

# Drinking Water Source Assessment

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*Water System*

**Zone 7 Water Agency**

Alameda County

*Water Source*

**HOPYARD WELL 06**

*Assessment Date*

**March, 2002**

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California Department of Health Services  
Drinking Water Field Operations Branch  
Zone 7 Water Agency

<b>District No.</b>	<b>B7</b>
<b>System No.</b>	<b>0110010</b>
<b>Source No.</b>	<b>005</b>
<b>PS Code</b>	<b>03S/01E-18A06 M</b>

## Assessment Summary

District Name	Zone 7 Water Agency	District No.	B7	County	Alameda
System Name	Zone 7 Water Agency	System No.	0110010		
Source Name	HOPYARD WELL 06	Source No.	005	PS Code	03S/01E-18A06 M
Completed by	Mary Lim	Date	March, 2002		

### Description of System and Source

The Zone 7 Water Agency is a wholesaler of treated water and is located in the eastern Alameda County. The Zone 7 service area encompasses the cities of Pleasanton, Livermore, and Dublin as well as adjacent unincorporated areas in eastern Alameda County. Zone 7 wholesales treated water to its four retailers in the Livermore-Amador Valley area. These retailers include: the cities of Livermore and Pleasanton, the California Water Service, and the Dublin-San Ramon Services District. There are approximately 53,000 service connections serving a population of approximately 175,000.

The drinking water supply for the Zone 7 Water Agency water system comes from various sources. The primary source being the State Water Project. Zone 7 also captures local surface water from the Arroyo del Valle watershed in Lake del Valle. Another important local resource is the Livermore-Amador Valley Groundwater Basin. General land use for the Livermore-Amador Valley are agricultural, commercial, industrial, residential, and contains undeveloped lands as well.

### Assessment Procedures

The assessment of the source Hopyard Well No. 6 was conducted by Zone 7 Water Agency. The following sources of information were used in the assessment: EOA, Inc. (Zone 7's consultant) PCA inventory; well logs; well plans and specifications; and site visits.

Procedures used to conduct the assessment include:

1. Well location, construction, production, and hydrogeologic data were obtained from well logs, well plans and specifications, other Zone 7 staff, and site visits.
2. On June 7 and 8, 2001, EOA drove through the area within the protection zones.
3. EOA obtained information from the Dublin San Ramon Services District's wastewater pretreatment program regarding activities carried out by businesses within the protection zones.
4. EOA obtained information about underground and above-ground hazardous material/waste storage tanks from the Livermore-Pleasanton Fire Department (LPPD).
5. EOA obtained information on contamination release sites from the following sources: 1) Zone 7's toxic sites database; and 2) the California Regional Water Quality Control Board, San Francisco Bay Region office website in May, 2001.

**Drinking Water Source Assessment and Protection (DWSAP) Program**

**Vulnerability Summary**

District Name Zone 7 Water Agency District No. B7 County Alameda  
System Name Zone 7 Water Agency System No. 0110010  
Source Name HOPYARD WELL 06 Source No. 005 PS Code 03S/01E-18A06 M  
Completed by Mary Lim Date March, 2002

**THE FOLLOWING INFORMATION MUST BE INCLUDED IN THE SYSTEM CONSUMER CONFIDENCE REPORT**

A source water assessment was conducted for the HOPYARD WELL 06  
of the Zone 7 Water Agency water system in March, 2002

The source is considered most vulnerable to the following activities not associated with any detected contaminants:

- Automobile- Gas stations
- Dry cleaners
- Known Contaminant Plumes
- Underground storage tanks - Confirmed leaking tanks

**Discussion of Vulnerability**

There have been no contaminants detected in this source associated with the following activities such as gas stations, dry cleaners, known contaminant plumes, and underground storage tanks, however the source is still considered vulnerable due to its vicinity to these activities. Any potential releases from such activities would not likely be extensive, and would occur at or near the ground surface. Furthermore, this well is first screened at 215 feet below the ground surface, and has a 38 foot confining clay layer as well as other several relatively impermeable clay layers between the surface and the screened aquifer.

The following sites were identified as known contaminant plumes within the protection zones for Hopyard Well No. 6:

Shell, 3790 Hopyard Rd. - This site is identified in the LUSTIS, MTBE and Zone 7 toxics sites data sets, and is located within protection zone A. Contaminants identified by these sources include petroleum hydrocarbons and MTBE.

Exxon, 2991 Hopyard Rd. - This site is identified in the LUSTIS, MTBE and Zone 7 toxics sites data sets, and is located within protection zone B5. Contaminants identified by these sources include petroleum hydrocarbons and MTBE.

Hacienda Business Park, no address - This site is identified in the SLIC data set only. No address is given, but EOA noted in the field a site called Hacienda Business Park at 4100 Hacienda Dr., which is located within protection zone B10. Very little information is provided about the site in the SLIC data set. Under facility description "polluted well site" is entered. There is no information about types of contaminants, and the status of the site is listed as inactive.

GTE Mobilnet, 4440 Willow Rd. - This site is identified in the LUSTIS and Zone 7 toxics sites data sets, and is located within protection zone B5. The Zone 7 toxics sites database lists GTE Mobilnet at 4430 and 4440 Willow Rd. In the field EOA noted that 4440 Willow Rd. is occupied by Verizon Wireless. Contaminants identified by these sources include petroleum hydrocarbons.

The primary potential contaminant that may result from dry cleaners is tetrachloroethylene, or PCE.

Zone 7 has a "Toxic Site Surveillance" program, in which staff documents and tracks sites across the basin that pose a potential threat to drinking water. Information is gathered from the state, county, and local agencies, as well as from Zone

# Assessment Summary

System Name Zone 7 Water Agency System No. 0110010  
Source Name HOPYARD WELL 06 Source No. 005 PS Code 03S/01E-18A06 M

## Contents of this Assessment

- |     |                                     |    |                                     |   |
|-----|-------------------------------------|----|-------------------------------------|---|
| Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/>            | <b>Assessment Summary</b>                             |
| Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/>            | <b>Vulnerability Summary</b>                          |
| Yes | <input type="checkbox"/>            | No | <input checked="" type="checkbox"/> | <b>Source Location Form</b>                           |
| Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/>            | <b>Delineation of Ground Water Protection Zones</b>   |
| Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/>            | <b>Physical Barrier Effectiveness Checklist</b>       |
| Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/>            | <b>Source Data Sheet</b>                              |
| Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/>            | <b>Inventory of Possible Contaminating Activities</b> |
| Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/>            | <b>Vulnerability Ranking</b>                          |
| Yes | <input checked="" type="checkbox"/> | No | <input type="checkbox"/>            | <b>Assessment Map</b>                                 |



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System Name	<u>Zone 7 Water Agency</u>	System No.	<u>0110010</u>		
Source Name	<u>HOPYARD WELL 06</u>	Source No.	<u>005</u>	PS Code	<u>03S/01E-18A06 M</u>

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A copy of the complete assessment may be viewed at:

Zone 7 Water Agency  
5997 Parkside Drive  
Pleasanton, CA 94588

You may request a summary of the assessment be sent to you by contacting:

Mary D. Lim  
Water Resources Technician  
925-484-2600 x 405  
925-462-3914 (fax)  
mlim@zone7water.com

Drinking Water Source Assessment and Protection (DWSAP) Program

**Delineation of Ground Water Protection Zones**

District Name Zone 7 Water Agency District No. B7 County Alameda

System Name Zone 7 Water Agency System No. 0110010

Source Name HOPYARD WELL 06 Source No. 005 PS Code 03S/01E-18A06 M

Completed by Mary Lim Date March, 2002

Method Used to Delineate Protection Zones

**X 1. Calculated Fixed Radius**

- 2. Modified Calculated Fixed Radius (Attach documentation for direction of ground water flow.)
- 3. More Detailed Methods
- 4. Arbitrary Fixed Radius (For use only by or permission of DHS)

Maximum Pumping Rate of Well (Q)	<u>1,426</u>	gallons/minute
	<u>2,300</u>	acre feet/year
	<u>100,188,000</u>	cubic feet/year
Effective Porosity	<u>0.18</u>	<input type="checkbox"/> Default Value
Screened Interval of Well	<u>160</u>	feet <input type="checkbox"/> Default Value

Protection Zone	Calculated Value	Minimum Value	Radius of Protection Zone
Zone A - 2 Year TOT*	1,488 Feet	600 Feet	<b>1,488</b> Feet
Zone B5 - 5 Year TOT*	2,353 Feet	1,000 Feet	<b>2,353</b> Feet
Zone B10 - 10 Year TOT*	3,328 Feet	1,500 Feet	<b>3,328</b> Feet

**Drinking Water Source Assessment and Protection (DWSAP) Program**

**PHYSICAL CHARACTERISTICS**

District Name Zone 7 Water Agency District No. B7 County Alameda  
 System Name Zone 7 Water Agency System No. 0110010  
 Source Name HOPYARD WELL 06 Source No. 005 PS Code 03S/01E-18A06 M  
 Completed by Mary Lim Date March, 2002

Parameter	Possible Points	This Source	Score
<b>Type of Aquifer</b>			
<b>Confinement</b>			
1. Unconfined, Semi-confined, Fractured Rock, Unknown Aquifer	0		
2. Confined	50	X	50
<b>Pathways of Contamination (All Aquifers)</b>			
<b>Presence of Abandoned or Improperly Destroyed Wells</b>			
1. Present within Zone A (2 year TOT distance)	Yes		
	No	X	5
	Unknown		
2. Present within Zone B5 (2 -5 year TOT distance)	Yes	X	0
	No		
	Unknown		
3. Present within Zone B10 (5-10 year TOT distance)	Yes		
	No	X	2
	Unknown		
<b>Hydraulic Head (Confined Aquifers)</b>			
<b>What is the relationship in the hydraulic head between the confined aquifer and the overlying unconfined aquifer? (i.e. does the well flow under artesian conditions?)</b>			
1. Head in confined aquifer is higher than head in unconfined aquifer under all conditions.	20		
2. Head in confined aquifer is higher than head in unconfined aquifer under static conditions.	10		
3. Head in confined aquifer is lower than or same as head in unconfined aquifer under static conditions.	0	X	0
4. Unknown	0		
<b>Well Construction (All Aquifers)</b>			
Sanitary Seal (Annular Seal) Depth <u>170</u> feet	None of less than 20 feet		
	Between 20 and 50 feet		
	50 feet or greater	X	10
	Unknown		
Surface Seal (concrete cap)	Not present or improperly constructed		
	Watertight, slopes away from well at least 2' laterally in all directions	X	4
	Unknown		

**PHYSICAL BARRIER EFFECTIVENESS (PBE)**

System Name Zone 7 Water Agency System No. 0110010  
 Source Name HOPYARD WELL 06 Source No. 005 PS Code 03S/01E-18A06 M

Parameter		Possible Points	This Source	Score
<b>Well Construction (All Aquifers)—continued</b>				
Flooding potential at well site	Subject to localized flooding (i.e. in low area or unsealed pit or vault) or within 100 year flood plain	0		
	Not subject to flooding	1	X	1
	Unknown	0		
Security at well site	Not secure	0		
	Secure	5	X	5
	Unknown	0		

Score	Effectiveness
0 to 35	Low
36 to 69	Moderate
70 to 100	High

Maximum Score = 100

Score	<u>77</u>
Effectiveness	<u>High</u>



**Drinking Water Source Assessment and Protection (DWSAP) Program**

**Inventory of Possible Contaminating Activities (PCA Inventory)**

District Name Zone 7 Water Agency District No. B7 County Alameda  
 System Name Zone 7 Water Agency System No. 0110010  
 Source Name HOPYARD WELL 06 Source No. 005 PS Code 03S/01E-18A06 M  
 Completed by Mary Lim Date March, 2002

PCA (Risk Ranking)	PCA in Zone A	PCA in Zone B5	PCA in Zone B10	*	Comments
<b>Commercial/Industrial Activities</b>					
Automobile- Body shops (H)	N	N	N		
Automobile- Car washes (M)	N	N	N		
Automobile- Gas stations (VH)	Y	Y	N		Shell Gas at 3790 Hopyard Rd & Exxon Gass at 2991 Hopyard Rd
Automobile- Repair shops (H)	Y	N	N		
Boat services/repair/ refinishing (H)	N	N	N		
Chemical/petroleum pipelines (H)	U	U	U		
Chemical/petroleum processing/storage (VH)	N	N	N		
Dry cleaners (VH)	Y	Y	N		
Electrical/electronic manufacturing (H)	N	N	N		
Jet/truck/bus terminals (H)	N	N	N		
Furniture repair/ manufacturing (H)	N	N	N		
Home manufacturing (H)	N	N	N		
Junk/scrap/salvage yards (H)	N	N	N		
Machine shops (H)	N	N	N		
Metal plating/ finishing/fabricating (VH)	N	N	N		
Photo processing/printing (H)	N	Y	N		
Plastics/synthetics producers (VH)	N	N	N		
Research laboratories (H)	N	N	N		
Wood preserving/treating (H)	N	N	N		
Wood/pulp/paper processing and mills (H)	N	N	N		
Lumber processing and manufacturing (H)	N	N	N		
Sewer collection systems (H, if in Zone A, otherwise L)	Y	Y	Y		
Parking lots/maills (>50 spaces) (M)	Y	Y	Y		
Cement/concrete plants (M)	N	N	N		
Food processing (M)	N	N	N		
Funeral services/graveyards (M)	N	N	N		
Hardware/lumber/parts stores (M)	N	N	N		
Appliance/Electronic Repair (L)	N	N	N		
Office buildings/complexes (L)	Y	Y	Y		
Auto Yards (L)	N	N	N		
RV/mini storage (L)	N	N	N		

Y = Yes    N = No    U = Unknown  
 \* = A contaminant potentially associated with this activity has been detected in the water supply.

**Inventory of Possible Contaminating Activities (PCA Inventory)**

System Name Zone 7 Water Agency System No. 0110010  
 Source Name HOPYARD WELL 06 Source No. 005 PS Code 03S/01E-18A06 M

PCA (Risk Ranking)	PCA in Zone A	PCA in Zone B5	PCA in Zone B10	*	Comments
<b>Residential/Municipal Activities</b>					
Airports - Maintenance/ fueling areas (VH)	N	N	N		
Landfills/dumps (VH)	N	N	N		
Railroad yards/ maintenance/ fueling areas (H)	N	N	N		
Septic systems - high density (>1/acre) (VH if in Zone A, otherwise M)	N	N	N		
Sewer collection systems (H, if in Zone A, otherwise L)	Y	Y	Y		
Utility stations - maintenance areas (H)	N	N	N		
Wastewater treatment plants (VH in Zone A, otherwise H)	N	N	N		
Drinking water treatment plants (M)	N	N	N		
Golf courses (M)	N	N	N		
Housing - high density (>1 house/0.5 acres) (M)	Y	Y	Y		
Motor pools (M)	N	N	N		
Parks (M)	Y	N	N		
Waste transfer/recycling stations (M)	N	N	N		
Apartments and condominiums (L)	Y	Y	Y		
Campgrounds/ Recreational areas (L)	N	N	N		
Fire stations (L)	N	N	N		
RV Parks (L)	N	N	N		
Schools (L)	N	Y	Y		
Hotels, Motels (L)	N	N	N		
<b>Other Activities</b>					
NPDES/WDR permitted discharges (H)	Y	U	U		
Underground Injection of Commercial/Industrial Discharges (VH)	U	U	U		
Historic gas stations (VH)	N	N	N		
Historic waste dumps/ landfills (VH)	N	N	N		
Illegal activities/ unauthorized dumping (H)	U	U	U		
Injection wells/ dry wells/ sumps (VH)	N	N	N		
Known Contaminant Plumes (VH)	Y	Y	Y		See EOA Memorandum
Military installations (VH)	N	N	N		
Mining operations - Historic (VH)	N	N	N		
Mining operations - Active (VH)	N	N	N		
Mining - Sand/Gravel (H)	N	N	N		
Wells - Oil, Gas, Geothermal (H)	N	N	N		

**Y = Yes    N = No    U = Unknown**  
 \* = A contaminant potentially associated with this activity has been detected in the water supply.

**INVENTORY OF POSSIBLE CONTAMINATING ACTIVITIES**

System Name Zone 7 Water Agency System No. 0110010  
 Source Name HOPYARD WELL 06 Source No. 005 PS Code 03S/01E-18A06 M

PCA (Risk Ranking)	PCA in Zone A	PCA in Zone B5	PCA in Zone B10	*	Comments
<b>Other Activities</b>					
Salt Water Intrusion (H)	N	N	N		
Recreational area - surface water source (H)	N	N	N		
Underground storage tanks - Confirmed leaking tanks (VH)	Y	Y	N		
Underground storage tanks - Decommissioned - inactive tanks (L)	U	U	U		
Underground storage tanks - Non-regulated tanks (tanks smaller than regulatory limit) (H)	U	U	U		
Underground storage tanks - Not yet upgraded or registered tanks (H)	N	N	N		
Underground storage tanks - Upgraded and/or registered - active tanks (L)	Y	Y	N		
Above ground storage tanks (M)	N	N	Y		
Wells - Water supply (M)	Y	N	N		
Construction/demolition staging areas (M)	N	N	N		
Contractor or government agency equipment storage yards (M)	N	N	N		
Dredging (M)	N	N	N		
Transportation corridors - Freeways/state highways (M)	N	N	N		
Transportation corridors - Railroads (M)	N	N	N		
Transportation corridors - Historic railroad right-of-ways (M)	N	N	N		
Transportation corridors - Road Right-of-ways (herbicide use areas) (M)	Y	Y	Y		
Transportation corridors - Roads/ Streets (L)	Y	Y	Y		
Hospitals (M)	N	N	N		
Storm Drain Discharge Points (M)	Y	U	U		
Storm Water Detention Facilities (M)	N	N	N		
Artificial Recharge Projects - Injection wells (potable water) (L)	N	N	N		
Artificial Recharge Projects - Injection wells (non-potable water) (M)	N	N	N		
Artificial Recharge Projects - Spreading Basins (potable water) (L)	N	N	N		
Artificial Recharge Projects - Spreading Basins (non-potable water) (M)	N	N	N		
Medical/dental offices/clinics (L)	Y	N	N		

Y = Yes    N = No    U = Unknown  
 \* = A contaminant potentially associated with this activity has been detected in the water supply.

**Inventory of Possible Contaminating Activities (PCA/DA)**

System Name Zone 7 Water Agency System No. 0110010  
 Source Name HOPYARD WELL 06 Source No. 005 PS Code 03S/01E-18A06 M

PCA (Risk Ranking)	PCA in Zone A	PCA in Zone B5	PCA in Zone B10	*	Comments
<b>Other Activities</b>					
Veterinary offices/clinics (L)	Y	N	N		
Surface water - streams/ lakes/rivers (L)	Y	Y	Y		
Wells - monitoring, test holes (L)	Y	Y	Y		

Y = Yes    N = No    U = Unknown  
 \* = A contaminant potentially associated with this activity has been detected in the water supply.

**Drinking Water Source Assessment and Protection (DWSAP) Program**

**Vulnerability Ranking**

District Name Zone 7 Water Agency District No. B7 County Alameda  
 System Name Zone 7 Water Agency System No. 0110010  
 Source Name HOPYARD WELL 06 Source No. 005 PS Code 03S/01E-18A06 M

Completed by Mary Lim Date March, 2002

Zone	PCA (Risk Ranking)	*	PCA Risk Points	Zone Points	PBE Points	Vulnerability Score
A	Automobile- Gas stations (VH)		7	5	1	13
A	Dry cleaners (VH)		7	5	1	13
A	Known Contaminant Plumes (VH)		7	5	1	13
A	Underground storage tanks - Confirmed leaking tanks (VH)		7	5	1	13
A	Automobile- Repair shops (H)		5	5	1	11
A	NPDES/WDR permitted discharges (H)		5	5	1	11
A	Sewer collection systems (H, if in Zone A, otherwise L)		5	5	1	11
A	Sewer collection systems (H, if in Zone A, otherwise L)		5	5	1	11
B5	Automobile- Gas stations (VH)		7	3	1	11
B5	Dry cleaners (VH)		7	3	1	11
B5	Known Contaminant Plumes (VH)		7	3	1	11
B5	Underground storage tanks - Confirmed leaking tanks (VH)		7	3	1	11
A	Housing - high density (>1 house/0.5 acres) (M)		3	5	1	9
A	Parking lots/malls (>50 spaces) (M)		3	5	1	9
A	Parks (M)		3	5	1	9
A	Storm Drain Discharge Points (M)		3	5	1	9
A	Transportation corridors - Road Right-of-ways (herbicide use areas) (M)		3	5	1	9
A	Wells - Water supply (M)		3	5	1	9
B5	Photo processing/printing (H)		5	3	1	9
B10	Known Contaminant Plumes (VH)		7	1	1	9
A	Underground Injection of Commercial/Industrial Discharges (VH)		7	0	1	8
B5	Underground Injection of Commercial/Industrial Discharges (VH)		7	0	1	8
B10	Underground Injection of Commercial/Industrial Discharges (VH)		7	0	1	8

\* = A contaminant potentially associated with this activity has been detected in the water supply.

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**TO:** Angela O'Brien, Zone 7 Water Agency

**FROM:** Jon Konnan, EOA, Inc.

**DATE:** June 29, 2001

**SUBJECT:** PCA Inventory Forms and Maps for Hopyard Well No. 6 and Stoneridge Well No. 1

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EOA, Inc. (EOA) prepared this memo and the attached forms and maps to assist Zone 7 perform source water assessments for Zone 7's Hopyard Well No. 6 and Stoneridge Well No. 1. Zone 7 is performing these assessments in accordance with the California Department of Health Service's (DHS's) Drinking Water Source Assessment and Protection (DWSAP) program. The DHS's Division of Drinking Water and Environmental Management developed the DWSAP program to meet state and federal requirements to assess the vulnerability to contamination of California's drinking water sources.

The attached Possible Contaminating Activities (PCA) Inventory Forms are based on field observations and available regulatory agency records. Please note that there are a few rows in the PCA Inventory Forms that EOA did not fill out because we lacked information. Zone 7 should either complete these areas or place an "X" in the "Unknown" column. The PCA Inventory Forms are based on the following information:

- On June 7 and 8, 2001, EOA drove through the area within the protection zones (see the attached drinking water source assessment maps).
- EOA obtained information from the Dublin San Ramon Services District's wastewater pretreatment program regarding activities carried out by businesses within the protection zones.<sup>1</sup>
- EOA obtained information about underground and above-ground hazardous material/waste storage tanks from the Livermore – Pleasanton Fire Department (LPFD).<sup>2</sup>
- EOA obtained information on contamination release sites, as described below.

Contamination release sites were identified for the assessment based on 1) Zone 7's toxics sites database, which was provided electronically to EOA during November 2000, and 2) the following data sets downloaded from the California Regional Water Quality Control, San Francisco Bay Region (Regional Board) web site during May 2001:

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<sup>1</sup>Information provided by Fernando Lomas of the Dublin San Ramon Services District, June 2001.

<sup>2</sup>Information provided by Annette Gibson of the Livermore – Pleasanton Fire Department, May 2001.

- LUSTIS (Leaking Underground Storage Tank Information System)
- SLIC (Spills, Leaks, Investigations, and Cleanup)
- List of Sites with MTBE Contamination

EOA also discussed contamination sites within the protection zones with the Alameda County Department of Environmental Health (ACDEH).<sup>3</sup> All the sites known to the ACDEH were also in the Regional Board data sets.

The following sites were identified within the protection zones for Hopyard Well No. 6:

**Shell, 3790 Hopyard Rd.** – This site is identified in the LUSTIS, MTBE and Zone 7 toxics sites data sets, and is located within protection zone A. Contaminants identified by these sources include petroleum hydrocarbons and MTBE.

**Exxon, 2991 Hopyard Rd.** – This site is identified in the LUSTIS, MTBE and Zone 7 toxics sites data sets, and is located within protection zone B5. Contaminants identified by these sources include petroleum hydrocarbons and MTBE.

**Hacienda Business Park, no address** – This site is identified in the SLIC data set only. No address is given, but EOA noted in the field a site called Hacienda Business Park at 4100 Hacienda Dr., which is located within protection zone B10. Very little information is provided about the site in the SLIC data set. Under facility description “polluted well site” is entered. There is no information about types of contaminants, and the status of the site is listed as inactive.

**GTE Mobilnet, 4440 Willow Rd.** – This site is identified in the LUSTIS and Zone 7 toxics sites data sets, and is located within protection zone B5. The Zone 7 toxics sites database lists GTE Mobilnet at 4430 and 4440 Willow Rd. In the field EOA noted that 4440 Willow Rd. is occupied by Verizon Wireless. Contaminants identified by these sources include petroleum hydrocarbons.

The following sites were identified within the protection zones for Stoneridge Well No. 1:

**Exxon, 3192 Santa Rita Rd.** – This site is identified in the LUSTIS and Zone 7 toxics sites data sets, and is located within protection zone B10. Contaminants identified by these sources include petroleum hydrocarbons and MTBE. In the field EOA noted that this address is occupied by Steve’s Valero gas station. Please see the recent DWSAP for the Mocho Wells 1 – 3 well field for further information on this site.

**Shell, corner of Santa Rita Rd. and Pimlico Dr.** – This site is identified in the Zone 7 toxics sites data set only, and is located within protection zone B10. This data set identifies petroleum hydrocarbons as the contaminant of concern.

**Combs Property, 1808 Courtney Ave.** – This site is identified in the LUSTIS data set only, and is located within protection zone B10. EOA noted in the field that this address is located in a residential area. Based on LUSTIS it appears that low levels of petroleum hydrocarbons were found in soil only, and the site’s status is listed as “Case Closed: Regional Board (and Local Agency where appropriate) are in concurrence that no further action is necessary at the site.”

<sup>3</sup>Information provided by Scott Seery of the Alameda County Department of Environmental Health, February 2001.

**Heller Seasonings, Inc., 2000 Oakland Ave.** – This site is identified in the LUSTIS data set only. Please see the recent DWSAP for the Mocho Wells 1 – 3 well field for further information on this site.



## HOPYARD 6 WELL DATA SHEET (Page 1 of 2)

Complete as much information as possible. Leave blank if information is not available, use N.A. if not applicable.

\* Indicates items required for Source Water Assessment

\*\* Indicates additional items required for assessments and Ground Water Rule

	(separate multiple entries in field with semi-colon)	Actual, Estimated or Default?
<b>DATA SHEET GENERAL INFORMATION</b>		
System Name	Zone 7 Water Agency	from DHS database
System Number	110010	from DHS database
Source of Information (well log, DHS/County files, system, etc)	Well logs; site plans; site inspections	
Organization Collecting Information (DHS, County, System, other)	Zone 7 Water Agency	
Date Information Collected/Updated	February, 2002	
<b>WELL IDENTIFICATION</b>		
* Well Number or Name	Hopyard Well No. 6	from DHS database
* DHS Source Identification Number (FRDS ID No.)	03S/01E-18A06 M	from DHS database
DWR Well Log on File? (yes or no)	Yes	
State Well Number (from DWR)	3S/1E-18A6	from DHS database
Well Status (Active, Standby, Inactive)	Active	
<b>WELL LOCATION</b>		
Latitude	37.6788576	Estimated via Ashtech GPS Unit
Longitude	-121.900175	Estimated via Ashtech GPS Unit
Ground Surface Elevation (ft above MSL)	325.5	Actual
Street Address	Hopyard Rd.	
Nearest Cross Street	Hopyard Rd. & Parkside Dr.	
City	Pleasanton	
County	Alameda	
* Neighborhood/Surrounding Area (see Note 1)	Re	
Site plan on file? (yes or no)	Yes	
DWR Ground Water Basin	Livermore-Amador Valley	
DWR Ground Water Sub-basin	Amador	
<b>SANITARY CONDITIONS</b>		
** Distance to closest Sewer Line, Sewage Disposal, Septic Tank (ft)	60	Estimate
Distance to Active Wells (ft)	1230	
Distance to Abandoned Wells (ft)	1500	Estimate
Distance to Surface Water (ft)	850	Estimate
** Size of controlled area around well (square feet)	803	Estimate
* Type of access control to well site (fencing, building, etc)	locked building	
* Surface Seal? (Concrete slab)(yes or no)	Yes	
* Dimensions of concrete slab: Length(ft)/ Width(ft)/ Thick(in)	42/42/8	Actual
* Within 100 year flood plain? (yes or no)	No	Actual
* Drainage away from well? (yes or no)	Yes	
<b>ENCLOSURE/HOUSING</b>		
Enclosure Type (building, vault, none, etc.)	Building	
Floor material	Concrete	
Located in Pit? (yes or no)	No	
Pit depth (feet) (if applicable)	N/A	
<b>WELL CONSTRUCTION</b>		
Date drilled	Feb-87	Actual
Drilling Method	Rotary; Reverse	Actual
Depth of Bore Hole (feet below ground surface)	580	Actual
Casing Beginning Depth/Ending Depth(ft below surface); 2nd Casing Beginning Depth/Ending Depth; 3rd Casing, etc.	0/170; 0/500	Actual
Casing Diameter (inches); 2nd Casing Diameter; 3rd Casing, etc.	34; 18	
Casing Material; 2nd Casing Material; 3rd Casing, etc.	Steel; Steel	
		Actual, Estimated or Default?
<b>WELL CONSTRUCTION (continued)</b>		
Conductor casing used? (yes, no or not sure) (See Note 2)	Yes	
Conductor casing removed? (yes, no or not sure)	No	
* Depth to highest perforations/screens(ft below surface)	215	Actual
Screened Interval Beginning Depth/Ending Depth (ft below surface); 2nd Screened Interval Beg. Depth/Ending Depth; 3rd Screened Interval, etc.	215/235; 275/305; 355/375; 400/490	Actual
* Total length of screened interval (ft) (default = 10% pump capacity in gpm)	160	Actual
* Annular Seal?(yes, no, or not sure) (See Note 3)	Yes	
* Depth of Annular Seal (ft)	170	Actual
Material of Annular Seal (cement grout, bentonite, etc.)	Cement Grout	
Gravel pack, Depth to top (ft below ground surface)	170	Effective

## HOPYARD 6 WELL DATA SHEET (Page 2 of 2)

Complete as much information as possible. Leave blank if information is not available, use N.A. if not applicable.

\* Indicates items required for Source Water Assessment

\*\* Indicates additional items required for assessments and Ground Water Rule

Total length of gravel pack (ft)	330	Effective
<b>AQUIFER</b>		
* Aquifer Materials <i>(list all that apply: sand, silt, clay, gravel, rock, fractured rock)</i>	clay; gravel; sand	Actual
* Effective porosity (decimal percent) <i>(default = 0.2)</i>	0.18	Estimated via Ashtech GPS Unit
* Confining layer (Impervious Strata) above aquifer? <i>(yes, no or not sure)</i>	Yes	Actual
Thickness of confining layer, if known (ft)	38	Actual
Depth to confining layer, if known (ft below ground)	119	Actual
* Static water level (ft below ground surface)	59.1	Actual
Static water level measurement: Date/Method	1/16/02; Powers Sounder	Actual
Pumping water level (ft below ground surface)	114	Actual
Pumping water level measurement: Date/Method	8/20/01; Powers Sounder	Actual
<b>WELL PRODUCTION</b>		
Well Yield (gpm)	3930	Estimate
Well Yield Based On (i.e., pump test, etc.)	Pump Test	
Date measured	5/16/01	Actual
Is the well metered? (yes or no)	Yes	
Production (gallons per year)	344,268,000	Projected estimate
Frequency of Use (hours/year)	1460 (projected)	Estimate
Typical pumping duration (hours/day)	Zero to 24	Estimate
<b>PUMP</b>		
Make	Byron Jackson	
Type	DWT	
Size (hp)	500	
* Capacity (gpm)	3750	Estimate
Depth to suction intake (ft below ground surface)	365	
Lubrication Type	Water	
Type of Power: <i>(i.e., electric, diesel, etc.)</i>	Electric	
Auxiliary power available? (yes or no)	No	
Operation controlled by: <i>(i.e., level in tank, pressure, etc.)</i>	Remote/Manual	
Pump to Waste capability? (yes or no)	Yes	
Discharges to: <i>(i.e., distribution system, storage, etc.)</i>	Distribution System	
<b>REMARKS AND DEFECTS (use additional sheets as necessary)</b>		
 <b>NOTES</b>		
<p>1. Neighborhood/Surrounding Area (list all that apply): A= Agricultural, Ru = Rural, Re = Residential, Co = Commercial, I = Industrial, Mu = Municipal, P = Pristine, O = Other</p> <p>2. Conductor Casing - Oversized casing used to stabilize bore hole during well construction. Should be removed during installation of annular seal.</p> <p>3. Annular Seal - Seal of grout in the space between the well casing and the wall of the drilled hole. Sometimes called "sanitary seal".</p>		



