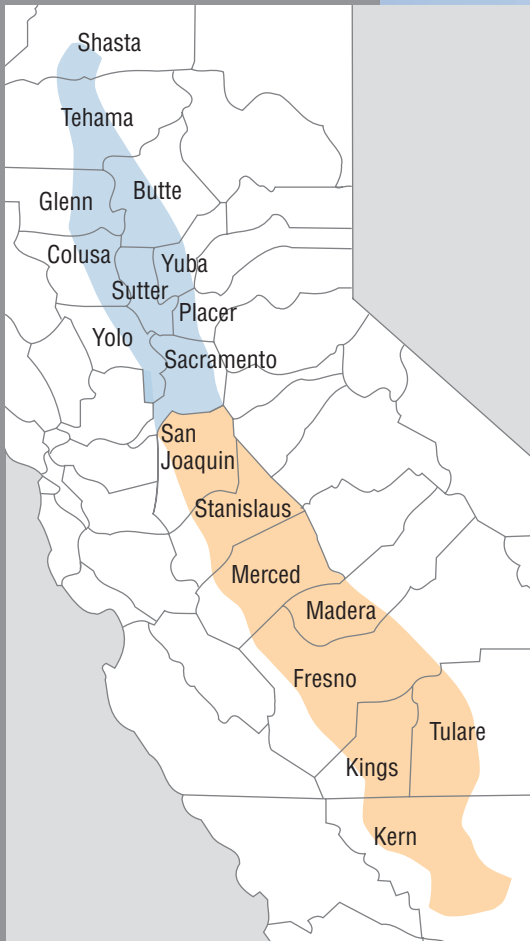


# G A S P I N G   F O R   A I R

*Why We Must Cultivate a Healthier Central Valley*



*the* WOMEN'S  
FOUNDATION  
*of* CALIFORNIA



- Sacramento Valley
- San Joaquin Valley

*California's Central Valley includes parts of 18 counties and stretches from Redding to south of Bakersfield. Most of our report focuses on the San Joaquin Valley, the southern portion of the Central Valley.*

**Gasping for Air: Why We Must Cultivate a Healthier Central Valley** is a project of the Women's Foundation of California. This report complements *Confronting Toxic Contamination in our Communities: Women's Health and California's Future*, published by the Foundation in September 2003 and available at [www.womensfoundca.org](http://www.womensfoundca.org).

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The Women's Foundation of California is the oldest and largest women's foundation in the western United States. The intersection of women, health and the environment is one focus of our work. We support organizations that work to improve environmental conditions affecting women and their families where they live, work and play. In addition to grantmaking, the Foundation hosts strategic gatherings to build new alliances among people and community groups across all sectors of society including community leaders, nonprofit organizations, legislators, policy advocates, businesses and corporate leaders.

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## INTRODUCTION

Millions of parents across the United States will feed their children food from California's Central Valley tonight. Menus will include hamburgers and a salad of lettuce and tomatoes, or mashed potatoes and asparagus — and maybe fresh peaches for dessert. These are just a few of the 350 agricultural products that come from the Golden State. California's Central Valley is often referred to as the nation's salad bowl. It is an area with a long history of ranching, farming, cultural diversity — and natural beauty.

Many of the potatoes and tomatoes that will show up on tonight's dinner tables were sprayed with pesticides like methyl bromide, an acute toxin thought to cause neurological — and possibly birth — defects.<sup>1</sup> The lettuce was likely irrigated with water that is too polluted to drink because pesticides, antibiotics and nitrates often leach into Central Valley water supplies. Many of the cattle used in the production of hamburger were injected with hormones such as estrogen, a drug that may be associated with breast cancer and early onset of puberty in young girls.<sup>2</sup> All of the food products from California's Great Central Valley ripen in a landscape that now gasps from some of the nation's most unhealthy air.

The Central Valley is a semi-arid desert that stretches more than 450 miles north to south. It includes 18 counties and contains two major regions defined by the state's largest rivers, the Sacramento in the north and the San Joaquin in the south. More than 80% of the 9.5 million acres of Central Valley farmland is divided among only 5,000 growers, averaging 1,520 acres each.<sup>3</sup> If California were a country, it would be the sixth largest agricultural exporter in the world.<sup>4</sup>

In 2001, California's agricultural revenues were \$27 billion, which means the growers can afford a powerful lobby in the state legislature. These large-scale farms are also, as a whole, the state's largest polluters, a development that should alarm us all as it has happened in the blink of an eye. Consider, for example: in 1980, there were about 8,000 diesel trucks transporting goods on the roads of the Central Valley. Just twenty years later, in 2000, there were more than 55,000.<sup>5</sup>

The Central Valley supplies one-quarter of the food America eats.<sup>6</sup> A substantial portion of California's population of 35 million ingests Central Valley food and breathes air filled with dangerous particulates and ozone from heavy-industry farming. The closer you get, the more dangerous the levels of contamination: 5 million residents of the Central Valley eat chemically affected food — and also breathe particulate-laden air and drink water contaminated by agricultural practices. Even more directly, 800,000 Central Valley farm workers eat this food, inhale this air, drink this water and breathe the chemicals sprayed on crops where they work and near their homes.



Change, however, is in the making. There are people working at all levels — local, statewide, in the industry and nationally — to improve conditions in Central Valley communities. Teresa DeAnda has mobilized residents in her hometown of Earlimart to prevent pesticide poisonings. Organizations such as Medical Advocates for Healthy Air and the Latino Issues Forum are forming coalitions with other Valley groups to change polluters' practices. Organizations such as Earthjustice and the Sierra Club are working at the federal government level to change laws to better protect the people who labor in the fields — and all those who consume the fruits of their labor. There are companies, such as Terra Firma Farm, California Gold Olive Oil and Foothill Organic Growers, who have adopted healthier and sustainable practices and recognize that these measures may prove to be a more profitable — and more productive — way of doing business in the long run.

California is a bellwether state: any change to its agricultural economy has the potential to impact the policies and actions of other states and entire nations. No one challenges the need for available and affordable food. It is essential, however, to look at the whole cost — including costs to human and environmental health — in making decisions. So many people are affected; only a few are working to better the situation. It is time to bolster their efforts.

***This report will examine three critical environmental health concerns in the Central Valley — air pollution, water contamination and pesticide usage — and provide information on successful community efforts to stem these problems and create a healthier future.***

## GASPING FOR AIR

At the beginning of the 21<sup>st</sup> century, the San Joaquin Valley won the dishonorable designation of having the worst air in the country. According to a *Los Angeles Times* article, in 2002, residents breathed substandard air six out of every seven days.<sup>7</sup>

**On every one of those days, with every breath, 3.2 million men, women and children living in the San Joaquin Valley inhaled emissions from livestock waste, poisons from diesel fuel and pesticide residue.** In 2004, the San Joaquin Valley led the nation in clean air violations for the sixth consecutive year with 104 violations of the eight-hour smog standard.<sup>8</sup>

The two major sources of air pollution in the Valley are ozone and particulate matter (see boxes for explanation).

- Farming contributes more than half of the particulate matter in Valley air.<sup>9</sup>
- The main sources of volatile organic gases are pesticides, fertilizers, motor vehicles, farming operations, petroleum production facilities, surface coatings and solvents.<sup>10</sup>
- Diesel trucks are a huge contributor of nitrogen oxide emissions: in 1975, they added 40 tons of nitrogen oxides to the air per day; today, they add 105 tons a day.<sup>11</sup>

Mixed together in the heat of the basin of California's Central Valley, these chemical elements can be deadly: particulate matter exposure can lead to heart attacks, and ozone and particulate matter exacerbate asthma. Both can be inhaled into the lungs, and both can be laden with pesticides or lead.<sup>12</sup>

For many years agricultural producers have been largely exempt from clean air and clean water regulations. Valley officials responsible for meeting Environmental Protection Agency air and water standards have struggled and failed at their task time and again. In early 2004, the Environmental Protection Agency granted the Central Valley another six-year extension to clean its air.<sup>13</sup> This was yet another delay in more than forty years of extensions, missed deadlines and inadequate plans to reduce pollution.<sup>14</sup>

### What is Ozone Pollution?

Ozone (O<sub>3</sub>) is a gas that, when found at ground level, is a major component of photochemical smog. Ozone forms when sunlight breaks up nitrogen dioxide (NO<sub>2</sub>) molecules into atomic oxygen (O) and nitric oxide (NO<sub>1</sub>).

### What is Particulate Matter?

Particulate matter (PM) is composed of small particles of dust, smoke and soot that are released into the air. PM can also be formed by reactions in the air between chemicals, including some of those that form ozone. Particulate matter comes from dirt roads, farming operations, industrial crushing and grinding and wind-blown dust — among other sources. Combustion of

## Moving to Collaboration

Since 2000, the group Ag Innovations has organized trust-building meetings in Ventura County, just south of the San Joaquin Valley, bringing together farmers with non-farming residents, including the League of Women Voters, the United Farm Workers (UFW), environmentalists and others. According to Ag Innovations Director Michael Demick, **“No lasting change will happen until farmers see themselves as stewards and make environmental and health concerns their top priority.”** Because of Ag Innovations' programs, Demick explains, “Residents and farmers have moved beyond accusation and defensiveness and come together to identify common concerns. They have made a difference in reducing pesticide drift in area schools, setting buffer zones as rural communities urbanize and developing a set of principles for sustainable agriculture.”

There are some large-scale farms operating in the Valley, such as Muir Glen and Lundberg Family Farms, who, on their own, are proving to be allies in the effort toward healthier practices. Economically, it can seem prohibitive to make initial changes in farming practices, and little research has been done to support large-scale organic production systems. Nonetheless, these farmers are finding that in the long run, sustainable agriculture is proving to be profitable. The trend toward sustainability is growing: the Minnesota-based food giant General Mills recently appointed Gene Kahn — an organic food pioneer and longtime proponent of sustainable farming — to the company's newly formed General Mills Sustainability Council. Farming practices in the northern part of California and on the coast are leading the nation in organic and sustainable farming methods and standards. The challenge for the Valley is whether its growers can follow suit.

*For more information, see [www.aginnovations.net](http://www.aginnovations.net).*

fossil fuels and burning agricultural products and garbage also release particulate matter into the air.

### Year-round pollution:

- **Spring:** Gases and nitrogen oxides from pesticide spray create ozone pollution.
- **Summer:** Many Valley cotton fields are soaked with pesticides, and diesel-fueled irrigation pumps spew particulates into the air 24 hours a day, every day.<sup>15</sup>
- **Fall:** Particulate matter is stirred up when fields are plowed, some trees are harvested and trucks churn up dust on unpaved roads.
- **Winter:** The tule fog that blankets the Valley traps ammonia from cow manure in the air.<sup>16</sup>



## CENTRAL VALLEY AIR QUALITY COALITION

**SITUATION** *Fresno County is the asthma capital of California, and the disease is taking a high toll on children. One in every six children in the area is stricken with asthma — three times the national rate.*<sup>17</sup> In 2001, Children's Hospital Central California in Madera, just north of Fresno, treated more than 11,800 children for asthma in its emergency rooms and clinics.<sup>18</sup>

*Asthma is a disease that requires regular attention from doctors — which poses a difficulty for the many residents in the Valley who lack medical insurance. In Fresno County, Latino/as make up 44% of the population.<sup>19</sup> Poverty strikes hard at the Latino community; lack of health insurance and inability to pay out-of-pocket health care costs are rampant concerns.<sup>20</sup> Out-of-pocket costs for asthma can reach \$300 a month for medication.<sup>21</sup> In the Fresno area, Latino/as have an asthma rate higher than the state average.<sup>22</sup> The air quality is so bad that, according to Dr. David Pepper, an asthma specialist and founder of Medical Advocates for Healthy Air, “Even the doctors are leaving the area. We’ve lost the head of the Medical Society and several physicians. Doctors from outside the region won’t relocate here due to concern for their families’ health.”*

**TAKING ACTION** *In 2001, three organizations — Medical Advocates for Healthy Air (MAHA), the Latino Issues Forum and the Tehipite Chapter of the Sierra Club — filed, with the help of Earthjustice, the first of what would become several lawsuits against the EPA for violating the Clean Air Act. This action was the impetus for a new coalition calling itself the Central Valley Air Quality (CVAQ) coalition. Soon other organizations joined in, including Fresno Metro Ministry, the League of Women Voters, the Center on Race, Poverty and the Environment and the American Lung Association.*

*In early 2003, the Latino Issues Forum's Environmental Health Project, together with the Fresno Metro Ministry, organized 27 platicas, or community forums, to learn how hard-hit communities were dealing with the crisis. Meetings were held throughout the San Joaquin Valley. The majority of attendees were mothers concerned for their children's health. “We learned that mothers were interested in reducing their exposure to bad air for themselves, their families and for everyone,” says Carolina Simunovic, Environmental Health and Outreach Coordinator for Fresno Metro Ministry.*

**SUCCESS** *CVAQ coalition members are gaining recognition in the community as air quality experts. Simunovic and Pepper were invited to speak at the agriculture industry-organized Operation Clean Air Summit. In early 2004, CVAQ hosted Air Quality Action Day, a community forum on diesel particulates, as well as a meeting for California foundations concerned with environmental health and justice.*

*Dozens of platica participants went to Sacramento to testify in support of a bill (SB 700) sponsored by Senator Dean Florez requiring the agriculture industry to comply with clean air standards. CVAQ members' testimony was pivotal to the bill's passage. It ends air pollution exemptions, mandates deadlines for diesel pump pollution standards and expands grants to help farmers buy cleaner diesel equipment. Since the passage of SB 700 in September 2003, the Coalition has begun mobilizing support for new and related issues such as federal ozone reclassification, new legislation and health care for children.*

*“While passage of the Florez bill was a great success,” Simunovic says, “we now need to work at the local air district level.” Simunovic and Rey León from Latino Issues Forum are attending San Joaquin Valley Air Pollution Control District meetings, often as the only participants not from the agriculture or oil industries, and CVAQ coalition members have begun working on expanding community representation on these boards.*

*For more information:*  
Earthjustice, [www.earthjustice.org](http://www.earthjustice.org);  
Fresno Metro Ministry, [www.fresnometroministry.org](http://www.fresnometroministry.org);  
Latino Issues Forum, [www.lif.org](http://www.lif.org).



## Legislation: California and Clean Air, Senate Bill 700

In September of 2003, the governor signed into law Senate Bill 700. According to the Yolo-Solano County Air Quality Management District, “The bill eliminated the agricultural operation permit exemption in the California Health and Safety Code in its entirety.” Each air quality district, which is responsible for meeting air quality standards in each region, will determine how to implement the bill; however, it does require a minimum of:

- Title V permits for large agricultural operations that have a potential for emissions that exceed the air district’s “major source threshold” and local permits for large operations whose emissions are more than half of the air district’s “major source threshold.”

*(For detailed explanations, see <http://www.ysaqmd.org/SB700.html>.)*

- CAFO (confined animal feeding operations) permits for large dairy and other animal operations. The definition of “large” will be determined by July 1, 2005.

## PESTICIDE DRIFT: A GROWING CONCERN

**An estimated one-third of all pesticides sold in the United States are used in California.<sup>23</sup> Ninety percent of these, or more than 200 million pounds, are used in agriculture each year.<sup>24</sup>** Pesticides are applied through hand spraying, soil fumigation, crop dusting and huge tanks that spray steady streams of chemicals onto fields and orchards.

Nearly all of the pesticides used in agriculture are prone to drift — in other words, to contaminate areas outside the intended target. Sprayers routinely misjudge wind speed and blow their spray off-target.<sup>25</sup> While there are laws against spraying a field occupied by workers, spraying a field adjacent to a field where workers are present — or on nearby housing or schools — is not prohibited.<sup>26</sup> Even urban areas are affected. In downtown Sacramento, the air contains dangerous levels of molinate — a possible carcinogen that is known to affect fertility, which is sprayed in rice fields seven miles away.<sup>27</sup>

**About one-third of the pesticides used in California are known to be toxic to humans.** From 1997 to 2000, counties in the San Joaquin Valley reported the greatest number of pesticide poisonings in the state. Half of these cases were the result of pesticide drift.<sup>28</sup> Pesticide drift of known toxins can cause or contribute to miscarriage and sterility, birth defects, various types of cancer and neurological disorders.<sup>29</sup> And drift contamination is not as obvious as direct exposure, so, often, people affected don’t know to seek immediate medical attention.

**Because of drift, pesticides are affecting more of the general population.** Pregnant women living in areas of high pesticide use are at an increased risk for stillbirth, miscarriage and birth defects.<sup>30</sup> Children face the greatest health risks as their developing bodies and brains are more susceptible to toxins.<sup>31</sup> And, as the Valley grows, housing is being built in closer proximity to active fields.

**Pesticide drift remains, for the most part, an unregulated health risk.** The California Department of Pesticide Regulation (DPR) has authority to regulate drift, yet EPA pesticide warning label regulations are inconsistent. Industry representatives are lobbying for regulatory language that would prohibit drift only if it causes, in their words, “*unreasonable* adverse effects.”<sup>32</sup> And the phase-out plan for some of the most dangerous agricultural chemicals offers growers the option of continued use for certain crops if a grower can show that the need for continued use outweighs the risks.





## THE COMMITTEE FOR THE BETTERMENT OF EARLIMART

**SITUATION** As a young child, growing up near Earlimart, California, Teresa DeAnda remembers her father pushing her away as she ran to hug him. He was a fieldworker and didn't want her to touch his clothes because sulfur was sprayed on the grape vineyards where he worked.

Teresa still lives in Earlimart, an unincorporated Tulare County town of 6,000 where 88% of the population is Hispanic — located 40 miles north of Bakersfield. Vineyards, potato and cotton fields and nut orchards surround the town. Her husband works in the same fields her father once worked. “Even today, field workers coming from Mexico don't know to protect themselves from the spray until another worker shows them how to tie the three bandanas on their face — on top of the head, over the nose and covering the mouth,” says DeAnda. She adds, “They don't know that they bring the chemicals home.”

November 13, 1999 was el Dia de la Quimica, or “the day of the chemical” in Earlimart, when metam sodium vapors from a potato field spray drifted through town. One hundred fifty people were forced out of their homes, and 24 went to the hospital. Metam sodium — a probable carcinogen<sup>33</sup> — causes headaches, dizziness, nausea and diarrhea. This was not the first accident DeAnda had experienced. Six months earlier she explained, “**The house and street were foggy with pesticides. I could smell them coming through my swamp cooler, and my dog's water bowl turned green.** I called the Tulare County sheriff who told me, ‘The farmer was here first and it's his right to spray.’ Our kids are the ones most affected. Two of my grandbabies were born prematurely, and my kids and grandkids are always sick.” In 2000, approximately 946,300 pounds of 224 different chemicals were applied in the 18 square miles surrounding Earlimart.<sup>34</sup>

In July of 2002, metam sodium was applied to a field across from a housing development in Arvin, Kern County. Nearly 13,000 people live in Arvin, and 88% of the population is Latino/a. More than 250 residents were exposed to dangerous levels of the pesticide. The fire department was called, but after assessing the situation they drove off without offering any explanation.

In October of 2003, 24 residents of the Ruben J. Blunt farm labor camp near Lamont, south of Bakersfield, fled their homes because their eyes were burning and they were vomiting. Officials again ignored their symptoms. The next day the same pesticide, chloropicrin, a substance used in World War I as a chemical weapon, was applied to another

field. By evening, the residents were sick again and called 911. When no help came, residents tried to leave their homes but were met by a sheriff's blockade. Those able to break through received first aid in a nearby parking lot. Four children were taken to the hospital.<sup>35</sup>

**TAKING ACTION** After the Earlimart accident, Teresa DeAnda joined with other residents and organizations to knock on doors and ask people to talk about their experiences. Twenty-five women joined her to form El Comité para el Bienestar de Earlimart (The Committee for the Betterment of Earlimart). When she heard about the accident in Arvin, DeAnda felt compelled to help. “I believed them when they said they had headaches, even if they'd been told it wasn't consistent with the label on the pesticide.”

El Comité members began visiting other communities impacted by pesticides to teach people that pesticide drift is illegal, how to identify symptoms of poisoning and what to do about the problem. DeAnda has since joined the staff of Californians for Pesticide Reform and is developing “fotonovellas” or small multi-media books designed in a comic-book style that use photographs and cartoon-like dialogue boxes to tell the stories of some Central Valley women affected by pesticide drift. And, DeAnda adds, “We organize a committee if there are no other organizations in the community, or we work with existing ones to hold the county agricultural commissioner and farmers accountable.”

**SUCCESS** With the help of the United Farm Workers (UFW), Earlimart residents urged Tulare County to adopt stricter controls for metam sodium applications. They forced the Department of Pesticide Regulations to fine the company responsible for the November 1999 disaster \$75,000 — and require they put another \$75,000 into trust funds to pay victims' medical bills.<sup>36</sup>

Following the disaster, El Comité, the UFW and the group Pesticide Watch created an environmental health hotline with the Tulare County Agriculture Commission. The hotline gave residents a place to call to report drift, accidents and illness (559/733-6441). El Comité has also joined the Central California Environmental Justice network. Several El Comité members have spoken to elected and appointed officials, and have contributed to new legislation. The Pesticide Drift Exposure Act (Florez SB391), signed into law in September 2004, will fine growers whose spray drifts into communities, require public notification about fumigations, establish a revolving medical fund for pesticide victims and train medical professionals on the health effects of pesticides.

For more information:  
Californians for Pesticide Reform, [www.pesticidereform.org](http://www.pesticidereform.org).



## EXPOSING DAIRY'S IMPACT ON WATER

**SITUATION** *"The Central Valley used to be the salad bowl. Now we call it the toilet bowl,"* reflects Joe Morales, a community organizer for the Center on Race, Poverty and the Environment (CRPE). *"We get the waste from the dairy cows, along with the human sludge trucked over the mountains from Los Angeles' sewers."* For the past six years, Morales has driven the backroads of Central Valley counties, observing the impact of large-scale agriculture. *"Anything that will ruin people's health is coming here, and the rest of the nation is watching to see what we'll let happen."*

*California supplies one-fifth of the nation's milk and cream in return for \$3.8 billion a year.<sup>37</sup> The San Joaquin Valley is home to 2.6 million cows. Tulare County produces the most milk and cheese of any county in North America.<sup>38</sup>*

*In 1997, the average dairy had a herd of 602.<sup>39</sup> Today, the 300 dairies in Tulare County average more than 1,000 cows each. Some have as many as 14,000.<sup>40</sup> **Each cow excretes between 30 and 50 pounds of urine and between 30 and 70 pounds of feces a day.**<sup>41</sup> Waste seeps into the groundwater first from the corrals and then from waste storage in large lagoons and, finally, when the waste is spread as a fertilizer in the fields.<sup>42</sup> "People can't even have barbecues anymore here. The smell and the flies are so bad," says Morales.*

*One of the most worrisome health concerns in the Central Valley is the contamination of water from nitrates in manure. Nitrates can cause gastrointestinal illness and impair the blood's ability to carry oxygen, which can be fatal in infants and young children.<sup>43</sup> Nitrates have caused more public well closures than any other contaminant. Antibiotic use is another emerging water contamination issue. Antibiotics are used to eliminate the risk of infection in cows that live in cramped, unsanitary conditions. These drugs are excreted through waste and are now found in water. They may be linked to antibiotic-resistant bacteria in humans.<sup>44</sup>*

*Tulare's residents rely on groundwater for drinking.<sup>45</sup> More than one-third of its residents live in unincorporated communities where the water is supplied by private wells or private water systems and is not protected against nitrates or pesticides.<sup>46</sup> "Wherever you go in rural communities the water smells like rotten eggs," says Morales. **Residents are told not to drink the water or cook with it and to bathe at their own risk because of nitrates, E. coli or pesticides.** In the small Central Valley towns of Plainview and Strathmore,*

*residents get rashes, their skin breaks out and their stomachs hurt when they use the water. Private mutual water companies supply it — but residents end up paying twice: first for the public groundwater they can't drink and then for the filtered water they have to buy from poorly regulated vendors.<sup>47</sup>*

**TAKING ACTION** *The Center on Race, Poverty and the Environment is one of a handful of organizations confronting water and air pollution caused by Central Valley dairies. The group uses litigation to enforce regulations. In recent months, CRPE has prevailed in getting the Central Valley Regional Water Control Board to consider adopting new permitting guidelines that would require stronger protective liners in waste lagoons and limit the amount of fertilizer that dairy farmers can apply to their fields. New dairies would have to take stronger preventive action in order to get permits to operate. CRPE is also writing a residents' right-to-know handbook about what is in their water, what they can expect from their private and public water suppliers and how they can help.*

*Members of the Clean Farms Clean Water Coalition have filed a lawsuit against the Regional Water Quality Control Board and the State Water Resources Control Board to aggressively regulate sources of farm pollution. The Migrant Photography Project trains immigrant women living on or near dairies to take photographs of the industry's impact on their families to inform and educate residents. And the Latino Issues Forum is working at the state policy level on water quality and equity.*

### SUCCESS

- *The Center on Race, Poverty and the Environment has successfully stopped the opening of 125 large dairies in the Central Valley using California's Environmental Quality Act.*
- *Support from all of the above organizations helped pass SB 700. The bill will ensure most large dairies are regulated under the Clean Air Act.*
- *The Latino Issues Forum succeeded in getting language into California's Assembly Bill 1747, adopted in 2003, to set aside up to 25% of state funds for disadvantaged communities to improve their water infrastructure.*

*For more information:*

*Center on Race, Poverty and the Environment,*

*Delano office: (661/720-9140);*

*Latino Issues Forum, [www.lif.org](http://www.lif.org);*

*Migrant Photography Project, [www.migrantphotographyproject.org/Dairy/WaterRightToKnow.htm](http://www.migrantphotographyproject.org/Dairy/WaterRightToKnow.htm).*

## POLLUTING OUR DRINKING WATER

“There is hardly a Central Valley river that is not degraded by agricultural pollution,” says Mike Lozeau, an attorney for Earthjustice.<sup>48</sup> Pesticides are found in most all of the Valley’s rivers, and some farmers use canals as bowls to mix ammonia and nitrogen fertilizer before pumping it onto fields.<sup>49</sup> This affects rivers and streams and our groundwater reserves — the principal source of drinking water for rural communities.

Irrigation was the key that unlocked the Central Valley’s agricultural riches. The first target was the shallow, 800 square-mile Tulare Lake.<sup>50</sup> When that wasn’t enough, rain and snowmelt from the Sierra Nevada was harnessed, floods controlled and droughts abated through canals, aqueducts, dams and reservoirs in the Valley.<sup>51</sup> Along the way, farmers bought as much land as they could — because upstream landowners gained the right to divert as much water as they needed. With control of both water and land, these farmers gained increasing political power over water use in the Valley and beyond. **Today, agriculture uses 85% of the state’s captured surface water and 90% of its groundwater.**<sup>52</sup> Yet California’s farmers rely on public subsidies to pay 90% of the cost to irrigate Central Valley farms. Water subsidies total \$236 million each year.<sup>53</sup>

### Legislation: California and Clean Water

In the early 1970s, Congress exempted farm runoff from the federal Clean Water Act. In 1982, California followed suit by exempting agricultural runoff from permit requirements under the state’s own Porter-Cologne Water Quality Control Act. Despite concerted efforts by a broad range of public interest organizations, the exemption still holds. Current exemption decisions are being litigated by a group of environmental organizations, such as Earthjustice and the National Resources Defense Council, whose representatives believe that the process does not comply with legal requirements. What’s more, the federal Clean Water Act only regulates surface water, so groundwater is exempt.

## WHAT CAN WE DO?

It is imperative to usher our state’s agriculture industry into a new era in which the Central Valley is not only producing the food for our nation but also demonstrating leadership in sustainable farming that will enhance — rather than harm — human health and the environment.

**The future starts with women.** As mentioned in the Women’s Foundation 2003 report *Confronting Toxic Contamination in Our Communities: Women’s Health and California’s Future*, a poll conducted for the federal Office of Women’s Health found that nearly two-thirds of women indicated that they

alone were responsible for health care decisions for their family, and 83% had sole or shared responsibility for financial decisions regarding their family’s health.<sup>54</sup> As the people who provide primary care for ill or disabled family members and as health care decision makers for their families, women bear direct witness to the suffering that results from environmental degradation.

According to Women Assessing the State of the Environment, women’s bodies are often “the markers of environmental contamination through diminished fertility, abnormal fetal development, increased rates of cancers, and other spiraling forms of environmental illness.”<sup>55</sup> Finally, as families’ primary consumers and preparers of food, women must ultimately be the driving force for healthier and more sustainable food production.

As demonstrated in this report, women in California are taking the lead in solving community problems. According to focus group research conducted by the Center for Health, Environment and Justice, women across all party lines — along with Democratic and Independent men — were more likely than other voters to be concerned about the environment.<sup>56</sup> It is vital for women across California to lead the state toward a healthier future and encourage all residents in the following solutions.



## RECOMMENDATIONS:

- 1 CREATE COALITIONS:** Environmental health issues in the Central Valley affect everyone — from farm workers to industry leaders. By building coalitions that work across sectors and bring together a diversity of experience and expertise, we can work to create the best possible solutions and a healthier environment for everyone.
- 2 EDUCATE AND ADVOCATE:** Organizations can use a combination of strategies to educate and organize their constituents — locally, regionally and at the state level — to effect change. Starting at the grassroots level, educate communities on the human health impacts of pesticide use, water contamination and air pollution. Advocate for improved regulations in your region. Use regional wins to make the case for changes at the state policy level.
- 3 FUND SOLUTIONS:** Foundations and other funders should increase their support for organizations' efforts to educate the public, organize communities and shape policies. Funders should expand funding to include long-term support for capacity building for new and existing collaborations and recognize the importance of organizations coming together to work and strategize by funding or hosting convenings. The health of the Central Valley impacts the health of the entire state. Therefore, foundations located outside the Central Valley should also consider investing in environmental health and justice work in this region.
- 4 SUPPORT HEALTHY POLICIES:** Policymakers must exercise their power to write and support legislation that will improve air and water quality in the Central Valley. Legislators can reduce the direct and indirect costs of pesticide-free food to consumers by creating incentives to help the agriculture industry transition to healthier alternatives. Lawmakers could offer incentives for soil and water conservation and wetlands preservation.
- 5 PRACTICE CIVIC PARTICIPATION:** Individuals can use their voting power to support legislators who promote healthier agriculture industry practices. Get involved with local community organizing efforts to help ensure the health of your region and state. Use your purchasing power to support farmers that operate responsible businesses and choose healthy and safe farming practices.

## FOR FURTHER INFORMATION:

*Cadillac Desert* by Marc Reisner (New York: Viking Penguin, New York, 1986). Also a 1997 PBS documentary available as a VHS box set.

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