PLANT PROFILE DEFINITIONS

The definitions provided below relate to some but not all of the categories and terms found on the Plant Profiles. For more information, refer to the **Resources** document within the **Support Materials** section of the Eco-Friendly Landscape Design Plans for The New California Landscape.

This information is intended to assist in the efficient use, management, and protection of our natural resources, especially water, for eco-friendly landscapes. The information presented is provided as a public service and is not a substitute for the exercise of sound judgment. The listing of websites, publications, organizations, companies, and other information is not to be considered an endorsement or recommendation.

PLANT CATEGORIES

Arboretum All-Stars - Plants recommended by the horticultural staff of the UC Davis Arboretum. They thrive in California's Mediterranean-type climate and have qualities that make them appropriate choices for sustainable home gardens. For more information about the UC Davis Arboretum All-Stars Program, visit www.arboretum.ucdavis.edu.

Groundcovers - Low-growing plants that can spread to cover a wide area.

Ornamental Grasses - As opposed to turfgrass used for lawns, are grasses that are not mowed but allowed to grow to their natural form and are used in the landscape in the same way as perennials or other ornamental plants.

Perennials - Long-lived, soft-stemmed plants that do not form woody branches. This category includes ornamental grasses, ferns, succulents, bulbs, and other flowering plants. Perennials survive winter conditions even if their above-ground growth dies back.

Shrubs - Woody plants that stay below 15 feet tall. Shrubs tend to have deeper root systems than perennials and many have showy flowers. They form the foundation and structure of a low-water use garden.

Trees - Woody plants that have a single trunk or multiple trunks that grow to 15 feet tall or more. Trees less than 25 feet tall are considered power-line friendly.

Vines - A weak-stemmed plant that derives its support from climbing, twining, or creeping along a surface such as fences or other structures. Many vines can also grow on the ground to form a groundcover.

PLANT TYPES

Evergreen – Plants that have foliage that persists and retains its color throughout the year, rather than changing color according to the seasons.

Semi-evergreen – Plants that retain at least some foliage well into winter, shedding leaves in cold climates but not where winters are mild.

Deciduous - Indicates a plant that sheds (or drops) its foliage at the end of the growing season. This term is used primarily in reference to trees and shrubs.

Herbaceous plants - Plants with non-woody stems. Their above-ground growth usually dies back in winter.

Summer dormant – Plants that may keep or lose their leaves in summer, such as, the *Aesculus californica*, California Buckeye, which responds to heat or drought stress by dropping its leaves.

Woody - Plants that have hard stems (a rigid outer structure) and that have buds that survive above ground in winter. For instance, trees are woody plants.

MEDICINAL USES / EDIBLE

Plants identified in this category are commonly sold for aromatic, culinary, edible, and/or medicinal uses. The identification of these plants is not to be considered as a recommendation, diagnosis, or prescription. For more information on these useful plants, please refer to a licensed practitioner or other trustworthy resource.

EXPOSURE

Dry Shade – Plants that can tolerate shade from tree canopies, such as Oak trees, and dry soil conditions.

Full sun - Plant requires direct sunlight for most of the day.

Full sun or part/partial shade - Plant will do well in direct sunlight for most of the day or shade for part of the day. Plant can tolerate exposure to hot afternoon sun.

Light shade – Plant receives full shade for 2-3 hours during mid-day, which can occur where trees provide 25% canopy closure.

Part shade - Plant will do well in dappled shade. Plant will tolerate sun exposure in the morning but must be protected from hot afternoon sun. Trees provide up to 50% canopy closure.

Part shade or shade - Plant will do well in dappled/filtered shade or full shade. Plant will tolerate some sun exposure in the morning but must be protected from hot afternoon sun.

Shade - Plant requires full shade. Plant will do best if it never gets direct sun exposure during the hot summer months. Complete canopy closure.

SOIL

Adaptable - A plant that will tolerate a range of soil types.

Heavy - A soil with a relatively high proportion of clay; typically poorly drained unless moderated by slope.

Well drained - Soils that drain well after water application. Some soils, such as rocky or sandy types, drain well based on their respective physical characteristics. Other soils, such as clay and silt-clay types, are normally poorly drained on level ground but may be considered well drained on slopes, in raised beds, or planters.

WATER REQUIREMENTS

Suggested water requirements refer to plants that are *established.* (Refer to definition of the term "established" below.)

Definition of water needs according to the UC Davis Arboretum All-Stars Program: (For more information, visit www.arboretum.ucdavis.edu.)

Very Low - Water deeply once a month during the dry season

Low - Water deeply every two weeks during the dry season

Moderate - Water deeply once a week during the dry season

Definition of water needs according to "California Native Plants for the Garden" by Carol Bornstein, David Fross, and Bart O'Brien:

- Regular (high) water: Every 3 to 7 days
- Moderate water: Every 10 to 14 days
- Occasional water: Every 3 to 4 weeks
- Infrequent water: Every 4 to 6 weeks

Drought tolerant: Plants survive on rainfall once established except during periods of prolonged winter drought.

Drought resistant/tolerant - As a definition, this term varies by location. In general, it means the plant can survive, once established, on natural precipitation with infrequent watering or that it can withstand periods of time with low water and high heat conditions. A drought-tolerant plant is one that can tolerate drought conditions, can recover from repeated wilting, and have characteristics such as waxy leaf surfaces and deep, fibrous root system. The term drought resistant/tolerant is often used interchangeably with the term "low water-use" plants; however, these terms do not have the same definition.

Established – Depending on the source, there are a variety of definitions as to when a plant is established:

- When the plant is two to three times the size it was when planted.
- After the plant has been in the garden for two to three growing seasons.
- After one to two years.
- Trees require from two to five years to become established.

The term "established" as defined in the WUCOLS IV: Water needs are determined for plants that have become "established" in the landscape. "Established" means that substantial root development has occurred in the soil adjacent to the root ball; that is, the landscape soil becomes the principal reservoir of water rather than the root ball soil. The time for establishment varies among species and with soil conditions, but it generally occurs by the second or third year after planting. After establishment, roots of trees, shrubs, groundcovers, etc., become intertwined in the soil, creating a common root. (Refer to the *WUCOLS IV* website for more information, http://ucanr.org/sites/wucols/.)

WUCOLS WATER NEEDS

Water Use Classification of Landscape Species, **A Guide to Estimating Irrigation Water Needs of Landscape Plantings in California**, WUCOLS III. For more information refer to the Department of Water Resources website http://www.water.ca.gov/wateruseefficiency/landscape/. Also refer to the *WUCOLS IV* website for more information about plant water needs at http://ucanr.org/sites/wucols/.

WUCOLS Water Needs Abbreviations:

H	High
M	Moderate
L	Low
VL	Very Low
/	Inappropriate (for region)
?	Unknown (for region)

WUCOLS Regions (throughout California):

1	North Central Coastal
2	Central Valley (Sacramento Region)
3	South Coastal
4	South Inland Valley
5	High and Intermediate Desert
6	Low Desert

Example - The following is an example of the water needs by region for two plants according to WUCOLS:

Type	**Botanical Name**	**Common Name**	**Category of Water Need by Region**					
			1	**2**	**3**	**4**	**5**	**6**
Tree/Shrub	*Cercis occidentalis*	Western Redbud	VL	VL	L	L	/	/
Tree	*Rhus lancea*	African Sumac	L	L	L	L	M	M