DEPARTMENT OF PESTICIDE REGULATION
PESTICIDE REGISTRATION AND EVALUATION COMMITTEE
Meeting Minutes – May 18, 2012

Committee Members/Alternates in Attendance:

Lynn Baker, Air Resources Board (ARB)
Martha Harnly, Department of Public Health
Tom Ineichen, Structural Pest Control Board (SPCB)
David Luscher, Department of Food and Agriculture
Stella McMillin, Department of Fish and Game (DFG)
Valerie Mitchell, Department of Toxic Substances Control (DTSC)
Ann Prichard, Department of Pesticide Regulation (DPR)
Patti Tenbrook, U.S. EPA, Region 9
Louie Mendoza, California Agriculture Commissioners and Sealers Association (CACASA)
Elena Yates, CalRecycle

Visitors in Attendance:

Denise Alder, DPR
Shakoon Azimi
Fred Bartley, SPCB
Brian Bret, Dow AgroSciences
Rich Breuer, Department of Water Resources
Angela Csondes, ARB
Debra Denton, U.S. EPA
Dave Duncan, DPR
Amy Duran, DPR
George Farnsworth, DPR
Roberta Firoved, California Rice Commission
Tessa Fojut, Central Valley Regional Water Resources Control Board
Erin Foresman, U.S. EPA
Johnny G, SWRCB
Carlos Gutierrez, DPR
Scott Harris, Bell Laboratories
Anne Katten, California Rural Legal Assistance Foundation
Afiqur Khan, Western Plant Health Association
Zhimin Lu, Central Valley Regional Water Resources Control Board
Eileen Mahoney, DPR
Jeanne Martin, DPR
Claudia Reid, California Strawberry Commission
Lisa Ross, DPR
Randy Segawa, DPR

Jim Wells, Environmental Solutions Group
Frances Wicher, U.S. EPA
Martin Williams, Waterborne Environmental Inc.
Pam Wofford, DPR
Sharique Zuberi, DPR

1. <u>Introductions and Committee Business</u> – Ann Prichard, Chairperson, DPR

a. About 30 people attended the meeting.
b. No corrections to the minutes of the previous meeting, held on March 16, 2012, were identified.
c. Brian Leahy, DPR's new director, spoke about his vision for DPR.

2. <u>VOC Non-Fumigant Regulations</u> – Randy Segawa, DPR

Randy Segawa gave an update on the non-fumigant volatile organic compound (VOC) regulations. Randy first discussed an error discovered in the VOC emission inventory. An error in converting gallons of product recorded in pesticide use reports to pounds of product resulted in an overestimate of VOC emissions for a single bifenthrin product. DPR has corrected the error and recalculated the emission inventory. This primarily affects the 2010 inventory for San Joaquin Valley.

DPR has proposed regulations to reduce VOC emissions from nonfumigant pesticides in the San Joaquin Valley. The regulations would designate certain products containing abamectin, chlorpyrifos, gibberellins, or oxyfluorfen as "high-VOC." Pesticide dealers selling these high-VOC products for use in San Joaquin Valley would be required to provide certain VOC information to purchasers. Growers using high-VOC products in the San Joaquin Valley during May-October would be required to obtain a pest control adviser recommendation for applications to certain crops. Certain uses of high-VOC products in the San Joaquin Valley during May-October would be prohibited if pesticide VOC emissions exceeded a trigger level. The public comment period for the proposed regulations began on April 20 and ends on June 7.

3. <u>Spatial and Temporal Quantification of Pesticide Loadings to the Sacramento River, San Joaquin River, and Bay Risk Assessment for Sensitive Species Bay-Delta to Guide</u> – Debra Denton, SWRCB

The main objective of this project was to determine the relative ranking of potential areas of concern with respect to pesticide exposure to sensitive and endangered aquatic species in the Sacramento River watershed, San Joaquin River watershed and Bay-Delta estuary in California. An area of concern is defined as an area where and when one or more species of

concern are likely to be present when environmental concentrations may exceed toxicological benchmarks.

To determine potential areas of concern, a co-occurrence assessment was conducted that included 12 Federal and/or State listed threatened and endangered pelagic species (henceforth referred to as species of concern) and 40 different pesticides. Estimating temporal and spatial co-occurrence is a time consuming and intricate undertaking in a complex and dynamic landscape. The investigation involved the use of simulation modeling, historical water quality monitoring data, and Geographic Information System (GIS) analysis in a weight-of-evidence context. The 40 pesticides selected for analysis include herbicides, fungicides, and insecticides, and were based on a list of pesticides published by the Central Valley Regional Water Quality Control Board in 2009 estimated to pose the highest overall risk to aquatic life.

Daily pesticide concentrations were predicted at the Public Land Survey Section (PLSS) section from runoff, erosion and drift sources. Pesticides loads were estimated using 10-years of historical pesticide use data obtained from the California Department of Pesticide Regulation's Pesticide Use Reporting database. Application sites represented in the simulations included fruit, vegetable, grain, nuts, rice, and urban/residential landscape maintenance, and structural pest control. Mass loads from agricultural uses were predicted using the Pesticide Root Zone Model (PRZM) and the Rice Water Quality Model. PRZM was also used to estimate runoff from urban/residential applications. Drift was only assumed to occur in agricultural settings and was estimated using a linear equation accounting for application method, application area, and surface water area in the PLSS.

Indicator days (days during which at least one pesticide was estimated to exceeded the toxicity threshold) showed distinct spatial-temporal patterns. Indicator days for urban regions were predicted to occur primarily during the late fall through early spring period. Indicator days for agricultural areas occur predominately during the spring/summer crop growing season. Indicator days for rice growing areas were prevalent in the latter part of the crop season. Co-occurrence was estimated at the PLSS level by overlaying monthly distributions of indicator days with monthly distributions of species richness. Monthly distributions of species abundance were developed for each species for rivers and streams in the study area. Co-occurrence was also estimated using historical water quality monitoring data collected from 250+ monitoring stations in the study area.

Using the co-occurrence approach, risk managers can select percentile levels to determine potential areas of concern. For example, results can be used to identify and rank areas of highest risk, aid in placement of best management practices, evaluate pesticide regulations (proposed label changes, and support current and future monitoring programs by strategic placement of sampling locations and frequency. Ultimately, it is hoped that this project will

improve decision making and optimize resource spending of groups which seek to improve long-term sustainability of aquatic habitats in the study area.

Final Report:
Hoogeweg, C.G., W.M. Williams, R. Breuer, D. Denton, B. Rook and C. Watry. 2011. Spatial and Temporal Quantification of Pesticide Loadings to the Sacramento River, San Joaquin River, and Bay-Delta to Guide Risk Assessment for Sensitive Species. CALFED Science Grant #1055. Nov, 2 2011. 293 pp. Document available for download <http://www.waterborne-env.com/projects_featured.asp>

4. Pesticide SIP – Frances Wilcher, U.S. EPA

Frances Wicher of EPA-Region 9 Office of Air Planning presented a brief overview of U.S. EPA's proposed approval in the California State Implementation Plan of DPR's regulations on fumigant application methods and revised commitment to manage VOC emissions from pesticides in the SJV. Comments on the proposal were due on May 24, 2012.

6. Public Comment

None received.

7. Agenda Items for Next Meeting

David Luscher suggested an update on the neonicotinoid reevaluation in regards to honeybee colony collapse disorder.

The next meeting will be held on Friday, July 20, 2012, in the Sierra Hearing Room on the second floor of the Cal/EPA building, located at 1001 I Street, Sacramento, California.

8. Adjourn