



2040 Alameda Padre Serra, Suite 224, Santa Barbara, CA 93103
Mail lockbox: P.O. Box 90106, Santa Barbara, CA 93190
Telephone (805) 965-7570; fax (805) 962-0651
www.healthocean.org

MONITORING WELL DATA FOR SANTA BARBARA WATERFRONT & ENVIRONS

Synopsis for Heal the Ocean by Helene K. Gardner, Ph.D.,

I have examined the data available for the Santa Barbara waterfront on the GeoTracker web site. This site is a database developed by the State Water Resources Control Board to provide online access to information on leaking underground storage tanks (LUSTs also called leaking underground fuel tanks, LUFTs), spills-leaks-investigations-cleanups (SLICs), landfills, and Department of Defense sites. Oddly, Matthew Chircop, Hazardous Materials Specialist with Santa Barbara County Fire told me on 11/18/2010 that only LUFT sites are required to be on GeoTracker site, so there seems to be some confusion about that. There is certainly less information available on the GeoTracker site for non-LUFTs than LUFTs, which does not seem to be consistent with the purpose of the web site.

On 11/23/2010, Nathan West, with the Leaking Underground Fuel Tank Program of Santa Barbara County Fire, informed me that the data submittal requirements for GeoTracker were phased in from 2001 – 2005. The consequences of this are that no information prior to 2001 is present on the site, partial information is present for the phasing in period, and information after 2005 may or may not be present depending on the “diligence of the responsible party or their consultant.” Again, it seems inconsistent with the purpose of the web site that responsible parties or their consultants could hamstring it.

Depicted on the GeoTracker map are sites that are contaminated. LUSTs, other clean-up sites, land disposal sites, and military sites are all depicted.

In the Santa Barbara Waterfront area, 222 listed sites were researched in the current investigation. This is not all that are depicted but those closest to the waterfront and running from the SB Cemetery around downtown, including the lower Riviera and Samarkand

neighborhoods, and extending out to Las Positas Road, and south of Highway 101. Of the 222 sites, 118 (53%) are closed and 104 (47%) are open.

Of the 118 that are closed, monitoring data are presented for 10. Of the 104 that are open, monitoring well data was located for 77, leaving 27 for which no data were found but which are open. For most of these, the lead agency, either Central Coast RWQRB or SB County Fire was contacted.

Of the 222 sites, 179 (81%) are LUSTs, 40 (18%) are "other clean-up sites," 2 are landfills, and 1 is a military site.

LUSTs primarily once contained gasoline or diesel fuel, so the monitoring wells sunk into aquifers below them are contaminated with a mixture of substances, almost entirely organic, although from tanks once containing leaded gas, lead is also present. Benzene, a carcinogen, used to be added to gasoline and is naturally found in petroleum. Other former gasoline additives include 1,2-dichloroethane and t-butyl alcohol.

"Other clean-up sites" include old (and current) dry cleaning establishments contaminated with old dry cleaning solvents like PCE and TCE. Such substances along with degreasers like 1,1- and 1,2-dichloroethane, cis- and trans-1,2-dichloroethene, chloroform, t-butyl alcohol, and other volatile organic compounds contaminate automotive, machine, and marine shops where degreasing operations occurred as well as sites of printing operations. Metals other than lead contaminate plating and dry docking enterprises.

There are two sites listed as land disposal sites, the Elings Park Closed Landfill and the Santa Barbara City Dump at Montecito and Garden Streets, and a single military site, "US Naval Air Station (Goleta) – UCSB, Santa Barbara," oddly listed as being at Anacapa and DeLaGuerra Streets.

Of the 87 sites for which monitoring well data were found (10 closed + 77 open), 64 possess concentrations of contaminants exceeding the California drinking water standards/maximum contaminant levels (CA DWS/MCLs) as of their most recent sampling (2009 or 2010 in most cases). These include 3 sites that are considered closed (SB County Courthouse @ 1120 Anacapa St., Former Tidewater Service Station @ 21 W. Carrillo St., and Sanchez Property @ 526 Anacapa St.).

Contaminants the concentration of which exceed the CA DWS/MCLs in monitoring wells are: benzene (44 sites @ > 1 ug/L), ethylbenzene (16 sites > 300 ug/L), toluene (methylbenzene; 15

sites @ > 150 ug/L), xylenes (o-, m-, and p-dimethylbenzene; 13 sites @ > 1750 ug/L), tetrachloroethylene (tetrachloroethene; perchloroethylene; PCE; 18 sites @ > 5 ug/L), trichloroethylene (trichloroethene; TCE; 9 sites @ > 5 ug/L), vinyl chloride (3 sites @ > 0.5 ug/L), 1,2-dichloroethane (19 sites @ > 0.5 ug/L), 1,1-dichloroethene (1 site > 6 ug/L), cis-1,2-dichloroethene (8 sites @ > 6 ug/L), trans-1,2-dichloroethene (1 sites @ > 10 ug/L), methyl-t-butyl ether (MTBE; 22 sites @ > 13 ug/L), lead (3 sites @ > 15 ug/L), chromium (1 site @ > 100 ug/L), and arsenic (1 site @ > 10 ug/L). This does not necessarily mean that DWS/MCLs are exceeded for these contaminants in municipal water since groundwater is blended with other sources of water to produce municipal water.

Other US, California, and/or regional standards, action levels, and/or screening levels exist and comparison to them made in numerous documents regarding groundwater monitoring. This report focuses on the least stringent of these, so as to avoid overstating our case.

Of the 61 sites that are open and which have ground water monitoring well concentrations exceeding CA DWS/MCLs follow. [Note that the date given for the opening of the site is when the site contamination case was opened. Also note that, when drinking water is said to be contaminated, contaminated water at the site is said to be used for drinking water. Sites highlighted in green are designated “clean-up” sites, and Regional Water Quality Control Board (RWQCB) is the lead agency (except where noted). Sites highlighted in red are designated “LUST” sites, and SB County LOP (the SB County Fire) is the lead agency (except where noted). Sites highlighted in yellow are the two dumps (lead agency RWQCB) and the military site (lead agency CA Department of Toxic Substances Control)].

Former Cinco De Mayo Cleaners (434 Olive St.) was opened in 1989 and remediated in 2000. Drinking water is contaminated.

Mission Industries/Ambassador Laundry (201 E. Haley) was opened in 1991 and remediated in 1991, 2003, and twice in 2004. Drinking water is contaminated.

Pacific Scientific (402 E. Gutierrez St.) was opened in 1999 and remediated in 2002. Drinking water is contaminated.

Carrillo Plaza/Norvall Bass Dry Cleaners (1015 De La Vina St.) was opened in 1990 and remediated in 2003, 2004, and 2005.

Fenn, Former Dry Cleaners (201 E. Figueroa St.) was opened in 2001 and remediated twice in 2004.

Mission Linen Supply (619 E. Gutierrez St.) was opened in 1993 and remediated in 1994.

Ablitt's Cleaners (14 W. Gutierrez St.) was opened in 1989 and remediated in 2001. Drinking water is contaminated.

SB City Parking Lot #12 (321-327 State St.) was opened in 1988 and remediated twice in 2003.

SB City Police Station (215 E. Figueroa St.) was opened in 1989 and has yet to be remediated. Drinking water is contaminated.

Park's Texaco Market (1502 San Andres St.) was opened in 1989 and remediated in 1990, twice in 2007, and in 2008. Drinking water is contaminated.

Former Arco #1884 (34 Montecito St.) was opened in 1987 and has yet to be remediated. Drinking water is contaminated.

Delmonte Management (1233 De La Vina St.) was opened in 1987 and remediated in 2000 and 2006. Drinking water is contaminated.

SB City Fire Station #5 (2505 Modoc Rd.) was opened in 1989 and remediated in 1991 and 1997. Drinking water is contaminated.

Culligan Soft Water (1026 Santa Barbara St.) was opened in 1985 and remediated in 2001 and 2007. Drinking water is contaminated. **Nonresponsive/recalcitrant responsible party.**

SB City Recycling Center (631 Garden St.) was opened in 1988 and remediated in 1999. Drinking water is contaminated.

Hiete Property (414 Chapala St.) was opened in 1993 and remediated in 1998 and 2006. Drinking water is contaminated.

Mission Linen Supply (619 E. Montecito St.) was opened in 1988 and remediated in 1994. Drinking water is contaminated.

Mobil Oil #11-KRA (2299 Las Positas Rd.) was opened in 1993 and remediated in 2000. Drinking water is contaminated.

Tosco-76 SS#4974 (1929 Cliff Drive) was opened in 1987 and remediated in 1988, 2002, and 2004. Drinking water is contaminated.

SB County Department of General Services (118 E. Figueroa St.) was opened in 1988 and remediated twice in 1995. Drinking water is contaminated.

Chevron #9-1799/Educated Car Wash (401 W. Montecito St.) was opened in 1988 and remediated in 1990. Drinking water is contaminated.

Former Shell Service Station (636 W. Carrillo) was opened in 1998 but has yet to be remediated. Drinking water is contaminated.

JR's Gas (1905 Cliff Drive) was opened in 1996 and remediated in 2001 and 2004. Drinking water is contaminated.

MacDonald Trust/Shell Oil (2034 Cliff Drive) was opened in 1993 and has yet to be remediated. Drinking water is contaminated.

Auto Repair (Former) (126 W. Carrillo) was opened in 1995 and remediated in 2000. Drinking water is contaminated.

Union Pacific Railroad/Fiesta Car Wash (240 W. Montecito St.) was opened in 1997 and remediated in 1998 and 2004.

Diving Systems International (425 Garden St.) was opened in 1999 and remediated in

2003. Drinking water is contaminated.

Canon Perdido Car Wash (112 W. Canon Perdido) was opened in 1997 and remediated in 1997. Drinking water is contaminated.

SB City Fire Station #1 (121 W. Carrillo) was opened in 1989 and remediated in 1991. Drinking water is contaminated.

Porter Auction Co. (813 Garden St.) was opened in 1986 and has yet to be remediated. Drinking water is contaminated.

R.J. Carroll and Sons Plumbing (625 N. Salsipuedes) was opened in 1989 and remediated in 1993 and 2002. Drinking water is contaminated.

Seaside Shell (101 W. Carrillo) was opened in 1990 and remediated in 1990, 1992, and 2001. Drinking water is contaminated.

Petre Industries (428 E. Haley St.) was opened in 2001 and has yet to be remediated. Drinking water is contaminated.

Former Gas Station (636 Santa Barbara St.) was opened in 2005 and remediated in 2005. Drinking water is contaminated.

Former Chevron SS #206699 (101 E. Victoria St.) was opened in 1994 and remediated twice in 2007. Drinking water is contaminated.

Gold's Gym (21 W. Carrillo) was opened in 2004 and has yet to be remediated. Drinking water is contaminated.

Mobil Oil #11-ERG (314 Santa Barbara St.) was opened in 2006 but has yet to be remediated. Drinking water is contaminated.

Seaside Shell (101 W. Carrillo) was opened in 2005 and has yet to be remediated. Drinking water is contaminated.

Former Chevron Station (902 Anacapa St.) was opened in 1986 and remediated in 1986. A feasibility study for further clean-up was just received.

Former Unocal #0957 (825 Anacapa St.) was opened in 2001 and remediated in 2003. Drinking water is contaminated.

Pep Boys Store (424 State St.) was opened in 2004 and again in 2008 and remediated in 2005. Drinking water is contaminated.

Cooney Property (321 E. Haley St.) was opened in 2000 and remediated in 2001, 2004, and 2007. Drinking water is contaminated.

In & Out Paint & Collision (314 State St.) was opened in 2009 and remediated in 2010. Drinking water is contaminated.

McCormix Corporation (336 N. Calle Cesar Chavez) was opened in 1999 and remediated three times in 2002. Although this is a cleanup site, the lead agency is SB County LOP (Fire). Drinking water is contaminated

McCormix Corporation (22 Calle Cesar Chavez) was opened in 1989 and remediated in 2002 and 2005. Drinking water is contaminated.

Muzak Music (735 E. Montecito St.) was opened in 2002 and remediated in 2002 and 2010. Drinking water is contaminated.

Tecknit/Tube Holding Company (312-20 N. Nopal St.) was opened in 1994 and remediated in 1994 and 2004.

Thrifty Oil #206 (231 Milpas St.) was opened in 1985 and remediated in 2003 and multiple times in 2006. Drinking water is contaminated.

Gas Company (630 E. Montecito St.) was opened in 2002 and remediated in 2002. What media are affected is “under investigation.” Although this is a cleanup site, the lead agency is SB County LOP (Fire).

Andrews Automotive (8 S. Milpas St.) was opened in 1992 and remediated in 2003 and 2006. Drinking water is contaminated. **Responsible Party claims lack of funds.**

A-1 Cleaners (324 N. Milpas St.) was opened in 1995 and remediated twice in 2009.

Milpas Arco (302 N. Milpas St.) was opened in 1992 and remediated in 2000, 2003, 2007, and 2009. Drinking water is contaminated.

Mike's Texaco (134 S. Milpas St.) was opened in 1991 and remediated in 1999, 2003, and twice in 2005. Drinking water is contaminated.

Unocal SS#5877 (200 S. Milpas St.) was opened in 1988 and remediated in 1991, 1995, 2004, and 2005. Drinking water is contaminated.

Birdsell/Drewisch (132 S. Milpas St.) was opened in 1989 and remediated in 2002, 2005, and 2008. Drinking water is contaminated.

Roth Property (335 N. Milpas St.) was opened in 1999 and remediated in 2002 and 2007. Drinking water is contaminated.

Peppard/Clark Property (800 N. Milpas St.) was opened in 1986 and remediated in 1986, 2003, and 2007. Drinking water is contaminated.

Chevron SS#9-2444 (803 N. Milpas St.) was opened in 1993 and remediated in 2000, 2001, 2003, 2004, 2009, and 2010. Drinking water is contaminated.

Doug's Bougs (735 N. Milpas St.) was opened in 1988 and remediated in 2002 and 2007. Drinking water is contaminated.

SB Manufactured Gas Plant (supposedly at 136 E. De La Guerra but placed on the GeoTracker map at Islay and De La Vina) was opened in 1998 and remediated twice in 2002 and again in 2003. This is an Envirosstor project. It should not be confused with the SB Distribution Base (also called, at times, the SB Manufactured Gas Plant). The lead agency for both is the CA Department of Toxic Substances Control, which ought to tell us something. Like its at-times identically-named cousin over on Montecito St., this is a poop of a site with a long history. It was used to make gas for household use from crude oil or coal in the 1900s (and we're referring to a decade, here, not a century). Wastes from such an operation include polynuclear aromatic hydrocarbons (PAHs) and

volatile organic compounds (VOCs).

Chevron SS#9-0421 (1800 State St.) was opened in 1989 and remediated in 1996, 2002, 2006, and 2007. Drinking water is contaminated.

Of the above 61 open sites at which groundwater contains contaminants exceeding the CA DWS, 51 are noted on GeoTracker as contaminating groundwater used for drinking.

Of the above 61 open sites, 25 were opened in the 1980s, 24 in the 1990s, and 12 in the 2000s. One wonders how long illegal concentrations in groundwater, especially such used for drinking water, will be tolerated by the supervising agencies. One of these (SB Manufactured Gas Plant) has been polluting the groundwater for a hundred years. To be fair, most have been remediated, but what is the point of ongoing monitoring if it isn't to ascertain whether remediation has been effective and then to go back and re-remediate so that groundwater can be uncontaminated?

Of the 61 open sites, there are 9 that have not yet been remediated. Three date back to the 1980s (SB City Police Station, Former Arco #1884, and Porter Auction Co.), two date back to the 1990s (Former Shell Service Station and MacDonald Trust/Shell Oil), and four are from the 2000s (Petre Industries, Gold's Gym, Mobil Oil #11-ERG, and Seaside Shell).

Sites which have had no attention from the SB County LOP for many years have recently (2009 or 2010) been reviewed for closure. This gives the impression that something is being done. In essence, what's being done is an analysis on paper of what is known about the site, why it hasn't been closed, and why it should be remediated again or originally. As far as the quality of the groundwater is concerned, however, such activities are meaningless.

Of the sites for which no recent data could be found:

Elings Park Closed Landfill, **Santa Barbara City Dump**, and **US Naval Air Station (Goleta)**

are special cases. I can't believe there aren't loads of data on these sites, but they aren't readily accessible. I haven't taken the time to investigate these.

SB Harbor Dry Dock has no monitoring wells because it's directly over harbor waters.

Caltrans Property (324 De La Vina) was opened in **1991**, remediated in 1991 and 2002, and became inactive in 2009. A file review with RWQCB can be requested.

Former U-Neat Cleaners (212 E. Anapamu St.) was opened in **2003**. No remediation has occurred, the potentially affected media include drinking water, and the site is listed as being assessed, but no wells have yet been dug.

Former Schauer Printing (1126 Santa Barbara St.) was opened in **2003**. No remediation has occurred, the potentially affected media include drinking water, and the site

is listed as being assessed, but no wells have yet been dug.

Goldberg/Goss-Jewett (220 W. Gutierrez St.) was opened in **1990**, remediated in 1994, and became inactive in 2009. A 1994 gw monitoring report shows contamination by PCE above CA DWS. In 1998 non-response and intent to pursue enforcement action were noted. Responsible party appears **recalcitrant**.

Ingram Paper (416 N. Salsipuedes St.) was opened in **1989**. Clean-up documents were to have been submitted in 2003 but were not received. In 2010, SBCFire requested another work plan, received it, and approved it, but no data is yet available.

Non-responsive/Recalcitrant responsible party.

Santa Barbara City Site (101 State St.) was opened in **1991**, and the gw monitoring wells were dug in March 2010. No data is yet available. Aquifer used for drinking water is “already impacted” with “free product” (presumed to be diesel fuel based on the nature of the LUST). The potential for contamination of Mission Creek also exists.

Former Phillips Station (331 W. Montecito St.) was opened in **1992** and remediated in 1993, but gw monitoring wells were dug in November 2010. No data is yet available. An aquifer used for drinking water is “already impacted” with benzene, toluene, ethylbenzene, &/or xylenes (BTEX).

Ellis Property (12 E. Montecito St.) was opened in **1994**. A sampling plan was recently approved, so no wells have been dug and no data is yet available. An aquifer used for drinking water is “already impacted” with naphthalene. **Non-responsive/Recalcitrant responsible party.**

Enterprise Fish Co. (225 State St.) was re-opened in **2005** and seems to be near re-closure. Prior to that, a report noted that monitoring wells need to be abandoned, so apparently there are gw monitoring wells, but no data from them is apparent.

Wolfgang’s Mesa Texaco (2036 Cliff Dr.) was closed in 1989 and re-opened in **2005** when investigation of a nearby site revealed that contamination at the nearby site was likely originating at Wolfgang’s Mesa Texaco (SBC Fire letter of February 17, 2010). A previous letter from SBCo. Fire to SWRCB (September 15, 2009) refers to the owner of Wolfgang’s as recalcitrant. That letter was written in response to a letter from SWRCB to SBCo. Fire (May 19, 2009) in which SWRCB notes that the “hiatus in the oversight/enforcement activity at this Site of 20 years...appears to be excessive.” SBCo. Fire disputed that timeline, but the fact remains that the investigation of the site was opened in 1989 and that, as of August 2010 monitoring wells had yet to be drilled. Even so, it is known that an aquifer used for drinking water is contaminated with BTEX and 1,2-dichloroethane. From an administrative standpoint the delay may not be of

more than 20 years, but from an environmental standpoint, it is. The responsible party is effectively stonewalling this project.

Santa Barbara City Fire Station #1 – Diesel (121 W. Carrillo St.) was opened in 1989.

There is no record of remediation or of gw monitoring well data, however such data are referred to. Aquifer used for drinking water is “already impacted” with MTBE and PCE, although they are not believed to originate at the site.

Nonresponsive/Recalcitrant responsible party.

Tony’s Body and Fender (18 W. Cota St.) was opened in 1989 and remediated that year, however gw monitoring has not been accomplished because of a nonresponsive responsible party. Two gw monitoring wells do exist and an undated report present in the Closure Request of 8/10/2007 indicates that BTEX are present at “<1 to <2” ug/L and that EDC (1,2-dichloroethane & EDB (1,2-dibromoethane) are present at “<1.” However, the CA DWSMCLs for benzene is 1 ug/L and that for 1,2-dichloroethane is 0.5ug/L, so such data do not indicate that CA DWS/MCLs were/are not being violated at the site. The responsible party is effectively stonewalling this project.

Parking Lot (217 Helena Ave.) was opened and remediated in 2008. There are no monitoring wells on the site although a grab sample was obtained in June 2010 and the results of that are expected this month. The Phase II Environmental Site Assessment Work Plan of 6/3/2009 notes that a grab sample obtained from standing water in a pit excavated in August 2008 revealed 1,2-dichloroethane present in concentration exceeding the CA DWS/MCL.

Justo the Tailor and Cleaners (2275-2279 Las Positas Rd.) was opened and remediated in 2009. I’m told that lots of gw monitoring data exists for the site but that application to SB Co. Fire must be made to see it. Although a cleanup site, the lead agency is “SB County.”

Artisan Court Project (420 E. Cota St.) was opened in 2009. GW monitoring wells have not been developed but grab samples have been obtained from gw in the soil borings. This site is still being assessed. Although a cleanup site, the lead agency is “SB County.”

El Estero Diesel Tank (520 E. Yanonali St.) was opened in 2008. A work plan was submitted in October 2010, and an assessment is due this month.

Santa Barbara Distribution Base (630 E. Montecito St.) was opened in 1990, remediated in 1995, shifted to verification monitoring in 2001, and became inactive in 2009. This is an Envirostor site and should not be confused with the SB Manufactured Gas Plant. It’s a real poop of a site and hiding out under various aliases. The site has been variously called the Former SB Manufactured Gas Plant Site, the Southern California Gas Company Former SB Manufactured Gas Plant,

and the Southern California Gas/SB/Quarantine MPG. Its history goes back to 1900 (that's 1900 A.D.) when it was The Southern California Gas Company – Santa Barbara site. Until 1916 A.D. manufactured gas or “towne gas” was made there from crude oil. Tarry wastes with polynuclear aromatic hydrocarbons (PAHs), cyanide, lead, and semivolatile organics are typical in such wastes. The lead agency is the CA Department of Toxic Substances Control. Correspondence with that agency indicates that a lot of gw sampling has occurred at the site but the agency is not divulging it. The contact at the agency promises to forward a summary of the gw sampling results when the report due at the end of the year is received. We'll see.

Southern California Edison (701 E. Montecito St.) was opened in **1994**. It does not seem to have been remediated. RWQCB informed me that several rounds of gw monitoring were done around that time and that it was concluded that the source of contamination at the site was upgradient. The wells have not been sampled since then, but the site is considered still to be undergoing “verification monitoring.” Don't know why. The file can be reviewed at RWQCB.

Fess Parker Waterfront Hotel (110 S. Calle Cesar Chavez) was opened and remediated in 2007. It became inactive in 2009. Again, don't know why. There is basically no information on this site on GeoTracker. The contact at RWQCB said that there is gw monitoring data available for the site and that we can request a file review from SBCo. Fire, which is the lead agency.

Peppard Sidewalk Tank (800 N. Milpas St.) was opened and remediated in 2010. GW monitoring has not been done yet.

Mobil Oil #11-EP9 (1936 State St.) was opened in **2000**. It has not been remediated. There are two gw monitoring wells on site showing no detects in 2010, but, because of difficult boring conditions, there are no wells in the source zone. The lack of detection is, therefore, meaningless. MTBE threatens an aquifer used for drinking water.

Cottage Hospital (2315 Bath St.) was opened in **2002** and remediated in 2003. No gw monitoring wells exist, although the site is listed as undergoing verification monitoring. A Nonresponsive/Recalcitrant responsible party has not complied with a 2008 directive to submit an investigation work plan. **The responsible party is effectively stonewalling this project.**

Former St. Francis Hospital (601 E. Micheltorena St.) was opened in August 2010, so the investigation has just begun.

Is groundwater being polluted at the above sites? Some of the spills at these sites are obviously quite old and the contamination has been cleaned up, so groundwater may not be

contaminated, but I have been unable to learn from the agencies involved why such sites remain open. It would seem that there is some question as to the efficacy of clean-up, but then inactivity or age prevents the data from appearing on GeoTracker. The lead agencies should be contacted and the files reviewed.

Of the above sites (excluding the two dumps, the military site, and the site over harbor water), half have not been remediated as far as I can tell. Two were opened in the 1980s (Ingram Paper and SB City Fire Station #1-diesel), three were opened in the 1990s (SB City Site, Ellis Property, and Southern California Edison), six in the 2000s (that's a decade not a century; Former U-Neat Cleaners, Former Schauer Printing, Wolfgang's Mesa Texaco, Artisan Court, El Estero Diesel Tank, and Mobil Oil #11-EP9), and one from 2010 (Former St. Francis Hospital). It is understandable that the more recently-opened sites have not been remediated, but most of the sites are more than five years old...and continue to threaten to contaminate groundwater.

In my wanderings through the volumes of paper on these sites several thoughts have hit me:

1. As long as a date can be placed on a site file, even if it is the date that the file was looked at, there is the appearance of something being done with respect to contamination of groundwater. Of course, opening a file and running human eyes over it does nothing to improve the quality of water in the drinking water aquifers under Santa Barbara. The point doesn't seem to be to clean them up. The point seems to be to give the appearance of doing something so as to be in compliance with some legislation.
2. The phrase "natural attenuation" occurred. In other words, there is an actual practice of leaving sites alone long enough to cleanse themselves. What is the point of employing all the people at the agencies and the environmental clean-up firms and making the property owners spend lots of money if the objective of the operation isn't to clean up the groundwater *faster* than nature can accomplish on its own?
3. Some of these sites have been polluting groundwater for decades.
4. Responsible parties who don't have the money or don't want to spend the money or don't believe in the laws that they've broken can effectively prevent clean-up of the groundwater their activities have polluted by simply being "non-responsive/recalcitrant" or, in the case of more sophisticated resisters, pushing lots of paper around very slowly. Lawyers are very good at this.

