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**DRAFT  
Minutes  
Parlier Local Advisory Group Meeting  
March 9, 2006**

**Local Advisory Group (LAG) members present:**

Jennifer Ambacher (alt), Karen Francone, Raúl Gaona, Richard Milton, Vernon Peterson, and Vidal Reyna (alt.) (*Absent*: Ben Benavidez, Teresa DeAnda, Juana Espino/ Jose Renteria, Dr. Rogelio Fernandez, Israel Lara, Rey Leon, Lou Martinez, Carolina Simunovic, and Matthew Towers).

**Facilitator:** Lydia Martinez

**Department of Pesticide Regulation (DPR) staff:** Veda Federighi, Randy Segawa, Jay Schreider, Chuck Andrews, Pat Matteson, Leonard Herrera, Joan Sallee, and Braulia Sapien

**Audience sign-in sheet:** Lynn Baker, Barry Bedwell, Lori Berger, Eric Bissinger, Karri Hammerstrom, Gabrielle Kirkland, Suzanne Noble, Renee Pinel, and Gary Van Sickle

**1. Introductions and review:** Lydia Martinez, facilitator, opened the meeting and reviewed the agenda. Veda Federighi, DPR assistant director and environmental justice coordinator, introduced Vidal Reyna who has attended all previous meetings as a member of the audience and will now serve as alternate for Harold McClarty, Richard Milton, and Vernon Peterson. Other members of the LAG and the audience then introduced themselves. Veda briefly described the successful community briefing and open house held in Parlier by DPR on January 28. Audience member Barry Bedwell commented that, in his opinion, the media did not accurately represent the event and emphasized air monitoring and the negative effects of pesticides, rather than the services being provided. Veda said that she liked that there was more emphasis on the pilot project because that was the intent of the forum. She noted that the May 11 meeting would focus on the preliminary results from the first months of air monitoring, but it was too early in the project for any analysis of the results to occur. Both the LAG and the Technical Advisory Group (TAG) will receive the information before the meeting, and once released, it will also be online. She then recapped the evening's agenda and reminded everyone that if there were nominations for the IPM Innovator Awards to see staff member Pat Matteson present in the audience. Lydia reminded LAG members to put up their name cards whenever they wanted to speak and members of the public to fill out speaker cards that could be found on the rear table, along with the agenda and handouts.

**2. Monitoring by DPR and the Air Resources Board (ARB):** Randy Segawa, chief scientist for the Parlier pilot project, explained that DPR monitoring began on January 3 at three elementary schools in Parlier and will continue three days a week for 52 weeks. ARB began its sampling on January 17 and is taking one sample every six days, with one sample every three days during high use months for 1,3-D and sulfur. He also explained that a Quality Assurance team was in place and that a field audit had been conducted (with no problems found) and a lab audit had occurred the day before. Randy then walked through the changes that had been made



in the protocol document, *Environmental Justice Pilot Project Protocol for Pesticide Air Monitoring in Parlier*.

Randy pointed out that two pesticides, chlorothalonil and oryzalin, have been added for testing (Table 2, page 23). Information has been added to Table 12 on page 33, showing that in most cases the detection limits are well below quantitation limits, and Table 13 on page 34 has been added in its entirety. Figures 3, 4, 5, and 6 on pages 38, 39, 40, and 41 have all been updated with 2004 data on the amounts and locations of fumigant applications and the kinds of pesticides used within five miles of Parlier. He noted the addition of Attachment II (*Standard Operating Procedures*), Attachment IV (*Overview of Possible Health Effects and Screening Levels for Monitored Pesticides*) that includes some significant changes, and Attachment V (*Responses to Comments on the Protocol*).

He then returned to page 47 describing the relationship between the detection limit, quantitation or reporting limit, and screening levels. He talked about the lowest detection limit a lab can detect and used the analogy of a grain of sand to describe the amount represented by a nanogram. Using chlorpyrifos as an example, Randy explained that the detection limit is 10,000 times less than a grain of salt, and there is never a zero detection limit. Samples that have no detectable amount are usually assumed to have a concentration of one-half the detection limit, using chlorpyrifos as an example, 2.5 ng/m<sup>3</sup>. Detections between the quantitation or reporting limit and the detection limit are said to have a "trace amount" (you know it's there but you're unable to quantify it). A trace amount of chlorpyrifos is assumed to be 25.5 ng/m<sup>3</sup>. Most importantly, the detection limit and the quantitation limit are far below any screening level: the acute screening level for chlorpyrifos is set at 1,200 ng/m<sup>3</sup>; subchronic at 850 ng/m<sup>3</sup>; and chronic screening level at 510 ng/m<sup>3</sup>. Veda pointed out that days of exposure were used to determine screening levels and that Jay Schreider would be explaining them further. Jena Ambacher asked about the different scales used on page 47. Veda then introduced Jay Schreider, DPR's primary state toxicologist.

**3. Screening Levels:** Jay said that he would not be talking about how the screening levels were developed, since that information could be found in Attachment IV of the protocol, but would begin instead with some general background. Because there were few state or federal health standards for pesticide levels in the air, DPR developed screening levels that could serve as guideposts, rather than legal regulatory standards. Air concentration below the screening level generally would not represent a significant health concern but should not automatically be considered safe. Air concentration above a screening level would not necessarily indicate a significant health concern but would prompt further and more refined evaluation. A measured air level that greatly exceeded the screening level would, however, be cause for concern. DPR set these screening levels by using exposure levels taken from existing documents that have gone through peer review and, in some cases, public comment. The different screening levels – acute, subchronic, and chronic – relate to different exposure times. Acute exposure is generally a single exposure or exposure over one day. Subchronic exposures may be up to about three months. Chronic exposure is generally a year or more up to lifetime exposure.

In any study, various uncertainty factors also have to be addressed, such as extrapolating from animal data to humans, as humans are more sensitive than animals; human variability, since humans differ from one another in sensitivity; and the potentially increased sensitivity of children to pesticides in the air, also known as the “FQPA safety factor” that refers to the 1996 Food Quality Protection Act passed by Congress. Children have the highest inhalation rate relative to body weight, so they would inhale the highest amount of airborne material relative to their body weight. Although the individual screening levels do not incorporate the FQPA safety factor, those factors will be considered in evaluating the measured air levels of the individual pesticides in the Parlier project and are included in the protocol.

Jay then touched upon the risk from multiple chemical exposures and non-chemical stressors, referring to the work currently being done by the Office of Environmental Health Hazard Assessment (OEHHA) on cumulative impact that will ultimately guide this project. In the interim, however, staff will be using the multiple pesticide approach used in the Lompoc project called the hazard index approach. Referring to page 15 of the protocol, he explained that the risk from multiple pesticides is evaluated by calculating a hazard quotient, which is the air concentration detected and expressed as a fraction or percentage of the screening level. For example, if the air concentration is 25 percent of the screening level, the hazard quotient of that pesticide would be 0.25. When the hazard quotient is greater than one, the air concentration would exceed the screening level and further investigation and possible action would be needed. DPR will estimate risk from multiple pesticides by adding all of the hazard quotients for the individual pesticides to arrive at what is called the hazard index. As with the hazard quotient, a hazard index greater than one would indicate the need for further investigation. The hazard index approach assumes that the toxicity and risk of the monitored pesticides are additive, although only a subset are known to act in an additive way. Additive interaction occurs when one chemical adds to the toxicity of another. (Pesticides can also exhibit toxic effects independently of each other or demonstrate a synergistic interaction when one chemical multiplies the toxicity of another chemical or have an antagonistic interaction when one chemical diminishes the toxicity of another chemical.) The hazard index approach is appropriate, therefore, as the first step of the analysis, not the last one.

Jay also went over the flow chart, entitled *Illustrating How the Department of Pesticide Regulation (DPR) Will Use Screening Levels in its Parlier Air Monitoring Project*. Several questions were raised by LAG members and by those in the audience. Barry Bedwell observed that wording on the flow chart would lead people to believe that if detected levels of a pesticide were above the screening level, the risk would require immediate regulatory action. Veda responded that screening levels would not lead to immediate regulatory action but would trigger further evaluation that might eventually lead to regulatory action. She will clarify the wording on the chart for the future. Raúl Gaona asked if the study would change if something were found in higher concentrations. Lynn Baker replied that if you found samples with high acute levels, you wouldn't wait very long to look into the situation. Lori Berger asked if any pesticides did not have screening levels; Jay explained that sulfur did not. Barry asked about risk assessment in the

Lompoc project – were the same levels used? Jay responded that some numbers had changed but not hugely. It was asked if the Lompoc study was on the DPR website. It is. Veda commented that the Parlier screening levels are better than the ones used in Lompoc. Another audience member asked if the report on the Parlier project would list the screening level found for each pesticide, to which the answer was yes. Veda emphasized that risk assessment does not follow from the screening level; there are many steps in between.

**4. Risk Management Options:** Veda then introduced Chuck Andrews, Chief, Worker Health and Safety Branch, to explain the risk management options available to DPR and what would trigger their use. He reviewed the following Risk Management Options (see hand-out): Option One: Adopt interim mitigation measures by issuing suggested permit conditions, and Option Two: Adopt mitigation measures through pesticide labeling changes. Raúl Gaona asked who the registrant would be in Option Two. Randy responded that it was the manufacturer. Chuck then continued with describing Option Three: Establish interim mitigation measures by adopting emergency regulations; Option Four: Establish the mitigation measures in the Strategy by adopting pesticide regulations; and Option Five: Cancellation of the pesticide product(s). With no questions on the options, Chuck then proceeded to review the hand-out on *Mitigation Measures* that DPR considers to reduce pesticide exposures to people. When developing the mitigation measures, DPR considers the following industrial hygiene hierarchy in priority order: engineering controls (most desirable), administrative controls (desirable), and personal protective equipment (least desirable). No one raised any questions about the presentation.

**5. Future Agenda Items and Meeting Schedule:** Veda talked about two tour possibilities for the future. The first is a visit to the ARB trailer, which that agency refers to, more accurately, as an “instrument shelter.” ARB staff member Lynn Baker said that anyone could tour the site, a few people at a time. Veda pointed out that advance notice should be given to the Parlier school district, as the shelter is located at Benavidez Elementary School. Anyone interested should contact Veda by email, phone, or in person. The second tour on Pest Management will be scheduled for later in the year, possibly in September or October, as farmers are likely to be too busy in the spring. The tour will visit some farmers in the Stone Fruit Alliance and possibly others who can describe the methods they are using to eliminate pests and the challenges they face. Everyone is invited on the tour, although DPR will arrange transportation and provide lunch only for LAG members and staff. Others will receive a map and schedule for each stop, so that they can join the main group. Rick Milton suggested that the tour be held at the end of May, instead of the fall. Veda will work on arrangements, including dates, and send out information by email. Raúl Gaona asked if LAG members could invite others to come on the Pest Management tour and was advised that they could do so, as long as it wasn’t a lot of people. Veda reminded everyone that the next meeting would be held on May 11 at 6 p.m., and the main item on the agenda will be discussion about the preliminary results from the first months of air monitoring.

*The next meeting will begin at 6 p.m., Thursday, June 8 in the same place (Nectarine Room, Kearney Agricultural Center, Parlier).*