Landscape Design & Water Quality

Create a landscape design that reduces pesticide and fertilizer runoff and conserves water. Good plant choices, proper site preparation, installation of "smart" irrigation equipment, and use of porous materials for walkways and other unplanted areas are key elements in an environmentally friendly landscape.

Install porous surfaces in unplanted areas.

- Use flagstone, interlocking pavers, or pervious concrete on walkways and patios instead of impermeable surfaces such as concrete and asphalt.
- Interlocking pavers for driveways or an interceptor drain at the bottom of the driveway collect runoff and divert water into your landscape.
- Consider gravel, organic mulches or other materials that allow water to soak into the ground in unplanted areas.
- Avoid using concrete, asphalt, compacted bare soil, or other impervious surfaces wherever possible.

Improve water absorption.

- Add organic matter, such as compost, and aerate regularly to reduce compaction.
- Use perforated drainage lines to allow water to filter into surrounding soils.
- Install gravel sumps or other percolation areas to keep water from collecting in unwanted areas.

Choose plants that conserve water, buffer runoff, and resist pest problems.

- Plant water-efficient plants, including many native species, to reduce irrigation. Some natives require little to no fertilizer or pest management.
- Use turfgrasses and pest-resistant plants best adapted to the local climate.
- Install dense plantings with fibrous root systems along landscape edges to reduce runoff and soil erosion.

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Create landscape features to collect runoff water.

- Incorporate long, shallow grassy depressions, known as swales, to hold large amounts of runoff from driveways, streets, or parking lots.
- Create low-lying areas in the garden to provide temporary storage for heavy runoff and allow sediment, water, and garden chemicals to soak into the ground. Establish plant species that can survive both wet and dryer conditions.
- Include trees to intercept rainfall.
- Use rain barrels to collect and store runoff from rooftops for irrigating plants.
- Add terrace walls or other features.

Install and properly operate irrigation systems and equipment.

- Check your irrigation system and if necessary, make adjustments; replace old and mismatched sprinklers with low-flow rotor heads.
- Consider the addition of a "smart" irrigation controller. These are designed to reduce excess irrigation by replacing only the amount of water lost through plant use and evaporation.
- Install drip systems or soaker hoses for trees, shrubs, and some ground covers.

Minimize the use of pesticides that pollute our waterways. Use nonchemical alternatives or less toxic pesticide products whenever possible. Read product labels carefully and follow instructions on proper use, storage, and disposal.

For more information about managing pests, contact your **University of California Cooperative Extension office** listed under the county government pages of your phone book or the UC IPM Web site at **www.ipm.ucdavis.edu**.

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What you use in your landscape affects our rivers and oceans!

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