

## **Emeryville Water Efficient Landscape Prescriptive Requirements for Smaller Landscapes**

New landscaping from 500 square feet and up to, but not including, 2,500 square feet of landscape area shall comply with the following requirements, as referred to in Section 9-4.70.3 of the Emeryville Municipal Code, unless the applicant opts to comply with the performance requirements for larger landscapes. Any project with a landscape area less than 2,500 square feet that meets the landscape water requirement entirely with graywater, rainwater captured on site, or both, is subject only to the sections B and C of these requirements. Applications for projects that include new landscapes must include a project information form.

### **A. Plants**

1. For residential areas, install climate adapted plants that require occasional, little or no summer water (average WUCOLS plant factor 0.3) for 75% of the plant area excluding edibles and areas using recycled water. For non-residential areas, install climate adapted plants that require occasional, little or no summer water (average WUCOLS plant factor 0.3) for 100% of the plant area excluding edibles and areas using recycled water. ([http://ucanr.edu/sites/WUCOLS/Plant\\_Search](http://ucanr.edu/sites/WUCOLS/Plant_Search) → North Central Coast)
2. Those species identified by the California Invasive Plant Council's "Don't Plant a Pest! San Francisco Bay Area" and "Don't Plant a Pest! Trees in California" brochures shall not be installed.
3. Turf shall not exceed 25% of the landscaped area in residential areas, and there shall be no turf in non-residential areas, with recreational areas exempted. Exceptions may be granted when using drought-tolerant grasses requiring limited irrigation and mowing or for grassy swales designed and maintained to treat stormwater runoff.
4. Turf shall not be planted on sloped areas which exceed a slope of 1 foot vertical elevation change for every 4 feet horizontal length.
5. Turf is prohibited in parkways less than 10 feet wide, unless the parkway is adjacent to a parking strip and used to enter and exit vehicles. Any turf in parkways must be irrigated by subsurface irrigation or by other technology that creates no overspray or irrigation runoff.

### **B. Amendments and Mulch**

1. At least 6 cubic yards of compost, with a composition according to City standards or a City-approved soil report recommendation, per 1,000 square feet shall be incorporated into the top 6 inches of soil.
2. A minimum 3-inch layer of mulch shall be applied on all exposed soil surfaces of planting areas except in turf areas, areas receiving closely spaced plugs as a lawn alternative, areas with creeping or rooting ground covers, or direct seeding applications where mulch is contraindicated. Nonporous material shall not be placed under the mulch.
3. Required trees shall have adequate rootable soil volume (600 cubic feet for small trees, 900 cubic feet for medium-size trees, and 1,200 cubic feet for large trees) and good drainage. Tree sizes refer to sizes of canopy at maturity: small 15-24' wide and 20' tall, medium 25-34' wide and 35' tall, large 35'+ wide.

### **C. Irrigation**

1. Automatic irrigation controllers are required and must use evapotranspiration or soil moisture sensor data and utilize a rain sensor.
2. Irrigation controllers shall be of a type which does not lose programming data in the event the primary power source is interrupted.
3. Pressure regulators shall be installed on the irrigation system to ensure the dynamic pressure of the system is within the manufacturer's recommended pressure range.
4. Manual shut-off valves (such as a gate valve, ball valve, or butterfly valve) shall be installed as close as possible to the point of connection to the water supply.
5. All irrigation emission devices must meet the requirements set in the American National Standards Institute (ANSI) standard, ASABE/ICC 802-2014. "Landscape Irrigation Sprinkler and Emitter Standard." All sprinkler heads installed in the landscape must document a distribution uniformity low quarter of 0.65 or higher using the protocol defined in ASABE/ICCC 802-2014.

6. Areas less than 10 feet in width in any direction shall be irrigated with subsurface irrigation or other means that produces no irrigation runoff or overspray.
7. For non-residential projects with landscape areas of 1,000 square feet or more, a private submeter to measure landscape water use shall be installed.

## **Definitions**

**automatic controller** An automatic timing device used to remotely control valves that operate an irrigation system, using either evapotranspiration (weather-based) or soil moisture data.

**compost** The safe and stable product of controlled biological decomposition of organic materials that is beneficial to plant growth.

**flow sensor** An inline device installed at the supply point of the irrigation system that produces a repeatable signal proportional to flow rate. A combination flow sensor/controller may function as a water meter or submeter.

**graywater** Untreated waste water which has not come into contact with toilet, food, or chemical waste. Graywater includes used water from bathtubs, showers, bathroom sinks, clothes washing machines and laundry tubs. It does not include waste water from kitchen sinks, photo lab sinks, dishwashers or laundry water from soiled diapers.

**irrigation runoff** Applied water which is not absorbed by the soil or landscape to which it is applied and flows from the landscape area. For example, runoff may result from water that is applied at too great a rate (application rate exceeds infiltration rate) or where there is a slope.

**mulch** Any organic material such as leaves, arbor or wood chips, recycled wood waste, straw, compost, or inorganic mineral materials such as rocks, gravel, and decomposed granite left loose and applied to the soil surface for the beneficial purposes of reducing evaporation, suppressing weeds, moderating soil temperature, and preventing soil erosion.

**overspray** Irrigation water which is delivered beyond the target area.

**recreational area** Area dedicated to active play, recreation or public assembly, such as a park, sports field, picnic ground, pool, spa, amphitheater, or informal play area where turf provides a play surface.

**rehabilitated landscape** Any re-landscaping project in which the modified area was previously planted and the modified landscape area is equal to or greater than 2,500 square feet. .

**rootable soil volume** The volume of soil in and around tree wells and planting islands that tree roots can easily utilize.

**soil moisture sensor** A device that measures the amount of water in the soil. The device may also suspend or initiate irrigation.

**sprinkler head** A device which delivers water through a nozzle.

**turf** A ground cover surface of mowed grass. Annual bluegrass, Perennial ryegrass, Red fescue, and Tall fescue are cool-season grasses. Kikuyugrass, Seashore Paspalum, St. Augustinegrass, Zoysiagrass, and Buffalo grass are warm-season grasses.

**valve** A device used to control the flow of water in the irrigation system.