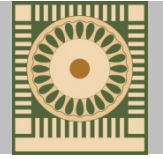


# CREATING WATER-CONSERVING GARDENS FOR YOUR HOME



## Water-Wise Landscaping Tips for Home Garden

### Healthy Soil for Healthy Garden

- ◆ **Build Healthy Soil**—Till your soils once or twice a year. Use hand tools instead of a rototiller. Amend soil with compost to improve soil condition to hold moisture better and reduce runoff. Compost is a high-quality soil conditioner and a slow-release fertilizer.
- ◆ **Home Composting**—Reduce your garbage bills and reduce green waste. Almost of 20% of the waste stream in Alameda County is plant and vegetable trimmings that could be recycled as home compost. Four main ingredients for composting are Browns (dry woody materials such as fallen leaves, woody clippings, pine needles, newspapers, etc), Greens (moist, nitrogen-rich materials such as fruit and vegetable trimmings, grass clippings, fresh weeds without seed heads, coffee grounds and filters, tea bags, etc), Air and Water.
- ◆ **Replenish Soil**—Spread compost in a layer no more than 2 inches thick to new and existing planting areas to ensure air and water can easily pass through every 6 months to a year.
- ◆ **Avoid Soil Compaction**—Create clearly defined paths and or raised beds to protect soil from compaction. Sheet mulch with cardboards to establish planting areas or pathways, or to control weeds while improving soil.
- ◆ **Add Natural Nitrogen**—Grow cover crops such as vetch, fava or field peas to enrich the soil.
- ◆ **Mulch Basic**—Use leaves, chipped wood from trees (do not use diseased trees), branches and garden clippings and pay less water bills. Mulch planting area heavily with minimum 3 inches to hold moisture in the ground.
- ◆ **Mulching around Plants**—keep 1-2 inches from the base of shrub trunks and 3-4 inches from the base of tree trunk to prevent rot or disease. Where tree is planted in the lawn, mulch to the tree's drip line.
- ◆ **Fertilizer**—Avoid using commercial fertilizers. Use compost, and use organic and slow-release fertilizers for more targeted fertilization.

☞ For compost class schedules and purchasing compost bins, visit [www.bayfriendly.org](http://www.bayfriendly.org).

### Choose Plants Wisely

- ◆ **Use locally adapted plants**—Hayward is located in Western Sunset Zone 17. Emphasize Mediterranean climate or California native plants. Try to use these plants for at least half of your garden area.
- ◆ **Micro-climate**—Pay attention to your garden's shady spots, dry patches, different soil conditions and sloping conditions. Place the right plants in the right place.
- ◆ **Avoid invasive species.** [www.cal-ipc.org](http://www.cal-ipc.org).
- ◆ **Plant Trees**—Deciduous trees will provide shade in the summer and allow the sun during winter. Evergreen trees will provide shades and windbreaks. Plant on the west and southwest side of the house to provide shades.
- ◆ **Watering Needs/Hydro-zoning**—Group plants with similar watering needs together.
- ◆ **Room for Plant Maturity in Mind**—Don't crowd too many plants to areas that plants need to be severe pruned or pulled out. Allow room for plants to mature and fill in. Minimize pruning by choosing plants that are appropriate for the space.

- ◆ **Select disease resistant varieties of plants.**
- ◆ **Include plants that attract beneficial insects in the landscape.**
- ◆ **Planting Season**—Avoid hot summer months for planting. More frequent watering will require for initial plant establishment. Take advantage of cooler months and pre-rainy months for good soaks.
- ◆ **Wildlife-Friendly**—Plant diverse plants and provide bird bath, water dish or a small pond.
- ◆ **Be Aware of Potential Hazard**—Control weeds and weed seed disbursement. Consider and control potential neighborhood hazards—including fire awareness, and rodent habitat.

☞ For plant references, visit [www.bayfriendly.org](http://www.bayfriendly.org), [www.toolbase.org/PDF/DesignGuides/Xeriscaping\\_TechSpec.pdf](http://www.toolbase.org/PDF/DesignGuides/Xeriscaping_TechSpec.pdf), [www.garden.org](http://www.garden.org), [bewaterwise.com/great\\_native.html](http://bewaterwise.com/great_native.html), and [www.bewaterwise.com/Gardensoft/browser01.aspx](http://www.bewaterwise.com/Gardensoft/browser01.aspx).

### Practice Smart Watering

- ◆ **Slow Watering**—Allow water to absorb into the soil before continuing to water. Don't let puddles to form on the soil surface. If using automatic irrigation system, schedule controllers to allow watering time into smaller intervals.
- ◆ **Watering Schedule**—Don't over water your plants. Turn your sprinklers off during rainy season (mid-November to late-February) except for container growing plants. Watering lawn 3 times a week is plenty. Water between 10 pm and 8 am. Water plants slower and longer for deep root growth. Plant water conserving plants. Water plants only, not the ground.
- ◆ **Rain/Moisture Sensor**—Consider connecting a rain/moisture sensor to irrigation controller that will turn off the watering schedule when raining. To learn more, visit [edis.ifas.ufl.edu/AE221](http://edis.ifas.ufl.edu/AE221); and to find suppliers near you, see the City's list of local landscaping contractors, services and suppliers.
- ◆ **Mulching for Water Loss Prevention**—Mulch reduces the amount of moisture that soil loses through evaporation and plant transpiration, moderates the soil temperature in both summer and winter, protects irrigation components and prevents weed growth.
- ◆ **Irrigation**—Drip irrigation has choices of above-ground, subsurface drip and mini-spray emitters. If you are hand watering, use soaker hoses to do the dripping and install a hose bib timer. Highly efficient sprinkler irrigation systems are available that deliver water slower and more uniformly. Check matched precipitation rate nozzles and rotor type sprinkler irrigation.
- ◆ **Less Lawn**—Replace lawn with water conserving plants and ground covers, and pay less water bills. If the lawn is a must-have, use semi-drought and heat-tolerant grass such as tall and dwarf tall fescue, or consider drought-tolerant groundcovers that would tolerate foot traffic.
- ◆ **Protect children and the Bay**—Don't let commercial fertilizers or herbicides wash off to the Bay. Use porous paving such as pavers, gravel or decomposed granite that allows water to soak back into soil and recharge ground water.
- ◆ **Use Permeable Paving**—Permeable paving material such as bricks, interlocking pavers and natural stones for patios, driveways or other hard surfaces will allow water to soak and recharge the groundwater.
- ◆ **Terrace steep slopes**—Reduce rainwater run-off and prevent erosion.

☞ For more information about irrigation, visit [www.h2ouse.org/action/index.cfm](http://www.h2ouse.org/action/index.cfm) and [www.irrigationtutorials.com/links/index.htm](http://www.irrigationtutorials.com/links/index.htm), and [www.urbanfarmerstore.com/index.html](http://www.urbanfarmerstore.com/index.html).

## Maintain Your Garden

- ◆ **Leak Detection**—Check for water leaks regularly.
- ◆ **Control Weeds**—Lay cardboard before placing mulch or planting and mulching.
- ◆ **Holistic Approach to Pest Management**—Take a more holistic approach. Learn to live with low levels of pests. Healthy plants growing in the right conditions are less likely to be attractive to pests. Consider hand-picking slugs, snails, caterpillars and potato beetles; spraying water for spider mites and aphids; setting traps for slugs and snails with a shallow cup of beer; or setting up barriers like copper strips, mesh coverings or raising planting beds. Consider using least-toxic chemical control in small quantities such as insecticidal soaps, horticultural oils, minerals, botanicals and microbial pesticides.
- ◆ **Pruning for Plant Health**—Strategic structural pruning improves plant health and can mean less pruning. Avoid shearing, topping or lopping, instead do thinning.
- ◆ **Grasscycling**—Mow the lawn when it is dry and leave the clippings on the lawn. The clippings quickly decompose, releasing nutrients back into the ground. Grasscycling fertilizes the soil and improves the health of the lawn. Benefits are less mowing time, cutting disposal costs, less fertilizer costs, reducing fertilizer runoff, conserving landfill space and saving water costs.
- ◆ **Lawn Care**—Allow soil to dry out between watering. A loss of shine or footprints remaining after being walked on indicates the time to water. Water deeply but infrequently to moisten the whole root zone. Choose natural organic or slow-release fertilizer.
- ◆ **Minimize Plant Waste**—Do not overplant, overwater or over-fertilize. Start composting.
- ◆ **Leave some areas of the garden somewhat untidy**—Let flowers go to seed to provide food of birds and leave dead leaves and stalks to shelter over-wintering insects.
- ◆ **Use hand or electric tools** instead of gas-powered tools.

☞ For composting and grasscycling, visit [www.stopwaste.org](http://www.stopwaste.org). For step by step to detect water leaks, visit [www.h2ouse.org/action/index.cfm](http://www.h2ouse.org/action/index.cfm). For integrated pest management, visit [www.birc.org/](http://www.birc.org/), [www.ipm.ucdavis.edu/](http://www.ipm.ucdavis.edu/), [www.ourwaterourworld.org](http://www.ourwaterourworld.org) or [www.pesticide.org/factsheets.html#alternatives](http://www.pesticide.org/factsheets.html#alternatives).

## Save Energy

- ◆ Place trees and shrubs to reduce energy requirements. For example, plant deciduous trees on the west side of the house to provide shade during the summer and allow sunlight to warm the house in the winter.
- ◆ Shade parking asphalt areas and air conditioners, if applicable.
- ◆ Use LED Lighting—LEDs last considerably longer than incandescent or fluorescent lighting. LEDs don't typically burn out like traditional lighting, but rather gradually decrease in light output. For more information, visit [www.toolbase.org/Technology-Inventory/Electrical-Electronics/white-LED-lighting](http://www.toolbase.org/Technology-Inventory/Electrical-Electronics/white-LED-lighting).
- ◆ Plan outdoor lighting that is dim or directed downwards to minimize light pollution.
- ◆ Select local garden products and suppliers.
- ◆ Select pumps for water features that are energy efficient or solar.
- ◆ Select pumps for water features that are solar powered or energy efficient.
- ◆ Include space in the garden for a clothesline.

## **Water Conservation Tips and Other Useful Informational Links:**

- [City of Hayward Tree Preservation Ordinance](#)
- [www.H2house.org](http://www.H2house.org)
- [www.bawsca.org](http://www.bawsca.org)
- California Urban Water Conservation Council: [www.cuwcc.org/mou/bmp3-residential.aspx](http://www.cuwcc.org/mou/bmp3-residential.aspx)
- California Integrated Waste management Board: [www.ciwmb.ca.gov/Organics](http://www.ciwmb.ca.gov/Organics)
- California Department of Water Resources: [www.water.ca.gov](http://www.water.ca.gov)
- Environmental Protection Agency's Water Efficiency Program: [www.epa.gov/owm/water-efficiency](http://www.epa.gov/owm/water-efficiency)
- [www.StopWaste.org](http://www.StopWaste.org)
- Xeriscape Gardening: [www.ciwmb.ca.gov/Organics/Xeriscaping/default.htm](http://www.ciwmb.ca.gov/Organics/Xeriscaping/default.htm)
- *A free "Water-Wise Gardening in the Bay Area" CD-ROM is available at the Permit Center located on the first floor in the City Hall at 777 B Street.*

## **Xeriscape-Water Efficient Landscaping Resources:**

- [California Irrigation Management Information System \(CIMIS\)](#) at the California Department of Water Resources
- [California Native Plant Society](#)
- [California Native Plant Link Exchange](#)
- [Family of Southern California Water Agencies](#)
- [Irrigation and Training Research Center](#) at California Polytechnic State University
- [Irrigation Water Needs of Landscape Plantings in California \(WUCOLS\)](#) and [www.owue.water.ca.gov/docs/wucols00.pdf](http://www.owue.water.ca.gov/docs/wucols00.pdf)
- [University of California Cooperative Extension County Offices](#)
- [Xeriscape](#) from Xeriscape Colorado, Inc.

## **Sustainable Landscaping Resources:**

- [Bay-Friendly Landscaping](#)
- [Bay-Friendly Qualified Landscape Professionals](#)
- [California Irrigation Management Information System](#)
- [California Friendly Garden Guide](#)
- [California Landscape Contractors Association](#)
- [Irrigation Water Needs of Landscape Plantings in California \(WUCOLS\)](#)
- [Northern California Turf and Landscape Council](#)
- [U.C. Statewide Integrated Pest Management Project](#)
- [U.S. EPA Composting Publications](#)
- [U.S. EPA GreenScapes](#)

## **Informational from California Integrated Waste Management**

- [A Landscaper's Guide To Mulch: Save Money, Control Weeds, and Create Healthy Landscapes](#)
- [Best Management Practices to Reduce Production of Organic Materials in Landscape Plantings](#)
- [Reusing Turfgrass Clippings to Improve Turfgrass Health and Performance in Central and Northern California](#)

*For more information on...* Water-efficient plants: [www.hayward-ca.gov/waterefficientplants.pdf](http://www.hayward-ca.gov/waterefficientplants.pdf)

...Landscaping contractors, services and suppliers: [www.hayward-ca.gov/supplierslist.pdf](http://www.hayward-ca.gov/supplierslist.pdf)