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Community Perspective DPR's Pesticide Air Monitoring Program

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Organizations met with Cal-EPA and DPR earlier this year:

Californians for Pesticide Reform

California Rural Legal Assistance Foundation

Center for Environmental Health

Natural Resources Defense Council

Pesticide Action Network

Monitoring objectives should include:

What:

- Evaluating highest potential exposure of rural populations to pesticides in air

Why:

- Need to mitigate to protect those with highest potential exposures
- Most efficient use of limited resources
- Need better data to improve modeling capacity. Data with high % of “non-detects” hard to use in modeling

Adding pesticides to multi-residue screen

- Support adding additional proposed pesticides of public health concern

Sampling Frequency

More thorough seasonal monitoring of fumigants in coastal areas is needed and is workable because of definite use season.

Multiple samples per week needed for:

- Better characterization of peak exposures
- Reduced impact of a lost or failed samples
- More data during high use periods will increase capacity to correlate air concentrations with use and weather data

Proposed Changes to Community Selection

- Support selecting monitoring sites based on use of fumigants, organophosphates
- Support wind speed adjustment generally but exceptions may need to be considered
- *A monitoring site near to and predominantly downwind of fields must be found before a community is selected*

Research supports more frequent monitoring and siting close to fields:

- Use of chlorpyrifos and diazinon within a 3 mile radius of the monitoring site on the monitoring day and 2 to 4 days prior was significantly associated with higher air concentrations. Strongest correlation with use within 1.5 miles of monitoring site.

-Harnly et al 2005

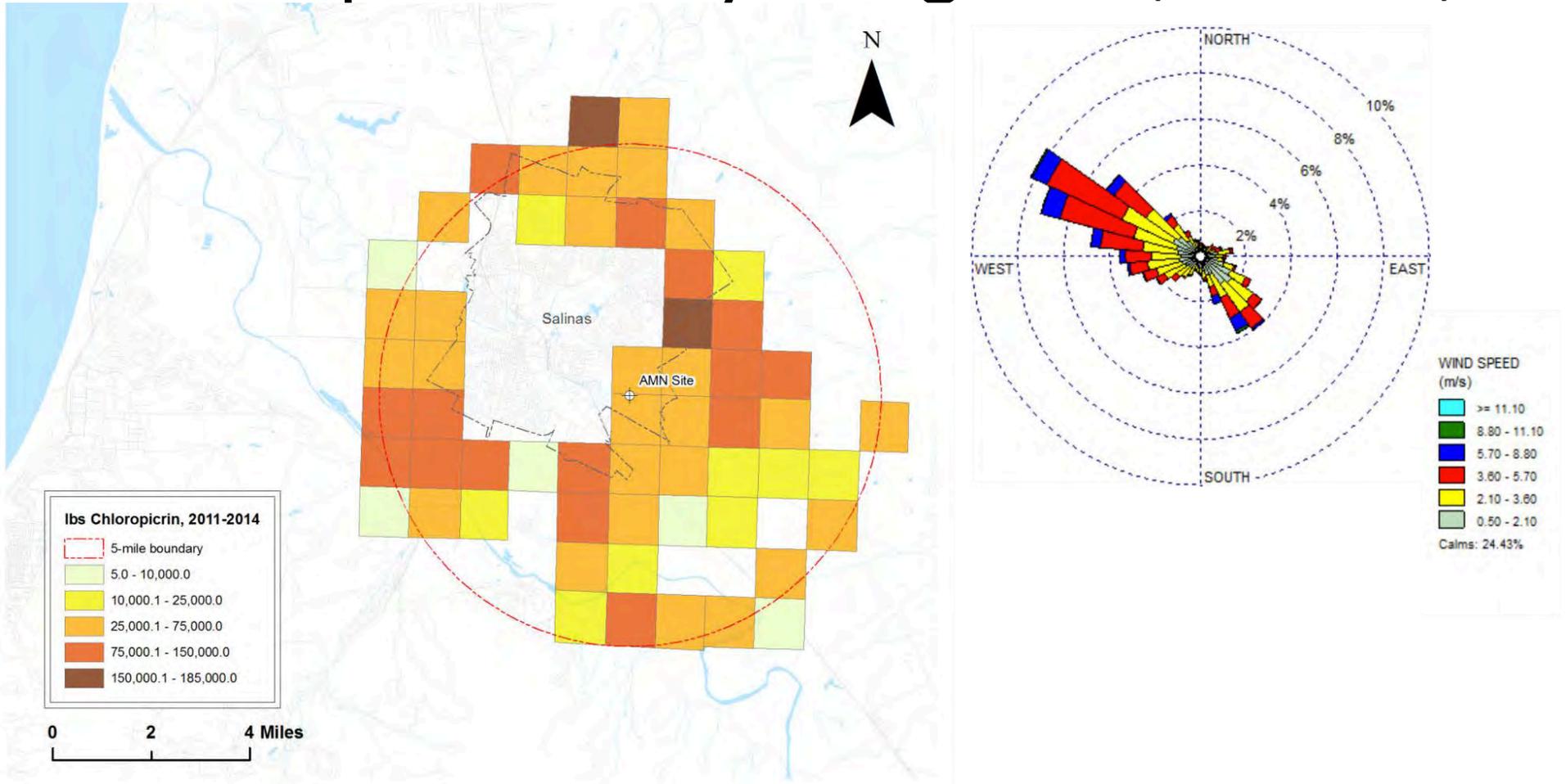
Support Relocation of DPR sites:

- Three years of data have been collected already
- Low numbers of samples with more than trace detections limit usefulness of data
- Monitoring sites are much further from fields than many residences and schools in these communities
- If continue in Shafter try to relocate closer to fields- consider monitoring in nearby communities with higher use.

Relocate a DPR or ARB site within Salinas for fumigant monitoring:

- Many residences and schools are down wind of higher density of fumigant use
- Seasonal Chloropicrin monitoring at alternate site needed to fully evaluate sub-chronic exposure
- Community interest and concerns
- Previous ARB monitoring at north Salinas school site found high fumigant levels

Chloropicrin Analysis Figure 7(DPR 2015)

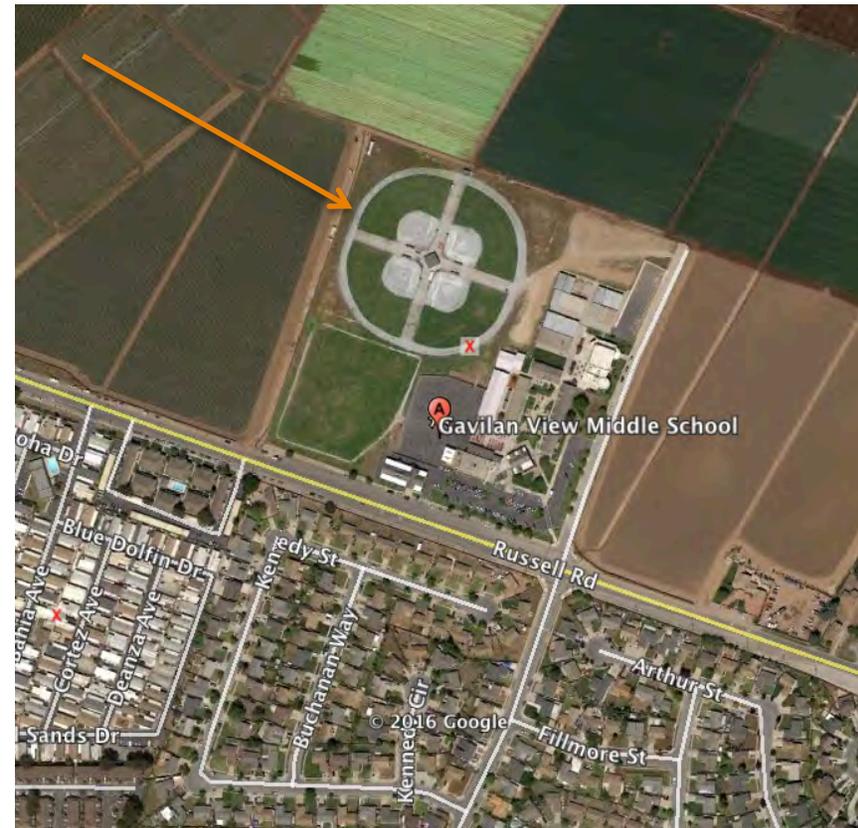


Salinas area wind mainly out of northwest . . .

Salinas Airport



Gavilan Middle School



Represents approximate dominant wind direction from the NW

ARB Monitoring sites

- Continue seasonal chloropicrin monitoring
- Consider adding MITC at sites near high use
- At Santa Maria site add monitoring for non-fumigant pesticides because use of some organophosphates and fungicides near site is high.
- Continue monitoring at current Oxnard site or relocate in Ventura county.

Chloropicrin Use (millions of lbs) Rising in Coastal Counties

County	2013 use	2014 use	% Change
Santa Cruz	0.66	0.78	+18.3%
Monterey	2.01	2.26	+12.3%
Santa Barbara	1.27	1.42	+11.8%
Ventura	2.18	2.29	+5%

Site Selection Within a Community

- Site should be located adjacent or close to fields and predominantly downwind from fields
- Evaluate pesticide use level and weather conditions close to candidate monitoring sites
- Schools are preferred but other sites close to and mainly downwind of fields are okay too

Monitoring schedule

- Monitor more communities in alternating years to allow monitoring in a wider range of locations
 - Large number of communities in close proximity to high levels of pesticide use
 - High level of variability in conditions that impact air concentration between sites
 - meteorological conditions, topography, application methods, pesticide chemistry
 - Best use of limited of resources

References:

M. Harnly et al (2005) Correlating Agricultural Use of Organophosphates with Outdoor Air Concentrations: A Particular Concern for Children. Environ Health Perspect. 113(9) 1184-1189.

DPR (2015) Memorandum re. Correlating Agricultural Use with Ambient Air Concentrations of the Fumigant Chloropicrin During the Period of 2011-2014. December 31, 2015.

DPR Pesticide Use Reporting 2013 and 2014

Thank you!

Questions?