

## **URBAN PESTICIDE RESTRICTIONS FOR WATER QUALITY PROTECTION**

At the request of the RWQCP and others, California state Assembly Member Byron Sher carried Assembly Bill (AB) 3394 in 1994. AB 3394 would have restricted the sale and use of copper-containing root killers and copper and tri-butyl tin-containing cooling tower additives. These problem pest-control products contribute to the RWQCP's exceedances of Bay discharge standards. When used, root killers and cooling water additives are discharged to sanitary sewer systems, or worse, to storm drains that flow untreated to creeks and bays.

Because cost effective alternatives for each of these products are available, the RWQCP and other San Francisco Bay Area wastewater treatment plants have urged restrictions on the three types of chemicals.

Studies by a variety of agencies suggest that copper-based root control agents can contribute 5 to 12 percent of the total quantity of copper received by a wastewater treatment plant. Analyses by the RWQCP suggest that only a few users of tri-butyl tin cooling water additives can cause the RWQCP's effluent to exceed the tri-butyl tin standard. Copper-containing cooling tower additives, which typically are not labeled as containing copper, can contribute to compliance problems for industrial wastewater dischargers as well as for the RWQCP.

Good alternatives exist for root control and cooling tower conditioning. With respect to root control, mechanical methods are preferred. It may be advisable and possible to relocate or remove certain shrubs or trees. As a last resort non-copper containing chemicals are available. With respect to cooling tower conditioning, non-copper and non-tri-butyl tin-containing alternatives are available at comparable prices.

The local business community, including many local manufacturing facilities and the local Chamber of Commerce, supported the proposed restrictions as a cost effective alternative to increasing the stringency of discharge requirements for metal platers, printed circuit board manufacturers, and similar copper-using facilities. Large chemical manufacturers, however, opposed the bill, concerned that the proposal would set a precedent by legislatively, rather than administratively, restricting a commercial product for environmental protection. To address this concern while still acting to improve water quality, Assembly Member Sher and bill proponents obtained a commitment from the State Department of Pesticide Regulation (DPR) to develop appropriate administrative restrictions on the three problem types of products.

Between August 1994 and December 1995, DPR conducted an evaluation of the technical issues, held public meetings, and developed emergency regulations. In August 1995, DPR staff completed a technical study evaluating the water quality issues, problems with the

products, alternatives to the products, impacts of alternatives, and proposing several options for actions. That document, *Evaluation of Copper-and Tributyltin-containing Compounds*, was distributed to interested parties for review. The review process culminated with a series of meetings with wastewater treatment plant representatives, County Agricultural Commissioners, and product manufacturers.

On December 11 1995, DPR adopted emergency regulations that make it illegal to sell or use copper-based root control products and tri-butyl tin-containing cooling water additives within the nine Bay Area Counties. These regulations became permanent on November 11, 1996. The regional sales ban avoids transfer of the products into the area from regional vendors and distribution centers and has eliminated the practical difficulty of enforcing a local use ban on these products. For the RWQCP, the sales prohibition appears to have eliminated instances of noncompliance with tri-butyl tin effluent limitations and reduce copper discharges, reducing compliance problems.

DPR concluded that state and federal requirements that prevent disclosure of the **Ainert@** (not active) ingredients in pesticides effectively precluded state action to regulate copper-containing cooling water additives. In California, copper is only present in registered cooling water additives as an **Ainert@** ingredient. DPR staff aware of the presence of copper in an additive are not allowed to disclose its presence to County Agricultural Commissioners or the public. Because of the disclosure restrictions, DPR elected not to enact a regional sales prohibition on copper-containing cooling water additives. Instead, DPR asked manufacturers to voluntarily reduce copper and asked the EPA to require the listing of copper's presence on the additive label. In response to the legislation and DPR's request, at least one manufacturer has already agreed to remove copper from its products.