



Mary-Ann Warmerdam
Director

Arnold Schwarzenegger
Governor

October 29, 2007

TO: Parlier Local Advisory Group
Interested Parties

SUBJECT: PARLIER PROJECT STATUS REPORT -
UPDATE ON PROJECTED RELEASE OF FINAL REPORT

As we get closer to the end of the Parlier air monitoring project, we would like to give you a status report. The Department of Pesticide Regulation (DPR) began this project more than three years ago. In October 2004, we released a draft project protocol inviting public comment to help us select an environmental justice (EJ) community for the project, and the pesticides we should monitor. In early 2005, we took applications for and then appointed the Parlier Local Advisory Group (LAG), which first met in June 2005. DPR scientists collected their last air monitoring sample from Parlier on December 28, 2006, and the Air Resources Board (ARB, our partner in monitoring) collected its last sample a week later.

This is a most unusual and rewarding project, and something of a turning point for us. It is the first time:

- We did air monitoring in a single community for a year.
- We monitored more than 40 pesticides and breakdown products.
- We included community air monitoring, conducted jointly by DPR and ARB, for pesticides and nonpesticide air pollutants.
- A LAG played a key role in framing project goals, selecting monitoring sites, and determining other parameters.
- We had an open house and community fair before a project began to introduce ourselves to a town where we would be doing a study.
- We released preliminary results and evaluations throughout a project, in a series of interim reports.

All of our data (including the final project protocol, monitoring results, LAG agendas and minutes, and minutes of meetings of the project's technical advisory group) are posted on our Web site. We will wrap it all up in a final report, which we had planned to release in the next



several months. We find that we must delay that report, perhaps to as late as the first part of 2009. DPR's air monitoring staff (which will write the Parlier project report) has been assigned the huge task of implementing new regulations designed to reduce smog-producing emissions from fumigant pesticides. Although reducing toxic exposure to fumigants is not the primary goal of the regulations, in reducing emissions and use, these regulations will also help reduce exposure. In this, we will all benefit. While completing the Parlier report is important, all the data and preliminary evaluations have been released. Getting the new regulations in place and working effectively must take priority.

Delaying the report will not affect what has been achieved in the Parlier project. The project goal is to evaluate ambient air exposure to pesticides to better understand and identify opportunities to reduce environmental health risk, particularly to children. The data do not show significant health risks that warrant immediate action. As promised, however, we are taking a closer look at findings that were above or close to our health-protective screening levels. We are not waiting for the final report to do that.

For example, the data we gathered in Parlier has prompted us to take a closer look at the organophosphate insecticides diazinon and chlorpyrifos. During the twelve months of air monitoring, we detected diazinon in 32 percent of the samples. On one of the 156 days that we took samples, diazinon also exceeded the acute screening level we established. While a detection above the screening level does not necessarily equate to a health risk, it is something we want to look at more closely. It has prompted us to move diazinon up on our priority list of pesticides on which we will soon start risk assessments. (Risk assessment is a process designed to answer questions about how toxic a chemical is, what exposure results from its various uses, what is the likelihood that use will cause harm, and how to characterize that risk. Government agencies rely on risk assessments to help them determine which potential hazards are the most significant. Risk assessment is often the driving force behind new regulations and other use restrictions.)

While the U.S. Environmental Protection Agency has completed several evaluations of diazinon, the federal pesticide regulatory agency has not looked at ambient air exposure, at least not with data as extensive as that which DPR gained from the Parlier study. Because of what we found in Parlier, diazinon will be the next risk assessment DPR begins in 2008.

We detected chlorpyrifos or its breakdown product in 64 percent of the samples. DPR was already doing a risk assessment on this pesticide, but the Parlier finding prompted us to put it on a faster track.

The Parlier project expanded our database on potential community exposure to pesticides. Accurately assessing pesticide risk requires being able to estimate what exposures are experienced or expected, and under what conditions. The Parlier data will be an integral part of our future risk assessments.

The pesticide detected most often in Parlier—MITC—is a breakdown product of metam-sodium and other chemically related fumigants. In November, DPR and the county agricultural commissioners will put into place new, stricter controls on these fumigants statewide. And, as I mentioned earlier, beginning in January, new DPR regulations will reduce use and emissions of MITC and other fumigants in the San Joaquin Valley and other areas of the state where smog-producing pesticide emissions are a problem.

The pollutants found at the highest levels in Parlier were not pesticides, but pollutants commonly found throughout California, mainly from vehicle exhaust and industrial sources. Right now, science does not have sufficient tools to fully evaluate and measure the cumulative health impacts of multiple pollutants from many sources. The California Environmental Protection Agency's Office of Environmental Health Hazard Assessment is working on cumulative risk guidelines. When the guidance is complete, DPR will again examine the Parlier data to determine if further actions are needed.

DPR scientists are still evaluating other data they collected during the project. For example, we are comparing detections with records of pesticides used in the area. This will refine our knowledge of how pesticides get into the air and how far they can travel. This information helps us develop better controls to reduce pesticide risk.

We will also continue our efforts to reduce pesticide risk by encouraging alternatives to highly toxic compounds like organophosphates and fumigants. DPR has participated in integrated pest management initiatives that have identified and promoted reduced-risk practices and pest management systems for most pests of major crops in the project area: grapes, stone fruit, citrus, and almonds. For example, a 2004-08 DPR integrated pest management project for peaches and nectarines in the Parlier area is focusing on reduced-risk alternatives to organophosphates and other broad-spectrum insecticides, and pesticide application technologies that increase efficiency and reduce environmental exposure.

We have also funded use in the Parlier area of a target-sensing "smart sprayer" that turns off application nozzles between plants. With guidance from university scientists, this technology is being used to find the best way it can help reduce volatile organic compound emissions, drift, and pesticide use. DPR also funded research on reduced-risk insecticides for vine mealybug management in grapes. Organophosphates used to combat this newly introduced pest not only can get into ambient air but also can contaminate waterways and cause worker illnesses.

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As you can see, the Parlier project produced notable scientific results, and will continue to do so. More important, it changed how we view our work. I do not think we will ever be the same, or approach our research the way we did before Parlier. It gave us an appreciation of the importance of what we do, as we got to know the people our work is designed to protect.

Sincerely,

A handwritten signature in cursive script that reads "Mary-Ann Warmerdam". The signature is written in black ink and has a fluid, connected style.

Mary-Ann Warmerdam
Director
(916) 445-4000