

**Testimony by Penny J. Newman, Executive Director,  
Center for Community Action and Environmental Justice  
Perchlorate Contamination of Southern California Groundwater Supplies  
April 10, 2007**

Chairwoman Napolitano, Honorable Members of the subcommittee, I thank you for the opportunity to address this committee on this important issues.

My name is Penny Newman, Executive Director for the Center for Community Action and Environmental Justice. CCAEJ is one of the oldest and most accomplished environmental justice organizations in the nation having begun our work in 1978 as a small neighborhood group fighting for the cleanup of California's top priority Superfund site, the Stringfellow Acid Pits.

### **Perchlorate in Groundwater**

It is through our involvement with the Stringfellow site that in 2000, we became acquainted with perchlorate when testing discovered the chemical in the aquifer below the site. That discovery, expanded overnight the contaminated plume seeping from the site by more than 5 times. (Exhibit 1). Instead of the pollution being confined to the community of Glen Avon it now affected 2 more communities—Pedley and Mira Loma—extending it more than 6 miles to the Santa Ana River. With this discovery dozens of families were found to be drinking water from their private wells contaminated by perchlorate. The State of California Department of Toxic Substances Control (DTSC) moved quickly to provide bottled water to affected residents and began the process of connecting homes to another water system.

The response by DTSC in quickly addressing the perchlorate contamination in Glen Avon sadly seems to be an anomaly rather than standard practice both by DTSC and other state agencies. For example, in the community of Norco residents find that contamination from the Wyle Labs has placed their homes and water resources at risk as well. Perchlorate is one of the noted contaminants along with TCE which has volatized through the soil and concentrated in homes – prompting in at least one case-emergency action due to the high levels. (Exhibit 2). In the Norco case agencies have been slow to respond as staff turnover and even agency turnover has produced a lack

of historical memory and repetition for residents of having to reprove and re-discuss the same issues over and over. Progress on this site has been frustratingly slow for affected residents who feel they have been put in the position of conducting the tasks public agencies should be doing.

Across the county line in San Bernardino in the City of Rialto, perchlorate has had a major impact on the city and its residents. One young woman relates her story. She moved to Rialto, buying her dream house and sending her kids to school down the street, the town seemed the perfect place to raise three young children. Much to her horror, in March of 2003 she discovered that water from wells contaminated by rocket fuel from operations of Goodrich Corp and Black & Decker, is piped to her home.

Upon investigating this alarming situation further, she discovered that despite the companies' combined yearly revenues of more than \$5 billion, the corporations have to date failed to clean up the mess they created more than forty years ago. As a result, she and 100,000 other residents in the diverse, working class community just east of here have had their clean water stolen from them.

Perchlorate travels easily in water, allowing spills to rapidly enter water supplies, and persists for many decades underground. Through careless handling, use, storage and disposal of perchlorate over the last six decades, the military and its contractors have extensively polluted California's drinking water sources. State agencies have discovered perchlorate pollution in more than 350 California water sources, including the Colorado River and hundreds of municipal wells. Perchlorate contaminates the drinking water supply of 16 million Californians. The contamination extends into more than 10 counties, San Bernardino, Sacramento, Los Angeles, Riverside, Ventura, Tulare, Orange, Santa Clara, Sonoma and San Diego (Exhibit 3).

According to the U.S. Environmental Protection Agency, Office of Research and Development the vast majority of perchlorate in the United States is synthetic associated with use in rocket propellants, explosives, road flares, air bags, electronic tubes lubricating oils, leather tanning, fabrics, electroplating, aluminum refining, rubber manufacture, and the production of paints. As a consequence of their widespread use and water solubility, huge amounts of perchlorate have leached into surface and groundwater used as drinking water source.

Southern California relies heavily on its underground aquifer system for a majority of its drinking water. As perchlorate continues to migrate into our

underground aquifers, our backup water source is the Colorado River. In the 1950s, large amounts of perchlorate were made at factories owned by American Pacific and Kerr-McGee corporations outside Las Vegas, in an area draining into Lake Mead and the Colorado River. Dumping, spills and explosions left the area around these factories heavily contaminated. It is estimated that more than 20 million pounds of the chemical remain in the sediments downstream from the factories. Wastewater from the city of Las Vegas carries the perchlorate downstream to Lake Mead. In 2004, 200 to 300 pounds of perchlorate leached into Lake Mead every day.

With the current pace of cleanup and with natural flushing of the river, it is estimated that the lower Colorado River will remain contaminated with perchlorate for the next 50 years.

### **Perchlorate in Food**

The impact of perchlorate is not limited to drinking water. Perchlorate also concentrates in leafy vegetables like lettuce, which creates a concern for consumers of Imperial Valley crops irrigated with Colorado River water. Tests by scientists and advocacy organizations like the Environmental Working Group have confirmed that plants, especially broad-leaf varieties, concentrate perchlorate from the environment. Scientists have found perchlorate in plant tissues at levels up to 100 times higher than in nearby water sources. In 2004, The Food and Drug Administration released a study finding perchlorate in 90 percent of 128 lettuce samples and in all but three of the 104 milk samples, with average levels ranging from six parts per billion in milk to 12 parts per billion in Romaine lettuce. These results raise the possibility that perchlorate contamination is much more widespread than regulators currently know, and that exposure is wide spread across the country.

Perchlorate is highly mobile in water and can persist for decades under typical ground and surface water conditions. Research has also shown that perchlorate can concentrate in crops such as wheat, lettuce, alfalfa, and cucumbers thereby resulting in much greater exposures than might be predicted by water or fertilizer concentrations. Newer data have shown perchlorate contamination to be widespread in store-bought fruit, vegetables, cow's milk, beer and wine. Perchlorate has been found in human breast milk at levels up to 92 ppb, and was found in every one of 2820 urine samples the Centers for Disease Control recently tested for perchlorate. Nopales, a staple in the Latino communities, has similar characteristics of those

vegetables found to uptake perchlorate easily such as lettuce. A concern for low income Latino communities that rely on the tasty succulent as a major food source is that perchlorate levels will be high in this crop as well.

Perchlorate is a potent competitive inhibitor of the sodium-iodide symporter (NIS), interfering with the normal uptake of iodide into the thyroid gland, as well as normal transport of iodide across the placenta and into the lactating mammary gland. Iodide uptake inhibition can result in decreased capacity to synthesize thyroid hormones. In the developing fetus and infant, adequate thyroid hormones are necessary for normal brain development. Subtle alterations of thyroid hormone during pregnancy—even within the normal range—have been associated with decreased intellectual and learning capacity in childhood.

In 2004, CCAEJ and Environment California, a statewide research and policy organization, partnered in our Inland Valley Perchlorate Community Relief Project and began focusing on the Rialto contamination. We were alarmed that in high income, predominantly white (72%) communities like Redlands, a Cleanup and Abatement Order (CAO) was issued by the Regional Water Board against the polluter in less than one year. Yet in Rialto a working class community that is 64.7 percent Latino, ten years have passed since the discovery of the pollution. But despite their responsibility and years of negotiations, neither Goodrich Corp. nor Black & Decker have agreed to clean up the mess they have created. While the companies delay, many citizen of Rialto drink water that is polluted by rocket fuel. According to data supplied to local and state water officials, water from drinking water wells contaminated at up to three times the safety levels issued in other states is piped to homes in the city.

That delay continues today. In fact instead of meeting to develop a comprehensive clean up plan, Goodrich and Black & Decker are conducting prolonged depositions in an attempt to harass, intimidate and abuse agency staff and public interest advocates. The interrogations consist of aggressive yelling, browbeating and verbal attacks to the point of bringing some people to tears in the hallway. The attacks continue with subpoenas for extensive document production even though dates for submitting evidence have been outlined in a schedule for the Administrative Hearing. Even though constitutionally protected the corporations continue to press for funding sources and membership lists of our community-based, non-profit organization.

And while the delays continue, several other wells unusable due to contamination, in this drought-prone area brings the city to the brink of running out of water. While the pollution continues to move, the polluters continue to delay and deny responsibility. In the meantime, it is the residents who have been forced to pay water bill price hikes and surcharges to pursue the polluters for clean water. The residents are hit twice. First, their water supply is destroyed by the polluters actions and irresponsibility. Secondly, those most unable to afford it—the residents of Rialto—are the only ones having to pay.

In 2006, new mandated pollution tests conducted by Goodrich corporation and submitted to state water officials in July reveal an alarming spike in contamination that threatens to send a new pulse of toxic perchlorate pollution into Rialto drinking water wells. Levels of perchlorate pollution in well PW-2, located close to the historic Goodrich perchlorate disposal pit spiked sharply in 2006—from an April 2005 concentration of 53 ug/L to an April 2006 concentration of 10,000ug/L. the highest level reported in the state.

A potential explanation for this spike in perchlorate levels is that heavy rains increased the level of the water table, dissolving perchlorate contamination that persist in the soil around the Goodrich “burn pit”. Once dissolved, the perchlorate would have traveled into local groundwater, creating a new ‘pulse’ of contamination. This new pulse threatens wells down gradient from well PW-2.

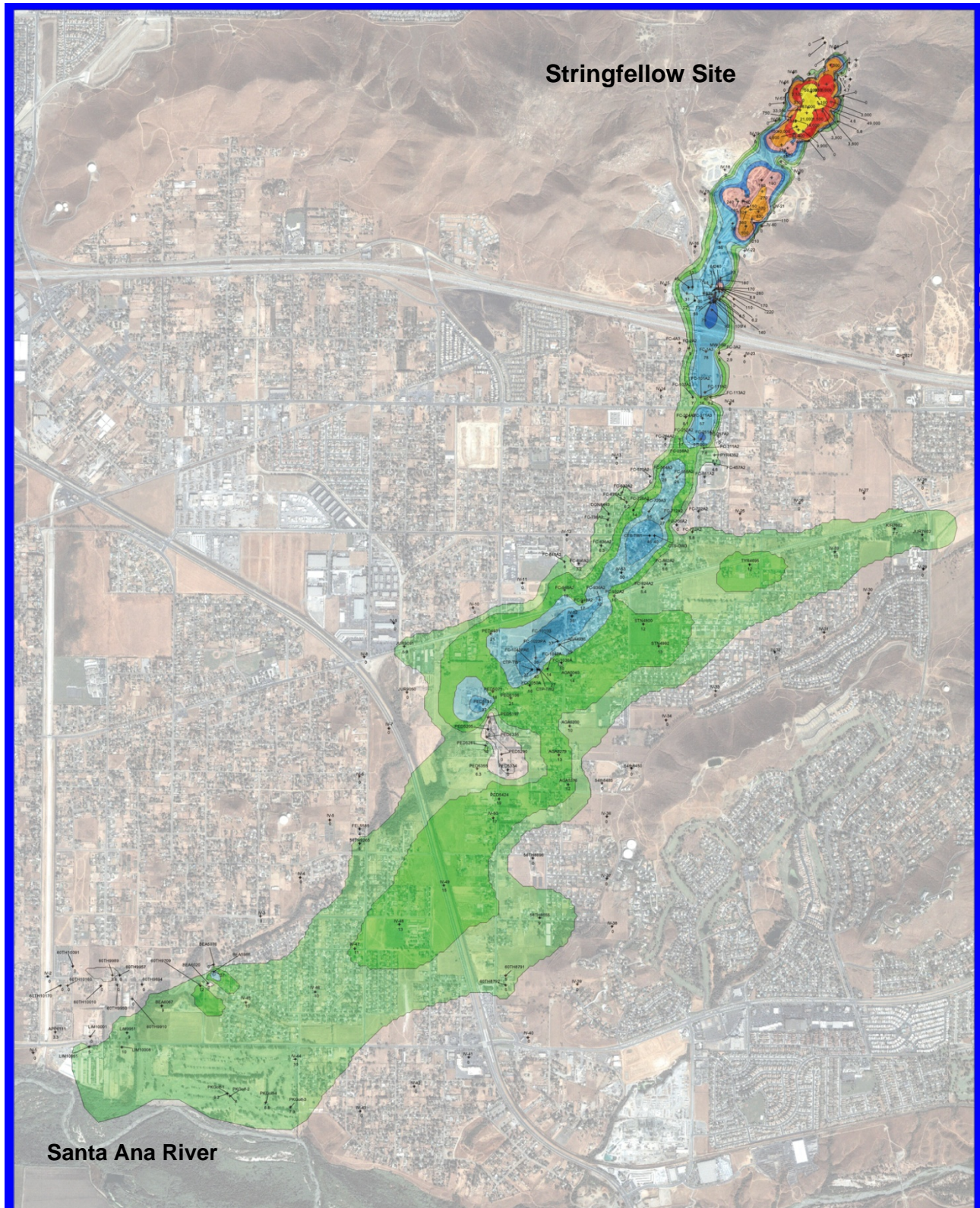
While delays continue in taking aggressive action to stop the migration of perchlorate in the aquifer more and more water is destroyed and taken out of use as a common public drinking water source. With the strong leadership and efforts by local officials some federal funding has been forthcoming to begin to address the problems. But the real answer is in making the polluters pay for the ecological disaster their mismanagement and irresponsibility have created. It is only through the polluters pay principle that enough resources will be available to correct the situation and save our water resources. It is inherently unfair to use taxpayers money to fund the cleanup created by the corporations’ actions. As my mother always told me, “ If you make the mess, you clean it up.”

Our aquifers and water resources are a precious common wealth for us all. All life relies upon this resource. We cannot accept irresponsible actions by anyone to pollute this precious resource. Clean drinking water should not be dependant upon

one's ability to buy filters or bottled water. It is a resource for us all no matter ones income or status in the community. A first step to achieving this goal is joining us in endorsing our petition to the Water board for a strong Clean up and Abatement Order. (Exhibit 5)

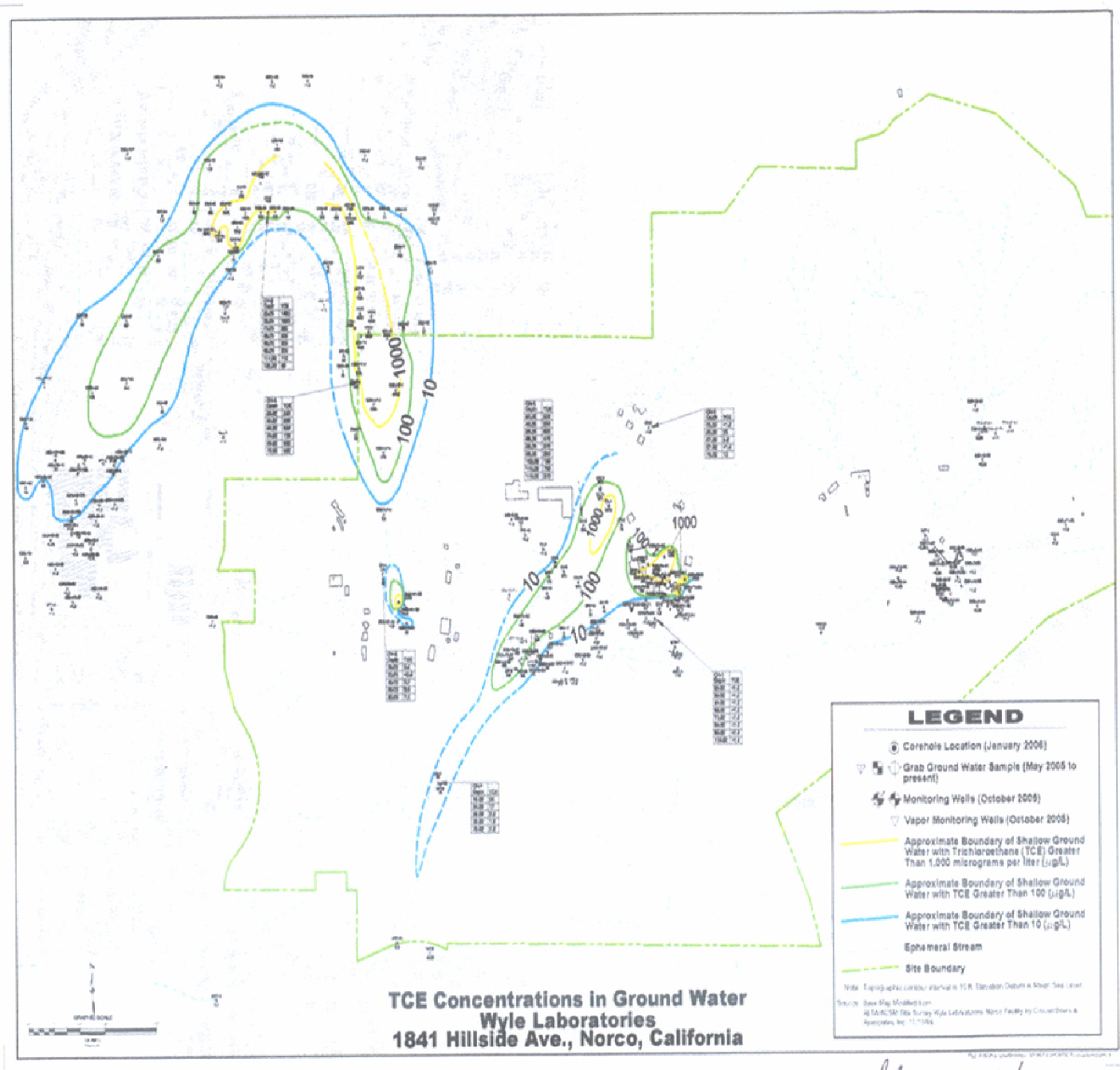
Thank you for the opportunity to address this committee regarding this important issue.

### Exhibit 1. Perchlorate Plume from Stringfellow Acid Pits



### Exhibit 2. Off site contamination from Wyle Labs in Norco California

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California State Polytechnic University, Pomona, California April 10, 2007



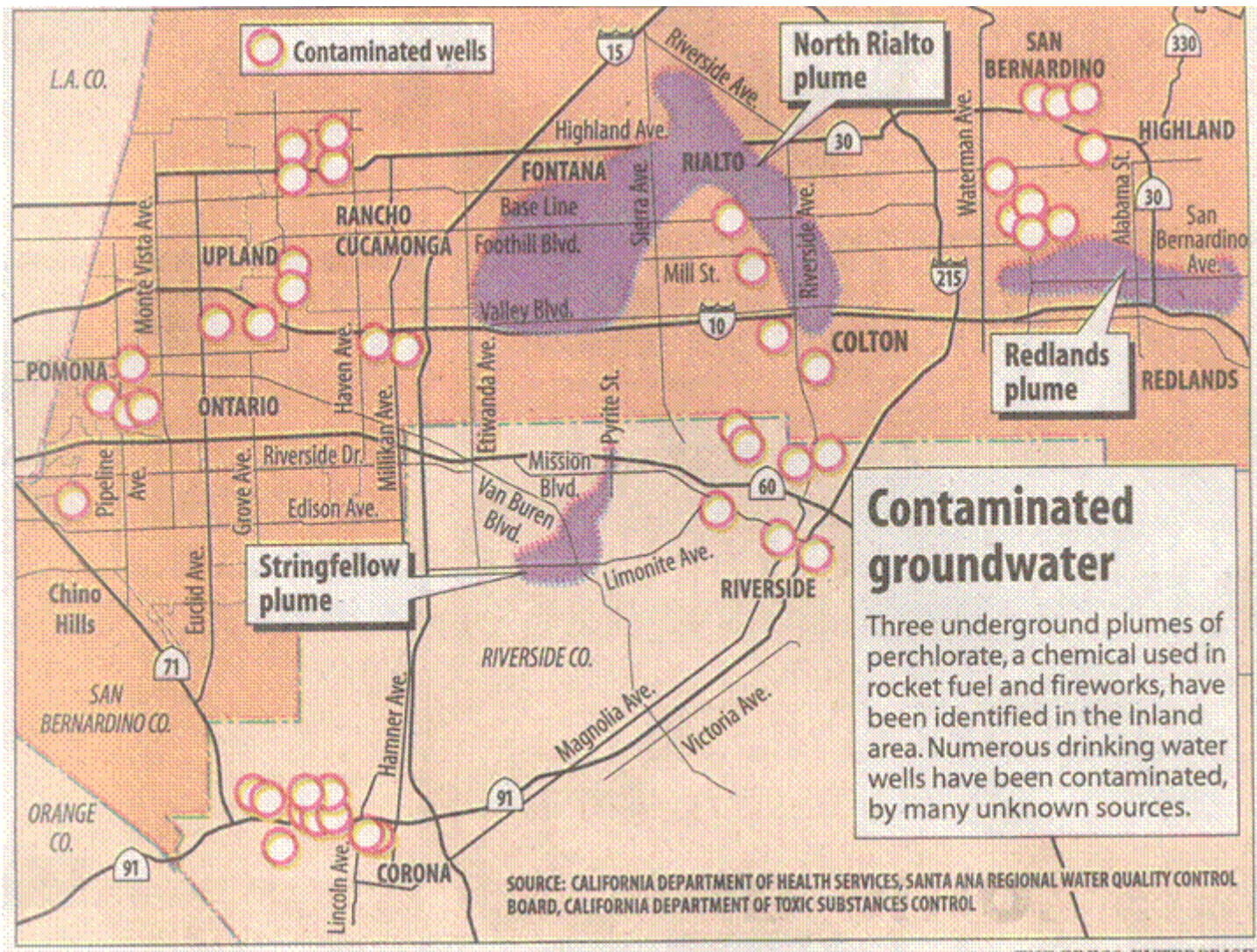
*preliminary 10/15/00*



**Exhibit 3. Number of Perchlorate Contaminated Wells by County**

<b>County</b>	<b>Number of Contaminated Wells</b>
<b>Los Angeles</b>	<b>138</b>
<b>San Bernardino</b>	<b>82</b>
<b>Riverside</b>	<b>68</b>
<b>Orange</b>	<b>34</b>
<b>Sacramento</b>	<b>15</b>
<b>Santa Clara</b>	<b>9</b>
<b>Tulare</b>	<b>8</b>
<b>Ventura</b>	<b>4</b>
<b>San Diego</b>	<b>1</b>
<b>Sonoma</b>	<b>1</b>
<b>Stanislaus</b>	<b>1</b>

### Exhibit 4. Groundwater contamination/Perchlorate plumes and contaminated wells in the Inland Valleys of Riverside and San Bernardino.



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## Exhibit 5. Sample letter endorsing Clean up and Abatement Order in Rialto.

March 15<sup>th</sup> , 2007

Ms. Tam Doduc, Chair  
State Water Resources Control Board  
1001 I Street, 25<sup>th</sup> Floor [95814]  
P.O. Box 100  
Sacramento, CA 95812-0100

Karen O'Haire Esq.  
Office of Chief Counsel  
State Water Resources Control Board  
1001 I Street, 25<sup>th</sup> Floor [95814]  
P.O. Box 100  
Sacramento, CA 95812-0100

Dear Ms. Doduc and Ms. O'Haire:

The purpose of this letter is to provide public comment regarding: SWRCB/OCC File A-1824.

Only six miles separates Redlands from Colton and Rialto, yet the cleanup of the drinking water supply has been handled in two drastically different ways. In Redlands, cleanup and abatement orders were issued to the corporate polluter, Lockheed Martin, in the same year the Perchlorate was discovered. On the other hand, the three most responsible corporate polluters in Rialto and Colton—Goodrich Corp., Black & Decker, and PyroSpectacular—have not had any cleanup and abatement order enforced in the ten years since the discovery of Perchlorate in Rialto and Colton's drinking water supply.

The lack of rocket fuel cleanup in Rialto and Colton is indisputably an environmental racism issue. In Redlands, 56% of the household's income ranges from \$50,000-\$200,000. In contrast, 28% of the households in Rialto have an income of \$25,000 or less—Redlands is 17%. Redland's population is 73% white, while in Colton, Latino people make 61% of the population. The Rialto Latino Community makes up 65% of the city's population and African Americans contribute 17% to Rialto's population. (US Census 2000)

President Bush didn't tolerate the presence of Perchlorate from the McGregor Naval Weapons Station south of Waco in the water supply at the Presidential Ranch at Crawford. Congress appropriated money so that Bush's water for his animals would be safe to drink, so what about the rest of us?

The California Water Code provides the State Water Resources Control Board (Board) with the authority to require the cleanup and abatement of Perchlorate contamination throughout the state. In order to fully exercise their authority and restore aquifers throughout the state to health, I urge the State Water Resources board to adopt cleanup and abatement orders for Perchlorate cleanup that require the following:

- 1) Cleanup of Perchlorate pollution to the fullest extent that is technically feasible and uses best available technology;
- 2) Provision of safe, alternative water supplies until full cleanup is complete;
- 3) Full reimbursement by responsible dischargers to community members and public utilities that have paid for stop-gap cleanup measures;
- 4) Implementation of strict enforcement measures in the event of a failure to meet cleanup requirements and timelines

Perchlorate does not belong in California's drinking water supplies. By including the measures outlined above in cleanup and abatement orders issued, the State Water Resources Control Board will take the steps necessary to restore vital groundwater resources across the state to health.

Sincerely,