


# DPR's Ground Water Monitoring and Regulatory Programs



# DPR's Mission Statement



Our mission is to protect human health and the environment by regulating pesticide sales and use, and by fostering reduced-risk pest management.

# PCPA- Pesticide Contamination Prevention Act

Detections of fumigant DBCP in groundwater in the late 1970's resulted in the passage of the PCPA in 1985.

- Purpose: to prevent further pollution of groundwater due to agricultural use of pesticides.
- “Legal Agricultural Use”
- Became Food and Ag Code sections 13141-13152.
- The law basically unchanged until 2014 passage of SB 1117.

# Groundwater Program Responsibilities Under PCPA (1985)

- Obtain environmental fate and chemistry data for agricultural pesticides before they can be registered for use in California.
- Identify pesticides with the potential to pollute ground water (6800b list).
- Sample wells for presence of pesticides.
- Obtain, report and analyze the results of well sampling conducted by public agencies (database and Well Inventory Report).
- Formally review a detected pesticide to determine if its continued use can be allowed, and if so, under what conditions.
- Adopt use modifications to protect ground water from pollution if the formal review indicates that continued use can be allowed (6800a list- Restricted Material).

# DPR Monitoring Program

- Completely voluntary
- Generally sample shallower domestic wells
- Sampling focused in high pesticide use areas
  - based on historic PUR data
- Three categories of projects



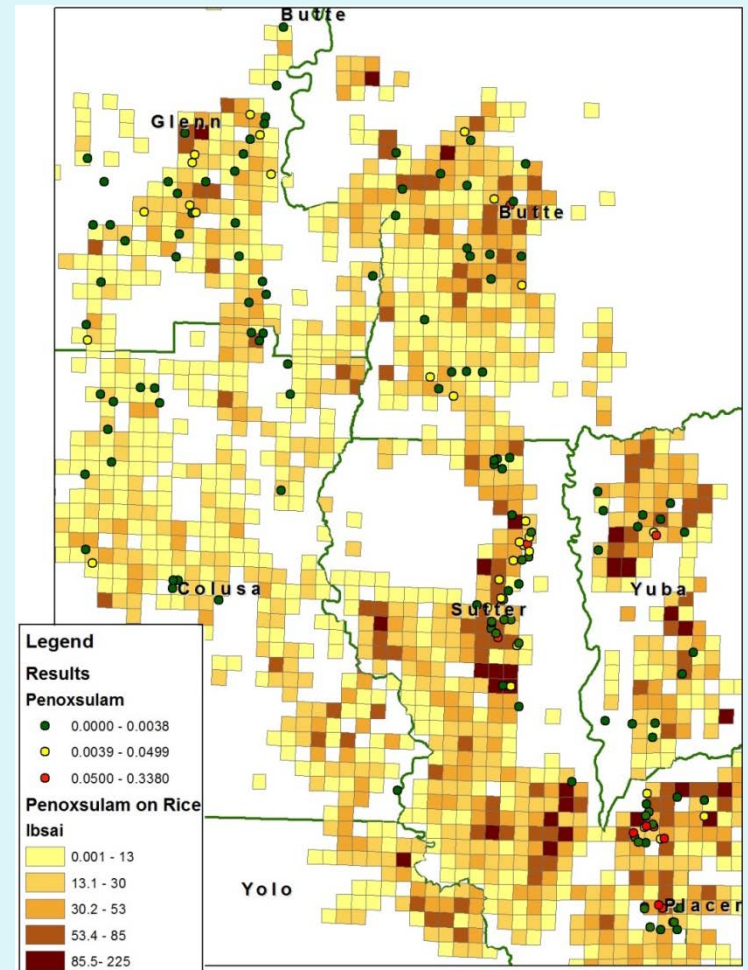


# Ground Water Protection List (6800b)

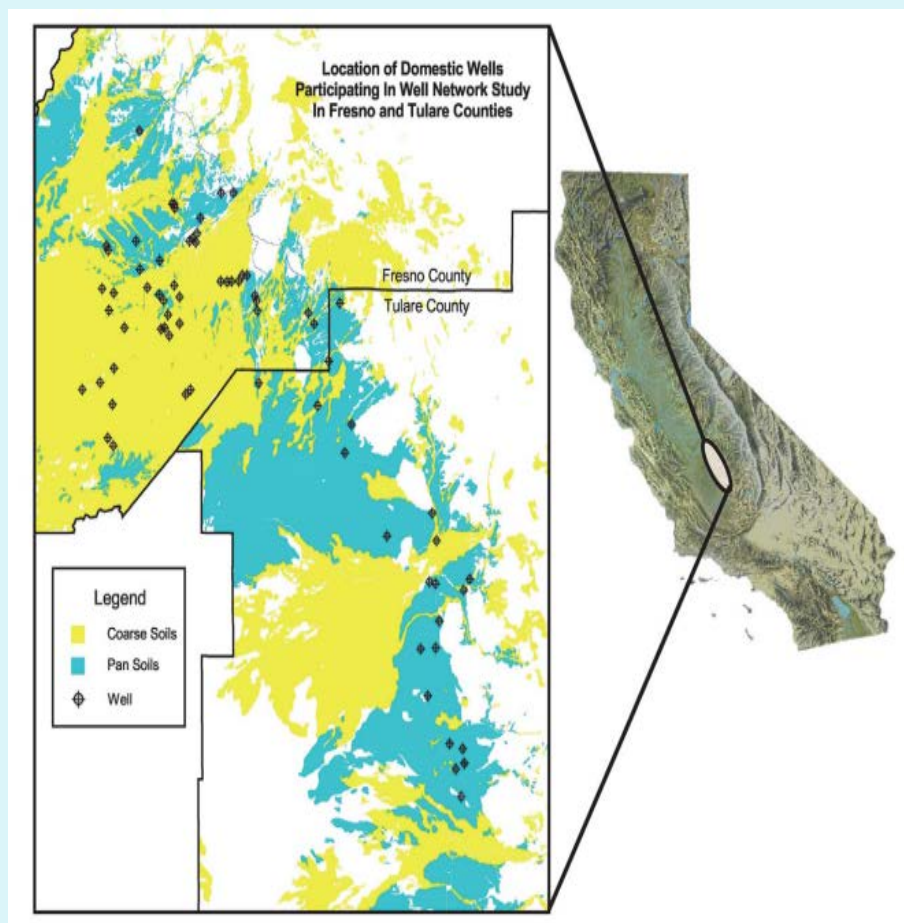
## Monitoring

-Pesticides identified (in regulation) to have potential to move to ground water based on physical-chemical properties and use patterns.

-Select a priority pesticide or region and monitor areas of high historic use



# Well Network



- Began sampling in 1999
- Sample annually to track trends
- Consists of wells that have had previous detections of restricted use pesticides
- All wells are in regulated areas
- Are our regulations working?
- Also good area to look for new contaminants
- Hoping to expand the network beyond Fresno/Tulare area

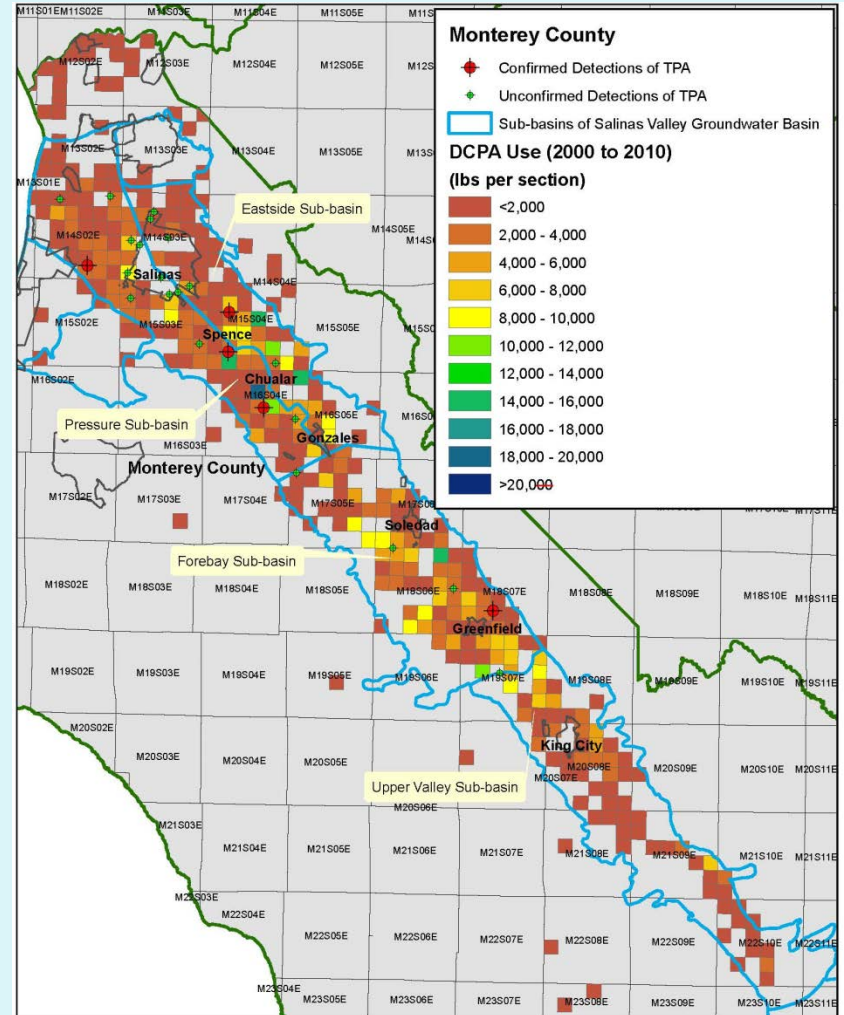
# Follow-Up Monitoring

-Monitoring to follow up/ confirm detections

- Detected by DPR
- Reported by other agencies.

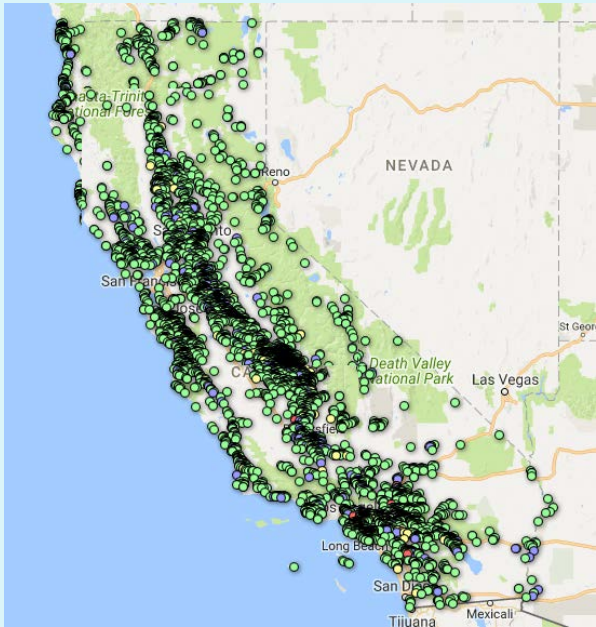
-Monitoring for known contaminants about to go through regulatory review process.

Example DCPA- Dacthal in the central coast area





# Well Inventory Database and Annual Report



## DPR Ground Water Database Online

- Well Inventory Database – 2.5 million records dating back to 1980's.
- Now available on DPR's website and shared with Geotracker GAMA database.
- Annual Well Inventory Report- all pesticides detected/reported and DPR's response.

[http://www.cdpr.ca.gov/docs/emon/grndwtr/well\\_inventory\\_database/index.htm](http://www.cdpr.ca.gov/docs/emon/grndwtr/well_inventory_database/index.htm)

# DPR Detection Response Process

- DPR follows up on all reported detections
- Detections of known (currently registered) contaminants may trigger adding regulated areas
- Detections of new pesticides trigger DPR's formal review process
  - Confirmed detection
  - Legal Agricultural Use determination

# DPR Detection Response Process

- Formal process that begins with notification of registrant and ends with Director's decision.

- Registrants present defense at public hearing before the PREC subcommittee- DPR, State Water Board, OEHHA

- Subcommittee reviews data and makes recommendation to Director.

- Director makes determination. Outcomes may be cancellation, use restriction/mitigation, continue to monitor.



# Pesticides Regulated in Section 6800(a)

Atrazine  
Simazine  
Bromacil  
Diuron  
Prometon  
Bentazon  
Norflurazon

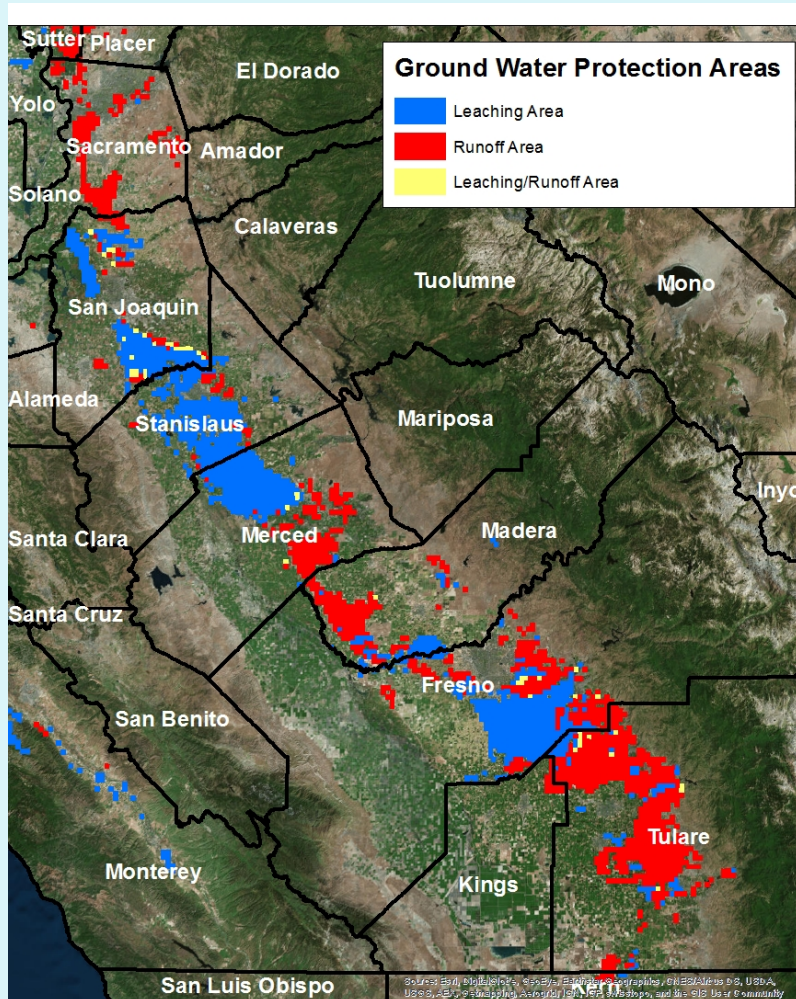
-Use regulated in Ground Water Protection Areas through restricted materials permit process

-Enforcement through County Agricultural Commissioners

-Required management practice will be specified as an enforceable condition on the permit or Notice of Intent

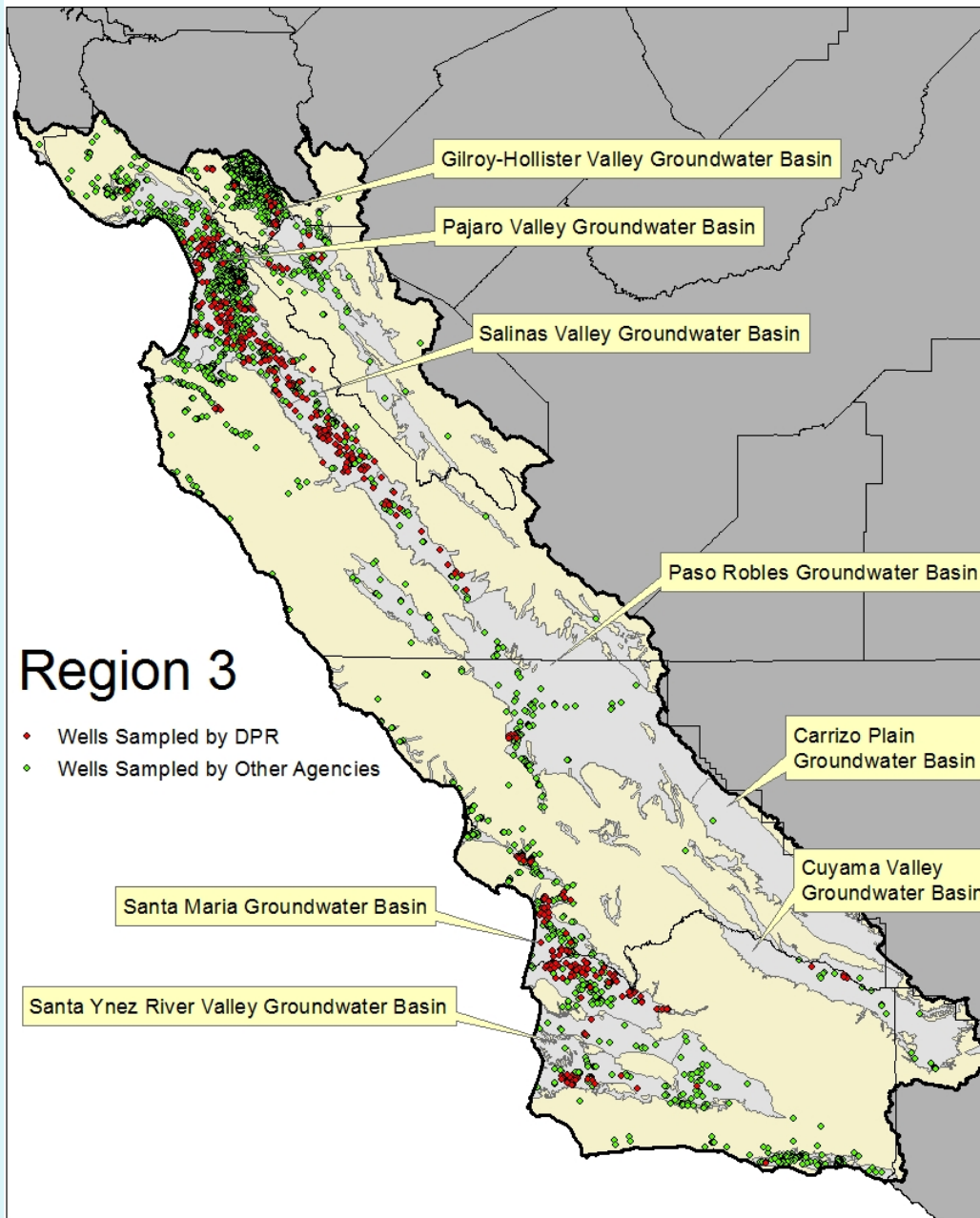
-Also management practices required for rights-of-way and statewide for canal/recharge basin applications

# Ground Water Protection Areas (GWPPAs)



- 1 sq. mile sections of land
- Vulnerable to pesticide contamination
- Based on combination of detections and modeling
- Use of ground water contaminants restricted in these areas
- Identified in regulation





# Region 3- Use/Detections of 6800(a) List Pesticides

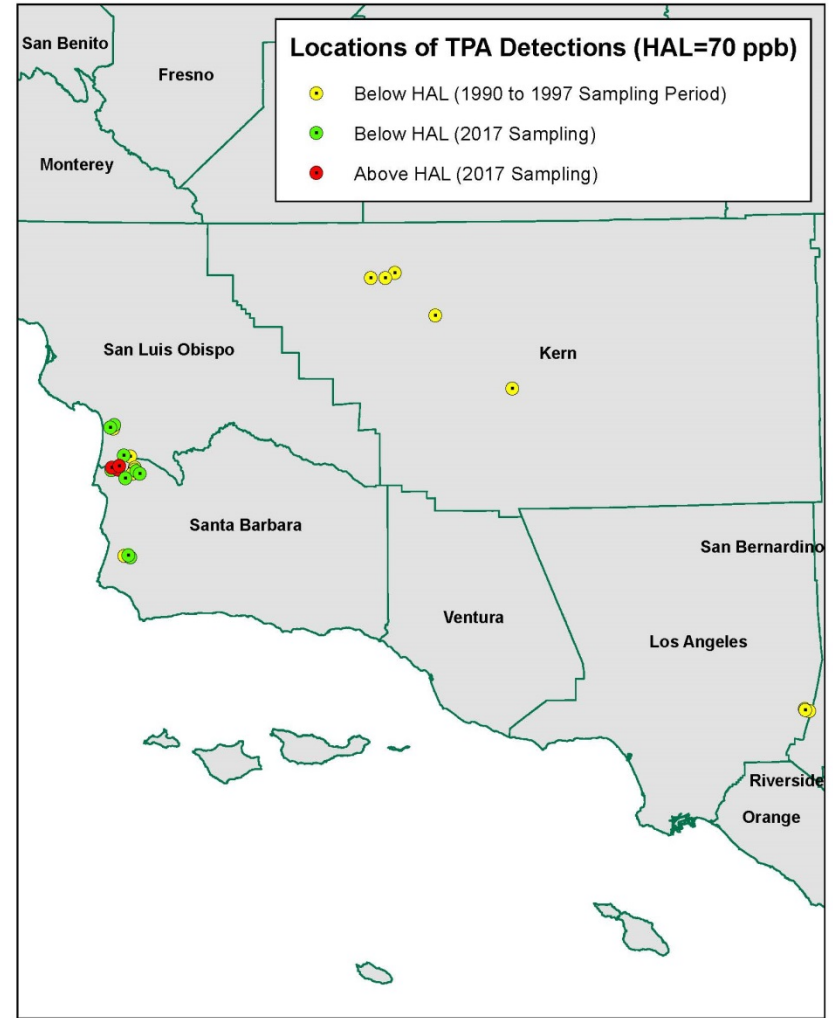
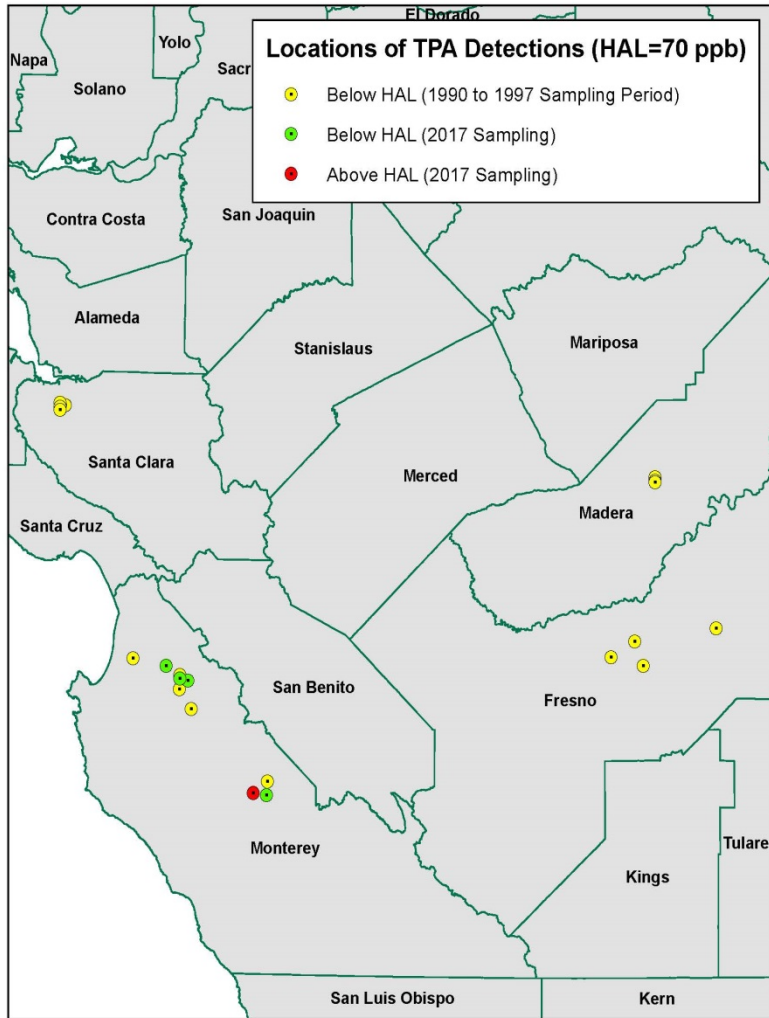
- Relatively low use of 6800 (a) list pesticides within Region 3.
- Highest uses are simazine (wine grapes) and diuron (rights of way).
- Very few confirmed detections. None exceeding established health standards.

# Chlorthal – Dimethyl (DCPA)

- Chlorthal-dimethyl (DCPA) is the active ingredient of a pre-emergent herbicide known by the trade name Dacthal®
- Major uses are cole crops and onions. Used heavily in the Central Coast since the 1970's
- Parent compound never detected in California- but one degradate (TPA) has been detected in the Central Coast since the 1990's.
- 2014 revision of the PCPA removed degradate exemption, allowing DPR to initiate review process
- Recent detections (3 wells total) have exceeded US EPA's Health Advisory Level of 70 ppb.
- Public hearings scheduled for August/September

# Chlorthal – Dimethyl (DCPA) Review Process

- Registrants have been notified and have requested a public hearing
- Hearing Dates tentatively scheduled for August 29<sup>th</sup> and September 28<sup>th</sup>
- Final decision October/November





# Imidacloprid

- Recent detections of imidacloprid in 14 wells (statewide)
- DPR in the process of confirming these detections and detections recently reported by USGS
- All detection well below HRL screening level (established by DPR) of 243 ppb and US EPA chronic HHB of 360 ppb
- DPR in the process of making Legal Agricultural Use determination
- Detections will likely trigger review process
- Several detections in the Central Coast



DPR's Ground Water Protection Program:

<http://www.cdpr.ca.gov/docs/emon/grndwtr/index.htm>

DPR's Well Inventory Database:

[http://www.cdpr.ca.gov/docs/emon/grndwtr/well\\_inventory\\_database/index.htm](http://www.cdpr.ca.gov/docs/emon/grndwtr/well_inventory_database/index.htm)

Information Chlorthal-Dimethyl Hearing Process

[http://www.cdpr.ca.gov/docs/emon/grndwtr/chlorthal\\_dimethyl/chlorthal\\_dimethyl.htm](http://www.cdpr.ca.gov/docs/emon/grndwtr/chlorthal_dimethyl/chlorthal_dimethyl.htm)

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