Factors that affect water needs

Type of plant

Even among California native plants, water needs vary greatly. For example, western sycamores and alders grow along rivers. They will require year around water. Coast live oaks grow on drier land and prefer dry summers.

Age of plant

Young plants require extra water while adjusting to the change from nursery to garden conditions. Water young plants more often, extending the period between irrigation as the plants mature.

Soil

Sandy soil saturates and dries more rapidly than heavier soils, so irrigation for it should be more often and for shorter periods. Poorly drained, heavy soil may need to be watered in short intervals for water to penetrate soil.

Mulch

Mulch generally reduces water loss due to evaporation at the surface. Care must be taken to ensure that water penetrates the soil beneath the mulch.

Exposure

Amount of sun and when it occurs both impact water needs. For example, plants on the west side of buildings that receive late afternoon sun will be hotter and drier than those located on the east that are bathed in morning sun and shaded in the afternoon.

Time of year

Seasonal variations in rainfall, sunlight, and temperature impact water needs. The presence of buildings and other structures interacts with seasonal changes so, for example, a garden on the north side of a building may be full sun in summer and mostly shade in winter.

Climate

Inland, coastal, foothill, high desert, and low desert areas of Southern California have different climates. There is also variation in climate in smaller geographic areas. Gardens on a block near the coast may experience haze and fog, while nearby houses bask in full sun most of the day.

Microclimate

There are also climatic variations within a yard. Lower areas can be sinks for cooler air, while west-facing walls can experience extreme heat.

Weather events

Young plants and some established plants will require extra irrigation to withstand extreme weather events such as Santa Ana winds or frost.

Neighboring plants

Plants growing under trees or surrounded by lawn will have to compete for water and nutrients. The garden is ever changing and the water needs of plants will change as they and their neighbors grow and change.

Irrigation

Irrigation efficiency influences how often and how much is needed. Half of the water applied can be lost if overhead irrigation takes place in hot, windy conditions, or if sprinkler heads are poorly adjusted or broken. Type of water delivery - drip, overhead, rotor, spray - is another important factor.

Neighbor's irrigation

Runoff, drift, or underground flow of water from a neighbor's garden can alter available water and should be taken into account for both plant selection and ongoing watering practices.