

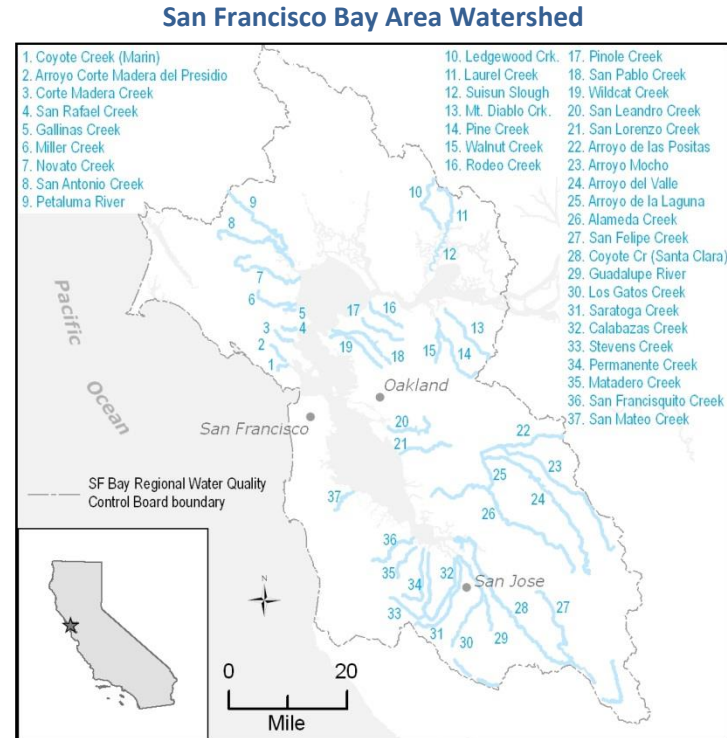
Total Maximum Daily Load Progress Report		Diazinon and Pesticide-Related Toxicity in Urban Creeks TMDL	
Regional Water Board	San Francisco Bay, Region 2	<b>STATUS</b> <input type="checkbox"/> Conditions Improving <input checked="" type="checkbox"/> <b>Data Inconclusive</b> <input type="checkbox"/> Improvement Needed <input type="checkbox"/> TMDL Achieved/Waterbody Delisted	
Beneficial uses affected:	WARM, WILD		
Pollutant(s) addressed:	Diazinon and pesticide-related toxicity		
Implemented through:	NPDES Permit, MAA		
Approval date:	May 16, 2007		

### TMDL Summary

In the 1990s, 37 San Francisco Bay Area urban creeks were found to exceed water quality standards for aquatic toxicity, primarily due to runoff of the common insecticide diazinon. Available information indicated that all other Bay Area urban creeks receive pesticide discharges and are impaired; thus, the [Diazinon and Pesticide-Related Toxicity TMDL](#) applies to all Bay Area urban creeks.

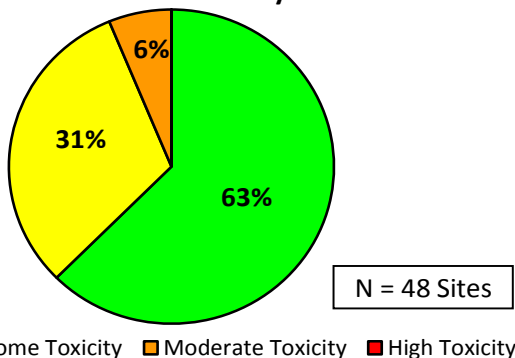
The U.S. EPA phased out most urban diazinon uses in 2004; however, some diazinon alternatives, particularly pyrethroids, were considered potential causes of sediment toxicity at that time. For this reason, the TMDL addresses all pesticide-related toxicity. In 2010 Kirker Creek was deemed impaired by sediment toxicity caused by pyrethroids, and this impairment will be addressed by the TMDL.

The TMDL's implementation strategy reflects the fact that many parties bear responsibility for pesticide discharges to creeks. Implementation actions focus on (1) proactive regulation through better coordination between pesticide- and water quality agencies, (2) education and outreach, and (3) research and monitoring.

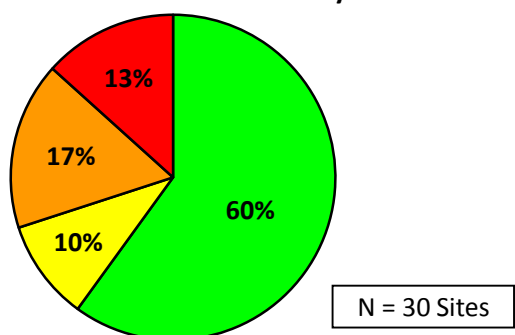


### Toxicity in San Francisco Bay Area Rivers, Creeks & Canals

#### Freshwater Toxicity



#### Freshwater Sediment Toxicity



Note: Based on 10 years of toxicity data. Toxicity may be caused by sources other than pesticides; however, where toxicity sources were identified, the majority of sources statewide were pesticides.

### Water Quality Outcomes

- Water Board staff and California Storm Water and Waste Water Dischargers are providing toxicity data and technical comments as the U.S. EPA (1) modifies its methodology for assessing ecological risk during the pesticide registration process, and (2) considers (re)registering individual pesticides for use in this country.
- The U.S. EPA has changed label instructions for certain pyrethroid pesticides to limit their use on impervious surfaces.
- In July 2012, the CA Department of Pesticide Regulation enacted regulations to limit urban applications of pyrethroid.
- Over 76 Bay Area municipalities have Integrated Pest Management (IPM) policies that focus on least-toxic methods of pest control on all of their municipal properties.
- These municipalities also conduct public outreach to encourage (1) the use of IPM in homes & businesses; (2) hiring of pest control companies that use IPM; and (3) pest control professionals to use IPM techniques.