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Comparing EJ Screening Tools (With a Closer Look at Pesticides)

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Pesticide Registration and Evaluation Committee
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EPA Funded Pilot Applications of the EJSM

- #1: City of Commerce
 - Using EJSM to support stakeholder-developed recommendations for City Council on land use
 - Pesticides not included in EJSM currently
- #2: San Joaquin Valley
 - Comparison: EJSM, CEVA, and CalEnviroScreen
 - EJSM – Pesticides not included but planned for future versions
 - CEVA/Land of Risk, Land of Opportunity – Pesticides included (total amount of active ingredient per square mile of pesticides application for agricultural use based on 2007 PUR data)
 - CalEnviroScreen –Pesticides included (Total pounds of selected active pesticide ingredients (filtered for hazard and volatility) used in production-agriculture per square mile.)



San Joaquin Valley Project Partners

- EPA
- DTSC Enforcement
- ARB
- SJV Air District
- SJV Cumulative Health Impacts Project (community partners)
- OEHHA
- CAL EPA - EJ
- OPR
- UC Davis
- California Environmental Justice Alliance (community partner)



San Joaquin Valley

- Project partners will articulate policy relevant questions to guide mapping and mapping comparison (completed Nov 2012)
- EJSM team will prepare maps comparing EJSM, CEVA, CalEnviroScreen in Google Earth platform (mapping will begin when CalEnviroScreen is complete, likely March 2013)
- Project partners provide feedback on maps
- Maps revised as feasible
- Community groundtruthing in 1-2 locations
- Case study writeups. Suggestions for improving EJSM, CEVA, CalEnviroScreen.



Pesticide Component Comparison

Step	CEVA (UCD 2011)*	EPA R9	CalEPA
1	Use (lb/area) 1 year; ag only	Use (lb/county) 1 year; ag only	Toxicity •Prop 65 •AB 950
2	Map	Groups •Fumigant •Non-fumigant •Similar MOA	Volatility •VP > 10 ⁻⁶
3	*CEVA updated--volatility and toxicity screens as per CalEPA	Rank	Use (lb/area) 2 years; ag only
4		Toxicity •Human health •Eco health	Map
5		Map top 5-10 in each group	



Comparing approaches

- All use vs. all use of a set list vs. highest use of a changing list
- 1 yr vs. 2 yr vs. more
- Pounds vs. pounds per area
- Statewide vs. Region vs. County vs. Zip Code vs. Census Tract vs. MTRS vs. Field-Level
- Is it informative to separate out fumigants?



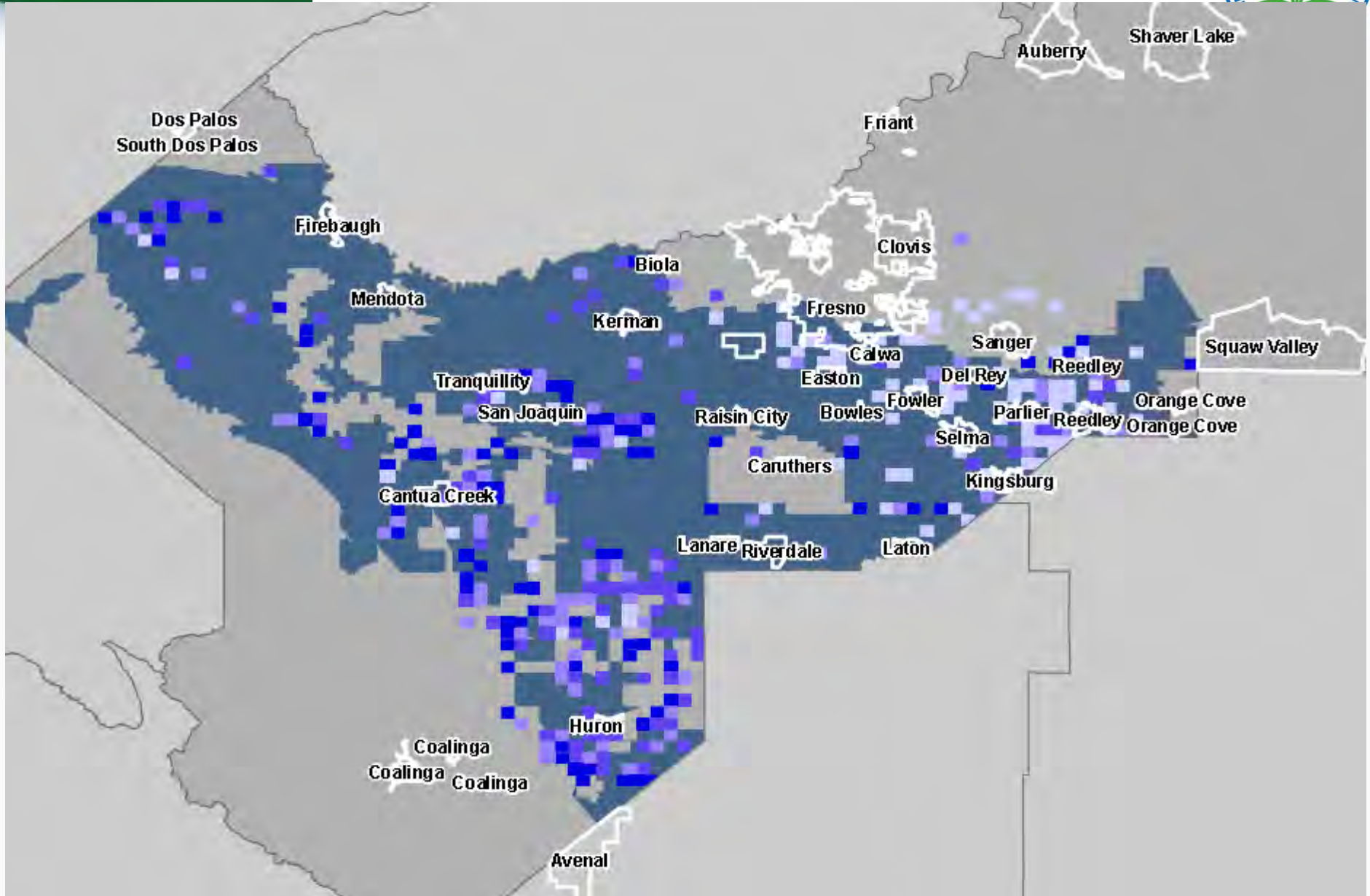
Comparing approaches, cont.

- Are the filters appropriate?
 - Toxicity—established lists; professional judgment; MOA; ecotoxicity
 - Volatility
 - What about: potential for spray drift; water solubility; leachability; runoff potential; dust transport; accidents? Others?
- Tiers

Fresno County

Solid dark: CalEnviroScreen Pesticides (Top 10th percentile)

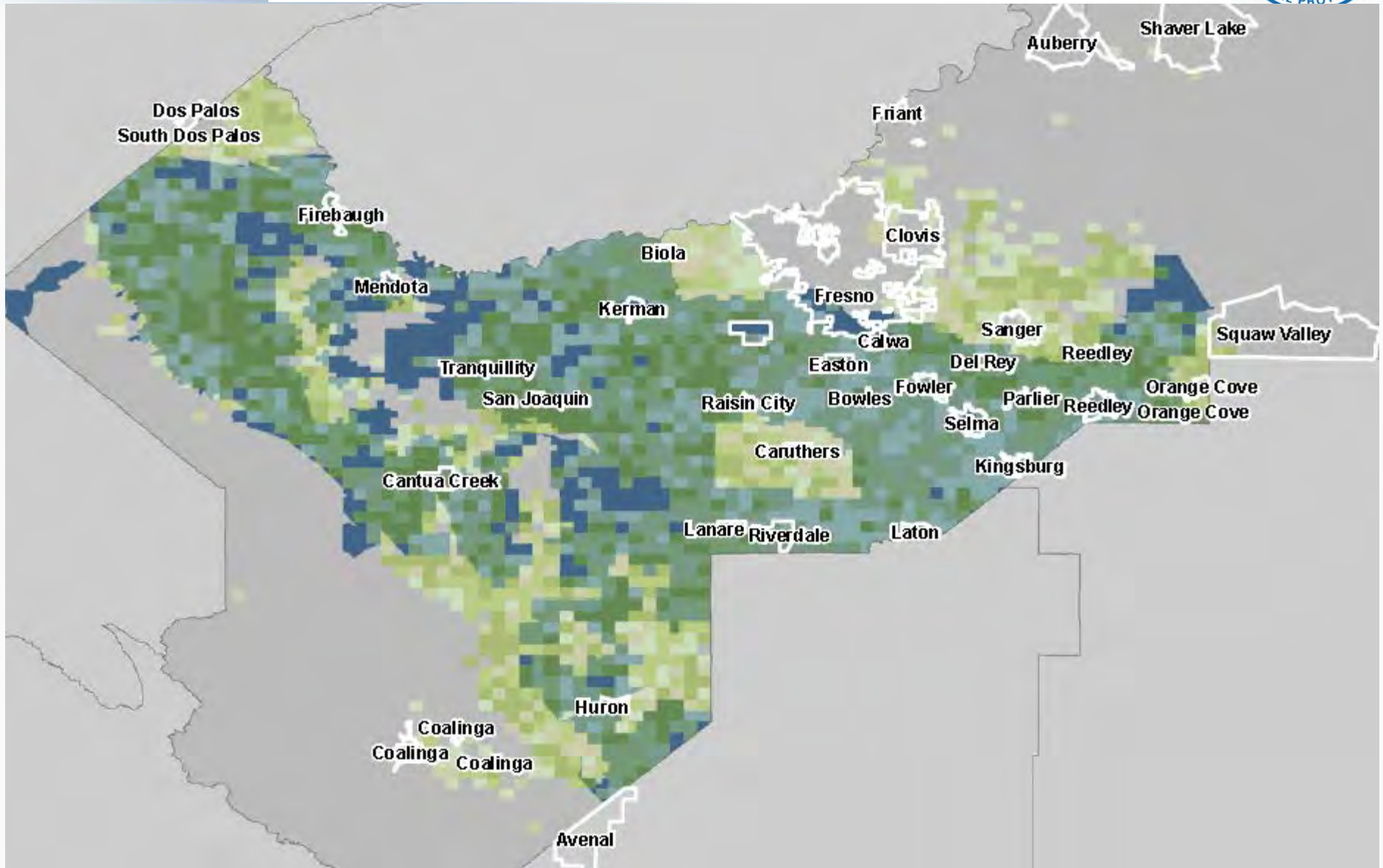
Squares: EPA R9 Fumigants



Fresno County

Solid dark: CalEnviroScreen Pesticides (Top 10th percentile)

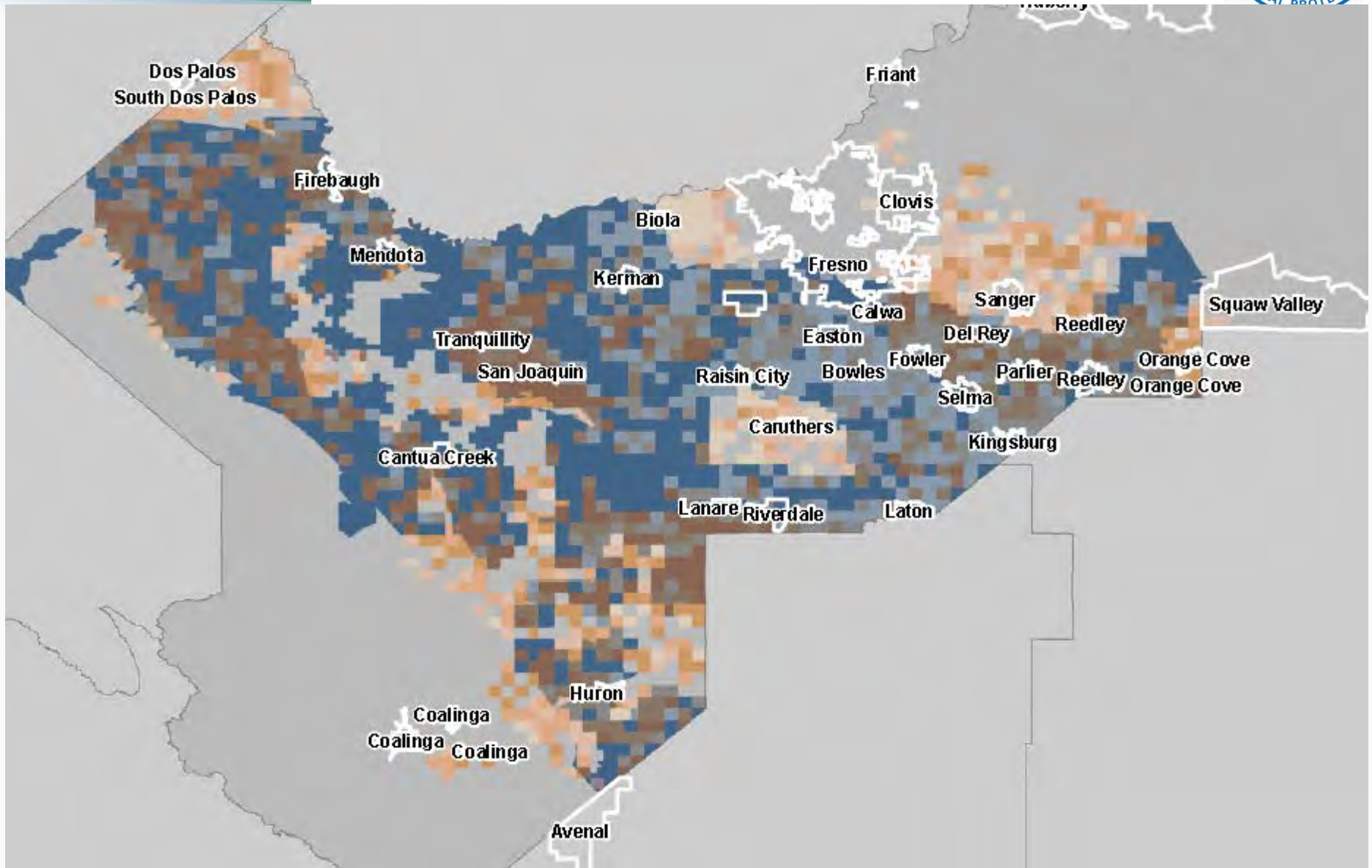
Squares: EPA R9 Non-fumigants



Fresno County

Solid dark blue: CalEnviroScreen Pesticides (Top 10th percentile)

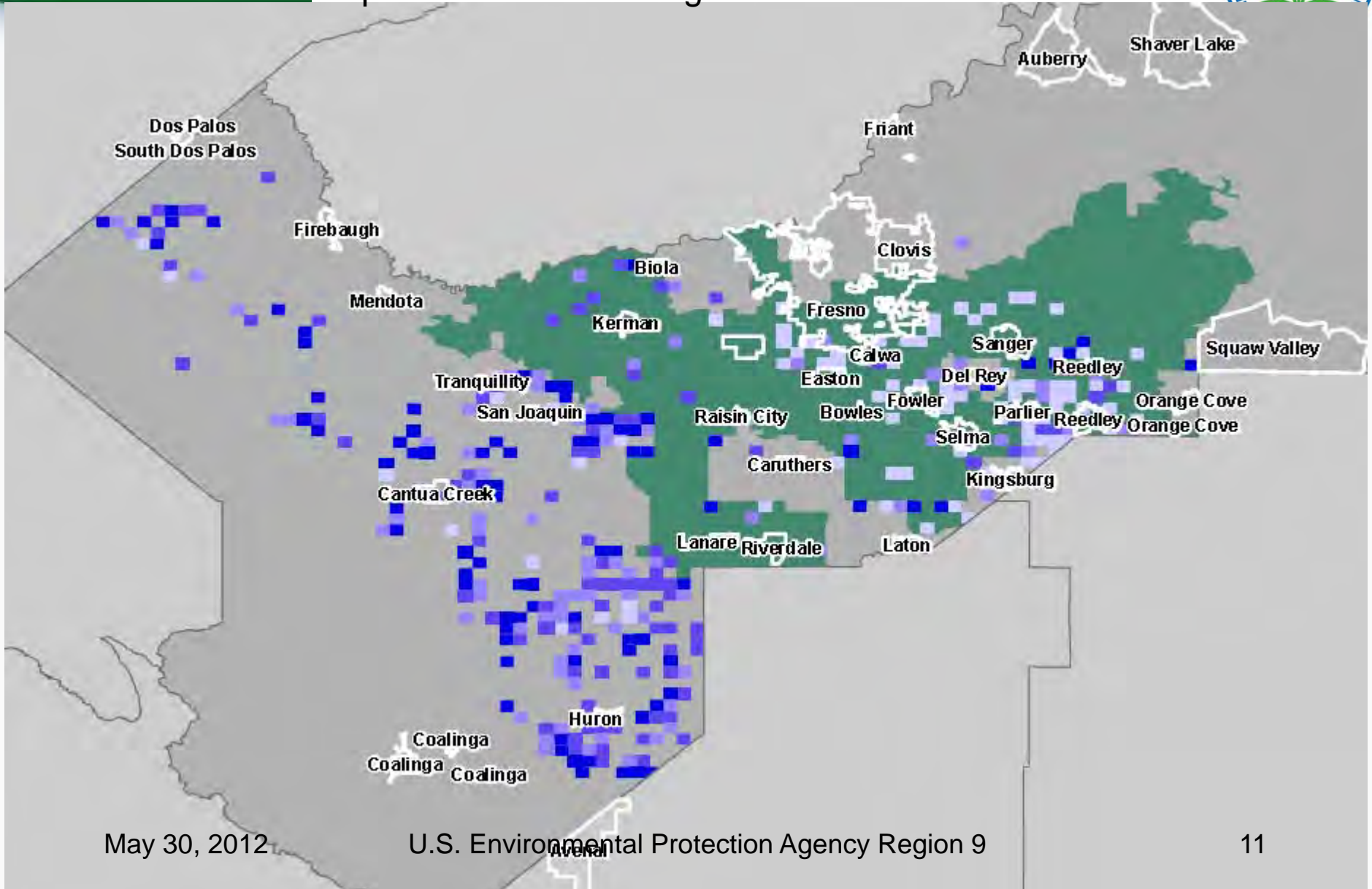
Squares: EPA R9 Organophosphates



Fresno County

Solid green: CalEnviroScreen Total Score (Top 10th percentile)

Squares: EPA R9 Fumigants



Fresno County

Solid green: CalEnviroScreen Total Score (Top 10th percentile)

Squares: EPA R9 Non-fumigants

