

Why Garden with Natives?

CA natives are adapted to their local climate, water availability and soil. Therefore, they generally require less maintenance (water and fertilizer) than traditional landscape plants.

Natives attract 10 to 50 times as many wildlife species as nonnatives! Natives blend the home landscape with the surrounding natural environment and provide a stopping point for wildlife in the urban setting.

California native plants are unique and diverse. California has the greatest number of endemic plants of any state in the U.S.! Approximately one third of native California plants are classified as rare, endangered or threatened. Adopting them in your landscape helps preserve these treasures.

General Garden Maintenance

Optimal planting time is in the fall and early spring when the soil is cool and rains have begun.

Native plants generally do not require fertilizers. However, depending on the condition of your soil, an organic soil amendment or mycorrhizal inoculants may be recommended to enhance the soil and improve plant health.

Native plants will require water regularly until they have established. Once established, little watering is required.



Vegetated Water Quality Swales: Grass Swales & Bioswales

Vegetated water quality swales are broad, shallow channels designed to convey, filter, and infiltrate stormwater runoff. Depending upon the geometry of land available, a swale may have a meandering or almost straight channel alignment. A meandering swale geometry maximizes the time water spends in the swale, which aids the trapping of pollutants and silt.

Grass swales are vegetated with native perennial grass species along the bottom and sides of the channel. The grass vegetation on the channel sides is designed to grow at a height above the maximum stormwater volume.

Bioswales are modified vegetated swales that use bioretention media beneath the swale to improve water quality, reduce runoff volume, and peak runoff rate. The bioretention media is a designed soil composed on 50% sand, 30% loam soil and 20% shredded hardwood mulch. Bioswales perform the same functions as traditional grassed swales, however they have a greater capacity to provide water retention, infiltration, and nutrient and pollutant removal. Infiltration may be further enhanced by adding gravel or other permeable material below the bioretention media. Diverse native plant species are used in the channel as an alternative to grass.

Vegetated water quality swales are appropriate for use in residential, commercial and industrial areas. They can be used in conjunction with other storm water and sediment capturing devices.

Typical **applications** include receiving channels for sediment basin discharge water or buffers to natural areas and streams. However, they should not be located where the site is not stabilized, as large quantities of sediment will rapidly diminish their capacity. Subsurface drains are recommended in areas with low subsoil permeability (e.g. compacted or clay soils) or shallow soil profiles. Drains should tie into an adequate conveyance system.

Plant Suggestions

Grass Swale Species

Danthonia californica - California Oat Grass
Deschampsia caespitosa - Tufted Hair Grass
Festuca rubra - Red Fescue
Hordeum brachyantherum - Meadow barley
Leersia oryzoides - Rice Cutgrass
Leymus triticoides - Creeping Wildrye

Bioswale Species

Aster chilensis - California Aster
Carex nudata - Torrents Sedge
Carex obnupta - Coast Sedge
Equisetum laevigatum - Horsetail
Juncus balticus - Wire Rush
Juncus effusus - Pacific Rush
Juncus phaeocephalus - Brown-headed Rush
Juncus xiphioides - Iris-leaf Rush
Mimulus guttatus - Yellow Monkeyflower
Potentilla anserina - Pacific Silverweed
Sisyrinchium californicum - Golden-eyed Grass

Bioswale Maintenance

Vegetated water quality swales should be inspected regularly to assure that there are no blockages in the channel, that there is not excessive sediment buildup, and that there is a dense vegetative cover. Maintenance activities should include periodic mowing (with grass never cut shorter than the design flow depth), clearing of debris and blockages, and sediment removal. Also bare areas should be replanted or seeded as required on an annual basis.

Potential LEED Credits for Vegetated Water Quality Swales

Sustainable Sites (SS) Credit 5.1: Protect & Restore Habitat - 1 pt
SS Credit 5.2: Site Development: Maximize Open Space - 1 pt
SS Credit 6.1: Stormwater Design: Quantity Control - 1 pt
SS Credit 6.2: Stormwater Design: Quality Control - 1 pt
Water Efficiency (WE) - Water Efficient Landscaping - 1-2 Pts
Innovation & Design Process (ID) - 1-4 Pts

