

San Mateo Countywide Water Pollution Prevention Program

Reducing Pollutants in our Watersheds

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SAN MATEO COUNTYWIDE
Water Pollution Prevention Program
Clean Water. Healthy Community.



Water Pollution Prevention

San Mateo County Water Pollution Prevention Program (SMCWPPP) is a program that aims to partner with the county's residents and businesses to prevent pollution of our local water bodies; such as creeks, the San Francisco Bay and the Pacific Ocean.

www.flowstobay.org



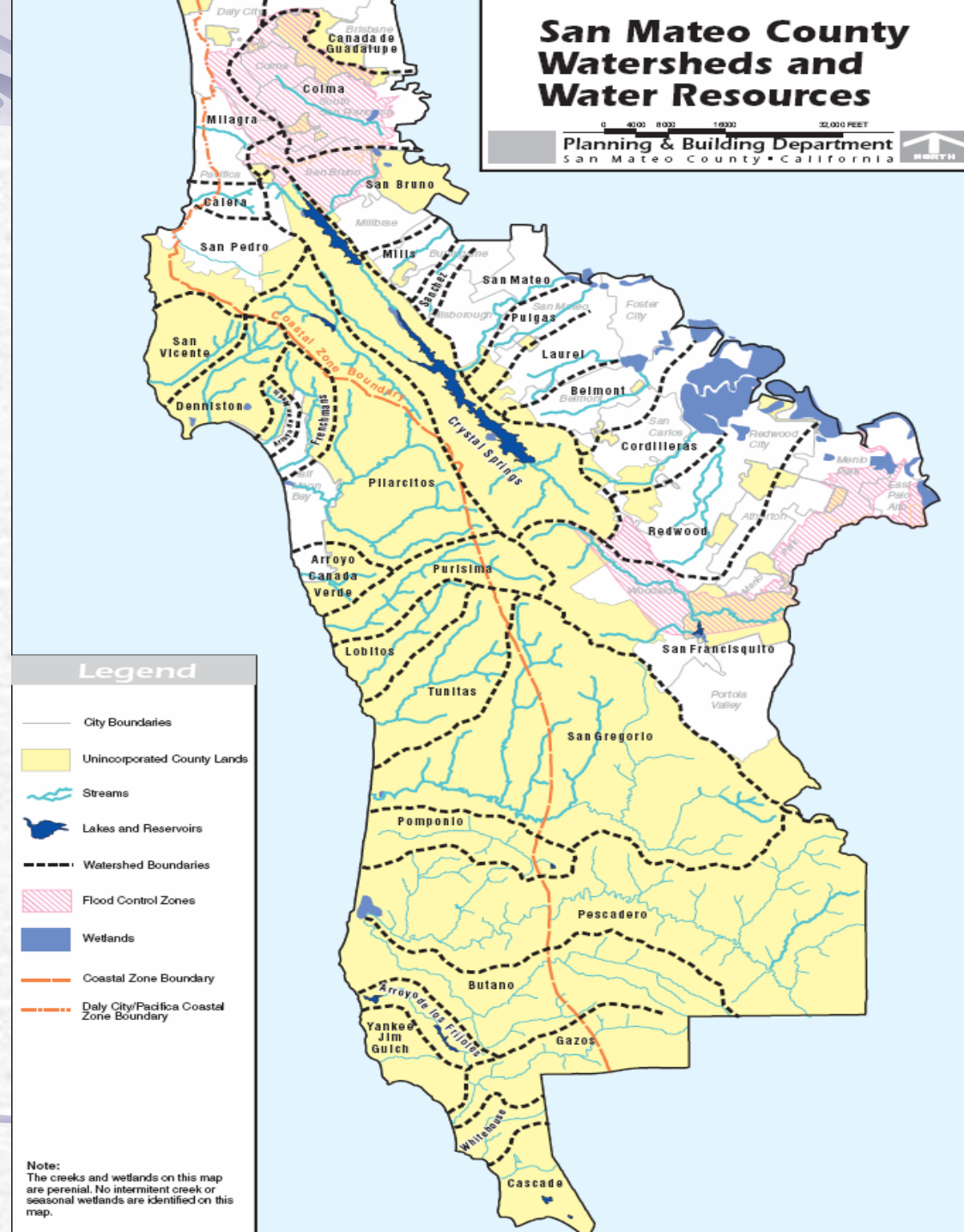
We All Live Downstream: Watersheds

- A watershed is the area of land that water flows across on its way to a creek, river, lake, bay, or ocean.
- In urban settings water travels more quickly across pavement than in a natural setting.
- Rain and hosing down carries pollutants into local waterways.

San Mateo County has 34 Watersheds

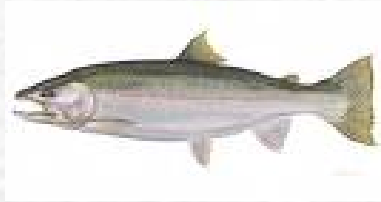
Water Drains

- Pacific Ocean
- San Francisco Bay
- Creeks





Watershed Benefits



- ✔ Wildlife habitat
- ✔ Parks & Open space
- ✔ Natural resources: water
- ✔ Nourish forests & plants
- ✔ Provide drainage corridors needed to avoid flooding



The Quality of Our Local Creeks is Linked to Land Cover

- In a forest, rain soaks into the ground where it is either taken up by tree roots or continues to move down through the soil and into the groundwater.
- When rain falls on impervious cover, rain cannot soak into the ground and becomes stormwater runoff
- Impervious cover produces 16 times more stormwater runoff than forest.

Threats to the Watersheds:

- ☞ Erosion –turbid water, smother spawning beds, alter natural course
- ☞ Poor development
- ☞ Structural development

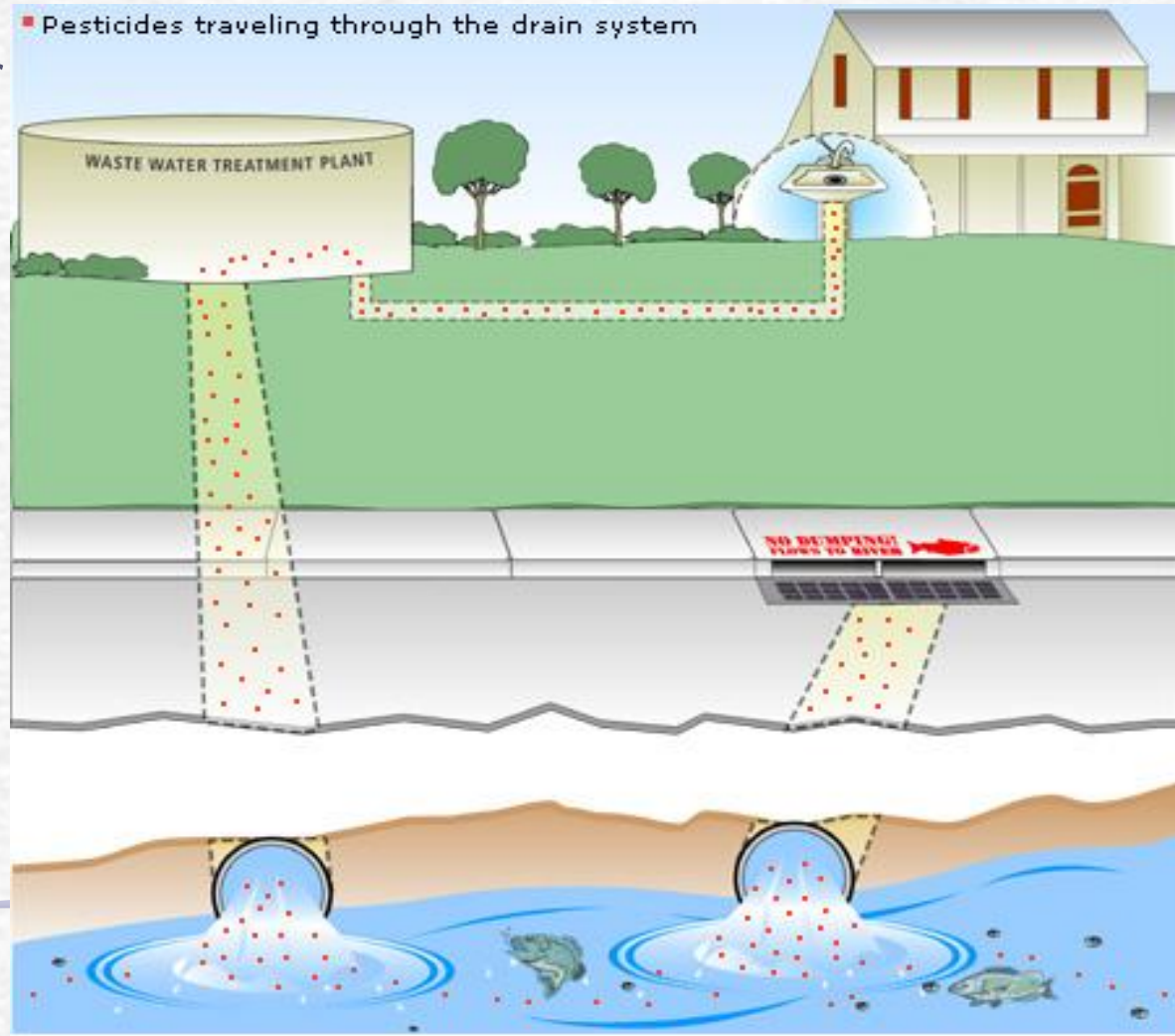


"First Flush"



Down the Drain: Where Your Water Goes

- Sanitary Sewer
- Stormdrain



Urban runoff pollution

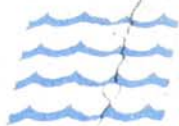
- 1987 amendments to Clean Water Act
- Regional Water Quality Control Boards enforce clean water laws
- San Francisco Bay Regional Water Quality Control Board issue NPDES permit to San Mateo Countywide Water Pollution Prevention Program's agencies

The Solution To Pollution

The best solution to pollution is to keep it out of our water in the first place!



EMPIRE FOUNDRY CO.



NO DUMPING!
DRAINS TO BAY



SMCWPPP Outreach Goals



- Educate residents
- Promote public involvement
- Change behaviors

Pollutants of Concern in our Water Bodies

- ☛ Mercury
- ☛ Automotive: leaking motor oil, gasoline, and antifreeze, copper dust from brake pads, rubber tire dust.
- ☛ Trash
- ☛ Pesticides

Mercury Containing Items

- Thermometer Exchange & Fluorescent Tube Retail Take-Back



TAKE BACK PARTNERSHIP of San Mateo County

Become a San Mateo County
Universal Waste Retail "Take Back" Partner
- Collect fluorescent lights and/or batteries



BENEFITS FOR YOUR BUSINESS:

- Improved company image
- Increased foot traffic and associated sales
- Free collection bins provided
- Free program advertising
 - i.e. press releases, county website, newsletters, etc.
- Free in-store promotional materials
 - i.e. shelf talkers, window decals
- Disposal information provided for all types of waste that curious customers ask about.



HIGHLIGHTS FOR CUSTOMERS:

- A convenient "drop-while-you-shop" location
- A solution to proper disposal
- A connection to businesses that care about their community

YOUR CONTRIBUTION:

- Collect returned materials from customers
- Deliver materials to County Household Hazardous Waste Facility when bins are full



ENVIRONMENTAL HEALTH
SAN MATEO COUNTY



Protecting Our Health and Environment

Partnering
with Business
for a Healthy
Community!

SAN MATEO COUNTY
TAKE BACK COORDINATOR

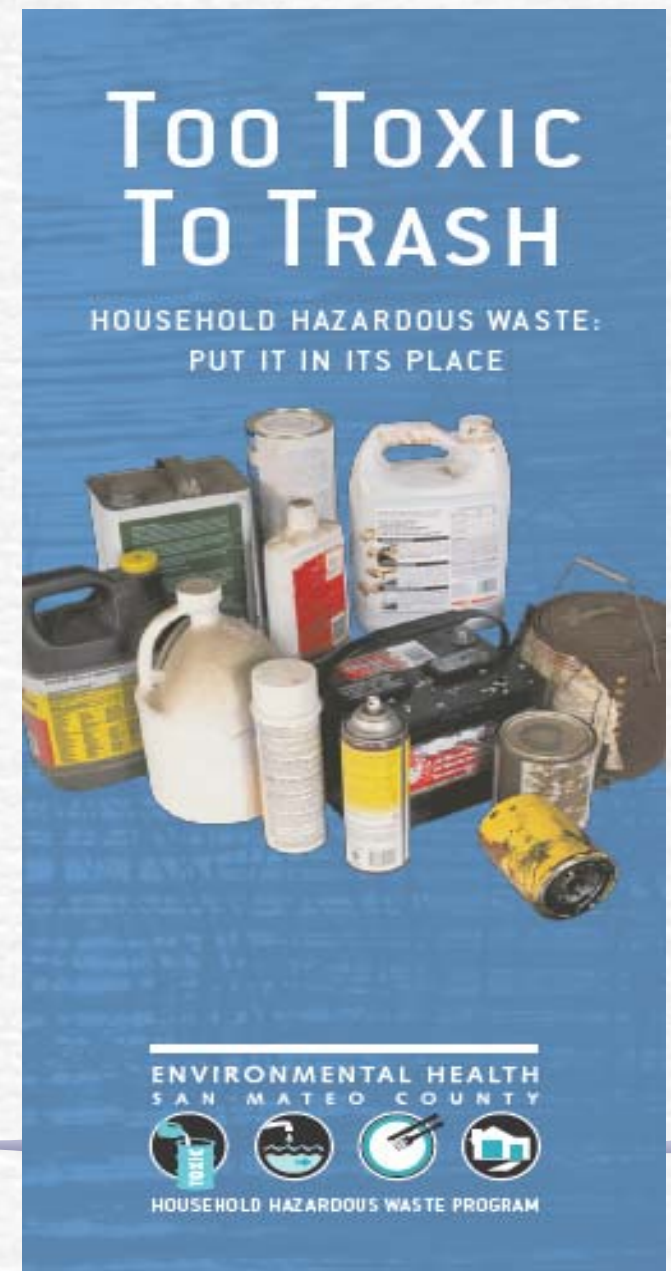
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RECYCLE HERE

Fluorescent Lights



Household Hazardous Waste and Used Motor Oil/Filters



Best Management Practices Business Pollution Prevention

- ✔ Landscape Professionals & Gardeners
- ✔ Food Facilities
- ✔ Construction Industry
- ✔ Automotive Maintenance
- ✔ Industrial
- ✔ Mobile Cleaner & Power Washing
- ✔ Municipal

Litter Reduction & Education



CALIFORNIA
COASTAL
COMMISSION



The Journey from Garden to Waterways



- Pesticides runoff lawns and gardens.
- Improper disposal through sanitary sewer
- Treated wastewater doesn't remove all pesticides

Our Water Our World Less Toxic Pest control



Diazinon and chlorpyrifos

- 1990s most commonly used pesticides
- Organophosphates
- Killing water creatures at bottom of food chain.
- Bay area creeks found to be "Impaired"
- Taken off store shelves



Pyrethroids: New Threat to Water Quality

- Ant sprays, Termiticides
- Insect foggers and sprays
- Flea dips and sprays for cats and dogs
- Ornamental garden & turf products
- Lice shampoos
- Mosquito coils

Ingredient name end in “thrin”

Exception is “Pyrethrin” natural pesticide

Bay Friendly Gardening



Alternatives to Toxic Pesticides: The "Our Water Our World" program



The OWOW Program Uses Integrated Pest Management Concepts



CONTROLLING SNAILS AND SLUGS IN YOUR GARDEN



A mating snail seems, our pest snails were originally imported from France for culinary purposes. Unfortunately, they escaped to become a major garden and agricultural problem. Snails and slugs are closely related. They both have soft, oblong bodies and produce quantities of slime to help them move around. The most obvious difference is that snails have shells.

DETECTION

Are your vegetable and flower seedlings being devoured overnight? Are you finding large ragged holes in your prized ornamentals? Do you see slime trails across your walkways? If so, your garden is probably harboring snails and slugs.

Snails and slugs are active mostly at night and on dark, cloudy days. On sunny days they can be found in moist, shady spots. Look for their eggs in the

soil (about an inch down) or under rocks, boards, or plant debris. The eggs are laid in masses of up to 100 and resemble small pearls. When you find eggs, crush them or scoop them into a plastic bag, seal it, and put the bag in the garbage.

LESS-TOXIC CONTROLS

Keeping down the population of slugs and snails requires persistence. By using a combination of two or more of the following methods, you can be able to reduce their snails and slugs in the garden.

HAND-PICK AT NIGHT

- To be effective, be thorough and regular. Check hard to find areas such as under rocks.
- The best time for for dawn or after they come out to eat, but you will have to check often.
- A flashlight and a bucket will make slugs and snails easy to catch.
- Crush snails and slugs otherwise they

walk away) or down them in a pile of soapy water (they survive in plain water). A few dead snail and slug bodies left on the soil surface will attract more snails and slugs and make your collecting easier, but large piles will breed flies. Burying crushed snails 3 or 4 inches underground will add nutrients to the soil and avoid fly problems.

USE BARRIERS

Before using barriers, hand-pick for a

LESS-TOXIC PEST MANAGEMENT

CONTROLLING ANTS IN YOUR HOUSE



The Argentine ant is a frequent invader in California homes. Although they can be pests, ants provide an ecological cleansing and fertilization service of considerable importance. For example, they kill and eat many pest insects, aerate the soil, and recycle dead animal and vegetable material.

Because of these beneficial aspects, it is undesirable (and probably downright impossible) to eliminate ants from their outside habitat. The best approach to ant management is to try to keep them outdoors.

DETECTION

Look for individual "mounds" or long lines of ants in or around the house near food or water. Distinguish Argentine ants from Carpenter ants by size. Argentine ants are small (1/4"), and their queens are slightly larger. Carpenter ants are 1/2" or larger and require different management techniques from those listed below for Argentine ants.

LESS-TOXIC CONTROLS

INSIDE YOUR HOME

- Kill the scouts so they can't lead the colonies when they find a tasty tidbit.
- Use ant baits because they use a minimum of insecticide and confine it to a very small area (see "Tips for Using Ant Baits" on back).
- Use insecticidal dusts such as diatomaceous earth (DE) in wall voids and cracks before they are sealed. Use a hand duster to apply DE and wear a dust mask and goggles. DE has little toxicity to humans or pets, but kills insects by absorbing their outer waxy coating, causing dehydration and death.

OUTSIDE YOUR HOME

- Use sticky barriers around the trunk of a tree or bush to prevent ants from protecting aphids and other "honeydew"-producing insects. Prune any branches that touch walls, fences or the ground so ants cannot find alternate routes into the plant.
- Ant Baits. If you can find the spot outside where ants are entering the building (this is often difficult to do), place bait stations there, otherwise use baits only inside. Outside, rain and sprinklers can wash baits away, and you may end up attracting ants to your home.

PREVENTION

- Store food in containers that seal tightly or in the refrigerator when you notice ant activity.
- Keep things clean and dry and fix leaking faucets and pipes (ants need food and water).
- Caulk cracks where ants are entering the house. Weather-strip doors and windows.
- Put pet dishes in a soapy moat. Partially fill a wide, shallow container with soapy water and place pet dishes in the water.



Choose less toxic products for your home.



Choose less toxic products for your home and garden. Look for this symbol before you buy.

CONTROLLING APHIDS IN YOUR GARDEN



Most plants can tolerate low to moderate numbers of aphid without noticeable damage. On some plants, however, large numbers of aphids can distort foliage and flowers and stunt plant growth. Some species of aphids can also transmit plant diseases when they puncture plant tissues to feed.

DETECTION

Aphids are very small insects with soft, pear-shaped bodies. They have long legs and antennae, and mouthparts two tube-like structures called cornicles on their hind end. Adults of some species have wings. Aphids can be many colors and are usually found on the underside of leaves.

TOLERATE SOME APHIDS

• Tolerate low to moderate numbers of aphids as long as they aren't causing

LESS-TOXIC CONTROLS

- Learn to recognize beneficial insects. Among the most important natural enemies of aphids are the tiny wasp parasitoids that lay their eggs inside the bodies of aphids. These tiny wasps cannot sting people. A parasitoid aphid (called a "mummy") looks puffed-up, and its skin hardens and changes color, often to tan, light brown, or black.
- Attract beneficials to your garden by planting a wide variety of flowering plants. (See fact sheet in this series for "Growing a Healthy Garden: Manage Pests Naturally"). The silks form of many beneficial insects, including tiny wasps and ladybugs, feed on pollen and nectar.

Consider buying beneficial insects by the Products and Resources box back. Lacewings are common ladybugs in your garden, but commercially available ladybugs.

Buy beneficials before aphid numbers are high. If you have an infestation, first use soap sprays (see Products and Resources box) to reduce the population, then, if necessary, release natural enemies. On the other hand, don't release beneficial insects before you have aphids. You will be releasing them into your garden to save.

Use this symbol before you buy.

LESS-TOXIC PEST MANAGEMENT

GROWING A HEALTHY GARDEN TO MANAGE PESTS NATURALLY



A healthy garden filled with a wide variety of flowering plants will be more resistant to significant pest damage. A healthy diverse garden will also attract beneficial creatures, such as dragonflies, ladybugs, lacewings, syrphid flies, and "mini-wasps," which feed on pests.

ATTRACTING AND KEEPING BENEFICIAL INSECTS

- Reduce or eliminate the use of broad-spectrum pesticides in your garden. Bees and other beneficial insects are often far more sensitive to pesticides than the pests you might be trying to kill. Once pesticides eliminate the beneficial insects, pests are free to multiply without a natural check. As pest populations rise, you may be tempted to spray more frequently, but pesticides leave genetically resistant strains of pests behind, creating increasingly resistant pest populations. The harder it becomes to kill the pest, the more you'll need to

spray and the fewer natural enemies will have to help you out.

- Provide food and water for the adult forms of beneficial insects. Although many beneficial insects perform their pest control services only during an immature stage, the adult stage feeds on nectar and pollen. You can attract and keep a wide variety of beneficial insects in your garden by including flowering plants that are rich in pollen and nectar. The box on the back page lists a number of these "insectary" plants. Some adult beneficial insects also need water from dew, irrigation, or other sources to sustain them during dry periods.

CHOOSING THE RIGHT PLANT

One of the most important preventive steps in the pest management process is selecting appropriate plants for a particular location. Usually we choose plants for their beauty, but to minimize pest problems, consider other plant characteristics and the site when it will grow. It's easier to plant a compatible species for your site than to try to alter the growing conditions.

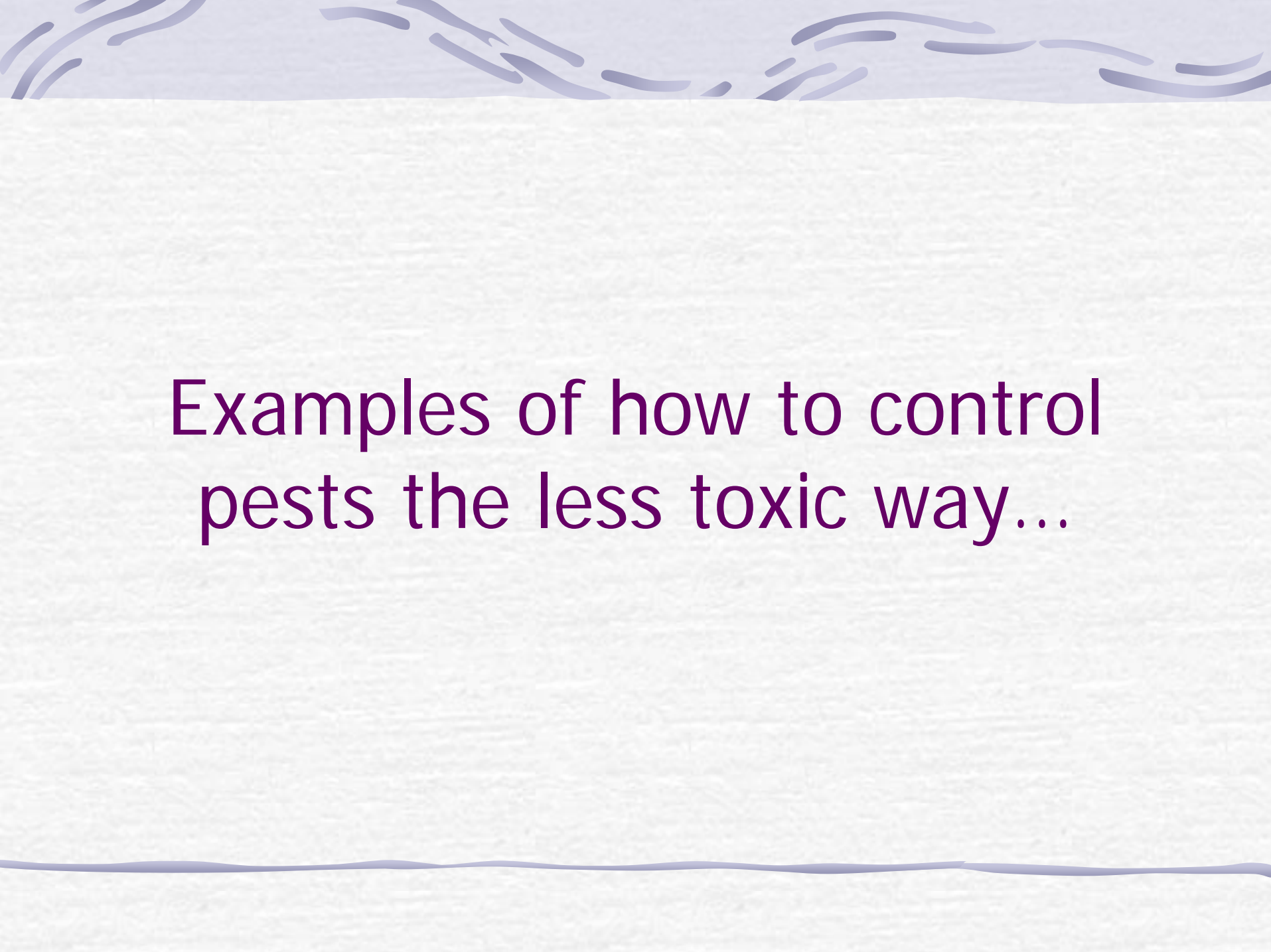
- Understand the soil conditions in your yard. Soil conditions must match the requirements of your plants. For example, some plants are

well adapted to arid or compacted soil or soil with poor drainage.

- Know the sun and shade characteristics of your garden. Consider times of day and different seasons.
- Know that watering requirements differ depending upon the soil and plant type.
- Select pest- and disease-resistant plants.
- Don't plant invasive species (ones not available in garden plants), and remove those growing on your property (see "Don't Plant a Pest!" brochure from Cal-IPC, www.cal-ipc.org).
- Plant a diversity of species. Include native plants and plants from other Mediterranean climates. This ensures that a single pest problem will not devastate your entire landscape.
- To attract and keep beneficial insects, include "insectary" plants in your landscape (see box on back).
- You can get help in choosing the right plants from California Certified Nursery Professionals, University of California Cooperative Extension Master Gardeners, Horticultural Consultants, ISA Certified Arborists (see the Yellow Pages index), California Invasive Plant Council, or local gardening clubs. Also, see the boxes recommended on the back side of this fact sheet.



Choose less toxic products for your home and garden. Look for this symbol before you buy.



Examples of how to control
pests the less toxic way...

Snails and Slugs



Physical Controls...



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Ants...



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Aphids...



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Biological Control: Beneficial Insects are your Allies



In Store Help for Gardeners



Resources

- ☛ Water Pollution Prevention
www.flowstobay.org
- ☛ IPM Websites: www.ourwaterourworld.org &
www.ipm.ucdavis.edu &
www.epa.gov/greenskapes
- ☛ Ask The Expert
- ☛ Bay-Friendly Gardening guidelines, and UC Statewide IPM Project books
- ☛ Fact sheets
- ☛ Less Toxic Product lists



SAN MATEO COUNTYWIDE Water Pollution Prevention Program



New Information

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Nullam a tellus non dui pretium rhoncus. Praesent ut nibh. Nulla et lorem.

[MORE...](#)



Community



Find all the information you need for both in the house and around the neighborhood.

Business



Access all regulations and forms water use in the county, as well as useful resource listings.

Municipalities



Access all important policy documents and links to state and federal information.

Calendar

**Wednesday
June 25** Aliquam erat volutpat. Proin consequat, leo vitae condimentum convallis, diam diam ullamcorper tellus, eu pulvinar est mi a justo.

**Friday
June 27** Nullam a tellus non dui pretium rhoncus. Praesent ut nibh. Nulla et lorem. Morbi ligula quam, gravida et, lacinia at.

**Monday
June 30** Eget commodo volutpat, tellus nulla rhoncus mi, sit amet volutpat leo mi sit amet enim.

[SEARCH](#)



Clean Water. Healthy Community.

Welcome to the San Mateo County Anti Water Pollution Website. Aliquam erat volutpat. Proin consequat, leo vitae condimentum convallis, diam diam ullamcorper tellus, eu pulvinar est mi a justo. Vivamus in est iaculis justo tincidunt posuere. Nullam a tellus non dui pretium rhoncus.

FEATURE TOPIC



Spring has Sprung in San Mateo County

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[MORE...](#)

