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MEMORANDUM

Arnold Schwarzenegger  
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TO: SB 702 Comments  
California Environmental Tracking Program  
Environmental Health Investigations Branch  
California Department of Health Services  
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FROM: Paul H. Gosselin   
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SUBJECT: REVIEW OF THE DRAFT REPORT OF THE SENATE BGILL 702 EXPERT  
WORKING GROUP ON ENVIRONMENTAL HEALTH SURVEILLANCE

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The Department of Pesticide Regulation (DPR) generally agrees with the concept of environmental health tracking. DPR scientists reviewed the Draft Report of the Senate Bill (SB) 702 Expert Working Group on Environmental Health Surveillance and have the following comments.

Although a laudable idea, the implementation and daily operation of such a surveillance system would be enormously resource intensive. Based on our database and monitoring experience, the estimate of cost grossly underestimates the resources needed. The number of conditions possibly linked to environmental causes is extensive. The report identifies pesticides as one of the pollutant categories linked to possible health effects. As such, pesticides are included in proposals for environmental and exposure monitoring. The report claims "strong evidence" for pesticides as a causal factor only for dermatitis, but notes that "suggestive evidence" links pesticides to cancer, adverse reproductive outcomes, asthma, learning impairment, Alzheimer's and Parkinson's diseases, and chronic fatigue syndrome. In a review of the literature, there are also many studies that could find no link between many of these conditions and pesticides. The authors should report both sides of the story.

This report recommends the re-creation of many existing State programs under the auspices of the California Department of Health Services (DHS). This requires DHS to develop expertise, duplicating already established programs, or take over existing programs with little or no real benefit. Many of the suggestions for improving individual databases are laudable but lack feasibility and will require extensive resources in a time when budgetary constraints are extraordinarily severe. Implementing several of these recommendations may not be practical, and would require a reorganization of state government.



**DPR Information Technology Impacts** – DPR has concerns regarding the cost and practicality of implementing an environmental health surveillance system. Two DPR databases have been targeted as potential databases for the California Environmental Health Tracking System– Pesticide Use Reporting (PUR) and Pesticide Illness Surveillance Program (PISP). No funding is recommended for providers of primary databases, yet requests for changes in DPR's PUR structure and data collected are being asked of DPR. PISP does not collect race or ethnicity information and does not allow for entry of such statistics. Any changes to a database and the underlying data collected take resources. DPR does not have the resources to make such changes.

While not directly identified within the document, there will be information technology (IT) impacts to DPR if this initiative goes forward. DPR committed to goals in its Agency Information Management Strategy to create a sound infrastructure capable of efficiently delivering information to department constituents. DPR has lost 14.6 IT positions due to the ongoing budget situation. This leaves DPR with minimum staffing levels for day-to-day activities, control agency oversight requirements, and project work.

The most identifiable impacts on DPR will be in the area of the resources needed to operate and maintain a large, Web-based, real-time, statewide system. The costs associated with any modifications (and ongoing maintenance thereof) to the source data systems (e.g. PUR) are also not identified. The indirect impacts will come as disruptions from the day-to-day activities, control agency oversight requirements, and priority project work. These disruptions may take the form of such tasks as: requests for additional data; requests for data in a variety of formats; request to validate data; requests to further define data use; requests to re-configure data systems; requests to create/support new access methods; procuring/supporting data analysis tools for the Office of Environmental Health Tracking staff, etc. The additional workload will impact IT staff ability to perform core activities as stated above.

The following are more specific comments on the report and its recommendations.

### **Pesticide Illness**

- **Finding #1: Data Sources – "For non-occupational poisonings, the health officer transmits this report to the county agricultural commissioner (CAC); and copies are also provided to the CA Dept. of Pesticide Regulation (DPR), the Office of Environmental Hazard Assessment, Cal/EPA, and to the Department of Industrial Relations (DIR), who has enforcement authority for the reporting requirement." (page 79).**

As a point of correction, the Pesticide Illness Report (PIR) is sent to the same agencies regardless of whether it is an occupational or nonoccupational illness. All PIRs are sent by

the local health officer to the local county agricultural commissioner, DPR, the Office of Environmental Health Hazard Assessment (OEHHA), and the Department of Industrial Relations.

- **"The DPR also maintains these reports in the Pesticide Illness Surveillance Program (PISP). DPR also reviews illness reports submitted to the State Workers' compensation system." (page 79).**

DPR's PISP has been collecting pesticide-illness data for 20 years. DPR has nearly 20 years of computerized data. The PISP database includes medical, demographic, residential location, occupation (including no occupation), and exposure data. DPR also receives investigative reports from the local county agricultural commissioner on each pesticide illness case identified. These investigative reports include good information on exposure. The SENSOR program within DHS reports only on occupational illnesses and has very limited exposure information (most is taken from medical reports, not field investigative reports).

- **Finding #2: Limitations of Current Tracking Systems – "Reporting is likely to be incomplete. Physicians often do not report or delay reporting potential pesticide illnesses." (page 80).**

It is a well-known fact that pesticide-illness reporting is incomplete. OEHHA, DPR, and DHS have been trying to educate physicians for many years. DPR did find a system that greatly improved reporting; working with the California Poison Control System. The California Poison Control System would offer to report for any physician who contacted them about a possible pesticide-related illness. Lack of resources did not allow DPR to continue this program. Reporting of pesticide-related illnesses is necessarily biased toward acute illness. However, it does document potential exposure that may be combined with other data to attempt to evaluate other conditions.

- **Recommendations – "DPR should routinely provide the complete follow-up information on pesticide illness incidents with CDHS and Office of Environmental Health Hazard Assessment (OEHHA) Cal/EPA, to facilitate a public health surveillance perspective." (page 80).**

DPR routinely communicates with both OEHHA and DHS on illness surveillance issues. DPR has regulatory jurisdiction over all pesticide use situations and uses the PISP to evaluate pesticide regulations as they relate to public health and safety. DPR lacks the resources to provide all follow-up information to OEHHA and DHS and are not sure how this particular recommendation relates to the Environmental Health Tracking Initiative. DPR readily provides data from the PISP database to any requesting agency.

### **Data Sources Available for Priority Environmental Hazards and Exposures – Pesticides**

- **PUR Findings** - The PUR contains information not only on pounds of pesticide applied but also the area treated. The PUR does include data at the agricultural field level, which are identified by unique names, but the location of each field is specified only to a square mile section.
- **PUR Data Limitations** – **"For example, the PUR database contains usage reporting on a rather large geographical scale, therefore assigning exposure to an individual may be imprecise (assuming uniform distribution of hazard in one square mile). DPR is moving towards a web-based real-time reporting of agricultural pesticide use which pesticide applicators would use to report use down to the field level. Lack of information on non-agricultural pesticide use makes exposures at home difficult, if not impossible, to estimate."**

The PUR contains some information on nonagricultural applications, but only commercial pest control applications; it does not include home use or most industrial and institutional use. In addition, these nonagricultural applications are summarized at the level of county and month. DPR often does not receive use reports until several months after the applications are made. Even if the Web-based reporting system is developed, growers are still required to report each application only within a month of the date of application, so this is not "real time." Other limitations include: (1) Complexity - the data in the PUR are complex and users of the data often interpret their results incorrectly; (2) Reporting - DPR does not know what percent of actual use is reported and do not have an estimate of the uncertainty, but the 90 percent estimate is based on a very limited study and is too uncertain to include in a published report; (3) there is no information in the data on who makes the applications, only on who is responsible for the site or crop treated; and (4) one recommendation is to include specific geographic information for structural applications. The PUR captures only an unknown fraction of all structural applications, therefore the usefulness of more geographic-specific data would be extremely limited.

- **"The USDA pesticide residue monitoring program offers a small number of samples and limited information, therefore it may not be representative of California's population." (page 95). "Current testing is inadequate to generate precise estimates of pesticide residues in food. The CDHS' Food and Drug Branch should be provided resources by the State to determine more exactly at what levels pesticides are occurring in food." (page 97).**

The report recommends that DHS establish a program (in addition to the DPR/ U.S. Department of Agriculture program) to collect more precise food residue data. There is

no real reason for duplicating the well-established program of DPR/U.S. Department of Agriculture (and wasting valuable resources).

- **"California has emerging capabilities for biomonitoring and there is an urgent need to further develop the State's laboratory capability. Methods that are developed in California's state environmental laboratories should be used to support research studies in California and further research exposure in impacted communities." (page 142)**

The report recommends that analytical capabilities for pesticides and pesticide metabolites be enhanced and housed at DHS. DPR contracts with the California Department of Food and Agriculture's Center for Analytical Chemistry. This laboratory is a full-functioning laboratory that is capable of analyzing pesticides and pesticide residues in food, biomonitoring samples, surface/ground water samples, etc. DPR fully utilizes this laboratory for its regulatory mandates and monitoring programs. Funding of analytical capability for environmental health research should be a part of the funding award; it should not come from methods developed by State analytical facilities. Laboratories that are part of a research award must be capable of method development. Since DPR funds a pesticide analytical laboratory, we are certain that the estimate of \$1 million per year for biomonitoring methods development is inadequate to fund such a laboratory. No cost estimates were given for the DHS-desired residue lab, additional water monitoring capability, etc., that were also recommended.