

INVESTIGATION:

Abandoned Wells ... Abandoned Program?

Sacramento County Environmental Management Department

SUMMARY

The groundwater supply for Sacramento County citizens is threatened by contaminated run-off from hundreds of abandoned water wells. In late 2009, the Sacramento County Environmental Management Department (EMD), the county's environmental protection agency, armed with a panoply of state and local enforcement statutes and \$4.7 million in funding, initiated the Abandoned Wells Program (AWP) to identify and decommission an estimated 1,000 or more abandoned wells to prevent further groundwater contamination. But after four months of effective enforcement action, the EMD director abruptly suspended the enforcement project in response to pressure from landowners who objected to cleaning up their abandoned wells.

In the first four months of enforcement action in early 2010, EMD staff identified some 200 abandoned wells and issued Notices of Violation (NOV) to the landowners mandating that they decommission the wells. However, in April 2010, following meetings with landowners who objected to the alleged illegality and cost of the clean-up mandate, the EMD director abruptly suspended the enforcement program, replacing enforcement action with a voluntary reporting and public outreach program. The number of abandoned wells identified and brought into compliance has dropped dramatically since suspension of EMD enforcement actions.

Given the clear threat to county groundwater, the early effectiveness of enforcement action, and substantial funding to support the project, two issues arise: (1) Why did the EMD director abandon the enforcement effort? (2) Has the voluntary reporting and public outreach program that replaced enforcement action effectively addressed the threat to the county groundwater from abandoned wells?

The Sacramento County Grand Jury finds that the director suspended the enforcement program in response to pressure from a small group of landowners who had received NOVs and objected to the clean-up mandate. The Sacramento County Grand Jury also finds that the voluntary reporting program has been ineffective in addressing the environmental hazards from abandoned wells. Given the clear and present danger to the county's groundwater, the effectiveness of enforcement action, and the existing funding to support the enforcement program, the Sacramento County Grand Jury recommends that the EMD

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revive the AWP and renew aggressive enforcement action in order to protect our groundwater from contamination.

INTRODUCTION

The citizens of Sacramento County rely on groundwater drawn from wells to supply about half their water needs. Rural county residents, in particular, rely heavily on domestic and irrigation water wells, rather than municipal or district water suppliers. There are hundreds of such wells in the county, many in use but many abandoned. Thus, protecting the groundwater to ensure a safe, adequate water supply is of paramount importance to Sacramento County residents.

Abandoned wells present a serious environmental hazard. When wells are abandoned and deteriorate, runoff water carries bacteria, sediment, fertilizer, pesticides and other surface pollutants directly down to our groundwater. Unsecured open-pit wells and large-diameter drilled wells create hazards to livestock and people who may fall into the abandoned wells, and are illegal dumps for trash, debris and hazardous waste materials. The EMD's mission is to protect the county's public health and environment, and their data estimates that there are more than 1,000 abandoned wells in Sacramento County.

Recognizing the serious environmental hazards presented by abandoned wells, the California Legislature in 2003 mandated the sanitary, safe destruction of abandoned wells. The Legislature authorized cities, counties and water districts to enter and inspect properties for abandoned wells and to address and correct unsafe wells and prevent groundwater contamination. Then in 2009, following successful environmental litigation brought by the California Attorney General against various oil companies for their groundwater contamination, the EMD established the AWP, staffed and funded with \$4.7 million earmarked from settlement of the litigation, and mandated to identify and destroy or decommission abandoned wells in the county.

In December 2009, the EMD initiated aggressive enforcement of the AWP. In the first four months of enforcement, January through April 2010, the AWP staff identified almost 200 abandoned wells, mostly in rural southern Sacramento County, and notified landowners of their legal obligation to safely destroy or decommission their abandoned wells.

The notifications created a firestorm at the EMD. Many rural landowners complained and demanded to meet with the EMD director and with the county supervisor for the district. At a series of meetings in early 2010, they expressed outrage over what they claimed were unlawful, "unconstitutional" entries on

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their property, and the cost of destroying the abandoned wells as required by law.

Following these meetings, on April 19, 2010, the EMD director met with the county supervisor, county counsel and a deputy county counsel to discuss the situation. On April 20, the director instructed staff to immediately cease enforcement activity, field inspections, and reporting of possible abandoned wells. Further, staff was ordered to stop issuing NOV's to non-compliant landowners. Eventually, the EMD eliminated the four full-time field inspectors and six full-time support staff. The director also told staff to send letters of apology to all landowners who had received an NOV.

Instead of the enforcement program, the EMD implemented a "voluntary reporting" and "public awareness campaign." And in the months and years since April 2010, identification and proper destruction of abandoned wells dried up. In the first four months of the program until the director's April 19 meeting, the EMD identified almost 200 abandoned wells, only slightly fewer than it had identified in the three-and-one-half years since. Of the 193 abandoned wells identified between January and April 2010, 160 have yet to be decommissioned.

The EMD director denies that he abandoned the AWP enforcement program in response to pressure from rural landowners. He asserts that he was merely shifting resources to "higher risk" and "higher priority" department programs for budgetary reasons. But the immediate cessation of enforcement activity the day after the director's April 19 meeting with the county supervisor, the subsequent elimination of AWP enforcement staff, the dramatic decline in the EMD's identification of abandoned wells, the failure to decommission the large number of abandoned wells identified over four years ago, and the fact that the program was fully funded by \$4.7 million earmarked by the litigation settlement, compelled the grand jury to investigate two issues:

(1) Did the EMD director suspend the Abandoned Wells Restoration Project in response to special-interest pressure or for valid discretionary enforcement and budgetary reasons?

(2) Has the voluntary reporting and public outreach program that replaced the enforcement program effectively addressed the environmental threat to the county groundwater from abandoned wells?

APPROACH

The grand jury interviewed past and current managers and staff

of the Abandoned Wells Program, the EMD director, and a county supervisor, and conferred with the county counsel and the District Attorney's Office. The grand jury also reviewed emails, budget materials, meeting minutes and staff reports, as well as applicable statutes, including County Code Chapter 6.28 (well and pump safety) and California Health and Safety Code section 115700.

DISCUSSION

Before 1848 and the discovery of gold, Sacramento was a remote, sleepy, often-flooded trading outpost and the site of Sutter's Fort. But with the Gold Rush and the influx of miners and merchants, and with its location at the confluence of the Sacramento and American rivers, Sacramento quickly became a major agricultural, commercial and distribution center.

With the population boom and commercial and agricultural expansion, Sacramento's demand for water increased dramatically. Beyond drawing from the region's river water, Sacramento's growing population and expanding business and farming communities created the need for water wells, particularly as commerce and agriculture moved away from the riverbanks to the surrounding countryside.



The region's first wells were "hand dug," with wide, unsecured openings. Over the decades, as water tables dropped, these hand-dug wells dried up, and as technology improved, drilled wells became the norm. Many of these hand-dug wells still exist today; some are in use but most have been abandoned, in many cases without being properly destroyed. These abandoned hand-dug wells remain a hazard to people and livestock. The dangers of the county's abandoned wells were widely reported in July 2012, in the case of a 1,500-pound rodeo bull that fell into an abandoned well in eastern Sacramento County.

While the drilled wells have smaller openings, with less risk of people or livestock falling into them, they also are deeper and access lower aquifers than hand-dug wells. Thus, they pose a greater threat of contamination to the aquifers from septic systems, gasoline, fertilizers, rust and deterioration. Many of these drilled wells were abandoned as real estate development proliferated and many developers simply left old irrigation and

Some abandoned wells are just holes in the ground while others, such as this one, can be easily seen.

domestic water wells abandoned and unsecured. County officials estimate there are more than 1,000 abandoned wells in Sacramento County.

Sacramento County residents rely on groundwater drawn from wells to supply about half their water needs. County groundwater is drawn by municipal water systems, water districts and private wells. Rural county residents, in particular, rely heavily on domestic and irrigation water wells, rather than municipal or district water suppliers. The groundwater drawn by municipal and district water suppliers is routinely tested for contaminants. However, the groundwater drawn from wells on private property is not routinely tested. Therefore, it is important to identify, test, and decommission abandoned wells to ensure that those wells are not a conduit for contamination of the groundwater supply.

Environmental Management Department

The Sacramento County Environmental Management Department (EMD) is the county's environmental public health regulatory agency. As such, it is responsible for dealing with the problem of the abandoned wells. Its mission is to protect public health and the environment by ensuring compliance with environmental laws and regulations. The EMD has authority delegated by numerous state agencies to administer a variety of environmental regulatory programs and to enforce state and local environmental statutes and regulations. To achieve compliance with these various environmental and public health regulations, the EMD employs an array of outreach, education, training, inspection and enforcement programs.

Since 2009, EMD has rolled out a host of new programs and policy changes aimed at protecting county residents and the environment. It has adopted stricter septic tank regulations to replace outdated ones; passed a new ordinance to fine owners of properties with underground gasoline leaks; conducted more inspections for tanks that held hazardous materials; and initiated a new program to find and seal abandoned wells.

Also since 2009, the EMD merged its Hazardous Materials Division and Water Protection Division to form the Environmental Compliance Division (ECD). The ECD oversees the construction, modification, repair, inactivation and destruction of wells in Sacramento County, pursuant to Chapter 6.28 of the Sacramento County Code and section 13801 of the California Water Code. In addition, ECD staff issues permits; maintains a database of permitted wells in the county; conducts enforcement activities against persons that violate provisions of the well code; and approves plot plans for building wells.

Oil Lawsuit Settlements and Wells

In 2006, the California Attorney General's Office launched a statewide investigation into environmental regulatory violations by a major oil company and its gasoline stations across the state. With EMD staff playing an important role, the investigation disclosed widespread violations related to leaking underground storage tanks at service stations as well as other deficiencies in employee training and hazardous waste management. There were numerous adverse impacts from these violations, but the most significant adverse impact was the contamination of the state's groundwater.

Other lawsuits followed, culminating in a 2010 settlement involving various oil companies and centering on the companies' underground leakage of the carcinogenic gasoline additive Methyl Tertiary Butyl Ether (MTBE). The settlement provided Sacramento County \$4.7 million to establish a special environmental project administered by the EMD, the Sacramento County Abandoned Wells Restoration Project. The project was funded to address two sources of groundwater contamination in the county: (1) MTBE and organics leaking from underground storage tanks, and (2) other forms of chemical and biological contamination from abandoned wells.

Program Start-up

In November 2009, the EMD directed four full-time field staff to identify and document abandoned wells for the newly developed Abandoned Wells Program (AWP). Six additional staff provided office and field support on an as-needed basis. In order to locate, characterize, document and mitigate abandoned, potentially dangerous wells, staff:

- Developed field and office protocols/procedures and trained staff in its usage;
- Developed a field strategy for systematically locating abandoned wells;
- Performed extensive public outreach regarding the project;
- Developed a well database management system with a Geographic Information System (GIS) layer;
- Performed on-the-ground field reconnaissance for abandoned wells; and
- Initiated ongoing oversight of abandoned-well inactivation, destruction, and restoration.

Since Sacramento County's program was the first AWP in California, program staff quickly designed a strategy to accomplish program activities. This strategy included:

- Developing inspection and enforcement protocols

(compiled in the Well Ordinance Enforcement Policy dated June 24, 2010);

- Distributing informational brochures and mass mailings to targeted ZIP codes in rural areas;
- Developing informational articles in print and electronic media;
- Making presentations to industry groups, Chambers of Commerce, community planning advisory organizations, and homeowner associations;
- Organizing “field reconnaissance” by ZIP code; assigning staff to designated ZIP codes;
- Documenting suspected abandoned wells with aerial photographs and Global Positioning System (GPS) map coordinates;
- Utilizing EMD’s EnvisionConnect database to determine which landowners should be served with a Notice to Comply;
- Establishing a priority list for well destruction (i.e., open, hand-dug wells and open-casing wells);
- Initiating a fee-waiver program for qualifying individuals wanting to deactivate unused wells;
- Applying for a federal grant from the U.S. Department of Agriculture (use magnetic technology to identify open wells);
- Submitting an annual report to the Attorney General’s Office and the Sacramento County District Attorney’s Office with updated program achievements and fund expenditures.

Well Inspections and Property Access

Staff inspection teams relied primarily on two County Code sections authorizing their access to property for the purpose of identifying abandoned wells:

- Section 6.28.100 (Right of Entry and Inspection), authorizing the enforcement of California Health and Safety Code section 25187 (Hazardous waste and groundwater related to wells) and
- Section 6.28.120 (Enforcement).

AWP field inspectors also relied on the “open fields” doctrine as legal justification to access without notice private property that may have an abandoned well.

When AWP staff located abandoned wells, they documented the wells and their locations and entered the information into EMD’s database, all without notifying the landowner. Initially, when surveys of a targeted geographical area were completed, EMD would send the property owner a Notice to Comply, informing the owner that an abandoned well had been located on their

property. This procedure changed when staff advised management that in the event of a death or serious injury due to a known but un-cited abandoned well, the county could be held liable because of its prior knowledge of the dangerous condition. As a result, AWP changed its procedure to issue the property owner an NOV when it discovered an abandoned well. An NOV informs the property owner of the statutory or regulatory violation and of the mandated responses to correct or cure the violation. The EMD issues an NOV as standard practice in its various inspection programs, such as gas station inspections and improper disposal of toxic substances.

The Abandoned Wells Program Enforcement (December 2009 – April 2010)

In December 2009, AWP staff initiated the abandoned well enforcement program. In the first four months of enforcement – January through April 2010 – staff accessed properties primarily in southern Sacramento County and discovered almost 200 abandoned wells. Between January and March 2010, staff issued 60 NOVs to property owners.

Landowners who received an NOV regarding an abandoned well had three options:

- * Activate an unused or abandoned well following established health and safety guidelines;
- * Apply for a well-inactivation permit with the proviso that the well may be reactivated in the future; or
- * Complete well destruction following standards set by the program in accordance with the Health and Safety Code sections 13800 and 13801.

Rather than comply with the NOVs, many of the landowners, apparently upset that county officials had accessed their property without notice, complained to their county supervisor and to the EMD about the NOVs. The landowners had several meetings with the county supervisor, and at least one meeting with the EMD director. Their complaints included alleged trespass, violation of their constitutional right of privacy, and the potential cost of destroying the abandoned wells.

Responding to the aggrieved landowners, the EMD director arranged a meeting for April 19, 2010, with the county supervisor, the county counsel and the deputy county counsel advising the EMD. The purpose of the meeting was to find a compromise that would placate the landowners and meet the mandates of the MTBE lawsuit settlement.

The EMD Abandons the Abandoned Wells Program

On April 20, 2010, the day after the meeting, the EMD director

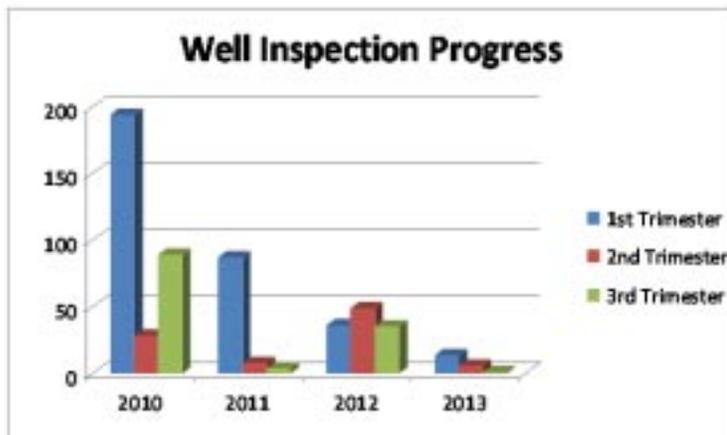
abruptly suspended the AWP enforcement program and ordered staff to implement the following changes immediately:

- 1) Stop performing field inspections. As part of this policy change, field inspectors were not permitted to report possible abandoned wells, even ones they could see from the road or view with binoculars.
- 2) Stop issuing NOVs until property access issues are resolved.
- 3) Send apology letters to all owners who had received an NOV when EMD accessed their property without notice.
- 4) Develop a broad public outreach campaign and ask permission before any property inspection.
- 5) Encourage landowners to voluntarily report abandoned wells on their property. The county would work with landowners to properly decommission abandoned wells.

The new awareness campaign consisted of mass mailings, TV interviews and newspaper articles. These mass mailings were done by ZIP code, so recipients included tenants in apartment buildings and homeowners in municipal water districts who did not have wells.

The new approach to implementing the AWP resulted in a drastic drop in locating, inspecting and deactivating abandoned wells. The following is a summary based on department spreadsheets and testimony from program staff and management:

- The number of full-time employees devoted to this project fell from four field inspectors and six support staff to zero. Only two employees are assigned to the AWP, on a limited basis, primarily responding to public inquiries.
- As of December 2013, four years after the program started, only \$1.6 million has been spent for identifying, inactivating, and or decommissioning abandoned wells. Approximately \$3.1 million remains in the department's budget, unspent.
- In the last two fiscal years, over \$200,000 has been charged against the settlement funds for unspecified "overhead" expenses.



The preceding chart shows that in the first four months of the enforcement program — January through April 2010 — the EMD identified 194 abandoned wells, but in the succeeding three years and eight months, after the director suspended enforcement, only 350. Thus, at least 450 of the estimated 1,000+ abandoned wells in the county remain to be identified.

- By December 2011, of the 410 abandoned wells then identified, only 100 wells had been properly inactivated and 50 properly destroyed, about 36 percent.
- Of the 550 abandoned wells identified during the four years of the AWP, 160 known abandoned wells, or 30 percent, haven't been decommissioned.
- In 2013, EMD sent letters to landowners of discovered well sites, requesting an AWP field survey. None of the landowners responded.

EMD Management's Reply and Denial

Department management denies that the EMD modified the AWP enforcement program to a voluntary reporting and public outreach program in order to placate the landowners who complained to the EMD and their county supervisor in April 2010. The EMD director asserts that he modified the program from enforcement to voluntary reporting and public outreach because the EMD had higher risk-based enforcement priorities than the abandoned wells to which it was necessary to shift resources. The new program's focus on "picking the low-hanging fruit," landowners who voluntarily report their abandoned wells, would require less staff, who could be used in other, higher-priority programs.

However, the EMD's explanation is undercut by the fact that the EMD abruptly changed the program — the day after the director's April 19 meeting with the county supervisor, and the fact that the EMD issued apology letters to all landowners who had received NOVs, notwithstanding that the EMD had undisputed legal authority and justification for accessing the landowners' properties to search for abandoned wells. More important, the EMD's denial is undercut by the fact that the EMD has failed to require any of the landowners who were issued NOVs and who complained about the mandate four years ago to destroy or decommission their abandoned wells. Once the EMD has discovered and identified an abandoned well and issued an NOV to the landowner, there is no sound administrative reason not to require the landowner to properly decommission the well to prevent possible groundwater contamination.

The EMD also offered budgetary reasons for not restoring staff

positions that were shifted to other enforcement programs, asserting that if it were to restore full-time staff to the AWP program, it might be difficult to justify the positions when the settlement funds earmarked for the AWP are exhausted. However, that problem could arise whether or not the staff was used in AWP enforcement until the settlement funds were exhausted. Meanwhile, \$3.1 million remains in the AWP budget, slowly being eaten away by annual “overhead” charges accruing whether or not staff conducts enforcement activities. The EMD’s asserted budgetary rationale is belied by the fact that in February 2014, after the grand jury had interviewed EMD management about its reasons for curtailing the enforcement program and cutting AWP staff, the department asked the Board of Supervisors to increase staffing levels by five limited-term positions.

As for the decline in the AWP’s enforcement effectiveness, the EMD tacitly acknowledges that the voluntary reporting and public outreach policy has been ineffective in addressing the threat of contamination of the county’s groundwater from abandoned wells.

FINDINGS AND RECOMMENDATION

Finding 1: The director of the Environmental Management Department suspended the Abandoned Wells Program in response to pressure from recalcitrant landowners, not for valid enforcement, personnel management, or discretionary budgetary reasons.

Finding 2: The voluntary reporting and public awareness campaign which replaced the enforcement program has been ineffective in addressing the environmental threat to the county groundwater from abandoned wells.

Recommendation 1: Given the environmental threat to Sacramento County citizens’ water supply resulting from the hundreds of abandoned wells in the county, the Sacramento County Grand Jury recommends that the Environmental Management Department revive and fully staff the Abandoned Wells Program and implement the aggressive enforcement program mandated by law, using all available statutory and technical tools to identify and decommission abandoned wells in Sacramento County.

REQUEST FOR RESPONSES

Penal Code sections 933 and 933.05 require that specific responses to indicated findings and recommendations contained in this report be submitted to the Presiding Judge of the Sacramento County Superior Court by Oct. 1, 2014, from the Director

of the Environmental Management Department.

Mail or hand-deliver a hard copy of the response to:

Hon. Robert C. Hight, Presiding Judge
Sacramento County Superior Court
720 9th Street, Dept. 47
Sacramento, CA 95814

In addition, email the response to:

Becky Castaneda, Grand Jury Coordinator, at
castanb@saccourt.com.