

Pesticides and Water Quality



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**Landscape IPM Training Workshop
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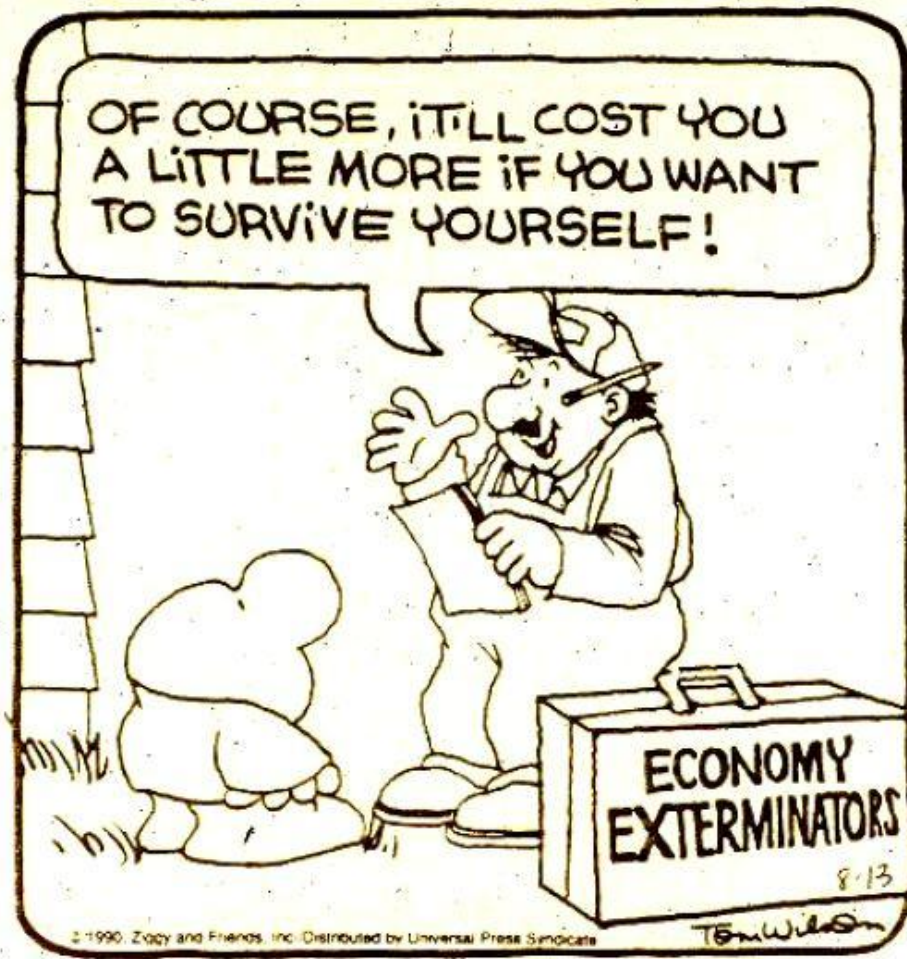
Overview of Presentation

- **Background - Stormwater and Pesticides**
- **Stormwater Regulation and the “Municipal Regional Permit”**



Argentine Ant

Pesticides Threaten Water Quality



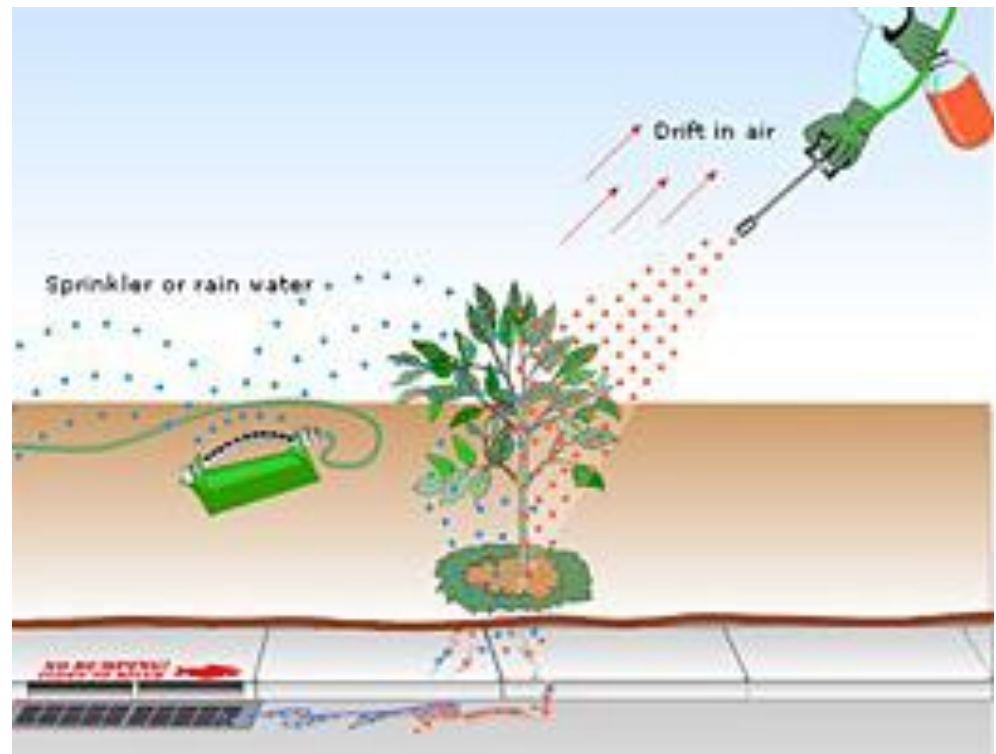
Pesticides Threaten Water Quality



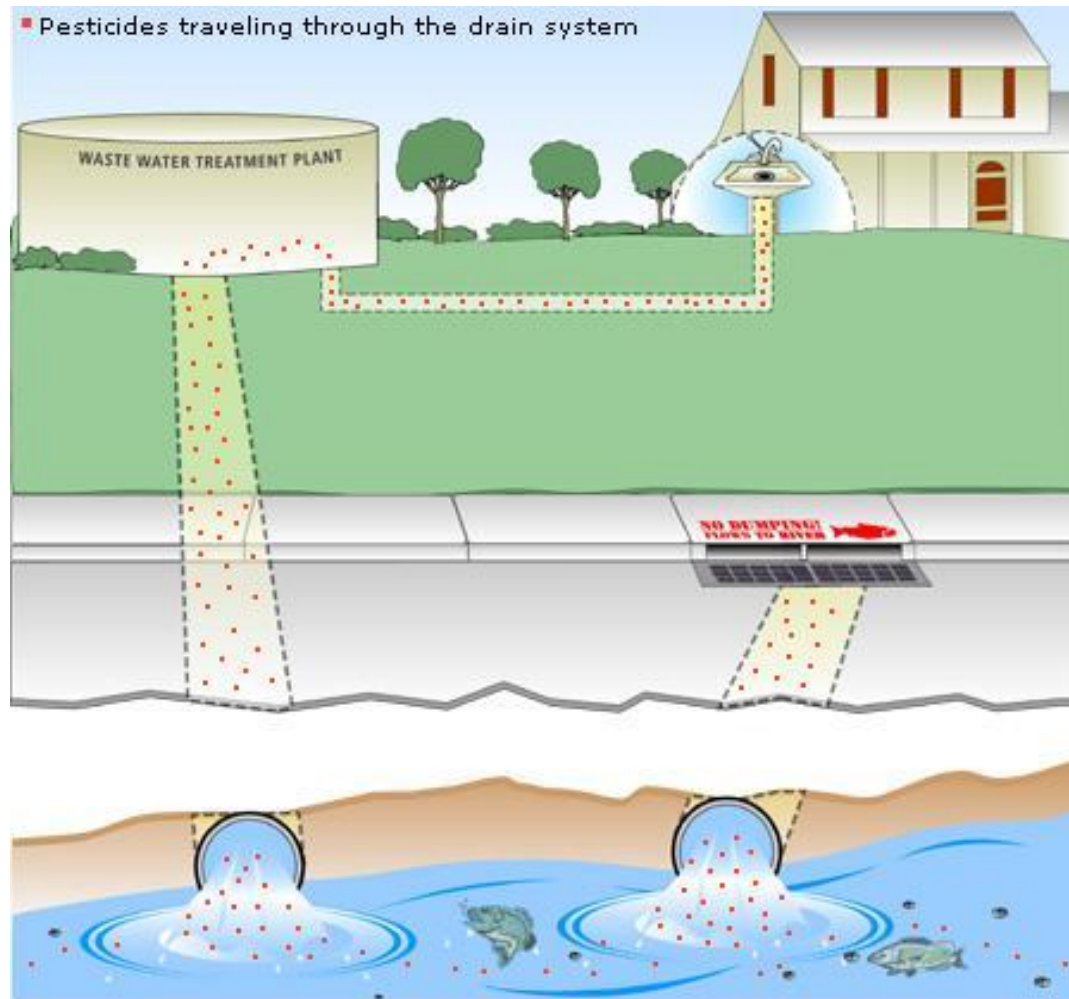
- Many historical studies showing likely pesticide impacts to aquatic habitat in Bay Area and throughout California.
- Widespread problems where urban and agricultural land uses drain to creeks and other water bodies.
- 2013 review of past 10 years of water quality monitoring data: pyrethroids and fipronil and associated toxic effects widespread in CA urban watersheds.

Pesticides Enter Storm Drains by Multiple Pathways

- Stormwater Runoff
- Irrigation
- Spills



Pesticides Enter Storm Drains by Multiple Pathways



Stormwater Regulation

- Clean Water Act signed in 1972. Initial efforts addressed “point sources.”
- Clean Water Act amended in 1987. Required municipal agencies to obtain **permits to discharge stormwater** from municipal storm drain systems.
- These are National Pollutant Discharge Elimination System (NPDES) **Municipal Stormwater Permits.**



What Do Municipal Stormwater Permits Require?

If you only remember two general things:

1 Implement controls to **reduce** the discharge of pollutants in stormwater to the **maximum extent practicable**, AND

2 Effectively **prohibit non-stormwater discharges** into the storm drains



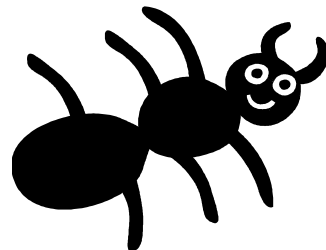
What is the Municipal Regional Permit (MRP)?

- **Regional permit regulating municipal stormwater system discharges:**
 - **Effective date: December 1, 2009.**
 - **Permit renewed every 5 years.**
- **Applies to many cities, counties, and special districts in Bay Area.**
- **MRP developed and enforced by the SF Bay Regional Water Quality Control Board.**



MRP Provision C.9

- **Municipal agencies required to implement a pesticides control program to help reduce pesticide discharges in stormwater runoff.**
- **Adopt and implement an IPM Policy or ordinance.**
 - **Establish written IPM SOPs for pesticide use.**
 - **Make sure city's employees and contractors adhere to these SOPs.**
 - **Report any trends in pesticide use.**



MRP Provision C.9 (cont.)

- **Train municipal employees on IPM practices and your IPM policy/ordinance.**
 - **Every 3 years for employees that apply pesticides of concern.**
 - **Must report % trained.**
- **Require contractors to implement IPM.**
 - **Hire IPM-certified contractors OR include IPM contract specifications.**
 - **Make sure contractors are aware of your IPM policy/ordinance.**



MRP Provision C.9 (cont.)

- **Interface with County Ag**
 - Report violations of pesticide regulations (e.g., improper usage or disposal) – look out especially for water quality impacts.
 - SMCWPPP works with Jeremy Eide through Parks Rec and IPM Workgroup.
- **Tracking**
 - Track pesticide use in Annual Reports, show trends, and provide reasons for any increases in use.
 - Track and participate in relevant regulatory processes.

MRP Provision C.9 (cont.)

- **Public Outreach**

- **Residents: Our Water Our World (point of purchase), other regional campaigns, media advertising and distribution of outreach materials at events.**
- **Pest Control Operators (PCOs): SMCWPPP sponsors training opportunities & reaches out to PCOs through PIP group & website.**
- **IPM info on SMCWPPP's website (www.flowstobay.org).**

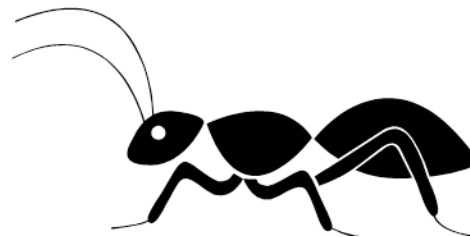


Our Water - Our World



Some Take Home Messages

- Pesticides are impairing water quality in the Bay Area and throughout California.
- The MRP requires municipalities to have an IPM policy and to implement an IPM program.
- Municipal staff & contractors must be trained on IPM and SOPs.
- Report any violations observed to County Ag.
- Pesticide use by municipalities must be tracked to show any trends.



QUESTIONS?

