metavolcanic rocks and Cretaceous plutonic rocks of the Southern California Batholith. Tertiary and Quaternary rocks are generally comprised of non-marine sediments consisting of sandstone, mudstones, conglomerates and occasional volcanic units.

3.2 Site-Specific Geology

Based on our subsurface evaluation and review of those by others (see Appendix A), the primary bedrock unit encountered within the subject area is Pauba Formational material. Surficial units consisting of undocumented landslide deposits, artificial fill, topsoil/colluvium, and alluvium overlie the bedrock material. A brief description of these geologic units is presented below (from youngest to oldest).

3.2.1 Artificial Fill - Undocumented (Map Symbol - Afu)

Areas of undocumented artificial fill material were observed at various locations on the site, usually associated with dirt roads, building pads, earthen dams, leveling of undulatory areas, etc. A large stockpile of soil was also observed in the northwestern portion of the site. It is apparent that little to no remedial grading was performed prior to placement of fill material on the site and that the fill was not placed with engineering observation and testing. In general, the fill materials encountered on the site were found to be loose to medium dense and damp to moist. The fill materials encountered on the site are considered potentially compressible and should be removed to competent material prior to additional fill placement. Existing undocumented fill is estimated to be on the order of approximately 5 feet thick in some portions of the onsite drainages, however deeper areas may be encountered during site grading. Only the larger areas of undocumented artificial fill were mapped on the site due to their relatively thin nature and variable lateral extent (Sheet 1). Therefore, additional pockets of undocumented fill material, other than those depicted on the map, should be anticipated.

3.2.2 Quaternary Landslide Deposits (Map Symbol - Ols)

During our recent site visit a small surficial landslide failure was observed and mapped in the northwestern portion of the site. The failure appears to be on the order of 4 feet thick and is comprised of loose unconsolidated soils and debris and should be completely removed during site grading.

3.2.3 Topsoil/Colluvium (Not Mapped)

The topsoil/colluvium observed during our field study mantles the mid- to lower- portions of the slopes across the majority of the site. The topsoil/colluvium, as observed, consists predominantly of brown to dark brown, damp to moist, loose to medium dense, clayey sand to sandy clay. These soils are typically massive, porous and contain scattered roots and organics. The potentially compressible topsoil is estimated to be approximately 1 to 2 feet in thickness; however, localized areas of thicker accumulations of topsoil may be encountered during grading. Topsoil/colluvial soils on the lower hillsides of the onsite drainages can be expected to be somewhat deeper in extent and locally variable in composition. Topsoil/colluvium was not mapped on the site due to its relatively thin nature and variable lateral extent, however, thicker deposits of colluvium have been incorporated into the material mapped as Quaternary Alluvium discussed below.

3.2.4 Quaternary Alluvium (Map Symbol - Oal)

Alluvial soils were encountered in the drainages on the site. Some of the suspected deeper accumulations were not investigated due to the presence of standing water on the surface within some of the alluvial channels. The alluvium, as observed, consists predominantly of brown, damp to moist, loose to medium dense, clayey sand to sandy clay. These soils are typically massive, porous and contain organics and scattered roots. The potentially compressible alluvium is estimated up to be approximately 5 to 10 feet in thickness; however, localized areas of thicker accumulations may be encountered during grading. Please note, in areas where undocumented fill soils have been placed above alluvial soils, deeper removals than those cited above should be anticipated. The approximate lateral extent of these materials has been depicted on our Updated Geotechnical Map (Sheet 1).

3.2.5 Quaternary Pauba Formation (Map Symbol - Op)

The Pauba Formation underlies the majority of the site. As encountered, this material consists of moderately indurated silty sand and clayey sand with minor amounts of cobble-sized material. Typically this material has good bearing properties and a low potential for expansion.

3.3 Geologic Structure

The material observed on the site was generally massive with only rare, approximately horizontal bedding observed. Locally, cross bedding was encountered dipping approximately 25 degrees to the northwest.

No faults have been mapped on the site nor were any encountered during our field study.

3.4 Landslides

A shallow surficial landslide was observed on the site during our recent site visit. See discussion above. Larger landslides were not observed nor anticipated on the site.

3.5 Groundwater

While the static groundwater table in the area is thought to be on the order of 100 feet below the subject site, shallow groundwater and surface water seepage and flow has been observed in the vicinity of proposed Lots 7 through 10, 73 through 84 and the Lot 87 Open Space to the south of these lots. In this portion of the site, groundwater has been encountered at depths ranging from at the surface to approximately 20.5 feet below the surface in both bedrock and alluvial areas. We understand that an artesian flowing well is located on the residential property adjacent to this area. Evidence of artesian flowing springs has been observed up gradient from the site to the east.

3.6 Faulting

California is located on the boundary between the Pacific and North American Lithospheric Plates. The average motion along this boundary is on the order of 50-mm/yr in a right-lateral sense. The majority of the motion is expressed at the surface along the northwest trending San Andreas Fault Zone with lesser amounts of motion accommodated by sub-parallel faults located predominantly west of the San Andreas including the Elsinore, Newport-Inglewood, Rose Canyon, and Coronado Bank Faults. Within Southern California, a large bend in the San Andreas Fault north of the San Gabriel Mountains has resulted in a transfer of a portion of the right-lateral motion between the plates into left-lateral displacement and vertical uplift. Compression south and west of the bend has resulted in folding, left-lateral reverse thrust faulting, and regional uplift creating the east-west trending Transverse Ranges and several east-west trending faults. Further south within the Los Angeles Basin, “blind thrust” faults are believed to have developed below the surface also as a result of this compression, which have resulted in earthquakes such as the 1994 Northridge event along faults with little to no surface expression.

Prompted by damaging earthquakes in Northern and Southern California, State legislation and policies concerning the classification and land-use criteria associated with faults have been developed. Their purpose was to prevent the construction of urban developments across the trace of active faults. The result is the Alquist-Priolo Earthquake Fault Zoning Act, which was most recently revised in 2007 (CDMG, 2007). According to the State Geologist, an active fault is defined as one, which has had surface displacement within the Holocene Epoch (roughly the last 11,000 years). A potentially active fault is defined as any fault, which has had surface displacement during Quaternary time (last 1,600,000 years), but not within the Holocene. Fault-Rupture Hazard Zones have been delineated along the traces of active faults within California. Where developments for human occupation are proposed within these zones, the state requires detailed fault evaluations be performed so that engineering geologists can mitigate the hazards associated with active faulting by identifying the location of active faults and allowing for a setback from the zone of previous ground rupture.

While the subject site is not located within a mapped Fault-Rupture Hazard Zone for the Wildomar Quadrangle (CDMG, 1980), it is located approximately 780 feet east of the active trace of Elsinore-Temecula Fault and approximately 180 feet from the eastern margin of the Fault-Rupture Hazard Zone that surrounds it. The southwestern portion of the site is located within the County of Riverside

Fault Zone. A potentially active strand of the Elsinore-Temecula Fault has also been mapped approximately 80 feet east of the site (Sheet 1). The results of our geologic mapping and photolineament analysis did not indicate the presence of features suggestive of faulting on the site.

A total of six fault trenches were excavated at various locations across the site in an attempt to intercept potential onsite faulting. No evidence of active faulting was observed during the onsite fault study (LGC Inland, 2006).

The possibility of damage due to ground rupture is considered low since active faults are not known to cross the site and there are no known active or potentially active mapped on the site. Fault traces are depicted in close proximity to the western site boundary, but do not appear to cross the site. Short of leveling all structures on the site and excavating the entire site in search of faults, one can never be 100 percent sure of the absence of onsite faulting. Therefore, the potential presence of active or potentially active faults on the site cannot be absolutely precluded until the site subsurface conditions have been completely exposed and mapped by a geologist. With this said, the level of work performed for investigating the potential for active faulting on the site was within industry standards. Additional subsurface investigation can be performed (if desired) in the portions of the site closest to the known faults to provide further data with regard to the potential for onsite faulting. If active faulting is encountered on the site, building setbacks will be required from the trace of the active fault. If potentially active fault traces are identified on the site, recommendations are typically made on a case by case basis; often it is recommended that either buildings be set back from the trace of the fault or a deed be attached to the property, which identifies the presence of the fault.

Secondary effects of seismic shaking resulting from large earthquakes on the major faults in the Southern California region, which may affect the site include ground lurching and shallow ground rupture, soil liquefaction, dynamic settlement, seiches and tsunamis. These secondary effects of seismic shaking are a possibility throughout the Southern California region and are dependant on the distance between the site and causative fault and the onsite geology. The major active faults that could produce these secondary effects include the Glen Ivy and Temecula branches of the Elsinore Fault. A discussion of these secondary effects is provided in the following sections.

3.6.1 Lurching and Shallow Ground Rupture

Soil lurching refers to the rolling motion on the ground surface by the passage of seismic surface waves. Effects of this nature are not likely to be significant where the thickness of soft sediments does not vary appreciably under structures.

Ground rupture due to active faulting is not likely to occur on site due to the absence of known active fault traces. Minor cracking of near-surface soils due to shaking from distant seismic events is not considered a significant hazard, although it is a possibility at any site, and is often associated with ridgelines.

3.6.2 Liquefaction and Dynamic Settlement

Liquefaction is a seismic phenomenon in which loose, saturated, granular soils behave similarly to a fluid when subject to high-intensity ground shaking. Liquefaction occurs when three general conditions coexist: 1) shallow groundwater; 2) low density non-cohesive (granular) soils; and 3) high-intensity ground motion. Studies indicate that loose, saturated, near surface cohesionless soils exhibit the highest liquefaction potential, while dry, dense, cohesionless soils and cohesive soils exhibit low to negligible liquefaction potential. In general, cohesive soils are not considered susceptible to liquefaction. Effects of liquefaction on level ground include settlement, sand boils, and bearing capacity failures below structures. Dynamic settlement of dry sands can occur as the sand particles tend to settle and densify as a result of a seismic event.

Based upon the site consisting primarily of dense sandstone and siltstone and provided the recommended earthwork removals are performed (i.e., removal of site alluvium), the potential for soil liquefaction and associated seismic settlement is considered to be very low.

3.6.3 Lateral Spreading

Lateral spreading is a type of liquefaction induced ground failure associated with the lateral displacement of surficial blocks of sediment resulting from liquefaction in a subsurface layer. Once liquefaction transforms the subsurface layer into a fluid mass, gravity plus the earthquake inertial forces may cause the mass to move downslope towards a free face (such as a river channel or an embankment). Lateral spreading most commonly occurs on gentle slopes (up to about 5 percent) and may cause large horizontal displacements. Such movement typically damages pipelines, utilities, bridges, and structures. A procedure outlined by Youd, et al. requiring the design earthquake magnitude and corresponding fault distance is typically used to estimate lateral displacements.

Based on the low potential for liquefaction, the potential for lateral spreading is also considered very low.

3.6.4 Tsunamis and Seiches

Based on the distance of the site from the sea and other large bodies of water, the possibility of seiches and/or tsunamis affecting the site is considered to be very low.

3.7 Rippability

Based on the excavation characteristics encountered on the site, rippability is not anticipated to be an issue during site grading and construction. It is anticipated that the onsite soils may be excavated with conventional heavy-duty construction equipment.

3.8 Oversized Material

Generation of significant oversize material (greater than 8-inches in maximum dimension) is not anticipated. However, if encountered, recommendations are provided for appropriate handling of oversized materials in Appendix D.

3.9 Expansive Soil Characteristics

Generally, the onsite soils should be expected to have a Low to Very High expansion potential. Expansion potential testing of three samples on the site indicated expansion indices ranging from 35 “Low” to 140 “Very High.”

3.10 Soil Corrosivity

Corrosion suites (pH, resistivity, soluble sulfate, and chloride content) were performed on two samples obtained during a previous subsurface evaluation of the site to estimate the corrosion potential of onsite soils (Lawson, 2005). The samples tested were obtained from Trenches T-1 and T-15. The resistivity tests resulted in a minimum resistivity of 605 and 800 ohm-centimeters, pH values of 7.5 and 8.2, chloride contents of 242 and 87 ppm. The soluble sulfate content for both samples was less than 0.02 percent. Caltrans defines a corrosive area where any of the following conditions exist: the soil contains more than 500 ppm of chlorides, more than 2,000 ppm (0.2 percent) of sulfates, or a pH of 5.5 or less.

4.0 ANALYSIS

4.1 General

Based on our review, site development will include graded slopes of 2:1 (horizontal to vertical) inclinations or flatter. The largest slope on the site will be on the order of 15 feet tall. Recommendations for the construction of design slopes are contained in Section 6.2.

4.1.1 Design Cut Slopes

In general, we anticipate that the proposed 2:1 (horizontal to vertical) cut slopes, excavated within Pauba Formational material and free of adverse geologic conditions, will be grossly stable.

4.1.2 Design Fill Slopes

Design fill slopes will be constructed utilizing fill material generated from the cut portions of the site. In general, we anticipate that the proposed 2:1 (horizontal to vertical) fill slopes, utilizing fill soils derived from the onsite materials, will be grossly stable.

4.1.3 Slope Erosion

Based on our experience with slopes made up of similar materials with low cohesion, the slopes are subject to erosion, raveling, and minor rock fall. As vegetation has a positive effect on slope erosion, the site slopes should be planted with deep-rooted and drought tolerant vegetation as soon as possible. Planted slopes above home sites should be properly irrigated and maintained, and loose materials should be removed from the slope face at the completion of landscaping installation.

4.2 Seismic Design Criteria

The site seismic characteristics were evaluated per the guidelines set forth in Chapter 16, Section 1613 of the 2010 California Building Code (CBC). Representative site coordinates of latitude 33.5929 degrees north and longitude -117.2530 degrees west were utilized in our analyses. The maximum considered earthquake (MCE) spectral response accelerations (S_{MS} and S_{M1}) and adjusted design spectral response acceleration parameters (S_{DS} and S_{D1}) for Site Class D are provided in Table 2.

TABLE 2

Seismic Design Parameters

Selected Parameters from CBC Section 1613 - Earthquake Loads	Seismic Design Values
Site Class per Table 1613.5.2	D
Spectral Acceleration for Short Periods (S_S)*	1.841g
Spectral Accelerations for 1-Second Periods (S_1)*	0.672g
Site Coefficient F_a per Table 1613.5.3(1)	1.0
Site Coefficient F_v per Table 1613.5.3(2)	1.5
Site Modified Spectral Acceleration for Short Periods (S_{MS}) for Site Class D [Note: $S_{MS} = F_a S_S$]	1.841g
Site Modified Spectral Acceleration for 1-Second Periods (S_{M1}) for Site Class D [Note: $S_{M1} = F_v S_1$]	1.008g
Design Spectral Acceleration for Short Periods (S_{DS}) for Site Class D [Note: $S_{DS} = (2/3)S_{MS}$]	1.228g
Design Spectral Acceleration for 1-Second Periods (S_{D1}) for Site Class D [Note: $S_{D1} = (2/3)S_{M1}$]	0.672g

* From USGS, 2011

Section 1802.2.7 of the 2010 CBC states that the PGA for a site may be defined as $S_{DS}/2.5$. Therefore, horizontal peak ground acceleration (PGA) is estimated at $(1.228g/2.5) = 0.49g$.

5.0 CONCLUSIONS

Based on the results of our limited evaluation and our understanding of the proposed development, it is our opinion that the proposed development is feasible from a geotechnical standpoint, provided the recommendations contained in the following sections are incorporated during site design, grading, and construction.

A summary of our geotechnical conclusions is as follows:

- Based on our site visit and review of pertinent geologic maps and reports, the site is underlain by a thin veneer of surficial materials, which are in-turn underlain by Pauba Formation material.
- Groundwater and seepage has been encountered at relatively shallow depths within Open Space 87 and in portions of the development area to the north. This groundwater is likely a perched condition and may be encountered during required remedial grading and possibly during rough grading for the proposed site development. The earthwork contractor should anticipate encountering groundwater during grading within these areas, especially in construction of the roadway across the drainage.
- Active or potentially active faults are not known to exist on the site. However, the Elsinore-Temecula Fault is located only approximately 0.2 km southwest of the site. A potentially active strand of the Elsinore-Temecula Fault has been mapped approximately 80 feet west of the site.
- The main seismic hazard that may affect the site is from ground shaking from one of the active regional faults. The subject site will likely experience strong seismic ground shaking during its design life. The estimated peak horizontal ground acceleration is 0.49g.
- Based on our field tests and the presence of fine-grained soils, very low infiltration rates should be anticipated at this site at location for the planned detention basins. The calculated infiltration rates from our field tests were 0.16 and 0.33 inch per hour.
- Based on preliminary laboratory test results, the onsite soils are anticipated to have a Low to Very High potential for expansion. However, final design expansion potential must be determined at the completion of grading. Mitigation measures are required for foundations and site improvements such as concrete flatwork to minimize the impacts of expansive soils.

6.0 RECOMMENDATIONS

The following recommendations are to be considered preliminary, and should be confirmed upon completion of grading and earthwork operations. In addition, they should be considered minimal from a geotechnical viewpoint, as there may be more restrictive requirements from the architect, structural engineer, building codes, governing agencies, or the County.

It should be noted that the following geotechnical recommendations are intended to provide sufficient information to develop the site in general accordance with the 2010 CBC requirements. With regard to the potential occurrence of potentially catastrophic geotechnical hazards such as fault rupture, earthquake-induced landslides, liquefaction, etc. the following geotechnical recommendations should provide adequate protection for the proposed development to the extent required to reduce seismic risk to an “acceptable level.” The “acceptable level” of risk is defined by the California Code of Regulations as “that level that provides reasonable protection of the public safety, though it does not necessarily ensure continued structural integrity and functionality of the project” [Section 3721(a)]. Therefore, repair and remedial work of the proposed improvement may be required after a significant seismic event. With regards to the potential for less significant geologic hazards to the proposed development, the recommendations contained herein are intended as a reasonable protection against the potential damaging effects of geotechnical phenomena such as expansive soils, fill settlement, groundwater seepage, etc. It should be understood, however, that our recommendations are intended to maintain the structural integrity of the proposed development and structures given the site geotechnical conditions, but cannot preclude the potential for some cosmetic distress or nuisance issues to develop as a result of the site geotechnical conditions.

The geotechnical recommendations contained herein must be confirmed to be suitable or modified based on the actual as-graded conditions.

The following recommendations are based upon our evaluation of the near surface soils and our understanding of the proposed construction.

6.1 Site Earthwork

We anticipate that earthwork at the site will consist of rough and precise grading operations followed by retaining wall construction, utility construction, foundation construction, and asphalt paving of the streets and drives. We recommend that earthwork onsite be performed in accordance with the following recommendations, the County Grading Requirements, and the General Earthwork and Grading Specifications for Rough Grading included in Appendix D. In case of conflict, the following recommendations shall supersede all previous recommendations and those included as part of Appendix D. The following recommendations should be considered preliminary and may be revised based on the actual as-graded conditions of the site once grading is completed. If necessary, revisions will be provided in our as-graded report for the site following the completion of grading.

6.1.1 Site Preparation

Prior to grading of areas to receive structural fill or engineered structures, the areas should be cleared of surface obstructions and potentially compressible material (such as landslide debris,

undocumented fill, topsoil, colluvium, alluvium, and vegetation). Vegetation and debris should be removed and properly disposed of off-site. Holes resulting from the removal of buried obstructions, which extend below proposed design grades, should be replaced with suitable compacted fill material.

6.1.2 Control of Groundwater Seepage

Groundwater seepage and potentially artesian flowing springs may be encountered during site grading. Currently there is insufficient data to determine the source or the volume of groundwater that may be encountered during site development. Therefore, we recommend that the groundwater be mitigated based on the observed conditions encountered during site rough grading. Potential mitigation recommendations may include: placing “burrito-type” subdrains across areas of observed seepage in proposed fill areas; construction of “French Drains” across areas of observed seepage in proposed cut areas; overexcavation of areas of observed and/or potential seepage to allow for construction of a blanket of crushed rock with an integrated system of subdrains to collect and outlet accumulated water; construction of hydroaugers; and/or dewatering wells. Details of the appropriate mitigation method will be determined based on the actual conditions encountered during site grading and development.

It is hoped that the nature and structure through which the groundwater seepage is emanating becomes apparent during site rough grading and that appropriate and reasonable mitigation methods can be determined and implemented. However, it should be considered that the proposed grading may exacerbate the problem, potentially limiting mitigation options and/or potentially necessitating an extensive mitigation system. It also should be considered that groundwater seepage conditions can change in location and volume over time as rainfall amounts vary from year to year and due to increases in irrigation of onsite and up-gradient landscaping typically associated with new development. Although currently not anticipated, it should be considered that conditions may be found that would suggest that construction of a groundwater mitigation system should be implemented beyond the areas of observed seepage to mitigate the potential for migration of the seepage to other areas of the site.

6.1.3 Removal Depths

We anticipate removals on the site will generally range from approximately 1 to 3 feet, across the majority of the higher elevations of the site. Removals up to approximately 10 feet should be anticipated within the onsite drainages and their margins. Groundwater will likely be encountered for deeper removals, refer to above Section 6.1.2. Localized, deeper removals should be anticipated where deemed necessary by the geotechnical consultant based on observations during grading. The actual depth and lateral extents of grading should be determined by the geotechnical consultant, based on subsurface conditions encountered during grading.

6.1.4 Over-Excavation of Cut/Fill Transitions

To reduce the potential for differential settlement, the County of Riverside requires the cut portion of cut/fill transitions be over excavated by at least one half the maximum fill thickness not to exceed 15 vertical feet and extending at least 5 horizontal feet outside of the proposed building footprints. In addition, we recommend, the cut portion of cut/fill transitions be undercut a minimum of 3 vertical feet. The bottom of the over excavation should be graded to flow towards deeper fill areas. The over excavated material should then be replaced by compacted fill material to design grade. Additionally, to soften the affect of differential fill settlement, we recommend that all steep slopes remaining after remedial grading be laid back to 3:1 inclinations below buildings.

6.1.5 Temporary Excavations

Temporary excavations should be laid back or shored in accordance with OSHA requirements before personnel or equipment are allowed to enter. Materials meeting the criteria of soil Types A, B, and C were encountered during our subsurface investigation of the site. For planning purposes we recommend Type “C” soils be expected, however, we recommend the actual determination of the appropriate soil classification be determined on a case by case basis based on the actual conditions encountered. In general, all excavations should be performed in accordance with project plans, specifications, and all Occupational Safety and Health Administration (OSHA) requirements. Soil conditions should be mapped and frequently checked by a representative of LGC to verify conditions are as anticipated. The contractor shall be responsible for providing the “competent person” required by OSHA standards to evaluate soil conditions. Close coordination with the geotechnical consultant should be maintained to facilitate construction while providing safe excavations. Excavation safety is the responsibility of the contractor.

Vehicular traffic, stockpiles, and equipment storage should be set back from the perimeter of excavations a distance equivalent to a 1:1 projection from the bottom of the excavation. Once an excavation has been initiated, it should be backfilled as soon as practical. Prolonged exposure of temporary excavations may result in some localized instability. Excavations should be planned so that they are not initiated without sufficient time to shore/fill them prior to weekends, holidays, or forecasted rain.

It should be noted that any excavation that extends below a 1:1 (horizontal to vertical) projection of an existing foundation will remove existing support of the structure foundation. If requested, temporary shoring parameters will be provided.

6.1.6 Removal Bottoms and Subgrade Preparation

Removal bottoms and areas to receive fill should be observed and accepted by the geotechnical consultant prior to subsequent fill placement. In general, removal bottom areas and areas to receive compacted fill should be scarified to a minimum depth of 6 inches, brought to a near-optimum moisture condition, and re-compacted per project recommendations.

6.1.7 Material for Fill

From a geotechnical perspective, the onsite soils are generally considered suitable for use as general compacted fill, provided they are screened of organic materials, construction debris and any oversize material (8 inches in greatest dimension).

Any required retaining wall backfill should consist of sandy soils with a maximum of 35 percent fines (passing the No. 200 sieve) per American Society for Testing and Materials (ASTM) Test Method D1140 and a Very Low expansion potential (EI of 20 or less per ASTM D4829). Soils should also be screened of organic materials, construction debris, and any material greater than 3 inches. The site contains soils that are not suitable for retaining wall backfill due to their clay content and expansion potential; therefore, import or potentially select grading and stockpiling will be required of the contractor for obtaining suitable retaining wall backfill soil.

From a geotechnical viewpoint, any required import soils should consist of clean, relatively granular soils of Very Low to Low expansion potential (expansion index 50 or less based on ASTM D4829) and no particles larger than 3 inches in greatest dimension. Import soils for retaining wall backfill must also meet the criteria (fines content and expansion potential) outlined in the above paragraph. Source samples of planned importation should be provided to the geotechnical consultant for laboratory testing a minimum of 3 working days prior to any planned importation for required laboratory testing.

Aggregate base (crushed aggregate base or crushed miscellaneous base) should conform to the requirements of Section 200-2 of the Standard Specifications for Public Works Construction ("Greenbook"), for untreated base materials (except processed miscellaneous base), or Caltrans Class 2 aggregate base.

6.1.8 Fill Placement and Compaction

Material to be placed as fill should be brought to near-optimum moisture content (generally within optimum and 2 percent above optimum moisture content) and recompacted to at least 90 percent relative compaction (per ASTM D1557). Moisture conditioning of site soils will be required in order to achieve adequate compaction. The optimum lift thickness to produce a uniformly compacted fill will depend on the type and size of compaction equipment used. In general, fill should be placed in uniform lifts not exceeding 8 inches in compacted thickness. Each lift should be thoroughly compacted and accepted prior to subsequent lifts. Generally, placement and compaction of fill should be performed in accordance with local grading ordinances and with observation and testing by the geotechnical consultant. Oversized material, as previously defined, should be removed from site fills.

Fill placed on any slopes greater than 5:1 (horizontal to vertical) should be properly keyed and benched into firm and competent soils as it is placed in lifts.

During backfill of excavations, the fill should be properly benched into firm and competent soils of temporary backcut slopes as it is placed in lifts.

Aggregate base material should be compacted to a minimum of 95 percent relative compaction at or slightly above optimum moisture content per ASTM D1557. Subgrade below aggregate base should be compacted to a minimum of 90 percent relative compaction per ASTM D1557 at or slightly above optimum moisture content.

6.1.9 Trench and Retaining Wall Backfill and Compaction

The onsite soils may generally be suitable as trench backfill, provided the soils are screened of rocks and other material greater than 6 inches in diameter and organic matter. If trenches are shallow or the use of conventional equipment may result in damage to the utilities, sand having a sand equivalent (SE) of 30 or greater may be used to bed and shade the pipes (per Caltrans Test Method [CTM] 217). Sand backfill within the pipe bedding zone may be densified by jetting or flooding and then tamping to ensure adequate compaction. Subsequent trench backfill should be compacted in uniform thin lifts by mechanical means to at least 90 percent relative compaction (per ASTM D1557).

Retaining wall backfill should consist of predominately granular, sandy soils as outlined in above Section 6.1.7. The limits of select sandy backfill should extend at minimum $\frac{1}{2}$ the height of the retaining wall or the width of the heel, whichever is greater, refer to Figure 3. Retaining wall backfill soils should be compacted in relatively uniform thin lifts to a minimum of 90 percent relative compaction (per ASTM D1557). Jetting or flooding of retaining wall backfill materials should not be permitted.

A representative from LGC Geotechnical should observe, probe, and test the backfill to verify compliance with the project recommendations.

6.1.10 Shrinkage and Bulking

Allowance in the earthwork volumes budget should be made for an estimated 10 to 15 percent reduction in volume of the recompacted undocumented fill, topsoil/colluvium, and alluvium. Bulking on the order of 5 to 10 percent bulking should be anticipated for the Pauba Formational material. It should be stressed that these values are only estimates and that an actual shrinkage factor would be extremely difficult to predetermine. These estimates are based on our previous experience with similar site soils and conditions and are not based on laboratory test data. The effective shrinkage of onsite soils will depend primarily on the type of compaction equipment and method of compaction used onsite by the contractor. Shrinkage and bulking are also expected to vary with variations in survey accuracy during rough grading.

6.2 *Slope Stability*

6.2.1 *Cut Slopes*

Design cut slopes at the site are anticipated to be grossly and surficially stable as designed, provided the recommendations contained herein are implemented. During grading detailed geologic mapping should be performed to confirm the anticipated bedrock conditions. Cutting of the slope must be performed by the contractor to minimize potential fracturing of the near-surface material of the finished slope. Significant fracturing of the slope due to the method of excavation, may result in the necessity to perform additional surficial stabilization of loose material on the slope face, or the provision for debris catchment of the toe of slope. The exact determination of any additional surficial stabilization of the slope should be made at the completion of grading based on actual exposed conditions and the location of improvements close to the design cut slopes. Irrespective of the finish conditions, the cut slopes should be protected with properly designed vegetative covers. If trees are planned for slope construction, tree wells should be considered.

6.2.2 *Fill Slopes*

Design fill slopes at the site are anticipated to be both grossly surficially stable as designed, as long as they are constructed in accordance with the Standard Earthwork and Grading Specifications included in Appendix D. Fill slopes with a slope ratio of 2:1 (horizontal to vertical) and up to approximately 15 feet in height are proposed on the site.

6.2.3 *Slope Maintenance Guidelines*

It is recommended that any graded slopes be planted with ground cover vegetation as soon as practical to protect against erosion by reducing runoff velocity. Deep-rooted vegetation should also be established to protect against surficial slumping. Irrigation levels should be kept to the minimum level necessary to establish a healthy plant growth. Slopes must not be overwatered. If automatic sprinklers are used, they must be adjusted during periods of rainfall. Continuous erosion control, rodent control, and maintenance are essential to the long-term stability of all slopes. A program for the elimination of burrowing animals in slope areas must be established to protect slope stability by reducing the potential for surface water to penetrate into the slope face. Trenches excavated on a slope face for utility or irrigation lines and/or for any purpose must be properly backfilled and compacted to project recommendations (refer to Section 6.1.9) to the slope face. Observation/testing and acceptance by the geotechnical consultant during trench backfill are recommended. V-ditches should be inspected and cleared of loose soil and/or debris on a routine basis, especially prior to and during the rainy season.

6.3 *Preliminary Foundation Recommendations*

Limited laboratory test results for expansion potential ranged from “Low” to “Very High.” It is our opinion that the majority of site soils have a Low to Medium expansion potential. Therefore, we are

providing preliminary geotechnical foundation parameters for Low and Medium expansion potential. However, it should be emphasized that these parameters are preliminary based on limited testing, and must be verified on as-graded conditions. Required laboratory testing at the completion of grading may require the following geotechnical design parameters to be updated based on the as-graded conditions.

6.3.1 Post-Tensioned Foundation Design Recommendations

The geotechnical parameters provided herein may be used for post-tensioned slab foundations. These parameters have been determined in general accordance with the Post-Tensioning Institute (PTI) Standard Requirements for Design of Shallow Post-Tensioned Concrete Foundations on Expansive Soils, referenced in Chapter 18 of the 2010 CBC. In utilizing these parameters, the foundation engineer should design the foundation system in accordance with the allowable deflection criteria of applicable codes and the requirements of the structural designer/architect. Other types of stiff slabs may be used in place of the CBC post-tensioned slab design provided that, in the opinion of the foundation structural designer, the alternative type of slab is at least as stiff and strong as that designed by the CBC/PTI method.

Our design parameters are based on our experience with similar projects, test results performed by others, and the anticipated nature of the soil (with respect to expansion potential). Please note that implementation of our recommendations will not eliminate foundation movement (and related distress) should the moisture content of the subgrade soils fluctuate. It is the intent of these recommendations to help maintain the integrity of the proposed structures and reduce (not eliminate) movement, based upon the anticipated site soil conditions. Should future homeowners not properly maintain the areas surrounding the foundation, for example by overwatering, then we anticipate for highly expansive soils the maximum differential movement of the perimeter of the foundation to the center of the foundation to be on the order of a couple of inches. Soils of lower expansion potential are anticipated to show less movement.

6.3.2 Post-Tensioned Foundation Subgrade Preparation and Maintenance

Moisture conditioning of the subgrade soils is recommended prior to trenching the foundation. The recommendations, specific to anticipated site soil conditions, are presented in Table 3A and 3B. The subgrade moisture condition of the building pad soils should be maintained at the recommended moisture content up to the time of concrete placement. This moisture content should be maintained around the immediate perimeter of the slab during construction and up to occupancy of the building structures.

The geotechnical parameters provided herein assume that if the areas adjacent to the foundation are planted and irrigated, these areas will be designed with proper drainage and adequately maintained so that ponding, which causes significant moisture changes below the foundation, does not occur. Our recommendations do not account for excessive irrigation and/or incorrect landscape design. Plants should only be provided with sufficient irrigation for life and not overwatered to saturate subgrade soils. Sunken planters placed adjacent to the

foundation should either be designed with an efficient drainage system or liners to prevent moisture infiltration below the foundation. Some lifting of the perimeter foundation beam should be expected even with properly constructed planters.

In addition to the factors mentioned above, future owners/property management personnel should be made aware of the potential negative influences of trees and/or other large vegetation. Roots that extend near the vicinity of foundations can cause distress to foundations. Future owners (and the owner's landscape architect) should not plant trees/large shrubs closer to the foundations than a distance equal to half the mature height of the tree or 20 feet, whichever is more conservative, unless specifically provided with root barriers to prevent root growth below the building foundation.

It is the homeowner's responsibility to perform periodic maintenance during hot and dry periods to insure that adequate watering has been provided to keep soil from separating or pulling back from the foundation. Future owners and property management personnel should be informed and educated regarding the importance of maintaining a constant level of soil-moisture. The owners should be made aware of the potential negative consequences of both excessive watering as well as allowing potentially expansive soils to become too dry. Expansive soils can undergo shrinkage during drying and swelling during the rainy winter season, or when irrigation is resumed. This can result in distress to building structures and hardscape improvements. The builder should provide these recommendations to future homeowners and property management personnel.

TABLE 3A

**Provisional Geotechnical Parameters for Post-Tensioned Foundation Slab Design – Low
Expansion Potential**

Parameter	PT Slab with Perimeter Footing
Expansion Index	Low ¹
Thornthwaite Moisture Index	-20
Constant Soil Suction	PF 3.9
Center Lift	
Edge moisture variation distance, e_m	9.0 feet
Center lift, y_m	0.25 inch
Edge Lift	
Edge moisture variation distance, e_m	5.5 feet
Edge lift, y_m	0.55 inch
Modulus of Subgrade Reaction, k (assuming presoaking as indicated below)	200 pci
Minimum Perimeter footing embedment below finish grade	18 inches
1. Assumed for preliminary design purposes. Further evaluation is required at the completion of earthwork grading. 2. Moisture condition to 100% of optimum moisture content to a depth of 12 inches prior to trenching.	

TABLE 3B

**Provisional Geotechnical Parameters for Post-Tensioned Foundation Slab Design-Medium
Expansion Potential**

Parameter	PT Slab with Perimeter Footing
Expansion Index	Medium ¹
Thornthwaite Moisture Index	-20
Constant Soil Suction	PF 3.9
Center Lift	
Edge moisture variation distance, e_m	9.0 feet
Center lift, y_m	0.50 inch
Edge Lift	
Edge moisture variation distance, e_m	4.7 feet
Edge lift, y_m	1.1 inch
Modulus of Subgrade Reaction, k (assuming presoaking as indicated below)	150 pci
Minimum Perimeter footing embedment below finish grade	18 inches
<ol style="list-style-type: none"> 1. Assumed for preliminary design purposes. Further evaluation is required at the completion of earthwork grading. 2. Moisture condition to 120% of optimum moisture content to a depth of 24 inches prior to trenching. 	

6.3.3 Slab Underlayment Guidelines

The following is for informational purposes only since slab underlayment (e.g., moisture retarder, sand or gravel layers for concrete curing and/or capillary break) is unrelated to the geotechnical performance of the foundation. Post-construction moisture migration should be expected below the foundation. The foundation engineer/architect should determine whether the use of a capillary break (sand or gravel layer), in conjunction with the vapor retarder, is necessary or required by code. Sand layer thickness and location (above and/or below vapor retarder) should also be determined by the foundation engineer/architect. Sand layers should be installed, where applicable, in accordance with ACI Publication 302 – “Guide for Concrete Floor and Slab Construction.”

6.3.4 Soil Bearing and Lateral Resistance

An allowable soil bearing pressure of 1,500 pounds per square foot (psf) may be used for the design of footings having a minimum width of 12 inches and minimum embedment of 18 inches below lowest adjacent ground surface. This value may be increased by 300 psf for each additional foot of embedment or 100 psf for each additional foot of foundation width to a

maximum value of 2,500 psf. These allowable bearing pressures are applicable for level (ground slope equal to or flatter than 5H:1V) conditions only. Bearing values indicated are for total dead loads and frequently applied live loads and may be increased by $\frac{1}{3}$ for short duration loading (i.e., wind or seismic loads).

In utilizing the above-mentioned allowable bearing capacity and provided our earthwork recommendations are implemented, foundation settlement due to structural loads is anticipated to be 1-inch or less. Differential settlement may be taken as half of the total settlement (i.e., $\frac{1}{2}$ -inch over a horizontal span of 40 feet).

Resistance to lateral loads can be provided by friction acting at the base of foundations and by passive earth pressure. For concrete/soil frictional resistance, an allowable coefficient of friction of 0.35 may be assumed with dead-load forces. An ultimate passive lateral earth pressure of 350 psf per foot of depth (or pcf) to a maximum of 3,500 psf may be used for the sides of footings poured against properly compacted fill. This passive pressure is applicable for level (ground slope equal to or flatter than 5H:1V) conditions only. We recommend that the upper foot of passive resistance be neglected if finished grade will not be covered with concrete or asphalt. The provided passive resistance value is an ultimate value, so appropriate safety factors (i.e., minimum of 1.5) should be applied by the structural designer.

6.3.5 Foundation Setback from Top of Slope and Bottom of Slope

The requirements of the County and the 2010 CBC are applicable in determining the appropriate top and bottom of slope setback for foundations. Foundation setback criteria should be reviewed by the geotechnical consultant based on the precise grading plan.

6.4 Lateral Earth Pressures and Retaining Wall Design Considerations

Lateral earth pressures are provided as equivalent fluid unit weights, in pound per square foot (psf) per foot of depth or pcf. These values do not contain an appreciable factor of safety, so the retaining wall designer should apply the applicable factors of safety and/or load factors during design. A soil unit weight of 120 pcf may be assumed for calculating the actual weight of soil over the wall footing.

The following lateral pressures are presented on Table 4 for approved select granular soils a maximum of 35 percent fines (passing the No. 200 sieve per ASTM D1140) and an Expansion Index of 20 or less per ASTM D4829. The retaining wall designer should clearly indicate on the retaining wall plans the required select sandy soil backfill.

TABLE 4
Lateral Earth Pressures – Select Sand Backfill

Condition	Equivalent Fluid Weight (pcf)	Equivalent Fluid Weight (pcf)
	Level Backfill	2:1 Sloping Backfill
	Approved Backfill Material	Approved Backfill Material
Active	35	55
At Rest	60	85

If the wall can yield enough to mobilize the full shear strength of the soil, it can be designed for “active” pressure. If the wall cannot yield under the applied load, the earth pressure will be higher. This would include 90-degree corners of retaining walls. Such walls should be designed for “at-rest.” The equivalent fluid pressure values assume free-draining conditions and a drainage system will be installed and maintained to prevent the build-up of hydrostatic pressures. A relatively sandy backfill along with a subdrain pipe wrapped in drainage aggregate and filter fabric (e.g., “burrito” subdrain) properly outletted to a suitable discharge point is typically used for conventional retaining walls. Retaining wall structures should be provided with appropriate drainage and appropriately waterproofed. Typical conventional (i.e., backfilled) retaining wall drainage is shown on Figure 3. If conditions other than those assumed above are anticipated, the equivalent fluid pressure values should be provided on an individual-case basis by the geotechnical consultant.

Surcharge loading effects from any adjacent structures should be evaluated by the retaining wall designer. In general, structural loads within a 1:1 (horizontal to vertical) upward projection from the bottom of the proposed retaining wall footing will surcharge the proposed retaining structure. Uniform surcharges may be estimated using the applicable coefficient of lateral earth pressure using a rectangular distribution. A factor of 0.5 and 0.33 may be used for at-rest and active conditions, respectively. The retaining wall designer should contact the geotechnical engineer for any required geotechnical input in estimating any applicable surcharge loads.

If required, the retaining wall designer may use a seismic lateral earth pressure increment of 12 pcf for a level backfill condition. This increment should be applied in addition to the provided static lateral earth pressure using a “normal” triangular distribution with the resultant acting at H/3 in relation to the base of the retaining structure (where H is the retained height). When analyzing short duration seismic loading for the restrained, at-rest condition, the seismic increment may be added to the applicable active lateral earth pressure (in lieu of the at-rest lateral earth pressure). Per Section 1803.5.12 of the 2010 CBC, the seismic earth pressure is applicable to “structures assigned to Seismic Design Category D, E, or F in accordance with Section 1613.” This seismic lateral earth pressure is estimated using the procedure outlined by the Structural Engineers Association of California (Lew, et al, 2010). The provided seismic lateral earth pressure is for a level backfill, if a sloping backfill condition is proposed LGC Geotechnical should be contacted for specific seismic lateral earth pressure increments based on the planned configuration of the retaining walls.

Soil bearing and lateral resistance (friction coefficient and passive resistance) are provided in Section 6.3.4. Earthwork considerations (temporary backcuts, backfill, compaction, etc.) for retaining walls are provided in Section 6.1 (Site Earthwork) and the subsequent earthwork related sub-sections.

6.5 Slope Creep

As with most natural and manmade slopes and pad areas, some degree of slope creep should be expected for this site. The amount of slope creep is usually influenced by such factors as the slope geometry, slope exposure, aspect, height, composition, as well as plant type, precipitation, irrigation and landscaping programs. Since the depth of the creep zone is somewhat unknown and analytically is in its infancy, our estimates of the extent and magnitude of slope creep are, therefore, based on our observations at previous sites with similar soil conditions. In general, the effects of slope creep are most prevalent in the outer approximate 10 to 20 feet of the slope but can extend further into the lot. In general, more slope creep occurs as the slope height increases, expansion potential increases, and changes in the moisture content of the soil occur.

Slope creep is not expected to significantly influence the proposed buildings, which are to be constructed with a stiff slab and meet or exceed the required setback recommendations, but may impact improvements near the top of the slope. Although rear yard top-of-slope improvements are generally not considered structural, we recommend that decorative walkways, patios, and other landscaping features be constructed with flexibility to accommodate the effects of slope creep. Typical remediation methods include construction joints, separation joints, flexible pavers, flexible structures, or additional reinforcement to limit cracking (see Nonstructural Concrete Flatwork section). The exact amount of movement due to slope creep cannot be determined at this time; it is dependent to some extent upon irrigation practices of homeowners and homeowner associations. Lateral and vertical deflections on the order of 2 inches have been observed on projects with similar geotechnical conditions. Future homeowners should be made aware of these conditions so they can design their improvements appropriately.

6.6 Fences and Freestanding Walls

As their name indicates, freestanding walls are those walls not designed to retain soil and/or water. These walls are generally located at the rear of the lot, or along the side yard or between lots. To reduce the potential for unsightly cracks, due to differential settlement, expansive soils or possible slope creep, we recommend the inclusion of construction joints at a maximum of 20 feet on center. This spacing may be altered by the structural engineer based upon the wall reinforcement. If the soil-moisture content below the wall foundation varies significantly, some wall movement should be expected. However, this movement is unlikely to cause more than cosmetic distress. Allowable soil bearing values for wall footing design are provided in Section 6.3.4.

Additionally, for fences near the tops of slopes, the fence designer should engineer the construction of the fence to be as flexible as possible while still maintaining integrity. Typical design features should include items such as slip couplings at the junction of top of slope fences and fences/walls perpendicular to the slope.

6.7 Preliminary Pavement Sections

Based on an assumed R-value of 25, we recommend the following provisional minimum street sections for Traffic Indices of 4.5, 5, and 6. These recommendations should be confirmed with R-value testing of representative near-surface soils at the completion of grading and after underground utilities have been installed and backfilled. Final street sections should be confirmed by the project civil engineer based upon the design Traffic Index. In addition, additional sections can be provided based on other desired traffic indices.

Assumed Traffic Index	4.5	5	6
R -Value Subgrade	25	25	25
AC Thickness	4.0 inches	4.0 inches	4.5 inches
Base Thickness	4.0 inches	5.5 inches	7.0 inches

The above recommendations are based on the assumption that proper maintenance and irrigation of the areas adjacent to the pavement will occur through the design life of the pavement. Failure to maintain a proper maintenance and/or irrigation program may jeopardize the integrity of the pavement.

Earthwork recommendations regarding aggregate base and subgrade are provided in the previous section "Site Earthwork" and the related sub-sections of this report.

6.8 Soil Corrosivity to Concrete and Metal

Although not corrosion engineers (LGC Geotechnical is not a corrosion consultant), several governing agencies in Southern California require the geotechnical consultant to determine the corrosion potential of soils to buried concrete and metal facilities. We therefore present the results of our testing with regard to corrosion for the use of the client and other consultants, as they determine necessary.

Based on Caltrans Corrosion Guidelines (2003), soils are considered corrosive if the pH is 5.5 or less, or the chloride concentration is 500 ppm or greater, or the sulfate concentration is 2,000 ppm or greater. Based on test results for chloride and sulfate content, onsite soils are not considered corrosive to bare metals and concrete using Caltrans criteria.

Based on laboratory sulfate test results, the near surface soils have a severity categorization of "Not Applicable" and are designated to a class "S0" per ACI 318, Table 4.2.1 with respect to sulfates. Concrete in direct contact with the onsite soils can be designed according to ACI 318, section 4.3 using the "S0" sulfate classification. This must be verified based on as-graded conditions.

6.9 Nonstructural Concrete Flatwork

Concrete flatwork (such as walkways, bicycle trails, etc.) has a high potential for cracking due to changes in soil volume related to soil-moisture fluctuations. To reduce the potential for excessive cracking and lifting, concrete should be designed in accordance with the minimum guidelines

outlined in Table 5. These guidelines will reduce the potential for irregular cracking and promote cracking along construction joints, but will not eliminate all cracking or lifting. Thickening the concrete and/or adding additional reinforcement will further reduce cosmetic distress.

TABLE 5
Nonstructural Concrete Flatwork for Low to Medium Expansion Potential

	Homeowner Sidewalks	Private Drives	Patios/Entryways	City Sidewalk Curb and Gutters
Minimum Thickness (in.)	4 (nominal)	5 (full)	5 (full)	City/Agency Standard
Presoaking	Wet down prior to placing	Wet down prior to placing	Wet down prior to placing	City/Agency Standard
Reinforcement	—	No. 3 at 24 inches on centers	No. 3 at 24 inches on centers	City/Agency Standard
Thickened Edge (in.)	—	8 x 8	—	City/Agency Standard
Crack Control Joints	Saw cut or deep open tool joint to a minimum of 1/3 the concrete thickness	Saw cut or deep open tool joint to a minimum of 1/3 the concrete thickness	Saw cut or deep open tool joint to a minimum of 1/3 the concrete thickness	City/Agency Standard
Maximum Joint Spacing	5 feet	10 feet or quarter cut whichever is closer	6 feet	City/Agency Standard
Aggregate Base Thickness (in.)	—	—	2	City/Agency Standard

To reduce the potential for driveways to separate from the garage slab, the builder may elect to install dowels to tie these two elements together. Similarly, future homeowners should consider the use of dowels to connect flatwork to the foundation.

6.10 Control of Surface Water and Drainage Control

Positive drainage of surface water away from structures is very important. Water should not be allowed to pond adjacent to buildings or to flow freely down a graded slope. Per the 2010 CBC, positive drainage may be accomplished by providing drainage away from buildings at a gradient of at least 5 percent for earthen surfaces for a distance of at least 10 feet away from the face of wall. If a distance of 10 feet cannot be achieved, an alternative of a gradient of at least 5 percent to an area drain or swale having a gradient of 2 percent is acceptable. Where necessary, drainage paths may be shortened by use

of area drains and collector pipes. Eave gutters are recommended and should reduce water infiltration into the subgrade soils if the downspouts are properly connected to appropriate outlets.

Planters with open bottoms adjacent to buildings should be avoided. Planters should not be designed adjacent to buildings unless provisions for drainage, such as catch basins, liners, and/or area drains, are made. Overwatering must be avoided.

6.11 Subsurface Water Infiltration

In general, the vast majority of geotechnical distress issues are directly related to improper drainage. Distress in the form of movement of foundations and other improvements could occur as a result of soil saturation and loss of soil support of foundations and pavements, settlement, collapse, internal soil erosion, and/or expansion. Additionally, off-site properties and improvements may be subjected to seeps, springs, slope instability, movements of foundations or other impacts as a result of water infiltration and migration. Infiltrated water may enter underground utility pipe zones and migrate along the pipe backfill, potentially impacting other improvements located far away from the point of infiltration. Any proposed infiltration system should not be located near slopes or existing/proposed improvements in order to reduce the potential for slope failures and geotechnical distress issues related to infiltration. Where sufficient distance from slopes and improvements cannot be achieved, additional mitigation recommendations from the geotechnical consultant may be provided.

We recommend the design of the infiltration basins include at least one redundancy. It may be prudent to provide an overflow system directly connected to storm drain system in order to prevent failure of the infiltration system, either as a result of lower than anticipated infiltration and/or very high flow volumes. It should be noted that if pretreatment of runoff to remove debris, soil particles, etc., cannot be performed, design infiltration rates may need to be further reduced. Over time, siltation and plugging may reduce the infiltration rate and subsequent effectiveness of the infiltration system. These factors should be considered in selecting a design infiltration rate. The calculated infiltration rate from our field investigation for the planned basins was 0.16 inch/hour based on factor of safety of two. The designer of the infiltration system may contact the geotechnical consultant for any geotechnical input during the design process.

6.12 Preconstruction and Construction Monitoring

It is recommended that a program of photo documentation of the existing adjacent structures located off-site along the eastern perimeter of the site be implemented prior to the onset of any adjacent grading. This should include, but not necessarily be limited to, detailed documentation of existing improvements, buildings, and utilities adjacent to the proposed grading area, with particular attention to any distress that is already present prior to the start of work.

6.13 Grading and Foundation Plan Review

When available, grading and foundation plans should be reviewed by LGC Geotechnical in order to verify our geotechnical recommendations are implemented. Updated recommendations and/or additional field work may be necessary.

6.14 Geotechnical Observation and Testing During Construction

The recommendations provided in this report are based on limited subsurface observations and geotechnical analysis. The interpolated subsurface conditions should be checked in the field during construction by a representative of LGC Geotechnical. Geotechnical observation and testing is required per Section 1704.7-9 of the 2010 California Building Code (CBC).

Geotechnical observation and/or testing should be performed by LGC Geotechnical at the following stages:

- During rough and precise grading;
- During utility trench backfill and compaction;
- After presoaking building pads and other concrete-flatwork subgrades, and prior to placement of aggregate base or concrete;
- Preparation of pavement subgrade and placement of aggregate base;
- After building and wall footing excavation and prior to placing concrete and/or reinforcement; and
- When any unusual soil conditions are encountered during any construction operation subsequent to issuance of this report.

7.0 LIMITATIONS

Our services were performed using the degree of care and skill ordinarily exercised, under similar circumstances, by reputable engineers and geologists practicing in this or similar localities. No other warranty, expressed or implied, is made as to the conclusions and professional advice included in this report. The samples taken and submitted for laboratory testing, the observations made and the in-situ field testing performed are believed representative of the entire project; however, soil and geologic conditions revealed by excavation may be different than our preliminary findings. If this occurs, the changed conditions must be evaluated by the project soils engineer and geologist and design(s) adjusted as required or alternate design(s) recommended.

This report is issued with the understanding that it is the responsibility of the owner, or of his/her representative, to ensure that the information and recommendations contained herein are brought to the attention of the designer and/or project engineer and incorporated into the plans, and the necessary steps are taken to see that the contractor and/or subcontractor properly implements the recommendations in the field. The contractor and/or subcontractor should notify the owner if they consider any of the recommendations presented herein to be unsafe.

The findings of this report are valid as of the present date. However, changes in the conditions of a property can and do occur with the passage of time, whether they be due to natural processes or the works of man on this or adjacent properties. Therefore, the findings, conclusions, and recommendations presented in this report can be relied upon only if LGC Geotechnical has the opportunity to observe the subsurface conditions during grading and construction of the project, in order to confirm that our preliminary findings are representative for the site.

In addition, changes in applicable or appropriate standards may occur, whether they result from legislation or the broadening of knowledge. Accordingly, the findings of this report may be invalidated wholly or partially by changes outside our control. Therefore, this report is subject to review and modification, and should not be relied upon after a period of 3 years.

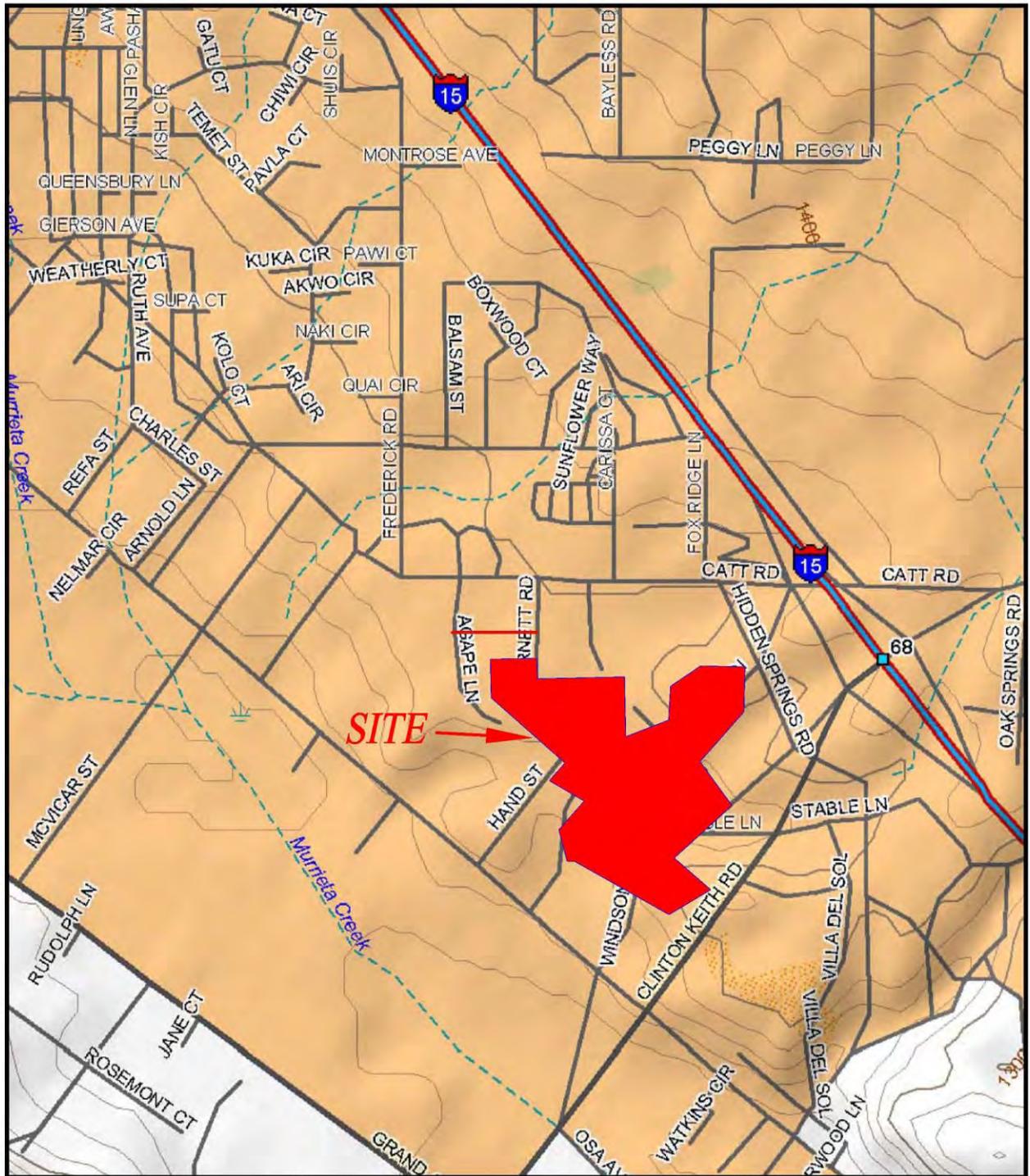


	Figure 1 Site Location Map	Project Name	T.T. No. 32535
		Project No.	12129-01
		Eng. / Geol.	BTZ / KBC
		Scale	N/A
		Date	February 2013

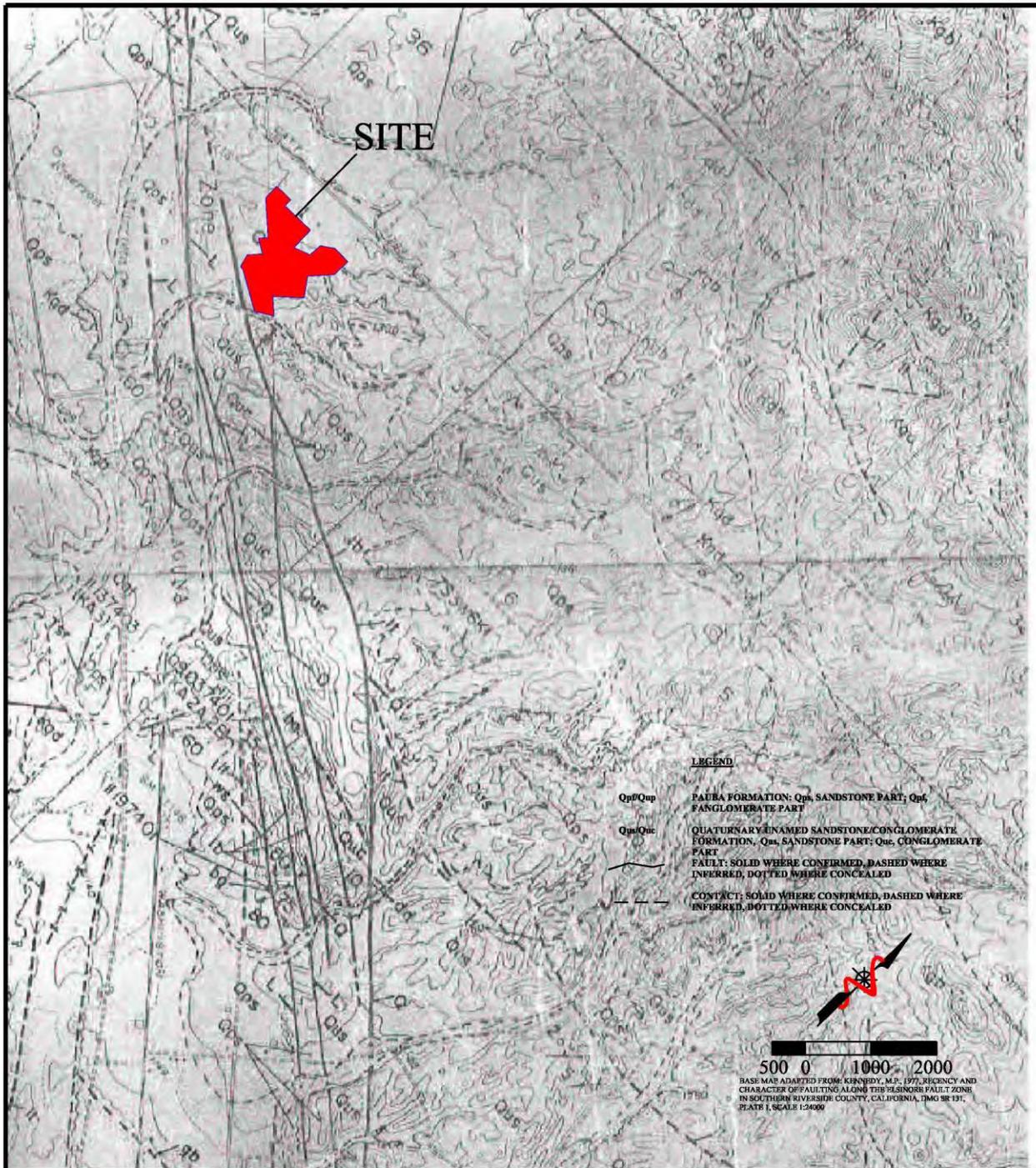
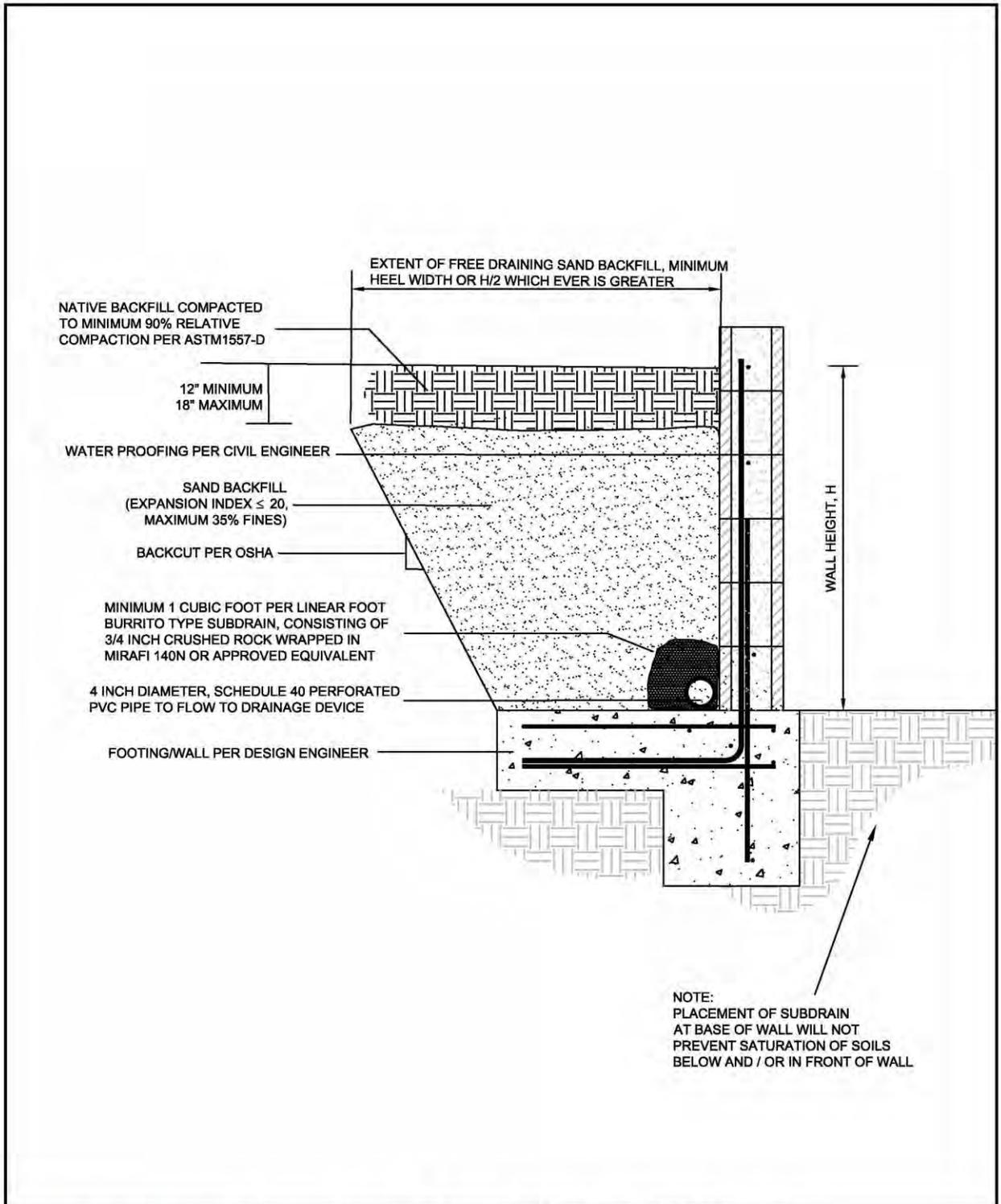


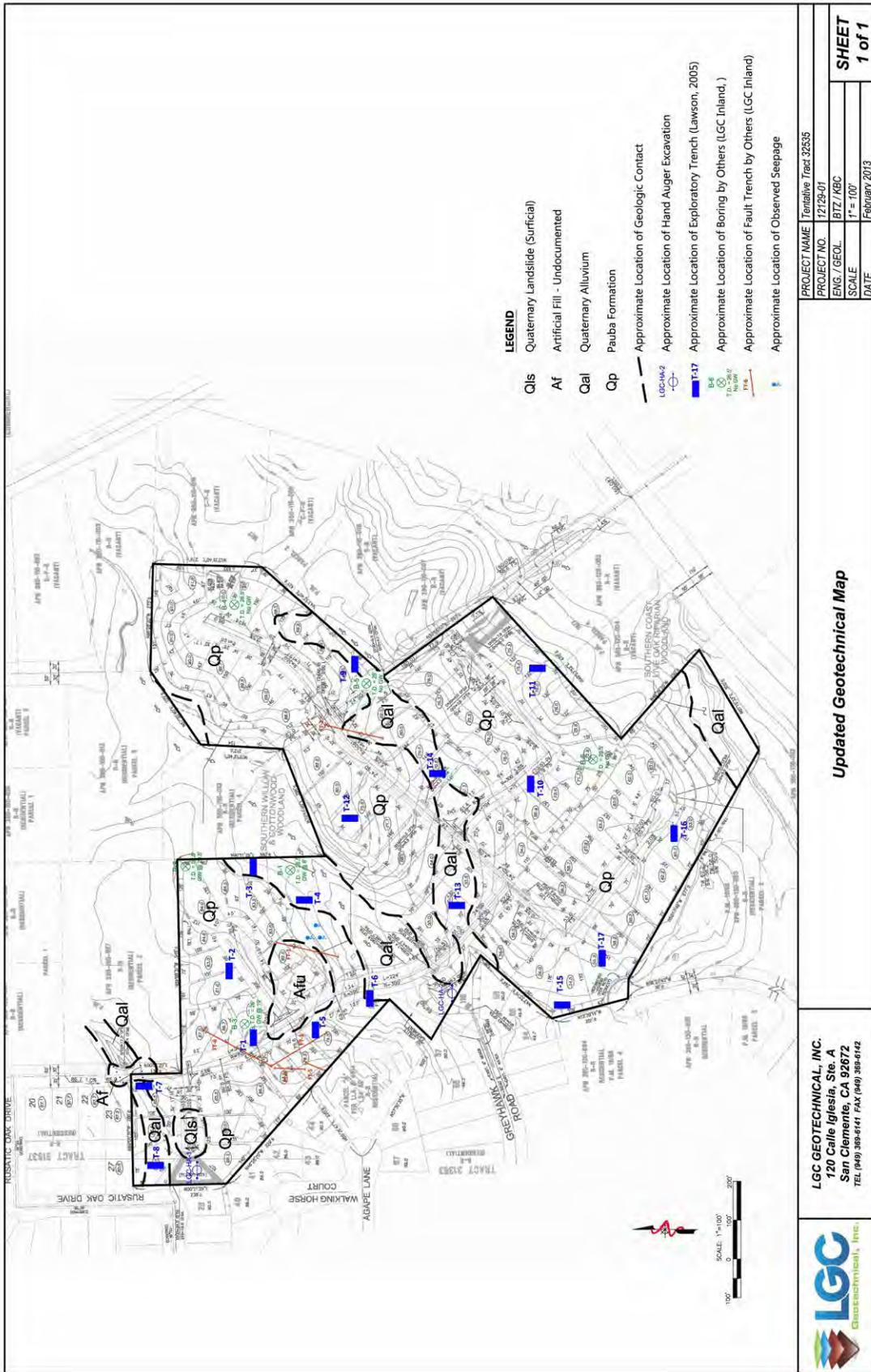
Figure 2
Regional Geologic
Map

Project Name	T.T. No. 32535
Project No.	12129-01
Eng. / Geol.	BTZ/KBC
Scale	1" : 2000'
Date	February 2013



NOTE:
PLACEMENT OF SUBDRAIN
AT BASE OF WALL WILL NOT
PREVENT SATURATION OF SOILS
BELOW AND / OR IN FRONT OF WALL.

	FIGURE 3 Recommended Retaining Wall Backfill and Subdrain Detail	PROJECT NAME	Tentative Tract 32535
		PROJECT NO.	12129-01
		ENG. / GEOL.	BTZ / KBC
		SCALE	Not to Scale
		DATE	February 2013



Appendix A
References

APPENDIX A

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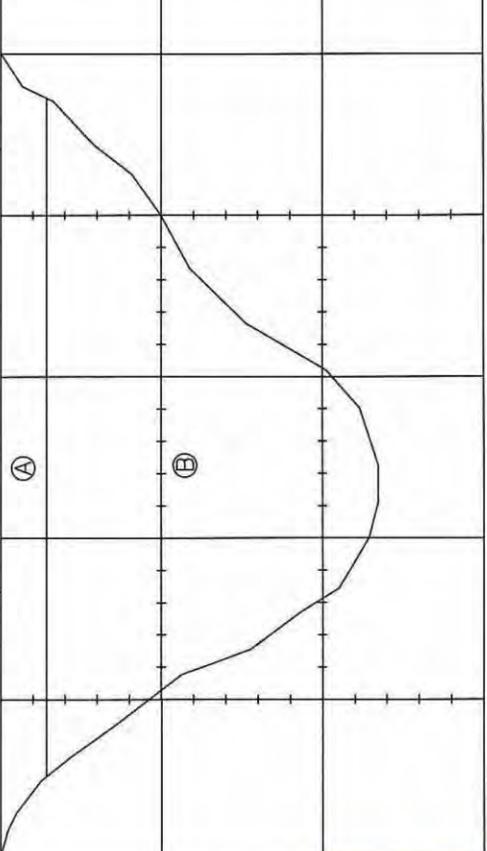
Aerial Photographs

Flight No.	Photo No.	Date	Scale
AXM-5F	158	5/6/49	1”-800’
AXM-5F	159	5/6/49	1”-800’

Appendix B
Logs of Borings, Test Pits
and Fault Trenches

From Lawson, 2005a

Project Name: T.T. 32535		Logged by: DAK		LOG OF TRENCH T-1		
Project Number: 041138-01		Elevation: 1285'		Engineering Properties		
Equipment: CASE 580L		Location/Grid: See Geotechnical Map		USCS		
Geologic Attitudes	Date: 05/25/05	Description:	Geologic Unit	Sample No.	Moisture (%)	Dry Density (pcf)
		<p>Quaternary Pauba Formation:</p> <p>A: @ 0-1' coarse Sand with Clay: red brown, dry, dense</p> <p>@ 1-4' coarse Sand with Clay: red brown, slightly moist to moist, dense</p> <p>@ 4'-5' Clayey to Clayey Sand: brown, moist, dense to medium dense</p> <p>B: @ 5' Increasing Silt to Silty very fine Sand to fine Sandy Silt with Clay: yellow brown to yellow gray, moist, dense</p> <p>C: @ 10' Sand: yellow to light brown, moist, dense</p> <p>@ 13' Sand: yellow to light brown, moist to very moist, dense</p>	Qp	1 @ 2'-4'		
GRAPHICAL REPRESENTATION:			SCALE: 1" = 5'	SURFACE SLOPE:		TREND: EW
LGC						Total Depth: 13' No Groundwater Encountered Backfilled: 05/25/05

Project Name: T.T. 32535		Logged by: DAK		LOG OF TRENCH T-2			
Project Number: 041138-01		Elevation: 1273'		Engineering Properties			
Equipment: CASE 580L		Location/Grid: See Geotechnical Map		USCS	Sample No.	Moisture (%)	Dry Density (pcf)
Geologic Attitudes	Date: 05/25/05	Description:	Geologic Unit				
@ 3' B-40E 25W		<p>Topsail/Colluvium:</p> <p>A: @ 0-1.5' Sand with Clay and Silt: red brown, dry to slightly moist, dense to slightly hard</p> <p>Quaternary Pauba Formation:</p> <p>B: @ 1.5' Sand with lenses of Gravel: red brown to yellow brown, moist, dense @ 7' less Gravel than above</p> <p>@ 12' Sand with lenses of Gravel: red brown, moist, dense</p>	Qp	SM/SC	1		
GRAPHICAL REPRESENTATION:		SCALE: 1" = 5'		SURFACE SLOPE:		TREND: EW	
							

Project Name: T.T. 32535		Logged by: DAK		LOG OF TRENCH T-3			
Project Number: 041138-01		Elevation: 1272'		Engineering Properties			
Equipment: CASE 580L		Location/Grid: See Geotechnical Map		USCS	Sample No.	Moisture (%)	Dry Density (pcf)
Geologic Attitudes	Date: 05/25/05	Description:	Geologic Unit	SURFACE SLOPE:		TREND: EW	
	Topsoil/Colluvium	A: @ 0-1.5' Clay with Sand: Black, wet to very moist, soft; roots, organics	Qp				
	Quaternary Pauba Formation: B: @ 1.5'- 5' Clayey Sand: brown, very moist, dense; Clay content decreases with depth, free water at contact with Clayey Sand	CL					
GRAPHICAL REPRESENTATION:		SCALE: 1" = 5'					
LGC							
						Total Depth: 5' Groundwater @ 1.5' Backfilled: 05/25/05	

Project Name: T.T. 32535		Logged by: DAK		LOG OF TRENCH T-4	
Project Number: 041138-01		Elevation: 1263'		Engineering Properties	
Equipment: CASE 580L		Location/Grid: See Geotechnical Map		USCS	Dry Density (pcf)
Geologic Attitudes	Date: 05/25/05	Description:	Geologic Unit	Sample No.	Moisture (%)
	Quaternary Alluvium:		Qal		
	A: @ 0-1' Sandy Clay: Black to dark brown, moist, soft; organics			CL	
	@ 1-3' Clayey Sand to Sandy Clay: Gray to dark Gray with yellow brown, very moist, soft; roots, seepage at 1.5'			CL/SC	
	Quaternary Pauba Formation:		Qp	SM	
	B: @ 4' Increase Silt to Silty Sand to Sandy Clayey Silt			SC	
	@ 4.5' Sand with minor Clays: gray, wet, dense; flowing seepage				
GRAPHICAL REPRESENTATION:		SCALE: 1" = 5'	SURFACE SLOPE:		TREND: NS
					Total Depth: 5' Groundwater @ 4.5' Backfilled: 05/25/05

Project Name: T.T. 32535		Logged by: DAK		LOG OF TRENCH T-5		
Project Number: 041138-01		Elevation: 1267'		Engineering Properties		
Equipment: CASE 580L		Location/Grid: See Geotechnical Map		USCS	Dry Density (pcf)	
Geologic Attitudes	Date: 05/25/05	Description:	Geologic Unit	Sample No.	Moisture (%)	
		Topsoil/Colluvium: A: @ 0-1' Fine Sand with Silt: light brown, medium dense, roots	Qp	SM		
		Quaternary Pauba Formation: B: @ 1'-3' Sand with Silt and Clay: red brown, medium dense		SM/SC SC	I	
		@ 3'-5' Clayey Sand: Gray, very moist, medium dense to soft				
		@ 5' Clayey Sand: brown, moist, medium dense @ 8' seepage @ 10' Clay to Clayey Sand: getting denser/stiffer with depth, seepage		CL/SC		
GRAPHICAL REPRESENTATION:		SCALE: 1" = 5'		SURFACE SLOPE:		
		TREND: EW				
LGC				Total Depth: 13' Seepage @ 8' Backfilled: 05/25/05		

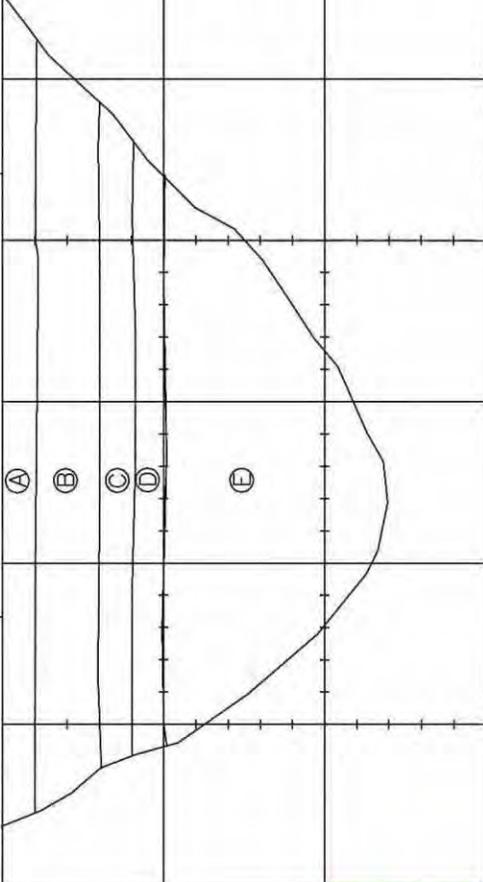
Project Name: T.T. 32535		Logged by: DAK		LOG OF TRENCH T-6			
Project Number: 041138-01		Elevation: 1250'		Engineering Properties			
Equipment: CASE 580L		Location/Grid: See Geotechnical Map		USCS	Sample No.	Moisture (%)	Dry Density (pcf)
Geologic Attitudes	Date: 05/25/05	Description:	Geologic Unit				
@ 0-1' Laminations: 40E.25W		Quaternary Alluvium: A: @ 0-1' Sand to Silt: brown with red tinge, slightly moist to dry, medium dense; thin laminations B: @ 1'-3' Silty Sand: brown to dark brown, moist, medium dense; roots	Qal	SM/ML			
		Quaternary Pauba Formation: @ 3' Silty Sand: brown to dark brown with light yellow brown sand pods/lenses 4-6" thick, 6"-1' long, minor scattered gravel @ 9' Sand: yellow brown, moist, dense @ 13' Silt with Sand: Gray, slightly moist, stiff, rootlets in fractures	Qp	SM	1		
GRAPHICAL REPRESENTATION:		SCALE: 1" = 5'		SURFACE SLOPE:		TREND: EW	
						Total Depth: 13.5' No Groundwater Encountered Backfilled: 05/25/05	

Project Name: T.T. 32535		Logged by: DAK		LOG OF TRENCH T-7	
Project Number: 041138-01		Elevation: 1277'		Engineering Properties	
Equipment: CASE 580L		Location/Grid: See Geotechnical Map		USCS	Dry Density (pcf)
Geologic Attitudes	Date: 05/25/05	Description:	Geologic Unit	Sample No.	Moisture (%)
		<p>Quaternary Pauba Formation:</p> <p>A: @ 0-2' Coarse Sand and Silt with minor Gravel: red brown, dry, very dense to dense; weakly indurated</p> <p>B: @ 2' Coarse Sand and Silt with an increase in clay: red brown, dry, very dense to dense; weakly indurated</p> <p>@ 4' Sand with minor Clay and Silt: yellow brown, moist, dense</p> <p>@ 8' coarse Sand with minor Silt: light brown, slightly moist, dense</p> <p>@ 9'-10' coarse to medium Sand with minor Silt: brown, moist, very dense to slightly hard; indurated</p>	Qp	1	
GRAPHICAL REPRESENTATION:		SCALE: 1" = 5'		SURFACE SLOPE:	
				TREND: NS	
				Total Depth: 10' No Groundwater Encountered Backfilled: 05/25/05	



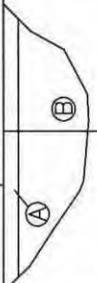
Project Name: T.T. 32535		Logged by: DAK		LOG OF TRENCH T-9			
Project Number: 041138-01		Elevation: 1278'		Engineering Properties			
Equipment: CASE 580L		Location/Grid: See Geotechnical Map		USCS	Sample No.	Moisture (%)	Dry Density (pcf)
Geologic Attitudes	Date: 05/25/05	Description:	Geologic Unit				
		Quaternary Pauba Formation: A: @ 0-1' Silty Sand to Sandy Silt: reddish brown, dry to slightly moist, medium dense @ 1-3' Clayey Sand with lenses of Gravel: brown, slightly moist, dense B: @ 3' Clayey Sand with lenses of Sand and Gravel: brown, slightly moist, dense @ 4' Clayey Sand: red brown, moist, dense C: @ 7-12' Sandy Clay: brown, moist, stiff	Qp	SM			
				CL			
GRAPHICAL REPRESENTATION:		SCALE: 1" = 5'		SURFACE SLOPE:		TREND: EW	

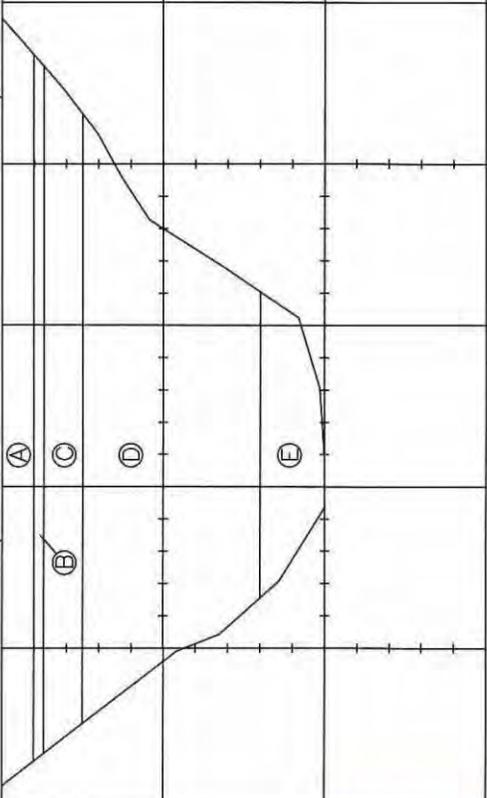


Project Name: T.T. 32535		Logged by: DAK		LOG OF TRENCH T-10	
Project Number: 041138-01		Elevation: 1280'		Engineering Properties	
Equipment: CASE 580L		Location/Grid: See Geotechnical Map		USCS	Sample No.
Geologic Attitudes	Date: 05/25/05	Description:	Geologic Unit	Moisture (%)	Dry Density (pcf)
		Quaternary Pauba Formation: A: @ 0-1' Silty Sand: brown, slightly moist to dry, medium dense B: @ 1'-3' Silty Sand: brown, slightly moist to dry, dense C: @ 3'-4' Clayey Sand with Silt: red brown, slightly moist, dense D: @ 4' Fine Sand with Silt: brown, slightly moist, dense E: @ 5' Coarse Sand with Silt: brown, slightly moist, dense @ 7' Sand with Silt: brown, slightly moist, dense	Qp		
GRAPHICAL REPRESENTATION:		SCALE: 1" = 5'		SURFACE SLOPE:	
				TREND: EW	
				Total Depth: 12' No Groundwater Encountered Backfilled: 05/25/05	

Project Name: T.T. 32535		Logged by: DAK		LOG OF TRENCH T-11			
Project Number: 041138-01		Elevation: 1275'		Engineering Properties			
Equipment: CASE 580L		Location/Grid: See Geotechnical Map		USCS	Sample No.	Moisture (%)	Dry Density (pcf)
Geologic Attitudes	Date: 05/25/05	Description:	Geologic Unit	TRENDS:			
	Quaternary Alluvium:		Qal	SC			
	A: @ 0-1' Clayey Fine Sand: brown, moist, slightly loose		Qp	SC	1		
	B: @ 1'-2' Clayey Fine Sand with cobbles: brown, moist, medium dense			SP			
	C: @ 3' Loamy paleosol: brown, slightly moist, loose						
	Quaternary Pauba Formation:						
	D: @ 3.5' Clayey Sand: brown, slightly moist, dense						
	F: @ 10' coarse Sand: light brown, moist, dense						
GRAPHICAL REPRESENTATION:		SCALE: 1" = 5'		SURFACE SLOPE:		TREND: NS	

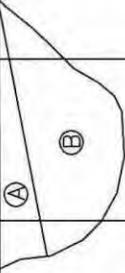


Project Name: T.T. 32535		Logged by: DAK		LOG OF TRENCH T-12	
Project Number: 041138-01		Elevation: 1291'		Engineering Properties	
Equipment: CASE 580L		Location/Grid: See Geotechnical Map		USCS	Sample No.
Geologic Attitudes	Date: 05/25/05	Description:	Geologic Unit	Moisture (%)	Dry Density (pcf)
		Topsoil/Colluvium: A: @ 0-0.5' Very Fine Sandy Silt: light brown/White, dry, loose		ML	
@ 0.5'-2.5' joints: 70E-36S		Quaternary Pauba Formation: B: @ 0.5'-2.5' Sandstone: white, hard; roots in joints	Qp	SC	
GRAPHICAL REPRESENTATION:		SCALE: 1" = 5'		TREND: NS	
				<p>Total Depth: 2.5' No Groundwater Encountered Backfilled: 05/25/05</p>	

Project Name: T.T. 32535		Logged by: DAK		LOG OF TRENCH T-13	
Project Number: 041138-01		Elevation: 1250'		Engineering Properties	
Equipment: CASE 580L		Location/Grid: See Geotechnical Map		USCS	Dry Density (pcf)
Geologic Attitudes	Date: 05/25/05	Description:	Geologic Unit	Sample No.	Moisture (%)
		<p>Topsoil/Colluvium: A: @ 0-1' Sand with Silt: brown, moist, loose B: @ 1'-1.25' Sandy Clay: brown, moist, stiff</p> <p>Quaternary Pauba Formation: C: @ 1.25'-2.5' Sand with minor Silt: light brown, moist, medium dense D: @ 2.5'-4' Clayey Sand: brown, moist, medium stiff @ 4' Clayey Sand: brown, moist, stiff E: @ 8'-10' Coarse Sand: Gray, slightly moist, very dense; indurated</p>	Qp	SM CL SM SC SP	
GRAPHICAL REPRESENTATION:		SCALE: 1" = 5'		SURFACE SLOPE:	
				TREND: NS	
				Total Depth: 10' No Groundwater Encountered Backfilled: 05/25/05	

Project Name: T.T. 32535		Logged by: DAK		LOG OF TRENCH T-14	
Project Number: 041138-01		Elevation: 1262'		Engineering Properties	
Equipment: CASE 580L		Location/Grid: See Geotechnical Map		USCS	Dry Density (pcf)
Geologic Attitudes	Date: 05/5/04	Description:	Geologic Unit	Sample No.	Moisture (%)
	<u>Topsoil/Colluvium:</u>		Qp	SM	
	A: @ 0-1' Sand with Silt: brown to red brown, moist, loose			CL	
	<u>Quaternary Pauba Formation:</u>			SC	
	B: @ 1'-2' Sandy Clay: brown, moist, stiff @ 2'-3' Clayey Sand: brown, moist, medium stiff			SP	
	C: @ 3' Clayey Sand: brown, moist, stiff				
	D: @ 7'-10' coarse Sand: Gray, slightly moist, very dense; indurated				
GRAPHICAL REPRESENTATION:		SCALE: 1" = 5'		SURFACE SLOPE:	
				TREND: NS	
				Total Depth: 11' No Groundwater Encountered Backfilled: 05/25/05	

Project Name: T.T. 32535		Logged by: DAK		LOG OF TRENCH T-15			
Project Number: 041138-01		Elevation: 1245'		Engineering Properties			
Equipment: CASE 580L		Location/Grid: See Geotechnical Map		USCS	Sample No.	Moisture (%)	Dry Density (pcf)
Geologic Attitudes	Date: 05/5/04	Description:	Geologic Unit				
		<p>Topsoil/Colluvium:</p> <p>A: @ 0-6' Clayey Sand: brown, slightly moist, very dense; slightly indurated, roots</p> <p>Quaternary Pauba Formation:</p> <p>B: @ 6' Clay with minor Sand: brown and White, slightly moist, very stiff; indurated, calcium carbonate nodules throughout</p> <p>C: @ 7' Sandstone: white, dry, hard</p>		SC	1		
				CL	2		
				SP			
GRAPHICAL REPRESENTATION:		SCALE: 1" = 5'		SURFACE SLOPE:		TREND: NS	
						<p>Total Depth: 8' No Groundwater Encountered Backfilled: 05/25/05</p>	

Project Name: T.T. 32535		Logged by: DAK		LOG OF TRENCH T-16	
Project Number: 041138-01		Elevation: 1263'		Engineering Properties	
Equipment: CASE 580L		Location/Grid: See Geotechnical Map		USCS	Sample No.
Geologic Attitudes	Date: 05/25/05	Description:	Geologic Unit	Moisture (%)	Dry Density (pcf)
		Artificial Fill - Undocumented A: @ 0-1.5' Clay, Silty Sand, and Sand: brown, Gray, red brown, dry to slightly moist, med dense/medium stiff Quaternary Pauba Formation: B: @ 1.5'-4' Sand: Gray, slightly moist, very dense; semi-well indurated	Afu Qp		
GRAPHICAL REPRESENTATION:		SCALE: 1" = 5'		SURFACE SLOPE:	
				TREND: EW	
				Total Depth: 4' No Groundwater Encountered Backfilled: 05/25/05	

Project Name: T.T. 32535		Logged by: DAK		LOG OF TRENCH T-17			
Project Number: 041138-01		Elevation: 1257'		Engineering Properties			
Equipment: CASE 580L		Location/Grid: See Geotechnical Map		USCS	Sample No.	Moisture (%)	Dry Density (pcf)
Geologic Attitudes	Date: 05/25/05	Description:	Geologic Unit				
	Quaternary Pauba Formation:		Qp	SC			
	A @ 0-1' Clayey Sand: brown, Dry, medium dense			SP			
	@ 1'-2' Clayey Sand: brown and White, slightly moist, dense						
	@ 2' Sand with Clay: yellow brown, slightly moist, dense						
	B: @ 6' Sand: Very light Gray, moist, dense						
	C: @ 10' Sandstone: Gray, slightly moist, hard; white mineral infill in fractures						
GRAPHICAL REPRESENTATION:		SCALE: 1" = 5'		SURFACE SLOPE: 10°S		TREND: EW	
						Total Depth: 10' No Groundwater Encountered Backfilled: 05/25/05	



From LGC Inland, 2006

Geotechnical Boring Log B-1							
Date: 5/8/06			Project Name: Temecula Creek Estates, LLC			Page 1 of 1	
Project Number: I05873-10			Logged By: TJ				
Drilling Company: 2R			Type of Rig: CME 55				
Drive Weight (lbs): 140			Drop (in): 30		Hole Dia (in): 8		
Top of Hole Elevation (ft): 1265			Hole Location: See Geotechnical Map				
Depth (ft)	Blow Count / 6"	Sample No.	Dry Density (pcf)	Moisture (%)	Geologic / USCS Symbol	DESCRIPTION	Type of Test
0		Bag 10-5				<u>Topsoil</u> : Clayey SAND; dark yellowish brown, moist, medium dense	EI, Max
7	11	R-1	118.9	14.1			
5	12	R-2	-	-	Qal SM	<u>Quaternary Alluvium</u> : Silty SAND; medium gray, wet, medium dense	
10	7	R-3	112.3	17.7		groundwater at 8 feet moderate brown	consol
10	12	R-4	114.9	16.9		medium gray, moist	consol
15	20	S-1	-	15.0	QTws	<u>Quaternary-Tertiary Sandstone</u> : SANDSTONE; medium gray, wet, moderately hard, poorly graded	
20	40	R-5	119.4	14.0		Silty SANDSTONE; medium gray, wet, hard	
25	13	S-2	-	16.7		moderate yellowish brown, moderately hard	
30						Total Depth @ 26 1/2 feet Groundwater @ 8 feet	



Geotechnical Boring Log B-2							
Date: 5/8/06		Project Name: Temecula Creek Estates, LLC			Page 1 of 2		
Project Number: I05873-10		Logged By: TJ					
Drilling Company: 2R		Type of Rig: CME 55					
Drive Weight (lbs): 140		Drop (in): 30		Hole Dia (in): 8			
Top of Hole Elevation (ft): 1287		Hole Location: See Geotechnical Map					
Depth (ft)	Blow Count / 6"	Sample No.	Dry Density (pcf)	Moisture (%)	Geologic / USCS Symbol	DESCRIPTION	Type of Test
0		Bag 10-5			SC	<u>Topsoil</u> : Clayey SAND; moderate brown, slightly moist, loose	
5	40 50 for 5'	R-1	114.4	6.8	QTws	<u>Quaternary-Tertiary Sandstone</u> : Silty SANDSTONE; moderate yellowish brown, wet, hard, fine to coarse sand	
	32 50 for 4'	R-2	94.5	24.7		pale yellowish brown	
	50	R-3	102.4	5.9		coarse gravel at 7½ feet	
10	50 for 4'	R-4	-	-		moist	
	50 for 5'	R-5	100.7	4.9			
15	22 42 50	S-1	-	7.5		very pale orange, slightly moist, fine to medium sand	
20	50	R-6	113.3	13.4		pale yellow brown groundwater at 20½ feet	
25	30 40 50 for 5'	S-2	-	14.0		fine to coarse sand	
30							



Geotechnical Boring Log B-2							
Date: 5/8/06			Project Name: Temecula Creek Estates, LLC			Page 2 of 2	
Project Number: I05873-10			Logged By: TJ				
Drilling Company: 2R			Type of Rig: CME 55				
Drive Weight (lbs): 140			Drop (in): 30		Hole Dia (in): 8		
Top of Hole Elevation (ft): 1287			Hole Location: See Geotechnical Map				
Depth (ft)	Blow Count / 6"	Sample No.	Dry Density (pcf)	Moisture (%)	Geologic / USCS Symbol	DESCRIPTION	Type of Test
30	23 43 50	R-7	114.5	18.4			
35	9 14 20	S-3	-	21.8		SILTSTONE; moderate yellowish brown, moist, moderately hard	
40	12 14 50 for 4"	R-8	120.3	14.6		Silty SANDSTONE; pale yellowish brown, wet, hard	
45	23 37 50	S-4	-	16.4		pale yellowish orange	
50	50	R-9	117.9	16.0		moderate yellowish brown, moist	
Total Depth @ 50½ feet Groundwater @ 20½ feet							
55							
60							



Geotechnical Boring Log B-3								
Date: 5/8/06			Project Name: Temecula Creek Estates, LLC			Page 1 of 1		
Project Number: I05873-10			Logged By: TJ					
Drilling Company: 2R			Type of Rig: CME 55					
Drive Weight (lbs): 140			Drop (in): 30		Hole Dia (in): 8			
Top of Hole Elevation (ft): 1287			Hole Location: See Geotechnical Map					
Depth (ft)	Blow Count / 6"	Sample No.	Dry Density (pcf)	Moisture (%)	Geologic / USCS Symbol	DESCRIPTION	Type of Test	
0					SM	<u>Topsoil</u> : silty SAND; pale yellowish brown, moist, loose		
15	15	Bag 10-5			QTws	<u>Quaternary-Tertiary Sandstone</u> : SILTSTONE; pale yellowish brown, moist, hard		
32	32	R-1	116.4	11.2				
50	50							
5	26	R-2	120.6	1.1			CLAYSTONE; dark yellowish brown, moist, moderately hard	
50	50							
10	23	R-3	119.1	15.9			hard	
50	50							
10	25	R-4	117.7	14.8				
50	50							
15	27	R-5	118.0	7.5		Silty SANDSTONE; pale yellowish brown, moist, hard		
40	40							
47	47							
15	15	S-1	-	8.7		moderately hard		
18	18							
20	20							
20	27	R-6	116.6	12.1		Silty SANDSTONE; very pale orange, wet, hard, poorly-graded groundwater at 19.0 feet		
37	37							
50 for 5'	50 for 5'							
25	45	R-7	-	-				
50	50							
Total Depth @ 26 feet Groundwater @ 19 feet								
30								



Geotechnical Boring Log B-4							
Date: 5/8/06			Project Name: Temecula Creek Estates, LLC			Page 1 of 1	
Project Number: I05873-10			Logged By: TJ				
Drilling Company: 2R			Type of Rig: CME 55				
Drive Weight (lbs): 140			Drop (in): 30		Hole Dia (in): 8		
Top of Hole Elevation (ft): 1287			Hole Location: See Geotechnical Map				
Depth (ft)	Blow Count / 6"	Sample No.	Dry Density (pcf)	Moisture (%)	Geologic / USCS Symbol	DESCRIPTION	Type of Test
0						<u>Topsoil:</u> Clayey SAND; dusky yellowish brown, moist, loose to medium dense, trace coarse gravel	
5	12 32 40	R-1	125.7	10.3	Qps	<u>Quaternary Pauba Formation:</u> Silty SANDSTONE; pale yellowish brown, slightly moist, hard	
	13 25 37	R-2	103.1	19.9		SILTSTONE; pale yellowish brown, moist, moderately hard	
	33 50 for 4"	R-3	119.7	13.5		Silty SANDSTONE; pale yellowish brown, moist, hard	
10	17 30 44	R-4	110.5	9.0		moderately hard	
	16 26 40	R-5	122.6	7.0		SILTSTONE; pale yellowish brown, moist, moderately hard	
15	9 13 24	S-1	-	17.3		dusky yellowish brown	
20	8 33 45	R-6	110.9	17.3			
						Poorly-graded silty SANDSTONE; very pale orange, wet, hard	
25	29 39 50	R-7	114.9	13.0			
Total Depth @ 26 1/2 feet No Groundwater							
30		-	-	-			



F. Treatment Control BMP Sizing Calculations and Design Details

Design Procedure for BMP Design Volume 85 th percentile runoff event																					
Designer: <u>Dylan Nguyen</u> Company: <u>MDS Consulting</u> Date: <u>5/22/13</u> Project: <u>Tract 32535</u> Location: <u>North Ranch Basin A</u>																					
1. Create Unit Storage Volume Graph a. Site location (Township, Range, and Section). b. Slope value from the Design Volume Curve in Appendix A . c. Plot this value on the Unit Storage Volume Graph shown on Figure 2 . d. Draw a straight line from this point to the origin, to create the graph	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center; padding: 5px;"><u> </u></td> <td style="text-align: center; padding: 5px;"><u>T. 7S & R. 4W</u></td> <td style="padding: 5px;"></td> </tr> <tr> <td style="text-align: center; padding: 5px;"><u> </u></td> <td style="text-align: center; padding: 5px;"><u>Section 1</u></td> <td style="text-align: right; padding: 5px;">(1)</td> </tr> <tr> <td style="padding: 5px;">Slope =</td> <td style="text-align: center; padding: 5px;"><u> </u></td> <td style="text-align: right; padding: 5px;"><u>0.70</u> (2)</td> </tr> <tr> <td style="padding: 5px;">Is this graph attached?</td> <td style="padding: 5px;">Yes <input checked="" type="checkbox"/></td> <td style="padding: 5px;">No <input type="checkbox"/></td> </tr> </table>	<u> </u>	<u>T. 7S & R. 4W</u>		<u> </u>	<u>Section 1</u>	(1)	Slope =	<u> </u>	<u>0.70</u> (2)	Is this graph attached?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>								
<u> </u>	<u>T. 7S & R. 4W</u>																				
<u> </u>	<u>Section 1</u>	(1)																			
Slope =	<u> </u>	<u>0.70</u> (2)																			
Is this graph attached?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>																			
2. Determine Runoff Coefficient a. Determine total impervious area b. Determine total tributary area c. Determine Impervious fraction $i = (5) / (6)$ d. Use (7) in Figure 1 to find Runoff OR $C = .858i^3 - .78i^2 + .774i + .04$	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 5px;">$A_{\text{Impervious}} =$</td> <td style="text-align: center; padding: 5px;"><u> </u></td> <td style="text-align: center; padding: 5px;"><u>0.95</u></td> <td style="padding: 5px;">acres</td> <td style="text-align: right; padding: 5px;">(5)</td> </tr> <tr> <td style="padding: 5px;">$A_{\text{total}} =$</td> <td style="text-align: center; padding: 5px;"><u> </u></td> <td style="text-align: center; padding: 5px;"><u>1.90</u></td> <td style="padding: 5px;">acres</td> <td style="text-align: right; padding: 5px;">(6)</td> </tr> <tr> <td style="padding: 5px;">$i =$</td> <td style="text-align: center; padding: 5px;"><u> </u></td> <td style="text-align: center; padding: 5px;"><u>0.50</u></td> <td style="padding: 5px;"></td> <td style="text-align: right; padding: 5px;">(7)</td> </tr> <tr> <td style="padding: 5px;">$C =$</td> <td style="text-align: center; padding: 5px;"><u> </u></td> <td style="text-align: center; padding: 5px;"><u>0.34</u></td> <td style="padding: 5px;"></td> <td style="text-align: right; padding: 5px;">(8)</td> </tr> </table>	$A_{\text{Impervious}} =$	<u> </u>	<u>0.95</u>	acres	(5)	$A_{\text{total}} =$	<u> </u>	<u>1.90</u>	acres	(6)	$i =$	<u> </u>	<u>0.50</u>		(7)	$C =$	<u> </u>	<u>0.34</u>		(8)
$A_{\text{Impervious}} =$	<u> </u>	<u>0.95</u>	acres	(5)																	
$A_{\text{total}} =$	<u> </u>	<u>1.90</u>	acres	(6)																	
$i =$	<u> </u>	<u>0.50</u>		(7)																	
$C =$	<u> </u>	<u>0.34</u>		(8)																	
3. Determine 85% Unit Storage Volume a. Use (8) in Figure 2 Draw a Vertical line from (8) to the graph, then a Horizontal line to the desired V_u value.	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 5px;">$V_u =$</td> <td style="text-align: center; padding: 5px;"><u> </u></td> <td style="text-align: center; padding: 5px;"><u>0.24</u></td> <td style="padding: 5px;">$\frac{\text{in-acre}}{\text{acre}}$</td> <td style="text-align: right; padding: 5px;">(9)</td> </tr> </table>	$V_u =$	<u> </u>	<u>0.24</u>	$\frac{\text{in-acre}}{\text{acre}}$	(9)															
$V_u =$	<u> </u>	<u>0.24</u>	$\frac{\text{in-acre}}{\text{acre}}$	(9)																	
4. Determine Design Storage Volume a. $V_{\text{BMP}} = (9) \times (6)$ [in- acres] b. $V_{\text{BMP}} = (10) / 12$ [ft- acres] c. $V_{\text{BMP}} = (11) \times 43560$ [ft ³]	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 5px;">$V_{\text{BMP}} =$</td> <td style="text-align: center; padding: 5px;"><u> </u></td> <td style="text-align: center; padding: 5px;"><u>0.456</u></td> <td style="padding: 5px;">in-acre</td> <td style="text-align: right; padding: 5px;">(10)</td> </tr> <tr> <td style="padding: 5px;">$V_{\text{BMP}} =$</td> <td style="text-align: center; padding: 5px;"><u> </u></td> <td style="text-align: center; padding: 5px;"><u>0.038</u></td> <td style="padding: 5px;">ft-acre</td> <td style="text-align: right; padding: 5px;">(11)</td> </tr> <tr> <td style="padding: 5px;">$V_{\text{BMP}} =$</td> <td style="text-align: center; padding: 5px;"><u> </u></td> <td style="text-align: center; padding: 5px;"><u>1,655</u></td> <td style="padding: 5px;">ft³</td> <td style="text-align: right; padding: 5px;">(12)</td> </tr> </table>	$V_{\text{BMP}} =$	<u> </u>	<u>0.456</u>	in-acre	(10)	$V_{\text{BMP}} =$	<u> </u>	<u>0.038</u>	ft-acre	(11)	$V_{\text{BMP}} =$	<u> </u>	<u>1,655</u>	ft ³	(12)					
$V_{\text{BMP}} =$	<u> </u>	<u>0.456</u>	in-acre	(10)																	
$V_{\text{BMP}} =$	<u> </u>	<u>0.038</u>	ft-acre	(11)																	
$V_{\text{BMP}} =$	<u> </u>	<u>1,655</u>	ft ³	(12)																	
Notes:																					

TABLE 1

Summary of Infiltration Testing

Boring Location	Calculated Infiltration Rate* (Inches/Hr)
LGC-HA-1	$0.16 \times 2 = 0.32$
LGC-HA-2	0.33

INFILTRATION
— BASIN "A"

*Based on Factor of Safety of 2

It should be emphasized that infiltration test results are only representative of the location and depth where they are performed. Varying subsurface conditions may exist outside of the test locations which could alter the calculated infiltration rates indicated above. Infiltration tests are performed using relatively clean water free of particulates, silt, etc. Refer to the discussion provided in Section 6.11

Infiltration Basin - Design Procedure <small>(Rev. 03-2012)</small>	BMP ID Basin A	Legend:	Required Entries Calculated Cells
Company Name: <u>MDS Consulting</u>			Date: <u>8/2/2013</u>
Designed by: <u>Dylan Nguyen</u>		County/City Case No.:	
Design Volume			
a) Tributary area (BMP subarea)		$A_T =$	<u>1.9</u> acres
b) Enter V_{BMP} determined from Section 2.1 of this Handbook		$V_{BMP} =$	<u>1,655</u> ft ³
Maximum Depth			
a) Infiltration rate		$I =$	<u>0.32</u> in/hr
b) Factor of Safety (See Table 1, Appendix A: "Infiltration Testing" from this BMP Handbook)		$FS =$	<u>3</u>
c) Calculate D_1	$D_1 = \frac{I \text{ (in/hr)} \times 72 \text{ hrs}}{12 \text{ (in/ft)} \times FS}$	$D_1 =$	<u>0.6</u> ft
d) Enter the depth of freeboard (at least 1 ft)			<u>1</u> ft
e) Enter depth to historic high ground water (measured from top of basin)			<u>100</u> ft
f) Enter depth to top of bedrock or impermeable layer (measured from top of basin)			<u>100</u> ft
g) D_2 is the smaller of:			
Depth to groundwater - (10 ft + freeboard) and		$D_2 =$	<u>89.0</u> ft
Depth to impermeable layer - (5 ft + freeboard)			
h) D_{MAX} is the smaller value of D_1 and D_2 but shall not exceed 5 feet		$D_{MAX} =$	<u>0.6</u> ft
Basin Geometry			
a) Basin side slopes (no steeper than 4:1)		$z =$	<u>4</u> :1
b) Proposed basin depth (excluding freeboard)		$d_B =$	<u>0.6</u> ft
c) Minimum bottom surface area of basin ($A_S = V_{BMP}/d_B$)		$A_S =$	<u>2758</u> ft ²
d) Proposed Design Surface Area		$A_D =$	<u>2760</u> ft ²
Forebay			
a) Forebay volume (minimum 0.5% V_{BMP})		Volume =	<u>8</u> ft ³
b) Forebay depth (height of berm/splashwall. 1 foot min.)		Depth =	<u>1</u> ft
c) Forebay surface area (minimum)		Area =	<u>8</u> ft ²
d) Full height notch-type weir		Width (W) =	<u>10.0</u> in
Notes: _____			

Design Procedure for BMP Design Volume 85 th percentile runoff event									
Designer: <u>Dylan Nguyen</u>									
Company: <u>MDS Consulting</u>									
Date: <u>5/22/13</u>									
Project: <u>Tract 32535</u>									
Location: <u>North Ranch Basin B</u>									
1. Create Unit Storage Volume Graph a. Site location (Township, Range, and Section). b. Slope value from the Design Volume Curve in Appendix A . c. Plot this value on the Unit Storage Volume Graph shown on Figure 2 . d. Draw a straight line from this point to the origin, to create the graph	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;"><u> T. 7S & R. 4W </u></td> <td style="text-align: right;">(1)</td> </tr> <tr> <td style="text-align: center;"><u> Section 1 </u></td> <td></td> </tr> <tr> <td style="text-align: center;">Slope = <u> 0.70 </u></td> <td style="text-align: right;">(2)</td> </tr> <tr> <td colspan="2" style="padding-top: 10px;"> Is this graph attached? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> </td> </tr> </table>	<u> T. 7S & R. 4W </u>	(1)	<u> Section 1 </u>		Slope = <u> 0.70 </u>	(2)	Is this graph attached? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
<u> T. 7S & R. 4W </u>	(1)								
<u> Section 1 </u>									
Slope = <u> 0.70 </u>	(2)								
Is this graph attached? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>									
2. Determine Runoff Coefficient a. Determine total impervious area b. Determine total tributary area c. Determine Impervious fraction $i = (5) / (6)$ d. Use (7) in Figure 1 to find Runoff OR $C = .858i^3 - .78i^2 + .774i + .04$	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">$A_{\text{Impervious}} =$ <u> 11.7 </u> acres</td> <td style="text-align: right;">(5)</td> </tr> <tr> <td style="text-align: center;">$A_{\text{total}} =$ <u> 23.3 </u> acres</td> <td style="text-align: right;">(6)</td> </tr> <tr> <td style="text-align: center;">$i =$ <u> 0.50 </u></td> <td style="text-align: right;">(7)</td> </tr> <tr> <td style="text-align: center;">$C =$ <u> 0.34 </u></td> <td style="text-align: right;">(8)</td> </tr> </table>	$A_{\text{Impervious}} =$ <u> 11.7 </u> acres	(5)	$A_{\text{total}} =$ <u> 23.3 </u> acres	(6)	$i =$ <u> 0.50 </u>	(7)	$C =$ <u> 0.34 </u>	(8)
$A_{\text{Impervious}} =$ <u> 11.7 </u> acres	(5)								
$A_{\text{total}} =$ <u> 23.3 </u> acres	(6)								
$i =$ <u> 0.50 </u>	(7)								
$C =$ <u> 0.34 </u>	(8)								
3. Determine 85% Unit Storage Volume a. Use (8) in Figure 2 Draw a Vertical line from (8) to the graph, then a Horizontal line to the desired V_u value.	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">$V_u =$ <u> 0.24 </u> $\frac{\text{in-acre}}{\text{acre}}$</td> <td style="text-align: right;">(9)</td> </tr> </table>	$V_u =$ <u> 0.24 </u> $\frac{\text{in-acre}}{\text{acre}}$	(9)						
$V_u =$ <u> 0.24 </u> $\frac{\text{in-acre}}{\text{acre}}$	(9)								
4. Determine Design Storage Volume a. $V_{\text{BMP}} = (9) \times (6)$ [in- acres] b. $V_{\text{BMP}} = (10) / 12$ [ft- acres] c. $V_{\text{BMP}} = (11) \times 43560$ [ft ³]	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">$V_{\text{BMP}} =$ <u> 5.59 </u> in-acre</td> <td style="text-align: right;">(10)</td> </tr> <tr> <td style="text-align: center;">$V_{\text{BMP}} =$ <u> 0.47 </u> ft-acre</td> <td style="text-align: right;">(11)</td> </tr> <tr> <td style="text-align: center;">$V_{\text{BMP}} =$ <u> 20,473 </u> ft³</td> <td style="text-align: right;">(12)</td> </tr> </table>	$V_{\text{BMP}} =$ <u> 5.59 </u> in-acre	(10)	$V_{\text{BMP}} =$ <u> 0.47 </u> ft-acre	(11)	$V_{\text{BMP}} =$ <u> 20,473 </u> ft ³	(12)		
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$V_{\text{BMP}} =$ <u> 20,473 </u> ft ³	(12)								
Notes:									

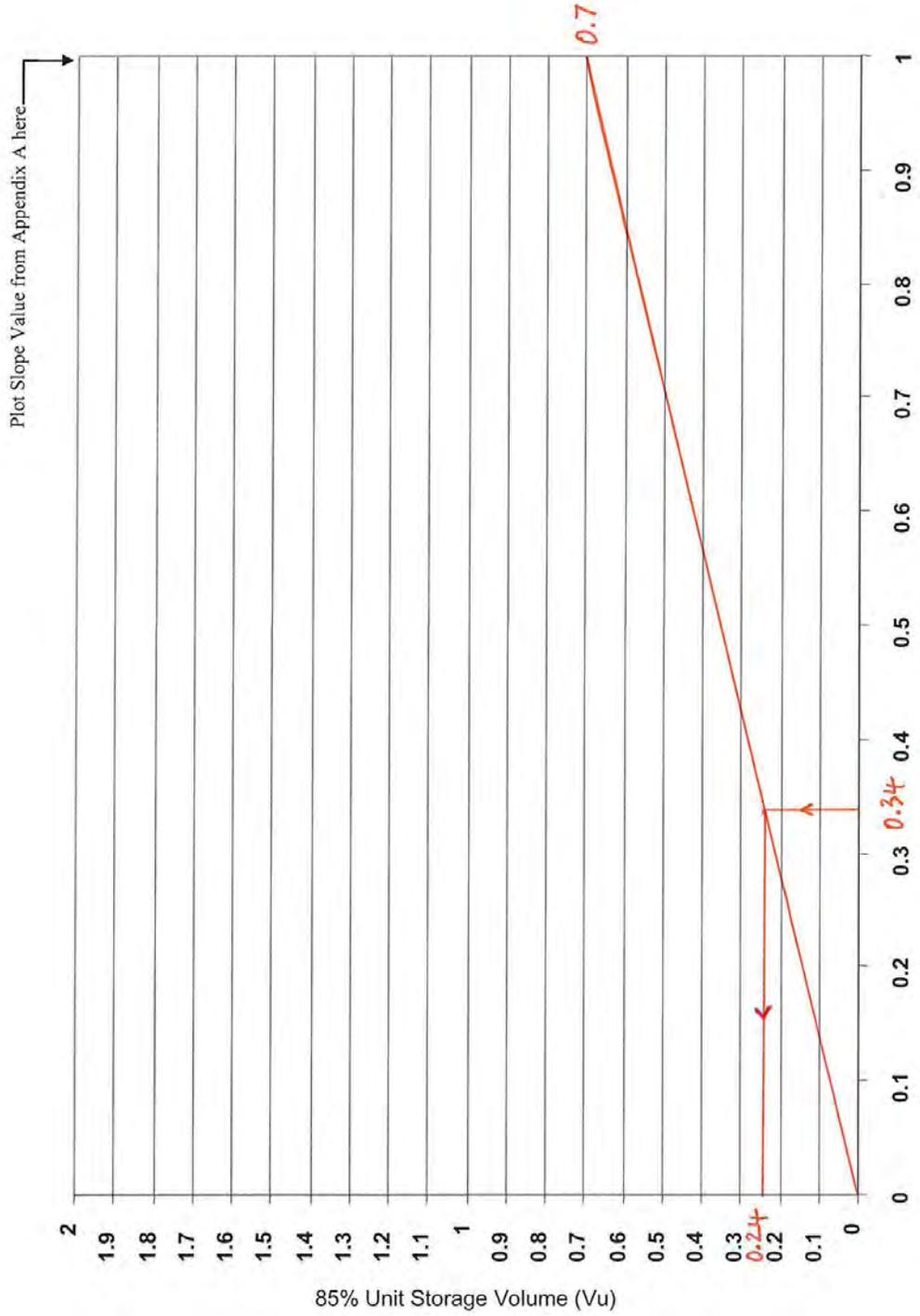


Figure 2 Unit Storage Volume Graph

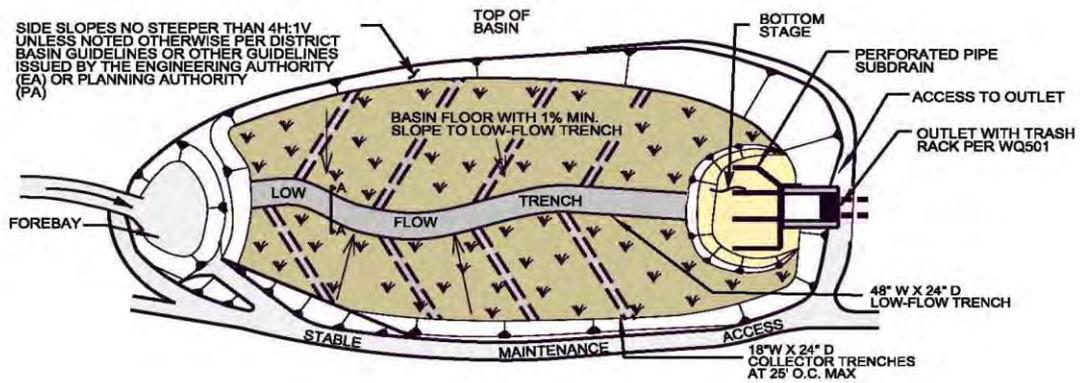
Extended Detention Basin Design Procedure		BMP Subarea No. Basin B	Legend:	Required Entries Calculated Cells
Company Name:	MDS Consulting			Date: 11/13/2013
Designed by:	Dylan Nguyen			County/City Case No.: TR 32535

Design Volume	
Tributary Area (BMP Subarea)	$A_T = 23.3$ acres
Enter V_{BMP} , determined from Section 2.1 of this Handbook	$V_{BMP} = 20,473$ ft ³

Basin Footprint

Overall Geometry

Length at Basin Bottom Surface	Length = 130 ft
Width at Basin Bottom Surface	Width = 35 ft
	Meets 1.5 : 1 requirement? 3.7142857
Side Slopes per "Basin Guidelines", Sect. 1.2	z = 4 :1
Proposed Basin Depth (with no freeboard)	$D_B = 3.50$ ft
Depth of freeboard (if used)	$D_{FB} = 2.00$ ft
Minimum Required Allowance for Total Depth (including proposed basin depth, freeboard, minimum depth of bottom stage ($D_{BS}=0.33'$) and minimum filter depth ($D_{FD}=2.33'$))	$D_{REQ} = 8.2$ ft
Depth from design water surface elevation to lowest orifice	$D_O = 3.5$ ft



Dry Weather and Low-Flow Management

Low-Flow Trench (see graphic below)

Depth (24 inches minimum, gravel filled)

Depth = 24 inches

Width (48 inches minimum)

Width = 48 inches

Trench Invert Longitudinal Slope

Slope = 1 %

Collector Trenches (see graphic below)

Depth (24 inches minimum)

Depth = 24 inches

Width (18 inches minimum)

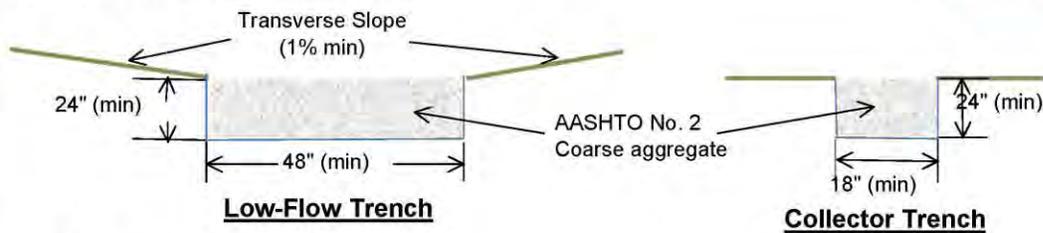
Width = 18 inches

Trench Invert Longitudinal Slope

Slope = 1 %

Spacing (25 feet on center maximum)

S = 20 feet



Bottom Stage (Sand Filter) Design

Depth of the Bottom Stage (4" minimum ponding)

$D_{BS} = 6$ in

Surface Area of Bottom Stage

$A_{BS} = 220$ ft²

Dry Weather Poned Volume (above sand layer)

$V_{BS} = 110$ ft³

Is V_{BS} no less than $0.5\% V_{BMP}$? **OK**

Depth of ASTM-C33 sand (18 inch minimum)

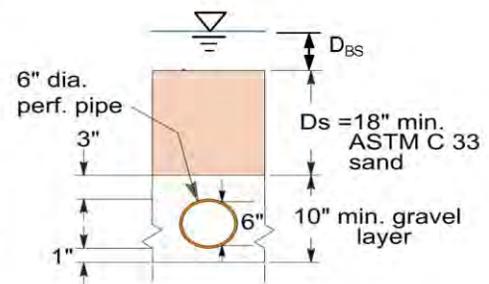
$D_s = 18$ inches

Diameter of Subdrains

$\phi = 6$ in

Subdrain Spacing

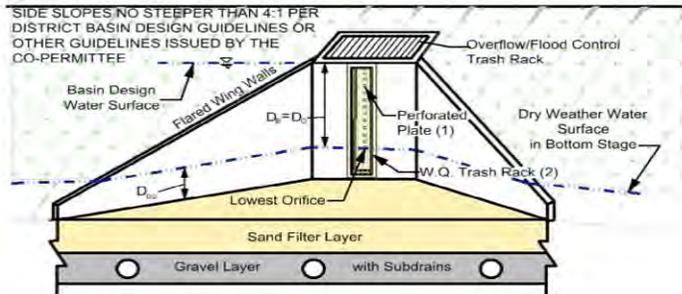
$s = 10$ ft. on center



Basin Outlet Design

Outlet Design

Assume an orifice area. Based on the information provided above, the spreadsheet provides discharge vs. stage data. Enter the volume vs. stage data for each interval. This information is used to route the volume through the basin. The size of the orifice is acceptable when the data shows that less than 50% of V_{BMP} has drained in 24 hours, and that 100% drawdown occurs within 72 hours.



Flow Rate, Q (cfs)

$$Q = CA[2g(H-H_o)]^{0.5}$$

Discharge Coefficient,

Default, C =

Other, C =

Orifice Area (ft²)

Orifice Diameter, d; number of orifices per row, n; and number of orifice rows, N (from the bottom up).

d = inches

n = per row

N = rows

A_{eff} = ft² per row

or

A_{eff} = in² per row

From outflow hydrograph, the time where 50% of V_{BMP} has drained from the basin (24 hour minimum):

Time (50%) = hrs

OK

From outflow hydrograph, the time where 100% V_{BMP} has drained from the basin (within 72 hours):

Time (100 %) = hrs

OK

Headwater Elev. / Stage (ft)	Discharge (cfs)	Volume (acre-ft)	Δt (hrs.)
0	0.0000	0.0000	
0.33	0.0480	0.015	7.56
0.67	0.0679	0.048	6.79
1.00	0.0832	0.082	5.54
1.33	0.0960	0.122	5.39
1.67	0.1074	0.169	5.59
2.00	0.1176	0.220	5.49
2.33	0.1270	0.275	5.43
2.67	0.1358	0.335	5.53
3.00	0.1440	0.398	5.45
3.33	0.1518	0.465	5.48
3.67	0.1556	0.541	5.98
4.00			
4.33			
4.67			
5.00			
5.33			
5.67			
6.00			
6.33			
6.67			
7.00			
7.33			
7.67			
8.00			
8.33			
8.67			
9.00			
9.33			
9.67			
10.00			
$\Sigma =$			64.24

Notes:

G. Agreements and/or other mechanisms for ensuring ongoing operation, maintenance, funding and transfer or requirements for this project-specific WQMP

STORMWATER MANAGEMENT/BMP
FACILITIES AGREEMENT

THIS AGREEMENT, made and entered into this ___ day of _____, 2013, by and between _____ (the "Landowner"), and the City of Wildomar, a municipal corporation (the "City").

RECITALS

WHEREAS, the Landowner is the owner of certain real property described as _____ as recorded by deed in the land records of Riverside County, California, Deed Book _____, Page _____, (the "Property").

WHEREAS, the Landowner is proceeding to build on and develop the Property; and

WHEREAS, the Site Plan/Subdivision Plan known as _____, as approved or to be approved by the City (the "Plan"), which is incorporated herein by reference, provides for stormwater quality treatment within the confines of the property; and

WHEREAS, the City and the Landowner, its successors and assigns, including any homeowners association, agree that the health, safety, and welfare of the residents of Wildomar, California, require that the Landowner, its successors and assigns, including but not limited to any homeowners association, construct and maintain stormwater management/Best Management Practices facilities (the "Facilities") on the Property.

NOW, THEREFORE, in consideration of the foregoing recitals, the mutual covenants contained herein, and the following terms and conditions, the parties hereto agree as follows:

1. The Facilities shall be constructed by the Landowner, its successors and assigns, in accordance with the plans and specifications identified in the Plan.
2. The Landowner, its successors and assigns, including any homeowners association, shall adequately maintain the Facilities, including all pipes and channels built to convey stormwater to the Facilities, as well as all structures, improvements, and vegetation provided to control the quantity and quality of the stormwater. Adequate maintenance is herein defined as good working condition so that the Facilities are performing their designed functions.
3. The Landowner, its successors and assigns, shall inspect the Facilities and submit an inspection report annually to the City. The purpose of the inspection is to assure safe and proper functioning of the Facilities. The inspection shall cover the entire Facilities, including but not limited to berms, outlet structures, pond areas, and access roads. Deficiencies in the Facilities shall be noted in the inspection report.
4. The Landowner, its successors and assigns, hereby grant permission to the City, its authorized agents and employees, to enter upon the Property and to inspect the Facilities whenever the City deems necessary. The purpose of the inspection is to follow-up on reported deficiencies and/or to respond to citizen complaints. The City shall provide the Landowner, its successors and assigns, copies of the inspection findings and a directive to commence repairs, if necessary.
5. In the event the Landowner, its successors and assigns, fails to adequately maintain the Facilities in good working condition acceptable to the City, the City may enter upon the Property and take whatever

steps necessary to correct deficiencies identified in the inspection report and to charge the costs of such repairs to the Landowner, its successors and assigns. This provision shall not be construed to allow the City to erect any structure of permanent nature on the land of the Landowner outside of the easement for the Facilities. It is expressly understood and agreed that the City is under no obligation to routinely maintain or repair the Facilities, and in no event shall this Agreement be construed to impose any such obligation on the City.

6. The Landowner, its successors and assigns, will perform the work necessary to keep the Facilities in good working order. In the event a maintenance schedule for the Facilities (including sediment removal) is contained in the Plans, Landowner will follow that schedule.

7. In the event the City, pursuant to this Agreement, performs work of any nature, or expends any funds in performance of said work for labor, use of equipment, supplies, materials, and the like, the Landowner, its successors and assigns, shall reimburse the City upon demand, within thirty (30) days of receipt thereof for all actual costs incurred by the City hereunder.

8. This Agreement imposes no liability of any kind whatsoever on the City and the Landowner agrees to hold the City harmless, defend and indemnify from any liability whatsoever, including negligence, in the event the Facilities fail to operate properly.

9. This Agreement shall be recorded among the land records of Riverside County, California, and shall constitute a covenant running with the land, and shall be binding on the Landowner, its administrators, executors, assigns, heirs and any other successors in interests, including any homeowners association.

WITNESS the following signatures and seals:

Company/Corporation/Partnership Name

(Seal)

By: _____

Name: _____

Title: _____

RECORD OWNERS (MUST BE NOTARIZED)

CITY OF WILDOMAR

Gary Nordquist
City Manager

Date

ATTEST

Date



H. Phase 1 Environmental Site Assessment – Summary of Site Remediation Conducted and Use Restrictions



Lawson & Associates Geotechnical Consulting, Inc.

**PHASE I ENVIRONMENTAL SITE ASSESSMENT
OF AN APPROXIMATE 31.4-ACRE
RURAL RESIDENTIAL PROPERTY
ARNETT ROAD, STABLE LANES WAY &
WINDSONG LANE
WILDOMAR, CALIFORNIA 92595
*Tr # 32535***

DATED: December 21, 2004

PROJECT NO. 041138-02

PREPARED FOR:

**TEMECULA CREEK ESTATES, LLC
C/O HJK CONSULTANTS, INC.
41769 ENTERPRISE CIRCLE NORTH, SUITE #202
TEMECULA, CALIFORNIA 92590**



December 14, 2004

Lawson & Associates Geotechnical Consulting, Inc.

Project No. 041138-02

Temecula Creek Estates, LLC
c/o HJK Consultants, Inc.
41769 Enterprise Circle North, Suite #202
Temecula, California 92590

**Subject: PHASE I ENVIRONMENTAL SITE ASSESSMENT
OF AN APPROXIMATE 31.4-ACRE RURAL RESIDENTIAL PROPERTY
ARNETT ROAD, STABLE LANES WAY & WINDSONG LANE
WILDOMAR, CALIFORNIA 92595**

Lawson & Associates Geotechnical Consulting, Inc. (LGC) is pleased to submit herewith our Phase I Environmental Site Assessment report for the approximate 31.4-acre undeveloped property, located in the area of Wildomar, unincorporated Riverside County, California. Our study was performed in accordance with the scope of work outlined in our Proposal No. 041138-02 dated November 12, 2004 and ASTM Phase I ESA Standard E1527-2000.

This report presents the results of our limited site reconnaissance, historical review, regulatory records review, and other information detailed within this report.

It has been a pleasure to be of service to you on this project. Should you have any questions, regarding the content of this report or should you require additional information, please do not hesitate to contact this office at your earliest convenience.

Respectfully submitted,

LAWSON & ASSOCIATES GEOTECHNICAL CONSULTING, INC.

A handwritten signature in black ink, appearing to read "Kevin B. Colson".

Kevin B. Colson
Associate Geologist

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Site Maps

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Sanborn Maps

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Correspondence

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PHASE I ESA EXECUTIVE SUMMARY OVERVIEW					
31.4-Acre Rural Residential Property					
Arnett Road, Stable Lanes Way & Windsong Lane, Wildomar, CA					
Section Topic	No RECs Identified	Non-REC Issue Identified	RECs Identified	Phase II Recommended	Comments
Historical Usage	✓				Pesticide testing may be required by local agencies due to past agricultural usage (before late 1970s), but should not be a significant concern.
Regulatory Database Review (on-site)	✓				LGC is awaiting a response from the RCEHD. However, it is not expected to alter the conclusions of this report.
Regulatory Database Review (nearby sites)	✓				
On-site Operations	✓				Primarily vacant land, with several dwellings and outbuildings. The dwellings, immediately surrounding grounds and outbuildings generally not inspected.
Haz. Mat. Handling	✓				
Haz. Waste Handling		✓			Containers of used oil and other materials will require proper disposal.
USTs/ASTs	✓				
ACMs		✓			Suspect ACMs in/on structures should be tested prior to disturbance, and then handled accordingly.
LBP/Lead in H ₂ O	✓				Suspect LBP in/on structures should be tested prior to disturbance, and then handled accordingly.
PCBs	✓				
Radon	✓				
Other		✓			On-site wells and septic systems should be properly abandoned upon redevelopment.

1.0 EXECUTIVE SUMMARY & RECOMMENDATIONS

Lawson & Associates Geotechnical Consulting, Inc. (LGC) was retained by *Temecula Creek Estates, LLC* (Client) to perform a Phase I Environmental Site Assessment (Phase I ESA or Assessment) of a site generally located south of Arnett Road, between Agape Lane and Windsong Lane to the west, Stable Lanes Way to the east, and Clinton Keith Road to the southeast, within the unincorporated area of Wildomar, Riverside County, California. At the time of the December 3 and 4, 2004 site visits, the subject property consisted of approximately 31.4-acres of rural residential land located within a rural residential area.

This Phase I ESA was performed in accordance with the scope and limitations of the American Society for Testing and Materials (ASTM) Phase I ESA Standard E1527-2000, the scope of work defined in this report, as well as the signed service agreement. The following summarizes LGC's independent conclusions and best professional judgment based upon information available to us during the course of this Assessment.

Based upon the limited site reconnaissance, historical review, regulatory records review, and other information detailed within this report, this Assessment identified no evidence of ASTM Recognized Environmental Conditions (RECs) in connection with the subject property. However, other non-REC issues were identified as discussed below. With the possible exception of the items below, no further investigation is recommended at this time.

- ◆ Several water supply wells are located on the various subject parcels. The wells will likely require proper abandonment upon redevelopment if they are no longer to be used. In addition, the on-site residences utilized septic systems for sewage disposal. Such systems typically do not present a significant environmental threat, but will also require proper abandonment when the property is redeveloped.

- ◆ Approximately 15 five-gallon containers of apparent used motor oil were observed near the mobile home structure on the 36210 Stable Lanes Way portion of the site (near the northeast corner of the larger property). A few of the containers were uncovered and some had spilled their contents onto the ground. Several quart to 5-gallon containers of new and used household materials (paint, oil, cleaners, etc.) were also noted in various other exterior locations near some of the on-site residences. These materials (and impacted soils, if any) will require proper disposal by a licensed hazardous waste contractor. In addition, please note that the interiors of the on-site dwellings and related outbuildings (garages, sheds, etc.) were not inspected and may contain various household hazardous materials, which also may require disposal should they be left behind when the owners leave.

- ◆ Interior observations of the on-site dwellings or outbuildings were generally not performed during the site visits. However, suspect asbestos-containing materials (ACMs) likely located in and on these structures may include, but are not necessarily limited to: Spray-applied ceiling material, ceiling tiles, interior drywall/joint compound systems, plaster, vinyl flooring, exterior stucco, and roofing materials. Suspect ACM testing was not included in the scope of work. However, as defined in NESHAPs Section 61.141, the observed materials may be classified as suspect regulated ACMs. Prior to any demolition, renovation, or any other activity that may disturb these materials, either an inspection should be performed by an accredited Building Inspector, or the affected materials should be handled as asbestos-containing. If future sampling identifies any such materials as ACMs, they should be properly abated and disposed of by a state-licensed abatement contractor prior to disturbance or demolition.

- ◆ The subject property was utilized for agricultural purposes prior to the late 1970s. Typical pesticides historically applied to agricultural land have included insecticides, fungicides, herbicides, and nematocides. No obvious evidence of large-scale pesticide mixing or storage areas was noted on-site and it has been at least 30 years since significant on-site agricultural usage. Based on the above and the presumption that significant surface grading will likely occur upon development (diluting potential surficial pesticide residues), it is unlikely the past routine usage of pesticides has significantly environmentally impaired the subject property, or would prevent its planned development. However, according to the Riverside County Environmental Health Dept. (909-358-5055), it is possible that pesticide and/or other testing may be required if the property is redeveloped for residential uses.

An Executive Summary Overview is also included on the previous page. However, when making any decisions concerning the findings of this Assessment, please also refer to the remainder of this report, which may present other items of interest that are not discussed in the Executive Summary, and/or provide further detail concerning the above-listed items.

2.0 SCOPE OF WORK & LIMITATIONS

2.1 Purpose

The primary goal of this Phase I Environmental Site Assessment is to assist the client in satisfying one of the four requirements to qualify for the “innocent landowner defense” to CERCLA liability (42 U.S.C. §9601 et. seq.). The innocent landowner defense is predicated on the assumption that “...the defendant must have undertaken, at the time of acquisition, all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice in an effort to minimize liability...” The secondary goal of this Assessment is to provide information that will assist in evaluating the risk of potential value impairment of the security interest or environmental liability, as well as to provide information for various potential operational limitations and decisions based upon those potential defects.

2.1 Protocol

The ASTM Standard E1527-2000 is the most widely recognized method currently used in attempting to perform the due diligence required to achieve the above purpose. The E1527-2000 Standard was created by the ASTM “...in an effort to define good commercial and customary practice in the United States of America for conducting an environmental site assessment...” The ASTM Standard E1527-2000 is intended to identify recognized environmental conditions (RECs) in connection with a given property. The term recognized environmental conditions is not intended to include “de minimus” conditions that generally do not present a material risk of harm or that are unlikely to be the subject of enforcement actions by governmental agencies. Other conditions or issues that are beyond the ASTM scope may also be discussed in this report, as detailed within each section.

2.3 Scope of Work

Utilizing ASTM Standard E1527-2000, as well as the scope of work discussed below and in the work authorization document, this Assessment involved: A site reconnaissance of the subject property, limited observations of adjoining properties, a review of the historical usage of the subject property, and a review of relevant documentation provided by various public and private sources (including the client and/or owner of the subject property) to evaluate the presence or likely existence of:

- ◆ Recognized environmental conditions, specified by ASTM E1527-2000 as: “the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater or surface water of the property.”
- ◆ A brief evaluation and assessment of potential environmental issues which may not rise to the level of recognized environmental conditions, such as: obviously improper hazardous material or waste handling, off-site issues, suspect asbestos-containing materials, lead-based paint, polychlorinated bi-phenyls, and radon gas.

2.4 Limitations

As discussed in ASTM E1527-2000, no Phase I ESA can completely eliminate uncertainty regarding the potential for RECs in connection with a subject property. This investigation is simply intended to reduce uncertainty within reasonable limits of time and cost.

Refer to Section VI-A for a brief discussion of some (but not necessarily all) specific limitations to LGC's subject property observations at the time of the site visits. The observations contained within this Assessment are based upon conditions readily observable during the site visits. These observations are typically unable to address conditions of areas not inspected, hidden from view, subsurface soil, groundwater, underground storage tanks, neighboring properties, and the like, unless specifically mentioned. It is not the purpose of this Assessment to determine the actual presence, or degree or extent of contamination (if any) at the subject property. Unless specifically noted within this report, this Assessment does not include observations, testing, coring, or sampling analysis to address groundwater, soil, or extraneous materials contamination (including mold issues) in or on the subject property. This Assessment does not include or address reasonably ascertainable environmental liens recorded against the subject property.

LGC makes no warranties or guarantees as to the accuracy or completeness of information obtained from or compiled by others. Information may also exist which was beyond the scope of this investigation, or was not provided to LGC that may have an impact on the conclusions of this Assessment. This Assessment does not attempt to address past or forecast future site conditions.

This Assessment has been conducted and prepared in accordance with generally accepted practices and procedures exercised by reputable professionals under similar circumstances. LGC makes no other warranties or guarantees, either expressed or implied, as to the findings, opinions, or recommendations contained in the report, or as to the existence or non-existence of RECs at the subject property.

3.0 GENERAL SITE DESCRIPTION

Lawson & Associates Geotechnical Consulting, Inc. (LGC) was retained by *Temecula Creek Estates, LLC* (Client) to perform a Phase I Environmental Site Assessment (Phase I ESA or Assessment) of a site generally located south of Arnett Road, between Agape Lane and Windsong Lane to the west, Stable Lanes Way to the east, and Clinton Keith Road to the southeast, within the unincorporated area of Wildomar, Riverside County, California. At the time of the December 3 and 4, 2004 site visits, the subject property consisted of approximately 31.4-acres of rural residential land located within a rural residential area.

During the site visits, the LGC Assessor was generally unaccompanied, but briefly met with Mr. Craig Way, broker (951-237-7866) for the subject property, as well as one of the property owners still residing at the site, Mr. & Mrs. Bill Smith (36135 Arnett Road). Fences generally delineated the boundaries of the site, and boundaries between parcels within the larger site, and the subject property was generally distinct from surrounding properties. A Tentative Tract Map (#32535) was also provided to LGC. That map indicates the property encompasses Assessor's Parcel Numbers 380-090-012; 380-100-004, -005, & -006; 380-110-005 & -006; 380-120-001 & -002; and, 380-130-001 & -002.

3.1 Previous Environmental Documentation

No previous environmental documentation concerning the subject property was provided to LGC or reported to exist by the Client or Key Site Manager/owner(s) available at the time of this Assessment.

3.2 Adjoining and Adjacent Properties

As discussed in ASTM E1527-2000, an adjoining property is any real property whose border is contiguous or partially contiguous with the subject property, or would be if the properties were not separated by a roadway, street or other public thoroughfare. For the purposes of this report, an adjacent property is any real property located within approximately one block of the subject property's border.

The subject property is located within a rural residential area. Specifically, the subject property is bordered by the following:

- North: Immediately by Arnett Road and rural residential properties, and further by Catt Road, and then by tract single-family dwellings under development.
- East: Immediately by graded undeveloped land, then by a roadway, and further by new retail development at the I-15 Freeway.
- South: Immediately by undeveloped land a stream channel, then by Clinton Keith Road.
- West: Immediately by rural residential properties (some being demolished for future tract home development), as well as Windsong Lane and Agape Lane.

3.3 USGS Topographic Map

The subject property's physical setting was researched employing a United States Geological Survey (USGS) 7.5 Minute Topographic Quadrangle (Quad) Map relevant to the subject property. The USGS 7.5 Minute Quad Map has an approximate scale of 1 inch to 2,000 feet, and shows physical features such as wetlands, roadways, mines, and buildings. The USGS 7.5 Minute Quad Map was used as the Standard Physical Setting Source, and is sufficient as a single reference. A copy is included in the appendix.

The subject property is located on the two adjoining *Murrieta* and *Wildomar* Quad Maps (dated 1988 and 1981, respectively). These maps show no physical features that are likely to environmentally impact the subject property. The subject property is identified as primarily undeveloped land with Catt Road, Agape Lane, Windsong Lane and Arnett Road shown, as well as several apparent on-site dwellings and outbuildings. The overall property is moderately hilly. The I-15 Freeway (formerly Highway 71) is noted approximately ¼-mile to the east and Murrieta Creek ½-mile to the southwest. A few dwellings are noted scattered on nearby properties. No mines, wells, or wetlands were noted in the immediate area of the subject property. The elevation of the subject property generally ranges from approximately 1,300 feet above mean sea level (asl) at the eastern side to about 1,270 feet asl at the western side, with an overall moderate topographic gradient to the southwest toward Murrieta Creek, located approximately ½-mile away. This map is included in the appendix as Figure 1.

3.4 General Hydrogeologic Characteristics

The general area of the subject property is located in the Peninsular Ranges Geomorphic Province of California. The northwest-trending topography is controlled by the Elsinore Fault Zone, which extends from the San Gabriel River Valley southeasterly to the US/Mexico border. The Santa Ana Mountains lie along the western side of the Elsinore fault zone, while the Perris Block (where the subject property is located) is located along the eastern side of the Elsinore fault zone. The upper units are generally comprised of non-marine sediments consisting of sandstone, mudstones, conglomerates, and occasional volcanic units (source: November 7, 2003 *Preliminary Geotechnical Investigation of Proposed 52- Lot Residential Development* [located one mile northeast of the subject property], *Riverside County, California* by LGC).

The current depth of main groundwater is unknown in the site area, but is expected to be less than 50 feet below the lowest (western) portion of the site. Seeps and springs were observed by LGC on the northern property area (36160 Arnett Road), indicating shallow groundwater may be only a few feet below ground surface in some areas. While no estimated flow direction information is available, it is assumed to follow the surface topography toward the southwest (toward Murrieta Creek). However, property-specific groundwater can be influenced by several factors, and may not conform to the inferred pattern. Shallower groundwater may also be encountered. Greater certainty could be obtained by reviewing well logs for the on-site wells, if available.

4.0 HISTORICAL REVIEW

The site historical review is used to develop an understanding of the previous uses of the subject property and surrounding area in an effort to identify the likelihood of past uses, or activities having environmentally impacted, the subject property. The historical review consisted of a search of various public and private Standard Historical Sources, as detailed in the sections below.

As defined by ASTM E1527-2000, a Standard Historical Source is considered complete if the information contained within the source provides the required information back to 1940, or to the first developed use (including agricultural). Ideally, the information should be available in either five-year intervals or site milestone events (i.e., initial construction activities, demolition activities, etc.). However, available public and private historical sources do not always fulfill this goal, in which case, the closest approximation is made based upon the sources readily available at the time of historical review.

Historical Review Summary: From the historical information review discussed below, LGC concludes that the subject property was primarily undeveloped ranch land since at least 1953, with dwellings and related outbuildings constructed in phases during the late 1970s through 1990s. Some of the nearby properties were developed with rural-type residential dwellings during a similar time period, with increasing development in outlying areas since that time. No dry cleaners, gasoline stations, major landfills, military bases or major manufacturing businesses were identified on the subject property.

4.1 Aerial Photograph Review

Aerial photographs were reviewed to evaluate past land-use patterns of the subject property and vicinity. The photos were supplied by Rupp Aerial Photo and by Terraserver (2002 only). Reproduction of the Rupp photos for publication was not allowed. This review revealed the following:

- 1953: The subject property is undeveloped land, possibly used for cattle grazing or cultivated grassland. No structures are visible. Two orchards are noted on the north-central and south-central portions of the site, and the two main tree-lined natural stream channels (currently existing) are noted running through the property. None of the access roads to the property are evident. The surrounding land usage also consists of primarily undeveloped land. North: one dwelling and undeveloped or agricultural land, then Catt Road, followed by grazing or agricultural land. East: agricultural or rangeland extending at least ¼-mile. South: grazing or agricultural land extending to a small trail (Clinton Keith Road). West: grazing or agricultural land extending to Palomar Street (a northwest-southeast trending roadway).
- 1961: This aerial photo is similar to the 1953 photo, with the exception of Highway 71 (running northwest to southeast) now noted ¼-mile to the east.
- 1978: Three of the current residences (36135 Arnett Road, and 36210 & 36211 Stable Lanes Way) have been constructed, and those portions of the subject property have been fenced into parcels similar to their current configuration, with the remainder undifferentiated. Remnants of an orchard are noted on the north-central and south-central portions of the site, and Stable Lanes Way and Windsong Lane have been constructed. North: Arnett Road and one rural residential property, then Catt Road,

followed by agricultural land. East: undeveloped or agricultural land, then further is not shown on this aerial photo. South: undeveloped land and a dwelling, then Clinton Keith Road (apparently unpaved). West: primarily undeveloped or agricultural land with two or three dwellings extending to Palomar Street. Agape Lane is evident to the northwest.

- 1986: The resolution of this photo is poor, but it appears about three of the current residences have been constructed and the subject property has been fenced into several parcels similar to its current configuration. North: Arnett Road and rural residential properties (fewer dwellings than currently), then Catt Road, followed by agricultural land. East: undeveloped or agricultural land extending to the I-15 Freeway. South: undeveloped land, then Clinton Keith Road. West: primarily undeveloped or agricultural land with a few dwellings extending to Palomar Street. Agape Lane and Windsong Lane are evident.
- 1992: The subject property is similar to that observed during the site visits. The surrounding land usage is generally rural residential, with tract residential noted ¼-mile to the north.
- 1997: The subject property is similar to that observed during the site visits. The surrounding land usage is generally rural residential, but new tract housing is noted ¼-mile to the north.
- 2002: The subject property is similar to that observed during the site visits. The surrounding land usage is also similar to that observed during the site visits. A copy of this photo is included in the appendix as Figure 2.

In addition, LGC reviewed the *Wildomar* Quad USGS topographic maps dated 1953 and photorevised 1973 for the subject property area. This map shows no physical features that are likely to environmentally impact the subject property. The subject property is identified as undeveloped land with no roads and moderate topographic relief. No structures are noted. Catt Road is noted to the north, and Palomar Street ¼-mile to the southwest. No mines, wells, or wetlands were noted in the area of the subject property.

4.2 Building Permit Review

In an effort to evaluate the official construction and demolition history (if any) of the subject property, LGC requested all major (original construction, demolition, USTs, etc.) building records on file with the Riverside County Building Dept. (RCBD) for the subject addresses gathered from the site visit. The RCBD stated that their records only date back to 1963, and provided records since that time. The following permits were provided by the RCBD:

BUILDING PERMIT REVIEW			
ADDRESS	PERMIT NO.	DATE	PERMIT DESCRIPTION
36135 Arnett Road	339204	8/31/78	Barn registration

	339334	8/31/78	Construction permit for a dwelling and attached garage
	BMR011 100	10/3/02	Mobile home site preparation.
32130 Windsong Lane	137739	12/22/83	Construction permit for a dwelling and attached garage
36210 Stable Lanes Way	328151	4/18/78	Mobile home site preparation. Permit indicates location of septic system
	341904	8/11/78	Barn registration
	350505	12/13/78	Construction permit for a detached garage
36211 Stable Lanes Way	305716	7/8/77	Mobile home site preparation.

No original construction permits were on file for the 36160 Arnett Road structure or for the inferred 36231 Stable Lanes Way address (no structure currently on-site). In addition, no past demolition or underground storage tank documentation for the subject property was located as a result of this search.

4.3 Sanborn Fire Insurance Map Review

LGC attempted to review Sanborn Fire Insurance Maps for the area of the subject property as provided by EDR. Sanborn Maps are detailed drawings that show the location and use of structures on a given property during specific years. These maps were originally utilized by insurance companies to assess fire risk, but are now utilized as a valuable source of historical and environmental-risk information. However, according to EDR, no maps were available for the subject property.

4.4 City Street Directory Review

LGC reviewed available historical city street directories at the Riverside Main Library in an effort to evaluate the prior uses and occupancies of the subject property. City street directories list property occupants by address, allowing an historical search of tenants on the subject property. That review revealed the following information for the subject property addresses:

<u>Address</u>	<u>Date</u>	<u>Usage</u>
32130 Windsong Lane	1971, 1976	street not listed
	1981	address not listed
	1986	W. Castillo (residence)
	1990, 1996	J. Knowlton (residence)
36210 Stable Lanes Way	1971 - 1981	street not listed
	1986 - 1996	S. Parker (residence)
36211 Stable Lanes Way	1971 - 1981	street not listed
	1986 - 1996	address not listed

36135 Arnett Road	1971 - 1981	street not listed
	1986	address not listed
	1990, 1996	vacant ("xxxx")
36135 Arnett Road	1971 - 1981	street not listed
	1986	address not listed
	1990, 1996	vacant ("xxxx")

4.5 Interviews

LGC interviewed Mr. & Mrs. Bill Smith, owners of the 36135 Arnett Road portion of the subject property. Mr. and Mrs. Smith stated that they acquired their portion of the site in 1978. The Smiths indicated that their property was originally part of a larger parcel primarily used for farmland prior to their acquisition, and that they were one of the first to settle in the immediate area. The Smiths said that no fuel USTs, significant pesticide application, hazardous material disposal, or landfilling of trash has occurred on their property, or to their knowledge, the neighboring properties. The Smiths were also unaware of any hazardous material contamination from the past subject property usage. The Smiths did indicate that each of the parcels comprising the larger subject property utilized individual wells for drinking water and septic systems for sewage disposal.

4.6 Recorded Land Title Records

As specified in ASTM E1527-2000, recorded land titles are records usually maintained by the municipal or county recorder of deeds which detail ownership fees, leases, land contracts, easements, and other encumbrances attached to or recorded against the subject property. Due to state land trust regulations and laws, land-title records typically only provide trust names, owner's names, or easement holders, and not information concerning previous uses or occupants of the subject property. Additionally, environmental liens recorded against a given property are considered outside the scope of recorded land-title records. Therefore, this Assessment has relied upon other standard historical information sources which are typically more informative than recorded land titles.

5.0 AGENCY RECORDS REVIEW

In an effort to evaluate whether the subject property or nearby sites have reported USTs, hazardous waste generation, or hazardous material releases, regulatory information from the federal, state and local agencies listed below were reviewed. The database review was provided by Environmental Data Resources, Inc. (EDR) and is reportedly the most recent database information available from each agency. A copy of the database report is included in the appendix. In addition, LGC may request state or local agency regulatory information for the subject property, targeting those agencies most likely to provide information useful for this Assessment. A discussion of the number of sites identified, and of their potential impact to the subject property, is detailed on the following pages. The primary databases reviewed with their search range criteria are listed below:

Please note that due to the size of the subject property, the typical search radii listed below have each been expanded by 1/4-mile from the center of the site.

<i>FEDERAL DATABASE</i>	<i>SEARCH RANGE</i>
USEPA NPL/Superfund database:	1.0 mile
USEPA CERCLIS database:	0.5 mile
USEPA ERNS database:	0.125 mile
USEPA RCRIS facilities databases	
TSD Facilities:	1.0 mile
Corrective Action Sites:	0.5 mile
Generators:	0.25 mile

<i>STATE/LOCAL DATABASE</i>	<i>SEARCH RANGE</i>
State Superfund databases:	1.0 mile
State Landfills database:	0.5 mile
State/Local LUST databases:	0.5 mile
State/Local UST/AST databases:	0.25 mile
State Spills databases:	0.125 mile
Local generator databases:	0.125 mile

LGC's Agency Records Request/Search Range:

Riverside County Environmental Health Department/Subject Property

5.1 Review of Federally Reported Environmental Data

The review of the federal environmental databases listed below attempts to identify environmental problem sites, activities, and occurrences from the records of the U.S. Environmental Protection Agency (USEPA). The detailed listing, and a map showing the location of the sites relative to the subject property, is included in the appendix.

National Priorities List (NPL) of Superfund Sites:

The NPL is the USEPA's database of hazardous waste sites currently identified and targeted for priority cleanup action under the Superfund program. A search of the NPL database identified the following number of Superfund sites within the specified database search range:

<i>NUMBER OF SITES</i>	<i>NUMBER LISTED AT SUBJECT PROPERTY</i>
None	None

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980:

Mandated as part of the 1980 Superfund Act, the CERCLIS (Comprehensive Environmental Response, Compensation and Liability Information System) list is an EPA compilation of the sites investigated, or currently being investigated, for a release or potential release of a regulated hazardous substance under the CERCLA regulations. A search of the CERCLIS and CERC-NFRAP (no further remedial action planned) databases identified the following number of sites within the specified database search range:

<i>NUMBER OF SITES</i>	<i>NUMBER LISTED AT SUBJECT PROPERTY</i>
None	None

Emergency Response Notification System (ERNS):

The ERNS database is the historical record of reported releases of hazardous substances reported to the USEPA. A search of the ERNS database identified the following number of releases within the specified database search range:

<i>NUMBER OF SITES</i>	<i>NUMBER LISTED AT SUBJECT PROPERTY</i>
None	None

Resource Conservation and Recovery Act Information System (RCRIS) Treatment, Storage, and Disposal (TSD) Facilities:

The RCRA program identifies and tracks hazardous waste from generation source to the point of ultimate disposal. The RCRIS-TSD facilities database is the composite of reporting facilities that transport, store, or dispose of controlled or hazardous waste. Identification on this list does not indicate that a site has impacted the environment. A search of the RCRIS-TSD database identified the following number of facilities within the specified database search range:

<i>NUMBER OF SITES</i>	<i>NUMBER LISTED AT SUBJECT PROPERTY</i>
None	None

RCRIS Generator Facilities:

The RCRIS program identifies and tracks hazardous waste from generation source to the point of ultimate disposal. The RCRIS generator facilities database (large and small quantity generators) is the composite of reporting facilities that generate hazardous waste. Identification on this list does not indicate that a site has impacted the environment. A search of the RCRIS facilities database identified the following number of sites within the specified database search range:

<i>NUMBER OF SITES</i>	<i>NUMBER LISTED AT SUBJECT PROPERTY</i>
One (1)	None

This site, USA Gasoline at 23905 Catt Road, is reported by EDR as 1/8-mile to the northwest. However, LGC's site visit observations revealed this site is actually located approximately 1/2-mile east of the property, at the northeast corner of Catt Road (now Clinton Keith Road) and the I-15 Freeway (beyond the freeway from the subject property). Based upon its distance and status (not listed as a LUST site), this site is unlikely to have environmentally impacted the subject property.

RCRIS Corrective Action (RCRIS-CA) Sites:

The RCRIS-CA report contains information pertaining to facilities which have conducted, or are currently conducting corrective actions as regulated by the Resource Conservation and Recovery Act. A search of the RCRIS-CA list identified the following number of sites within the specified database search range:

<i>NUMBER OF SITES</i>	<i>NUMBER LISTED AT SUBJECT PROPERTY</i>
None	None

5.2 Review of State-Reported Environmental Data

Results of the state regulatory records search follow. Each section begins with a description of the database searched and the corresponding responsible state or local agency. The detailed listing, and a map showing the location of the sites relative to the subject property, is included in the appendix.

CalSites Databases:

CalSites combines the former ASPIS (Abandoned Sites Program Information System), Annual Work Plan (AWP), and Bond Expenditure Plan (BEP - State Superfund List) hazardous waste site databases. A search of the CalSites databases identified the following number of sites within the specified database search range:

<i>NUMBER OF SITES</i>	<i>NUMBER LISTED AT SUBJECT PROPERTY</i>
None	None

Solid Waste Facilities and Landfills (SWLF):

The State Solid Waste Facilities and Landfills databases include an inventory of solid waste disposal facilities and landfills. A search of these databases identified the following number of sites within the specified database search range:

<i>NUMBER OF SITES</i>	<i>NUMBER LISTED AT SUBJECT PROPERTY</i>
None	None

Leaking Underground Storage Tanks (LUSTs):

State and/or local agencies maintain inventories of LUSTs in a statewide database. A search of the LUST database identified the following number of reported LUST sites within the specified search range:

NUMBER OF SITES	NUMBER LISTED AT SUBJECT PROPERTY
None	None

Cortese Database:

The Cortese list contains hazardous waste and substance sites compiled pursuant to Assembly Bill 3750 (Cortese, Chapter 1048, Statutes of 1986). The information included in this list was compiled with information from the California DTSC, the State Water Resources Control Board, and the California Waste Management Board. A search of the Cortese database identified the following number of sites within the specified search range:

NUMBER OF SITES	NUMBER LISTED AT SUBJECT PROPERTY
None	None

Underground Storage Tanks (USTs):

USTs are regulated under Subtitle I of the RCRA, and must be registered with the State Underground Storage Tank Program. These are registered USTs only, and identification on this list does not necessarily indicate that the site has impacted the environment. A search of the UST database identified the following number of sites within the specified search range:

NUMBER OF SITES	NUMBER LISTED AT SUBJECT PROPERTY
Two (2)	None

These sites, USA Gasoline at 23905 Catt Road and Chevron at 23805 Clinton Keith Road, are reported by EDR as 1/8-mile and 1/4-mile to the northwest and northeast, respectively. However, LGC's site visit observations revealed these sites are actually located approximately 1/2-mile east of the property, at the northeast and southeast corners of Catt Road (now Clinton Keith Road) and the I-15 Freeway (beyond the freeway from the subject property). Based upon their distance and status (not listed as LUST sites), these sites are unlikely to have environmentally impacted the subject property.

Toxic Pits Database:

The Toxic Pits report contains information for suspected toxic pits sites in California where clean-up has not yet been completed, as provided by the State Water Resources Control Board. This was a one-time only database produced in 1995. A search of the Toxic Pits database identified the following number of sites within the specified database search range:

NUMBER OF SITES	NUMBER LISTED AT SUBJECT PROPERTY
None	None

State Spills Databases:

The California Hazardous Materials Incident Report System (CHMIRS) and Spill, Leaks, Investigations, and Cleanups (SLIC) databases contain information for all reported hazardous material/waste surface or groundwater contamination investigations reported in California. A search of the SLIC and CHMIRS databases identified the following number of sites within the specified database search range:

NUMBER OF SITES	NUMBER LISTED AT SUBJECT PROPERTY
One (1)	None

This site, Clinton Keith Vet Hospital at 32395 Clinton Keith Road, is reported by EDR as 1/8-mile to the southeast, which appears accurate. LGC's site visit observations revealed this site is located near the corner of Clinton Keith Road and Palomar Street, and down-gradient from the subject property. It is reported as a spill of sodium phosphate in 2003, which did not impact the environment (contained within business). Based upon its distance and status, this site is unlikely to have environmentally impacted the subject property.

State and/or Local Agency Generator/Permits Data:

The HAZNET data is extracted from copies of hazardous waste manifests kept by the Cal-EPA, DTSC. These manifests track hazardous wastes from generation source to the point of ultimate disposal. Permit data is generally culled from the local agency database for hazardous material handlers and generators. Identification on these lists does not indicate that a site has impacted the environment and the data has not always been verified for accuracy by the DTSC or local agencies. A search of the HAZNET and Permit data identified the following number of reported sites within the specified database search range:

NUMBER OF SITES	NUMBER LISTED AT SUBJECT PROPERTY
One (1)	None

This site, Clinton Keith Vet Hospital at 32395 Clinton Keith Road, is reported by EDR as 1/8-mile to the southeast, which appears accurate. LGC's site visit observations revealed this site is located near the corner of Clinton Keith Road and Palomar Street, and down-gradient from the subject property. It is reported as a generator of photo-processing waste, likely from X-ray developing. It is not listed as out of compliance or on another database with known subsurface environmental impact. Based upon its distance and status, this site is unlikely to have environmentally impacted the subject property.

Orphan Unplottable Sites:

"Orphan" sites are those which could not be plotted by EDR using conventional geo-coding methods, typically because the information provided in the original government database was unclear, incorrect or missing. A listing of orphan sites (if any) appears at the end of the EDR database, immediately after the last plottable site description.

LGC reviewed the orphan list for sites with the same name as the subject property (if applicable) and/or the same or similar property address. This review is inherently limited by the incomplete and/or possibly incorrect data reported in the orphan listings. For orphans apparently not related to the subject property, only those obviously located adjoining or within a short distance that may affect the property are discussed. Orphan sites which are also listed in the plotted section are not re-discussed. LGC's review of the orphan list revealed no obvious sites of concern listed at or adjoining the subject property.

5.3 Local Agency Records Search

The following is a discussion of the results of written records requests LGC made to state or local government agencies and/or personal/telephone contacts made to provide information relevant to the subject property:

Riverside County Environmental Health Department (RCEHD):

LGC contacted the RCEHD in an effort to evaluate whether hazardous material incidents or USTs have been reported at the subject property addresses (as found during the site visits). The typical turnaround time for such requests is in excess of six weeks, and as of the date of this report, a reply had not yet been received. LGC will update this report as appropriate when a reply is received. However, based upon LGC's observations, it is not expected the file information (if any) will alter the conclusions of this report.

6.0 SITE VISITS OBSERVATIONS

6.1 Surface Characteristics

At the time of the site inspection, the subject property consisted of an approximate 31.4-acre property, comprised of ten contiguous parcels arranged in a very irregular (“puzzle-piece”) shape. The ten parcels are occupied by permanent dwellings, semi-permanent mobile homes, and numerous outbuildings (garages, barns, sheds, etc.). Several unpaved driveways cross the site, and vehicle access is from Arnett Road on the northern boundary of the site, Windsong Lane on the west, and Stable Lanes Way on the southeast. Vegetation primarily consisted of low (ankle-high) spring grasses and higher (waist-high) shrubs covering the majority of the undeveloped areas of the site. Numerous mature natural and non-native trees, including two very thick stands of Eucalyptus, were also noted, primarily along watercourses, in older orchard areas, and along property boundaries. Dense landscaping shrubbery, hedges and trees were also located near the structures and along property lines. No signs of unnatural or chemically induced stress were observed. At least two springs and a running stream were noted on the 36160 Arnett Road property. No surface sheen or other obvious evidence of hazardous materials impact to the water was noted. Several apparently empty 55-gallon drums were noted in various areas, but no obvious leakage from the drums was observed. In addition, several 5-gallon containers of apparent used oil were noted on the eastern edge of the 36210 Stable Lanes Way property, near a mobile home. The containers were both covered and uncovered, and some of the oil had leaked onto the ground surface, but the impacted area did not appear large (less than 10 square feet). These containers and any related impacted soils should be removed and properly disposed of by a licensed hazardous waste contractor. No pits, ponds, lagoons, or impoundments potentially containing hazardous materials were observed on the subject property. Weather conditions at the time of the site visits consisted of clear skies, with temperatures in the 60s on December 3, and overcast skies with intermittent drizzle and temperatures in the 50s on December 4. The subject property soils were damp from past or current rainfall on both visits.

Several water supply wells and related water storage tanks were noted on the subject property. All of the on-site dwellings appeared inhabited and related outbuildings (locked garages, sheds, etc.) in use. Several piles of construction and household debris (wood, metal, piping, household items, etc.) were noted in various locations, and a few piles of dead vegetation were also noted. However, no obvious significant hazardous waste dumping was noted on or around these debris piles at the time of the site visits. A few areas (primarily eastern and western portions of the site) had been graded in the recent past, with new winter grass growth noted on many of those areas. The observable surface of the subject property appeared to be in good condition with no significant signs of chemical dumping or spillage. The LGC Assessor did not perform any interior inspection of the inhabited on-site dwellings, their immediately surrounding grounds, or associated outbuildings. Below is a brief discussion of LGC’s general observations by address/parcel.

36135 Arnett Road

This parcel is located at the northwest corner of the site and contains a permanent dwelling and attached garage and a mobile home. Dilapidated animal pens and an area of numerous soil piles were noted on the northern portion of the parcel. According to the property owner, Mr. Bill Smith, the soil piles were from a motocross track/jumps that his sons had fabricated in the past. Several quart to 5-gallon containers of household hazardous materials (paint, oil, cleaners, etc.) were noted stored in two exterior areas, but no significant spillage or leakage was observed. Various stored vehicles, campers and

buildings materials (wood, etc.) limited observations of the parcel surface in several areas. The owners of this property, Mr. & Mrs. Smith, indicated no significant hazardous material usage or disposal had occurred on their property. Although the occupants were home, they preferred that interior inspection of the structures not be performed.

36160 Arnett Road

This parcel contained a 2-story permanent dwelling and a 2-story children's playhouse. Several items of note (car parts, tractor, 55-gallon drum barbecue, gasoline container, etc.) were stored in the exterior areas, but no hazardous material spillage or staining was noted. A large portion of this parcel was covered by dense tree and shrub growth (eucalyptus, oak, olive, etc.), which limited observations. Two springs and a running stream were noted along the southern edge of this parcel. An apparent raised stormdrain or sewer access cover was noted within the northern extent of the watercourse, and read "WMWD Sewer" (Western Municipal Water District). Tree and shrub growth was very heavy along the watercourse, significantly limiting observations in this area.

36210 Stable Lanes Way

This parcel is located on the eastern edge of the site, and contained a permanent dwelling and detached garage, as well as mobile home, sheds, several parked vehicles, horse corral (with horses), stacks of auto parts and other items (primarily near the mobile home), and generally moderate landscaping and tree growth. The exception to this was along the northern edge of the site, where very dense trees and shrubs were noted along a watercourse, which significantly limited observations in that area. The occupants were apparently not home at the time of the site visits and none of the structures or immediately surrounding grounds were inspected. As mentioned previously, several 5-gallon containers of apparent used oil were noted on the eastern edge of the 36210 Stable Lanes Way property, near the mobile home. The containers were both covered and uncovered, and some of the oil had leaked onto the ground surface, but the impacted area did not appear large. These containers, any other hazardous materials, and any related impacted soils should be removed and properly disposed of by a licensed hazardous waste contractor.

36211 Stable Lanes Way

This parcel is located central to the site as a whole and immediately west of the 36210 Stable Lanes Way property, and contains a permanent dwelling, animal sheds/pens, a large fenced pasture, and several parked vehicles, tractors, a trailer, and related items. Two empty 55-gallon drums (no lids) were noted on the south-central edge of the pasture, but no obvious signs of past leakage from the drums was noted. The occupant was apparently not home at the time of the site visits and none of the structures or immediately surrounding grounds were inspected.

36231 Stable Lanes Way

The address for this parcel was inferred from a sign on the perimeter fence that read "3623_ Stable Lanes Way" (last number missing). This parcel is located at the south-central portion of the site, and contains an apparent past dwelling site (flat, graded area), but no signs of a dwelling, other than a locked metal shed and wellhead with water storage tank. A few small piles of demolition and gardening debris (wood, branches, etc.) were noted on this parcel, but no other significant storage. The interior of the locked shed could not be observed, but no leakage from the shed was noted. The majority of this parcel was covered with a large stand of Eucalyptus trees and numerous scattered olive trees (apparently from a past orchard noted in the aerial photo review). The ground surface in many areas was obscured with downed branches and heavy leaf fall, as well as grass growth.

32130 Windsong Lane

This parcel is located on the southwestern edge of the site as a whole, and contains a permanent dwelling with attached garage, animal sheds/pens (with four apparent animal feed silos), and a large unfenced graded area of differing elevation (apparently planned for past home construction sites), covered with recent winter grass growth in past graded areas and native sage in other areas. One empty 55-gallon drum (with lid) was noted on the northeast edge of the parcel, but no obvious signs of past leakage from the drum were noted. The northern portion of this parcel was covered with a very thick stand of Eucalyptus trees. The ground surface in this area was obscured with downed branches and heavy leaf fall. The southern edge of the site bordered a dry stream channel, with thick vegetation in some areas. A large unleashed dog was noted at this property and the owner did not appear home during either site visit, therefore, neither the dwelling interior or immediately surrounding grounds were inspected.

6.2. Wastewater and Stormwater Management

Sewage from the residences (and former residences now removed or demolished) is (was) handled by individual septic systems. Exterior stormwater surface run-off from the subject property is expected to infiltrate through the site soils, as well as flow onto adjoining properties. No exterior stormwater drains were noted.

6.3 Potable Water Supply And Sewer Service

Potable water is supplied to the subject residences by individual on-site wells (assume at least one per parcel). Sewage disposal is handled by individual septic systems. When re-developed in the future, the subject property will likely utilize water and sewer service supplied by the Western Municipal Water District.

6.4 Structure Construction

Six homes (both manufactured and site-built) and several outbuildings (garages, sheds, etc.) were noted on-site during the site visits. The permanent site-built structures were of typical wood-frame and stucco construction, with a concrete slab foundation. The outbuildings (sheds, etc.) were primarily of wood construction.

6.5 Business Operations Description

At the time of the site visits, the subject property was rural-residentially developed land planned for tract residential development. LGC's research indicates no dry cleaners, gasoline stations, landfills, military bases, or major manufacturing operations have occupied the subject property.

The subject property was utilized for agricultural purposes prior to the late 1970s. Typical pesticides historically applied to agricultural land have included insecticides, fungicides, herbicides, and nematocides. No obvious evidence of large-scale pesticide mixing or storage areas was noted on-site and it has been at least 30 years since significant on-site agricultural usage. Based on the above and the presumption that significant surface grading will likely occur upon development (diluting potential surficial pesticide residues), it is unlikely the past routine usage of pesticides has significantly environmentally impaired the subject property, or would prevent its planned development. However,

according to the Riverside County Environmental Health Dept. (909-358-5055), it is possible that pesticide and/or other testing may be required if the property is redeveloped for residential uses.

7.0 HAZARDOUS MATERIAL/WASTE OBSERVATIONS

7.1 Hazardous Materials Handling And Storage

As discussed in Section 6.1 above, several 5-gallon containers of apparent used oil were noted on the eastern edge of the 36210 Stable Lanes Way property, near the mobile home. The containers were both covered and uncovered, and some of the oil had leaked onto the ground surface, but the impacted area did not appear large. These containers, any other hazardous materials, and any related impacted soils should be removed and properly disposed of by a licensed hazardous waste contractor. Several quart to 5-gallon containers of new and used household materials (paint, oil, cleaners, etc.) were noted in various other exterior locations. If no longer in use, these materials (and impacted soils, if any) will require proper disposal by a licensed hazardous waste contractor. In addition, please note that the interiors of the dwellings and related outbuildings (garages, sheds, etc.) were not inspected and may contain various household hazardous materials, which also may require disposal.

With the exception of the materials noted above, no significant hazardous materials handling, storage, or disposal were observed on the subject property. In addition, no major staining or spillage was noted in the observable exterior areas.

7.2 Wastestream Generation, Storage And Disposal

Other than the materials noted above, no evidence of significantly improper hazardous waste disposal (landfilling, open disposal pits, etc.) was observed on the subject property. During the inspections, no stained or discolored sinks, drains, catch basins, drip pads, or sumps were observed. However, as previously noted, many areas of the surface of the property were somewhat obscured by plant growth and the interiors of the various dwellings and outbuildings were also not inspected.

7.3 Solid Waste Disposal

During the site inspection, several household municipal waste containers were observed at the occupied residences. No obvious evidence of significant hazardous material dumping was noted in the visible areas of the property or on the piles of debris. In addition, no obvious signs of significant landfilling of trash was noted.

7.4 Aboveground Storage Tanks (ASTs)

Several small well-water storage tanks and four apparent animal feed silos were observed at the subject property. No other large ASTs were noted.

7.5 Underground Storage Tanks (USTs)

As discussed in the Section V (Agency Records Review) of this report, no hazardous material USTs were reported at the subject property or immediate vicinity. In addition, no visual or physical evidence of current or past USTs (with the possible exception of the pipe noted below) was discovered during the site visits. In particular, LGC searched for: fill pipes, vent pipes, manways, manholes, access covers, concrete pads not homogeneous with surrounding surfaces, concrete build-up areas potentially indicating pump islands, abandoned pumping equipment, or fuel pumps. However, as previously noted, areas immediately adjoining the on-site structures were not inspected. It is assumed the on-site septic systems have related belowground holding tanks. Such tanks will likely require proper abandonment, but typically do not present a significant environmental threat.

8.0 OTHER POTENTIAL ISSUES OF CONCERN

8.1 PCB-Containing Exterior Electrical Transformers

Several pole-mounted electrical transformers were observed on-site. These transformers appeared to be in good condition, showing no signs of damage or past leakage, and were likely owned by the Southern California Edison Company (SCE). Based upon their apparent age (post-1977), it is unlikely they contain poly-chlorinated biphenyls (PCBs). However, regardless of their PCB content, the maintenance, repair, or replacement of the transformers is the responsibility of SCE, and therefore, no further investigation regarding the on-site transformers is recommended.

8.2 Other PCB-Containing Interior Or Exterior Equipment

During the on-site inspection, no evidence was observed of other equipment likely containing PCB-contaminated fluid.

8.3 Suspect Asbestos-Containing Materials (ACMs)

Interior observations of the on-site dwellings or outbuildings were generally not performed during the site visits. However, suspect asbestos-containing materials (ACMs) likely located in and on these structures may include, but are not necessarily limited to: Spray-applied ceiling material, ceiling tiles, interior drywall/joint compound systems, plaster, vinyl flooring, exterior stucco, and roofing materials. Suspect ACM testing was not included in the scope of work. However, as defined in NESHAPs Section 61.141, the observed materials may be classified as suspect regulated ACMs. Prior to any demolition, renovation, or any other activity that may disturb these materials, either an inspection should be performed by an accredited Building Inspector, or the affected materials should be handled as asbestos-containing. If future sampling identifies any such materials as ACMs, they should be properly abated and disposed of by a state-licensed abatement contractor prior to disturbance or demolition.

8.4 Lead Based Paint (LBP)

Based upon the age of some of the subject buildings (circa late 1970s), it is possible that lead-based paint (LBP) was used. In 1978, the federal government banned the use of LBP in residential applications, although usage was allowed to continue in many industrial settings. Although Title X does not require LBP testing in most privately-owned residential housing, according to OSHA, prior to any activity that by its very nature may cause lead exposure (i.e., sanding, scraping, demolition, etc.) either to workers or tenants, LBP sampling must be performed. Therefore, should future renovation, repair, or demolition disturb any suspect paint, a LBP inspection and/or risk assessment should be conducted by a state or federally certified LBP inspector/assessor to identify areas of potential tenant or worker exposure. Should any LBP be identified, such painted surfaces would be required to be included in an approved interim controls (a.k.a. Operations and Maintenance) program.

8.5 Lead in Drinking Water

Federal regulations limit lead in publicly supplied water to no more than 15 parts per billion (ppb), however, the most common source of lead in tapwater is from interior plumbing systems (piping, connections, faucets, etc.). Based upon the age of the some of the subject structures, and upon construction standards prior to 1987 (40 CFR 141.11), it is possible for the interior plumbing systems to contain lead. The presence or absence of elevated lead concentrations in the water can only be confirmed through laboratory testing. However, no current federal regulations require individual property owners to test for lead in drinking water.

8.6 Air Quality

No unusual smells, odors, or visual emissions were noted during the inspection of the subject property. However, these observations are general in nature and should not be construed as an air quality assessment.

8.7 Radon

According to the USEPA, the general area of the site has a Radon Zone Level of 2, which has a predicted average indoor screening level of between 2.0 picoCuries per liter of air (pCi/l) and 4.0 pCi/l. This level is below the EPA action level of 4.0 pCi/l. Therefore, based upon the reported subsurface characteristics of the area, the subject property exhibits a low potential for radon exposure.

8.8 Railroad Right-of-Ways

No railroad right-of-ways were identified on or adjoining the subject property.

9.0 ADJOINING PROPERTY OBSERVATIONS

As discussed below, based upon limited observations of the adjoining properties from publicly accessible locations, as well as a review of federal, state, and local environmental databases, none of the adjoining properties appeared to have environmentally impacted the subject property.

9.1 Adjoining Properties Materials Storage

Visual observations of the publicly accessible portions of the adjoining properties did not indicate the exterior storage of hazardous materials or wastes. No indications of spillage or staining were noted in the observable exterior areas of these sites. Additionally, no obvious indications of improper hazardous material storage or unusual or suspicious materials handling or storage practices were observed.

9.2 Adjoining Properties Wastestream Disposal

No unusual or suspicious wastestream disposal activities were observed on the publicly accessible portions of the adjoining properties.

10.0 STATEMENT OF THE ENVIRONMENTAL PROFESSIONALS

This Assessment has been performed for the exclusive use and benefit of the addressee(s) identified on the cover of this report, or agents directly specified by it (them), for the transaction at issue concerning the subject property described in this report. This Assessment shall not be used or relied upon by others without the prior written consent of LGC, and of the addressee(s) named on the cover of this report.

10.1 Statement of Quality Assurance

I have performed this Assessment in accordance with ASTM E1527-2000 and the scope of services identified in this report and the service agreement. The conclusions contained within this Assessment are based upon site conditions I readily observed and were reasonably ascertainable and present at the time of the site inspections. The findings and conclusions represent my best professional opinion and judgment.

The conclusions and recommendations stated in this report are based upon personal observations made by employees/contractors of LGC and upon information provided by others. I have no reason to suspect or believe that the information provided is inaccurate.

Signature of Registered Environmental Assessor - *David W. Copp, CHMM, REA #05148:*



Signature/Environmental Assessor



10.2 Statement of Quality Control

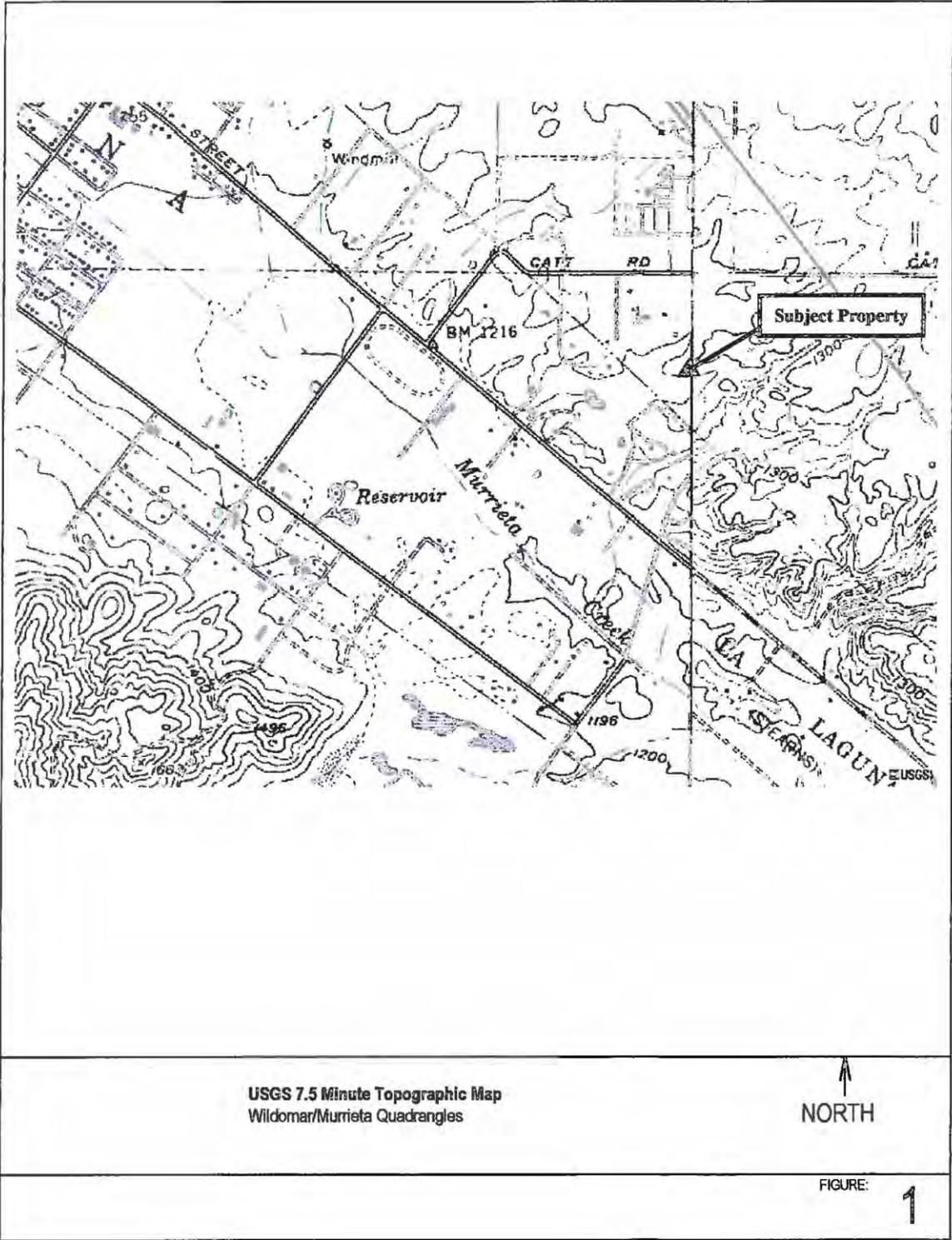
The objective of this Phase I ESA was to ascertain the potential presence or absence of RECs that could impact the subject property, as delineated in the scope of services and limitations identified in this report and in the service agreement. The procedure was to perform reasonable steps in accordance with the existing regulations, currently available technology, and generally accepted environmental consulting practices, in order to accomplish the stated objective.

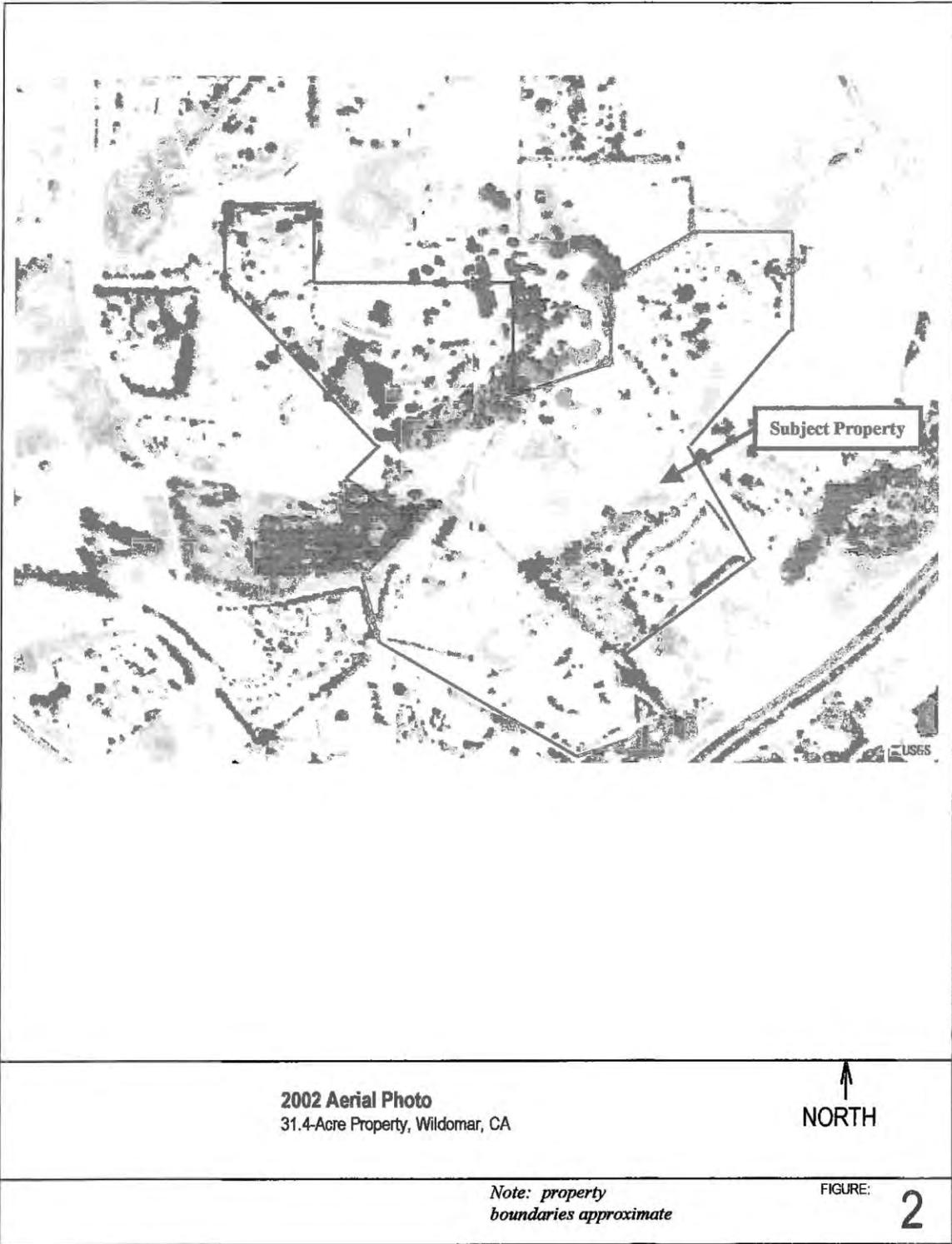
Signature of Environmental Reviewer - *Kevin B. Colson, Associate Geologist:*

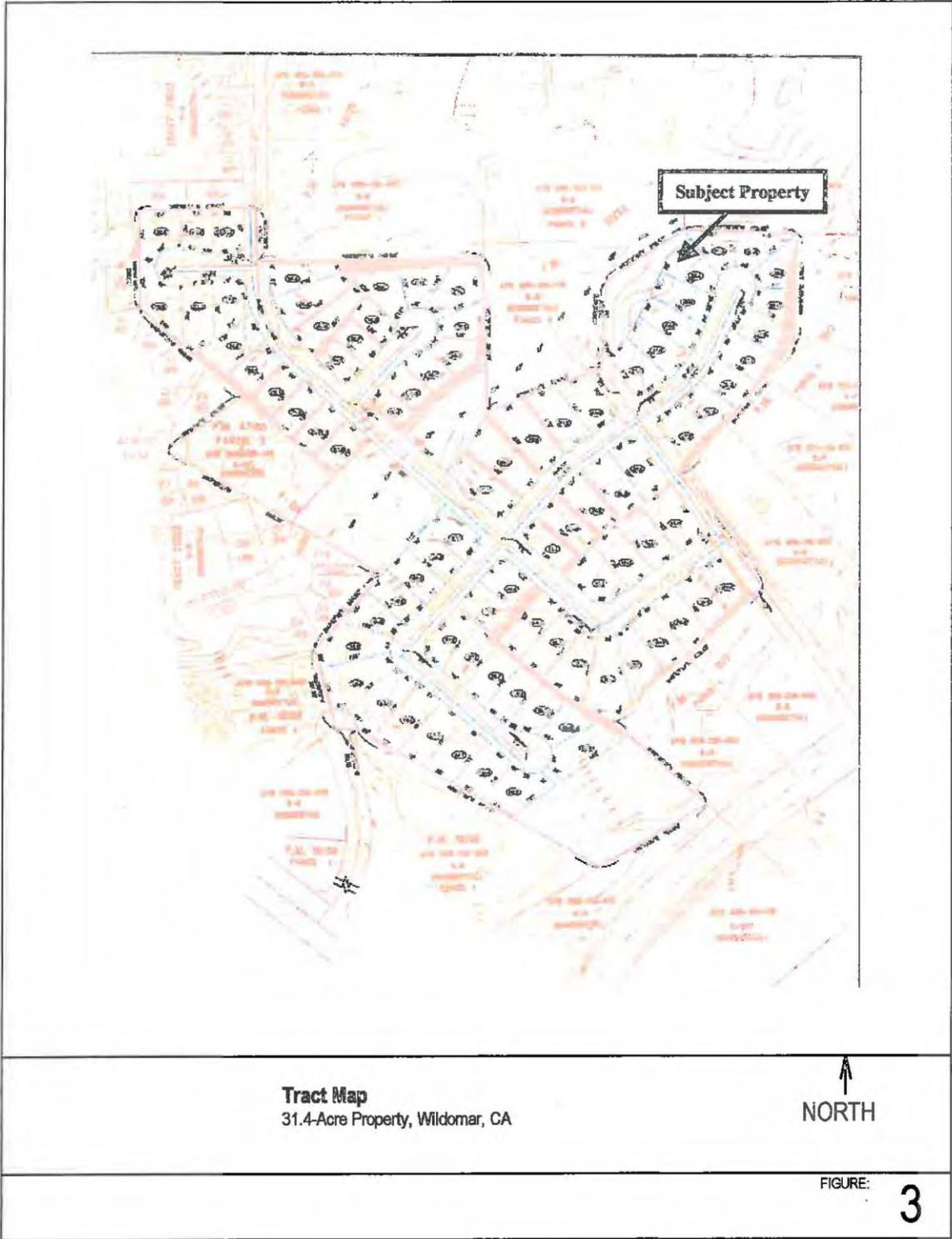


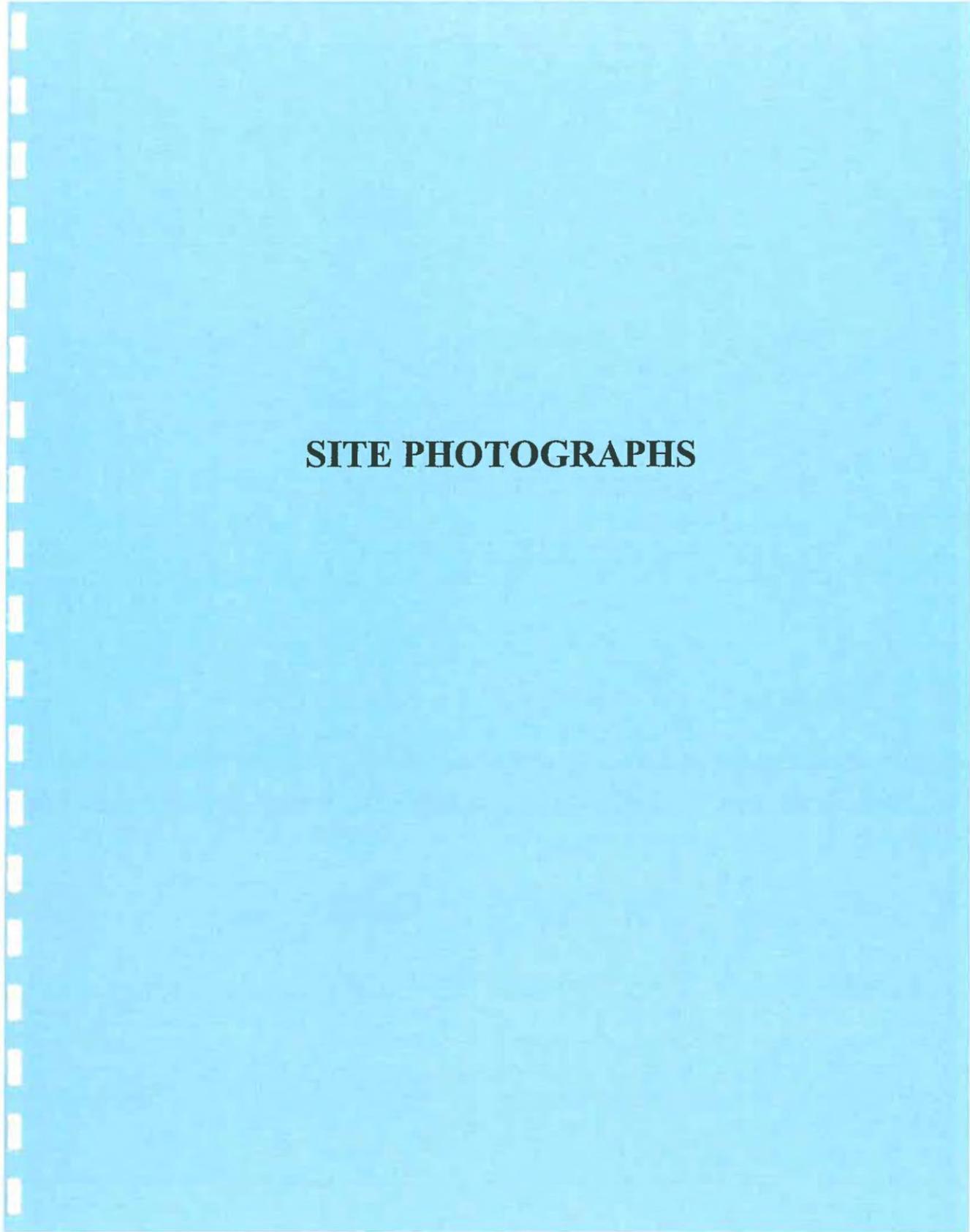
Signature/Environmental Reviewer

SITE MAPS









SITE PHOTOGRAPHS



Photo #1:
36135 Arnett Road
dwelling



Photo #2:
36135 Arnett Road
mobile home



Photo #3:
Hazardous materials
stored outside at 36135
Arnett Road property

Phase I Environmental Site Assessment
31.4-Acre Property, Wildomar, CA



Photo #4:
36160 Arnett Road
dwelling



Photo #5:
Mid-stream area at
36160 Arnett Road
property



Photo #6:
Dwelling and garage at
36210 Stable Lanes
Way property

Phase I Environmental Site Assessment
31.4-Acre Property, Wildomar, CA



Photo #7:
Mobile home and stored
items at 36210 Stable
Lanes Way property



Photo #8:
Some of used oil
containers at 36210
Stable Lanes Way
property



Photo #9:
36211 Stable Lanes
Way property dwelling

Phase I Environmental Site Assessment
31.4-Acre Property, Wildomar, CA



Photo #10:
Stored items at 36211
Stable Lanes Way
property



Photo #11:
Entrance and pad at
36231 Stable Lanes
Way property

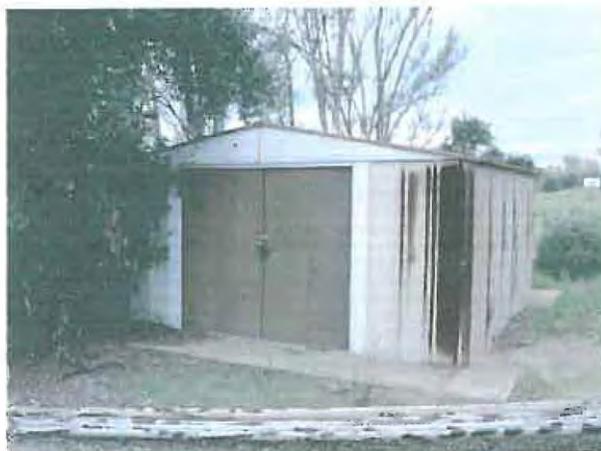


Photo #12:
Locked shed and stored
pipes at 36231 Stable
Lanes Way property

Phase I Environmental Site Assessment
31.4-Acre Property, Wildomar, CA



Photo #13:
Dwelling and animal pens
at 32130 Windsong Lane
property



Photo #14:
Empty 55-gallon drum,
grass growth and trees
at 32130 Windsong
Lane property



Photo #15:
Graded lots and trees at
32130 Windsong Lane
property

Phase I Environmental Site Assessment
31.4-Acre Property, Wildomar, CA

SANBORN MAPS



"Linking Technology with Tradition"®

Sanborn® Map Report

Ship To: David Copp
Pinnacle Environmental
6338 North Beechwood
San Bernardino, CA

Order Date: 12/7/2004 **Completion Date:** 12/7/2004
Inquiry #: 1321781.2
P.O. #: NA
Site Name: 31-Acre Property

Address: Catt Rd. / Clinton Keith Rd.

City/State: Wildomar, CA 92595

Customer Project: 04-1365
1060099TIM 951-312-5989

Cross Streets:

This document reports that the largest and most complete collection of Sanborn fire insurance maps has been reviewed based on client supplied information, and fire insurance maps depicting the target property at the specified address were not identified.

NO COVERAGE

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**REGULATORY
DATABASE SEARCH**



EDR™ Environmental
Data Resources Inc

The EDR Radius Map™ Report

**31-Acre Property
Catt Rd. / Clinton Keith Rd.
Wildomar, CA 92595**

Inquiry Number: 01321781.1r

December 07, 2004

The Standard in Environmental Risk Management Information

440 Wheelers Farms Road
Milford, Connecticut 06460

Nationwide Customer Service

Telephone: 1-800-352-0050
Fax: 1-800-231-6802
Internet: www.edrnet.com

FORM-7M

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GeoCheck - Not Requested	

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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TC01321781.1r Page 1

EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc. (EDR). The report meets the government records search requirements of ASTM Standard Practice for Environmental Site Assessments, E 1527-00. Search distances are per ASTM standard or custom distances requested by the user.

TARGET PROPERTY INFORMATION

ADDRESS

CATT RD. / CLINTON KEITH RD.
WILDOMAR, CA 92595

COORDINATES

Latitude (North): 33.594600 - 33° 35' 40.6"
Longitude (West): 117.251700 - 117° 15' 6.1"
Universal Transverse Mercator: Zone 11
UTM X (Meters): 476845.7
UTM Y (Meters): 3717042.8
Elevation: 1284 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property: 33117-E3 WILDOMAR, CA
Source: USGS 7.5 min quad index

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 ASTM E 1527-00 search radius around the target property for the following databases:

FEDERAL ASTM STANDARD

NPL..... National Priority List
Proposed NPL..... Proposed National Priority List Sites
CERCLIS..... Comprehensive Environmental Response, Compensation, and Liability Information System
CERC-NFRAP..... CERCLIS No Further Remedial Action Planned
CORRACTS..... Corrective Action Report
RCRA-TSDF..... Resource Conservation and Recovery Act information
RCRA-LQG..... Resource Conservation and Recovery Act Information
ERNS..... Emergency Response Notification System

STATE ASTM STANDARD

AWP..... Annual Workplan Sites

EXECUTIVE SUMMARY

Cal-Sites.....	Calsites Database
Cortese.....	"Cortese" Hazardous Waste & Substances Sites List
Notify 65.....	Proposition 65 Records
Toxic Pits.....	Toxic Pits Cleanup Act Sites
SWF/LF.....	Solid Waste Information System
WMUDS/SWAT.....	Waste Management Unit Database
LUST.....	Leaking Underground Storage Tank Information System
CA BOND EXP. PLAN.....	Bond Expenditure Plan
VCP.....	Voluntary Cleanup Program Properties
INDIAN LUST.....	Leaking Underground Storage Tanks on Indian Land
INDIAN UST.....	Underground Storage Tanks on Indian Land
CA FID UST.....	Facility Inventory Database
HIST UST.....	Hazardous Substance Storage Container Database

FEDERAL ASTM SUPPLEMENTAL

CONSENT.....	Superfund (CERCLA) Consent Decrees
ROD.....	Records Of Decision
Delisted NPL.....	National Priority List Deletions
HMIRS.....	Hazardous Materials Information Reporting System
MLTS.....	Material Licensing Tracking System
MINES.....	Mines Master Index File
NPL Liens.....	Federal Superfund Liens
PADS.....	PCB Activity Database System
ODL.....	Open Dump Inventory
DOD.....	Department of Defense Sites
INDIAN RESERV.....	Indian Reservations
UMTRA.....	Uranium Mill Tailings Sites
FUDS.....	Formerly Used Defense Sites
RAATS.....	RCRA Administrative Action Tracking System
TRIS.....	Toxic Chemical Release Inventory System
TSCA.....	Toxic Substances Control Act
SSTS.....	Section 7 Tracking Systems
FTTS INSP.....	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

STATE OR LOCAL ASTM SUPPLEMENTAL

AST.....	Aboveground Petroleum Storage Tank Facilities
CLEANERS.....	Cleaner Facilities
CA WDS.....	Waste Discharge System
DEED.....	List of Deed Restrictions
REF.....	Unconfirmed Properties Referred to Another Agency
EML.....	Emissions Inventory Data
NFA.....	No Further Action Determination
NFE.....	Properties Needing Further Evaluation
SCH.....	School Property Evaluation Program
CA SLIC.....	Statewide SLIC Cases

EDR PROPRIETARY HISTORICAL DATABASES

Coal Gas.....	Former Manufactured Gas (Coal Gas) Sites
---------------	--

BROWNFIELDS DATABASES

US BROWNFIELDS.....	A Listing of Brownfields Sites
---------------------	--------------------------------

EXECUTIVE SUMMARY

VCP..... Voluntary Cleanup Program Properties

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified.

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.

FEDERAL ASTM STANDARD

RCRAInfo: RCRAInfo is EPA's comprehensive information system, providing access to data supporting and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRAInfo replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System(RCRIS). The database includes selective information on sites which generate, transport, 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. Small quantity generators (SQGs): generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. 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.

A review of the RCRA-SQG list, as provided by EDR, and dated 08/10/2004 has revealed that there is 1 RCRA-SQG site within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
<i>USA GASOLINE CORPORATION FACIL</i>	<i>23905 CATT RD</i>	<i>1/8 - 1/4 NNW</i>	<i>A2</i>	<i>8</i>

STATE ASTM STANDARD

CHMIRS: The California Hazardous Material Incident Report System contains information on reported hazardous material incidents, i.e., accidental releases or spills. The source is the California Office of Emergency Services.

A review of the CHMIRS list, as provided by EDR, and dated 12/31/2003 has revealed that there is 1 CHMIRS site within approximately 0.25 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
<i>CLINTON KEITH VET HOSP</i>	<i>32395 CLINTON KEITH RD</i>	<i>1/8 - 1/4 SE</i>	<i>1</i>	<i>6</i>

EXECUTIVE SUMMARY

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

A review of the UST list, as provided by EDR, and dated 10/13/2004 has revealed that there are 3 UST sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
<i>USA GASOLINE CORPORATION FACIL</i>	<i>23905 CATT RD</i>	<i>1/8 - 1/4 NNW</i>	<i>A2</i>	<i>8</i>
<i>USA GASOLINE</i>	<i>23905 CATT ROAD</i>	<i>1/8 - 1/4 NNW</i>	<i>A3</i>	<i>8</i>
<i>CHEVRON</i>	<i>23805 CLINTON KEITH ROA</i>	<i>1/4 - 1/2 ENE</i>	<i>4</i>	<i>8</i>

FEDERAL ASTM SUPPLEMENTAL

FINDS: The Facility Index System contains both facility information and "pointers" to other sources of information that contain more detail. These include: RCRIS; Permit Compliance System (PCS); Aerometric Information Retrieval System (AIRS); FATES (FIFRA [Federal Insecticide Fungicide Rodenticide Act] and TSCA Enforcement System, FTTS [FIFRA/TSCA Tracking System]; CERCLIS; DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes); Federal Underground Injection Control (FURS); Federal Reporting Data System (FRDS); Surface Impoundments (SIA); TSCA Chemicals in Commerce Information System (CiCS); PADS; RCRA-J (medical waste transporters/disposers); TRIS; and TSCA. The source of this database is the U.S. EPA/NTIS.

A review of the FINDS list, as provided by EDR, and dated 09/09/2004 has revealed that there is 1 FINDS site within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
<i>USA GASOLINE CORPORATION FACIL</i>	<i>23905 CATT RD</i>	<i>1/8 - 1/4 NNW</i>	<i>A2</i>	<i>8</i>

STATE OR LOCAL ASTM SUPPLEMENTAL

HAZNET: 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 from non-California manifests & continuation sheets are not included at the present time. 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, & disposal method. The source is the Department of Toxic Substance Control is the agency

A review of the HAZNET list, as provided by EDR, and dated 12/31/2002 has revealed that there is 1 HAZNET site within approximately 0.25 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Dist / Dir</u>	<u>Map ID</u>	<u>Page</u>
<i>CLINTON KEITH VET HOSP</i>	<i>32395 CLINTON KEITH RD</i>	<i>1/8 - 1/4 SE</i>	<i>1</i>	<i>6</i>

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped:

<u>Site Name</u>	<u>Database(s)</u>
PROMT CLEANERS	CLEANERS

OVERVIEW MAP - 01321781.1r - Pinnacle Environmental Inc.

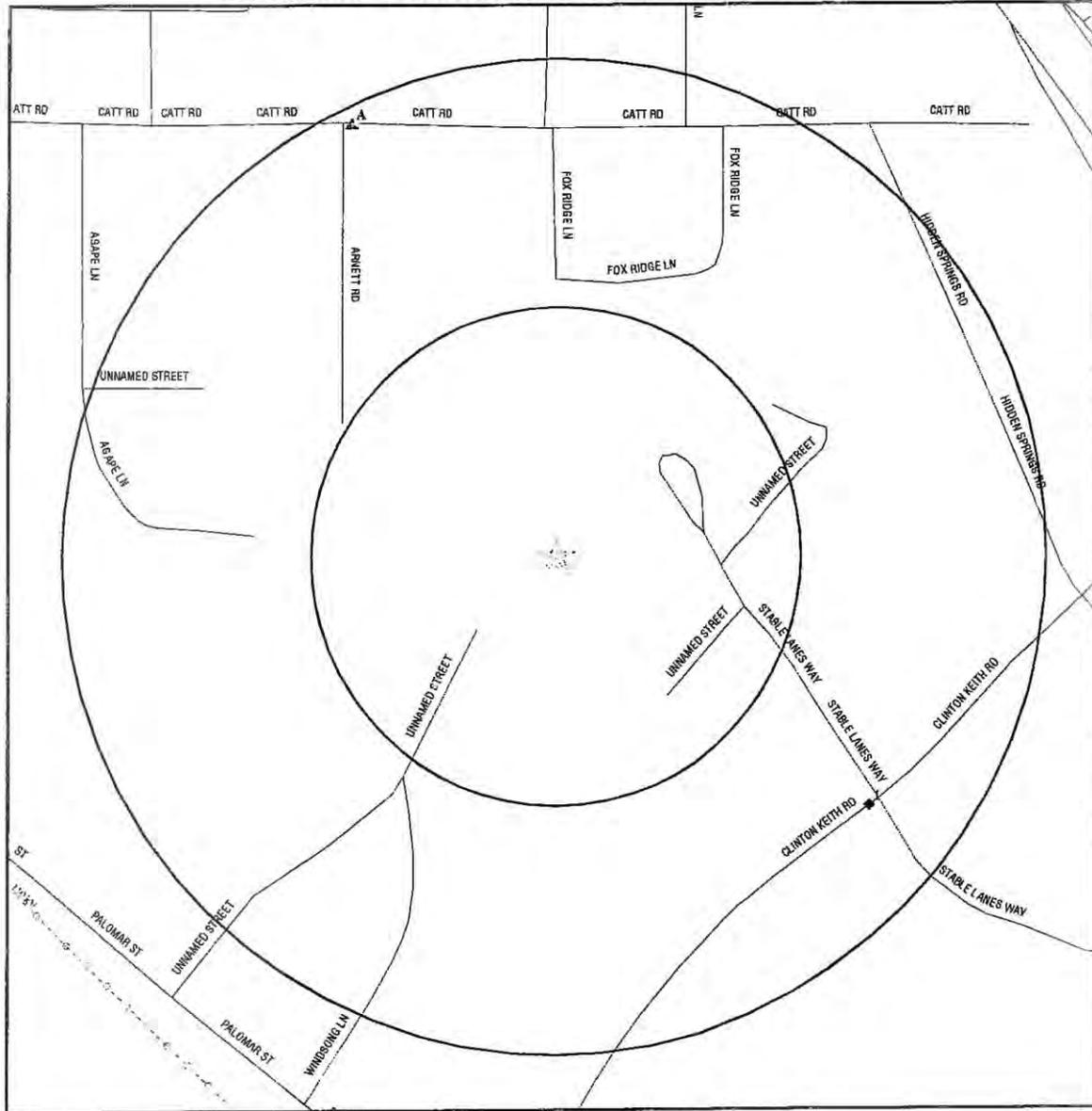


- | | | |
|--|--|--|
| <ul style="list-style-type: none"> * Target Property * Sites at elevations higher than or equal to the target property * Sites at elevations lower than the target property ▲ Coal Gasification Sites ■ National Priority List Sites ■ Landfill Sites ■ Dept. Defense Sites | <ul style="list-style-type: none"> ■ Indian Reservations BIA — Power transmission lines — Oil & Gas pipelines ■ 100-year flood zone ■ 500-year flood zone ■ Federal Wetlands | <ul style="list-style-type: none"> ■ Areas of Concern |
|--|--|--|



TARGET PROPERTY: 31-Acre Property ADDRESS: Catt Rd. / Clinton Keith Rd. CITY/STATE/ZIP: Wildomar CA 92595 LAT/LONG: 33.5946 / 117.2517	CUSTOMER: Pinnacle Environmental Inc. CONTACT: David Copp INQUIRY #: 01321781.1r DATE: December 07, 2004 8:23 pm
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DETAIL MAP - 01321781.1r - Pinnacle Environmental Inc.



- | | | |
|---|--|--|
| <ul style="list-style-type: none"> ▲ Target Property ▲ Sites at elevations higher than or equal to the target property ◆ Sites at elevations lower than the target property ▲ Coal Gasification Sites ⊞ Sensitive Receptors ☐ National Priority List Sites ☐ Landfill Sites ☐ Dept. Defense Sites | <ul style="list-style-type: none"> ☐ Indian Reservations BIA — Power transmission lines — Oil & Gas pipelines ▨ 100-year flood zone ▨ 500-year flood zone | <ul style="list-style-type: none"> ☐ Areas of Concern |
|---|--|--|

TARGET PROPERTY: 31-Acre Property ADDRESS: Catt Rd. / Clinton Keith Rd. CITY/STATE/ZIP: Wildomar CA 92595 LAT/LONG: 33.5946 / 117.2517	CUSTOMER: Pinnacle Environmental Inc. CONTACT: David Copp INQUIRY #: 01321781.1r DATE: December 07, 2004 8:24 pm
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MAP FINDINGS SUMMARY

<u>Database</u>	<u>Target Property</u>	<u>Search Distance (Miles)</u>	<u>< 1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>> 1</u>	<u>Total Plotted</u>
<u>FEDERAL ASTM STANDARD</u>								
NPL		1.250	0	0	0	0	0	0
Proposed NPL		1.250	0	0	0	0	0	0
CERCLIS		0.750	0	0	0	0	NR	0
CERC-NFRAP		0.500	0	0	0	NR	NR	0
CORRACTS		1.250	0	0	0	0	0	0
RCRA TSD		0.750	0	0	0	0	NR	0
RCRA Lg. Quan. Gen.		0.500	0	0	0	NR	NR	0
RCRA Sm. Quan. Gen.		0.500	0	1	0	NR	NR	1
ERNS		0.250	0	0	NR	NR	NR	0
<u>STATE ASTM STANDARD</u>								
AWP		1.250	0	0	0	0	0	0
Cal-Sites		1.250	0	0	0	0	0	0
CHMIRS		0.250	0	1	NR	NR	NR	1
Cortese		0.750	0	0	0	0	NR	0
Notify 65		1.250	0	0	0	0	0	0
Toxic Pits		1.250	0	0	0	0	0	0
State Landfill		0.750	0	0	0	0	NR	0
WMUDS/SWAT		0.750	0	0	0	0	NR	0
LUST		0.750	0	0	0	0	NR	0
CA Bond Exp. Plan		1.250	0	0	0	0	0	0
UST		0.500	0	2	1	NR	NR	3
VCP		0.750	0	0	0	0	NR	0
INDIAN LUST		0.750	0	0	0	0	NR	0
INDIAN UST		0.500	0	0	0	NR	NR	0
CA FID UST		0.500	0	0	0	NR	NR	0
HIST UST		0.500	0	0	0	NR	NR	0
<u>FEDERAL ASTM SUPPLEMENTAL</u>								
CONSENT		1.250	0	0	0	0	0	0
ROD		1.250	0	0	0	0	0	0
Delisted NPL		1.250	0	0	0	0	0	0
FINDS		0.250	0	1	NR	NR	NR	1
HMIRS		0.250	0	0	NR	NR	NR	0
MLTS		0.250	0	0	NR	NR	NR	0
MINES		0.500	0	0	0	NR	NR	0
NPL Liens		0.250	0	0	NR	NR	NR	0
PADS		0.250	0	0	NR	NR	NR	0
ODI		0.750	0	0	0	0	NR	0
DOD		1.250	0	0	0	0	0	0
INDIAN RESERV		1.250	0	0	0	0	0	0
UMTRA		0.750	0	0	0	0	NR	0
FUDS		1.250	0	0	0	0	0	0
RAATS		0.250	0	0	NR	NR	NR	0
TRIS		0.250	0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
TSCA		0.250	0	0	NR	NR	NR	0
SSTS		0.250	0	0	NR	NR	NR	0
FTTS		0.250	0	0	NR	NR	NR	0
<u>STATE OR LOCAL ASTM SUPPLEMENTAL</u>								
AST		0.250	0	0	NR	NR	NR	0
CLEANERS		0.500	0	0	0	NR	NR	0
CA WDS		0.250	0	0	NR	NR	NR	0
DEED		0.250	0	0	NR	NR	NR	0
REF		0.500	0	0	0	NR	NR	0
EMI		0.250	0	0	NR	NR	NR	0
NFA		0.500	0	0	0	NR	NR	0
NFE		0.500	0	0	0	NR	NR	0
SCH		0.500	0	0	0	NR	NR	0
SLIC		0.750	0	0	0	0	NR	0
HAZNET		0.250	0	1	NR	NR	NR	1
<u>EDR PROPRIETARY HISTORICAL DATABASES</u>								
Coal Gas		1.250	0	0	0	0	0	0
<u>BROWNFIELDS DATABASES</u>								
US BROWNFIELDS		0.750	0	0	0	0	NR	0
VCP		0.750	0	0	0	0	NR	0

NOTES:

- TP = Target Property
- NR = Not Requested at this Search Distance
- Sites may be listed in more than one database

Map ID
Direction
Distance
Distance (ft.)
Elevation Site

MAP FINDINGS

Database(s) EDR ID Number
EPA ID Number

Coal Gas Site Search: No site was found in a search of Real Property Scan's ENVIROHAZ database.

<p>1 SE 1/8-1/4 1074 ft.</p>	<p>CLINTON KEITH VET HOSP 32395 CLINTON KEITH RD #1B WILDOMAR, CA 92595</p>	<p>HAZNET CHMIRS</p>	<p>S103957788 N/A</p>
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Relative: HAZNET:
Lower

Gepaid: CAL920763103
TSD EPA ID: CAD983604000
Gen County: Riverside
Tsd County: San Bernardino
Tons: .0542
Waste Category: Photochemicals/photoprocessing waste
Disposal Method: Recycler
Contact: HENRY LUZURIAGA
Telephone: (909) 678-7800
Mailing Address: 32395 CLINTON KEITH RD STE 1B
WILDOMAR, CA 92595
County Riverside

Actual:
1271 ft.

Gepaid: CAL920763103
TSD EPA ID: CAD983604000
Gen County: Riverside
Tsd County: San Bernardino
Tons: .1251
Waste Category: Photochemicals/photoprocessing waste
Disposal Method: Recycler
Contact: HENRY LUZURIAGA
Telephone: (909) 678-7800
Mailing Address: 32395 CLINTON KEITH RD STE 1B
WILDOMAR, CA 92595
County Riverside

CHMIRS:

OES Control Number:	03-0661
Chemical Name:	Sodium Phosphate
Extent of Release:	Not reported
Property Use:	Not reported
Incident Date:	Not reported
Date Completed:	Not reported
Time Completed:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
OES Incident Number:	03-0661
Time Notified:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved? :	Not reported
Special Studies 1 :	Not reported
Special Studies 2 :	Not reported
Special Studies 3 :	Not reported
Special Studies 4 :	Not reported
Special Studies 5 :	Not reported
Special Studies 6 :	Not reported
Responding Agency Personnel # Of Injuries :	Not reported
Responding Agency Personnel # Of Fatalities :	0

Map ID
Direction
Distance
Distance (ft.)
Elevation

MAP FINDINGS

Database(s) EDR ID Number
EPA ID Number

CLINTON KEITH VET HOSP (Continued)

S103957788

Resp Agency Personnel # Of Decontaminated :	Not reported
Others Number Of Decontaminated :	Not reported
Others Number Of Injuries :	Not reported
Others Number Of Fatalities :	Not reported
Vehicle Make/year :	Not reported
Vehicle License Number :	Not reported
Vehicle State :	Not reported
Vehicle Id Number :	Not reported
CA/DOT/PUC/ICC Number :	Not reported
Company Name :	Not reported
Reporting Officer Name/ID :	Not reported
Report Date :	Not reported
Comments :	Not reported
Facility Telephone Number :	Not reported
Waterway Involved :	No
Waterway :	Not reported
Spill Site :	Merchant/Business
Cleanup By :	Responsible Party
Containment :	Yes
What Happened :	Not reported
Type :	Not reported
Other :	Not reported
Chemical 1 :	Not Reported
Chemical 2 :	Not Reported
Chemical 3 :	Not Reported
Date/Time :	2/5/200306:42:10 AM
Evacuations :	8
True date :	12/31/03
Year :	2003
Agency :	Riverside Co Fire Dept
BBLs :	0
Cups :	0
CUFT :	0
Gallons :	0.000000
Grams :	0
Pounds :	0
Liters :	0
Ounces :	2
Pints :	0
Quarts :	0
Sheen :	0
Tons :	0
Unknown :	0
Description :	Substance was released when substances where mixed in a dirty metal pan with tomato sauce and fumes where released causing injury.
Incident date :	2/4/200312:00:00 AM
Admin Agency :	Not reported
OES date :	Not reported
OES time :	Not reported
Amount :	Not reported

MAP FINDINGS

Map ID	Direction	Distance	Distance (ft.)	Elevation	Site	Database(s)	EDR ID Number	EPA ID Number
A2	NNW	1/8-1/4	1275 ft.		USA GASOLINE CORPORATION FACILITY NO 844 23905 CATT RD WILDOMAR, CA 92595	RCRA-SQG FINDS UST	1006806025 CAR000144287	
					Site 1 of 2 in cluster A			
				Relative: Higher	RCRAInfo: Owner: USA GAS CORP EPA ID: CAR000144287 Contact: CHUCK MILLER 818-865-9200 Classification: Small Quantity Generator TSDF Activities: Not reported Violation Status: No violations found			
				Actual: 1297 ft.	FINDS: Other Pertinent Environmental Activity Identified at Site: Resource Conservation and Recovery Act Information system State UST: Facility ID: 23905 Region: STATE Local Agency: Los Angeles, Los Angeles County			
A3	NNW	1/8-1/4	1275 ft.		USA GASOLINE 23905 CATT ROAD WILDOMAR, CA 92595	UST	U003966331 N/A	
					Site 2 of 2 in cluster A			
				Relative: Higher				
				Actual: 1297 ft.				
4	ENE	1/4-1/2	2297 ft.		CHEVRON 23805 CLINTON KEITH ROAD MURRIETA, CA 92595	UST	U003907822 N/A	
				Relative: Higher	UST Riverside County: Region: RIVERSIDE Total Tanks: 3			
				Actual: 1312 ft.				

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 08/10/04
Date Made Active at EDR: 10/27/04
Database Release Frequency: Quarterly

CONTRACT: Corrective Action Report
Source: EPA
Telephone: 800-424-9048
CONTRACT'S Description: Hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 08/23/04
Date Made Active at EDR: 11/18/04
Database Release Frequency: Semi-Annually

RCRA: Resource Conservation and Recovery Act Information
Source: EPA
Telephone: 800-424-9048
RCRAInfo is EPA's comprehensive Internet system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1994. RCRAInfo replicates the data reporting and reporting activities of the Resource Conservation and Recovery Information System (RCRIS). The database includes selective information on sites which generate, transport, store, treat, or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CERCLA) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month. Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or one 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator of site in a facility that can recycle, treat, store, or dispose of the waste.

Date of Government Version: 09/15/04
Date Made Active at EDR: 10/15/04
Database Release Frequency: Varies

ERIS: Emergency Response Notification System
Source: National Response Center, United States Coast Guard
Telephone: 302-262-2342
Emergency Response Notification System, ERIS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/01/03
Date Made Active at EDR: 01/02/04
Database Release Frequency: Annually

FEDERAL ASTM SUPPLEMENTAL RECORDS

RCRA: Remedial Reporting System
Source: EPA/RTS
Telephone: 800-424-9048
The Remedial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. RRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/01/01
Date of Last EDR Contact: 03/05/04
Date of Next Scheduled EDR Contact: 12/13/04

CONSENT: Superfund (CERCLA) Consent Decrees
Source: Department of Justice, Consent Decree Library
Telephone: Varies
Major legal settlements that establish responsibility and standards for cleanup of NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/05/04
Date Made Active at EDR: 03/05/04
Database Release Frequency: Varies

RCO: Record of Decision
Source: EPA
Telephone: 703-418-4223
Record of Decision, RCO documents mandate a permanent remedy at an NPL (Superfund) site meeting technical and health information to aid in the cleanup.

Date of Government Version: 08/05/04
Date Made Active at EDR: 08/05/04
Database Release Frequency: Annually

DELISTED NPL: National Priority List Delisting
Source: EPA
Telephone: N/A
The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delist sites from the NPL. In accordance with 40 CFR 300.435(b), sites may be delisted from the NPL where no further response is appropriate.

Date of Government Version: 07/22/04
Date Made Active at EDR: 07/22/04
Database Release Frequency: Quarterly

FINDS: Facility Index System/Facility Identification Initiative Program Summary Report
Source: EPA
Telephone: N/A
Facility Index System, FINDS archives both facility information and "lookups" to other systems that contain more detail. EDR includes the following FINDS databases in this report: PCB (Pollution Compliance System), AQS (Automated Information Retrieval System), DDCS (Enhancement Data) used for site-specific and track information and judicial enforcement cases for all environmental media, FINE (Federal Underground Injection Control), CDD/CQCL (Controlled Waste System) used for local criminal enforcement orders for all environmental systems, FFB (Federal Facility Information System), EPA TR (State Environmental Laws and Statutes), and FADS (PCB Activity Data System).

Date of Government Version: 08/05/04
Date of Last EDR Contact: 08/05/04
Date of Next Scheduled EDR Contact: 01/05/05

HHSR: Hazardous Materials Information Reporting System
Source: U.S. Department of Transportation
Telephone: 202-366-4200
Hazardous Materials Incident Report System, HHSR contains hazardous material spill incidents reported to DOT.

Date of Government Version: 02/17/04
Date Made Active at EDR: 02/17/04
Database Release Frequency: Annually

MLTS: Material Licensing Tracking System
Source: Nuclear Regulatory Commission
Telephone: 301-415-7180
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which process or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR includes this Agency on a quarterly basis.

Date of Government Version: 07/15/04
Date of Last EDR Contact: 10/04/04
Date of Next Scheduled EDR Contact: 01/05/05

MMSR: Mines Master Index File
Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-0269

Date of Government Version: 08/13/04
Date Made Active at EDR: 08/13/04
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 08/08/04
Date of Next Scheduled EDR Contact: 12/27/04

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as needed.

Elapsed ASTM days: Provides confirmation that the EPA report meets or exceeds the 90-day updating requirement of the ASTM standard.

FEDERAL ASTM STANDARD RECORDS

NPL: National Priority List
Source: EPA
Telephone: N/A
National Priority 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 coverages for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 07/22/04
Date Made Active at EDR: 08/05/04
Database Release Frequency: Semi-Annually

Date of Date Arrival at EDR: 06/05/04
Elapsed ASTM days: 37
Date of Last EDR Contact: 11/03/04

NPL Site Boundaries
Source: EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-684-7333

EPA Region 1
Telephone: 617-415-1143

EPA Region 2
Telephone: 212-632-8830

EPA Region 3
Telephone: 215-614-5418

EPA Region 4
Telephone: 404-562-4032

EPA Region 5
Telephone: 303-312-8774

Proposed NPL: Proposed National Priority List Sites
Source: EPA
Telephone: N/A

Date of Government Version: 07/22/04
Date Made Active at EDR: 08/05/04
Database Release Frequency: Semi-Annually

Date of Date Arrival at EDR: 08/03/04
Elapsed ASTM days: 37
Date of Last EDR Contact: 11/03/04

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System
Source: EPA
Telephone: 703-412-0923
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 Priority List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 06/16/04
Date Made Active at EDR: 10/27/04
Database Release Frequency: Quarterly

Date of Date Arrival at EDR: 10/27/04
Elapsed ASTM days: 30
Date of Last EDR Contact: 09/10/04

CERCLIS-NPRAP: CERCLIS is Further Remedial Action Planned
Source: EPA
Telephone: 703-412-0223
As of February 1990, CERCLIS sites designated "No Further Remedial Action Planned" (NFRAP) have been removed from CERCLIS. NFRAP sites may be sites whose cleanup or other investigations, as authorized by state, municipal, or private contractors was removed quickly without the need for the site to be placed on the NPL, or the contractor was not active enough to require Federal Superfund action or NPL consideration. EPA has retained approximately 25,000 NFRAP sites to be the authorized baseline for the subsequence of these properties and has archived them as historical records as EPA does not routinely repeat the investigations in the future. This policy change is part of the EPA's Remedial Action Management Program to help states, states, states, private industry and affected citizens to promote accurate redevelopment of unproductive urban sites.

Project-Specific Water Quality Management Plan (WQMP)
North Ranch Tract No. 32535

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 09/13/04
 Date of Last EDR Contact: 08/27/04
 Database Release Frequency: Quarterly
 Date of Next Scheduled EDR Contact: 10/29/04

STATE OF CALIFORNIA ASTM STANDARD RECORDS

AHP: Annual Water Quality Report
 Source: California Environmental Protection Agency
 Telephone: 916-223-3400
 Known Hazardous Waste Sites, California DTSC's Annual (Water) AHP, formerly DEP, and the known hazardous substances sites targeted for cleanup.
 Date of Government Version: 10/25/04
 Date of Date Arrived at EDR: 10/15/04
 Date Made Active at EDR: 11/03/04
 Disposed ASTM days: 15
 Database Release Frequency: Annually
 Date of Last EDR Contact: 09/16/04

CA-STATE: Cables Database
 Source: Department of Toxic Substances Control
 Telephone: 916-223-3400
 The Cables Database contains potential or confirmed hazardous substance release properties. In 1996, California EPA re-evaluated and algorithmically reduced the number of files in the Cables Database.
 Date of Government Version: 10/05/04
 Date of Date Arrived at EDR: 10/15/04
 Disposed ASTM days: 15
 Database Release Frequency: Quarterly
 Date of Last EDR Contact: 09/16/04

CHMRS: California Hazardous Materials Incident Report System
 Source: Office of Emergency Services
 Telephone: 916-243-6470
 California Hazardous Materials Incident Reporting System. CHMRS contains information on reported hazardous material incidents (occasional releases or spill).
 Date of Government Version: 1/21/03
 Date of Date Arrived at EDR: 05/24/04
 Date Made Active at EDR: 05/26/04
 Database Release Frequency: Weekly
 Date of Last EDR Contact: 09/23/04

COPIES: "Contaminated" Hazardous Waste & Substance Sites List
 Source: CAL EPA/Office of Emergency Information
 Telephone: 916-223-9100
 The sites on this list are designated by the State Water Resources Control Board (LUST), the Integrated Waste Board (IWB/ISB), and the Department of Toxic Substances Control (DTSC/STC), this being in no longer updated by the state agency.
 Date of Government Version: 04/01/01
 Date of Date Arrived at EDR: 05/26/04
 Disposed ASTM days: 05
 Database Release Frequency: No Update Planned
 Date of Last EDR Contact: 10/29/04

NOTIFY 63: Proposition 65 Records
 Source: State Water Resources Control Board
 Telephone: 916-441-3385
 Proposition 65 notification records. NOTIFY 63 contains facility notification and any release which could impact drinking water and thereby expose the public to a potential health risk.
 Date of Government Version: 10/21/03
 Date of Date Arrived at EDR: 11/01/03
 Date Made Active at EDR: 11/16/03
 Database Release Frequency: No Update Planned
 Date of Last EDR Contact: 10/16/04

TOX: PITS: Toxic Risk Cleanup Act Sites
 Source: State Water Resources Control Board
 Telephone: 916-227-4304
 Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

IFPL: LISTS: Federal Superfund Lists
 Source: EPA
 Telephone: 302-564-4267
 Federal Superfund Lists. Under the authority granted the USEPA by the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980, the USEPA has the authority to the lists against real property in order to recover remedial action expenditures or when the property owner receives notification of potential liability. USEPA compile a listing of listed notices of Superfund Lists.
 Date of Government Version: 10/15/91
 Date of Last EDR Contact: 08/23/04
 Database Release Frequency: No Update Planned
 Date of Next Scheduled EDR Contact: 11/23/04

PCD: PCBs Activity Database System
 Source: EPA
 Telephone: 302-564-3887
 PCB Activity Database. PADS identifies generators, transporters, commercial stores and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.
 Date of Government Version: 05/25/04
 Date of Last EDR Contact: 11/15/04
 Database Release Frequency: Annually
 Date of Next Scheduled EDR Contact: 03/07/05

DD: Department of Defense Sites
 Source: USGS
 Telephone: 703-648-4901
 This list contains information on identified or suspected sites, administered by the Department of Defense, that have an area equal to or greater than 845 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.
 Date of Government Version: 10/01/02
 Date of Last EDR Contact: 11/13/04
 Database Release Frequency: Semi-Annually
 Date of Next Scheduled EDR Contact: 03/07/05

UNTRAC: Uranium Mill Tailing Sites
 Source: Department of Energy
 Telephone: 202-546-2011
 Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of mill tailings (mill tailings) remain after uranium has been extracted from the ore. Levels of heavy isotopes of 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. In 1976, 24 inactive uranium mill tailings sites in Oregon, Idaho, Wyoming, Utah, Colorado, New Mexico, Texas, North Dakota, South Dakota, Pennsylvania, and in Nevada and Mill tailings lands, were targeted for cleanup by the Department of Energy.
 Date of Government Version: 04/23/04
 Date of Last EDR Contact: 09/23/04
 Database Release Frequency: Weekly
 Date of Next Scheduled EDR Contact: 11-20/04

OD: Open Dump Inventory
 Source: Environmental Protection Agency
 Telephone: 408-424-4246
 An open dump is defined as a disposal facility that does not comply with one or more of the Part 261 or Part 265 Subpart D Criteria.
 Date of Government Version: 05/03/05
 Date of Last EDR Contact: 05/26/05
 Database Release Frequency: No Update Planned
 Date of Next Scheduled EDR Contact: N/A

FLDS: Formerly Used Defense Sites
 Source: U.S. Army Corps of Engineers
 Telephone: 202-528-4265
 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: 12/16/03
 Date of Last EDR Contact: 10/04/04
 Database Release Frequency: Weekly
 Date of Next Scheduled EDR Contact: 11/02/05

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 2/7/05
 Date Made Active at EDR: 05/25/05
 Database Release Frequency: No Update Planned

IRWLF (IRWLF): Solid Waste Information System
 Source: Integrated Waste Management Board
 Telephone: 818-341-6330
 Active, Closed and Inactive Landfills. IRWLF records typically contain an inventory of solid waste disposal facilities or landfills. These may be active or inactive facilities or open sites that failed to meet RCRA Section 604 criteria for solid waste landfills or disposal sites.
 Date of Government Version: 09/13/04
 Date of Date Arrived at EDR: 09/14/04
 Date Made Active at EDR: 10/13/04
 Disposed ASTM days: 28
 Database Release Frequency: Quarterly
 Date of Last EDR Contact: 09/16/04

IRWLF (IRWLF): Waste Management Unit Database
 Source: State Water Resources Control Board
 Telephone: 916-227-4444
 Waste Management Unit Database System. IRWLF is used by the State Water Resources Control Board and the Regional Water Quality Control Board for program tracking and inventory of waste management units. IRWLF is composed of the following databases: Facility Information, Scheduled Inspection Information, Waste Management Unit Information, SWMT Program Information, SWMT Report Summary Information, SWMT Report Summary Data, Chapter 15 Domestic Subchapter (S) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interrelated Parties Information.
 Date of Government Version: 04/01/00
 Date of Date Arrived at EDR: 04/16/00
 Date Made Active at EDR: 05/19/00
 Disposed ASTM days: 30
 Database Release Frequency: Quarterly
 Date of Last EDR Contact: 09/08/04

LUST: Leaking Underground Storage Tank Information System
 Source: State Water Resources Control Board
 Telephone: 916-341-6702
 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.
 Date of Government Version: 10/13/04
 Date of Date Arrived at EDR: 10/13/04
 Date Made Active at EDR: 11/03/04
 Disposed ASTM days: 31
 Database Release Frequency: Quarterly
 Date of Last EDR Contact: 10/13/04

CA BOND EXP. PLAN: Bond Expenditure Plans
 Source: Department of Health Services
 Telephone: 916-224-2114
 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: 01/01/89
 Date of Date Arrived at EDR: 01/27/94
 Date Made Active at EDR: 02/27/94
 Disposed ASTM days: 8
 Database Release Frequency: No Update Planned
 Date of Last EDR Contact: 05/14/04

CA LUST: Active UST Facilities
 Source: SWRCB
 Telephone: 916-341-1732
 Active UST facilities gathered from the local regulatory agencies.
 Date of Government Version: 10/13/04
 Date of Date Arrived at EDR: 10/13/04
 Date Made Active at EDR: 11/03/04
 Disposed ASTM days: 31
 Database Release Frequency: Semi-Annually
 Date of Last EDR Contact: 10/13/04

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN RESERVATION: Indian Reservations
 Source: USGS
 Telephone: 202-206-3710
 This map layer portrays Indian administered lands of the United States that have an area equal to or greater than 845 acres.
 Date of Government Version: 10/01/03
 Date of Last EDR Contact: 11/15/04
 Database Release Frequency: Semi-Annually
 Date of Next Scheduled EDR Contact: 03/07/05

RAATS: RCRA Administrative Action Tracking System
 Source: EPA
 Telephone: 302-564-4104
 RCRA Administrative 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 administrative actions after September 30, 1980, data entry in the RAATS database was discontinued. EPA will create a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency response made it impossible to continue to update the information contained in the database.
 Date of Government Version: 04/17/95
 Date of Last EDR Contact: 09/07/04
 Database Release Frequency: No Update Planned
 Date of Next Scheduled EDR Contact: 12/08/04

TRIS: Toxic Chemical Release Inventory System
 Source: EPA
 Telephone: 302-560-0230
 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: 12/01/02
 Date of Last EDR Contact: 08/23/04
 Database Release Frequency: Annually
 Date of Next Scheduled EDR Contact: 12/20/04

TSCA: Toxic Substances Control Act
 Source: EPA
 Telephone: 302-564-2521
 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: 12/01/02
 Date of Last EDR Contact: 09/07/04
 Database Release Frequency: Every 4 Years
 Date of Next Scheduled EDR Contact: 12/06/04

FTTS (FTTS): FFRW/TSCA Tracking System - FFRW (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
 Source: EPA
 Telephone: 302-564-2501
 Date of Government Version: 04/13/04
 Database Release Frequency: Quarterly
 Date of Last EDR Contact: 04/13/04
 Date of Next Scheduled EDR Contact: 12/29/04

FTTS: Section 7 Tracking System
 Source: EPA
 Telephone: 302-564-3008
 Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 629) 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 they have produced and sold or distributed in the past year.
 Date of Government Version: 12/01/01
 Date of Last EDR Contact: 10/13/04
 Database Release Frequency: Annually
 Date of Next Scheduled EDR Contact: 01/17/05

FTTS: FFRW/TSCA Tracking System - FFRW (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
 Source: EPA/Office of Prevention, Pesticides and Toxic Substances
 Telephone: 302-564-3301
 FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FFRW, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.



GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 10/25/04
 Database Release Frequency: Quarterly
 Date of Last EDR Contact: 09/18/04
 Date of Next Scheduled EDR Contact: 11/25/04

SICR: School Facility Evaluation Program
 Source: Department of Toxic Substances Control
 Telephone: 916-323-3400
 This category contains properties that are suspected of being contaminated. There are unconfirmed contaminated materials on-site. In some cases, these properties may be listed in the California category depending on the level of threat to public health and safety or the environment, they pose.

Date of Government Version: 10/25/04
 Database Release Frequency: Quarterly
 Date of Last EDR Contact: 09/18/04
 Date of Next Scheduled EDR Contact: 11/25/04

NPDE: Properties Requiring Further Evaluation
 Source: Department of Toxic Substances Control
 Telephone: 916-323-3400
 This category contains properties that are suspected of being contaminated. There are unconfirmed contaminated materials on-site. In some cases, these properties may be listed in the California category depending on the level of threat to public health and safety or the environment, they pose.

Date of Government Version: 10/25/04
 Database Release Frequency: Quarterly
 Date of Last EDR Contact: 09/18/04
 Date of Next Scheduled EDR Contact: 11/25/04

SLUC: Statewide SLUC Cases
 Source: State Water Resources Control Board
 Telephone: 916-541-5732
 This table, Leaks, Investigations, and Cleanups (SLUC) listings includes information on discharges from spills and leaks, other than from underground storage tanks or other regulated sites.

Date of Government Version: 10/25/04
 Database Release Frequency: Quarterly
 Date of Last EDR Contact: 09/18/04
 Date of Next Scheduled EDR Contact: 11/25/04

HAZNET: Facility Inventory Database
 Source: California Environmental Protection Agency
 Telephone: 916-355-1136
 Facility and Material 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 may contain some invalid values for data elements such as generation ID, TSD ID, waste category, and disposal method.

Date of Government Version: 10/25/04
 Database Release Frequency: Annually
 Date of Last EDR Contact: 11/05/04
 Date of Next Scheduled EDR Contact: 02/07/05

LOCAL RECORDS

ALAMEDA COUNTY:

Local Overight Program Listing of UST Closure Sites
 Source: Alameda County Environmental Health Services
 Telephone: 916-387-4700
 Date of Government Version: 08/17/04
 Database Release Frequency: Semi-Annually
 Date of Last EDR Contact: 10/25/04
 Date of Next Scheduled EDR Contact: 01/24/05

Underground Tanks
 Source: Alameda County Environmental Health Services
 Telephone: 916-387-4700

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

YCP: Voluntary Cleanup Program Properties
 Source: Department of Toxic Substances Control
 Telephone: 916-323-3400
 Contains low threat level properties with either confirmed or unconfirmed releases and the project sponsors have requested that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 10/25/04
 Date Made Active at EDR: 11/03/04
 Database Release Frequency: Quarterly
 Date of Data Arrival at EDR: 10/15/04
 Elapsed ASTM days: 19
 Date of Last EDR Contact: 09/18/04

INDIAN LIST: Leaking Underground Storage Tanks on Indian Land
 Source: Environmental Protection Agency
 Telephone: 415-972-0372
 LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 10/25/04
 Date Made Active at EDR: 11/03/04
 Database Release Frequency: Variable
 Date of Data Arrival at EDR: 10/08/04
 Elapsed ASTM days: 20
 Date of Last EDR Contact: 09/23/04

INDIAN LIST: Leaking Underground Storage Tanks on Indian Land
 Source: EPA Region 9
 Telephone: 206-552-2867
 LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 08/29/04
 Date Made Active at EDR: 10/25/04
 Database Release Frequency: Variable
 Date of Data Arrival at EDR: 10/01/04
 Elapsed ASTM days: 21
 Date of Last EDR Contact: 09/23/04

INDIAN LIST: Underground Storage Tanks on Indian Land
 Source: EPA Region 8
 Telephone: 415-972-2858

Date of Government Version: 05/18/04
 Date Made Active at EDR: 07/23/04
 Database Release Frequency: Variable
 Date of Data Arrival at EDR: 06/21/04
 Elapsed ASTM days: 33
 Date of Last EDR Contact: 09/23/04

CA FID UST: Facility Inventory Database
 Source: California Environmental Protection Agency
 Telephone: 916-445-4532
 The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resources Control Board, rather than local authority records for current data.

Date of Government Version: 10/25/04
 Date Made Active at EDR: 09/23/05
 Database Release Frequency: No Update Planned
 Date of Data Arrival at EDR: 09/25/05
 Elapsed ASTM days: 24
 Date of Last EDR Contact: 12/29/05

HST UST: Hazardous Substance Storage Container Database
 Source: State Water Resources Control Board
 Telephone: 916-341-5700
 The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local authority records for current data.

Date of Government Version: 10/15/02
 Date Made Active at EDR: 02/13/01
 Database Release Frequency: No Update Planned
 Date of Data Arrival at EDR: 01/25/01
 Elapsed ASTM days: 18
 Date of Last EDR Contact: 07/29/01

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 08/17/04
 Database Release Frequency: Semi-Annually
 Date of Last EDR Contact: 10/25/04
 Date of Next Scheduled EDR Contact: 01/26/05

CONTRA COSTA COUNTY:

Site List
 Source: Contra Costa Health Services Department
 Telephone: 925-448-0206
 List includes sites from the underground tank, hazardous waste generator and business plan/102 programs.

Date of Government Version: 08/20/04
 Database Release Frequency: Semi-Annually
 Date of Last EDR Contact: 06/09/04
 Date of Next Scheduled EDR Contact: 11/26/04

FRESNO COUNTY:

CRPA Resources List
 Source: Dept. of Community Health
 Telephone: 558-445-3271
 Certified Unified Program Agency. CRPA'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 underground storage tanks.

Date of Government Version: 07/21/04
 Database Release Frequency: Semi-Annually
 Date of Last EDR Contact: 11/09/04
 Date of Next Scheduled EDR Contact: 02/07/05

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing
 Source: Kern County Environmental Health Services
 Telephone: 805-482-4700
 Kern County Sites and Tank Listing.

Date of Government Version: 09/14/04
 Database Release Frequency: Quarterly
 Date of Last EDR Contact: 09/07/04
 Date of Next Scheduled EDR Contact: 12/09/04

LOS ANGELES COUNTY:

List of Solid Waste Facilities
 Source: Los County Department of Public Works
 Telephone: 818-455-2189

Date of Government Version: 09/25/03
 Database Release Frequency: Quarterly
 Date of Last EDR Contact: 11/18/04
 Date of Next Scheduled EDR Contact: 03/14/05

City of El Segundo Underground Storage Tank
 Source: City of El Segundo Fire Department
 Telephone: 310-524-2234

Date of Government Version: 09/07/04
 Database Release Frequency: Semi-Annually
 Date of Last EDR Contact: 11/15/04
 Date of Next Scheduled EDR Contact: 02/14/05

City of Long Beach Underground Storage Tank
 Source: City of Long Beach Fire Department
 Telephone: 562-570-2543

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

STATE OF CALIFORNIA ASTM SUPPLEMENTAL RECORDS

AST: Aboveground Petroleum Storage Tank Facilities
 Source: State Water Resources Control Board
 Telephone: 916-341-5712
 Registered Aboveground Storage Tanks.

Date of Government Version: 10/21/03
 Database Release Frequency: Quarterly
 Date of Last EDR Contact: 11/01/04
 Date of Next Scheduled EDR Contact: 01/03/05

CLEANERS: Cleaner Facilities
 Source: Department of Toxic Substances Control
 Telephone: 916-225-0970
 A list of drycleaner-related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, laundry and cleaners; garment pressing and cleaners; laundries; coin-operated laundries and cleaning; drycleaning plants, except rug; carpet and upholstery cleaning; industrial laundering; laundry and garment services.

Date of Government Version: 04/21/04
 Database Release Frequency: Annually
 Date of Last EDR Contact: 11/16/04
 Date of Next Scheduled EDR Contact: 01/03/05

CA WDS: Waste Discharge System
 Source: State Water Resources Control Board
 Telephone: 916-341-5227
 Sites which have been issued waste discharge requirements.

Date of Government Version: 10/11/04
 Database Release Frequency: Quarterly
 Date of Last EDR Contact: 06/01/04
 Date of Next Scheduled EDR Contact: 12/26/04

DEED: List of Deed Restrictions
 Source: Department of Toxic Substances Control
 Telephone: 916-323-3400
 The use of recorded deed restrictions is one of the methods the DTSC uses to protect the public from unsafe exposures to hazardous substances and wastes.

Date of Government Version: 10/04/04
 Database Release Frequency: Semi-Annually
 Date of Last EDR Contact: 10/04/04
 Date of Next Scheduled EDR Contact: 01/03/05

NFA: No Further Action Determination
 Source: Department of Toxic Substances Control
 Telephone: 916-323-3400
 This category contains properties at which DTSC has made a clear determination that the property poses no pose a problem to the environment or to public health.

Date of Government Version: 10/25/04
 Database Release Frequency: Quarterly
 Date of Last EDR Contact: 06/16/04
 Date of Next Scheduled EDR Contact: 11/26/04

EMS: Emission Inventory Data
 Source: California Air Resources Board
 Telephone: 916-322-2990
 Timed and other pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 10/1/03
 Database Release Frequency: Variable
 Date of Last EDR Contact: 10/23/04
 Date of Next Scheduled EDR Contact: 01/17/05

REF: Unrecorded Properties Referred to Another Agency
 Source: Department of Toxic Substances Control
 Telephone: 916-323-3400
 This category contains properties where contamination has not been confirmed and which was determined as not requiring direct DTSC Site Mitigation Program action or oversight. Accordingly, these sites have been referred to another state or local regulatory agency.



Project-Specific Water Quality Management Plan (WQMP)
North Ranch Tract No. 32535

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 09/2/04
Database Release Frequency: Quarterly

SACRAMENTO COUNTY:

CS - Confidential Sites
Source: Sacramento County Environmental Management
Telephone: 916-475-8408

Date of Government Version: 02/25/04
Database Release Frequency: Quarterly

ML - Regulatory Compliance Monitor List
Source: Sacramento County Environmental Management
Telephone: 916-475-8408
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 01/02/04
Database Release Frequency: Quarterly

SAN BERNARDINO COUNTY:

Hazardous Material Permits
Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-385-3041
This listing includes underground storage tanks, medical waste handling/generation, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 09/17/04
Database Release Frequency: Quarterly

SAN DIEGO COUNTY:

Solid Waste Facilities
Source: Department of Health Services
Telephone: 619-238-3289
San Diego County Solid Waste Facilities.

Date of Government Version: 09/01/00
Database Release Frequency: Verlet

Hazardous Materials Management Division Database
Source: Hazardous Materials Management Division
Telephone: 619-238-3386
The database includes: HESM - This report contains the business name, site address, business phone number, establishment 717 number, number, type of permit, and the business status. HEIT - In addition to providing the same information provided in the HESM listing, HEIT provides inspection dates, violations received by the establishment, hazardous waste generated, the quality, method of storage, treatment/disposal of waste and the facility, and information on underground storage tanks. Unsubstantiated Release List - Includes a summary of environmental non-compliance cases in San Diego County (underground tank cases, non-404 cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 09/05/04
Database Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/22/03
Database Release Frequency: Annually

City of Torrance Underground Storage Tank
Source: City of Torrance Fire Department
Telephone: 310-818-2873

Date of Government Version: 09/16/04
Database Release Frequency: Semi-Annually

City of Los Angeles Landfill
Source: Engineering & Construction Division
Telephone: 213-473-7098

Date of Government Version: 03/01/04
Database Release Frequency: Verlet

HHS: Street Number List
Source: Department of Public Works
Telephone: 626-458-3517
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 09/28/04
Database Release Frequency: Semi-Annually

Site Mitigation List
Source: Community Health Services
Telephone: 323-960-7008
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 02/25/04
Database Release Frequency: Annually

San Gabriel Valley Area of Concern
Source: EPA Region 9
Telephone: 415-975-9176
San Gabriel Valley areas where VOC concentration is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 12/01/98
Database Release Frequency: No Update Planned

MARIN COUNTY:

Underground Storage Tank Sites
Source: Public Works Department Waste Management
Telephone: 415-499-9247
Currently prohibited USTs in Marin County.

Date of Government Version: 08/13/04
Database Release Frequency: Semi-Annually

MAPA COUNTY:

Site Web Reported Contamination
Source: Napa County Department of Environmental Management
Telephone: 707-253-4289

Date of Government Version: 09/23/04
Database Release Frequency: Semi-Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SAN FRANCISCO COUNTY:

Local Overalls Facilities
Source: Department of Public Health San Francisco County
Telephone: 415-252-3370

Date of Government Version: 09/16/04
Database Release Frequency: Quarterly

Underground Storage Tank Information
Source: Department of Public Health
Telephone: 415-252-3370

Date of Government Version: 08/16/04
Database Release Frequency: Quarterly

SAN MATEO COUNTY:

Fuel Leak List
Source: San Mateo County Environmental Health Services Division
Telephone: 650-383-1021

Date of Government Version: 10/27/04
Database Release Frequency: Semi-Annually

Business Inventory
Source: San Mateo County Environmental Health Services Division
Telephone: 650-383-1021
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 05/19/04
Database Release Frequency: Annually

SANTA CLARA COUNTY:

Fuel Leak Site Activity Report
Source: Santa Clara Valley Water District
Telephone: 408-285-5800

Date of Government Version: 09/29/04
Database Release Frequency: Semi-Annually

Hazardous Material Facilities
Source: City of San Jose Fire Department
Telephone: 408-277-4639

Date of Government Version: 10/01/03
Database Release Frequency: Annually

SOLANO COUNTY:

Leaking Underground Storage Tanks
Source: Solano County Department of Environmental Management
Telephone: 916-421-6770

Date of Government Version: 09/29/04
Database Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Closed and Operating Underground Storage Tank Sites
Source: Napa County Department of Environmental Management
Telephone: 707-253-4289

Date of Government Version: 09/29/04
Database Release Frequency: Annually

ORANGE COUNTY:

List of Underground Storage Tank Cleanup
Source: Health Care Agency
Telephone: 714-834-3416
Orange County Underground Storage Tank Cleanup (LUST).

Date of Government Version: 12/14/04
Database Release Frequency: Quarterly

List of Underground Storage Tank Facilities
Source: Health Care Agency
Telephone: 714-834-3416
Orange County Underground Storage Tank Facilities (LUST).

Date of Government Version: 08/13/04
Database Release Frequency: Quarterly

List of Industrial Site Cleanups
Source: Health Care Agency
Telephone: 714-834-3416
Plumbicon and non-plumbicon spills.

Date of Government Version: 09/01/04
Database Release Frequency: Annually

PLACER COUNTY:

Master List of Facilities
Source: Placer County Health and Human Services
Telephone: 530-409-7212
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 10/04/04
Database Release Frequency: Semi-Annually

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites
Source: Department of Public Health
Telephone: 951-358-6555
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 08/21/04
Database Release Frequency: Quarterly

Underground Storage Tank Leak List
Source: Health Care Agency
Telephone: 951-358-6555



Project-Specific Water Quality Management Plan (WQMP)
North Ranch Tract No. 32535

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 09/06/03
Database Release Frequency: No Update Planned
Date of Last EDR Contact: 08/06/11
Date of Next Scheduled EDR Contact: 01/26/09

LIST REG 11: Leaking Underground Storage Tank Case Listing
Source: California Regional Water Quality Control Board Victoria Branch Office (8)
Telephone: 760-548-7491
Date of Government Version: 09/06/04
Database Release Frequency: Quarterly
Date of Last EDR Contact: 10/04/09
Date of Next Scheduled EDR Contact: 01/03/05

LIST REG 12: Leaking Underground Storage Tank Case Listing
Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-349-7491
Date of Government Version: 02/28/04
Database Release Frequency: Semi-Annually
Date of Last EDR Contact: 09/27/04
Date of Next Scheduled EDR Contact: 12/27/04

LIST REG 13: Leaking Underground Storage Tanks
Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 951-762-4130
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: 07/11/04
Database Release Frequency: No Update Planned
Date of Last EDR Contact: 11/16/04
Date of Next Scheduled EDR Contact: 02/07/05

LIST REG 14: Leaking Underground Storage Tank Report
Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 619-492-2550
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: 03/01/01
Database Release Frequency: No Update Planned
Date of Last EDR Contact: 10/23/04
Date of Next Scheduled EDR Contact: 01/13/05

California Regional Water Quality Control Board (RWQCB) SLIC Records

SLIC REG 1: Active Toxic Site Investigation
Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-478-2270
Date of Government Version: 03/03/05
Database Release Frequency: Semi-Annually
Date of Last EDR Contact: 08/23/04
Date of Next Scheduled EDR Contact: 11/23/04

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 916-286-0427
Any contaminated site that impacts groundwater or has the potential to impact groundwater.
Date of Government Version: 03/03/04
Database Release Frequency: Quarterly
Date of Last EDR Contact: 1/9/10
Date of Next Scheduled EDR Contact: 01/13/05

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-2147
Any contaminated site that impacts groundwater or has the potential to impact groundwater.
Date of Government Version: 06/23/04
Database Release Frequency: Semi-Annually
Date of Last EDR Contact: 11/13/04
Date of Next Scheduled EDR Contact: 02/14/05

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GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Underground Storage Tanks
Source: Solano County Department of Environmental Management
Telephone: 707-421-6778
Date of Government Version: 09/26/04
Database Release Frequency: Quarterly
Date of Last EDR Contact: 07/13/04
Date of Next Scheduled EDR Contact: 12/13/04

SONOMA COUNTY:

Leaking Underground Storage Tank Sites
Source: Department of Health Services
Telephone: 707-525-8303
Date of Government Version: 10/25/04
Database Release Frequency: Quarterly
Date of Last EDR Contact: 10/25/04
Date of Next Scheduled EDR Contact: 01/24/05

BUTTE COUNTY:

Underground Storage Tanks
Source: Butte County Department of Agriculture
Telephone: 530-432-7488
Date of Government Version: 01/28/04
Database Release Frequency: Semi-Annually
Date of Last EDR Contact: 10/19/04
Date of Next Scheduled EDR Contact: 01/02/05

VENTURA COUNTY:

Inventory of Illegal Abandoned and Inactive Sites
Source: Environmental Health Division
Telephone: 805-464-2813
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.
Date of Government Version: 08/01/04
Database Release Frequency: Annually
Date of Last EDR Contact: 08/01/04
Date of Next Scheduled EDR Contact: 11/23/04

Listing of Underground Tank Cleanup Sites
Source: Environmental Health Division
Telephone: 805-464-2813
Ventura County Underground Storage Tank Cleanup Sites (LUST).
Date of Government Version: 08/23/04
Database Release Frequency: Quarterly
Date of Last EDR Contact: 05/14/04
Date of Next Scheduled EDR Contact: 01/13/05

Underground Tank Closed Sites List
Source: Environmental Health Division
Telephone: 805-464-2813
Ventura County Operating Underground Storage Tank Sites (LUST)/Underground Tank Closed Sites List.
Date of Government Version: 08/23/04
Database Release Frequency: Quarterly
Date of Last EDR Contact: 08/23/04
Date of Next Scheduled EDR Contact: 01/13/05

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
Source: Ventura County Environmental Health Division
Telephone: 805-464-2813
The BWT list identifies by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (P), or an Underground Tank (T) information.

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GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
Source: Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 916-278-1100
Any contaminated site that impacts groundwater or has the potential to impact groundwater.
Date of Government Version: 07/08/04
Database Release Frequency: Quarterly
Date of Last EDR Contact: 10/23/04
Date of Next Scheduled EDR Contact: 01/26/05

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-454-3201
Unregulated sites that impact groundwater or have the potential to impact groundwater.
Date of Government Version: 04/17/04
Database Release Frequency: Semi-Annually
Date of Last EDR Contact: 10/26/04
Date of Next Scheduled EDR Contact: 01/13/05

SLIC REG 6: SLIC Sites
Source: California Regional Water Quality Control Board, Lakeland Region
Telephone: 530-942-6574
Date of Government Version: 08/07/04
Database Release Frequency: Varies
Date of Last EDR Contact: 09/11/04
Date of Next Scheduled EDR Contact: 12/09/04

SLIC REG 7: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
Source: Regional Water Quality Control Board, Modesto-Sacramento
Telephone: 916-241-6563
Date of Government Version: 04/01/04
Database Release Frequency: Semi-Annually
Date of Last EDR Contact: 10/26/04
Date of Next Scheduled EDR Contact: 01/02/05

SLIC REG 7: SLIC List
Source: California Regional Water Quality Control Board, Colorado River Basin Region
Telephone: 760-349-7491
Date of Government Version: 08/26/04
Database Release Frequency: Varies
Date of Last EDR Contact: 08/26/04
Date of Next Scheduled EDR Contact: 11/23/04

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 951-762-4130
Date of Government Version: 07/01/04
Database Release Frequency: Semi-Annually
Date of Last EDR Contact: 10/26/04
Date of Next Scheduled EDR Contact: 01/02/05

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 619-492-2550
Date of Government Version: 09/10/04
Database Release Frequency: Annually
Date of Last EDR Contact: 08/28/04
Date of Next Scheduled EDR Contact: 11/28/04

EDR PROPRIETARY HISTORICAL DATABASES

Former Manufactured Gas (Coal Gas) Sites: The existence and location of Coal Gas sites is provided exclusively by EDR to Real Property Sites, Inc. Copyright 1999 Real Property Sites, Inc. For a detailed description of the types of hazards which may be found at such sites, contact your EDR customer service representative.

Disclaimer Provided by Real Property Sites, Inc.
The information contained in this report has predominantly been obtained from publicly available sources produced by entities other than Real Property Sites, Inc. While reasonable steps have been taken to ensure the accuracy of this report, Real Property Sites, Inc. does not guarantee the accuracy of this report. Any liability on the part of Real Property Sites, Inc. is strictly limited to the extent of the amount paid. No claim is made for the actual release of funds at any site. This report does not constitute a legal opinion.

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GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 09/26/04
Database Release Frequency: Quarterly
Date of Last EDR Contact: 09/14/04
Date of Next Scheduled EDR Contact: 12/13/04

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report
Source: Yolo County Department of Health
Telephone: 530-468-8468
Date of Government Version: 06/22/04
Database Release Frequency: Annually
Date of Last EDR Contact: 10/18/04
Date of Next Scheduled EDR Contact: 01/17/05

California Regional Water Quality Control Board (RWQCB) LUST Records

LIST REG 10: Active Toxic Site Investigation
Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-578-2230
Butte, Humboldt, Lake, Marin, Mendocino, Modoc, Siskiyou, Clatsop, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.
Date of Government Version: 02/01/01
Database Release Frequency: No Update Planned
Date of Last EDR Contact: 08/23/04
Date of Next Scheduled EDR Contact: 11/23/04

LIST REG 2: Fuel Leak List
Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 916-286-0427
Date of Government Version: 08/23/04
Database Release Frequency: Quarterly
Date of Last EDR Contact: 03/13/04
Date of Next Scheduled EDR Contact: 01/13/05

LIST REG 3: Leaking Underground Storage Tank Database
Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-2147
Date of Government Version: 03/19/03
Database Release Frequency: Varies
Date of Last EDR Contact: 11/17/04
Date of Next Scheduled EDR Contact: 02/14/05

LIST REG 4: Underground Storage Tank Leak List
Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 916-278-0800
Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.
Date of Government Version: 09/07/04
Database Release Frequency: No Update Planned
Date of Last EDR Contact: 09/16/04
Date of Next Scheduled EDR Contact: 12/17/04

LIST REG 8: Leaking Underground Storage Tank Database
Source: California Regional Water Quality Control Board Central Valley Region (8)
Telephone: 916-464-2381
Date of Government Version: 10/01/04
Database Release Frequency: Quarterly
Date of Last EDR Contact: 10/29/04
Date of Next Scheduled EDR Contact: 01/09/05

LIST REG 8L: Leaking Underground Storage Tank Case Listing
Source: California Regional Water Quality Control Board Lakeland Region (6)
Telephone: 916-942-5424
For more current information, please refer to the State Water Resources Control Board's LUST database.

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Project-Specific Water Quality Management Plan (WQMP)
North Ranch Tract No. 32535

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

BROWNFIELD DATABASE

VCP: Voluntary Cleanup Program Properties
Source: Department of Public Substances Control

Telephone: 818-338-3400

Contains low level properties with status confirmed or unconfirmed releases and the project proponent
must request that DTSC initiate investigation and/or cleanup activities and have agreed to provide coverage for
DTSC's work.

Date of Government Version: 10/2004
Database Release Frequency: Quarterly

Date of Last EDR Contact: 09/18/04
Date of Next Scheduled EDR Contact: 11/29/04

US BROWNFIELDS: A Listing of Brownfields Sites
Source: Environmental Protection Agency

Telephone: 202-565-2717

Included in the listing are brownfields properties addressed 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 Plans—minimize the uncertainties of contamination often associated with
brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessment
of brownfields sites throughout the country. Targeted Brownfields Assessment supplement and work with other efforts
under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement
Recipients: states, tribal subdivisions, territories, and Indian tribes become Brownfields Cleanup Revolving
Loan Fund (BCLRF) cooperative agreement recipients when they enter into BCLRF cooperative agreements with the
U.S. EPA. EPA selects BCLRF cooperative agreement recipients based on a proposal and application process. BCLRF
cooperative agreement recipients must use EPA funds provided through BCLRF cooperative agreement for specified
brownfields-related cleanup activities.

Date of Government Version: N/A
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: N/A
Date of Next Scheduled EDR Contact: N/A

OTHER DATABASES

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.

CRISIS Pipeline: 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: PacifiCorp Corporation

Telephone: (800) 333-6177

This data includes information copyrighted by PacifiCorp Corporation. This information is provided
on a best effort basis and PacifiCorp Corporation does not guarantee its accuracy nor warrant its
use for any particular purpose. Such information has been verified with the permission of PacifiCorp.

Sensitive Receptors: There are hundreds of sensitive receptors due to their fragile nature systems and specific sensitivity
to environmental disturbances. 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 - whose addresses were sensitive receptors the likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.
Telephone: 312-380-5881

This 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: 410-785-3000

A listing of hospitals with Medicare provider number, produced by Centers for Medicare & Medicaid Services,
a federal agency within the U.S. Department of Health and Human Services.

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GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Nursing Homes:

Source: National Institute of Health
Telephone: 301-594-4248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools:

Source: National Center for Education Statistics
Telephone: 202-562-7308

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: 202-485-7300

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: 916-607-4041

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 1999 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 from the U.S. Fish and Wildlife Service.

STREET AND ADDRESS INFORMATION

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CORRESPONDENCE

December 8, 2004

Riverside County Environmental Health Department
Hazardous Materials Section
PO Box 7600
Riverside, CA 92513-7600
phone (951) 358-5055
fax (951) 358-5017

Re: UST and Hazardous Materials File Search Request

Ms. Suzanne Cauffiel:

Pursuant to an environmental site assessment, I would like to review any UST, LUST or hazardous material/waste storage or incident information that your agency has on file for the following listed location:

45-Acre Ranch Property (multiple dwellings)
23135 Catt Rd.
36061 – 36160 Arnett Rd.
36190 – 36250 Agape Ln.
36210 – 36231 Stable Lanes Way
32130 Windsong Ln.
Wildomar, CA 92595

Please let me know when the files (if any) will be available for review. As we discussed previously, I assume since it is one large property, the fee will be \$61 per street range, rather than \$61 per address (total \$305). Please let me know if that is not the case. Thank you in advance.

Sincerely,

David W. Copp
Environmental Manager
(909) 473-8552
FAX (909) 473-0882

**FILE REVIEW
INFORMATION**

**DEPARTMENT OF BUILDING & SAFETY
COUNTY OF RIVERSIDE**

FIELD

BUILDING PERMIT
PERMIT NO. **339204**

CONSTRUCTION ESTIMATE		NO.	ELECTRICAL FEES	NO.	PLUMBING FEES
1ST FL.	SQ. FT. @		UNITS		YARD SPIGL SYSTEM
2ND FL.	SQ. FT. @		MOBILE/HOME SVC.		BAR SINK
POR.	SQ. FT. @		POWER OUTLET		ROOF DRAINS
GAR.	SQ. FT. @				DRAINAGE PIPING
CAR P.	SQ. FT. @				DRINKING FOUNTAIN
WALL	SQ. FT. @				URINAL
ESTIMATED CONSTRUCTION VALUATION		\$			WATER PIPING
NOTE: Not to be used as property tax valuation			SWIM POOL, PVT		FLOOR DRAIN
			SWIM POOL, COMM		WATER SOFTENER
			SIGN		WASHER LAUNCH/DISH
					GARBAGE DISPOSAL
					LAUNDRY TRAY
					KITCHEN SINK
					WATER CLOSET
					LAVATORY
					SHOWER
					BATH TUB
					WATER HEATER
					SEWAGE DISPOSAL
					HOUSE SEWER
					GAS PIPING
					PERMIT FEE
PERMIT FEE					
DBL	TOTAL FEES	MOB. HOM. FEE	MICRO FEE	MECH. FEE	PL. CK. FEE
	5.00				
					CONST. FEE
					ELECT. FEE
					SMI FEE
					FEE
					PLUMBING FEE
					5.00

Bonus Proj

PERMIT NO. 339204	Supp. Permit	Job Address	Space	Zip	Owner
		36135 Arnett Rd			Smith W
		Wildomar	Valuation	Date	Blk
			5100	8/31/78	3 H
		Use of Permit	Parcel No.	Lot No.	
		Bonus Proj	36942020		
		Legal Description	Sub Plate	Lot Size	
		PLS PM TRS3	40020 S	60	2100
		Bound Area	Plan No.	Plan Checker	Inspector
					W. J. Smith
		Const. Lender	Branch	I certify that in the performance of the work for which this permit is issued, I will not employ any person in any manner so as to become subject to the anti-discrimination laws of California.	
		Address	City	Zip	Owner Signature
					W. J. Smith
		Owner/Agent	Tel.		
		William J. Smith			
		Address	City	Zip	License #
		36135 Arnett Rd.	Wildomar		
		Contractor	Tel.		
		Address	City	Zip	Work Order #

REGISTRATION CERTIFICATE
GOOD FOR 120 DAYS ONLY

THIS SECTION VOID AND DOES NOT APPLY

I HEREBY CERTIFY THAT ALL PLANS AND SPECIFICATIONS HAS DONE SO IN ACCORDANCE WITH THE BUSINESS AND PROFESSIONS CODE OF THE STATE OF CALIFORNIA.



BUILDING APPROVALS				DATE	INSPECTOR	NO.	OPERATION	DATE
1	Set Back							
2	Figs & Frms							
2A	Slab Grade							
3	Steel					33	Ventilation System	
4	Grout Blocks					34	Plenums & Ducts	
5	Bond Beams					35	Furnace Compart.	
6	Roof Deck					36	Inlets & Outlets	
7	Framing					37	Combustion Air	
8	Vents					38	Compressor	
9	Garage Fire Wall					39	Appl. Clearance	
10	Fireplace	P.L. <input type="checkbox"/>				40	Fire Damper	
10A	Fireplace	T.O. <input type="checkbox"/>				41	Smoke Detention Device	
11	Exterior Lath					42	Commercial Hood	
12	Internal Lath					43	Final	
12A	Drywall					OPN NO.		
13	Finish Grade							
	INSULATION	Thick	"R" Value					
7A	Walls (Batts)							
12B	Ceiling (Batts)							
12C	Ceiling (Blown)							
14	Final							

PLUMBING APPROVALS			
15	Ground Plumb		
16	Water Piping		
17	Rough Plumb		
18	Vents		
19	Sewage Disposal		
20	Sewer		
21	Water Heater		
22	Water Softener		
23	Water Service		
24	Gas Test		
25	Final		

ELECTRICAL APPROVALS			
26	Power Pole		
27	Conduit		
28	Service Entrance		
29	Wiring		
29A	Grounding Wire		
29B	Bonding		
30	Fixtures		
31	Service		
32	Final		

SEWAGE SYSTEM SIZE & LOCATION		
Tank	PH	L. Line

REAR OF PROPERTY LINE

P/L

STREET NAME

NOTICE: THIS IS NOT A BUILDING PERMIT
APPLICATION TO CONSTRUCT
DEPARTMENT OF BUILDING AND SAFETY
COUNTY OF RIVERSIDE

DISTRICT 3
Permit No. 339204

OWNER	Owner: <u>William J. Smith</u> Architect. _____ Contractor: <u>Self</u> Address: <u>36135 Arnett Rd</u> Address. _____ City: <u>Wildomar</u> City _____ Phone: _____ Phone _____
	I (we) the undersigned, hereby certify and acknowledge that I (we) have read the application and agree that if Curb and Gutter, and Paving, and/or Dedication of right of way is required by the County of Riverside, the Riverside County Department of Building and Safety shall not make a Final Inspection until said requirements have been met. I am also aware that no work is to be done within the County R/W without an encroachment permit. NOW, therefore, it is agreed that I (we) will not occupy said property and will not cause said property to be occupied until I (we) have complied with all laws of the County of Riverside and the State of California governing said property. DATE: <u>8/1/78</u> SIGNATURE OF OWNER AND/OR AGENT: <u>William J. Smith</u> Approval by Signature from the Following Departments Listed Below Must Be Obtained Prior to the Issuing of a Construction Permit.
LAND USE DIVISION BUILDING AND SAFETY	JOB ADDRESS: <u>36135 Arnett Rd</u> SPACE NO. _____ LEGAL DESCRIPTION OF PROPERTY: <u>369/270/048</u> <u>PCL 3 PA 9253</u> COMMUNITY: <u>Wildomar</u> USE OF STRUCTURE NO. OF SUBMITTED PLANS _____ USE OF PERMIT: <u>Born Pkg</u> CASE NO. _____ NO. OF PARKING SPACES REQUIRED _____ NO. OF BUILDINGS NOW EXISTING _____ ZONE: <u>RA</u> SETBACKS: FRONT <u>20'±</u> SIDE <u>20'</u> REAR <u>0'</u> GRADING PERMIT REQUIRED? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> LOT SIZE: <u>2+ acres</u> SETBACK ORDINANCE # _____ OF _____ FEET REQUIRED ON _____ STREET DATE: <u>8/31/78</u> SIGNATURE OF LAND USE OFFICIAL: <u>D. Carey</u>
	DEDICATION REQUIRED: YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> NO. OF FEET _____ STREET _____ CURB AND GUTTER REQUIRED: YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> CAN CURB AND GUTTER FEASIBLY BE INSTALLED? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> HAS AN ACCEPTABLE APPLICATION BEEN MADE FOR ENCROACHMENT PERMIT FOR DRIVEWAY AND STREET IMPROVEMENT? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> DATE _____ SIGNATURE OF ROAD DEPT. OFFICIAL _____
HEALTH DEPT.	SWIMMING POOLS PUBLIC _____ SEWAGE DISPOSAL _____ FOOD ESTABLISHMENT _____
OTHER DEPARTMENTS	WATER POLLUTION _____ FLOOD CONTROL _____ AIR POLLUTION _____ DIV OF HWY _____ REMARKS _____ YOUR PROPERTY MAY BE SUBJECT TO FLOOD. RIVERSIDE COUNTY ASSUMES NO RESPONSIBILITY IN EVENT OF FLOOD. CANARY — FILE, PINK

284 199A-974

MECHANICAL APPROVALS			
33	Ventilation Systems		
34	Plenums & Ducts		
35	Furnace Components	2-14-79	Stibler
36	Inlets & Outlets		
37	Combustion Air		
38	Exhausts		
39	Appl. Circuits		
40	Fire Damper		
41	Smoke Detention Device		
42	Commercial Hood		
43	Final		

PLUMBING APPROVALS			
15	Ground Faults		
16	Water Piping	11-30-78	Fenster
17	Rough Plumb	11-27-78	Fenster
18	Vents	2-14-79	Stibler
19	Sewage Disposal	2-14-79	Stibler
20	Sewer	3-22-79	Stibler
21	Water Heater		
22	Water Softener		
23	Water Service		
24	Gas Test		
25	Final	10-12-79	Gibbons

ELECTRICAL APPROVALS			
26	Power Pole		
27	Conduit		
28	Service Entrance		
29	Wiring		
29A	Grounding Wire	2-14-79	Stibler
30	Bonding		
31	Fixtures		
31	Service		
32	Final	10-12-79	Gibbons

SEWAGE SYSTEM SIZE & LOCATION			
Yank	P/L	L. Line	
REAR OF PROPERTY LINE			
P/L			
P/L			
STREET NAME			

ADDITIONAL INFORMATION			
CON 2	11-21-78	Moss	
CONC	9-11-79	Gibbons	

7833

NOTICE: THIS IS NOT A BUILDING PERMIT
APPLICATION TO CONSTRUCT
DEPARTMENT OF BUILDING AND SAFETY
COUNTY OF RIVERSIDE

DISTRICT 3
Permit No. 339334

OWNER	Owner <u>Melissa Smith</u> Address <u>36135 HENRIETT</u> City <u>WILDOMAR</u> Phone _____		Architect <u>Donald Dornthard</u> Address _____ City _____ Phone _____		Contractor _____ Address _____ City _____ Phone _____	
	I (we) the undersigned, hereby certify and acknowledge that I (we) have read the application and agree that if Curb and Gutter Paving, and/or Dedication of right of way is required by the County of Riverside, the Riverside County Department of Building and Safety shall not make a Final Inspection until said requirements have been met. I am also aware that no work is to be done within the County without an encroachment permit. NOW, therefore, it is agreed that I (we) will not occupy said property and will not cause said property to be occupied until I (we) have complied with all laws of the County of Riverside and the State of California governing said property. DATE <u>8/8/78</u> SIGNATURE OF OWNER AND/OR AGENT <u>Melissa Smith</u>					
LAND USE DIVISION BUILDING AND SAFETY	JOB ADDRESS <u>36135 Henrietta</u>		LEGAL DESCRIPTION OF PROPERTY <u>364-550-010</u>		SPACE NO. _____	
	COMMUNITY <u>Wildomar</u>		NO. OF SUBMITTED PLANS <u>2</u>		USE OF PERMIT <u>Building Street</u>	
NO. OF PARKING SPACES REQUIRED _____		ZONE <u>R-1</u> SETBACKS: FRONT <u>1</u> NO. OF BUILDINGS NOW EXISTING <u>0</u>		SIDE <u>40-110</u> REAR <u>110</u>		
GRADING PERMIT REQUIRED? YES <input type="checkbox"/> NO <input type="checkbox"/>		SETBACK ORDINANCE # _____ OF _____ FEET REQUIRED ON _____		DATE <u>8-1-78</u> SIGNATURE OF LAND USE OFFICIAL <u>Thompson</u>		
ROAD DEPARTMENT	DEDICATION REQUIRED: YES <input type="checkbox"/> NO <input type="checkbox"/> NO. OF FEET _____		CURB AND GUTTER REQUIRED: YES <input type="checkbox"/> NO <input type="checkbox"/>		STREET <u>RD</u>	
	CAN CURB AND GUTTER FEASIBLY BE INSTALLED? YES <input type="checkbox"/> NO <input type="checkbox"/>		HAS AN ACCEPTABLE APPLICATION BEEN MADE FOR ENCROACHMENT PERMIT FOR DRIVEWAY AND STREET IMPROVEMENT? YES <input type="checkbox"/> NO <input type="checkbox"/>		DATE _____ SIGNATURE OF ROAD DEPT. OFFICIAL _____	
HEALTH DEPT.	SWIMMING POOLS PUBLIC _____		SEWAGE DISPOSAL <u>120 gal tank - 780' / 14' x 14'</u>		DATE <u>8-15-78</u>	
	FOOD ESTABLISHMENT _____		SIGNATURE OF HEALTH DEPT. OFFICIAL _____		REMARKS _____	
OTHER DEPARTMENTS	WATER POLLUTION _____		FLOOD CONTROL _____		AIR POLLUTION _____	
	DIV OF HWY _____		SIGNATURE OF OTHER DEPT. OFFICIAL _____		REMARKS _____	

YOUR PROPERTY MAY BE SUBJECT TO FLOOD. RIVERSIDE COUNTY ASSUMES NO RESPONSIBILITY IN EVENT OF FLOOD.

CANARY - FILE, PINK - APPLICANT

MANUFACTURED RES PERMIT

PERMIT #: BMR011100	Status: ISSUED
Job Address: 36135 ARNETT RD WILD	Issued: 10/03/2002
	Expires: 08/28/2004
Work Desc: SITE PREP FOR EXISTING MOBILE HOME-GUEST HOUSE	
Parcel No: 380-100-C04	
Location: 2001 TG 927 E1	
Tract/Lot: PM9253 PAR 3	Zoning:R-R

APPLICANT	SMITH WILLIAM J
	36135 ARNETT RD, WILDOMAR CA 92595
CONTRACTOR	OWNER/BUILDER
OWNER	SMITH WILLIAM J
	36135 ARNETT RD, WILDOMAR CA 92595

Manufacturer:	Model:	Year Built:	1972
Serial #: 4460XX/4460XXU	Width: 24	Length:	60
HUD #: A-UNIT:	B-UNIT:	C-UNIT:	
Setback-Front: 152	Left: 95	Right: 125	Rear: 64
ERBS Cert #:		ERBS Model #:	
ERBS Manuf:		Brand/Model :	

FEE INFORMATION

Item Description	Qty	Fee Amount
Issuance Fee.....	1	20.00
Site Prep (# Lots).....	1	35.00

S.M.I. Fee.....	.00
Microfilm Fee.....	.00
Reinspections.....	.00
Transfer Fee.....	.00
Renewal Fee.....	.00
LMS Surcharge.....	.83
Recording Fee.....	.00
Total Calculated Fees:	55.83
Additional Fees:	.00
Total Permit Fees:	55.83

CALL FOR INSPECTION

Requests for inspection shall be made at least
24 hours in advance by telephone at (909) 600-6100

Additional info at www.tlma.co.riverside.ca.us/lms/lms.htm

Inspection History for BMR011100

Inspection Date	Description	Inspector	Result
03/11/2003	CONDUIT	MBess	CORRECTION REQUIRED
03/11/2003	WATER SERVICE	MBess	CORRECTION REQUIRED
03/11/2003	SEWAGE DISP.	MBess	APPROVED
03/11/2003	GROUNDING/BONDING	MBess	CORRECTION REQUIRED
03/11/2003	SERVICE PANEL	MBess	CORRECTION REQUIRED
03/11/2003	GAS TEST	MBess	CORRECTION REQUIRED
12/16/2003	WATER SERVICE	05983	APPROVED
01/27/2004	GAS TEST	05983	CORRECTION REQUIRED
03/01/2004	CONDUIT	SBaker	CORRECTION REQUIRED
03/01/2004	GAS TEST	SBaker	CORRECTION REQUIRED
03/01/2004	FINAL INSPECTION	SBaker	CORRECTION REQUIRED

Effective: 12/20/2004 8:03

Run time: 0 seconds

[Return To Previous Page](#)

Please direct all comments, questions and suggestions concerning the TLMA Web Site to: [Webmaster](#)

MANUFACTURED RES PERMIT

PERMIT #: BMR020352 Status: ISSUED
 Job Address: 36135 ARNETT RD WILD Issued: 01/22/2003
Expires: 03/07/2004
 Work Desc: AS BUILT INSTALLATION OF GUEST DWELLING MOBILE HOM
 Parcel No: 380-100-004
 Location: 2002 TG 927 E1
 Tract/Lot: PM09253 LOT 3 Zoning:R-R

APPLICANT SMITH WILLIAM J Phone: 909 678 0478
 36135 ARNETT RD, WILDOMAR CA 92595
 CONTRACTOR OWNER BUILDER
 OWNER SMITH WILLIAM J Phone: 909 678 0478
 36135 ARNETT RD, WILDOMAR CA 92595

Manufacturer: MONTEREY Model: MONTEREY Year Built: 1973
 Serial #: 4460XX/U Width: 24 Length: 61
 HUD #: A-UNIT: 40323 B-UNIT: 40324 C-UNIT:
 Setback-Front: 152 Left: 95 Right: 125 Rear: 64
 ERBS Cert #: ERBS Model #:
 ERBS Manuf: Brand/Model :

FEE INFORMATION

Item Description	Qty	Fee Amount
Issuance Fee.....	1	20.00
Installation.....	1	100.00

S.M.I. Fee.....		.00
Microfilm Fee.....		.00
Reinspections.....		.00
Transfer Fee.....		.00
Renewal Fee.....		.00
LMS Surcharge.....		1.80
Recording Fee.....		.00
Total Calculated Fees:		121.80
Additional Fees:		.00
Total Permit Fees:		121.80

CALL FOR INSPECTION

Requests for inspection shall be made at least
24 hours in advance by telephone at (909) 600-6100

Additional info at www.tlma.co.riverside.ca.us/lms/lms.htm

Inspection History for BMR020352

Inspection Date	Description	Inspector	Result
03/01/2004	FINAL INSPECTION	SBaker	CORRECTION REQUIRED

Effective: 12/20/2004 8:03
Run time: 0 seconds

[Return To Previous Page](#)

Please direct all comments, questions and suggestions concerning the TLMA Web Site to: [Webmaster](#)

Project-Specific Water Quality Management Plan (WQMP)
North Ranch Tract No. 32535

PERMIT APPLICATION
County of Riverside
Department of Building and Safety

APPLICANT NAME (I.P.M.)
WALTER CASTILLO O/S

ADDRESS
**32130 WINDSONG RD
CORONA CA 91720**

LOT #
012147

OWNER NAME (I.P.M.)
CASTILLO, WALTER J

CONTRACTOR FIRM NAME
WALTER CASTILLO

PLANS EXAMINER
WALTER CASTILLO

APPROVE DATE
1/22/08

USE OF PERMIT
DWLG AND ATT GARAGE

CERTIFICATE OF COMPLIANCE I hereby certify that the information given in this application is true and correct and that the work to be performed complies with the provisions of the applicable laws, rules, regulations, codes, and ordinances of the County of Riverside, California.

PLUMBING TO APPLICANT I hereby certify that the plumbing work to be performed complies with the provisions of the applicable laws, rules, regulations, codes, and ordinances of the County of Riverside, California.

ELECTRICAL TO APPLICANT I hereby certify that the electrical work to be performed complies with the provisions of the applicable laws, rules, regulations, codes, and ordinances of the County of Riverside, California.

Mechanical to Applicant I hereby certify that the mechanical work to be performed complies with the provisions of the applicable laws, rules, regulations, codes, and ordinances of the County of Riverside, California.

CONSTRUCTION ESTIMATING AGENCY I hereby certify that there is a construction estimating agency for the purpose of making inspections.

APPLICANT SIGNATURE
WALTER CASTILLO

DATE
1/22/08

APPLICANT #	PS	DATE
0000170		137739
CONSTRUCTION FEE		\$325.00
PLUMBING FEE		\$55.50
ELECTRICAL FEE		\$32.44
MECHANICAL FEE		\$19.00
ADD'L PLAN REV FEE		\$78.15
SMI FEE		\$4.42
TOTAL FEE		\$514.51

Check 107 + 183

137739

STRUCTURAL (BUILDING) PERMIT
TOTAL PERMIT COST IS \$514.51

CONSTRUCTION ESTIMATE (NOTE: Not to be used as property valuation)

Description	FCC	Group	Type	Sq Ft	Rate	Valuation
PRIMARY DWELL	101	R-3	WOOD	1523	\$32.00	\$48736
SECNDRY AIR	101	R-3	R	1523	\$2.48	\$3655
SECNDRY PRGR	101	M-1	WOOD	720	\$10.50	\$7560
SECNDRY PRCH	101	PR	V-N	292	\$5.60	\$1635
SECNDRY PAT	101	M	V-N	271	\$5.60	\$1517
SECNDRY PRCH	101	PR	V-N	0	\$5.60	\$0

Construction Fee based on Total Actual Valuation of \$63103 is: \$325.00

MECHANICAL FEE COMPUTATIONS * Permit Fee (if applicable)

VENT==Fans:01	Evap Cooler:00	Hood:01	Misc:00	FEE:	\$3.00	
APPLIANCE==Dryer:01	Other:00			FEE:	\$3.00	
COMPRESSOR==0-3 HP:01	>3-15:00	>15-30:00	>30-50:00	>50:00	FEE:	\$4.00
HEATING SYSTEM==1-100,001 BTU:01	100,001 or More BTU:00			FEE:	\$4.00	

ELECTRICAL FEE COMPUTATIONS * Permit Fee (if applicable)

Service Amps-1: 100	Service Amps-2: 0	Service Amps-3: 0	FEE:	\$2.00
ADD'L FEE: 1523 Sq. Ft. DWELL	@ .0125 Per Sq. Ft.		FEE:	\$19.04
720 Sq. Ft. GAR	@ .0075 Per Sq. Ft.		FEE:	\$5.40
			FEE:	\$4.00

PLUMBING FEE COMPUTATIONS * Permit Fee (if applicable)

FIXTURES-Bar Sink: 0	Drinking Fntn: 0	Fir Drain: 0	FEE:	\$0.00
Water Softner: 0	Washer (Auto/Dish): 2	Garbage Disp: 1	FEE:	\$30.00
Kitchen Sink: 1	Laundry Tray: 0	Urinal: 0	FEE:	\$10.50
Wtr Closet: 2			FEE:	\$21.00
Lavatory: 3	Shower: 2	Tub: 1	FEE:	\$30.00
Bidet: 0	Other: 0		FEE:	\$0.00
Private Sewage Disposal-New: 1	Old: 0		FEE:	\$10.50
* of Water Heaters: 1	* of Drains on Roof: 00		FEE:	\$21.00
GAS PIPING SYSTEM- 1 to 5 Outlets: 1	6 or More Outlets: 0		FEE:	\$21.00
Installation of Water Piping and/or Water Treatment Equip: 1			FEE:	\$2.50

FORM 383 (08/11/07) FILE COPY



NO	OPERATION	DATE	INSPECTOR	NO	OPERATION	DATE	INSPECTOR
BUILDING APPROVALS				MECHANICAL APPROVALS			
1	Set Back			33	Ventilation System		
2	Figs & Fems	1/3/83	<i>E. Johnson</i>	34	Plumbing & Electric		
2A	Slab Grade	1/3/83	<i>E. Johnson</i>	35	Exterior Lighting		
3	Steel	1/3/83	<i>E. Johnson</i>	36	Water & Gas Lines		
4	Conc. Blocks			37	Load-bearing Air		
5	Road Beams			38	Compressor		
6	Roof Deck	1-23-84	<i>D. Tynndall</i>	39	Appl. Repairs		
7	Framing			40	Fan Damper		
8	Vents			41	Smoke Detector		
9	Garage Top Wall			42	Exhaust Fan		
10	Fireplace	FI <input type="checkbox"/>		43	Final		
10A	Fireplace	TO <input type="checkbox"/>		ADDITIONAL INFORMATION			
11	Exterior Lath			6484 <i>[Signature]</i>			
12	Interior Lath			24 - Construction Not ready 1/11/84 <i>EJG</i>			
12A	Drywall			26 - 2/21/84 <i>EJG</i>			
13	Finish Grade						
	INSULATION	Thick	Value				
13A	Walls (Blank)						
13B	Ceiling (Blank)						
13C	Ceiling (Blank)						
14	Final	6484	<i>[Signature]</i>				
PLUMBING APPROVALS				SEWAGE SYSTEM SIZE & LOCATION			
15	Ground Plumb	1/3/83	<i>E. Johnson</i>	REAR OF PROPERTY LINE  STREET NAME _____			
16	Water Piping						
17	Rough Plumb						
18	Vents						
19	Sewage Disposal						
20	Sewer						
21	Water Heater						
22	Water Softener						
23	Water Service						
24	Gas Test						
25	Final						
ELECTRICAL APPROVALS							
26	Power Pole						
27	Circuit						
28	Service Entrance						
29	Wiring						
29A	Grounding Wire						
29B	Bonding						
30	Fixtures						
31	Service						
32	Final	6484	<i>[Signature]</i>				

* Gas Test Yard Line OK 1-23-84 *D. Tynndall*

369-440-020

RIVERSIDE COUNTY DEPARTMENT OF HEALTH
PERMIT APPLICATION FOR A SUBSURFACE DISPOSAL SYSTEM

Applicant: Submit this form with three copies of a scaled plot plan drawn to county specifications required on the attached check list. A non refundable filing fee of \$15 is required when the application is submitted. Check must be made payable to County of Riverside.

SECTION A	Name WALTER JOSEPH CASTILLO		Mailing Address 407 AL CANDY DR.		HEALTH DEPT RIVERSIDE CO		
	City CORONA	State CA	Zip Code 91720	Phone (714) 371-7047	15.00 L.S. 15.00 T.C. 15.00 C.H.C.		
	*Property Address 32130 WINDSONG	*City or Community WILDFAR	*Legal Description of Property (Lot, Parcel Map, Tract) PAR. 1 P/M 12147				
	*Assessors Parcel No. 369-440-020	Water Serving Property From PO U. WILL	Lot size 3,59 AC				
Signature of Applicant <i>[Signature]</i>				Date 12/1/83			
*The above information must be verified from Building Application							
Staff Use - Do Not Write Below This Line							
SECTION B	WQCB Clearance required		Yes <input type="checkbox"/>	No <input type="checkbox"/>	Initial	Date	
	Soils feasibility report required		Yes <input type="checkbox"/>	No <input type="checkbox"/>	_____	_____	
	Detailed boring report required		Yes <input type="checkbox"/>	No <input type="checkbox"/>	_____	_____	
	Detailed contour plot required		Yes <input type="checkbox"/>	No <input type="checkbox"/>	_____	_____	
	Comments:						
	Soils or boring report by <u><i>Acute</i></u> Date _____						
	Approved by _____ Date _____						
	Soils Map Page _____ Soil Type _____ Tract File No. _____ Other _____						
	Number of Bedrooms 3		Septic Tank Size (gallons) 1200 gal	Rate Required 39#	New <input checked="" type="checkbox"/>	Type of System Addition <input type="checkbox"/> Replacement <input type="checkbox"/>	
	Leach line sq. ft. of bottom area trench 4684		Leach bed (sq. ft. of bottom area bed) 240				
Seepage Pit Diameter 5' <input type="checkbox"/> 6' <input type="checkbox"/>		Number of Pits _____	Seepage Pit Depth B.I. _____	Total Depth of Pit _____			
Location of System Shown in front yard							
Additional Requirements							
SECTION C	A permit is approved denied for the design of a subsurface disposal system as indicated on the accompanied plot plan using the requirements set forth in Section B above. A building permit is necessary for the installation of the above designed system.						
	Signature of Health Official <i>[Signature]</i>				Date 12/3/83		
Receipt No. 6992		Issued By <i>[Signature]</i>					
District: Riverside <input checked="" type="checkbox"/>		Indio <input type="checkbox"/>	Hemet <input type="checkbox"/>	Date 12/1/83			
DISTRIBUTION: WHITE - Office File		YELLOW - Applicant	PINK - Building Dept.	GOLDENROD - Pending File			

**DEPARTMENT OF BUILDING & SAFETY
COUNTY OF RIVERSIDE**

HEADQUARTERS

BUILDING PERMIT
PERMIT NO. **328151**

3

CONSTRUCTION ESTIMATE		NO.	ELECTRICAL FEES	NO.	PLUMBING FEES					
	SQ. FT. @		UNITS							
1ST FL.					YARD SPKLR SYSTEM					
2ND FL.					BAR SINK					
POR.		/	MOBILE HOME SVC.	10.00	ROOF DRAINS					
GAR.		/	POWER OUTLET	3.00	DRAINAGE PIPING					
CAR P.					DRINKING FOUNTAIN					
WALL					URINAL					
					WATER PIPING	2.00				
ESTIMATED CONSTRUCTION VALUATION					FLOOR DRAIN					
NOTE: Not to be used as property tax valuation					WATER SOFTENER					
MECHANICAL FEES										
VENT SYSTEM	<input type="checkbox"/> FAN <input type="checkbox"/> EVAP. COOL <input type="checkbox"/> HOOD		SWIM POOL, PVT		WASHER (AUTO) DSHI					
APPLIANCE	<input type="checkbox"/> DRYER		SWIM POOL, COMM		GARBAGE DISPOSAL					
FURNACE	<input type="checkbox"/> UNIT <input type="checkbox"/> WALL <input type="checkbox"/> FLOOR <input type="checkbox"/> SUSPENDED		SIGN		LAUNDRY TRAY					
AIR HANDLING UNIT	CFM		IDLE METER		KITCHEN SINK					
ABSORPTION SYSTEM	B.T.U.		TEMP USE PERMIT SVC		WATER CLOSET					
COMPRESSOR	HP		POLE, TEMP/PERM		LAVATORY					
HEATING SYSTEM	<input type="checkbox"/> FORCED <input type="checkbox"/> GRAVITY		AMPERES SERV ENT		SHOWER					
BOILER	B.T.U.		SQ FT @ €		BATH TUB					
			SQ FT @ €		WATER HEATER					
			SQ FT RESID @ 1/4€		SEWAGE DISPOSAL	10.00				
			SQ FT GAR @ 1/4€		HOUSE SEWER					
					GAS PIPING	2.00				
					PERMIT FEE					
PERMIT FEE			PERMIT FEE							
OBL	TOTAL FEES	MOD/IM FEE	MICRO FEE	MECH FEE	PL CK FEE	CONST FEE	ELECT FEE	SMI FEE	FEE	PLUMB. FEE
	32.00	5.00					13.00			14.00

PERMIT NO. **328151** Supp. Permit

Job Address: **36210 STABLE LAMES WY** Space Zip **PARKER, ROBERT**

Community: **WILDOMAR** Valuation: **1,000-** Date: **4/18/78** Dist. **4** P.C. **P 300**

Use of Permit: **MLH PREP-SITE** Parcel No: **369-270-027-4** Use No: **DE**

Legal Description: **PARCEL #1, P/M # 6430** Zone: **RA** Grp: **-** Type: **-** Unit: **-**

Permit Fees:

WH Permit Fee	\$	5.00
Micro Film Fee	Cop	\$
Arch Fee	Dbl	\$
Pl Clk Fee	\$	
Instruction Fee	Dbl	\$
Electrical Fee	Dbl	13.00
SMI Fee	\$	
Plumbing Fee	Dbl	14.00
Pl Insp Fee	\$	
Exam Fee	\$	
Registr Fee	\$	
mileage Fee	\$	
Vmess Fee	\$	
Reinsp Fee	\$	
Total Fees	\$	37.00

M.O. N.C. Cash Check

Received by: **[Signature]** Contractor: **Mickey Seward** Tel: **657-6666** License # **251235**

Address: **27765 Ethanal** City: **Randland** Zip: **92380** Workers' Comp. verified by

Owner: **[Signature]** Tel: Zip

Address: City: Zip

THIS PERMIT SHALL BECOME VOID IF WORK IS NOT COMMENCED WITHIN 120 DAYS CESSATION OF WORK FOR 120 DAYS SHALL ALSO CAUSE PERMIT TO BECOME VOID

I HEREBY AGREE THAT ALL WORK IN CONNECTION WITH THIS PERMIT WILL BE DONE IN ACCORDANCE WITH THE LAWS OF RIVERSIDE COUNTY AND THE STATE OF CALIFORNIA

I HEREBY CERTIFY THAT THE INDIVIDUAL WHO PREPARED THE PLANS AND SPECIFICATIONS HAS DONE SO IN ACCORDANCE WITH SECTION 5541 OF THE BUSINESS AND PROFESSIONS CODE OF THE STATE OF CALIFORNIA

Form 284-208 (Rev 4 77) ©



**DEPARTMENT OF BUILDING & SAFETY
COUNTY OF RIVERSIDE**

FIELD

BUILDING PERMIT
PERMIT NO. **328151**

CONSTRUCTION ESTIMATE			NO.	ELECTRICAL FEES	NO.	PLUMBING FEES				
1ST FL.	SQ. FT. @	\$		UNITS		YARD SPKLR SYSTEM				
2ND FL.	SQ. FT. @					BAR SINK				
POR.	SQ. FT. @		/	MOBILEHOME SVC	10.00	ROOF DRAINS				
GAR.	SQ. FT. @		/	POWER OUTLET	3.00	DRAINAGE PIPING				
CAR P.	SQ. FT. @					DRINKING FOUNTAIN				
WALL	SQ. FT. @					URINAL				
ESTIMATED CONSTRUCTION VALUATION						WATER PIPING				
NOTE: Not to be used as property tax valuation						FLOOR DRAIN				
MECHANICAL FEES						WATER SOFTENER				
VENT SYSTEM <input type="checkbox"/> FAN <input type="checkbox"/> EVAP. COOL <input type="checkbox"/> HOOD						WASHER (AUTO) (DISH)				
APPLIANCE <input type="checkbox"/> DRYER						GARBAGE DISPOSAL				
FURNACE <input type="checkbox"/> UNIT <input type="checkbox"/> WALL <input type="checkbox"/> FLOOR <input type="checkbox"/> SUSPENDED						LAUNDRY TRAY				
AIR HANDLING UNIT _____ CFM						KITCHEN SINK				
ABSORPTION SYSTEM _____ B.T.U.						WATER CLOSET				
COMPRESSOR _____ HP						LAVATORY				
HEATING SYSTEM <input type="checkbox"/> FORCED <input type="checkbox"/> GRAVITY						SHOWER				
BOILER _____ B.T.U.						BATH TUB				
						WATER HEATER				
						SEWAGE DISPOSAL				
						HOUSE SEWER				
						GAS PIPING				
						PERMIT FEE				
DBL	TOTAL FEES	MOB HM FEE	MICRO FEE	MECH FEE	PL CK FEE	CONST FEE	ELECT FEE	SMI FEE	FEE	PLUMS. FEE
	32.00	5.00					13.00			14.00

PERMIT NO. **328151** Supp Permit

Job Address: **36-210 STABLE LANE WY** Space Zip Owner: **Parker, Robert**

Community: **WILDOMAR** Valuation: **1,000-** Date: **4/15/78** Fee: **4 P 300**

Use of Permit: **MH PRO-P-SITE** Parcel No: **369-270-027** Use No: **DE**

Legal Description: **PAR. #1, P/M # 6430 P.M.** Set Backs: **24' 17' 17' 30'** Lot Size: **APPROX**

Permit Fee: **5.00** Electrical Fee: **13.00** Plumbing Fee: **14.00**

Final Date: **4-26-78** Inspector: **Ferriter**

I certify that in the performance of the work for which this permit is issued I shall not employ any person in any manner so as to become subject to the workmen's compensation laws of California.

Contractor: **William Seward** License #: **51235**

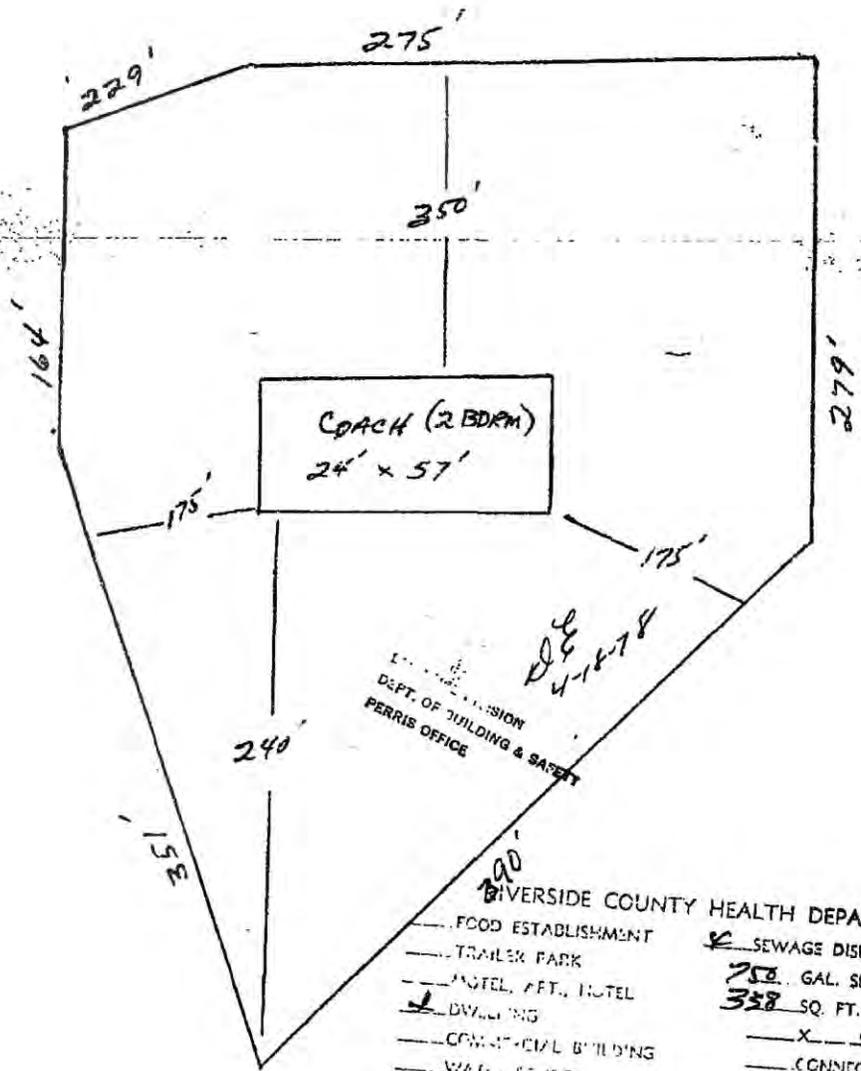
Address: **17765 Thine** City: **Redlands** Zip: **92380**

Workers' Comp. yes no

Form 284-208 (Rev. 4-77) ©s



NO.	OPERATION	DATE	INSPECTOR	NO.	OPERATION	DATE	INSPECTOR
BUILDING APPROVALS				MECHANICAL APPROVALS			
1	Set Back			33	Ventilation System		
2	Flags & Firms			34	Plenums & Ducts		
2A	Slab Grade			35	Furnace Comp.ort.		
3	Steel			36	Inlets & Outlets		
4	Grout Blocks			37	Combustion Air		
5	Bond Beams			38	Compressor		
6	Roof Deck			39	Appl. Clearance		
7	Framing			40	Fire Damper		
8	Vents			41	Smoke Detention Device		
9	Garage Fire Wall			42	Commercial Hood		
10	Fireplace P.L. <input type="checkbox"/>			43	Final		
10A	Fireplace T.O. <input type="checkbox"/>			CPT# NO.	ADDITIONAL INFORMATION		
11	Exterior Lath						
11A	Internal Lath						
11B	Drywall						
13	Finish Grade						
	INSULATION	Thick	"R" Value				
7A	Walls (Batts)						
12B	Ceiling (Batts)						
12C	Ceiling (Blown)						
14	Final						
PLUMBING APPROVALS							
15	Ground Plumb			Tank	Pit	Line	
16	Water Piping			REAR OF PROPERTY LINE			
17	Rough Plumb						
18	Vents						
19	Sewage Disposal	4-19-78	Ferriter				
20	Sewer						
21	Water Heater						
22	Water Softener						
23	Water Service	4-26-78	Ferriter				
24	Gas Test						
25	Final	4-26-78	Ferriter				
ELECTRICAL APPROVALS							
26	Power Pole	4-26-78	Ferriter				
27	Conduit						
28	Service Entrance						
29	Wiring						
29A	Grounding Wire						
29B	Bonding						
30	Fixtures	4-26-78	Ferriter				
31	Service						
32	Final	4-26-78	Ferriter				

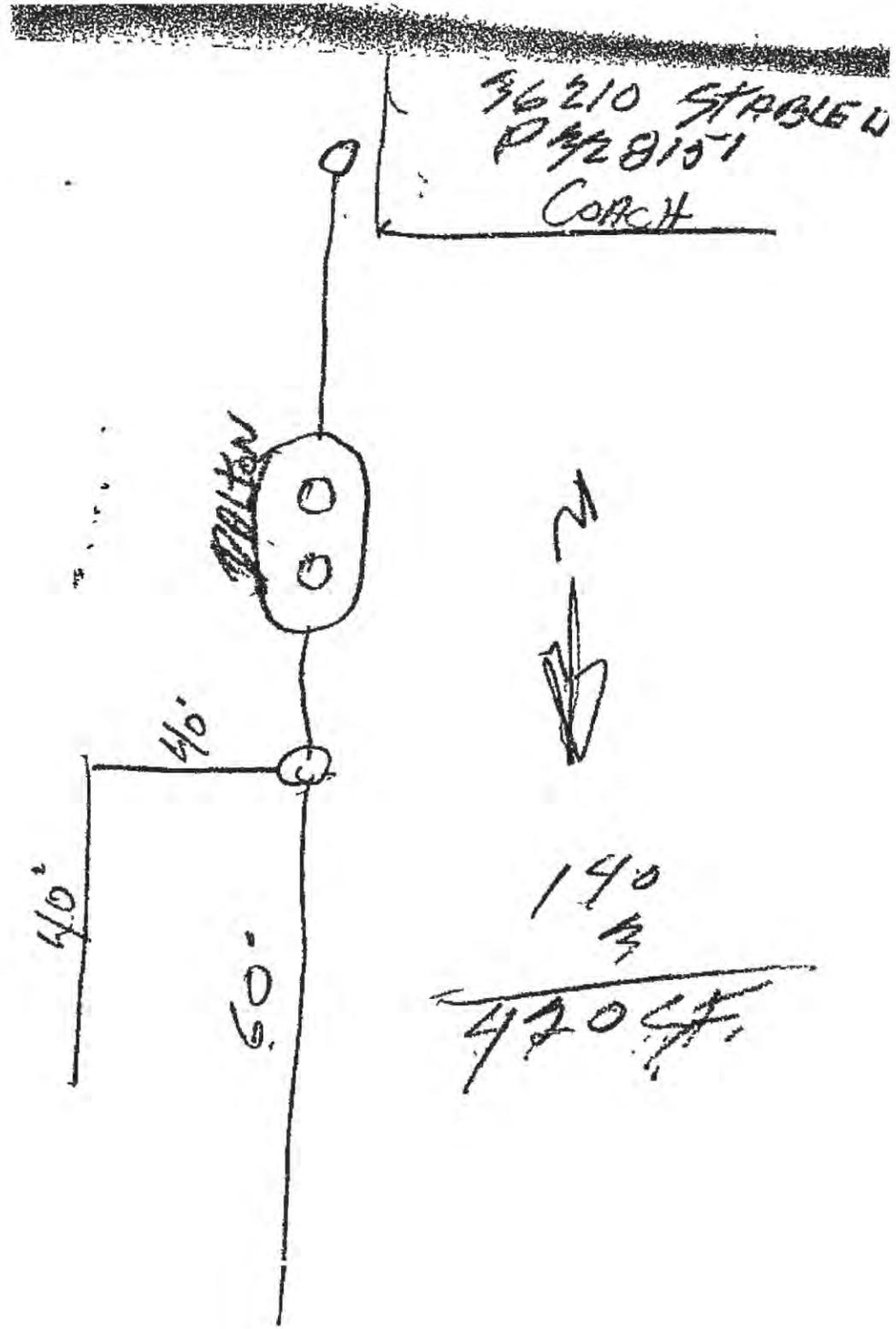


DIVISION
 DEPT. OF BUILDING & SAFETY
 PERRIS OFFICE

- BIVERSIDE COUNTY HEALTH DEPARTMENT**
- ___ FOOD ESTABLISHMENT
 - ___ TRAILER PARK
 - ___ MOTEL, APT., HOTEL
 - DWELLING
 - ___ COMMERCIAL BUILDING
 - ___ WATER SOURCE
 - ___ WATER LINE LAYOUT
 - SEWAGE DISPOSAL
 - 750** GAL. SEPTIC TANK
 - 358** SQ. FT. OF LEACH LINE
 - ___ X ___ SEEPAGE PIT
 - ___ CONNECTION TO SEWER
 - ___ WATER LINE LAYOUT
 - ___ SWIMMING POOL

This is to Certify that the Riverside County Health Department Approves for Occupancy, Construction or installation the item(s) Checked Above.
 Date 4-11-78 By Richard V. [Signature]

next door neighbor's address



NOTICE: THIS IS NOT A BUILDING PERMIT
APPLICATION TO CONSTRUCT
DEPARTMENT OF BUILDING AND SAFETY
COUNTY OF RIVERSIDE

DISTRICT: _____
Permit No. _____

OWNER	Owner: <u>ROBERT PARKER</u>	Architect: _____	Contractor: <u>MICKEY SEWARD</u>
	Address: <u>21605 GRAND AVE.</u>	Address: _____	Address: <u>27765 ETHANAC</u>
	City: <u>WILDOMAR</u>	City: _____	City: <u>ROMOLAND</u>
	Phone: <u>678-1496</u>	Phone: _____	Phone: <u>657-6666</u>

I (we) the undersigned, hereby certify and acknowledge that I (we) have read the application and agree that if Curb and Gutter, and Paving, and/or Dedication of right of way is required by the County of Riverside, the Riverside County Department of Building and Safety shall not make a Final Inspection until said requirements have been met. I am also aware that no work is to be done within the County R/W without an encroachment permit.
NOW, therefore, it is agreed that I (we) will not occupy said property and will not cause said property to be occupied until I (we) have complied with all laws of the County of Riverside and the State of California governing said property.

DATE: 4-11-78
SIGNATURE OF OWNER AND/OR AGENT: Lynn Wildomar
Approval by Signature from the Following Departments Listed Below Must Be Obtained Prior to the Issuing of a Construction Permit.

LAND USE DIVISION BUILDING AND SAFETY	JOB ADDRESS: <u>36210 STABLE LANE WAY</u>	SPACE NO. _____	USE OF STRUCTURE:
	LEGAL DESCRIPTION OF PROPERTY: <u>362-270-027</u>		SINGLE FAMILY <input checked="" type="checkbox"/> DUPLEX <input type="checkbox"/> APARTMENTS <input type="checkbox"/> AGRIC. <input type="checkbox"/> COMMERCIAL <input type="checkbox"/> INDUSTRIAL <input type="checkbox"/> ALTERATIONS <input type="checkbox"/>
	COMMUNITY: <u>WILDOMAR</u>	USE OF PERMIT: <u>MOBILE HOME SITE PREP</u>	
	NO. OF SUBMITTED PLANS: <u>2</u>	CASE NO. _____	
	NO. OF PARKING SPACES REQUIRED: <u>1</u>	NO. OF BUILDINGS NOW EXISTING: <u>2</u>	
	ZONE: <u>R-1</u>	SETBACKS: FRONT <u>240'</u> SIDE <u>175'/175'</u> REAR <u>350'</u>	
	GRADING PERMIT REQUIRED? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	LOT SIZE _____	
	SETBACK ORDINANCE # _____ OF _____	FEET REQUIRED ON _____ STREET	
	DATE: <u>4/18/78</u>	SIGNATURE OF LAND USE OFFICIAL: <u>D. Gentry</u>	

ROAD DEPARTMENT	DEDICATION REQUIRED: YES <input type="checkbox"/> NO <input type="checkbox"/> NO OF FEET _____ STREET _____
	CURB AND GUTTER REQUIRED: YES <input type="checkbox"/> NO <input type="checkbox"/>
	CAN CURB AND GUTTER FEASIBLY BE INSTALLED? YES <input type="checkbox"/> NO <input type="checkbox"/>
	HAS AN ACCEPTABLE APPLICATION BEEN MADE FOR ENCROACHMENT PERMIT FOR DRIVEWAY AND STREET IMPROVEMENT? YES <input type="checkbox"/> NO <input type="checkbox"/>
	DATE: _____ SIGNATURE OF ROAD DEPT. OFFICIAL: _____

HEALTH DEPT.	SWIMMING POOLS PUBLIC _____
	SEWAGE DISPOSAL _____
	FOOD ESTABLISHMENT _____

OTHER DEPARTMENTS	WATER POLLUTION _____	REMARKS _____
	FLOOD CONTROL _____	
	AIR POLLUTION _____	
	DIY OF HWY _____	

YOUR PROPERTY MAY BE SUBJECT TO FLOOD. RIVERSIDE COUNTY ASSUMES NO RESPONSIBILITY IN EVENT OF FLOOD.

CANARY — FILE, PINK — APPLICANT



NO.	OPERATION	DATE	INSPECTOR	NO.	OPERATION	DATE	INSPECTOR
BUILDING APPROVALS				MECHANICAL APPROVALS			
1	Set Back			33	Ventilation System		
2	Pigs & Firms			34	Penums & Ducts		
2A	Slab Grade			35	Furnace Compart.		
3	Steel			36	Inlets & Outlets		
4	Grout Blocks			37	Combustion Air		
5	Bond Beams			38	Compressor		
6	Roof Deck			39	Appl. Clearance		
7	Framing			40	Fire Damper		
8	Vents			41	Smoke Detention Device		
9	Garage Fire Well			42	Commercial Hood		
10	Fireplace P.L. <input type="checkbox"/>			43	Flue		
10A	Fireplace T.C. <input type="checkbox"/>			ADDITIONAL INFORMATION			
11	Exterior Lath						
12	Interior Lath						
12A	Drywall						
13	Finish Grade						
	INSULATION	Thick	R-Value				
7A	Walls (Batts)						
12B	Ceiling (Batts)						
12C	Ceiling (Blown)						
14	Final						
PLUMBING APPROVALS				SEWAGE SYSTEM SIZE & LOCATION			
15	Ground Plumb						
16	Water Piping						
17	Rough Plumb						
18	Vents						
19	Sewage Disposal						
20	Sewer						
21	Water Heater						
22	Water Softener						
23	Water Service						
24	Gas Test						
25	Final						
ELECTRICAL APPROVALS							
26	Power Pole						
27	Conduit						
28	Service Entrance						
29	Wiring						
29A	Grounding Wire						
29B	Bonding						
30	Fixtures						
31	Service						
32	Final						

Tank	Fit	L. Line
REAR OF PROPERTY LINE		
STREET NAME _____		

NOTICE: THIS IS NOT A BUILDING PERMIT

**APPLICATION TO CONSTRUCT
DEPARTMENT OF BUILDING AND SAFETY
COUNTY OF RIVERSIDE**

DISTRICT 3
Permit No. 341904

OWNER	Owner <u>Robert Parker</u> Architect _____ Contractor _____ Address <u>36210 Stable Lane</u> Address _____ City <u>Wildomar</u> City _____ Phone _____ Phone _____	
	I (we) the undersigned, hereby certify and acknowledge that I (we) have read the application and agree that if Curb and Gutter, and Paving, and/or Dedication of right of way is required by the County of Riverside, the Riverside County Department of Building and Safety shall not make a Final Inspection until said requirements have been met. I am also aware that no work is to be done within the County R/W without an encroachment permit. NOW, therefore, it is agreed that I (we) will not occupy said property and will not cause said property to be occupied until I (we) have complied with all laws of the County of Riverside and the State of California governing said property. DATE <u>8/11/78</u> SIGNATURE OF OWNER AND/OR AGENT <u>Sandra Parker</u> Approval by Signature from the Following Departments Listed Below Must Be Obtained Prior to the Issuing of a Construction Permit.	
LAND USE DIVISION BUILDING AND SAFETY	JOB ADDRESS <u>36210 Stable Lane Way</u> SPACE NO. _____ LEGAL DESCRIPTION OF PROPERTY <u>369-270-027</u> <u>Plat Plan 6430</u> COMMUNITY <u>Wildomar</u>	USE OF STRUCTURE SINGLE FAMILY <input type="checkbox"/> DUPLEX <input type="checkbox"/> APARTMENTS <input type="checkbox"/> AGRIC. <input checked="" type="checkbox"/> COMMERCIAL <input type="checkbox"/> INDUSTRIAL <input type="checkbox"/> ALTERATIONS <input type="checkbox"/>
	NO. OF SUBMITTED PLANS _____ USE OF PERMIT <u>Registration</u> CASE NO. _____ NO. OF PARKING SPACES REQUIRED _____ NO. OF BUILDINGS NOW EXISTING _____ ZONE <u>R-R</u> SETBACKS: FRONT <u>144'</u> SIDE <u>100'/100'</u> REAR <u>100'</u> GRADING PERMIT REQUIRED? YES <input type="checkbox"/> NO <input type="checkbox"/> LOT SIZE <u>4 1/2 ac.</u> SETBACK ORDINANCE # _____ OF _____ FEET REQUIRED ON _____ STREET DATE <u>8/11/78</u> SIGNATURE OF LAND USE OFFICIAL <u>R. Carey</u>	
ROAD DEPARTMENT	DEDICATION REQUIRED: YES <input type="checkbox"/> NO <input type="checkbox"/> NO. OF FEET _____ CURB AND GUTTER REQUIRED: YES <input type="checkbox"/> NO <input type="checkbox"/> _____ STREET	
	CAN CURB AND GUTTER FEASIBLY BE INSTALLED? YES <input type="checkbox"/> NO <input type="checkbox"/> HAS AN ACCEPTABLE APPLICATION BEEN MADE FOR ENCROACHMENT PERMIT FOR DRIVEWAY AND STREET IMPROVEMENT? YES <input type="checkbox"/> NO <input type="checkbox"/> DATE _____ SIGNATURE OF ROAD DEPT. OFFICIAL _____	
HEALTH DEPT.	SWIMMING POOLS PUBLIC _____ SEWAGE DISPOSAL _____ FOOD ESTABLISHMENT _____	
	WATER POLLUTION _____ REMARKS _____ FLOOD CONTROL _____ AIR POLLUTION _____ DIV OF HWY _____	
OTHER DEPARTMENTS	_____ _____	
	YOUR PROPERTY MAY BE SUBJECT TO FLOOD. RIVERSIDE COUNTY ASSUMES NO RESPONSIBILITY IN EVENT OF FLOOD.	

NO.	OPERATION	DATE	INSPECTOR	NO.	OPERATION	DATE	INSPECTOR									
BUILDING APPROVALS				MECHANICAL APPROVALS												
1	Set Back			33	Ventilation System											
2	Figs & Frms			34	Plenums & Ducts											
2A	Siob Grade			35	Furnace Compant											
3	Steel			36	Inlets & Outlets											
4	Grout Blocks			37	Combustion Air											
5	Band Beams			38	Compressor											
6	Roof Deck			39	Appl. Clearance											
7	Framing			40	Fire Damper											
8	Vents			41	Smoke Detention Device											
9	Garage Fire Wall			42	Commercial Hood											
10	Fireplace P.L. <input type="checkbox"/>			43	Final											
10A	Fireplace T.O. <input type="checkbox"/>			ADDITIONAL INFORMATION												
11	Exterior Lmb			<div style="text-align: center; font-weight: bold;">SEWAGE SYSTEM SIZE & LOCATION</div> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:30%;">Tank</th> <th style="width:30%;">Fit</th> <th style="width:40%;">L. Line</th> </tr> </thead> <tbody> <tr> <td colspan="3" style="text-align:center;">REAR OF PROPERTY LINE</td> </tr> <tr> <td colspan="3" style="text-align:center;"> <div style="border: 1px solid black; width: 100%; height: 100%; position: relative;"> P/L P/L </div> </td> </tr> <tr> <td colspan="3">STREET NAME _____</td> </tr> </tbody> </table>	Tank	Fit	L. Line	REAR OF PROPERTY LINE			<div style="border: 1px solid black; width: 100%; height: 100%; position: relative;"> P/L P/L </div>			STREET NAME _____		
Tank	Fit	L. Line														
REAR OF PROPERTY LINE																
<div style="border: 1px solid black; width: 100%; height: 100%; position: relative;"> P/L P/L </div>																
STREET NAME _____																
12	Interior Lmb															
12A	Dr. Wall															
13	Finish Grade															
	INSULATION	Thick	"R Value													
7A	Walls (Botts)															
12B	Ceiling (Botts)															
12C	Ceiling (Blownd)															
14	Final															
PLUMBING APPROVALS																
15	Ground Plumb															
16	Water Piping															
17	Rough Plumb															
18	Vents															
19	Sewage Disposal															
20	Sewer															
21	Water Heater															
22	Water Softener															
23	Water Service															
24	Gas Test															
25	Final															
ELECTRICAL APPROVALS																
26	Power Pole															
27	Circuit															
28	Service Entrance															
29	Wiring	3-30-79	Ferriter													
30	Existing Wiring															
31	Handing	3-30-79	Ferriter													
32	Final	3-30-79	Ferriter													

NOTICE: THIS IS NOT A BUILDING PERMIT
APPLICATION TO CONSTRUCT
DEPARTMENT OF BUILDING AND SAFETY
COUNTY OF RIVERSIDE

DISTRICT 3
Permit No. 350505

Owner Mrs. Maria R. Pugh Architect _____ Contractor _____
Address 36210 Stebbins Ave Address _____ Address _____
City Escondido, CA City _____ City _____
Phone 760-246-1496 Phone _____ Phone _____

I, the undersigned, hereby certify and acknowledge that I (we) have read the application and agree that if Curb and Gutter, and Paving, and/or Dedication of right-of-way is required by the County of Riverside, the Riverside County Department of Building and Safety shall not make a Final Inspection until said requirements have been met. I am also aware that no work is to be done within the County R/W without an encroachment permit.
I (we) intend to occupy said property and will not cause said property to be occupied until I (we) have received all notices of the County of Riverside and the State of California governing said property.
DATE 12-13-76 SIGNATURE OF OWNER AND/OR AGENT [Signature]
Approval by Signature from the Following Departments Listed Below
Must Be Obtained Prior to the Issuing of a Construction Permit.

LAND USE DIVISION BUILDING AND SAFETY
JOB ADDRESS 36210 Stebbins Ave SPACE NO. _____ USE OF STRUCTURE
LEGAL DESCRIPTION OF PROPERTY Parcel 4420 267-270-027 SINGLE FAMILY DUPLEX
COMMUNITY Walden APARTMENTS AGRIC.
NO. OF SUBMITTED PLANS _____ USE OF PERMIT Det. Use Storage COMMERCIAL INDUSTRIAL
CASE NO. _____ ALTERATIONS
NO. OF PARKING SPACES REQUIRED _____ NO. OF BUILDINGS NOW EXISTING _____
ZONE R-P SETBACKS: FRONT 100' SIDE 100' REAR 300'
GRADING PERMIT REQUIRED? YES NO LOT SIZE _____
SETBACK ORDINANCE # _____ OF _____ FEET REQUIRED ON _____ STREET
DATE 12-13-76 SIGNATURE OF LAND USE OFFICIAL [Signature]

ROAD DEPARTMENT
DEDICATION REQUIRED: YES NO NO. OF FEET _____ STREET _____
CURB AND GUTTER REQUIRED: YES NO
CAN CURB AND GUTTER FEASIBLY BE INSTALLED? YES NO
HAS AN ACCEPTABLE APPLICATION BEEN MADE FOR ENCROACHMENT PERMIT FOR DRIVEWAY AND STREET IMPROVEMENT? YES NO
DATE _____ SIGNATURE OF ROAD DEPT. OFFICIAL _____

REPAIRING POOLS PUBLIC _____
SEWER DISPOSAL _____
FOOD ESTABLISHMENT _____

WATER POLLUTION CONTROL _____ REMARKS _____
AIR POLLUTION CONTROL _____
YOUR PROPERTY MAY BE SUBJECT TO FLOOD. RIVERSIDE COUNTY ASSUMES NO RESPONSIBILITY IN EVENT OF FLOOD.

CANARY -- FILE, PINK -- APPLICANT



HEADQUARTERS

DEPARTMENT OF BUILDING & SAFETY
COUNTY OF ESSEX

05/16

CONSTRUCTION ESTIMATE		NO	ELECTRICAL FEES	NO.	PLUMBING FEES					
1ST FL	SQ. FT. @		UNITS							
2ND FL	SQ. FT. @		MOBILEHOME SVC.	1	YARD SPKLR SYSTEM					
POB	SQ. FT. @		POWER OUTLET	10	BAR SINK					
GAR	SQ. FT. @				ROOF DRAINS					
GAR P.	SQ. FT. @				DRAINAGE PIPING					
WALL	SQ. FT. @				DRINKING FOUNTAIN					
	SQ. FT. @				URINAL					
ESTIMATED CONSTRUCTION VALUATION		\$ 1000		1	WATER PIPING					
MECHANICAL FEES			SWIM POOL, PVT		FLOOR DRAIN					
VENT SYSTEM <input type="checkbox"/> FAN <input type="checkbox"/> EVAP. COOL <input type="checkbox"/> HOOD			SWIM POOL, COMM		WATER SOFTENER					
<input type="checkbox"/> DRYER			SIGN		WASHER (AUTO) (DISH)					
<input type="checkbox"/> SUSPENDED					GARBAGE DISPOSAL					
<input type="checkbox"/> B.T.U.					LAUNDRY TRAY					
<input type="checkbox"/> HP			IDLE METER		KITCHEN SINK					
HEATING SYSTEM <input type="checkbox"/> FORCED <input type="checkbox"/> GRAVITY			TEMP USE PERMIT SVC		WATER CLOSET					
<input type="checkbox"/> B.T.U.			POLE, TEMP/PERM		LAVATORY					
			AMPERES SERV ENT		SHOWER					
			SQ. FT. @ €		BATH TUB					
			SQ. FT. @ €		WATER HEATER					
			SQ. FT. RESID @ 1 We	1	SEWAGE DISPOSAL					
			SQ. FT. GAR @ 1/2 €		HOUSESEWER					
				1	GAS PIPING					
PERMIT FEE			PERMIT FEE	3.00	PERMIT FEE					
DBL	TOTAL FEES	MOB. HM FEE	MICRO FEE	MECH FEE	PL. CK FEE	CONST FEE	ELECT. FEE	SMI FEE	FEE	PLUMB FEE
	32.00	5.00					13.00			14.00

PERMIT NO. 005716

Supp Permit Job Address 36-211 STABLE LANE WAY Space Zip Owner RUPERT

Community WILDOMAR Valuation \$1000 Date 7/12/77 Dist 3 Off R 300 F.C.

Use of Permit M/H SITE PREP Parcel No. 369-270-028 5 Use No. Ck by

Legal Description P. 33 P.M. 6430 RR

Set Backs 40 30 20 20

Bond Amt Plan No Plan Creator Final Date Inspector

Const. Lender Branch

Address City Zip

Owner/Agent Tel Zip

Address City Zip

Received by [Signature] License # 2742611

Truss required

Sewage System [Signature] Zip Workers' Comp yes no

1000 u 450

Form 284 208 (Rev. 4-77) ©



**DEPARTMENT OF BUILDING & SAFETY
COUNTY OF INDIAN RIVER**

PERMIT NO. **05716**

CONSTRUCTION ESTIMATE		NO.	ELECTRICAL FEES	NO.	PLUMBING FEES
ROOF	SQ. FT. @ \$		UNITS		YARD SPKLR SYSTEM
WALL	SQ. FT. @		MOBILE HOME SVC	10	BAR SINK
FLOOR	SQ. FT. @		POWER OUTLET		ROOF DRAINS
CEILING	SQ. FT. @				DRAINAGE PIPING
MECHANICAL	SQ. FT. @				DRINKING FOUNTAIN
ESTIMATED CONSTRUCTION VALUATION	\$				URINAL
MECHANICAL FEES					WATER PIPING
VENT SYSTEM	<input type="checkbox"/> FAN <input type="checkbox"/> EVAP. COOL <input type="checkbox"/> HOOD		SWIM POOL, PVT	1	FLOOR DRAIN
APPLIANCE	<input type="checkbox"/> DRYER		SWIM POOL, COMM		WATER SOFTENER
FURNACE	<input type="checkbox"/> UNIT <input type="checkbox"/> WALL <input type="checkbox"/> FLOOR <input type="checkbox"/> SUSPENDED		SIGN		WASHER (AUTO) (DISH)
HEATING SYSTEM	<input type="checkbox"/> FURNACE <input type="checkbox"/> B.T.U.		IDLE METER		GARBAGE DISPOSAL
COOLING SYSTEM	<input type="checkbox"/> HP <input type="checkbox"/> B.T.U.		TEMP USE PERMIT SVC		LAUNDRY TRAY
PLUMBING SYSTEM	<input type="checkbox"/> FORCED <input type="checkbox"/> GRAVITY		POLE, TEMP/PERM.		KITCHEN SINK
BOILER	B.T.U.		AMPERES SERV ENT		WATER CLOSET
			SQ. FT. @ \$		LAVATORY
			SQ. FT. @ \$		SHOWER
			SQ. FT. RESID @ \$		BATH TUB
			SQ. FT. GAR @ \$		WATER HEATER
					SEWAGE DISPOSAL
					HOUSE SEWER
					GAS PIPING
					PERMIT FEE
PERMIT FEE			PERMIT FEE	2.00	
DIST. FEE			ELECT. FEE	13.11	
TOTAL FEES					
	5.00				14.00

PERMIT NO. **305716**

Job Address: **36-211 PUBLIC WORKS UNIT** Spouse: **RUPERT**

Community: **WILDOMAR** Valuation: \$ **218,777** Date: **2/8/77** Dist. Off. P.C. **3 R**

Use of Permit: **12/4 SITE PREP** Parcel No: **289-170-028** Use No: **40304020** Cl. by: **PH**

Legal Description: **P. 23 P. 14 6430** Zone: **PH** Grp: **1** Type: **1** Unit: **1**

Band Amt: \$ **14.00** Plan No: **11-9-77** Plan Checker: **Ferris** Final Date: **11-9-77** Inspector: **Ferris**

Const Lender: **Off Clinton Ferris** Branch: **Clinton** City: **Wildomar** Zip: **92595**

Owner/Agent: **Clinton Ferris** Address: **36-211 Public Works Unit** City: **Wildomar** Zip: **92595**

Contractor: **Clinton Ferris** License # **11-9-77** City: **Wildomar** Zip: **92595**

THIS PERMIT SHALL BECOME VOID IF THE WORKMAN IS NOT COMPLETED WITHIN 180 DAYS OF ISSUANCE OF THIS PERMIT.

Form 284-208 (Rev 4-77) ©s



RIVERSIDE COUNTY DEPARTMENT OF PUBLIC HEALTH
DIVISION OF ENVIRONMENTAL HEALTH

- Food Establishment
- Trailer Park
- Motel, Apt. Hotel
- Dwelling *300*
- Commercial Building
- Swimming Pool

- Sewage Disposal
- Gal. Septic Tank *1000*
- Sq. Ft. of Leach Line *450*
- x Scopage Pit
- Connection to Sewer

No on-site, regenerating water softening devices may be discharged into the individual sewage disposal system hereafter approved without clearance from the Water Quality Control Board.

Water supply serving this installation must be from an approved source.

All sewage disposal installation must conform with requirements of current Uniform Plumbing Code.

Any cutting, grading, or filling in excess of 1 or 1 1/2 feet will nullify sewage disposal approval.

Approval has been obtained from the Regional Water Quality Control Board for installation of the sewage disposal system.

This is to certify that the Riverside County Department of Public Health approves for occupancy, construction or installation the item(s) checked above.

Date: 7/8/77

By: Sharon H. King

DEPARTMENT OF BUILDING AND SAFETY
COUNTY OF RIVERSIDE

NOTICE TO APPLICANT

In conformity with the provisions of State of California Labor Code Section 3800, the applicant shall have on file or file with the Riverside County Department of Building and Safety a certificate as designated in Items I or II below, or shall indicate Item III, IV or V, whichever is applicable.

CERTIFICATE OF APPLICANT

Please mark the appropriate block:

- I. Certificate of Consent to self-insure issued by the Director of Industrial Relations.
- Copy on file Copy submitted
- II. Certificate of Workers' Compensation Insurance issued by an admitted insurer.
- Copy on file Copy submitted
- III. The cost of the work to be performed is \$100 or less.
- IV. I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Workers' Compensation laws of California. I further certify that, in the event I become subject to the Workers' Compensation provisions of the Labor Code that I will comply forthwith with the provisions of Labor Code Section 3700, et seq., and understand that, if I do not comply, the permit shall be deemed revoked.
- V. I certify as the owner (or the agent of the owner) that in the performance of the work for which this permit is issued I have engaged _____, contractor. (Contractor must have on file, or submit certificate required by I or II above.)

Applicant's Signature _____

Date

7/9/77

Permit No.

305716

Address and location where work is to be performed _____

36211 STABLE LANES WAY

NOTICE: THIS IS NOT A BUILDING PERMIT.

APPLICATION TO CONSTRUCT
DEPARTMENT OF BUILDING AND SAFETY
COUNTY OF RIVERSIDE

DISTRICT: 413
Permit No. _____

OWNER	Owner: <u>Dorell R. Rickett</u> Architect: _____ Contractor: _____ Address: <u>6795 ANITA</u> Address: _____ Address: _____ City: <u>CALIF. NO. 20, GRAND</u> City: _____ City: _____ Phone: <u>7-627-4138</u> Phone: _____ Phone: _____	
CITY	<p>I (we) the undersigned, hereby certify and acknowledge that I (we) have read the application and agree that if Curb and Gutter, and Paving, and/or Dedication of right of way is required by the County of Riverside, the Riverside County Department of Building and Safety shall not make a final inspection until said requirements have been met. I am also aware that no work is to be done within the County R/W without an encroachment permit.</p> <p>Now therefore, I (we) agree that I (we) will not occupy said property and will not cause said property to be occupied until I (we) have complied with all laws of the County of Riverside and the State of California governing said property.</p> <p>DATE: <u>7/8/77</u> SIGNATURE OF OWNER AND/OR AGENT: <u>[Signature]</u></p> <p style="text-align: center;">Approval by Signature from the Following Departments Listed Below Must be Obtained Prior to the Issuing of a Construction Permit.</p>	
LAND USE DIVISION BUILDING AND SAFETY	JOB ADDRESS: <u>36-211 State</u> (SPACE NO.) _____ LEGAL DESCRIPTION OF PROPERTY: <u>369-270-1025</u> COMMUNITY: <u>WILLOW PARK</u> NO. OF SUBMITTED PLANS: <u>2</u> USE OF PERMIT: <u>M.H.S.P.</u> CASE NO. _____ NO. OF PARKING SPACES REQUIRED: <u>1</u> NO. OF BUILDINGS NOW EXISTING: <u>0</u> ZONE: <u>R-R</u> SETBACKS: FRONT: <u>40'</u> SIDE: <u>30' & 20'</u> REAR: <u>20'</u> GRADING PERMIT REQUIRED? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> LOT SIZE: <u>5111</u> SETBACK ORDINANCE # <u>NA</u> OF _____ FEET REQUIRED ON _____ STREET DATE: <u>7-8-77</u> SIGNATURE OF LAND USE OFFICIAL: <u>[Signature]</u>	USE OF STRUCTURE: SINGLE FAMILY <input checked="" type="checkbox"/> DUPLEX <input type="checkbox"/> APARTMENTS <input type="checkbox"/> AGRIC. <input type="checkbox"/> COMMERCIAL <input type="checkbox"/> INDUSTRIAL <input type="checkbox"/> ALTERATIONS <input type="checkbox"/>
ROAD DEPARTMENT	DEDICATION REQUIRED: YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> NO. OF FEET _____ CURB AND GUTTER REQUIRED: YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> STREET _____ CAN CURB AND GUTTER FEASIBLY BE INSTALLED? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> HAS AN ACCEPTABLE APPLICATION BEEN MADE FOR ENCROACHMENT PERMIT FOR DRIVEWAY AND STREET IMPROVEMENT? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> DATE: <u>7-8-77</u> SIGNATURE OF ROAD DEPT. OFFICIAL: <u>[Signature]</u>	
HEALTH DEPT.	SWIMMING POOLS PUBLIC _____ SEWAGE DISPOSAL _____ FOOD ESTABLISHMENT _____	
OTHER DEPARTMENTS	WATER POLLUTION: <u>1. HEALTH</u> REMARKS _____ FLOOD CONTROL: _____ AIR POLLUTION: <u>2. ROAD</u> _____ DIV OF HWY: _____ YOUR PROPERTY MAY BE SUBJECT TO FLOOD. RIVERSIDE COUNTY ASSUMES NO RESPONSIBILITY IN EVENT OF FLOOD.	

284 199 9/74

CANARY — FILE, PINK — APPLICANT

MISCELLANEOUS

**QUALIFICATIONS OF
PERSONNEL INVOLVED IN THIS ASSESSMENT**

DAVID W. COPP, CHMM, REA #05148

Mr. Copp earned a B.A. degree in Environmental Science from California State University, San Bernardino (1987) and a Certificate in Hazardous Materials Management from the University of California, Riverside (1992). Mr. Copp has over 17 years of environmental experience, initially working as a Field Manager for Chemical Waste Management, Inc., overseeing field operations at several large remediation projects. Since 1989, Mr. Copp has performed over 2,000 Phase I ESAs, Transaction Screens, and dozens of Property Condition Assessments and Physical Needs Assessments (PCAs/PNAs) on all types of industrial, commercial and residential properties in 23 states and Canada for Environmental Risk Consultants, Inc., Environmental Management Group, Inc., Northwest Envirocon, Inc., and MGE Engineering, Inc. PCA & PNA experience has included the Standard & Poors, Fannie Mae, Freddie Mac and limited Fannie Mae protocols. In addition, Mr. Copp has performed over 70 Phase II Investigations on industrial and commercial properties, utilizing hollow-stem auger, Geoprobe™, and hand-auger methods to collect soil, soil vapor and groundwater samples. Mr. Copp holds current certifications as a Registered Environmental Assessor, AHERA asbestos inspector, Cal-DHS lead-based paint inspector/assessor, mold abatement, and USEPA 40-hour HAZWOPER. Mr. Copp has also been a member of the ASTM committees on ESAs and PCAs.