



Landscaping and landscape maintenance activities can be major contributors to water pollution. Poorly-functioning or poorly installed sprinklers may cause over-watering which allow soils, yard wastes, and garden chemicals to combine into an urban runoff mix that drains through streets, gutters, and storm drains before entering local creeks. Fertilizers, pesticides, and herbicides are washed off lawns and landscaped areas. These chemicals not only kill garden invaders, they also harm beneficial insects, poison fish and contaminate ground and surface water. Discharge of pollutants into the storm drainage system or surrounding water bodies is prohibited. Release of any 'non-stormwater' discharge is illegal.

Be a solution to water pollution. Help protect our creeks water supply by using these tips.

General Landscaping Tips

- Use temporary check dams or ditches to divert runoff away from storm drains.
- Prevent erosion by applying mulch or planting fast-growing annual and perennial grasses. These will shield and bind the soil.
- Do not dump soil, mulch, or other organic materials on to sidewalks, roads, parking areas, cul-de-sacs or other impervious areas where stormwater runoff can wash it into storm drains.
- Cover material piles with plastic prior to rain events.
- Pick up litter and other wastes regularly.
- Use mulch, bricks, flagstone, gravel or other porous surfaces for walkways, patios and driveways.



Garden & Lawn Maintenance

- Set sprinklers so they don't over-water. Use irrigation practices such as drip irrigation, soaker hoses, or micro-spray systems.
- Do not blow or rake leaves or grass clippings into the street, gutter, or storm drains. Collect and dispose of in garbage or compost.
- Use organic or non-toxic fertilizers.
- Do not over-fertilize and do not fertilize near ditches, streams or other water bodies.
- Store pesticides, fertilizers, and other chemicals in a covered area to prevent runoff.
- Use dry cleaning methods, such as sweeping, instead of washing materials from sidewalks and driveways.

Choose Pesticide Alternatives

(Chemicals are not the only solution!)

Biological Controls:

- Predatory insects (e.g. Green lacewings eat aphids)
- Bacterial insecticides (e.g. *Bacillus thuringiensis* kills caterpillars)

Mechanical and Physical Controls - Safe Substitutes for Pest Control:

- Hand pick obvious pests & eggs.
- Prune diseased or damaged plants and branches.
- **White Flies and Aphids** - Try using yellow sticky cards for flying pests.
- **Earwigs** - Put out shallow cups of vegetable oil, wheat bran or wheat germ to attract earwigs.
- **Snails and Slugs** - Overturn a clay pot with damp newspaper inside to attract snails and slugs. Slugs are also attracted to beer and you can use barriers, copper strips or wood ashes for snails and slugs.
- **Garden Aphids and Mites** - Mix 1 tablespoon of liquid soap and 1 cup of vegetable oil. Add 1 teaspoon of this mixture to a cup of water and spray. (May harm vegetable plants in the cabbage family.)
- **Caterpillars** - When caterpillars are eating, apply products containing *Bacillus thuringiensis* to leaves.
- **Ants** - Place boric acid dust or diatomaceous earth in problem areas, cracks and insect walkways. Be sure it is inaccessible to children and pets (it is a mild poison).

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Landscaping, Gardening, and Pest Control for Homeowners

Chemical Controls - Your last Resort:

Do not apply chemicals before a rainstorm!

- Use less toxic products such as: Dehydrating dusts (silica gel, diatomaceous earth, etc.), Insecticidal soaps, Boric acid powder, and Horticultural oils.
- Always follow directions on pesticide/fertilizer packaging. Do not exceed rates of application.
- Keep a spill kit to soak up leaks and spills. Dispose of in trash.
- Avoid weed-and-feed combination products. This often adds unnecessary herbicides to the landscape. Use spot-treatment for weeds.
- Use low-phosphorus or no-phosphorus fertilizer if possible. Low-phosphorus fertilizers have a nitrogen-to-phosphorus ratio of 5:1 or greater. Exceptions to the low-phosphorus recommendation are (1) new lawns (seed or sod); and (2) additional phosphorus as justified by soil nutrient test results.
- Wash equipment in an unpaved area and inspect frequently to prevent spills and leaks.



River Friendly Landscaping Practices:

- Use permeable paving on driveway and walkways to increase infiltration.
- Replace front lawns with diverse planting with many California native groundcovers, shrubs and trees.
- Use drip irrigation beds wherever possible to conserve water.
- Use a compost bin to recycle plant and kitchen debris.
- Take measures to defend against erosion.
- Mulch paths to keep soil covered.

Bad Practices



Sweep excess, do not wash down drain



Don't over fertilize



Less grass! More vegetative cover and a pond



Porous pavement instead of concrete!



Don't over water