STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

STAFF SUMMARY REPORT (Jan O'Hara)
MEETING DATE: August 12, 2009

ITEM**:** 8

SUBJECT: **Urban Creeks Pesticide Toxicity TMDL - Report on Status of Implementation**

CHRONOLOGY: November 2005 –Water Board adopted TMDL
May 2007 – U.S. EPA approved TMDL

DISCUSSION: This is a status report on implementation of the Urban Creeks Diazinon and Pesticide-Related Toxicity Total Maximum Daily Load (TMDL). As stated in the TMDL, the Water Board's role is to encourage, monitor and enforce TMDL implementation actions, and we continue to focus largely on collaborating with other agencies to minimize pesticide impacts on water quality. Positive steps are being taken. This report summarizes recent monitoring results and important actions taken by parties across all levels of government towards reducing the adverse water quality impacts of pesticides.

Monitoring Data
Sales of diazinon for urban uses were eliminated by the end of 2004, and consequently, we no longer find diazinon and associated toxicity in urban creeks. However, urban uses of diazinon have largely been replaced by pyrethroids, another class of pesticides, and, unfortunately, pyrethroids are now detected in urban creeks in the Bay Region and throughout California. Pyrethroids are also the likely cause of sediment toxicity in some creeks. This was the basis of the recent action by the Board to include Kirker Creek in Contra Costa County on the 303(d) list of impaired waters. Our regional Surface Water Ambient Monitoring Program, along with municipalities, will continue to monitor creeks for toxicity in general and the pesticides, pyrethroids and fipronil, specifically. We will also continue to use these data as we work with U.S. EPA and the California Department of Pesticide Regulation to improve their pesticide approval processes.

U.S. Environmental Protection Agency
U.S. EPA is the federal agency that registers (approves) pesticides under authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). We, along with municipalities, continue to point out to U.S. EPA when it is considering reregistering specific pesticides that some approved pesticides can cause water quality problems even when applied in accordance with label directions. In April, U.S. EPA released a scoping document that outlines approaches to align the ways its Office of Water and its Office of Pesticide Programs implement the federal Clean Water Act and FIFRA, respectively. Currently, two different methods are used to characterize toxicity impacts/effects. Also, the quantity of data required under the pesticide registration process may be insufficient to meet the more

extensive data requirements for deriving water quality criteria. U.S. EPA intends to explore available tools and approaches to alleviate these inequities later this year. This "harmonization" process should be a positive step towards minimizing pesticide-related toxicity in our water bodies.

U.S. EPA is also considering changing the label instructions for residential use of pyrethroid pesticides. In meetings with a pesticide manufacturers' group, U.S. EPA developed new label instructions that, among other restrictions, disallow use during rain events and spraying directly into drains. There are approximately 2,500 products registered at the federal level that qualify for the new label language. We wrote in support of this effort, and encouraged expanding it to include labeling for fipronil use as well.

California Department of Pesticide Regulation

The Department of Pesticide Regulation (DPR) initiated a regulatory review (called "reevaluation") in September 2006 of products containing pyrethroids, in part to address our water quality concerns. We have been working with DPR by providing input, review, and comment on studies product manufacturers are required to conduct as part of the reevaluation process. We are confident that this reevaluation effort will ultimately identify and control use of pyrethroids products that cause water quality problems. However, we are concerned that the process is far from complete; meanwhile, more pyrethroids will end up in our water bodies. DPR shared similar concerns in recent discussions with us, and we agreed to look for ways to encourage or require more productive and speedier data collection. One promising option is for the manufacturers to work collaboratively with municipalities and us so we can better communicate and share our expertise in study design and review of results.

California Structural Pest Control Board

The Structural Pest Control Board is responsible for licensing structural pest control professionals, known as pest control operators, and it requires training and examinations to maintain a license to practice structural pest control. This past year, the Structural Pest Control Board made significant progress towards addressing our water quality concerns by establishing new regulations associated with integrated pest management (IPM) which:

- Define structural IPM
- Require IPM training in order to obtain most licenses
- Require IPM continuing education for all licensees
- Establish a statewide IPM certification program.

This is a very positive step because pesticides applied around building exteriors can get washed off into storm drains and creeks, and an IPM certification program will help consumers select pest control operators that can assist them with managing pests in a manner that prevents water quality problems. For several years, members of the Pest Control Operators of California and others have worked to create an IPM certification program. The new regulations will hopefully provide regulatory endorsement of these efforts. EcoWise Certified (http://www.ecowisecertified.org), a project of ABAG funded in part by a State

bond grant, is one example of an independent third-party program that trains and certifies professionals that are now being hired by some municipalities.

Municipal Regional Stormwater Permit

The TMDL implementation plan calls on municipalities to manage their use of pesticides and to work with other parties that use or affect use of pesticides that may get discharged to storm drains. This is the basis for pesticide-related requirements in the draft Municipal Regional Permit (MRP), which the Board will consider for adoption later this year. Though equivalent requirements are in existing stormwater permits for Alameda and Santa Clara county municipalities, the MRP will add clarity and provide consistent requirements for municipalities throughout most of the region. Many municipalities are implementing pesticide pollution prevention actions regardless of whether they have permit requirements. One notable, ongoing effort is a point-of-sale outreach program called Our Water Our World (http://www.ourwaterourworld.org), which provides information on managing pests and safer alternatives to pesticides. Another is Alameda County Waste Management Authority's Bay-Friendly Landscaping and Gardening program (http://www.stopwaste.org/home/index.asp?page=8).

Urban Pesticide Pollution Prevention (UP3) Project

The UP3 Project (http://www.up3project.org), funded by a State bond grant to the San Francisco Estuary Partnership, manages several efforts directed towards TMDL implementation. In particular, it provides tools to municipalities to support their efforts to reduce municipal pesticide use and to conduct local outreach on less-toxic methods of pest control (e.g., baits, caulking, and improved sanitation). Recent and continuing UP3 Project accomplishments include:

- Managing the Urban Pesticides Committee (UPC), a nationally-unique statewide network of more than 150 agencies, nonprofits, industries, and other stakeholders that are working to solve water quality problems from pesticides. All of the entities discussed above, including pesticide manufacturers, are members, and the UPC serves a forum for coordination of TMDL implementation.
- Analyzing urban pesticide use patterns to inform water quality and pesticide agency responses to pesticide-related water toxicity.
- Tracking the latest science and regulatory activities and identify opportunities to advise pesticide regulatory agencies regarding future actions.

UP3 Project activities have suffered a set-back due to the State's freeze on bond fund spending. Fortunately, some municipalities and stakeholders have provided funding for limited operation of the project, but most of the efforts described above are on hold. The freeze has given stakeholders cause to realize the value of the UP3 Project, and our future effectiveness in implementing the TMDL will be hampered without it. We are optimistic that bond funds will be restored shortly, but even so, we are concerned with the long-term sustainability of the project. This is giving us cause to change the UP3 Project to a "UP3 partnership" that both provides support to and is supported by participants in a win-win manner. We hope to deliver a positive outcome to this challenge in a future report.