# Appendix F: Water Efficient Landscape Guidelines

# CALIFORNIA WATER SERVICE COMPANY
# LANDSCAPE GUIDELINES

The Water Conservation Landscape Guide is intended to apply to all Cal Water landscape projects. As Cal Water has been active in promoting water conserving landscaping to its customers, so should those same principles be adopted and applied within, to company projects involving landscape installations and renovations.

Although these guidelines will apply in most cases, some flexibility may be allowed to accommodate individual site constraints and changes in technology that are rapidly developing in the landscape industry.

Whether your landscape project is put out to bid or performed by district personnel, landscape designs should include the following considerations:

I. Design - Addresses site planning considerations, plant material selection, and earthwork/mounding as they impact water use on-site.

II. Soils - Specifies soil testing (if needed), preparation and amendment requirements to make the best use of the water delivered to the plant material. Soil preparation is an important element in assuring the success of drought-tolerant, low water use planting designs.

III. Irrigation Management - Addresses the key irrigation considerations which produce a design capable of delivering the amount of water appropriate to the plant materials in the most efficient way possible. In addition, this section addresses concerns relative to the long-term operation and maintenance of the irrigation systems by establishing long-term operational schedules.

# WATER CONSERVATION LANDSCAPE GUIDELINES

## I. DESIGN

a) Site Planning - Landscape planting is required for erosion control, fire clearance zones, screening, solar control, etc., as well as for design continuity and aesthetic enhancement of the individual site and its surrounding area. If feasible, the design may incorporate existing, established on-site plant material into the new design.

b) Plant Material Selection - Drought tolerant plant materials (xeriscape) should be provided in all projects. Plant materials shal1 he capable of healthy growth in their specific location and capable of producing the desired effect. Plant materials should be grouped by water needs for maximum irrigation efficiency. Little or no turf should be included in the design. If turf is included, a drought tolerant species should be considered.

c) Earthwork - Lawn should be discouraged on bermed areas. Terracing of large mounds or slope areas should be reviewed as a design possibility to reduce irrigation water runoff.

## II. SOILS

a) A determination of soil type, depth, and uniformity present on-site should be made at which time soil amendment consistent with findings should be addressed. Decomposed organic matter or polymer water retention products should be incorporated in the soil to improve water infiltration and retention on all sites.

b) Two or three inches of organic mulch should be added on top of non-turf planted areas to reduce evaporation, moderate soil temperatures, and discourage weeds. Sheet plastic and other non-porous materials should not be placed under the mulch.

WATER CONSERVATION LANDSCAPE GUIDELINES (cont)

## III. IRRIGATION MANAGEMENT

a) All irrigation systems should be designed to avoid runoff, low head drainage, overspray, or other similar conditions where water flows onto adjacent property, non-irrigated areas, walks, roadways, or structures.

b) The design of the irrigation system should take into account the soil's water holding capacity to determine appropriate water application rates, timing, and quantities.

c) All landscaped areas should be serviced by an automatic irrigation system operated by a multiple programmable controller. Irrigation plans and specifications should include watering schedules for each zone area and valve system based on the actual needs of the plant material and the zone climatic conditions. Schedules should call for early morning watering.

d) The irrigation design should utilize separate valve systems for high water use and low water use areas and sprinkler headtypes (spray heads, bubblers, drip emitters, etc.) capable of emitting the amount of water appropriate to the plant material zone.

e) Adjustments in watering schedules should be made for the establishment of new plant materials, maintenance of plant material after the initial establishment period, and weather changes.

f) Irrigation plans should include provisions for the long-term maintenance of the systems including periodic inspection to assure long-term water use efficiency.