

INFORMATION FOR DESIGNERS AND DEVELOPERS - PESTICIDE USE AND WATER QUALITY

Pesticides in the Landscape

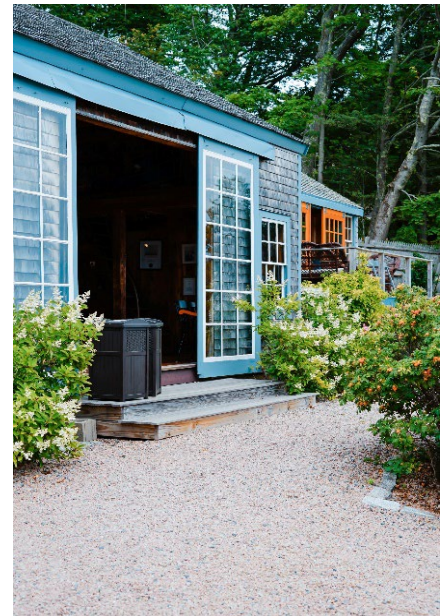
Unwanted insects in lawns, gardens, or structures can be a source of frustration and damage assets that property owners own and maintain. Some pests can also potentially transmit disease. In order to effectively prevent or remove pests, it is important to understand climate appropriate landscaping and practices, irrigation designs, pest attractants, how pests can enter a structure or garden, and what control is best for specific pests. Approaching pests in a preventative and proactive manner will save money, have a longer-lasting effect on pests, structures, and plants, and protect the environment.

Landscape and Irrigation Design to Prevent Pesticide Runoff

Proper planning and design of landscaping and irrigation around homes and businesses can help prevent pests and pesticide runoff into local waterbodies. Some [ways to reduce your landscaping irrigation needs and keep irrigation water onsite can be found here](#) and [here](#). Discover El Dorado County-specific tips by [using the UC Seasonal Landscape IPM Checklist](#), or by contacting the [Master Gardeners of El Dorado County](#) or the [El Dorado Chapter California Native Plant Society](#).

TAKE ACTION! Slow the flow by following the [University of California's Statewide Integrated Pest Management Program](#) recommendations for pesticide-smart landscape design:

- **Help water soak into the ground.**
 - Use stones, pavers, gravel, mulch, or other pervious materials that allow water to soak into the ground in areas where you don't have plants.
 - In designs, include organic material, like compost and mulch, as well as perforated drainage lines, to reduce areas of water pooling in landscaped areas.
- **Create landscape features to collect runoff water.**
 - Consider using native trees, rain gardens, terrace walls, rain barrels/cisterns, or swales (long, shallow, grassy depressions) to hold water within the landscaped area and allow it to soak into the ground rather than draining directly to our surface waterbodies.
 - Consider using river-friendly gardening approaches such as selecting appropriate plants, minimizing the need for chemical pesticides, and creating "hydrozones" by grouping plants according to water needs. Learn more about how to make your yard river-friendly by following these [River-Friendly Landscape Guidelines](#).
- **Install proper irrigation systems and equipment.**
 - Consider high efficiency irrigation systems that apply water to the root zone and uniformly and slowly to ground cover.
 - Prevent overspray onto impervious surfaces whenever possible.
 - Consider installing a "smart" irrigation controller to reduce overwatering.





Model Water Efficient Landscape Ordinance (MWELo)

On July 15, 2015, California approved revisions to the MWELo Ordinance, which promotes efficient water use in new and retrofitted landscapes. The Ordinance applies to new landscape projects equal to or greater than 500 square feet or rehabilitated landscape project greater than 2,500 square feet. Find out more about MWELo at the [California Department of Water Resources](#) and on the El Dorado County's Planning Services [website](#).

California Building Code (CBC) and Pyrethroid Pesticides

Although there are many different types of pesticides, one group of pesticides called *pyrethroids* is of particular concern because they are being found in our local waterways. Pyrethroid pesticides are primarily used for ants, cockroaches, and other insects. However, it takes them a long time to break down into less harmful components once they're in the environment, which means that they can cause unintended harm to many other types of beneficial insects (e.g., bees, ladybugs) and aquatic life. The CBC requires protection against subterranean termites during new building construction and currently provides multiple treatment options. If a pyrethroid is an active ingredient for a termiticide treatment, consider other treatment options that can address CBC requirements.

TAKE ACTION! Products that contain pyrethroids typically have active ingredients that end with the letters “-thrin.” When reading the pesticide label, look to see if any of the active ingredients include the following and consider other treatments.

- Permethrin
- Bifenthrin
- Cyfluthrin
- Beta-cyfluthrin
- Cypermethrin
- Deltamethrin
- Lambda-cyhalothrin
- Tralomethrin
- Esfenvalerate (an exception to the “-thrin” rule)

To learn more, visit [Our Water – Our World: Pesticides and Water Quality](#).



Sustainable Landscape Certification Programs

Certification programs targeted toward landscape and green building professionals are established locally and globally. These programs recognize products, practices, individuals, companies, and development projects that integrate sustainable landscape practices that conserve water and reduce waste and pollution. Examples of the certification programs are, but not limited to, [US EPA Water Sense](#), [ReScape](#), [LEED](#), and [Fish Friendly Farming](#).



Local Development Standards and Guidelines

El Dorado County has developed various standards and guidelines for future proposed projects. Although specific standards and guidelines can vary depending on a project's location, they include language about landscape maintenance, proper irrigation practices, and the inclusion or retention of native plants and materials, when possible. Those standards and guidelines can be found on the [County's Planning Division website](#).

The unincorporated portion of El Dorado County's West Slope is covered under a Phase II Small Municipal Separate Storm Sewer Systems (MS4) National Pollutant Discharge Elimination System (NPDES) Permit administered by the State Water Resources Control Board and the nine Regional Boards beneath it. The County currently implements a stormwater program to address the permit requirements, including education and outreach, public involvement and participation, illicit discharge and elimination (including non-incident runoff from landscaped areas), construction site runoff control, pollution prevention /good housekeeping, and post-construction stormwater management. Proposed projects subject to post-construction stormwater management requirements must submit documentation showing how the project will meet the treatment and mitigation requirements based on project type (i.e., Small Project, Regulated Project, and Hydromodification Project). Those guidelines can be found on the [County's Tahoe Planning and Stormwater Division website](#).

LEARN MORE!

Visit the UC Integrated Pest Management Program for [more resources on pesticide best practices](#).

For more information about how El Dorado County is working toward improving local water quality, please visit the [Tahoe Planning and Stormwater Management Homepage](#) or contact us at:

Phone: (530) 573-7906

Email: stormwater@edcgov.us