

County of Santa Cruz

HEALTH SERVICES AGENCY

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ENVIRONMENTAL HEALTH

January 17,2001

AGENDA: January 29,2002

BOARD OF SUPERVISORS County of Santa Cruz 701 Ocean Street Santa Cruz, CA 95060

Subject: Status Report on Reduction of Groundwater Contamination

Members of the Board:

On April 24, 2001, your Board directed the Planning Department to work with the Hazardous Materials Advisory Commission and the Water Advisory Commission to address issues related to evaluation and clean-up of contaminated groundwater (specificallyMTBE releases) and aquifer and wellhead protection programs, with a report back scheduled for August 21, 2001. The report was subsequently deferred to October 23,2001, at which time a status report was provided. Staff from Environmental Health Services and the Planning Department have completed the attached draft report and have discussed it with both commissions, as well as the Interagency Water Resources Working Group. It is recommended that your Board accept the report and direct staff to include various elements in the work programs for Planning and Environmental Health.

Summary of Current Conditions

Soil and/or groundwater contamination, by a variety of hazardous chemicals, occurs at 560 locations throughout Santa Cruz County. Most of the contamination is localized and has originated from leaking underground storage tanks, improper discharges to septic systems, or other spills and leaks. The State's Central Coast Regional Water Quality Control Board (Regional Board), who currently has primary authority and responsibility for addressing groundwater contamination, has identified 58 sites in Santa Cruz County with reported groundwater contamination by Methyl-tertiary-butyl-ether (MTBE). There have been concerns about threats to water supply sources from contaminated sites in Felton, Scotts Valley, Soquel, and Watsonville. A further concern is posed in many areas by the existence of abandoned wells which can serve as potential conduits for contaminants to migrate from shallow groundwater zones to deeper water supply aquifers.

Cleanup and remediation of contaminated sites is undertaken by the responsible property owner(s) under the direction and mandate of the County Environmental Health Service if the contamination is limited to soil contamination. If groundwater contamination has occurred, remediation is directed by the Regional Board. Some state funding assistance is available. Subsurface geologic and hydrologic conditions are typically complicated and generally require extensive evaluation and testing prior to design and implementation of remediation measures. Subsurface conditions also limit the rate at which clean-up can occur. The pace of evaluation and cleanup of the many sites in Santa Cruz County is also limited by the high number of sites relative to the available staff time to direct the cleanup efforts at both the county and state level. Cleanup efforts are underway currently in Scotts Valley, Soquel and Watsonville. While the worst sites are being well addressed, there are other sites that have not yet received sufficient attention.

A number of efforts are needed to better address issues of problem identification, remediation, and protection of water sources. Many of these are currently underway to some extent at the state and local level:

- Improved mapping of wells and potential sources of contamination.
- Tighter restrictions on locating potential sources of contamination in critical water resource areas.
- Improved identification and destruction of abandoned wells.
- Higher levels of state and local staff oversight to direct evaluation and remediation of contaminated sites.

Actions Needed to Improve Groundwater Protection

The report identifies the following actions to improve protection of groundwater resources that can be undertaken by staff in Environmental Health and Planning, with assistance and participation from other agencies. With the exceptions of recommendations 7 and 8, these actions are already underway, and/or can be easily incorporated into the work programs for Planning and Environmental Health. The last two will require further evaluation and direction from your Board.

- 1. Complete ongoing efforts to map existing wells, water sources and hazardous material facilities as part of the County's Geographic Information System (GIS).
- 2. Complete the Drinking Water Source Assessment and Protection Program and incorporate the designated water source protection zones into the County's GIS.
- 3. Review and update mapping and protection policies for groundwaterrecharge areas and wellhead protection areas as part of the General Plan update.
- 4. Work with water agencies that have groundwater management authority under AB 3030 to implement protective measures as needed for their groundwater basins.

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- 5. Actively pursue the identification and proper destruction of abandoned wells in order to eliminate pathways for contamination of deeper aquifers. A priority should be given to areas near wellhead protection zones, known cleanup sites and other hazardous material facilities. Seek grant funds to conduct this effort and provide funding assistance to property owners for proper well destruction.
- 6. Provide more property owner education to prevent the discharge of hazardous chemicals into home septic systems.
- 7. Develop overlay zoning or other measures to restrict within critical groundwater protection areas the location of new gas stations and other hazardous material facilities that have the potential to contaminate groundwater. Evaluate options to encourage phasing out of existing facilities in critical areas.
- 8. Within County Environmental Health, consider shifting soil site mitigation oversight from an adjunct function of existing staff to a more focused program under a registered professional in the field. Consider application to the Regional Board to expand county authority and responsibility to include oversight of groundwater contaminated sites. Provide additional resources for a higher level of staff oversight at the county and/or Regional board, through increased oversight fees or other sources.

The report and its recommendations have been reviewed by the Water Advisory Commission, the Hazardous Materials Commission, and the Interagency Water resources Working Group (composed primarily of managers of the major county water agencies). The groups concurred with the report and generally supported the recommendations. In supporting the recommendation for a higher level of staff oversight at either the Regional Board level or county level, they expressed concern that the county not take on a higher level of responsibility without adequate resources to do the job. Staff have already had preliminary discussions with representatives of Soquel Creek Water District and Scotts Valley Water District about coordinated efforts to work toward identification and proper destruction of abandoned wells.

Recommendation

It is, therefore, RECOMMENDED that your Board:

1. Accept and file this report and direct staff to incorporate recommended actions into the work programs for Planning and Environmental Health.

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- 2. Direct Planning and Environmental Health staff to provide a report on measures for limiting potentially contaminating uses in critical water resource protection areas and return with a recommendation to the Board by June 11, 2002.
- 3. Direct Environmental Health staff to evaluate means to increase oversight of site remediation efforts and report back to the Board by June 11,2002.

Sincerely,

Alvin D. James

Planning Director

Rama Khalsa, Ph.D.

Health Services Agency Administrator

RECOMMENDED

Susan A. Mauriello

County Administrative Officer

Attachment

cc: Planning Department
Environmental Health
County Counsel
Hazardous Materials Advisory Commission
Water Advisory Commission
Interagency Water Resources Working Group

An Overview of Efforts for Aquifer and Wellhead Protection and Cleanup of Groundwater Contamination in Santa Cruz County

On April 24,2001, the Board of Supervisors directed that a report be prepared to address issues related to evaluation and clean-up of contaminated groundwater (specifically MTBE releases) and aquifer and wellhead protection programs. This report has been prepared by staff in Environmental Health Services and the Planning Department for review by the Hazardous Materials Advisory Commission and the Water Advisory Commission prior to submittal to the Board of Supervisors. The reports presents a summary of the numerous efforts underway at the local, state and national level to identify and clean up existing contamination, prevent further contamination, and protect water supply wells and underground aquifers. Recommendations for enhancing those efforts are included.

Background - Extent of Contamination

Soil and/or groundwater contamination, by a variety of hazardous chemicals, occurs at 560 locations throughout Santa Cruz County (**Attachment A**). Most of the contamination is localized and has originated from leaking underground storage tanks, improper discharges to septic systems, or other spills and leaks. The Central Coast - Regional Water Quality Control Board, who currently has primary authority and responsibility for protecting our water resources, has identified 58 sites in Santa Cruz County with reported groundwater contamination by Methyl-tertiary-butyl-ether (MTBE) (**Attachment B**).

Although most of the above sites experience contamination in the immediate vicinity of the source, more widespread contamination has been discovered in the county. Serious contamination has occurred in the Scotts Valley area, where four public wells have detections of MTBE from leaking underground fuel tanks or trichloroethene (TCE) and chlorobenzene from unknown industrial sources. Three of the wells meet drinking water standards, but one of the wells (serving Manana Woods) requires treatment to reduce MTBE to safe levels. Although cleanup is now underway, the contamination has significantly degraded the underground water supply, constraining current options for increasing groundwater storage and improved management of the aquifer. Contaminants in groundwater have also entered surface water in Felton (PCE from a past dry cleaner) and in Soquel (MTBE from an operating gas station), although the contamination does not currently extend significant distances downstream. Past contamination of Bean Creek in Scotts Valley has been controlled through site remediation at the old Watkins-Johnson site.

There are presently no other known instances of contamination of public water supply sources although other wells are certainly vulnerable to potentially expanding plumes of contamination. All public wells are periodically tested for contaminants. In addition to the estimated 300 public water supply wells in the County that serve 5 or more connections, there are some 8000 private wells. Most of the private wells are located in rural areas of the county, with less potential for contamination. There is no mandated testing program for private wells, except those in the vicinity of identified contamination sites. A recent survey of private wells near a contaminated site in the Hecker Pass area identified 43 private wells within one half mile of the site. One of these was found to have low levels of

contamination. Older private wells in urbanized areas may also present opportunities for the leakage of contamination from shallow perched groundwater zones to the deeper aquifers that are typically tapped by municipal wells.

The occurrence of private wells on properties that are also served by municipal supplies also presents the possibility for contamination of the municipal supply if there is a cross-connection between the well and the public water system. Public water purveyors are mandated to have a cross-connection control program with appropriate safeguards on individual connections that have a potential for cross-connection.

Clean-up of Existinp Contamination

The Legislature established the State Water Resources Control Board (SWRCB) and nine Regional Water Quality Control Boards (RWQCB) under the California Environmental Protection Agency (CalEPA) umbrella to administer the adjudicatory and regulatory functions of water resources. Santa Cruz County resides within the auspice of the Central Coast - Regional Water Quality Control Board, located in San Luis Obispo. Santa Cruz County Environmental Health Services (SCCEHS) is defined as a Local Implementing Agency (LIA) which retains local authority to oversee the cleanup of sites with soil contamination, while our RWQCB retains lead authority when the contamination impacts water.

Sites which have contaminated groundwater take much longer to clean up due to the more complicated nature of the problems and the extent of data that must be collected prior to determining and designing the best remedial alternative. The physical characteristics of underlying geology and groundwater also limit the pace at which the contamination can be remediated. These projects are more difficult and exponentially more expensive than cases involving only soil contamination. The work on these sites is completed in phases , with each phase providing additional definition of the problem. State funding is available to assist in the evaluation and cleanup of contaminated sites according to a relatively complicated formula and is allocated to correspond with these phases.

As a result of MTBE impacts on drinking water wells in Santa Monica and South Lake Tahoe, the SWRCB has been coordinating with the Regional Boards to set priorities and drive the rate at which sites with contaminated groundwater are remediated. These priorities are established after evaluating the type of contaminate, the proximity to public drinking water sources, and the contaminate's potential for impacting the drinking water source. Environmental Health staff request, receive, and review copies of all workplans and reports for groundwater cases in an effort to stay abreast of the work and progress of sites under the Regional Board's lead. Environmental Health staff have also provided comments to the Regional Board and/or Responsible Party(ies) when appropriate, necessary, or in the best interest of the overall cleanup effort.

As a regular part of these assessment and cleanup efforts, the Regional Boards are requiring identification and testing of all public and private water supply wells located within a one-half mile radius of high priority contaminated sites. The information gathered is then loaded into the State's "Geotracker" program, a Geographic Information System (GIS). While the State is working to improve mapping of all large municipal supply wells in relation to contaminated sites, Environmental Health

staff is also working to better identify and map all individual wells and surface water sources. This requires an on the ground survey to identify all private wells. Current mapping of existing wells is not complete for most parts of the County. Environmental Health files contain records for only about one third to one half of the existing wells. The locations of existing or closed hazardous material facilities and contaminated sites will also be mapped on a countywide basis.

The pace of evaluation and cleanup of contaminated sites is currently limited by the heavy workloads of Regional Board and County staff. SCCEHS could potentially increase its oversight of cleanup activity by moving these activities from an adjunct to what is expected of the Hazardous Materials Inspection Staff, to a separate function performed by a registered professional in the field (Registered Geologist, Engineering Geologist, or Professional Engineer). SCCEHS could change the driving force, fi-om responsible party driven (primarily during property ownership transfers), to a combination of demand and regulatory driven program. SCCEHS could increase the level of oversight by applying to the RWQCB to become a Local Oversight Program (LOP) and under contract, take the lead in groundwater cases in addition to the existing soil only cases. Each of these alternatives would require additional resources to achieve and increase local control and responsibility. A local program could provide a more focused approach to local contaminated site issues and wellhead/drinking water protection. An alternative would be to lobby for increased funding and staffing at the Regional Board level.

Prevention of Future Contamination

All facilities which handle, store, or generate hazardous materials are subject to significant regulatory oversight under State laws and County ordinance (County Code Chapter 7.100). Facilities submit a hazardous materials management plan and implement practices to prevent, contain, and detect any leaks or spills. Environmental Health staff have jurisdiction over all facilities in the cities and unincorporated areas and regularly inspect facilities to ensure compliance. Despite recent State mandated upgrades of underground storage tank systems, what appear to be new discharges of MTBE continue to occur from many facilities throughout the state. Studies are currently underway to determine the source(s) of these discharges prior to a further tightening of the requirements.

Auuifer and Wellhead Protection

Various programs for aquifer and wellhead protection are already in place or under development at the local, state and national level. Wellhead protection programs seek to protect the quality of drinking water by preventing the introduction of contaminants into the part of a groundwater basin tapped by a producing water supply well. Aquifer protection seeks to protect the overall water quality of the larger groundwater basin on a long term basis by ensuring that contaminants do not enter and accumulate in the groundwater basin at harmful concentrations. Wellhead and aquifer protection programs target all potential contaminants: nutrients, salts and pathogens, as well as hazardous chemicals.

Designation of Protection Areas

The first step for groundwater protection is to appropriately identify the areas where contaminants can readily move into the aquifer and into a producing well. This involves identifying broad primary groundwater recharge areas and more localized wellhead protection zones, which together have been

labeled as "groundwater protection areas" for the purposes of this report.

Santa Cruz County first established protective policies and mapped primary groundwater recharge areas as part of the 1980 General Plan. Recharge areas were designated based on the presence of more permeable soils overlying mapped surface outcrops of geologic units that are recognized as important for groundwater supply. These areas are important for replenishment of the aquifers by rainfall and streamflow recharge. These are also areas where contaminants can move more rapidly into the aquifer. Although the policies and designations for groundwater recharge areas have changed little since 1980, knowledge of groundwater conditions, reliance on groundwater, and potential threats to the resource have all increased dramatically. The County's Water Resources Program has already embarked on a program to update the designations and policies, which will both be incorporated into the next General Plan update (beginning in 2002).

Federal and state regulations have mandated the designation and assessment of more localized wellhead protection areas through the Drinking Water Source Assessment and Protection program (DWSAP), which must be completed by the end of 2002. The assessment includes locating the drinking water sources with Global Positioning System (GPS) technology, defining protection zones around sources, inventorying Possible Contaminating Activities (PCAs) within the zones, and ranking the PCAs to determine which are most threatening to the water source. The protection zones are defined as those areas from which the time of travel of a contaminant to the pumping well would be less than 10 years. Capture zones are designated for times of capture of 2, 5, and 10 years. Designation of the extent of the zones is based on modeling or calculations using the characteristics of underlying geology, the direction and rate of groundwater movement, the characteristics of the well, and rate of groundwater pumping.

Environmental Health is nearing completion of the Drinking Water Source Assessment and Protection program for each of the 123 sources used by Community Water Systems (15 to 199 connections) and Non-Community Water Systems (schools, camps). The program is conducted under contract with the State Department of Health Services (DHS). Water sources serving Large Community Water Systems (more than 199 connections) are being assessed by the individual water agencies, under the review of DHS. Systems with less than 15 connections, and individual wells are not being assessed as part of this program. An example of the protection zones for two Scotts Valley Water District wells is attached (Attachment C).

Regulation of Uses in Groundwater Protection Areas

Once critical aquifer recharge areas and wellhead protection zones have been identified, the next step is to restrict or regulate land use activities which have a high potential to contribute contaminants to the aquifer or the specific well. This can range fi-om a simple prohibition of septic systems within 100 feet of a well, to a prohibition of specific land uses through zoning. A listing of potential wellhead protection tools from the USEPA's guide to Wellhead Protection is also attached (**Attachment D**).

Santa Cruz County currently has policies in the General Plan to limit development density and generally restrict land uses which could contaminate groundwater within groundwater recharge areas. However, there are no specific restrictions on siting of gas stations, hazardous materials facilities, or any other specific uses within either the zoning ordinance or the hazardous materials management ordinance. This issue should be addressed and the ordinance(s) revised to provide appropriate restrictions.

Santa Cruz County, the incorporated cities, and water agencies should implement the following efforts to improve aquifer and wellhead protection within the county. Many of these can be incorporated into agency work plans using existing staff and resources. Others would need to be considered in the context of the additional cost, as indicated by approximate estimates. These measures are ordered from: ongoing work efforts, to planned work effort, to recommended work efforts.

1. Complete mapping of existing information on wells, water sources and hazardous material facilities as part of the County's Geographic Information System (GIS). Review the mapped information to assist the Regional Board in prioritizing cleanup sites with the greatest potential to impact water supply wells. Provide for updating maps as additional information becomes available.

Responsibility: SCCEHS (Environmental Health), DHS (State Department of Health Services),

SCCPD (Santa Cruz County Planning Department), Water Agencies

Timing: March, 2002, with ongoing enhancements

Cost: Ongoing work effort, plus \$10,000/year for 5 years for additional field assessment of wells.

2. Work with the State Department of Health Services, Environmental Health Services, and the larger water purveyors to complete the Drinking Water Source Assessment and Protection Program and incorporate the designated water source protection zones into the County's GIS.

Responsibility: SCCEHS, DHS, SCCPD, Water Agencies

<u>Timing</u>: December, 2002 <u>Cost</u>: Ongoing work effort

3. Review and update mapping and protection policies for groundwater recharge areas and wellhead protection areas as part of the General Plan update.

Responsibility: SCCPD, SCCEHS

<u>Timing</u>: December, 2002 Cost: Planned work effort

4. Work with water agencies that have groundwater management authority under AB 3030 to implement protective measures as needed for their groundwater basins.

Responsibility: SCCPD, Water Agencies

Timing: December, 2002

Cost: Recommended work effort.

5. Actively pursue the identification and proper destruction of abandoned wells in order to eliminate pathways for contamination of deeper aquifers. A priority should be given to areas near wellhead protection zones, known cleanup sites and other hazardous material facilities. Seek grant funds to conduct this effort and provide funding assistance to property owners for proper well destruction. Responsibility: SCCEHS, Water Agencies, Cities, USEPA, State Water Board or DWR

Timing: June, 2002

Cost: Recommended work effort at \$20,000-100,000/year for 5 years if grants available.

6. Provide more property owner education to prevent the discharge of hazardous chemicals into home septic systems.

Responsibility: SCCEHS, Water Agencies

Timing: June, 2002

Cost: Recommended work effort.

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7. Develop overlay zoning or other measures to restrict within critical groundwater protection areas the location of new gas stations and other hazardous material facilities that have the potential to contaminate groundwater. Evaluate options to encourage phasing out of existing facilities in critical areas.

Responsibility: SCCPD, SCCEHS, County Counsel, Cities

Timing: September, 2002

Cost: Recommended work effort.

8. Within County Environmental Health, consider shifting soil site mitigation oversight from an adjunct function of existing staff to a more focused program under a registered professional in the field. Change the focus of the program from demand services to combination demand and regulatory driven program. Consider application to RWQCB to change status from Local Implementing Agency (LIA) to Local Oversight Program (LOP) thus expanding authority and responsibility to include oversight of groundwater contaminated sites. Provide adequate resources for a higher level of staff oversight at the county and/or RWQCB.

Responsibility: SCCEHS, RWQCB

Timing: June, 2002

<u>Cost:</u> At Board direction, initiate feasibility study and cost estimates with a report back prior to FY 2002/2003 Budget Hearings.

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Santa Cruz County Site Mitigation List - December 26, 2001

Street Address	City	Site Name	Dist	Lead Agency	RWQCB Closure	Local Closure	Substance
610 2nd Street	SC	Hackbarth Construction	3	L			Waste Oil
130 W. 5th St.	SC	Richard Halward	3	L			Drug Lab
565 6th Ave.	SC	Marine Engine	3	L			Oil/Grease
615 7th Ave.	SC	PG & E	3	R	6-12-89	*	Oil/Grease
2200 7th Avenue	SC	Santa Cruz SPCA	3	R			Gasoline
979 17th Ave.	SC	Live Oak Comm.Swim Center	3	L		10-10-95	HC
1005 17th Ave.	SC	Ledyard's	3	R			Gasoline
1037 (1045) 17th Ave.	SC	El Dorado Meat	3	R			Gasoline/MtBE
1200 17th Ave.	SC	Santa Cruz Liquor & Food	3	R			Gasoline
1255-1305 17th Ave.	SC	California Tube Lab	3	R	9-4-01	10-16-01	Solvents
1890 17th Ave.	SC	Bozo Gera	3	L		8-19-92	Oil
2035 17th Ave.	SC	Mark Elward	3	L		6-09-90	Solvent
2450 17th Ave.	SC	West Marine Center	3	L		2-16-95	НС
131 30th Ave.	SC	Elmer Isaac	3	L		*	Chemical
40th & Clares St.	CAP	Fresno Poultry	3	L		*	Diesel
1115-41st Ave.	CAP	Watts' Masonry	3	L		7-30-91	Gasoline
1601 41st Ave.	CAP	King's Plaza Shopping Center	3	L			PCE
1649 41st Ave.	CAP	Shell Station	3	R	9-27-95		Gasoline

Street Address	City	Site Name	Dist	Lead Agency	RWQCB Closure	Local Closure	Substance
1971 41st Ave.	CAP	Brown Bulb Ranch	3	Г		1-13-88	Diesel
2178 41st Ave.	CAP	Mobile Oil Sta./BP Oil Fac.	3	R			HC/MtBE
2195 (2255) 41st Ave	CAP	41st Avenue Station #4902	3	R			Gasoline/MtBE
2435 41st Ave.	SC	San Lorenzo Lumber Co.	3	T		11-5-91	Gasoline
2660 41st Ave.	SOQ	Master Cleaners	3	R	12-11-00	9-29-00	PCE
2700 41st Ave.	SOQ	USA Petroleum	3	R	7-30-01		Gasoline
90 Airport Blvd.	WAT	Freedom Auto Center	4	L	:	*	НС
455 Airport Blvd.	WAT	Southland CorpUnocal	5	R			Gasoline/MtBE
581 Airport Blvd.	WAT	Charles Shikuma Farm	5	R			Gasoline
595 Airport Blvd.	WAT	Maggiora Bros. Drilling, Inc.	5	R			Gasoline
852 Airport Blvd.	WAT	Don Gilbertson	5	L		6-28-96	Gas/D/Oil/ Metal
11455 Alba Rd.	BL	Sequoia Seminar	. 1	Г		12-18-95	Drug Lab
815 Almar Ave.	sc	Radiac Abrasives	2	L			Metals
318 Amat (303 Potrero St)	SC	LeMar Co. (Unocal)	2	R			Gasoline
1003 Amesti Rd.	WAT	Harvest Moon Market	4	R			Gasoline
1054 Amesti Rd.	WAT	Valley View Market	4	R	06-12-87	*	НС
490 Auto Center Drive	WAT	Century Chevrolet	5	R			Gas/WO
555 Auto Center Drive	WAT	Marty Franich CPDJE, Inc.	5	R			Gasoline
100 Aviation Way	WAT	Watsonville Airport	5	R			Gas/Pest.

Street Address	City	Site Name	D	Lead	RWQCB Closure	Local Closur	Substance
120 Avia W	WAT	United Hight S Exxon #7159)		R			Motor Oil
25 Bafp Drive	WAT	Duane Allen Residence	4	Т			Gasoline
434 Barson St.	SC	Hal Masini	2	R			Gasoline
Behind 522 Barson St.	SC	Unknown	2	L			WO/Paint/Thinner
600 Bay St.	CAP	Former Chevron Station	4	R			Gasoline
809 Bay Ave.	CAP	Soquel Pump Station - PW	4	R	6-1-95	9-15-98	H-Chlorite
819 Ba _b Ne.	CAP	Redtree Properties	4	R			Gasoline/MtBE
836 Bay Ave.	CAP	Exxon Station #7-3604	4	R			Gasoline/MtBE
400 Beach St.	SC	Santa Cruz Beach Boardwalk	2	Т		*	Acetone
405 W. Beach St. (1485 Hwy 1/Rampart Rd.)	WAT	Western Farm Service	5	R	,		Gasoline
525 W. Beach St.	WAT	Granite Construction	5	R	3-2-99		Gas/Diesel/Oil
580 W. Beach St.	WAT	Granite Const. Service Ctr.	5	R	4-16-99		Diesel
735 W. Beach St.	WAT	Green Giant Facility	5	R			Gasoline
880 W. Beach St.	WAT	Phillips Driscopipe	5	R			Gasoline
890 W. Beach St.	WAT	Travers Cold Storage	5	R			НС
950 W. Beach St. (SS Office)	WAT	Venture Oil (Ahlport Petro.)	5	R			Gas/Diesel
1000 W. Beach St.	WAT	Apple Growers	5	R	3-4-94		Waste Oil
1080 W. Beach St.	WAT	West Coast Circuits	5	L			Metal
1340 W. Beach St.	WAT	Little Lake Industries	5	R	2-9-97		Solvent

Street Address	City	Site Name	Dist	Lead Agency	RWQCB Closure	Local Closure	Substance
1720 W. Beach S	WAT	Del Mar Foods	5	Г			Ammoni
8 Bean Creek Rd.	SV	Scotts Valley Middl	1	R			Gasoline
21811 Bear Creek Rd.	BC	Willis Ford Truck	1	Г			Drug Lab
21868 Bear Creek Rd.	BC	Angelica Mendez	1	L			Drug Lab
425 Bear Valley Rd.	APT	Magic Farms Facility	4	L		8-24 p y5	Diesel
484 Beck St.	WAT	Rural Garbage/Moresco	4	R			Gasoline/Diesel
11901 Bidawee Way	FEL	Barker	1	Г		*	Propane
13211 Big Basin Way	BC	Boulder Creek Texaco	1	Г			Gasoline/Diesel
13250 Big Basin Way	BC	Olympic Oil Company	П	R			Gas/Diesel/MtBE
13265 Big Basin Way)a	Michael & Janice Schafir Mountain Mechanics	1	R			Gasoline
16901 Big Basin Hwy.	BC	Boulder Creek Golf	1	Г		12-19-89	Benzene
18600 Big Basin Way	BC	Illegal Disposal	-	r			HazWaste
21401 Big Basin Hwy.	ВС	Camp Hammer	1	L		12-06-94	Gasoline
205 Blackburn St.	₽ AT	PVUSD	4	R			Gasoline/MtBE
Bloom Grade Rd	u a	Vehicle Dump Sites	Н	L		0	Diesel, Solvent
4415 Bonny Doon Rd.	SC	Cameron / Zingale	-	R	· · · · · · · · · · · · · · · · · · ·		НС
6617 Bonny Doon Rd.	SC	Bonny Doon Vineyard	-	L			Gasoline
966 Bostwick Lane	ЭC	Green Des School	3	L		2-21-97	НС
30 Bradford Rd.	WAT	Sakimoto Nursery	5	J			Gasoline

Street Address	City	Site Name	Dist	Lead Agency	RWQCB Closure	Local Closure	Substance
650 Branciforte Dr.	SC	Bruce Prather	3	Т			Drug Lab
2711 Branciforte Dr.	SC	Branciforte Fire Prot. Dist.	3	R			Diesel
1600 Brommer St.	SC	Bruce Canepa	3	Т		*	Oil/Solvent/M
104 Bronson St.	SC	Pacific Coast Producers	3	Т		9-11-91	HC/Diesel
Brown's Valley Rd.	COR	Corralitos Area Drum Dump	4	Т		*	Acid/Waste/
1055 Brown's Valley Rd	WAT	Joe Burch	4	L			Meth Lab
Buena Vista Dr. Across From 1452 Buena Vista Dr.	WAT	Drug Lab	5	T			Drug Lab
202 Buena Vista Dr.	WAT	Brothers Country Corner	5	R			Gasoline
1231 Buena Vista Dr.	WAT	Buena Vista Landfill	5	Г		*	Pesticides
1232 Buena Vista Dr.	WAT	John & Villet Rocha	5	Γ			Diesel
1630 Buena Vista Dr.	WAT	Kevin J. McDowell Res.	5	Г		*	Gasoline
500 Cabrillo Hwy 1	DAV	Arro's ARCO	1	R	10-20-92	9-28-92	Gasoline
Near 371 Calabasas Rd.	WAT	Wilsey Bennett Co.	5	L			Diesel
California & Bay St.	aC	Neary Lagoon State Park Site	2	L			Study
110 California St.	us	City of S.C. Public Works	2	L			Lead/HC/Chlorine
321 Canham Rd.	SV	Cornell Williams		Г		1-20-95	Diesel/Oil/HC
Capitola Rd (Between 7th & 17th Ave)	CAP	Capitola Road Sewer Project	3	Г			Oil
Capitola Rd & Capitola Rd Ext	SC	Rob Hussey/Beitler Co.	3	Γ		08-18-98	Acetone
705 Capitola Rd.	SC	Shell Station	3	R			Gasoline/MtBE

Street Address	City	Site Name	Dist	Lead Agency	RWQCB Closure	Local Closure	Substance
Near 1115 Capitola Rd.	SC	Jack B. Kelly, Inc.	3	Г		*	Liquid Argon
1438 Capitola Rd.	SC	The Road Company	3	L		10-20-94	Diesel/Oil/Gasoline
1670 Capitola Rd.	SC	Live Oak Texaco	3	R			Gasoline
1701 Capitola Rd.	SC	Beacon Station #1-529	3	R	3-03-97	*	НС
2545 Capitola Rd.	SC	Capitola Gardens/Begonia Gardens (Antonelli)	3	Т		11-10-99	DDT/Pest.
3800 Capitola Rd.	CAP	Goodyear Tire & Rubber Co.	3	Т		6-15-98	O/M
3908 Capitola Rd.	CAP	King's Cleaners	3	L			Tetrachloroethene
195 Capitola Rd. Ext.	SC	CalTrans- S.C. Maint. Sta.	3	L			Diesel
Carbonero Creek	ΛS	Petroleum Delivery, Inc.	1	R		*	Gasoline
Carbonero Creek at Carbonero	SV	Scotts Valley Water District	1	L			Chlorine
Carbonero Creek at Disc Dr.	SV	Scotts Valley Fire District	1	L		*	Chemical
110 Carlton Road	WAT	Keft Ranch	4	R			Gasoline/Diesel
134 Casserly Rd.	WAT	Lopez	4	L			Pesticides
287 Casserly Rd.	WAT	Joe George Property	4	Г		*	Gasoline
908 Casserly Rd.	WAT	Suncrest Nursery	4	R	9-20-01	9-25-01	Gasoline
130 Center St.	SC	Bergstrom Motors	2	Г			Solvent
155 & 185 Center St.	SC	City of Santa Cruz	2	Γ			Diesel/Gasoline
709 Center St.	SC	Pacific Bell	2	R 	02-17-95	*	нс
2185 Chanticleer Ave./ 1840 Rodriguez St.	SC	Benias (Danco) Property	8	2		11-07-97	Gasoline

036	3
Drug Lab	Gasoline
26-0	*

	ite	ł	RWQCB Closure	Local Closure	Substance	
Stret Adess		30		5-07-91	HC	
223 Chantic a Ave.	E Central County Garbage	3			THC/Mets	
rad citate D. 1000	ar tod Seigle	3 L) 1:/L	1.
233,2402,24 Channeled	١,	4 R	12-2-99	9-25-00	Gasoline/r	
515Thappel3.	A active con	7		11-15-99	Diesel	
399 Cherry & Ave.	: oC \astrilo Kesidence			66-60-8	НС	
Ch∉nut Str∉& Union Street	C ity of SC Water Dept			5-07-90	Gasoline	
1012hestnu:	anta Cru			*	Ammonia	
125hestnu:	3C ohn Inglis Frozen room		 		Gasoline	-
155Chestnu: (2 Jenne St.)	3c Union Ice House				Metal	
208ChestnuSt.	3c T. L. Anthony Group		_ _ _		Paint / WC	
387 Clarest	CAl Mc Whorters	7 7 2	_		Diesel	
30.4 Claim 23.5	pr Rio Del Mar Pump Sta - PW	5 R			TACOLT.	Ŧ
Clif Dr.	The state of the s	3 L			Metals	Ŧ
2ω010 ≈ Cliff Dr.	SC Sarkis Khanzadian	•		*	Aspestos	
175 W. Cliff Dr.	SC)ream Inn	7		10 15 02	+	
610 Clubhouse Dr.	PT eascape Golf Course	2 F		C6-C1-71	+	-
451 Coast Rd.	;C tovetti, Rinaldi, Pacific	1	Γ			
	- 1	1-	L		Lead/Burn	
1401 Coast Rd.	SC Vilder Kanch Burn Dump	 - -			Diesel	
2101 Coast Rd.	SC tate of California	\\ \-\-\-\-\-\-\-\-\-\-\-\-\-\-\-\-\-\-		06-30-97	7 Drug Lab	
5322 Coast Rd.	3C ohn Stephenson	- - - +		*	+	
5511 Coast Rd.	SC , orenzi Ranch Property	- - -				

Street Address	City	Site Name	Dist	Lead Agency	RWQCB Closure	Local Closure	Substance
1505 Commercial Way	SC	Norm Bei	3	Г			Metals
1524 Commercial Ave.	SC	Chevron Station	3	L		11-29-95	НС
1650 Commercial Way	SC	Redtree Properties	3	R		0	Lead
1700 Commercial Way	SC	Lido Marietti	3	Г			Gasoline
1720 Commercial Way	SC	Boulder Creek Flowers	3	Г			Diesel
Cooper St. & Pacific Ave.	SC	J. Paul Co.	2	Г		12-27-95	Fuel Oil
Coral St.	SC	Santa Cruz Valle Volvo	2	L		*	НС
115 & 117 Coral St.	SC	Helen Sotero	2	Г			Benzene
303 Coral St.	SC	Granite Rock Construction	2	R	96-90-80	*	Gasoline
320 Coral St.	SC	Jim Wylie Property	2	L			Gasoline/Diesel
350 Coral St.	SC	Bogard Construction Co.	2	Г		3-11-92	Gasoline
399 Coral St.	SC	Erik's Deli Cafe	2	L		11-18-98	Gasoline
18 Crescent Dr.	WAT	Julia Hernandez/Meza	5	Г		5-05-93	Oil/Grease
130 Dalton Lane	WAT	Housing Authority	4	L		*	Gasoline/WO
179 Dalton Lane	WAT	Coastal Berry Farm Corp.	4	R	06-29-95		Gasoline
De Laveaga Park - Brookwood	SC	Charles Derby Small Range	3	L			Lead/Zinc/ Copper
Next to 2200 Delaware Ave.	SC	Lipton Co	2	L		07-28-97	Study
2200 Delaware Ave.	SC	Lipton	2	R	03-19-97	10-21-97	Diesel/Gasoline
2300 Delaware Ave.	SC	Silicon Systems	2	L		*	Chemical
213 & 313 Dias Lane	WAT	Salsipuedes Auto Wrecking	4	L		12-17-91	Gas/Oil

Street Address	City	Site Name	Dist	Lead Agency	RWQCB Closure	Local Closure	Substanc	
132 Doyle St.	SC	Architectural Window Prod.	2	R			Gasoline	_
231 Elinor St	CAP	Nancy Divine	4	Г			Solven	
El Pueblo Rd	ΛS	El Pueblo Roa um	1	R			Solven	
340 El Pueblo Rd.	SV	Tate Western	1	Г			Solvents	
1060- A Emeline Ave.	SC	Stepping Out House	3	Т			Diesel/Gasoline	
Empire Grade Rd.	SC	Paul Chapman	1	L			Waste Oil	
8647 Empire Grade Rd.	SC	Bonny Doon Airport	1	Г			Gasoline	
13575 Empire Grade Rd.	BL	Ben Lomond Cons. Camp	1	L			Pest/Gas/Solvent	
16020 Empire Grade Rd.	SC	Lockheed	1	L			Diesel	
139 Encinal St	SC	DEVCO Oil	2	R			Gasoline/MtBE	
7 Erba Lane	SV	Scotts Valley Fire District	1	Г		0	Diesel	
Errington Rd & Ford St	WAT	Watsonville Slough Study MF Farming	5	Γ			Study	
425 Errington Rd.	WAT	DUC Housing Partners, Inc.	5	L			Diesel/Gas	
460 Eureka Canyon Rd.	WAT	Alice Wheeler	4	L			Metal	
23060 Evergreen Lane	TG	B. Patrick Thompson	2	R			Fuel Oil	
Fair Ave. & Ingalls St.	SC	Tobey Trust Properties	2	L			Various	
1206 Fair Ave.	SC	E.V. Moceo Co.	2	R			Gasoline	0
1211 Fair Ave.	SC	Stoller Company	2	L		11-03-89	Diesel	365
1310 Fair Ave. (Locker A-115)	SC	Crocker's Lockers	2	L			Drug Lab	
								l

Street Address	City	Site Name	Dist	Lead Agency	RWQCB Closure	Local Closure	Substance
3211 Fairway Dr.	SOQ	Richard Zscheile	4	Т			Drug Lab
125 Fallen Leaf Rd.	SC	Chris Rudloff	1	Т			Diesel
129 Felker St	SC	Dyas Residence	2	L			W/O, Antifreeze
133 Fern St.	SC	Santa Cruz Petroleum	2	R			Gasoline
4761 Fern Flat Rd.	APT	Christine Andronico	4	Г			Drug Lab
331 Ford St.	WAT	Cascade Foods- Norcal Crosetti	5	Т			Oily Water
352 & 356 Ford St.	WAT	H & H Bottling	5	R			Gasoline
145 E. Forest St.	SC	Pacific Bell	1	Γ	NET CONTROL OF		Diesel
880 Foxglove Lane	BC	John Willott	1	Г			Diesel
154 Franklin St.	SC	Deana & Brad Kelemen	2	Г		03-16-98	Diesel
156 Franklin St.	SC	Carl Holt	2	Г		03-16-98	Diesel
610 Frederick St.	SC	Dominican Property	3	Т			Oil/D/Solvent
1114 Freedom Blvd.	WAT	J's Gas & Save	4	R			Gasoline
1428 Freedom Blvd.	WAT	UNOCAL Station #5535	4	R			Gas/Diesel/MtBE
1455 Freedom Blvd.	WAT	Regal Station #432	4	R			Gasoline/MtBE
1488 Freedom Blvd.	WAT	Former Chevron #9-7517	4	×			Gas/WO
1509 Freedom Blvd.	WAT	Freedom Reservoir	4	L			НС
1597 Freedom Blvd.	WAT	Beacon Station #400	4	×			Gasoline/MtBE
1603, 1605, 1607 Freedom	WAT	Claire Rae Espindola Trust	4	R		3-05-01	Gasoline

Street		Site		Lead	RWQCB	Local	
Address	City	Name	Dist	Agency	Closure	Closure	Substance
1830 Freedom Blvd.	WAT	Freedom Reservoir	4	L			НС
1902 Freedom Blvd.	FRE	Freedom BP	4	R			Gasoline/MtBE
2001 Freedom Blvd.	FRE	Unocal Station	4	d			Gasoline/MtBE
2111 Freedom Blvd.	WAT	Monument Lumber	4	Г		8-23-88	Gasoline
2140 Freedom Blvd.	FRE	Quik Stop Market/Helen Hunt	4	d			Gasoline/MtBE
2414 Freedom Blvd.	FRE	T. Larry Jones, Inc.	4	L			Gasoline
2433- A Freedom Blvd.	FRE	Betz Paving & Sealing	4	R	12/6/00	1-29-01	Gasoline
2482 Freedom Blvd.	FRE	H.A. Rider & Sons	4	R			Gasoline/WO
2536 Freedom Blvd.	WAT	Mann's Apples	4	Г		6-15-93	Gasoline
2783 Freedom Blvd.	FRE	A. Nagamine Nursery, Inc.	4	Г			нс
2904 Freedom Blvd.	COR	Five Mile House Market	4	R			Gasoline
6100 Freedom B	APT	Mid-Peninsula Housing	4	Г			Oil/Gas/Kerosene
35 Front St.	SC	Jeanne Meyers	2	R			Gasoline
201 Front St.	SC	Santa Cruz Seaside Co.	2	L			Metal
325 Front St. (812 Pacific Av)	SC	Putney & Perry	2	R	6-27-00		Waste Oil
601 Front St. and Soquel Ave.	SC	Santa Cruz Parking Lot #1	2	L			нс
705 Front St.	SC	Art Museum/McPherson Ctr.	2	ጸ	10-26-94		HC/Metal
740 Front St.	SC	Galleria	2	R			Oil, Diesel
17 Gaffey Rd.	WAT	Ruby Franzke	4	L			Gasoline
262 Gaffev Rd.	WAT	Robert Goulding	4	Г		5-17-93	HC

Street Address	City	Site Name	Dist	Lead Agency	RWQCB Closure	Local Closure	Substance
8205 Glen Haven Rd.	SOQ	Kennolyn Camp	3	Г		10-25-94	Gasoline/Chem
5401 Graham Hill Rd.	FEL	Roaring Camp & Big Trees	1	R			Oil
5700 Graham Hill Rd.	FEL	Mt. Hermon Conf. Center		L			Diesel
5843 Graham Hill Rd.	FEL	San Lorenzo Lumber	1	Т			Diesel/HC
5843 Graham Hill Rd.	FEL	S.C. Lumber	—	R	01-17-89	6-15-88	Gasoline
6225 Graham Hill Rd.	FEL	Felton Exxon	-	R			Gasoline
6440 Graham Hill Rd.	FEL	Rudy's Service	_	R	08-18-92	*	Gasoline
112 Grandview	SC	Aaron Dye	2	L		*	Waste Oil
Near 304 Granite Creek Rd.	ΛS	Roberson Construction	1	L			Diesel
1713 Granite Creek Rd.	SV	Jerry Thacker	1	L			Drug Lab
1500 Green Hills Rd.	ΛS	GEC Plessey, Inc.	1	L		1-26-98	Gas/Diesel/WO
Green Valley Rd.	WAT	Ted Richardson	4	L		*	Chemical
Green Valley Rd. & Apple Ln.	WAT	Unknown	4	L			Drug Lab
Green Valley Rd. 1900 Block	WAT	Unknown	4	Г			Drug Lab
1 Green Valley Rd.	FRE	George Stone/E's Ranch Milk	4	R		1-27-98	Gasoline/Diesel
298 Green Valley Rd.	WAT	Wats. Community Hospital	4	R	02-26-97		Diesel/HC
350 Green Valley Rd.	WAT	Don Peixoto	4	L		*	Waste Oil
1800 Green Valley Rd.	WAT	Mr. Conde	4	L			PCBs/ Oil
196 Grimmer Rd.	WAT	Paiaro Vallev USD Transp.	4	r			HC

Street Address	City	Site Name	Dist	Lead Agency	RWQCB Closure	Local Closure	Substance
198 Grimmer Rd.(198 Holohan Rd./198 Cottage Dr.)	WAT	Roy Wilson Yard - P.W.	4	R			Diesel/Gas/MtBE
140 Grove St.	WAT	Mitchell Resetar	5	Т		4-01-99	Gasoline
1 Hacienda Dr.	SV	Shell Station	1	R			Gasoline/MtBE
2020 Halterman #A	SC	Property Management	3	Т		*	НС
218 Hames Rd.	WAT	Phil Taylor Trenching	4	Т			Gasoline/Diesel
1176 Hames Rd.	APT	Ellen Thomas	4	Г		4-04-97	Gasoline
1311 Hames Rd.	APT	John Ivan-Evergreen Nursery	đ	R			Gasoline
42 Hangar Way	WAT	Toxscan, Inc.	5	WF	:		
78 Hangar Way	WAT	Xltronics	5	L			M/Oil/WO
Harkins Slough Rd. @ Lee Rd.	WAT	Proposed Landmark School	5	L			Study Only
115 Harkins Slough Rd.	WAT	Unknown	5	Γ			НС
167 Harkins Slough Rd.	WAT	Proposed Elem. School Site	5	$\mathbf{T}_{\mathbf{r}}$			Study Only
495 Harkins Slough Rd.	WAT	J & R Realty Company	5	L		96-6-8	HazWaste
320 Harvest Dr.	WAT	Municipal Service Center	5	R	11-16-01		Gasoline
620 Heather Dr.	WAT	Schwartz	4	L			Waste Oil
3 Hecker Pass Rd.	W AT	Hecker Pass Market	4	R			Gasoline/MtBE
20 Hecker Pass Rd	WAT	Ariel Mushroom Farm, Inc.	4	L			Diesel
215 Hecker Pass Rd.	WAT	Red & Sweet Farms	4	L		12-1-98	Diesel/Oil/Pest.
130 Herman Ave.	WAT	Rolling Hills Middle School	5	L			Mercury

Street Address	City	Site Name	Dist	Lead Agency	RWQCB Closure	Local Closure	Substance
High St.	SC	Land Mark Property	2	Γ		4-26-88	Waste Oil
260 High St.	SC	Piedmont Court Assoc.	2	Г		5-30-95	НС
1035 High St.	SC	Landmark Development	2	Γ		•	Assessment
1156 High St.	SC	U.C. Santa Cruz	1	L			Diesel/WO
Highland Way	LG	Pelican Timber Co.	4	Γ		2-10-94	Lead
29500 Highland Way	LG	Property of Quinn Hill	3	Г			Diesel/Chem/M
Highway 1	DAV	Davenport Burn Dump	1	Г		1-06-99	Lead
Highway 1	DAV	Lonestar	1	Т		10-01-89	Diesel
Highway 1 & Highway 129	WAT	Petro-Chemical Transport	5	R			Gasoline
Highway 1 & Mar Monte Exit	APT	SC Metro Transit Dist	5	Г			Oil/Antifreeze
Highway 1 & Scott Creek	SC	County of Santa Cruz	1	L			НС
490 Highway 1	DAV	Ocean View Gas	1	Γ			CO/HC
700 Highway 1	DAV	Lonestar (BD Quarry)	1	R	10-01-89		HM Spills
1240 Highway 1	WAT	SpectraMat	5	R			Solvent
1485 Highway 1	WAT	Western Farm Service	5	L			HC/Pesticide
Highway 9 at Keystone	SC	Paradise Park	1	L			Gasoline
Highway 9 at Marker 10.9	BL	Charles Dobovsky	1	L			PCP Lab
Highway 9 at Marker 23	SC	Meth Lab	1	L			Meth Lab
4700 Highway 9	FEL	Toll House	-	L		8-14-89	Gasoline
5960 Highway 9	FEL	Quik Stop Market #66	1	R	8-07-01		Gasoline

Street Address	City	Site Name	Dist	Lead Agenc s	RWQCB Closure	Local Closure	Substance
6036 Highway 9	FEL	Rogers Feed & Supply/ Winkler Plumbing		R			Diesel/Gasoline
6059 Highway 9	FEL	Felton Forest Fire Sta - CDF	1	R			Diesel/Gasoline
6320 Highway 9	FEL	Cornerstone Auto	1	R	03-20-97	*	Gasoline
6325 Highway 9	FEL	Chevron U.S.A. #9-4909	1	R			Gasoline/MtBE
6519, 6531, 6539, 6576 Hwy 9	FEL	Twohig/ Valeteria Cleaners	1	R			PCE
6576 Highway 9	FEL	Felton Foreign Auto	1	R			PCE
7105 Highway 9	FEL	SLV Elementary School		Т			Gasoline
7105 Highway 9	FEL	San Lorenzo Valley High	1	L		*	PCP
8500 Highway 9	BL	Highland Park	1	R			Diesel
9500 Highway 9	BL	Ben Lomond Texaco	1	L		4-18-00	Waste Oil
12804 Highway 9	BC	Rogers Feed & Supply	1	L		1-24-90	Kerosene
13057 Highway 9	BC	Former ARCO Station		Г		7-07-93	НС
13211 Highway 9	BC	Boulder Creek Texaco	1	R			Gasoline
13230 Highway 9	BC	Boulder Creek Fire Prot Dist	1	L			Diesel
14560 Highway 9	BC	Gram's Deli (Williams Prop)	1	R			Gasoline
Highway 17 & Glenwood	SC	Williams Tank Lines	1	L			Gasoline
Highway 17 & Sims Rd.	SC	Davey Tree, Larry Evans	1	L		2-04-93	Chemical
Highway 129	WAT	Shaffer Trucking	5	L			Diesel/Chem.
201 Hihn St.	FEL	Hihn St. Maint. Yard - PW	1	R	3-8-93		НС

Street Address	City	Site Name	Dist	Lead Agency	RWQCB Closure	Local Closure	Substance
41 Holm Rd.	WAT	Jose & Emma Flores	5	Г			Waste Oil
118-A Holohan Rd.	WAT	Mrs. George Braycovich	4	R			Gasoline/MtBE
196 Holohan Rd.	WAT	Pajaro Valley USD Transp.	4	Г			Diesel/WO
198 Holohan Rd - Refer to 198 Grimmer Rd	WAT	Roy Wilson Yard - PW	4	R			Diesel/Gas/MtBE
116 Hubbard St.	SC	S.C. Ambulance	. 2	R	01-15-92	*	Gasoline
65 Hughes Rd.	WAT	Evelyn Johnson	4	L			WO/Solvent
24050 Hutchinson Rd.	PT	Stark Residence	3	L		7-02-93	НС
305 Industrial Way	WAT	Naturipe Berry Growers	5	R			НС
320 Industrial Rd.	WAT	Roma Kool, Inc.	5	L			Gasoline/Diesel
375 Industrial Rd.	WAT	Watsonville Pre-Cool/ VEC- Express	\$	L			Waste Oil
328 Ingalls St.	SC	Bonny Doon Vineyard	2	L			Motor Oil
328 Ingalls St. In Front Of	SC	Unknown	2	L			Drug Lab
402 Ingalls St. (201 Kalkar)	SC	S.C. Artichoke	2	R	03-23-93	12-13-99	Gasoline
17 Janis Way	AS	Pettibone Signs Former Gasoline USA		L		96-58-96	Gasoline
50 Janis Way	SV	Roberson Keylock / Dassel's	1	R			Diesel/Gasoline
577 Judd Rd.	WAT	Peter Radin	5	L			Diesel
274 Kearney St. Ext.	WAT	Farmers Cold Storage	5	R			Ethyl Glycol
420 Kennedy Dr.	CAP	Jefferson Desk & Furniture	4	Г		12-17-91	HC/Chem/ Metals



430 Kennedy Dr.CAPCapitola Corp. Yard440 Kings Village Rd.SVWatkins Johnson495 Lake Ave.SCHarbor MarineEast Lake Ave. (Refer to ast Lake Ave. (Refer to boll East Lake Ave.)WATFranich Property Develop.14 East Lake Ave. (Refer to boll East Lake Ave.)WATTrust601 East Lake Ave.WAT7-Eleven Store601 East Lake Ave.WATScurich Property602 East Lake Ave.WATFormer Exxon Station800 East Lake Ave.WATFormer Chevron Station982 East Lake Ave.WATFormer Chevron Station2303 East Lake Ave.WATEast Lake Dry Cleaners2400 East Lake Ave.WATSt. Francis High School2601 East Lake Ave.WATSt. Francis High School2601 East Lake Ave.WAT14th District Agric. Assoc.40 West Lake Ave. & WATRadcliff School Expansion518 & 558 Rodriguez St.(550 Rodriguez St)	╫┈	1017	Agency	Closure	Closure	Substance
SV Watkins SC Harbor SC Harbor WAT City of Trust WAT 7-Eleve WAT 7-Eleve WAT Curich WAT 7-Eleve WAT Former WAT Former WAT Former WAT Former WAT Former WAT Former WAT Hath Di WAT Radcliff ESt.		4	L		7-28-92	Diesel
SC Harbor WAT City of WAT Franich Ave. (Refer to WAT Trust Ave. Ave. WAT Trust Ave. WAT City of Trust Ave. WAT Trust Courich Ave. WAT Former WAT Hath Di e Ave. WAT Radclif Ave. & WAT Radclif Ave. & WAT Radclif		1	EPA			Solvent TCE
WAT City of WAT Franich WAT Trust Trust WAT 7-Eleve WAT Courich WAT Former WAT Former WAT East La WAT St. Fran WAT St. Fran WAT St. Fran WAT Radclif	Harbor	3	T		6-22-94	Diesel
WAT Franich WAT Trust Trust WAT 7-Eleve WAT Curich WAT Former WAT Former WAT East La WAT St. Fran	City of	4	L			Arsenic
(Refer to WAT Trust e. WAT 7-Eleve e. WAT Scurich ve. WAT Former e. WAT Former e. WAT Former e. WAT East Lander ve. WAT St. Frant ve. WAT St. Frant ve. WAT Radcliff e. & WAT Radcliff e. & WAT Radcliff guez St. S50 Ro	Franich	4	L			Pest/Arsenic
WAT WAT WAT WAT e. WAT	Marvin Trust	4	L			Kerosene/Solvent
WAT WAT WAT E. WAT		4	R	9-15-00		Gasoline/MtBE
E. WAT WAT WAT E. WAT E. WAT E. WAT E. WAT E. WAT E. WAT	Scurich	4	R			Gasoline
WAT WAT WAT WAT WAT WAT WAT WAT WAT SZ St.	Unocal	4	R			Gasoline/MtBE
WAT WAT WAT WAT WAT Z St.	Former	4	R		11-6-98	Gasoline/WO
WAT WAT WAT WAT Z St.	Former	4	R			Gasoline
WAT WAT WAT Z St.		4	R			PCE
WAT WAT		4	R			Gasoline/MtBE
WAT		4	L			Study
WAT	<u> </u>	4	L		11-09-93	Gas/Diesel/WO
		5	L			Study
1244 Lakeside Drive FEL Sheldon Beaver		1	L			Drug Lab
5 Lakeview Rd. WAT Western Farm Service, Inc./ Crop Production Services		4	R			Nitrate

Street Address	City	Site Name	Dist	Lead Agency	RWQCB Closure	Local Closure	Substance
475 Lakeview Rd.	WAT	Shikuma Bros., Inc.	4	L			Gasoline
320 Larita Dr.	BL	John & Hilda Gallaghan	1	L			Chemicals
Larkin Valley Rd.	WAT	Xanthus Landfill, Granite Construction	5	R			HC/WO/ Metals
1141 Laurel Ave.	FEL	County Bank & Trust	1	L			Drug Lab
3 Laurel Glen Rd.	SOQ	Casalegno's Market	3	Г		12-05-00	Gasoline
16925 Laurel Rd.	LG	Rick Sharp Residence	1	L			Gasoline
Laurel St.	SC	Laurel Street Bridge Project	2	Г		0	Organic
100 Laurel St.	SC	Shell Station	2	R	5-3-95	12-19-94	Gasoline
721 Laurel St. at Blackburn St.	SC	Salvation Army Project	2	L			НС
101 Lee Rd.	WAT	Former Chevron #1001267	5	R			Gas/Diesel/MtBE
103 Lee Rd.	WAT	G.N. Renn	5	R			Diesel/MtBE
104 Lee Rd.	WAT	G.W. Davis, Inc.	5	Г			НС
120 Lee Rd.	WAT	Berman Steel	5	L			Gasoline
200 Lee Rd. & Hwy 1	WAT	Chevron Station #9-1927	5	R			Gasoline/MtBE
110 Lindberg St.	SC	Wilson Brothers/ Lindberg Street Properties	2	Г	-		Lead
784 Lockhart Gulch Rd.	SV	David Hunter	1	Т		1-20-95	Gasoline
2750 Lode St.	SC	East Cliff Trans. Facility	3	R			Diesel/MtBE
Longridge Rd.	FG	(Eric) Gelhard Hagedorn	3	Ĺ			НС/НМ
1840 Maciel Ave.	SC	Housing for Indep. People	2	L			DDT/Pest.

Street Address	City	Site Name	Dist	Lead Agency	RWQCB Closure	Local Closure	Substance
Main St & Second St.	WAT	City of Wats Redevolopment	5	Г		1-02-01	Study
153 Main St.	WAT	ARCO/Smog Pro	5	L			Gasoline
175 Main St.	WAT	Alliance Gas	5	R			Gasoline/MtBE
222 Main St.	WAT	Chevron Station #9-0160	5	R			Gasoline/MtBE
458-460 Main St. (14E Lake)	WAT	Marvin & Helen Van Laren	5	Г			Kerosene/Solvent
501 Main St.	WAT	Weldon Griffin Property	5	R		8/22/00	Gasoline/Diesel
570 Main St.	WAT	Desert Petroleum #780	5	R			Gasoline/MtBE
610 Main St.	WAT	PG&E Watsonville	5	R			НС
618 Main St.	WAT	Pacific Gas & Electric	5	R			Misc.
640 Main St.	WAT	Peter Dewares AAMCO Auto Service	5	R			Gasoline
1180 Main St.	WAT	Kayo - Fast Gas - Beacon	5	R			Gasoline/MtBE
2501 S. Main St.	SOQ	Exxon Service Station #0281	4	R			HC/MtBE
9380 Manzanita Ave.	BL	Shree Gurudew Ashram	1	L			VOC's
30 Maple St.	WAT	Recreation Building	4	R			Solvent
103 Marina Ave.	APT	Esplanade Pump Station	5	R	10-7-88	6-14-00	Diesel/HC
2825 Mattison Lane	SC	Frito-Lay, Inc.	3	Τ		8-04-89	нс
9440 Mill St.	BL	Ben Lomond Super	1	Г	:	7-17-91	WO/HC
Mission St.	SC	Cal Transp Widening Project	2	R			Solvents
335 Mission St.	SC	Beacon Station #528	2	R			Gasoline/MtBE

Street Address	City	Site Name	Dist	Lead Agency	RWQCB Closure	Local Closure	Substance
406 Mission St.	SC	Robert Rittenhouse	2	L		7-15-88	Gasoline
823 Mission St.	SC	Chevron Station #9-3865	2	R			Gasoline/MtBE
904 Mission St.	SC	Mission Street Unocal #4576	2	R			Gasoline
1129 Mission St.	SC	Former Shell Station	2	R			Gasoline
1130 Mission St.	SC	Former Gulf Station	2	R			Gasoline
1203 Mission St.	SC	Westside Mobil #10-HMG	2	R			Gasoline
1224 Mission St.	SC	One Hour Martinizing	2	R			PCE
1301 Mission St.	SC	Emma's Car Wash Site - Also Z's Properties	2	R	08-21-96		НС
1504 Mission St.	SC	Former Service Station - Also Goodwill Industries	2	R			Gasoline
1725 Mission St.	SC	HER Co. Service Station	2	R			Gasoline/MtBE
1906 Mission St.	SC	Rotten Robbie #35	2	L		9-12-91	Oil/Grease
2003 Mission St.	SC	BP Service Station	2	R			Gasoline/MtBE
2202 Mission St.	SC	Beacon Station #734	2	R			Gasoline/MtBE
2203 Mission St.	SC	Tobey's Rasp Service	2	R			Gasoline
2403 Mission St.	SC	Tam's Chinese Food	2	L		0	Waste Oil
2429 Mission St.	SC	Robert N. Rudolph	2	R			Gasoline
2521 Mission St.	SC	Herman Mondo	2	R	03-25-98	04-03-98	Gasoline
2541 Mission St.	SC	Peggy Minier	2	L			Vol. Org.
2575 Mission St.	SC	S.C. Strippers	2	L		*	Solvents

Street Address	City	Site Name	Dist	Lead Agency	RWQCB Closure	Local Closure	Substance
2608 Mission St.	SC	Balloon Tycoon	2	Г		*	Chemical
9360 Monroe Ave.	APT	Carmel Marina Corp.	4	L			Gasoline/Diesel
23700 Morrel Cut Off	TG	P.J. Transportation Vehicle	3	Т			Diesel/HC
Mt. Hermon Rd.	SV	Camp Evers	1	R			Gasoline
Mt. Hermon Rd.	ΛS	Kaiser Pit	1	EPA		0	CERCLA
90 Mt. Hermon Rd.	AS	Shell Service Station	1	R			Gasoline/MtBE
99 Mt. Hermon Rd.	ΛS	Unocal Station #6153 Cross Reference Camp Evers	₩.	R			Gasoline/MtBE
200 Mt. Hermon Rd.	SV	Former Chevron Station	Ţ	R			Gasoline/MtBE
201 Mt. Hermon Rd.	SV	BP Oil Facility #11239	—	R			Gasoline/MtBE
218 Mt. Hermon Rd.	SV	Coast to Coast Hardware	1	R	08-27-96		Oil/Ker/Grease
222 Mt. Hermon Rd.	SV	Kings Cleaners		EPA			CERCLA
230 Mt. Hermon Rd.	SV	Kings Village Shopping Ctr.	1	T			Assessment
245 Mt. Hermon Rd. #G	SV	Art's Cleaners	1	R	6-11-96	*	Chemical
263 Mt. Hermon Rd.	SV	Valley Gardens Golf Course	1	L			Org. Chem
272 Mt. Hermon Rd.	SV	Scotts Valley Dry Cleaners	1	R			PCE
400 Mt Hermon Rd. (a.k.a 400 & 700 Kings Village Rd.)	SV	Skypark Airport	-	R	09-13-94		НС
Mt. Madonna Rd.	WAT	Appropriate Technologies II	4	L		*	Chem/Solvent
95 Mountain Springs Dr.	SC	Geogory Fyler	1	L		9-23-96	Diesel



Street Address	City	Site Name	Dist	Lead Agency	RWQCB Closure	Local Closure	Substance	
76 Murphy Crossing	WAT	Mid-Peninsula Housing Coalition	4	T		6-25-96	Pesticides	
80 Murphy Crossing	WAT	Banovac Farms	4	Γ		7-31-96	DDT	
14380 Nelson Ave.	WAT	H & H Bottling, Inc.	5	R			НС	
255 Northridge Dr.	ΛS	Chris Blumenthal Residence	1	Г			Diesel	
433 Ocean St.	SC	Unocal Station #0292	2	R			GasolineMtBE	
500 Ocean St. /was 411 Soquel	SC	Best Western / was Former ARCO Station	2	R			Gasoline	
611/615 Ocean St.	SC	Former Gulf Station #1692	2	R			Gasoline	
691 Ocean St.	SC	S.C. Co. Fleet Operations	2	R			Gasoline	
701 Ocean St. (Refer to 745 Ocean St)	SC	County of S.C. Govt. Center	2	d			Gasoline	
701 Ocean St.	SC	S.C. County Government	2	L		*	НС	
745 Ocean St.	SC	Shell Station	2	R			Gasoline/MtBE	
805 Ocean St. / Water St.	SC	Chevron Station #9-1361	2	R			Gasoline/MtBE	
919 Ocean St.	SC	Budget Car Rental	2	L			Gasoline/Oil	
1104 Ocean St.	SC	Former Regal/Beach City Gas	2	R	3-20-01		Gaso Ine	
1319 Ocean St.	SC	Beacon Station	2	R			Gas/Diesel/MtBE	78
1415 Ocean St.	SC	Exxon Station #7-3176	2	R			Gasoline/MtBE	
1415 Ocean St.	SC	Sav-On Gasoline	2	R			Gasoline	
By 1515 Ocean St.	SC	Western Direct Transport	2	L			Diesel	

Street Address	City	Site Name	Dist	Lead Agency	RWQCB Closure	Local Closure	Substance
1927 Ocean St.	SC	S.C. Memorial Park	2	Т		8-28-89	Gasoline
20151 Old Big Basin Rd	BC	Robert Valdez / Jeanne Freiley	1	L			Meth Lab
20220 Old Big Basin Rd.	BC	John King	1	Г			Meth Lab
66 Old El Pueblo Rd (Scotts Valley Dr.)	SV	Scotts Valley Circuits (El Pueblo Plume)	1	R	:	11-14-00	Solvent
22293 Old Logging Rd.	TG	Butchko Residence	1	Т		8-30-95	Diesel
1931 Old San Jose Rd.	SOQ	7th Day Adventist Church	3	L		9-10-91	Gasoline
4750 Old San Jose Rd.	SOQ	Soquel Station - CDF	3				Gasoline
17445 Old Summit Rd.	TG	Loma Prieta Fire & Rescue	3	L		10-21-97	Gasoline
1399 Olive Springs Rd.	SOQ	Olive Springs Quarry	4	Т			Diesel
2630 Orchard St., #14	SOQ	Ed Farinsky	4	Т		12-13-99	Waste Oil
302 Pacific Ave.	SC	Charles & Linda Rossi	2	L		2-06-97	НС
303 Pacific Ave. (Change from 120 Washington St.)	SC	Chevron #9-0801	2	æ			Gasoline/MtBE
413 Pacific Ave.	SC	Sanitary Plumbing & Heating	7	R	01-26-96	*	Gasoline
503 Pacific Ave.	SC	Former Prolo Chevrolet	2	R			Gasoline/D/Oil
512 Pacific Ave.	SC	Auto Zone	2	L			Chemical
812 Pacific Ave (325 Front St)	SC	Haber Brothers	7	R			Gasoline
1018 Pacific Ave.	SC	George Ow	2	L			Gasoline
1128 Pacific Ave.	SC	Bank of America	2	R	06-29-95	*	Gas/Oil/D/ Grease
1520 Pacific Ave.	SC	St. George Hotel	2	L		*	Asbestos

Street Address	City	Site Name	Dist	Lead Agency	RWQCB Closure	Local Closure	Substance
2120 N Pacific Ave.	SC	El Rio Mobile Home Park	2	Г			HC/Chem.
401 Panabaker Lane	WAT	City of Watsonville	5	WF			
1500 Park Ave.	CAP	New Brighton State Beach	4	L			Gasoline
740 N. Park Way	SC	Jack Levine (Deceased)	3	T			Chemicals
220 Pine St.	WAT	Peggy Youmans	5	R	12-06-00	11-21-00	Gasoline
13215 Pine St.	BC	SLV Rental & Rockery	1	R			Gasoline/MtBE
1492 Pine Flat Rd.	BD	Bonny Doon Elementary	2	L			Gas/Diesel
90 Pioneer Rd.	WAT	Sun Land Garden Products	4	R	7-17-00	6-14-00	Gasoline
336 Plateau Ave.	SC	Ezetta Dawson	2	L		12-10-98	Drug Lab
855 Polo Ave.	APT	Pacific Bell	4	L		*	Diesel
3129 Porter Gulch Rd.	òos	Pacific Painting	4	R			Solvent
2407 Porter St.	SoQ	Pamela Santacroce	4	R	7-2-97	2-12-99	Gasoline
3131 Porter St.	SOQ	Ponza	4	R	10-19-92	02-07-96	Gasoline
3203 Portola Dr.	SC	Delores Edmonds	3	Г			Acetone/Waste
3501 (3509) Portola Dr.	sc	Dettle Super Service	3	R	5-22-00	00-90-90	Gasoline
3690 Portola Dr.	sc	Neighborhood U-Serve-N- Save/Schweitzer Property	8	~	06-10-98	04-15-98	Gasoline
3801 Portola Dr.	sc	Ed's Portola ARCO	3	R			Gasoline
4000 Portola Dr.	sc	Former Chevron Sta #3-2346	3	R			Gasoline
4001 Portola Dr	SC	Onal Cliffs Auto Center	3	X			Gasoline

Street Address	City	Site Name	Dist	Lead Agency	RWQCB Closure	Local Closure	Substance
303 Potrero St.	SC	Bio Systems Analysis	2	T			HazWaste
110 Quail Hollow Rd.	FEL	Mary Negri	1	Т		4-25-96	Diesel/Fuel Oil
18 Rancho Del Mar	APT	Shell Station	4	R	10-15-92		Gasoline
117 Rancho Rd.	WAT	Santa Cruz Composting	5	\mathbf{T}			Waste Oil
1487 Ranport Rd.	WAT	Bencich Farms	5	Т			Wastes
Redwood Dr.	SC	Michael & Marcelina Mahoney	2	L		:	Chemicals
Rider Rd.	COR	Greg Koppola/Tolford Prop.	4	Г			Drug Lab
795 Rio Del Mar Blvd.	APT	ARCO Station #6105	5	L		05-03-01	Gasoline/ WO
River St.	SC	River Street Widening	2	Г			HW/Oil/D/ Solvent
River St./Highway 1	SC	River Plaza Shopping Center	2	Г			Diesel/HC/PCE
River & Encinal Streets	SC	Santa Cruz City	2	L		*	Pois/Waste
116 River St.	SC	Hennings Werkstatt	2	L		10-21-97	Oil/Grease
116 River St.	SC	Bank of Americal	2	L		9-27-99	Waste Oil
124 River St	SC	Ski Shop Santa Cruz	2	Г			Arsenic/Lead
125 River St.	SC	Wilson Bros. Redevelopment	2	R			Gasoline
136 River St	SC	Outdoor World	2	L			Arsenic/Lead
318/320 River St.	SC	Vosti Properties	2	Г		2-4-97	Gasoline/Oil
511 River St	SC	Reese Construction Co	2	R	03-28-88	0	Gasoline
602 River St.	SC	Scherer Property	2	L		9-09-97	Gasoline
606 River St.	SC	ADCO Electric, Inc.	2	L			HC/Gasoline

Street Address	City	Site Name	Dist	Lead Agency	RWQCB Closure	Local Closure	Substance
1040 River St.	sc	Salz Leather	2	R			Gasoline/MtBE
1111 River St.	sc	Las Animas Concrete	2	R	2-05-88	2-08-88	Gasoline
1111 River St.	sc	Salz Leather	2	R		10-16-98	Metals
1125 River St.	SC	City of SC Corporation Yard	2	R			Gasoline
1200 River St.	SC	SC Metro Transit District	2	Т			Gasoline/Diesel
133 Riverside	WAT	John Vennemeyer	4	Т		12-19-91	Waste Oil
159 Riverside Dr.	WAT	Fortenberry Property	4	R			Gasoline
215 Riverside	WAT	Puregro (Wastewater)	4	R			Nitrate
619 Riverside	WAT	Boyer Fertilizer	4	R			Nitrate
660 Riverside	WAT	Bilco Transportation	4	Г			Diesel
1144 Riverside Dr.	WAT	Buchwald's	4	L		7-12-88	Gasoline
22 C Roache Rd.	FRE	S.C. Cabling	4	Г		10-03-86	Solvent
297 Robles Dr.	SC	Carole Fairbrother	Ţ	Т		*	Oil
Rodeo Gulch Rd. (.5 mile from Laurel Glen)		Drug Lab Waste	3	L			Drug Lab
550 Rodriguez St.	WAT	PVUSD - Radcliff School	5	Г			Arsenic
1010 Rodriguez St.	SC	Cal Cruz Hatchery	3	R			Diesel
100 Roundtree Lane	WAT	County Jail Farm	5	L		*	НС
25 Sakata Lane	WAT	S.C. Metro Transit Dist.	5	R	2-18-99	3-02-99	Diesel/Solvent
252 San Andreas Rd.	WAT	Telles Ranch	5	R		*	НС

Street Address	City	Site Name	Dist	Lead Agency	RWQCB Closure	Local Closure	Substance
295 San Andreas Rd.	WAT	San Andreas Labor Camp	5	T		06-20-00	Motor Oil/ Asbestos
655 San Andreas Rd.	WAT	Rainbow Fin/ Monterey Bay Academy	5	R	7-09-84	*	Solvent/Chem
783 San Andreas Rd.	WAT	Camp McQuaide	5	R			Toxic W/PCB/HC
783 San Andreas Rd.	WAT	Monterey Bay Academy	5	Т			Diesel/Oil/Gas
1153 San Andreas Rd.	WAT	ENEXCO	5	Т		8-24-92	Diesel
1254 San Andreas Rd.	WAT	Larry Delaney	5	Т		3-01-94	Gasoline
San Lorenzo Ave.	FEL	Felton Quarry	1	Т		1-21-91	Diesel
San Lorenzo River	SC	San Lorenzo River Fish Kill	2	Т		*	НС
100-120 Santa's Village Rd.	SV	Chevron Station/ Polo Ranch/ Borland International	1	R	10-13-92	*	Gasoline/D/WO
2 School Way	WAT	Monte Vista Christian School	4	Γ			НС
Schwan Lake	SC	Pacific Firewood	3	Т			Waste Oil
4253 Scotts Valley Dr.	SV	Johnson' ₃ Arco	1	d			Gasoline
4658 Scotts Valley Dr.	SV	Rank Electronics	1	EPA		*	Cercla
5276 Scotts Valley Dr.	SV	Former Exxon Svc Station, Sturdy Oil		R			Gasoline
5451 Scotts Valley Dr.	SV	Beacon Station	1	R			Gasoline
5620 Scotts Valley Dr.	SV	Exxon/ Sturdy Oil		R			Gasoline
6012 Scotts Valley Dr.	SV	Chevron Station #9-2623	_	R			Gasoline/MtBE

Street Address	City	Site Name	Dist	Lead Agency	RWQCB Closure	Local Closure	Substance
Seabright & Eaton	SC	Southern Pacific Transp. Co.	3	Т		*	Diesel
727 Seabright Ave.	SC	George Blencoe	3	R	3-17-99	3-31-99	Gasoline
201 Sea Ridge Rd.	APT	76 Service Station #5876	4	R	9-15-00		Gasoline
100 Shaffer Rd.	SC	Long Marine Lab	1	L			Pesticides
1280 Shaffer Rd.	SC	Granite Construction	2	L			HC, Arsenic, Asbestos
214 Shoreview Dr.	APT	Jennifer Renzel	5	Т		4-24-95	Diesel
13500 Skyline Blvd.	DT	Calif Dept of Transportation	1	L			Diesel
23498 Skyview Terrace	FG	Ted Faley Residence	1	L		2-5-98	НС
260 Smith Rd.	WAT	Paul Strand	4	L			Solvent
Soda Lake/Riverside Road	WAT	Granite Rock Company	4	T			Oil
404 Soquel Ave.	SC	Beacon Station	2	R			Gasoline/MtBE
501 Soquel Ave.	SC	Foreign Auto Parts	2	L		*	WO/Gasoline
1103 Soquel Ave.	SC	S.C. City Fire Station #2	2	T		*	Gasoline
1219 Soquel Ave.	SC	Santa Cruz Motors	2	R	12-29-92	6-22-94	НС
1261 Soquel Ave.	SC	Bergstrom Motors	2	R	6-27-95	7-20-95	Gasoline
1505 Soquel Ave.	SC	Union Station #4818	3	R		'	Gasoline
1516 Soquel Ave.	SC	Beacon (was Kayo Fast Gas)	3	R			Gasoline/MtBE
1605 Soquel Ave.	sc	Wayne Merritt RV's	3	L			HC
1625 Soquel Ave.	SC	Former Gulf Station	3	L		2-08-95	Gas/Diesel



Street Address	City	Site Name	Dist	Lead Agency	RWQCB Closure	Local Closure	Substance
1705 Soquel Ave.	SC	Lewis Exxon	3	Г		*	Gas/Diesel
1800 Soquel Ave.	SC	Volkswagen of Santa Cruz	3	R		3-16-89	WO/Solvent/Chem
1824 Soquel Ave.	SC	Carr Parts	3	Γ		2-25-99	Waste Oil
1807-1833 Soquel Ave.	SC	Giubbini Trust	3	L			Kerosene
1999 Soquel Ave.	SC	North Bay Ford/Lincoln/Merc	3	L			Gasoline/WO
2001 Soquel Ave	SC	Whalers Carwash	3	R			Gasoline
2200 Soquel Ave	Э	H.G. Propert	3	R			Gasoline
2680 Soquel Ave	Э	Gasamat #95	3	Т			Gasoline
2776 Soquel Ave.	SC	Antolini Co.	3	R	4-15-88	4-20-88	Gasoline
2900 Soquel Ave.	SC	Giubbini	3	R	8-26-97	7-25-97	НС
6100 Soquel Ave.	SC	Coca Cola Enterprises	3	L		10-21-91	Diesel/Gasoline
7070 Soquel Ave.	SC	Pacific Bell	3	R	7-9-01		Gasoline
Soquel Dr no of Freedom Blvd	APT	PG & E	4	Г		*	M/Chem
1500 Soquel Dr.	SC	Unocal Station #6193	3	R			Gasoline
1555 Soquel Dr.	SC	Dominican S.C. Hospital	8	L		4-3-97	Diesel
1835 Soquel Dr.	SC	Carhart Rentals	3	T		9-17-92	НС
1975 Soquel Dr. & Thurber	SC	Former Shell Station	3	L		*	НС
2210 Soquel Dr.	SC	Beacon Service Station	3	L		2-10-92	НС
2246 Soquel Dr.	SC	Redwood Auto/Beacon Video	3	Г		*	Gasoline
3711. 3715 & 3801 Soquel Dr.	SOO	Tom Markovich	3	Г			WO/Solvent/Chem

Street Address	City	Site Name	Dist	Lead Agency	RWQCB Closure	Local Closure	Substance
3921 Soquel Dr.	òos	Old Volks Home	3	Т		*	HC
4100 Soquel Dr.	òos	R.L. Estewood	4	Т		01-25-01	Gas/Diesel
4747 Soquel Dr.	òos	Central Fire Prot. Dist. Sta. 3	4	Г		10-04-01	Gas/Diesel
4860 Soquel Dr.	òos	Unocal Station	4	R			Gasoline/MtBE
4901 Soquel Dr.	SOQ	E-Z Serve	4	R			Gasoline
5505 Soquel Dr.	SOQ	Quik Stop Market #78	4	R			Gasoline/MtBE
5955 Soquel Dr.	SOQ	A.J.'s Beacon Station	4	Г		5-02-95	Gasoline/Oil
6500 Soquel Dr.	APT	Cabrillo College	4	Г			Solvent/Chem
7719 Soquel Dr.	APT	Chevron Station #9-4274	4	Г			Gaso Ine
7960 Soquel Dr. #D2	APT	Certified Carpet Cleaning	4	Г		*	Chemicals
8026-8028 Soquel Dr.	APT	Aptos Village Garage	4	Г		6-19-00	Gasoline/Diesel
8060 Soquel Dr.	APT	Terrible Herbst	4	Г		6-26-95	Gasoline
10395 Soquel Dr.	APT	California Highway Patrol	4	R			Potential MTBE
25395 Spanish Ranch Rd.	PT	Roger Goldthwaite	4	Г			Oil/Solvent
201 State Park Dr.	APT	Seacliff State Beach	4	L			Gasoline/Diesel
22930 Summit Rd.	TG	W.F. Anderson Electric	3	L		*	Oil
23076 Summit Rd.	TG	William & Carol Lord	3	L		10-6-01	Heating Oil
526 Sumner St.	SC	PRC Patterson, Inc.	3	L			Waste Oil
240 Swanton Rd.	DAV	Big Creek CDF Station	1	J			Gasoline/Diesel
411 Swift St.	SC	Santa Cruz Industries	2	~			Organic Solvents

Street Address	City	Site Name	Dist	Lead Agency	RWQCB Closure	Local Closure	Substance
601 Swift St.	SC	Mission Linen Supply	2	R	10-04-00	:	Gasoline/Diesel
125 Sycamore St & Pacific Ave (was 555 Pacific Ave.)	SC	Sycamore Street Housing Site (was Ocean Chevrolet)	2	Г			Diesel/Oil/Met
464 Sylvan Way	BC	Walter Johnson	1	Т			Drug Lab
113 Tierra Alta	WAT	S C Cruz Housing Authority	4	Г		03-21-97	Waste Oil
Terrace Point	SC	SC Coastal Marine Research	1	Γ			Pesticides
2225 Trout Gulch Rd.	APT	Phil & Susan Page	4	L			Diesel/Oil
2746 Trout Gulch Rd.	APT	Von Grey Residence	4	Г			Diesel
3855 Trout Gulch Rd.	APT	Miles Reiter	4	Г			Diesel
4400 Trout Gulch Rd.	APT	Drug Lab	4	L			Drug Lab
475 Union St	L AAT	Former Galaxy III Theaters	4	Γ			НС
Valencia & Aptos School Rd.	APT	Sydco Construction	4	Г		*	Paint
800 Waldeburg Rd.	BL	William Wilson	1	L			Drug Lab
1010 Wallace Ave.	APT	John & Patricia Miller	4	L		*	WO/Paint
135 Walker St.	L AAT	Richard Hammond	5	L			Chem/HC
555 Walker St.	L AAT	Wats. Cogeneration Facility	5	L			Oil/Diesel/HC
834 Walker St.	WAT	Moyer Chemical	5	R			Pesticides
415 Walnut St.	SC	Santa Cruz High School	2	L		1-19-90	Oil/Grease
123 & 127 Washington St.	SC	S.C. Multimodel Station/ Former Southern Pacific	2	R		7-24-01	Gasoline
285 Water St.	SC	Vapor Cleaners	2	R			Solvent

Street		Site		Lead	RWQCB	Local	
Address	City	Name	Dist	Agency	Closure	Closure	Substance
717 Water St.	SC	Sam Reed	2	R		1-30-95	Gasoline/Diesel
719 Water St.	SC	Reed Supply	2	Г		2-11-89	Gasoline
1024 Water St.	SC	Exxon Station	2	R			Gasoline/MtBE
1025 Water St.	SC	House of Sound	2	L		6-29-95	НС
Watsonville Well	WAT	Steve Dautoff	4	Т		*	НС
77 Webb Rd.	WAT	Glenn Battle	4	Г		8-20-86	нС
911 Western Dr.	SC	Safety Specialists	2	L		*	Chem/Solvent
100 Westgate Dr.	WAT	Spectra-Mat	5	R			PCE
3196 Whitehouse Canyon Rd.	SC	Skylark Girl Scout Camp	1	L			Gasoline
110 Whiting Rd.	WAT	Watsonville Nurseries	4	R			Gasoline
3098 Winkle Ave.	SC	Jimmie Smith Plumbing	2	Г		*	Gasoline
East Zayante Rd. (1988)	FEL	Drug Lab Waste	1	L			Drug Lab
East Zavante Rd. (1989)	FEL	Drug Lab Waste	1	L			Drug Lab

Regionwide MTBE Listing and High Priority Sites

MONTEREY COUNTY Site Name							
iste Name				Sampling	Distance**	MtBE	
7.50	Street	Street Address	City	Date	feet	conc. ppb.	Rank*
MONTERE: COUNTY							
AROMAS BEACON	2961	SAN JUAN RD	AROMAS	10/11/6	1548	00088	<
I AKE SAN ANONIO RESORTS		LAKE SAN ANTONO SOUTH SHORE	ORE BRADLEY	9/15/01	10**	1200000	۲.
TOSCO #30681FORMER UNOCAL #4)	544	CARMEI RANCHOBL'D	CARMEL	8/24/01	2005	2700	٧
INOCAL #602	11400	MERRITT ST	CASTROVILLE	1/16/01	1400	16000	V
EED MC CHDM NE	41	FORTERDR	PAJARO	10/61/6	200	29900	4
EXXON SERV'E STATION	2347	SAN MIGUEL CANTON RD	PRUNEDALE	10/2/01	125	32000	Y
CHIN STOP MIRKET #77	-	FORTERDR	WATSONVILLE	9/12/01	00.	13300	¥
AUD VALLEY HEE DROIECT DIST	8455	CARMEL VALLEY 3D	CARMEL VALLEY	10/27/00	1200	74	В
BEACON OIL HAHON #479	10899	MERRITI ST	CASTROVILLE	8/1/01	3000	830	B
EXXON (FOR MED)	11399	MERRITIST	CASTROVILLE	7/31/01	3400	029	В
BAKON (LONTEN)	018	CANYON DEL REY	DEL REY OAKS	10/L/8	2006	37000	
DEL KET CARWASH	1042	DEL MONTE AVE	MONTEREY	9/12/01	1506	1500	
IISA GASOLIN: STATION #42	2338	DEL MONTE AVE	MONTEREY	9/14/01	1961	3700	B
EXXON STATION 7.0238	595	MUNRA; ST	MONTEREY	10/6/8	10700	18000	83
CHELL STATION	212	ALISAL ST E	SALINAS	5/3/01	0081	1)50	8
BEACON SERVICE STATION #530	215	ALISAL ;TE	SALINAS	10/6/9	1300	2500	æ
APCO STATICINO 2188	145	KERN S.	SALINAS	8/13/01	0055	160000	
DE OIL CO S/SUIT 65(MOBIL 318)	1240	MAIN STN	SALINAS	1/5/01	4100	11500	
NOPTH MAIN:XXON		MAIN ST N	SALINAS	10/24/01	700	6	
INOCAL SERVICE STATION #1011	201	MONTEREY ST	SALINAS	\$/1/01	1752	541	
CHEMICAL LINE NATIVIDAD PLANT	11771		SALINAS	6/16/01	1000	x 0	
TOM LONG'S TIRE	81	SANBOFN RD N	SALINAS	10/6/9	2504	5)00	
MISHROOM MRMS	415	HALL RD	WATSONVILLE	9/27/01	1200	067	
CHEVRON STUTION	3645	RIORD	CARMEL	8/29/01	7500	099	
GILIETEXACC	100	ALTA S1	GONZALES	5/6/01	1500	21	
CHEVRON STUTION #9-6381	715	BROADVAY	KING CITY	10/27/00	8087	13	
LOCKWOOD STORE		PO BOX174	LOCKWOOD	6/12/01	23300		
BP FACILITY //1/168	312	DEL MONTE AVE	MONTEREY	4/2/01	1000	წე 38	
CHEVRON SELVICE #91060	351	FREMONT ST	MONTEREY	4/12/01	10000	9	

Chess Motors Inc Chevron #9-0421		Street Address	1	TANK.	1001	conc. ppp. K	KANK
Chess Motors Inc Chevron #9-0421	110	Charte Ch	SANTA BARBARA	8/1/00	2949	9	٥
Chevron #9-0421	011	State St	CANTA BABBABA	102/97	2400	06	0
	1800	State St		10/117	20300	12	
UCSB Bldg 336, Tank 2	2	UCSB Bidg 336	SANIA BAKBAKA	0/1/01	10C07	3	1
Circle K Store	3506	Black Rd	SANTA MARIA	8/12/00	2884	6	١
Beacon #44	801	Main St West	SANTA MARIA	2/1/98	2350	230	٥
Takeview Unocal	3596	Orcutt Rd	SANTA MARIA	1/12/00	1800	120	S
Santa Ynez Chevron	3595	Sagunto	SANTA YNEZ	6/19/01	1750	32	ပ
Jim's Service Center	2015	Mission Dr	SOLVANG	3/13/01	3800	300	U
SANTA CLARA COUNTY							
GAVILAN COLLEGE SWIM POOL T#3	5055	SANTA TERESA BLVD	GILROY	66/67/6	3300	1500	B
GAVILAN COLLEGE CORP YARD	5055	SANTA TERESA BLVD	GILROY	3/22/01	3279	2300	æ
CITY OF MORGAN HILL CORP YARD	105	EDES CT	MORGAN HILL	11/6/00	2900	00009	В
WORLD OIL STATION #52	16720	MONTEREY HWY	MORGAN HILL	2/9/01	2400	780	В
BP SS#11224	16995	MONTEREY HWY	MORGAN HILL	6/21/01	1500	1210	æ
SHELL SERVICE STATION	17905		MORGAN HILL	6/29/01	3300	1800	æ
SAN MARTIN TIRE	13425	MONTEREY HWY	SAN MARTIN	00/8/6	800	10	Д
SHELL SERVICE STATION	8385	MONTEREY RD N	GILROY	5/18/00	2668	41	C
MARX CHEVROLET - BUICK	8655	MONTEREY ST	GILROY	12/8/99	3487	30	٥
CHEVRON CASA DE FRUTA	10001	PACHECO PASS HWY	HOLLISTER	2/20/97	1700	52	၁
SABEK/SABER//CAVA	16270	MONTEREY HWY	MORGAN HIL.	2/17/00	2400	31	S
GUNTER BROTHERS FEEDS	17620	MONTEREY HWY	MORGAN HIL.	1/19/00	2400	15	C
RUTH JONES RESIDENCE	14905	SANTA THERESA RD	MORGAN HIL.	00/8/6	2912	20	O
SANTA CRUZ COUNTY							
ULTRAMAR BEACON #734	2202	MISSION ST	SANTA CRUZ	1/22/01	1600	5200	▼ .
OUIK STOP MARKET NO 78	5505	SOQUEL DR	SOQUEL	9/4/01	1600	000091	٧
76 SERVICE STATION 5535	1428	FREEDOM BLVD	WATSONVILLE	7/13/01	2200	28000	V
REGAL STATION #432	1455	FREEDOM BLVD	WATSONVILLE	10/61/2	1500	19000	×
ULTRAMAR BEACON #400	1597	FREEDOM BLVD	WATSONVILLE	8/1/01	150	32000	Y
HECKER PASS MARKET	3	HECKER PASS RD	WATSONVILLE	4/3/01	300	\$100	V
ULTRAMAR BEACON #737	1180	MAINST	WATSONVILLE	7/31/01	1320	12000	٧
FORMER ALLIANCE GAS	175	MAIN ST	WATSONVILLE	9/13/01	400	550	V
CHEVRON STATION #9-0160	222	MAINST	WATSONVILLE	7/13/01	880	2500	4
BP OIL FACILITY NO. 11240	2178	41ST AVE	CAPITOLA	7/3:01	3500	14700	B
UNOCAL SERVICE STATION #4902	2255	41ST AVE	CAPITOLA	10/8/6	3900	0061	щ

Page 8 of 9

Site Name	Ctrool	- A - L - L - L - L - L - L - L - L - L	<u>;</u> ;	Sampling Date	Distance**	MtBE	Donk*
Site ivanic	SILCE	Street Audress	City	DAIR	1221		LAIIN
CHEVRON STATION 9-4909	6325	HWY 9	FELTON	1/12/01	2200	5400	В
LOVE BP STATION	1902	FREEDOM BLVD	FREEDOM	2/6/01	1900	350	B
QUIK STOP MARKET #41	2140	FREEDOM BLVD	FREEDOM	10/5/9	2800	10000	B
SHELL STATION	705	CAPITOLA RD	SANTA CRUZ	4/20/01	0089	32000	B
DEVCU UIL	139	ENCINAL ST	SANTACRUZ	4/25/01	2400	3700	B
GAS & SHOP	2003	MISSION ST	SANTA CRUZ	10/3/01	10800	17000	В
EXXON STATION 7-3176	1415	OCEANST	SANTA CRUZ	10/16/5	4200	860001	В
SHELL STATION	745	OCEANST	SANTA CRUZ	4/26/01	6100	41500	B
ULTRAMAR BEACON #735	1516	SOQUEL AVE	SANTA CRUZ	4/26/01	0009	12000	8
FORMER EXXON SERVICE STATION 7	1024	WATER ST	SANTA CRUZ	10/L/S	7300	חאחרנ	B
SHELL STATION	1	HACIENDA DR	SCOTTS VALLEY	10/91/2	2300	0	B
CHEVRON STATION 9-1337	200	MOUNT HERMON RD	SCOTTS VALLEY	10/05/5	2800	3870	В
BP OIL FACILITY NO 11239	201	MOUNT HERMON RD	SCOTTS VALLEY	10/19/01	2300	734	B
SHELL STATION	8	MOUNT HERMON RD	SCOTTS VALLEY	5/30/01	2600	920	æ
EXXON ST 7-0281 (SECOND LEAK)	2501	MAIN ST S	SOQUEL	8/27/01	2400	2000	B
SOUTHLAND CORPORATION SITE NO	455	AIRPORT BLVD	WATSONVILLE	1/22/01	2000	7900	B
PAJARO VALLEY USD	205	BLACKBURN ST	WATSONVILLE	6/12/01	2800	2200	æ
BRAYCOVICH PROPERTY	118-A	HOLOHAN RD	WATSONVILLE	6/11/01	\$604	3200	89
QUIK STOP MARKET NO 63	2303	LAKE BLVD E	WATSONVILLE	10/5/9	2100	2500	EG .
UNOCAL BULK PLANT #846 (NEW TO	103	LEE RD	WATSONVILLE	2/15/01	5300	13200	B
DESERT PETROLEUM #780	570	MAIN ST	WATSONVILLE	3/14/01	2000	230	B
FORMER OLYMPIC STATION	13250	BIG BASIN WAY	BOULDER CREEK	10/3/01	5204	435	C
SAN LORENZO ROCKERY	13215	PINE ST	BOULDER CREEK	4/11/00	3000	36	2
REDTREE PROPERTIES	819	BAY AVE	CAPITOLA	2/6/01	2900	87	ر ا
EXXON STATION 7-3604	836	BAY AVE	CAPITOLA	8/27/01	2900	100	C
SCHIAVON UNOCAL STATION	2001	FREEDOM BLVD	FREEDOM	3/6/01	3100	35	C
EL DORADO MEAT COMPANY	1037	171Н АУЕ	SANTA CRUZ	4/24/01	4000	110	O
SCCSD EAST CLIFF PUMP STATION	2750	LODE ST	SANTA CRUZ	\$/22/01	1700	95	O
HER COMPANY	1725	MISSION ST	SANTA CRUZ	1/30/01	10600	25	C
ULTRAMAR BEACON #528	335	MISSION ST	SANTA CRUZ	10/5:/5	0009	2600	C
CHEVRON STATION 9-3865	823	MISSION ST	SANTA CRUZ	10/6/1	7442	163	C
BEACON STATION #503	1319	OCEAN ST	SANTA CRUZ	3/2/01	4400	120	C
UNOCAL STATION #0292	433	OCEAN ST	SANTA CRUZ	9/27/01	8100	130	J
CHEVRON STATION 9-1361	805	OCEANST	SANTA CRUZ	4/4/01	5843	1170	١

			ACCOMPANY OF THE PARKS OF THE P				
SANTA CRUZ COUNTY				Sampling	Distance**	MtBE	
Site Name	Stree	Street Address	City	Date	feet	conc. ppb. Rank*	Rank*
CHEVRON STATION #9-0801	303	PACIFIC AVE	SANTA CRUZ	1/10/00	10400	24	C
SALZ LEATHERS	1040	RIVER ST	SANTA CRUZ	6/18/01	2144	92	C
CHEVRON STATION 9-0499	404	SOQUEL AVE	SANTA CRUZ	2/23/01	7800	12	C
UNOCAL STATION #6153	66	MOUNT HERMON RD	SCOTTS VALLEY	5/30/01	2000	150	o
CHEVRON STATION 9-2623	6012	SCOTTS VALLEY DR	SCOTTS VALLEY	1/19/99	4500	7	S
UNOCAL STATION #2452	4860	SOQUEL DR	SOQUEL	7/3/01	3400	380	C
HOLOHAN MAINTENANCE YARD	158	HOLOHAN RD	WATSONVILLE	3/22/01	5300	140	C
SOUTHLAND SITE NO 17296	261	LAKE AVE E	WATSONVILLE	3/9/00	2300	12	C
UNOCAL STATION #3741	9/9	LAKE AVE E	WATSONVILLE	2/15/01	4773	18	C
FORMER CHEVRON BULK PLANT #100	101	LEERD	WATSONVILLE	1/19/01	5325	55	ပ
CHEVRON STATION 9-1927	200	LEERD	WATSONVILLE	10/5/12	4900	008	ر

Thursday, December 20, 2001

Attachment C

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SEP 2 4 2001

ENVIRONMENTAL HEALTH SERVICES

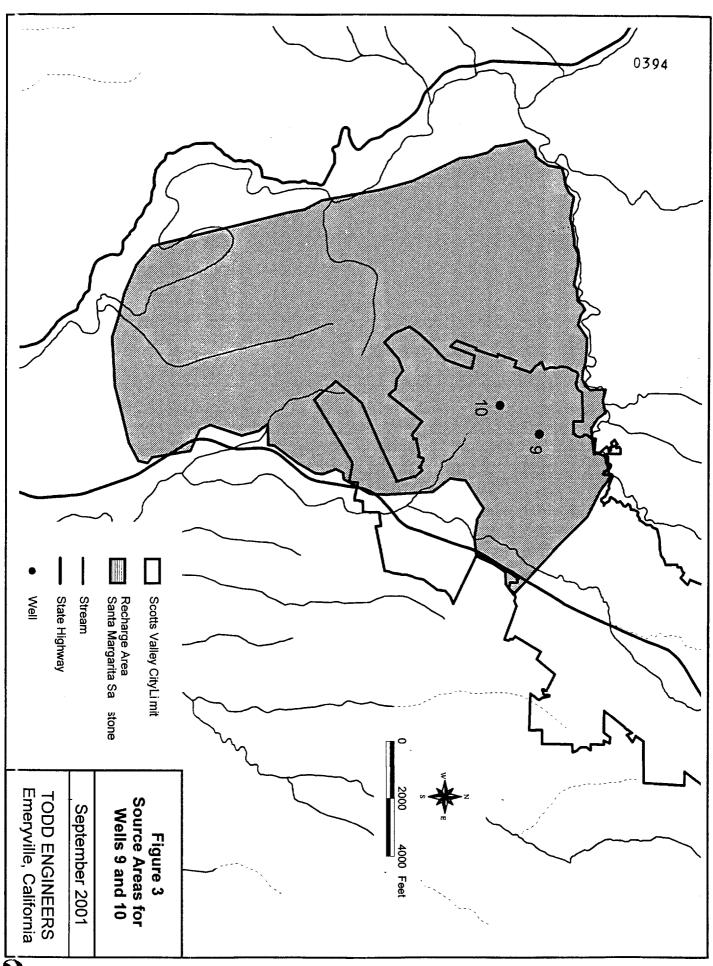
DRINKING WATER SOURCE ASSESSMENT and PROTECTION (DWSAP)

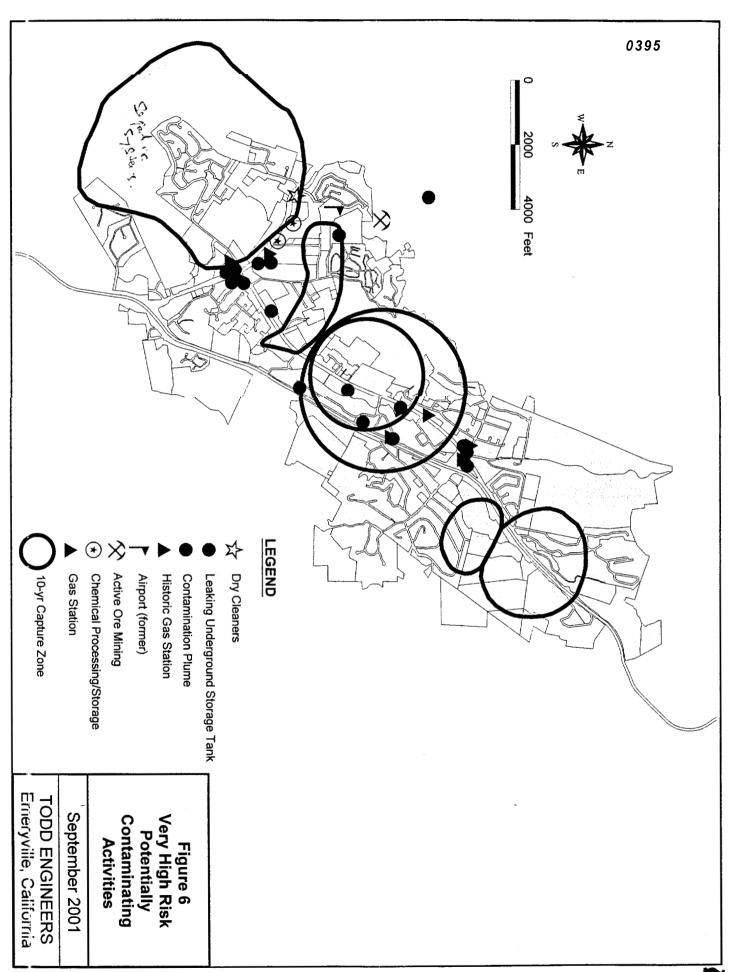
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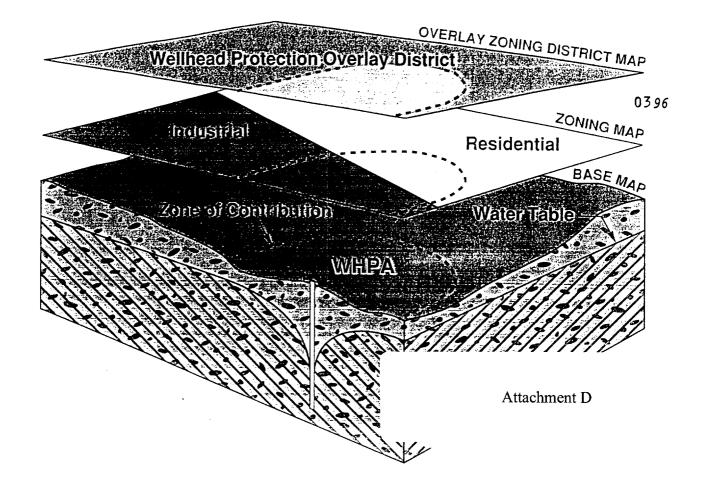
Scotts Valley Water District Scotts Valley, California

September 2001

Todd Engineers
2200 Powell Street, Suite 225
Emeryville, California 94608
phone: (510) 595-2120
fax: (510) 595-2112
www.toddengineers.com

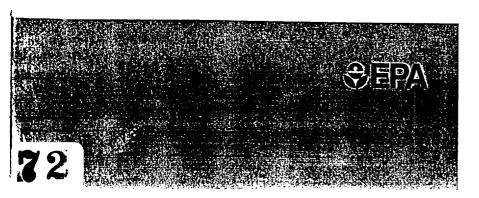






A GUIDE TO WELLHEAD PROTECTION

Jon Witten and Scott Horsley with Sanjay Jeer and Erin K. Flanagan





Appendix C. Summary of Wellhead Protection Tools

	Applicability to Wellhead Protection	Land Use Practice	Legal Considerations	Administrative Considerations
Regulatory: Zoning				
Overlay GW Protection Districts	Used to map WHPAs. Provides for identification of sensitive areas for protection. Used in conjunction with other tools that follow.	Community identifies WHPAs on practical base/zoning map.	Well-accepted method of identifying sensitive areas. May face legal challenges if WHPA boundaries are based solely on abitrary delineation.	Requires staff to develop overlay map. Inherent nature of zoning provides "grandfather" protection to pre-existing uses and structures
Prohibition of Various Land Uses	Used within mapped WHPAs to prohibit known groundwater contaminants and uses that generate contaminants.	Community adopts prohibited uses list within their zoning ordinance.	Well-recognized function of zoning. Appropriate technique to protect natural resources from contamination.	Requires amendment to zoning ordinance. Requires enforcement by both visual inspection and on-site investigations.
Special Permitting	Used to restrict uses within WHPAs that may cause ground-water contamination if left unregulated.	Community adopts special permit "thresholds" for various uses and structures within WHPAs. Community grants special permits for "threshold" uses only if ground water quality will not be compromised.	Well-recognized method of segregating land uses within critical resource areas such as WHPAs. Requires case-by-case analysis to ensure equal treatment of applicants.	Requires detailed understanding of WHPA sensitivity by local permit granting authority. Requires enforcement of special permit requirements and on-site investigations.
Large-Lot Zoning	Used to reduce impacts of residential development by limiting numbers of units within WHPAs.	Community "downzones" to increase minimum acreage needed for residential development.	Well-recognized perogative of local government. Requires rational connection between minimum lot size selected and resource protection goals.	Requires amendment to zoning ordinance.
Transfer of Development Rights	Used to transfer development from WHPAs to locations outside WHPAs.	Community offers transfer option within zoning ordinance. Community identifies areas where development is to be transferred "from" and "to".	Arbitrary large lot zones have been struck down without logical connection to Master Plan or WHPA program. Accepted land-use planning tool.	Cumbersome administrative requirements. Not well-suited for small communities without significant administrative resources.

Appendix C. Summary of Wellhead Protection Tools (cont.)

	Applicability to Wellhead Protection	Land Use Practice	Legal Considerations	Administrative Considerations
Cluster/PUD Design	Used to guide residential development outside of WHPAs. Allows for "point source" discharges that are more easily monitored.	Community offers cluster/PUD as development option within zoning ordinance. Community identifies areas where cluster/PUD is allowed (i.e., within WHPAs).	Well-accepted option for residential land development.	Slightly more complicated to administer than traditional "grid" subdivision. Enforcement/inspection requirements are similar to "grid" subdivision.
Growth Controls/Timing	Used to time the occurrence of development within WHPAs. Allows communities the opportunity to plan for wellhead delineation and protection.	Community imposes growth controls in the form of building caps, subdivision phasing or other limitation tied to planning concerns.	Well-accepted option for communities facing development pressures within sensitive resource areas. Growth controls may be challenged if they are imposed without a rational connection to the resource being protected.	Generally complicated administrative process. Requires administrative staff to issue permits and enforce growth control ordinances.
Performance Standards	Used to regulate development within WHIPAs by enforcing predetermined standards for water quality. Allows for aggressive protection of WHIPAs by limiting development within WHIPAs to an accepted level.	Community identifies WHPAs and establishes "thresholds" for water quality.	Adoption of specific WHPA performance standards requires sound technical support. Performance standards must be enforced on a case-by-case basis.	Complex administrative requirements to evaluate impacts of land development within WHPAs.
Regulatory: Subdivision Control Drainage Requirements	Used to ensure that subdivision road drainage is directed outside of WHPAs. Used to employ advanced engineering designs of subdivision roads within WHPAs.	Community adopts stringent subdivision rules and regulations to regulate road drainage/runoff in subdivisions within WHPAs.	Well-accepted purpose of subdivision control.	Requires moderate level of inspection and enforcement by administrative staff.

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Summary of Wellhead Protection Tools (cont.)
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	Appendix C. Sur	Summary of Wellhead Protection Loois (cont.)	ction 1 ools (cont.)	
	Applicability to Wellhead Protection	Land Use Practice	Legal Considerations	Administrative Considerations
Regulatory: Health Regulations				
Underground Fuel Storage Systems	Used to prohibit underground ft.sl storage systems (UST) within WHPAs. Used to regulate USTs within WHPAs.	Community adopts health/zoning ordinance prohibiting USTs within WHPAs. Community adopts special permit or performance standards for use of USTs within WHPAs.	Well-accepted regulatory option for local government.	Prohibition of USTs require little administrative support. Regulating USTs require moderate amounts of administrative support for inspection follow-up and enforcement.
Privately Owned Wastewater Treatment Plants (Small Sewage Treatment Plants)	Used to prohibit Small Sewage Treatment Plants (SSTP) within WHPAs.	Community adopts health/zoning ordinance prohibiting SSTPs within WHPAs. Community adopts special permit or performance standards for use of SSTPs within WHPAs.	Well-accepted regulatory option for local government.	Prohibition of SSTPs require little administrative support. Regulating SSTPs require moderate amount of administrative support for inspection followup and enforcement.
Septic Cleaner Ban	Used to prohibit the applicational certain solvent septic cleaners within WHPAs, a known groundwater contaminant.	Community adopts health/zoning ordinance prohibiting the use of septic cleaners containing 1,1,1-Trichloroethane or other solvent compounds within WHPAs.	Well-accepted method of protecting groundwater quality.	Difficult regulation to enforce even with sufficient administrative support.
Septic System Upgrades	Used to require periodic inspection and upgrading of septic systems.	Community adopts health/zoning ordinance requiring inspection and, if necessary, upgrading of septic systems on a time basis (e.g. every 2 years) or upon title/property transfer.	Well-accepted purview of government to ensure protection of groundwater.	Significant administrative resources required for this option to be successful.
Toxic and Hazardous Materials Handling Regulations	Used to ensure proper handling and disposal of toxic materials/waste.	Community adopts health/zoning ordinance requiring registration and inspection of all businesses within WHPA using toxic/hazardous materials above certain quantities.	Well-accepted purview of government to ensure protection of groundwater.	Requires administrative support and on-site inspections.
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-	Applicability to Wellhead Protection	Land Use Practice	Legal Considerations	Administrative Considerations
Private Well Protection	Used to protect private on-site water supply wells.	Community adopts health/zoning ordinance to require permits for new private wells and to ensure appropriate well to septic system setbacks. Also requires pump and waterquality testing.	Well-accepted purview of government to ensure protection of groundwater.	Requires administrative support and review of applications.
Nonregulatory: Land Transfer and Voluntary Restrictions Sale/Donation	Land acquired by a community within WHPAs, either by purchase or donation. Provides broad protection to the groundwater supply.	As nonregulatory technique, communities generally work in partnership with nonprofit land conservation organizations.	There are many legal consequences of accepting land for donation or sale from the private sector, mostly involving liability.	There are few administrative requirements involved in accepting donations or sales of land from the private sector. Administrative requirements for maintenance of land accepted or purchased may be substantial,
Conservation Easements	Can be used to limit development within WHPAs.	Similar to sales/donations, conservation easements are generally obtained with the assistance of nonprofit land conservation organization.	Same as above.	particularly if the community does not have a program for open space maintenance. Same as above.
Limited Development	As the title implies, this technique limits development to portions of a land parcel outside of WHPAs.	Land developers work with community as part of a cluster/PUD to develop limited portions of a site and restrict other portions, particularly those within WHPAs.	Similar to those noted in cluster/ PUD under zoning:	Similar to those noted in cluster/ PUD under zoning.
Monitoring	Used to monitor groundwater quality within WHPAs.	Communities establish groundwater monitoring program within WHPA. Communities require developers within WHPAs to monitor groundwater quality downgradient from their development.	Accepted method of ensuring groundwater quality.	Requires moderate administrative staffing to ensure routine sampling and response if sampling indicates contamination.

Appendix C. Summary of Wellhead Protection Tools (cont.)

Appendix C. Summary of Wellhead Protection Tools (cont.)

	Applicability to Wellhead Protection	Land Use Practice	Legal Considerations	Administrative Considerations
Contingency Plans	Used to ensure appropriate response in cases of contaminant release or other emergencies within WHPA.	Community prepares a contingency plan involving wide range of municipal/county officials.	None	Requires significant up-front planning to anticipate and be prepared for emergencies.
Hazardous Waste Collection	Used to reduce accumulation of hazardous materials within WHPAs and the community at large.	Communities, in cooperation with the state, regional planning commission, or other entity, sponsor a "hazardous waste collection day" several times per year.	There are several legal issues raised by the collection, transport, and disposal of hazardous waste.	Hazardous waste collection programs are generally sponsored by government agencies, but administered by a private contractor.
Public Education	Used to inform community residents of the connection between land use within WHPAs and drinking water quality.	Communities can employ a variety of public education techniques ranging from brochures detailing their WHPA program to seminars to involvement in events such as hazardous waste collection days.	No outstanding legal considerations.	Requires some degree of administrative support for programs, such as brochure mailing, to more intensive support for seminars and hazardous waste collection days.
Legislative: Regional WHPA Districts Land Banking	Used to protect regional aquifer systems by establishing new legislative districts that often transcend existing corporate boundaries. Used to acquire and protect land within WHPAs.	Requires state legislative action to create a new legislative authority. Land banks are usually accomplished with a transfer tax established by state government empowering local government to impose a tax on the transfer of land from one party to another.	Well-accepted method of protecting regional groundwater resources. Land banks can be subject to legal challenge as an unjust tax, but have been accepted as a legitimate method of raising revenue for resource protection.	Administrative requirements will vary depending on the goal of the regional district. Mapping of the regional WHPAs requires moderate administrative support, while creating land-use controls within the WHPA will require significant administrative personnel and support. Land banks require significant administrative administrative support if they are to function effectively.
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COUNTY OF SANTA CRUZ

WATER ADVISORY COMMISSION

701 OCEAN STREET, 4TH FLOOR, SANTA CRUZ, CA 95060 (831) 454-2580 FAX: (831) 454-2 131 TDD: (831) 454-2123

Board of Supervisors County of Santa Cruz 701 Ocean Street Santa Cruz, CA 95060 January 23,2002

Ref: Status Report on Reduction of Groundwater Contamination,

Staff Letter and Recommendations dated January 17,2002

Members of the Board:

The Water Advisory Commission heard a report from the Environmental Health Staff and received a draft staff report at our December Meeting. We discussed the fact that **58** sites in Santa Cruz County are currently contaminated by MTBE. There are a total of 560 locations within Santa Cruz County where hazardous chemicals have contaminated soil and/or groundwater.

Therefore, our commission voted unanimously to recommend your Board Support the proposed staff recommendations including items 7 and 8 to enable the County to better address the prevention and remediation of contaminated sites involving groundwater. The protection of our limited groundwater resources is critically important for the public health and welfare.

We thank you for carefully considering our recommendation.

Muhael Cloud, for

Sincerely,

Al Haynes Vice Chair