WHAT YOU NEED TO KNOW

about

CALIFORNIA DEPARTMENT OF PESTICIDE REGULATION

A Better Way to Protect Ground Water

For many years, the California Department of Pesticide Regulation (DPR) has been working to figure out a better way to protect ground water from pesticide contamination. This exhaustive effort — which involved a unique blend of environmental monitoring and scientific research - produced new regulations that took effect in spring of 2004.

Since 1986, efforts to protect ground water were guided by the Pesticide Contamination Prevention Act (Assembly Bill 2021). Under that law, pesticides detected in ground water were expected to be prohibited unless future contamination could be controlled. The regulatory program focused on limited mitigation measures and applied only to the one-square-mile "pesticide management zones" (PMZs) around contaminated wells. By 2003, those zones included about 313,000 acres statewide.

In contrast, the new regulatory approach designates about 2.4 million acres across the state where ground water is most vulnerable to pesticide contamination from leaching and runoff. The rules now prescribe actions to prevent pesticides from reaching ground water in these "ground water protection areas" before contamination actually occurs.

DPR scientists made new regulations possible when they developed computer modeling that identified vulnerable areas of the state. The model was constructed using almost 20 years of well monitoring data compiled in DPR's well inventory database, as well as soil data from the federal Natural Resources Conservation Service, and climate information.

DPR's computer modeling provided the capability to relate factors — including farming practices and soil conditions — to the use of soil-applied herbicides that most often threaten ground water.

Since the Pesticide Contamination Prevention Act was passed in 1985, only eight active ingredients in currently registered pesticides have been found in California ground water due to legal agricultural use. ("Legal agricultural use" means routine agricultural applications, according to law and label directions.) DPR's proactive, science-based program focuses on preventing further contamination from seven of those pesticides. (Use of the eighth pesticide, aldicarb, is no longer allowed in the only area in the state where it has been found in ground water.) Meanwhile, DPR is continuing to monitor for other pesticides in ground water and to act on detections as needed.

How does the program work?

Vulnerable areas are classified as either “runoff” or “leaching” and management practices are written into regulation for each area type. The system will operate within the existing permit process and give pesticide users flexibility to choose from a menu of regulatory options to apply the protection measure that best fits their situation.

Contaminant pesticides can’t be used inside recharge basins, canals and ditches under conditions that favor movement to ground water. There are also *statewide* controls around wellheads, since they can provide a direct pathway to ground water.

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DPR's ground water program is proactive and science-based, designed to protect ground water by emphasizing designation of vulnerable areas and preventing contamination in those areas.

Is use of ALL pesticides regulated?

No, only pesticides already proven a problem and now listed in regulation (on what is called the 6800[a] list) as ground water contaminants. The brand names in parenthesis are examples:

- Atrazine (Aatrex)
- Simazine (Princep)
- Bromacil (Hyvar, Krovar)
- Diuron (Karmex, Krovar)
- Prometon (Pramitol)
- Bentazon (Basagran)
- Norflurazon (Solicam, Predict, Zorial)

What do I have to do to use these pesticides?

Permits are needed to use any of the 6800(a) pesticides in a designated ground water protection area (GWPA). Pesticide users must choose a "use requirement" option (one of several management practices) that are specified in the regulations. Management practices vary based on whether the area is vulnerable to leaching or runoff. The option chosen must be spelled out in, and is enforced as part of the permit. Other requirements will apply if pesticides are applied to certain rights-of-way inside GWPAs, and to artificial recharge basins, canals and ditch banks, both inside and outside of GWPAs.

What are ground water protection areas (GWPAs)?

We have found that specific combinations of climate, soil type, and depth to ground water are common to areas where pesticides have been found in ground water due to legal (that is, routine) agricultural use. A GWPA is a geographically defined area that is vulnerable to pesticide contamination, either by leaching or runoff. GWPAs include all areas previously designated as pesticide management zones, plus other areas based on specified soil types and a depth to ground water of 70 feet or less.

How do I find out whether the field I want to treat is in a GWPA?

That information is available on DPR's Web site, www.cdpr.ca.gov (click on "Programs and Services" button, then on "Ground Water Protection Program"). The County Agricultural Commissioners also have access to this information.

What if the management practices aren't feasible in my area?

Growers, registrants, and others can request that DPR approve other, effective management practices that may be more suitable to their cultural practices or farming techniques while those practices are being adopted into regulation. If no feasible alternatives exist to the current practices, you can formally request DPR allow interim use of the pesticide for three years, provided you initiate studies to develop suitable alternative management practices.

If I want to use these pesticides outside a GWPA, are there restrictions?

Yes. All use requirements for artificial recharge basins, canal and ditch banks, and wellhead protection apply statewide. But leaching and runoff use requirements only apply within leaching and runoff GWPAs. Of course, all label restrictions still apply.

Under the old rules, use of some pesticides was prohibited in PMZs and there were training and other requirements. Are those still in effect?

No. The new rules folded PMZs into the new ground water protection areas, and eliminated:

- Mandatory use prohibitions in sensitive areas.
- Ground water protection advisories.
- Mandatory ground water protection training for PCAs.
- Statements that purchasers of a 6800(a) pesticide have to give dealers about whether the pesticide will be used in a PMZ.

Still in effect are prohibitions against bentazon use in rice and in Humboldt and DelNorte counties.

Where can I get more information?

Contact Mark Pepple at (916) 324-4086 or via e-mail at <mpepple@cdpr.ca.gov>.

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Single copies of this handout are available from DPR by calling 916-445-3974, or can be downloaded from DPR's Web site, www.cdpr.ca.gov, "Consumer Fact Sheets."