

DEPARTMENT OF HEALTH SERVICES

SOUTHERN CALIFORNIA BRANCH
DRINKING WATER FIELD OPERATIONS
1040 E. HERNDON AVENUE, SUITE 205
FRESNO, CALIFORNIA 93720-3158
(559) 447-3300
FAX (559) 447-3300

**Source Water Assessment Instructions**

In order to help ensure the quality and integrity of our drinking water systems the Department of Health Services, Division of Drinking Water and Environmental Management, is implementing the Drinking Water Source Assessment Program. This program was developed to carry out a federal mandate to assess all drinking water sources and evaluate their vulnerability to contamination. It involves defining the protective zones around each well and identifying possible contaminating activities within these zones. Your system is scheduled to be evaluated, and we will need your help in completing this important project.

Your part in this assessment involves:

1. Identifying the Possible Contaminating Activity (PCA's) located within the delineation zones for each active well. The PCA's are included in Appendix A.
2. Supply missing information on the Well Data Sheets, particularly the capacity of the pump and the screened interval of the casing.
3. Be available to answer questions.

Checklists of Possible Contaminating Activities are included in Appendix A. Using the PCA checklist that best describes the type of area surrounding your well site (i.e. rural, residential, etc.) and the table labeled "Other Activities", please place a check mark next to any of the PCA's that are present within the well's delineation zones. If a listed PCA is not within the delineation zones for the well, or if you are unsure if a listed PCA is near your well, check the appropriate box on the checklist.

Please also complete the empty fields on the Well Data Sheets. The capacity of the pump and the screened interval of the well casing both need to be indicated. For further assistance regarding these procedures, consult the SWAP guidance documents on the Department's homepage at: <http://www.dhs.ca.gov/ps/ddwem/dswap/guidance/index.htm> or call Kassy Smith at (559) 447-3316. Please complete the PCA lists and the well data sheets and return by **April 15, 2003**. Your cooperation is appreciated.

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

		Actual, Estimated or Default?
DATA SHEET GENERAL INFORMATION		
System Name	Odd Fellows Sierra Recreation Association	<i>from DHS database</i>
System Number	5510016	<i>from DHS database</i>
Source of Information (<i>well log, DHS/County files, system, etc</i>)	DHS files	
Organization Collecting Information (<i>DHS, County, System, other</i>)	DHS	
Date Information Collected/Updated	9/18/2000	
WELL IDENTIFICATION		
* Well Number or Name	Well No. 6	<i>from DHS database</i>
* DHS Source Identification Number (FRDS ID No.)		
DWR Well Log on File? ("YES" or "NO")	YES	
State Well Number (from DWR)	5510016-007	
Well Status (Active, Standby, Inactive)	Active	<i>from DHS database</i>
WELL LOCATION		
Latitude		<i>from DHS database</i>
Longitude		<i>from DHS database</i>
Ground Surface Elevation (ft above Mean Sea Level)		
Street Address		
Nearest Cross Street		
City	Long Barn	
County	Tuolumne	
* Neighborhood/Surrounding Area (<i>see Note 1</i>)	O	
Site plan on file? ("YES" or "NO")	NO	
DWR Ground Water Basin		<i>from DWR</i>
DWR Ground Water Sub-basin		<i>from DWR</i>
SANITARY CONDITIONS		
** Distance to closest Sewer Line, Sewage Disposal, Septic Tank (ft)	125+ FT.	
Distance to Active Wells (ft)	460'	
Distance to Abandoned Wells (ft)	NONE	
Distance to Surface Water (ft)	100'	EST.
** Size of controlled area around well (square feet)	5000	EST.
* Type of access control to well site (<i>fencing, building, etc</i>)	BUILDING	
* Surface Seal? (Concrete slab)("YES", "NO" or "UNKNOWN")	YES	
* Dimensions of concrete slab: Length(ft)/ Width(ft)/ Thick(in)	8'x8'x6"	
* Within 100 year flood plain? ("YES", "NO" or "UNKNOWN")	UNKNOWN	
* Drainage away from well? ("YES" or "NO")	YES	
ENCLOSURE/HOUSING		
Enclosure Type (<i>building, vault, none, etc.</i>)	BUILDING	
Floor material		
Located in Pit? ("YES" or "NO")		
Pit depth (feet) (if applicable)		
WELL CONSTRUCTION		
Date drilled		
Drilling Method		
Depth of Bore Hole (feet below ground surface)		
Casing Beginning Depth/Ending Depth(ft below surface); 2nd Casing Beginning Depth/Ending Depth; 3rd Casing, etc.		
Casing Diameter (inches); 2nd Casing Diameter; 3rd Casing, etc.		
Casing Material; 2nd Casing Material; 3rd Casing, etc.		

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.

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		Actual, Estimated or Default?
SEE Reports ON Well #6		
WELL CONSTRUCTION (continued)		
Conductor casing used? ("YES", "NO" or "UNKNOWN") (See Note 2)		
Conductor casing removed? ("YES", "NO" or "UNKNOWN")		
* Depth to highest perforations/screens (ft below surface) (or "UNKNOWN")		
Screened Interval Beginning Depth/Ending Depth (ft below surface); 2nd Screened Interval Beg. Depth/Ending Depth; 3rd Screened Interval, etc.		
* Total length of screened interval (ft) (default = 10% pump capacity in gpm) (or "UNKNOWN")		
* Annular Seal? ("YES", "NO" or "UNKNOWN") (See Note 3)		
* Depth of Annular Seal (ft)		
Material of Annular Seal (cement grout, bentonite, etc.)		
Gravel pack, Depth to top (ft below ground surface)		
Total length of gravel pack (ft)		
AQUIFER		
* Aquifer Materials (list all that apply: sand, silt, clay, gravel, rock, fractured rock)		
* Effective porosity (decimal percent) (default = 0.2) (or "UNKNOWN")		
* Confining layer (Impervious Strata) above aquifer? ("YES", "NO" or "UNKNOWN")		
Thickness of confining layer, if known (ft)		
Depth to confining layer, if known (ft below ground)		
* Static water level (ft below ground surface)		
Static water level measurement: Date/Method		
Pumping water level (ft below ground surface)		
Pumping water level measurement: Date/Method		
WELL PRODUCTION		
Well Yield (gpm)		
Well Yield Based On (i.e., pump test, etc.)		
Date measured		
Is the well metered? ("YES" or "NO")	YES	
Production (gallons per year)	7 MG.	
Frequency of Use (hours/year)	1460	
Typical pumping duration (hours/day)	8 hrs	
PUMP		
Make		
Type		
Size (hp)	15 hp 3ph.	
* Capacity (gpm)	90 gpm.	
Depth to suction intake (ft below ground surface)		
Lubrication Type		
Type of Power: (i.e., electric, diesel, etc.)		
Auxiliary power available? ("YES" or "NO")		
Operation controlled by: (i.e., level in tank, pressure, etc.)		
Pump to Waste capability? ("YES" or "NO")		
Discharges to: (i.e., distribution system, storage, etc.)		
REMARKS AND DEFECTS (use additional sheets as necessary)		
Incomplete; 09/18/00; AN		

WELL DATA SHEET (Page 3 of 2)

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

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NOTES

1. Neighborhood/Surrounding Area (list all that apply): A= Agricultural, Ru = Rural, Re = Residential, Co = Commercial, I = Industrial, Mu = Municipal, P = Pristine, O = Other

R.E.

2. Conductor Casing - Oversized casing used to stabilize bore hole during well construction. Should be removed during installation of annular seal.

SEE Reports OW

3. Annular Seal - Seal of grout in the space between the well casing and the wall of the drilled hole. Sometimes called "sanitary seal".

WELL 6

DWR USE ONLY - DO NOT FILL IN

STATE WELL NO./STATION NO.

LATITUDE LONGITUDE

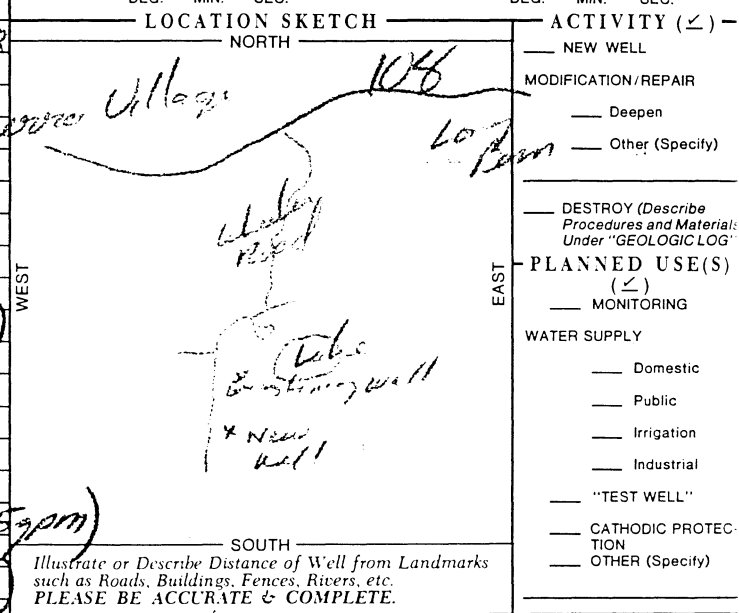
APN/TRS/OTHER

Page of
 Owner's Well No. # 6 No. 475465
 Date Work Began 10/30/96 Ended 11/7/96
 Local Permit Agency Walco Health Dept
 Permit No. 96D-44 Permit Date 10/21/96

DEPTH FROM SURFACE		DESCRIPTION <i>Describe material, grain size, color, etc.</i>
Ft.	to Ft.	
0	2	Black Top Soil
2	7	Brown soil + clay
7	47	Black clay silt (fracture)
47	54	Brown Dk - silt 10 gpm - aged off
54	65	Weathered Granite
65	109	Gray + Green Mtl Fractured @ 48, 94-98, 100-102 104-105, 106-108
109	129	Gray Granite (Fractured) Fractured 120, 127-129
129	151	Harder Gray Granite Hard @ 135 Fractured 140-141
151	152	Gray Granite
152	251	LT Gray Granite Fract 185-187 (224 → 2 gpm)
251	256	Green Granite Fract @ 251 = 15 gpm
256	280	Gray granite
280	293	LT dark granite
293	315	LT + Dk gray granite
315	347	Gray Granite (water @ 35-75 gpm)
347	349	Multi-color green granite Water 30 gpm
349	354	Dk gray granite
354	360	LT green granite
360	403	Water @ 358-100 gpm Dk gray granite
TOTAL DEPTH OF BORING		403 (Feet)
TOTAL DEPTH OF COMPLETED WELL		403 (Feet)

WELL OWNER
Name Odd Fellows Park
 Mailing Address PO. Box 146
Long Barn, Calif. 95335
 CITY STATE ZIP

WELL LOCATION
Address Wheeler Road
 City Long Barn
 County Tulare
 APN Book 31 Page 010 Parcel 02
 Township Range Section
 Latitude NORTH Longitude WEST



DRILLING METHOD Rotary FLUID Air
 WATER LEVEL & YIELD OF COMPLETED WELL
 DEPTH OF STATIC WATER LEVEL 49 (Ft.) & DATE MEASURED 11/7/96
 ESTIMATED YIELD 100± (GPM) & TEST TYPE art lift
 TEST LENGTH 2 (Hrs.) TOTAL DRAWDOWN _____ (Ft.)
 * May not be representative of a well's long-term yield.

DEPTH FROM SURFACE	BORE-HOLE DIA. (Inches)	CASING(S)							
		TYPE ()				MATERIAL / GRADE	INTERNAL DIAMETER (Inches)	GAUGE OR WALL THICKNESS	SLOT SIZE IF ANY (Inches)
		BLANK	SCREEN	CON. DUCTOR	FILL PIPE				
0	55	8"	Y			steel	12 1/2	.156	(driven casing)
0	60	12"	Y			steel	8 1/4	.156	
60	78	10"	Y			steel	8 1/4	.156	

DEPTH FROM SURFACE	ANNULAR MATERIAL			
	TYPE			
	CE-MENT ()	BEN-TONITE ()	FILL ()	FILTER PACK (TYPE / SIZE)
0	50	Y		
50	78			(Driven casing)

ATTACHMENTS ()

Geologic Log
 Well Construction Diagram
 Geophysical Log(s)
 Soil/Water Chemical Analyses
 Other _____

ATTACH ADDITIONAL INFORMATION, IF IT EXISTS.

CERTIFICATION STATEMENT

I, the undersigned, certify that this report is complete and accurate to the best of my knowledge and belief.

NAME Tanko Bros Inc.
 (PERSON, FIRM, OR CORPORATION) (TYPED OR PRINTED)
 ADDRESS 21047 Shaws Flat rd Sonoma Ca CITY STATE ZIP 95370
 Signed Genius Tanko DATE SIGNED 11/9/96 C-57 LICENSE NUMBER 395333
 WELL DRILLER/AUTHORIZED REPRESENTATIVE

PHUGUOT 118

WELL # 6

NEBS Inc., Green, MA 01471 To Order PHONE TOLL FREE 1-800-229-6380

Proposal

Page No. of Pages

Well Depth: 400
GPM: 40-60
Pump Set: 378

SONORA PUMPS
21245-A Longeway Road
SONORA, CALIFORNIA 95370
(209) 533-3003

Attn: Dale

586-4625 RANDY

PROPOSAL SUBMITTED TO Odd Fellows		PHONE 586-3098 DALE	DATE 10-11-97
STREET P.O. Box 116		JOB NAME	
CITY, STATE and ZIP CODE Long Barn, Ca. 95335		JOB LOCATION	
ARCHITECT	DATE OF PLANS	JOB PHONE	

We hereby submit specifications and estimates for:

1 ea.	Pump: Aermotor- 66A60-18 15 HP 230 V 1 PH		
378 ft.	Pipe: 2" Galv.		
405 ft.	Wire: #4/4 W/Gr.		
1 ea.	Well Seal: 8 5/8 X 2"		
3 ea.	Torque Arrestor		
1 ea.	Well Head Plumbing 2" Galv.		
3 ea.	Check Valve (in-line) #80-DI 2"		
1 ea.	Fuse Disconnect Panel W/60 Amp Fuses		
1 ea.	Heat Shrink		
1	Miscellaneous Electrical	Mat'l	\$ 5385.00
15 ft.	P&C Conduit	Tax	390.41
15 ft.	PVC Sch 40	Labor	455.00
20 ft.	Wire #4/4 W/Gr.		
Total			\$ 6230.41

PRICES SUBJECT TO CHANGE AFTER 30 DAYS.

We propose hereby to furnish material and labor — complete in accordance with above specifications, for the sum of:

Six Thousand Two Hundred Thirty and 41/100 dollars (\$ 6230.41)

Payment to be made as follows

\$ 3500.00 Deposit and \$ 2730.41 Upon Completion of Job.

All material is guaranteed to be as specified. All work to be completed in a workmanlike manner according to standard practices. Any alteration or deviation from above specifications involving extra costs will be executed only upon written orders, and will become an extra charge over and above the estimate. All agreements contingent upon strikes, accidents or delays beyond our control. Owner to carry fire, tornado and other necessary insurance. Our workers are fully covered by Workman's Compensation Insurance.

Authorized Signature

Note: This proposal may be withdrawn by us if not accepted within _____ days.

Acceptance of Proposal — The above prices, specifications and conditions are satisfactory and are hereby accepted. You are authorized to do the work as specified. Payment will be made as outlined above.

Signature _____

Date of Acceptance _____

Signature _____

Delineation of Water Protection Zones

District Name DHS Merced District District No. 11 County Tuolumne
 System Name ODD FELLOWS SIERRA REC ASSOC System No. 5510016
 Source Name WELL 06 Source No. 007 PS Code 5510016-007

Completed by Kassy Smith Date March, 2003

Method Used to Delineate Protection Zones

X 1. Calculated Fixed Radius

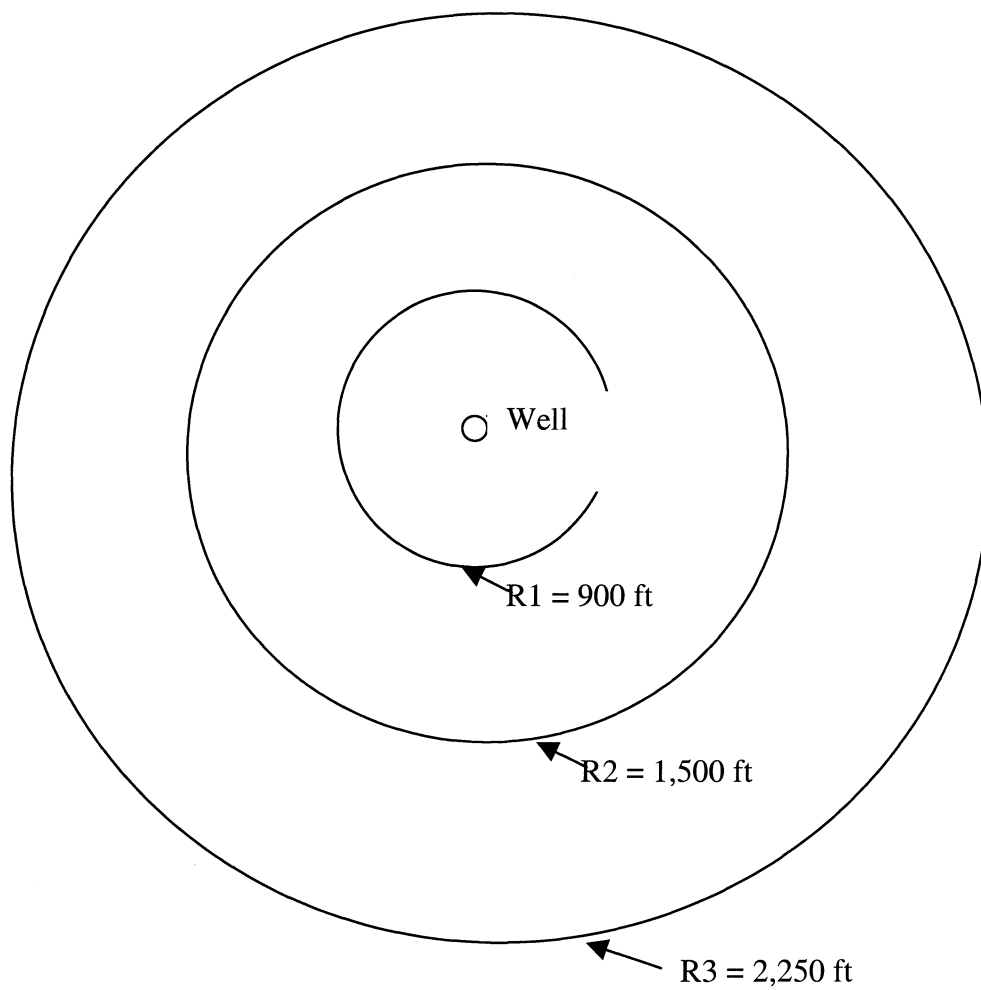
- 2. Modified Calculated Fixed Radius (Attach documentation for direction of ground water flow.)
- 3. More Detailed Methods
- 4. Arbitrary Fixed Radius (For use only by or permission of DHS)

Fractured Rock Aquifer

Maximum Pumping Rate of Well (Q)	<u>15</u>	gallons/minute
	<u>24</u>	acre feet/year
	<u>1,054,005</u>	cubic feet/year
Effective Porosity	<u>0.20</u>	<input checked="" type="checkbox"/> Default Value
Screened Interval of Well	<u>10.0</u>	feet <input checked="" type="checkbox"/> Default Value

Protection Zone	Calculated Value	Minimum Value	Radius of Protection Zone
Zone A - 2 Year TOT*	869 Feet	900 Feet	900 Feet
Zone B5 - 5 Year TOT*	1,374 Feet	1,500 Feet	1,500 Feet
Zone B10 - 10 Year TOT*	1,943 Feet	2,250 Feet	2,250 Feet

*TOT = Time of Travel



Source Water Assessment

Well

Odd Fellows Sierra Recreation Association

System No. 5510016

Drinking Water Source Assessment and Protection (DWSAP) Program

Inventory of Possible Contaminating Activities (PCA Inventory)

District Name DHS Merced District District No. 11 County Tuolumne
 System Name ODD FELLOWS SIERRA REC ASSOC System No. 5510016
 Source Name WELL 06 Source No. 007 PS Code 5510016-007

Completed by Kassy Smith Date March, 2003

PCA (Risk Ranking)	PCA in Zone A	PCA in Zone B5	PCA in Zone B10	*	Comments
Commercial/Industrial Activities				N	
Automobile- Body shops (H)				N	
Automobile- Car washes (M)				N	
Automobile- Gas stations (VH)				N	
Automobile- Repair shops (H)				N	
Boat services/repair/ refinishing (H)				N	
Chemical/petroleum pipelines (H)				N	
Chemical/petroleum processing/storage (VH)				N	
Dry cleaners (VH)				N	
Electrical/electronic manufacturing (H)				N	
Fleet/truck/bus terminals (H)				N	
Furniture repair/ manufacturing (H)				N	
Home manufacturing (H)				N	
Junk/scrap/salvage yards (H)				N	
Machine shops (H)				N	
Metal plating/ finishing/fabricating (VH)				N	
Photo processing/printing (H)				N	
Plastics/synthetics producers (VH)				N	
Research laboratories (H)				N	
Wood preserving/treating (H)				N	
Wood/pulp/paper processing and mills (H)				N	
Lumber processing and manufacturing (H)				N	
Sewer collection systems (H in Zone A, otherwise L)				N	
Parking lots/malls (>50 spaces) (M)				N	
Cement/concrete plants (M)				N	
Food processing (M)				N	
Funeral services/graveyards (M)				N	
Hardware/lumber/parts stores (M)				N	
Appliance/Electronic Repair (L)				N	
Office buildings/complexes (L)				N	
Rental Yards (L)				N	
RV/mini storage (L)				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 ODD FELLOWS SIERRA REC ASSOC System No. 5510016
 Source Name WELL 06 Source No. 007 PS Code 5510016-007

PCA (Risk Ranking)	PCA in Zone A	PCA in Zone B5	PCA in Zone B10	*	Comments
Residential/Municipal Activities					
Airports - Maintenance/ fueling areas (VH)					N/A
Landfills/dumps (VH)					N/A
Railroad yards/ maintenance/ fueling areas (H)					N/A
Septic systems - high density (>1/acre) (VH in Zone A, otherwise M)	125+				
Sewer collection systems (H in Zone A, otherwise L)					N/A
Utility stations - maintenance areas (H)		✓		Y	
Wastewater treatment plants (VH in Zone A, otherwise H)					N/A
Drinking water treatment plants (M)					N/A
Golf courses (M)					N/A
Housing - high density (>1 house/0.5 acres) (M)	✓			Y	
Motor pools (M)					N/A
Parks (M)	✓			Y	
Waste transfer/recycling stations (M)					N/A
Apartments and condominiums (L)					N/A
Campgrounds/ <u>Recreational areas (L)</u>	✓			Y	BERCH/ LAKE
Fire stations (L)					N/A
RV Parks (L)					N/A
Schools (L)					N/A
Hotels, Motels (L)					N/A
Agricultural/Rural Activities					
Grazing (> 5 large animals or equivalent per acre) (H in Zone A, otherwise M)					N/A
Concentrated Animal Feeding Operations (CAFOs) as defined in federal regulation1 (VH in Zone A, otherwise H)					N/A
Animal Feeding Operations as defined in federal regulation2 (VH in Zone A, otherwise H)					N/A
Other Animal operations (H in Zone A, otherwise M)					N/A
Farm chemical distributor/ application service (H)					N/A
Farm machinery repair (H)					N/A
Septic systems - low density (<1/acre) (H in Zone A, otherwise L)					N/A
Lagoons / liquid wastes (H)	✓			N	LAKE/ SWIM AREA
Machine shops (H)					N/A

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Inventory of Possible Contaminating Activities (PCA Inventory)

System Name ODD FELLOWS SIERRA REC ASSOC System No. 5510016
 Source Name WELL 06 Source No. 007 PS Code 5510016-007

PCA (Risk Ranking)	PCA in Zone A	PCA in Zone B5	PCA in Zone B10	*	Comments
Agricultural/Rural Activities					
Pesticide/fertilizer/ petroleum storage & transfer areas (H)				N	
Agricultural Drainage (H in Zone A, otherwise M)				N	
Wells - Agricultural/ Irrigation (H)				N	
Managed Forests (M)				N	
Crops, irrigated (Berries, hops, mint, orchards, sod, greenhouses, vineyards, nurseries, vegetable) (M)				N	
Fertilizer, Pesticide/ Herbicide Application (M)				N	
Sewage sludge/biosolids application (M)				N	
Crops, nonirrigated (e.g., Christmas trees, grains, grass seeds, hay, pasture) (includes drip-irrigated crops) (L)				N	
Other Activities					
NPDES/WDR permitted discharges (H)				N	
Underground Injection of Commercial/Industrial Discharges (VH)				N	
Historic gas stations (VH)				N	
Historic waste dumps/ landfills (VH)				N	
Illegal activities/ unauthorized dumping (H)				N	
Injection wells/ dry wells/ sumps (VH)				N	
Known Contaminant Plumes (VH)				N	
Military installations (VH)				N	
Mining operations - Historic (VH)				N	
Mining operations - Active (VH)				N	
Mining - Sand/Gravel (H)				N	
Wells - Oil, Gas, Geothermal (H)				N	
Salt Water Intrusion (H)				N	
Recreational area - surface water source (H)	✓			Y	Swim/LAKE AREA
Underground storage tanks - Confirmed leaking tanks (VH)				N	
Underground storage tanks - Decommissioned - inactive tanks (L)				N	
Underground storage tanks - Non-regulated tanks (tanks smaller than regulatory limit) (H)				N	
Underground storage tanks - Not yet upgraded or registered tanks (H)				N	
Underground storage tanks - Upgraded and/or registered				N	

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Inventory of Possible Contaminating Activities (PCA Inventory)

System Name ODD FELLOWS SIERRA REC ASSOC System No. 5510016
 Source Name WELL 06 Source No. 007 PS Code 5510016-007

PCA (Risk Ranking)	PCA in Zone A	PCA in Zone B5	PCA in Zone B10	*	Comments
Other Activities					
- active tanks (L)				Y	
Above ground storage tanks (M)		✓		Y	CONVALENT TANK
Wells - Water supply (M)				Y	
Construction/demolition staging areas (M)				Z	
Contractor or government agency equipment storage yards (M)				Z	
Dredging (M)				Z	
Transportation corridors - Freeways/state highways (M)				Z	
Transportation corridors - Railroads (M)				Z	
Transportation corridors - Historic railroad right-of-ways (M)				Z	
Transportation corridors - Road Right-of-ways (herbicide use areas) (M)				Z	
Transportation corridors - Roads/ Streets (L)				Z	
Hospitals (M)				Z	
Storm Drain Discharge Points (M)				Y	DRAINS TO SUGAR PINE CREEK
Storm Water Detention Facilities (M)				Z	
Artificial Recharge Projects - Injection wells (potable water) (L)				Z	
Artificial Recharge Projects - Injection wells (non-potable water) (M)				Z	
Artificial Recharge Projects - Spreading Basins (potable water) (L)				Z	
Artificial Recharge Projects - Spreading Basins (non-potable water) (M)				Z	
Medical/dental offices/clinics (L)				Z	
Veterinary offices/clinics (L)				Z	
Surface water - streams/ lakes/rivers (L)	✓			Y	SUGAR PINE CREEK / SEASONAL
Wells - monitoring, test holes (L)				Z	

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