



*Media Contact:*  
*Veda Federighi, Communications Director*  
*(916) 654-9658*

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**DPR RELEASES CUMULATIVE SUMMARY  
OF GROUND WATER TESTING FOR PESTICIDES**

SACRAMENTO -- Cal/EPA's Department of Pesticide Regulation today released its seventh annual report on the results of ground water testing for pesticides. It is the first report since 1986 to include cumulative totals of testing reported to DPR since 1983, in addition to detections reported in the previous year.

The 244-page report, delivered to the Legislature Monday, presents a detailed review of information in DPR's massive well inventory data base. The data base was developed by DPR (then a division of the California Department of Food and Agriculture) in 1983. Its scope was expanded with the 1985 passage of the Pesticide Contamination Prevention Act (AB 2021, Connelly). Among other things, the new law required that all agencies, whether government or private, report the results of any pesticide testing done on well water to the state's pesticide regulatory program.

"The data collected represents results of many different studies, designed and conducted by various agencies and companies, for different purposes, using different sampling and testing methods. These limitations make it difficult to use the data to make comparisons, and draw conclusions," said Ron Oshima, Assistant Director of the DPR's Enforcement, Environmental Monitoring and Data Management Division.

"Nonetheless, the well inventory is a unique archive of ground water sampling for a single state," said Oshima. "Although limited ground water data bases have been compiled in at least nine other states, only California centralizes monitoring results from all sampling agencies into a single collection point, on an ongoing basis."

The report summarizes testing conducted by 35 government agencies and three private firms from 1971 through 1992, and reported to DPR between 1983 and 1992. There were 260,693 reported analyses of samples taken from 17,713 different wells. Of the more than 260,000 analyses, 12,459 tests were positive; 4,615 were confirmed by subsequent analyses. (In some cases, confirmation was not possible because there was a delay of three or more years between the time of initial testing, and when the agency reported the detection to DPR.)

Although some counties do more testing than others, wells were tested in all of California's 58 counties. Detections were confirmed in 957 wells in 44 counties. Testing was done for 273 pesticides and related compounds (e.g., breakdown products and metabolites). Sixty-eight pesticides were reported detected, 35 of them confirmed by subsequent analyses.

DPR investigates all reported detections of pesticides currently registered for agricultural or outdoor industrial or institutional use. If a pesticide is registered for other uses, or no longer registered, the detection is referred to the State Water Resources Control Board for further investigation.

DPR in its investigations first attempts to confirm the detection by analyzing new samples from the positive wells. If the detection is confirmed, nearby wells are also tested to determine the extent of contamination. If levels of contamination found exceed those considered safe, the state Department of Health Services may take immediate corrective action. In addition, DPR may take action regardless of the level of contamination. Actions in the past have included revocation of permits to use pesticides, modification of use practices to prevent ground water contamination, or suspension of registration.

After a detection is confirmed, the investigation focuses on whether the pesticide reached ground water because of routine agricultural use (application to crops, for example). "Point" sources of pollution (such as a pesticide spill into a well) are referred to the Water Board for further action.

Of the 35 pesticides with confirmed detections, 12 were found after investigation to be in ground water as a result of routine agricultural use. These chemicals are aldicarb sulfone and aldicarb sulfoxide (breakdown products of the active ingredient, aldicarb), atrazine, bentazon, bromacil, 1,2-D, DBCP, diuron, ethylene dibromide, prometon, simazine, and TPA (a breakdown product of chlorthal dimethyl). DBCP, 1,2-D and ethylene dibromide are no longer registered. Simazine (296 wells) was detected most frequently, followed by diuron (166 wells), atrazine (119), bromacil (99), and bentazon (64).

There were 475 wells in 20 counties with detections attributed to non-point source, routine agricultural use. Of these, 206 (43%) are in Tulare County. Altogether, Tulare, Glenn (73 wells), Fresno (56), and Los Angeles (55) counties account for 82% of all wells with such detections.

Use of pesticides found in ground water as a result of agricultural use is either

prohibited or restricted in areas where the contamination occurred.

"Although the well inventory data base provides incomplete information to draw broad conclusions about well water in California," said Oshima, "it is valuable in assisting DPR and other agencies in targeting further monitoring. It identifies areas potentially sensitive to pesticide leaching, and helps us target which pesticides should be sampled for."

In addition to the follow-up sampling done by DPR to confirm reported detections, the Department also monitors for other pesticides not previously found in ground water. These compounds are those whose chemical characteristics identify them as potential leachers. Ground water monitoring has been done for 15 of these potential leachers; none has been detected. The Department also tests soil in areas where use of known leachers has been banned, to monitor compliance with the prohibitions.

In addition, DPR provides ground water protection training to pest control applicators. The training is designed to provide up-to-date information on the extent of pesticide residues in ground water, factors which contribute to the transport of pesticides to ground water, and measures which can be taken to decrease such movement. Much of the information on how pesticides reach ground water comes from various studies conducted by DPR scientists over the past several years. The Department has also studied various methods to reduce leaching of pesticides into ground water.

Single copies of the report are free, by requesting "1992 Well Inventory Report" from the Environmental Monitoring and Pest Management Branch, Department of Pesticide Regulation, 1220 N Street, Sacramento 95814, phone (916) 654-1141.

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*Attached is supplemental material from the report: a year-by-year summary of findings; a county breakdown of detections of agricultural chemicals still registered for use; and a map showing counties where pesticides currently registered for agricultural use have been detected.*