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 any unplanted area.**
- **Avoid 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 rain and irrigation 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 also 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 associated 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 excessive 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.

– PROTECT YOUR WATER –

To eliminate runoff to storm drains and protect our creeks, rivers and the ocean, minimize the use of pesticides and follow proper use and disposal practices. Whenever possible, use non-chemical alternatives or less toxic pesticide products.

UC IPM
University of California Cooperative Extension

Learn more by contacting the **Sacramento UC Master Gardeners** at (916) 875-6913, Monday–Friday, 9 am to noon and 1–4 pm. For other pest information, visit the UC IPM web site at **www.ipm.ucdavis.edu.**

Master Gardener
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Water Boards

CALFED BAY-DELTA PROGRAM

University of California Cooperative Extension

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Learn more by contacting the **University of California Cooperative Extension Master Gardeners Orange County Hotline:** (714) 708-1646 or ucmastergardeners@yahoo.com. For other pest information visit the UCIPM web site **www.ipm.ucdavis.edu.**

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