

# DPR Environmental Monitoring

Aquatic Pesticide Registration  
Review Evaluation

# Data Package Review

- Environmental Monitoring Branch staff (EM) aquatic pesticide data review for adverse effects has evolved with the growth of EM's Surface Water Program.
- Historically, EM Surface Water staff reviewed pesticides intended for use on rice crops only.
- In the past three years review has expanded to include all aquatic use pesticides.

# Data Package Review

- EM staff conduct evaluation of available scientific data to identify potential adverse problems in surface water or sediments.
- EM has a standing request of DPR's Registration Branch to review all registrations of new products that have aquatic sites on the label.

- Registration data packages are available to the Department of Fish and Game, Regional Water Quality Control Board, and State Water Resources Board for review.

# Types of Registrations Reviewed

- **Section 3 (full or conditional)** data meets all requirements under FIFRA section 3 criteria.
- **24-C-Special Local Needs (SLN)** Used when special pest need exists and no other product is available. Cannot use active ingredients not registered by USEPA.
- **Section 18-** Emergency exemption for emergency pest problem with no registered available alternative.

# Reasons for Evaluation



- Environmental Hazards Statement often do not mitigate all environmental impacts.
- Federal label may not address unique California agricultural and environmental conditions.

# Application Considerations

- Target pest and growth stage.
- Projection of future use of a pesticide on the target pest and resulting environmental loading.
- Rate of application
- Method of application
  - (air, ground, subsurface)

- Is the application to flowing or quiescent water?
- Possible environmental concerns to downstream receiving water.
- Phytotoxicity concerns if treated water to be used for irrigation.



# Chemical Considerations

- Parent chemical and metabolite half-life and breakdown in surface water and sediment.
- Persistence of parent chemical and metabolites in water and sediment.
- Resuspension of pesticide parent or metabolites in water and sediment.
- Oxygen depletion due to organic matter decay.
- Analytical methods

# Scientific Studies

- Aquatic species toxicity and bioaccumulation studies
  - USEPA studies, reports, and Reregistration Eligibility Decisions
  - Registrant studies
  - University research studies

# Additional Considerations

- Drinking water Maximum Contaminant Level concerns
- Swimming/fishing restrictions following application
- Reports of adverse incidence or problems in other areas where use has occurred

# Evaluation Decisions

- Determine if water quality data is acceptable and supports registration.
- Determine if there is scientific evidence of an adverse effect or potential adverse effect to aquatic species from pesticide concentrations in surface water or sediments.

# Evaluation Decisions

- Determine water hold requirements following application when needed.
- Make recommendations if additional water quality testing is required.
- Recommend a pesticide be restricted use when needed.

# Additional Environmental Monitoring Evaluation

- Air Program
  - Application drift
  - Determines if additional application restrictions or buffers to waterways are needed
- Groundwater Program
  - Evaluates potential to contaminate ground water

# Final Decision

Recommend that registration be approved, denied, or conditional on the basis that more studies or information be required.

*Thank You.*

