

## **APPENDIX C**

## DPR Response to First Set of Public Comments

DPR incorporated many of the suggestions from commenters, particularly those that assisted in establishing criteria to select pesticides and the community. However, some comments conflicted with one another. For example, most people suggested that DPR monitor schools adjacent to agricultural areas. However, at least one person suggested that DPR specifically avoid monitoring at schools.

### Comments received on pesticide selection:

DPR incorporated the following comments in its pesticide selection criteria:

- Monitor for MITC and other fumigants
- Monitor for organophosphates
- Select pesticides that can be monitored with a single method
- Monitor for pesticides with high vapor pressure
- Monitor for pesticides with high use
- Monitor for pesticides with high toxicity
- Inventory previous studies to avoid duplication

DPR did not incorporate the following comments in its pesticide selection criteria:

- Monitor for defoliant.  
*Response: Methods are not available for paraquat and sodium chlorate; S,S,S-tributylphosphorotrithioate (DEF) will likely be monitored.*
- Monitor for methomyl, propargite, captan, chlorothalonil, iprodione, sulfur.  
*Response: DPR will attempt, but these may not be included in the monitoring if the Lompoc method cannot be adapted to include them.*
- Monitor pesticides with longer half-lives.  
*Response: Peak emissions for most pesticides occur within the first few hours or days of application. Very few pesticides degrade fast enough to affect air concentrations. For most pesticides, a long or short half-life likely has little effect on exposure through the air.*
- Monitor Proposition 65 pesticides.  
*Response: Some included, but not a criterion for selection.*
- Do not monitor Proposition 65 pesticides, category 1 and 2 pesticides, or restricted materials.  
*Response: Some are not included, but not a criterion for selection.*
- Monitor urban pesticides.  
*Response: some are included, but detailed use data is not available to identify the high urban-use pesticides.*
- Analyze samples already collected by ARB, rather than collect additional samples.  
*Response: The ARB samples are incompatible with the methods used to analyze for the target pesticides.*

### **Comments received on community selection:**

DPR incorporated the following comments in its community selection criteria:

- Select a community with low income
- Select a community that had pesticide drift incidents
- Select a community of color
- Select a community with schools in the middle or adjacent to agricultural areas
- Select a community with monitoring sites on the periphery of the community
- Select a community where the adjacent area as well as general area have high use
- Consider exposure pathways other than air
- Select a community with diverse crops
- Select a community with actual or perceived health effects
- Collaborate with organizations planning complementary studies
- Select a single community
- Monitor several sites within a single community
- Select a community with high air stability and low wind speed
- Choose a community with a high percentage of children
- Use three years of pesticide use report data – one year of data examined for all community candidates; three years of data examined for leading candidates

One or more commenters suggested the following specific communities:

- Arvin (Kern County)
- Caruthers (Fresno County)
- Earlimart (Tulare County)
- Grayson (Stanislaus County)
- Huron (Fresno County)
- Lamont (Kern County)
- Lebec (Kern County)
- “Midway” neighborhood (Madera County)
- Poplar (Tulare County)
- Ventura County communities

Arvin is a highly rated community using DPR’s proposed criteria, along with nearby Lamont. Earlimart and Huron are highly rated communities if availability of cumulative impact data is not a factor. Poplar has moderate to high ratings in all categories, but other communities have higher ratings. Caruthers has high pesticide use, but other communities have higher use. Caruthers has low ratings for environmental justice factors and availability of cumulative impact data. Grayson has low to moderate ratings in all categories.

Several of these suggested communities were not evaluated in depth. The “Midway” neighborhood is not a community included in the Census, so the population data for this area is uncertain. The nearby community of Biola is not a leading candidate. In addition, “Midway” does not have schools or other preferred monitoring sites, and may not have any locations that meet the minimum siting criteria. Lebec and Ventura County were not considered because they are not within the San Joaquin Valley.

DPR did not incorporate the following comments in its community selection criteria:

- Select a community to establish profile of air concentrations by crop.  
*Response: Incompatible with current study design. Requires monitoring at fields, rather than communities. In addition, a primary goal for this project is to determine the cumulative exposure for as many pesticides as possible. Focusing on a single crop will decrease the number of pesticides that are included in the project.*
- Do not monitor schools.  
*Response: Incompatible with primary goal of focusing on children's health. Schools are routinely monitored for DPR's toxic air contaminant program.*
- Monitor "control" community. Select typical community (for example, average number of children and wind speed).  
*Response: Putting aside the question of whether it is technically or scientifically feasible to identify a valid "control" community, DPR does not have the resources to adequately monitor more than one community.*
- Select a community with dairies nearby.  
*Response: Dairies use very few pesticides. DPR lacks expertise and equipment to monitor non-pesticide emissions from dairies.*
- Monitor several communities.  
*Response: DPR lacks the resources to adequately monitor more than one community.*
- Literacy rates should be a factor in community selection.  
*Response: DPR used four environmental justice criteria for its community selection. Three of these (child population, non-white population, and income) target the populations of interest for this project, as well as all other Cal/EPA environmental justice efforts. The fourth (drift illnesses) helps to select the populations of interest for pesticide exposure. While literacy is an important issue, it is not a primary goal of Cal/EPA's or DPR's environmental justice efforts. Including this or other secondary factors will dilute the effect of children, race, and income in selecting the community.*
- Select community with high infant mortality.  
*Response: DPR will attempt to collaborate with other organizations to identify relationships between air concentrations and health outcomes. However, DPR is attempting to select a community with relatively high pesticide exposure, using pesticide characteristics and use patterns as surrogates. Using infant mortality or other health outcomes to select the community will dilute the effect of the factors used to identify communities with relatively high pesticide exposure.*

**Other Comments:**

DPR will address the following comments later in the planning process or during implementation:

- Monitoring should support modeling efforts
- Develop limits of quantitation
- Reevaluate reference exposure levels
- Clarify health standards
- Do not release monitoring schedule
- Time monitoring with pesticide applications
- Some sampling should capture pesticides on dust or particulates
- Sampling should occur during weekends as well as weekdays

- Sampling should be conducted when high air stability overlaps with high use
- Use peer reviewed methodologies
- Do not use default values or data points when there is not available data
- Controls must be used to give a basis of comparison that has statistical significance
- Which standards will be used to determine if levels are cause for human health concerns, are these to be USEPA or CADPR standards?
- Clarify that this presents scientific limitations and that drawing conclusions from a study that had no replication or controls (an urban community with no agricultural pesticide exposure) is not the objective.
- Include analysis of demographic data and health indicators

DPR does not have the technical expertise or equipment to incorporate the following suggestions:

- Monitor for ozone, particulates, and other criteria air pollutants
- Monitor for other toxics
- Consider monitoring for inerts
- Monitor for bacteria, mold, and other biological agents

In addition, DPR received these comments:

- Cancel project due to budget considerations.  
*Response: DPR had planned to conduct a similar monitoring project this year, without the environmental justice emphasis. This project involves a simple redirection of monitoring resources. None of DPR's other programs, such as enforcement and registration, are affected by this project.*
- Increase enforcement activities instead of monitoring.  
*Response: DPR and county agricultural commissioners (CACs) administer a comprehensive enforcement program that includes measures to control public exposure to pesticides, and if necessary, investigate drift episodes. (See "Pesticide Use Enforcement Program Planning and Evaluation Guidance," a policy guidance letter to CACs, for details on enforcement priorities. The letter is online at [www.cdpr.ca.gov/docs/enfcmpli/penfltrs/penf2004/2004023.htm](http://www.cdpr.ca.gov/docs/enfcmpli/penfltrs/penf2004/2004023.htm).) DPR staff who will conduct this pilot project are scientists, not regulatory specialists. The monitoring staff do not have regulatory expertise and cannot be redirected to enforcement activities.*
- Conduct outreach so people know how to report drift incidents.  
*Response: DPR is developing and will distribute a "Community Guide to Pesticide Regulation" so people know how to report drift and other instances of illegal pesticide use. The guide will be translated into Spanish.*

## DPR Response to the Second Set of Public Comments

DPR proposed specific objectives, pesticides, and a community for monitoring in the previous draft of this document, dated January 14, 2005. Most of the comments on the draft document either agreed or disagreed with the proposed selection of Parlier for monitoring.

### Comments disagreeing with the proposed selection of Parlier

- Before DPR decides on a community they need to take a close look at 2003 use of the pesticides they intend to monitor for around the community. Several other runner-up communities such as Huron and Earlimart should be considered in this analysis.

*Response: DPR did not get a chance to make a detailed evaluation of the 2003 pesticide use data before making its recommendation. However, DPR staff substituted the Parlier 2003 use data for 2002 and recalculated the ratings. Parlier had a lower rating using the 2003 data, but it still had the highest overall rating of all communities. DPR conducted a detailed evaluation Huron and Earlimart because they made the first, but not final cut. These communities rated highly for both EJ factors and pesticide use. However, they rated zero for availability of cumulative impact data. Neither had well monitoring data or criteria air pollutant monitoring. Assessing cumulative impacts is a primary goal of this and the other pilot projects, and DPR may not be to do this if Huron or Earlimart is selected.*

- DPR's pesticide use rating system does not distinguish between somewhat high use and very high use of a pesticide group such as the fumigants. That is why Parlier and Arvin have the same rating for fumigant use even though use is much higher around Arvin. A more precise rating scale should be used in making the final determination of the community to conduct monitoring in.

*Response: The commenter is correct that DPR's rating system does not fully reflect the very high use of fumigants around Arvin. This was by design. If the ratings were proportional to use as suggested, a single pesticide could dominate the ratings, as is the case for Arvin. Metam use in the Arvin area is higher than all other pesticides combined, and Arvin would be highly rated due to use of this single pesticide. DPR is interested in monitoring a community with high use of multiple pesticides, rather than very high use of a single pesticide. Monitoring very high use of a single pesticide is already captured by the toxic air contaminant program. Metam and other fumigants were monitored in Arvin during 2001 for the toxic air contaminant program.*

## Comments on other monitoring

- DPR's analysis of water monitoring refers only to DPR's Well Inventory Database. Availability of water monitoring data that local water companies and agencies submit to DHS and county health departments should be investigated for those communities that have high environmental justice and pesticide use ratings.

*Response: Government agencies are legally required to submit all pesticide well monitoring data to DPR. DPR has all of the pesticide well monitoring data collected by DHS and county health departments, and DPR accounted for this data in its ratings.*

- The project looks at only one source of airborne exposure, pesticides, without consideration of the numerous other airborne sources such as dioxin/PCBs, heavy metals, radon, asbestos, pollen, molds, etc.

*Response: DPR will evaluate other air contaminants. Parlier was selected in part because of the availability of monitoring data for criteria air pollutants. In addition, with ARB's assistance, DPR will collect samples for volatile organic compounds and metals.*

- The Department should inventory existing scientific peer reviewed studies to avoid any duplications. Rather than initiate another monitoring program, the Department's limited resources could be best utilized by analyzing existing data already available.

*Response: DPR has inventoried other similar studies. None provide the monitoring or evaluation that DPR plans to conduct for this project.*

## Comments on the Local Advisory Group

- According to DPR's implementation schedule, the Local Advisory Group (LAG) will not be formed until after the project objectives are finalized. In order to benefit from local community involved and allow community buy-into the project, the LAG should be formed in time to influence the final objectives of the project.

*Response: DPR agrees and will consult with the LAG on project objectives.*

- In order for the local advisory group to accurately meet all of the objectives of reflecting the diversity of view points in the community, showing a balance of representation of Parlier, and bringing the community together, it's very important that production agriculture is represented.

*Response: DPR agrees and recruited growers and other people that are not represented by Parlier's existing Coordinating Responsibility Authority Committee.*

### Other comments

- The pilot project also omits any plans to collect health data from the community either in the form of a health survey or bio-monitoring. Instead, the project objectives are to compare monitoring data with pre-set Reference Exposure Levels (REL). This wastes an opportunity to determine the protectiveness of the RELs themselves. The pilot project needs to examine the health of the community currently to determine whether or not the community bears a disproportionate impact from pesticide exposure.

*Response: DPR selected Parlier in part because of the collaborative opportunities it offers. DPR will collaborate with UC San Francisco's Valley Air Pollution Health Effects Research Institute on their study of asthma and air contaminants. DPR will also collaborate with the state's Environmental Health Tracking Program to evaluate possible correlations between health outcomes and pesticide air concentrations.*

- DPR's analysis puts a lot of emphasis on sulfur and copper use. This also increased Parlier's rating. However, it is my understanding that if DPR monitors for sulfur at all, they plan to use only collection tubes, not dust filters. Sulfur dust CAN NOT be collected reliably with collection tubes. The flow rate and the shape of these monitors are not designed for collecting dust. DPR should either use dust monitors for sulfur or not monitor for sulfur at all. In prior comments to DPR I recommended that they monitor for sulfur dust on a limited basis only, like a pilot within a pilot because I do think that high sulfur dust exposure can contribute to respiratory problems.

*Response: DPR may not agree that it emphasized sulfur and copper use. However, Parlier is still the highest rated community even if we drop sulfur and copper use from the ratings. The background document does not specify the method DPR would use to monitor sulfur. DPR agrees that XAD resin tubes cannot be used to sample for sulfur. ARB has agreed to assist with the sulfur monitoring and DPR will employ ARB's standard method for metals/elements (including sulfur) that uses teflon filters. ARB assistance will add to the monitoring; no resources will be redirected for sulfur. DPR will collect the same number of samples for other pesticides no matter how many sulfur samples are collected.*

## **DPR Response to the Cal/EPA Environmental Justice Advisory Committee Comments**

DPR staff made a presentation on April 5, 2005, to the Cal/EPA Environmental Justice Advisory Committee (CEJAC) on its proposed pilot project in Parlier. The CEJAC made several recommendations. This is the staff response:

- **Re-evaluate the selection of Parlier as the site for the monitoring project. Consider instead a community with more active environmental justice groups, where pesticide drift has been a problem, which have done their own air monitoring and other groundwork, and with a greater interest in and knowledge of pesticides.**

*Response:* During the public comment phase of the project, commenters proposed 10 different communities as locations for this project. The only way to fairly select a community was on objective criteria. On these criteria, Parlier scored the highest, by a substantial margin. Parlier had a rating of 10.0 (out of 12 possible). The next highest communities were Arvin and Visalia (8.4), Orange Cove (8.1), London (8.0), Cutler (7.8), and Reedley and Farmersville (7.6). Note that Parlier is 1.6 points higher than the next highest community, and 0.1 or 0.2 points separate most of the other communities. Alternatively, the 1.6 points separating Parlier and the two communities that ranked second is more than the 1.5 points separating the ratings of the next 20 communities (i.e., those ranked second through twenty-second). None of the commenters provided monitoring data, so DPR could not consider this information for its community selection.

Moreover, the primary goal of the project is to collect meaningful data that will help us reduce environmental health to children. A key component is the availability of cumulative impact data, and the potential for collaboration with other environmental or health monitoring projects. Again, Parlier is notable for several synergistic opportunities.

While Parlier did not request this project, community and civic leaders have been uniformly supportive and eager to participate. They and DPR are committed to ensuring that public participation is an integral part of the project.

A key factor in selecting the project community is potentially higher exposure, as indicated by pesticide use data. Some of the communities specifically suggested by commenters, such as Caruthers and Grayson, have lower use than most other communities. CEJAC noted that use of fumigant pesticides in Arvin is much higher than the other communities evaluated. While this is true for the San Joaquin Valley, coastal areas have higher fumigant use than Arvin. Additionally, fumigants were monitored in Arvin in 2001.

In addition, it is important to note that this is a pilot project, and conducting monitoring in Parlier does not preclude monitoring in other communities. The number of communities that have shown an interest in this kind of monitoring demonstrates the wide interest in conducting further monitoring. Limited resources demand that future monitoring sites be selected based on how the data can be integrated and used to enhance protection of health and the environment. For example, little data has been collected from the west side of the San Joaquin Valley, an area with different cropping and pesticide use patterns than other areas. Should resources be available, DPR would propose to conduct additional monitoring on the west side, possibly in Huron, one of the communities suggested by commenters.

DPR may use this or similar methodology to select communities for future monitoring. CEJAC's recommendation also seems to advocate the historical bias of focusing work on selected communities, and neglecting those that lack time/resources or knowledge/experience to bring EJ issues to the attention of government agencies. If we change the selection method so only communities that have existing EJ groups are eligible, future monitoring will be restricted to very few communities.

- **Ensure that the Local Advisory Group (LAG) represents all segments of the community**, including farmers, farm labor, health care professionals, and environmental justice and community organizations, even if it means having members from outside Parlier.

Response: A local advisory group (LAG) is key to ensuring meaningful public participation in this environmental justice project. DPR has been committed to ensuring that the LAG is representative of both the Parlier community and environmental justice interests. In March and April, the Department solicited applications for the LAG, and in early May, appointed 18 persons to the group. They include representatives of the California Rural Legal Assistance Foundation; Californians for Pesticide Reform; Fresno County Agricultural Commissioner's office; Fresno Metro Ministry; Latino Issues Forum; LUPE (La Unión del Pueblo Entero); Parlier City government; Parlier HEAL Asthma Project; and the Parlier Unified School District. The LAG also includes a local Realtor; a Parlier vintner; three farmers, including an organic farmer; and four members of the Parlier Coordinating Responsibility Authority (CoRA), a group advising the community on revitalization efforts. DPR is soliciting participation of a health care provider familiar with disease patterns in Parlier.

The first LAG meeting will be at 7 p.m., June 9, at the University of California Kearney Agricultural Center in Parlier. All meetings are open to the public. Subsequent meetings will be at 7 p.m. on the third Thursday of the month, at the Kearney Agricultural Center. Meeting announcements, agendas and minutes will be available on DPR's Web site in both English and Spanish.

- **Consult outside experts (for example, university scientists) on the scientific and technical aspects of the project.**

*Response:* We have formed a technical advisory group (TAG) to function as an adjunct to the LAG and to provide informal peer review on air monitoring, modeling, toxicology, pest management, and other technical and scientific elements of the project.

These agencies and organizations have appointed scientists or technical experts to serve on the TAG: Air Resources Board; California Department of Food and Agriculture (CDFA); California Department of Health Services; California Tree Fruit Agreement, Fresno County Agricultural Commissioner's Office; Latino Issues Forum (Fresno County environmental justice organization); -Office of Environmental Health Hazard Assessment; San Joaquin Valley Air Pollution Control District; U.S. EPA Region 9; University of California, Davis, Center for Health and Environment; University of California, Kearney Center ; and the University of California, San Francisco, VAPHER project (being conducted in Fresno County).

Additional scientists from a wide range of disciplines within DPR will also serve on the TAG, as will the lead Cal/EPA staff members on cumulative impact, precautionary approach and public participation.

- **Consult with CDFA on data it might provide.**

*Response:* We are already using CDFA's data on planted crops, and will ask CDFA to provide other data it believes may be relevant to the project. We will continue to consult with CDFA over the course of the project, and a CDFA representative will be on the Technical Advisory Group.

- **Ensure that the LAG is knowledgeable about pesticide issues by allowing persons outside Parlier that are knowledgeable about drift and about pesticides in general. Contact Teresa deAnda and Marta Arguello (CEJAC members) for their recommendations.**

*Response:* Ms. DeAnda and Ms. Arguello were contacted. Ms. DeAnda has been appointed to the LAG, as well as representatives of California Rural Legal Assistance, Latino Issues Forum, Fresno Metro ministry, and LUPE (La Unión del Pueblo Entero).

- **Monitor other sites for comparison; be sure to monitor in a location where pesticides will be found; attach samplers to people to measure air concentrations in the breathing zone.**

*Response:* We will monitor one or two other sites if resources allow. Parlier is an area of heavy agriculture, with significant pesticide use, and we believe pesticides will be detected. Monitoring individuals is problematic, however, due to the legal constraints involved in human subjects testing for pesticide exposure. However, DPR will request that UCSF collect this type of data during its project.

- **Put a greater emphasis on precaution and alternatives analysis, in line with the IWG's working definition.**

*Response:* DPR's Pest Management Analysis and Planning Program will conduct a study in the project area of cropping patterns, pest pressures, pest control practices, pesticide use, application methods, and alternative pest management techniques, with a focus on integrated pest management. DPR will coordinate its study with ongoing work already being done in the Parlier area: for example, the Almond Pest Management Alliance and Outreach Project; DPR's federally funded project to develop organophosphate alternatives for stone fruit; the Code of Sustainable Winegrowing Practices developed by the California Association of Winegrape Growers and the Wine Institute; and research and extension activities by the world-renowned University of California Kearney Agricultural Center in Parlier, in particular those directed towards the development of ecologically-based pest management systems for insect pests in orchards and vineyards.