

Central Valley  
Regional Water Quality Control Board  
California Environmental Quality Act  
(CEQA) Scoping Meeting  
for the  
Control of Pesticide Discharges Within  
the Sacramento And Feather River



- Paul Hann, Environmental Scientist
- Joe Karkoski, Chief, Pesticide TMDL Unit

## Meeting Agenda

- Introduction/Agenda Review
- Recent Diazinon Trends
- Background
- Proposed Scope of Amendment
- Current Status
- Next Steps
- Adjourn

# Background

- Regional Board resolution R5-2003-0148 approved a Basin Plan Amendment establishing a TMDL and implementation plans for diazinon in the Sacramento and Feather Rivers.
- The amendment established water quality objectives for diazinon in the Sacramento and Feather Rivers of 0.080 µg/L (one hour maximum) and 0.050 µg/L (four day average).

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# Background

- Compliance date: June 30, 2008.
- The amendment included the requirement to review the diazinon allocations and the implementation provisions in the Basin Plan by June 30, 2007 and every 5 years thereafter.

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# Recent Use Trends

- Diazinon Use Trends – Changes Since Last Basin Plan Amendment.
  - Sale of diazinon for non-agricultural use has been phased out by the EPA.
  - Agricultural Diazinon use continues to be reduced.
    - » Total diazinon use continues historical reduction trend
    - » Dormant spray use trend is less clear
    - » No change which principal crops Diazinon is used on

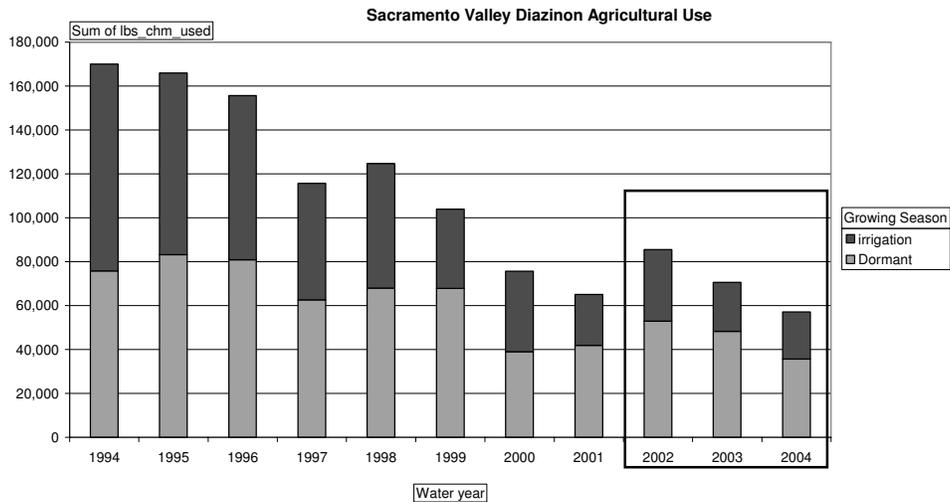
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## Average Diazinon Use by Crop and Spray Season 2002-2004

Crop	Dormant Spray Season	Irrigation Season	Annual Crop Total
Almond	10,001	38	10,039
Peach	16,924	622	17,546
Plum/Prune	17,238	6,461	23,699
Other	1,982	18,302	20,284
Seasonal Total	46,146	25,422	71,568

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# Recent Use Trends



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# Recent Trends

## – Change in Diazinon Labeling

» Supplemental label requiring additional BMPs has been prepared by Makhteshim Agan and approved by the EPA. BMP include:

- **Buffer Strips and Set Backs**
- **Awareness of Weather Conditions**
- **Demonstration of Need**
- **Operational Requirements**
- **Worker Awareness**

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## Recent Trends

- Management plans submitted have been submitted for both Urban and Agricultural Uses.
  - Sacramento Stormwater Quality Partnership
    - » Management Plan Submitted October 2005 – Approval Pending
  - Sacramento Valley Agricultural Coalition
    - » Management Plan approved March 2006

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## Recent Trends

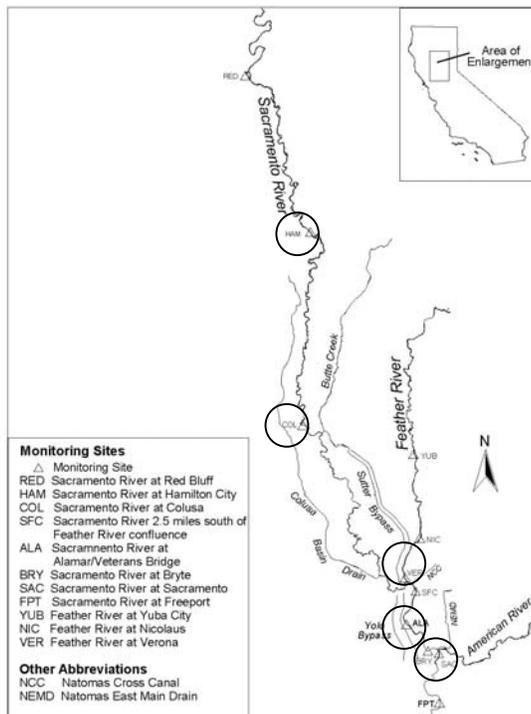
- \$3.6 M in grant funding has been provided to assist Sacramento Valley growers in reducing pesticide runoff from their orchards. These grants provide funding to:
  - Conduct orchard site assessments
  - Identify, demonstrate, communicate and evaluate Best Management Practices (BMPs)
  - Install cover crops, filter strips or vegetated ditches, sediment basins
  - Calibrate sprayers and retrofit with Smart Sprayer technology

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# Recent Trends

- Diazinon levels have decreased in the Sacramento and Feather Rivers, but rivers have not yet met water quality objectives at all locations.

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# Recent Trends

Diazinon Exceedances At Various Stations in the Sacramento River and in the Feather River Near its Outlet, 1994-2004.

Location	Year	Number of Samples	Number of Exceedances	
			1 Hour	4 Day
			(>80 ng/L)	(50 ng/L)
Feather River Near Its Outlet	1994	43	16	11
	1996	9	0	0
	1997	13	1	0
	1998	8	2	1
	2000	20	1	3
	2001	26	0	0
	2002	15	0	0
	<b>2003</b>	<b>21</b>	<b>0</b>	<b>0</b>
	<b>2004</b>	<b>20</b>	<b>1</b>	<b>0</b>
	<b>2005</b>	<b>10</b>	<b>0</b>	<b>0</b>

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# Recent Trends

Diazinon Exceedances At Various Stations in the Sacramento River and in the Feather River Near its Outlet, 1994-2004.

Location	Year	Number of Samples	Number of Exceedances	
			1 Hour	4 Day
			(>80 ng/L)	(50 ng/L)
Sacramento River at Hamilton City	1994	5	1	2
	1999	8	0	0
	2000	11	0	0
	2001	12	0	0
	2002	4	0	0
	<b>2003</b>	<b>5</b>	<b>0</b>	<b>0</b>
	<b>2004</b>	<b>4</b>	<b>0</b>	<b>0</b>
	<b>2005</b>	<b>---</b>	<b>---</b>	<b>---</b>

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# Recent Trends

Diazinon Exceedances At Various Stations in the Sacramento River and in the Feather River Near its Outlet, 1994-2004.

Location	Year	Number of Samples	Number of Exceedances	
			1 Hour (>80 ng/L)	4 Day (50 ng/L)
Sacramento River at Colusa	1994	50	7	6
	1999	5	0	0
	2000	22	2	0
	2001	16	0	0
	2002	14	0	0
	<b>2003</b>	<b>21</b>	<b>0</b>	<b>0</b>
	<b>2004</b>	<b>19</b>	<b>2</b>	<b>0</b>
	<b>2005</b>	<b>21</b>	<b>0</b>	<b>0</b>

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# Recent Trends

Diazinon Exceedances At Various Stations in the Sacramento River and in the Feather River Near its Outlet, 1994-2004.

Location	Year	Number of Samples	Number of Exceedances	
			1 Hour (>80 ng/L)	4 Day (50 ng/L)
Sacramento River at Alamar	1995	3	1	0
	1997	10	0	0
	1998	43	7	5 (22)
	1999	48	0	0
	2000	63	3	0
	2001	36	2	0 (1)
	2002	27	0	0
	<b>2003</b>	<b>29</b>	<b>0</b>	<b>0</b>
	<b>2004</b>	<b>20</b>	<b>3</b>	<b>1 (2)</b>
	<b>2005</b>	<b>10</b>	<b>0</b>	<b>0</b>

Note: Numbers in Parenthesis represent individual sample events that exceeded the 4 day average but that do not have enough sampling data to support declaring an exceedance.

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# Recent Trends

## Diazinon Exceedances At Various Stations in the Sacramento River and in the Feather River Near its Outlet, 1994-2004.

Location	Year	Number of Samples	Number of Exceedances	
			1 Hour (>80 ng/L)	4 Day (50 ng/L)
Sacramento River at Sacramento	1991	44	0	0
	1992	139	4	1
	1993	194	23	21
	1994	87	10	12
	1995	2	0	0
	2000	16	1	0
	2001	12	2	1
	2002	(19)	0	0
	<b>2003</b>	<b>27</b>	<b>0</b>	<b>0</b>
	<b>2004</b>	<b>19</b>	<b>0</b>	<b>0</b>
	<b>2005</b>	<b>15</b>	<b>0</b>	<b>0</b>

Note: 2002 data is from Sacramento River at Freeport. No data has been found for Sacramento River at Sacramento for 2002.

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# Questions?

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# Background

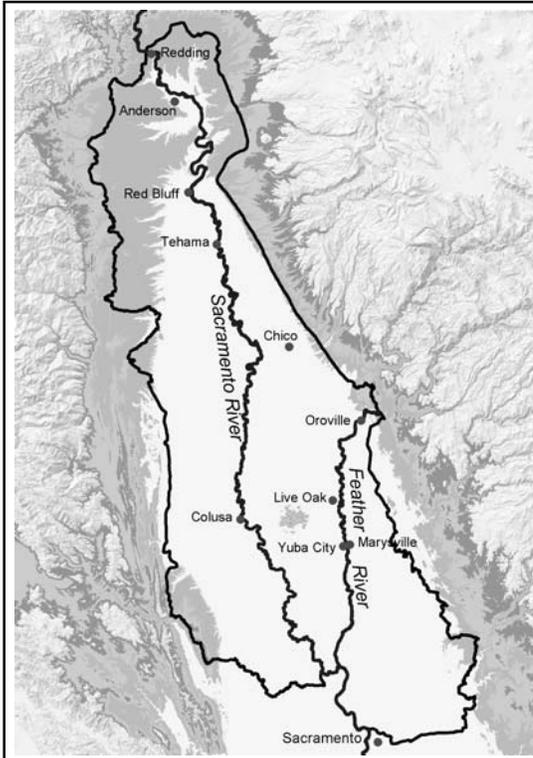
- Basin Plan Amendment Approved in 2003
- Water Quality Objectives and Compliance Date established
- Amendment included a review requirement
- A review of the water quality objectives is also required by the Sacramento Superior Court as a result of the case *Makhteshim Agan of North America v State Water Resources Control Board; Regional Water Quality Control Board-Central Valley Region, Sac. Cty. Sup. Ct. - Case No. 04CS00871*).

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# Proposed Scope of Basin Plan Amendment

- Review and revise if necessary the water quality objectives, load allocations and implementation plans.
- Geographic scope – Sacramento and Feather Rivers watersheds
- Waterways – Mainstems only
- Pesticides to address – Diazinon

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## Project Area

- Main stems of the Sacramento and Feather Rivers below the major reservoirs.

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## Relationship to Other Regional Board Efforts

- Central Valley Pesticide Basin Plan Amendment
  - » Both Programs will cover same area and chemical
  - » Central Valley timeline will not allow for completion by the court mandated date
  - » The litigant has been contacted and would like changes considered as soon as possible.

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# Project Alternatives

- Possible Revisions to Water Quality Objectives
  - No Change (0.08µg/L 1-hour, 0.05µg/L 4-day)
  - Adopt San Joaquin River Criteria (0.16µg/L 1-hour, 0.10µg/L 4-day)
  - Adopt EPA Criteria (0.17µg/L)

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# Project Alternatives

- Possible Revisions to Load Allocations
  - No Change
    - » Colusa Basin Drain 17%
    - » Sacramento River above Colusa 27%
    - » Feather River 12%
    - » Sutter/Butte Basin 33%
  - Use current allocation strategy but update for recent changes in land use.
  - Change allocation strategy to concentration based similar to Delta and San Joaquin Objectives.

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## Project Alternatives

- Possible Alternatives to the Implementation Provisions
  - No changes proposed at this time.

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## Scoping Comments

- Looking for comments on range of actions, alternatives, mitigation measures, and significant effects
- Requesting written comments by June 23, 2006
- Comments can be e-mailed to Paul Hann at [phann@waterboards.ca.gov](mailto:phann@waterboards.ca.gov)

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# Suggested Scoping Comment Format.

- Please format comments to provide the following information.
  1. Comment Number
  2. One sentence description of the topic upon which the comment is directed,
  3. Supporting argument
  4. **Specific recommendation.**
  5. Supporting arguments should include citations, where appropriate.

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# Questions?

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## Where are we in the process?

CEQA Scoping Meeting	May 2006
Draft BPA Staff Report to Peer Review	December 2006
Regional Board Hearing	June 2007
State Board Approval	Late 2007
Office of Administrative Law Approval	Mid 2008
USEPA Approval	Late 2008

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## Current Status

- Staff Report is being developed
- Staff have reviewed recent diazinon trends
- Staff are reviewing the recent EPA diazinon criteria document

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# Next Steps

- Collect Scoping Comments (Comments will be responded to in the Staff Report)
- Hold public workshop when the Staff Report is ready for review
- Other Options
  - Periodic scheduled meetings with interested parties to provide updates
  - Updates through e-mail