

**Momentum MoVal Initiative 4.5.2**  
Develop Renewable Landscape Designs  
For Drought Tolerance and Irrigation Self-Sufficiency

**SUMMARY**

Landscaping is an important element in any community, providing identity and character. It also offers other benefits to include an enriched quality of life, improved environmental conditions, and enhanced property values.

To ensure development of the community as envisioned in the General Plan, the City requires the installation of landscape and irrigation as part of any development project and applicable City Capital Improvement Plan projects. The City's Municipal Code (Chapter 9.17) outlines and defines the requirements for the installation of landscaping and irrigation. It also incorporates the State of California Model Water Efficient Landscape Ordinance (Title 23 of the California Code of Regulations § 492.7 - Irrigation Design Plan) and Eastern Municipal Water District's (EMWD) requirements. Both the State Code and EMWD's requirements have been updated in recent years in response to the latest drought. Detailed and interactive resources related to drought tolerant (water-wise) plant material and water efficient irrigation are now more readily available.

The City relies on the framework established by the Municipal Code, the California Department of Water Resources, and EMWD when reviewing and approving landscape and irrigation plans. These resources, in addition to a number of resources from similarly aligned organizations, provide landscape designs for, or the elements to support, drought tolerance and irrigation self-sufficiency, satisfying the Initiative.

**BACKGROUND**

California has experienced significant periods of drought over the years and various forms of measures have been implemented to aid in water conservation. Most recently, on January 17, 2014, the Governor declared a State of Emergency due to severe drought conditions.

On April 1, 2015, Executive Order B-19-25 ("EO") was issued to emphasize the importance of water conservation efforts. Specifically, the Governor's EO directed the California Department of Water Resources to update the State's Model Efficient Landscape Ordinance. That update occurred on September 2015 and included, among other things, developing more efficient irrigation systems and limiting the portion of landscapes that can be covered in turf.

Although the Governor ended the drought emergency in April 2017, the importance of continued water conservation efforts was stressed. With the likelihood that California will continue to see

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periods of drought, depletion of groundwater supplies, and an increased demand related to population growth, certain restrictions and practices to strengthen drought resilience and preserve water supplies remain in place. Ensuring landscape development meets the criteria of drought tolerance and irrigation self-sufficiency is vital not only to the conservation of water resources but also to the preservation of the landscaping, itself.

**DISCUSSION**

Because of the most recent drought crisis and in response to the call for continued water conservation measures, selection of proper plant material and irrigation is a critical component of any successful landscaping project. Planting California native plants can help save water, reduce maintenance and pesticide use, and support vital ecosystems. In response to the latest drought, water agencies and landscape professionals have placed a greater emphasis on updating resources to assist in ensuring the landscape of California is designed to withstand the next drought.

Metropolitan Water District (MWD) provides the following guidance: *A drought-tolerant (or water-wise) landscape is one that allows for a beautiful healthy landscape with drought-tolerant (native plants) and minimal supplemental irrigation with little to no adverse runoff. MWD outlines six basic principles of a water-wise landscape: 1) limiting turf, 2) selecting appropriate plant material based on the climate, 3) knowing the soil and selecting the right kind of plants, 4) installing an efficient irrigation system, 5) using mulch wherever possible to conserve water by reducing moisture evaporation and helping the soil absorb and store water, and 6) proper maintenance.*

With the heightened awareness of water conservation and preservation of a community's landscape, many agencies and organizations have since developed or updated resources to guide the development community and community members in designing drought tolerant and water efficient landscapes, with specific reference to the principles outlined by MWD.

**RECOMMENDATIONS**

With implementation of the following recommendations, the Initiative will be satisfied:

- Continue to use the Riverside County's Guide to California Friendly Landscape (attached) as the primary reference.

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- Encourage the use of the California Native Plant Society’s interactive plant selection tool to identify ideal native plants based on the region (see hyperlink below).
- Provide careful consideration to alternative landscape and irrigation development plans as new advances in the industry become available.
- Leverage resources developed by government agencies and horticultural organizations to sustain the next drought. Hyperlinks to several examples are provided below.
- Complete, continual, and thoughtful reviews of the Municipal Code to ensure it complies with updates from the California Department of Water Resources and water districts.

**RESOURCES**

Moreno Valley Landscape and Water Efficiency Requirements

[https://qcode.us/codes/morenovalley/view.php?topic=9-9\\_17-9\\_17\\_030&frames=on](https://qcode.us/codes/morenovalley/view.php?topic=9-9_17-9_17_030&frames=on)

State of California Model Water Efficient Landscape Ordinance

[https://govt.westlaw.com/calregs/Document/I8ADC2B5DF37C417C9207950C891481ED?viewType=FullText&originationContext=documenttoc&transitionType=DocumentItem&contextData=\(sc.Default\)](https://govt.westlaw.com/calregs/Document/I8ADC2B5DF37C417C9207950C891481ED?viewType=FullText&originationContext=documenttoc&transitionType=DocumentItem&contextData=(sc.Default))

California Department of Water Resources Landscape Guidance

<https://water.ca.gov/Water-Basics/Conservation-Tips/Plant-and-Landscape-Guide>

Riverside County’s Guide to California Friendly Landscaping

<https://planning.rctlma.org/Portals/14/devproc/landscpe/guidelines.pdf>

Riverside County’s Guide to California Friendly Landscaping Plant List

[https://rctlma.org/Portals/7/documents/landscaping\\_guidelines/comprehensive\\_plant\\_list.pdf](https://rctlma.org/Portals/7/documents/landscaping_guidelines/comprehensive_plant_list.pdf)

EMWD’s WaterWise Landscape Toolbox

<https://www.emwd.org/waterwise-landscape-toolbox>

MWD’s California Friendly Landscaping Guide

<http://www.bewaterwise.com/assets/ca-friendly-maintenance-book.pdf>

MWD’s Planting Guide for Riverside County

[http://www.bewaterwise.com/assets/mwd\\_plantguide-screen\\_riverside\\_4.16.pdf](http://www.bewaterwise.com/assets/mwd_plantguide-screen_riverside_4.16.pdf)

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MWD Plant Research Tool

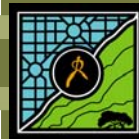
<http://www.bewaterwise.com/Gardensoft/planner.aspx>

California Native Plant Society's Plant Research Tool

[https://calscape.org/loc-33.9299,-117.2404\(24189%20Atwood%20Ave,%20Moreno%20Valley,%20CA\)/?&poploc=1](https://calscape.org/loc-33.9299,-117.2404(24189%20Atwood%20Ave,%20Moreno%20Valley,%20CA)/?&poploc=1)

**Attachment**

**Riverside County's Guide to California Friendly Landscaping**



# County of Riverside Guide to California Friendly Landscaping



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## **PLANNING DEPARTMENT**

**Ron Goldman, Planning Director**

**December 2009**



**For more information concerning this Landscaping Guide or the Riverside County Landscape Program, please contact:**

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**See also: <http://www.rctlma.org/planning/content/devproc/landsape/landscape.html>**



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California Friendly® is a registered trademark of the Metropolitan Water District of Southern California. Learn more about water conservation and landscape rebate programs at: [www.bewaterwise.com](http://www.bewaterwise.com)

## 1. Why Do We Need This Guide?

The purpose of the Riverside County Guide to California Friendly Landscaping (Landscaping Guide) is to present practical standards for landscape and irrigation design for projects within Riverside County. Additionally, the Landscaping Guide is designed to assist landscape architects, irrigation designers, contractors, planners, and the public in the selection of plant materials and irrigation methods that meet the objectives of County Ordinance No. 859 and Ordinance No. 348. In order to conserve water in the drought prone state of California, legislation such as AB 325 and AB 1881 mandates the practice of water conservation.

Riverside County's commitment to water conservation is exemplified in the adoption of standards and the implementation of guidelines which result in a reduction of landscape related water usage County-wide. It is the County's goal to reduce landscape related water usage by approximately thirty percent (30%) per site, through implementation of this Landscaping Guide. To meet this goal, Planting Plans and Irrigation Plans shall be prepared using the Water Budget Formula described in Section 9 of this document.



Water Efficient Landscapes can be inviting and attractive

## 2. Who Does Ordinance No. 859 Apply To?

- A. On December 2006, the Riverside County Board of Supervisors adopted Ordinance No. 859. In October 2009 the County adopted revisions to Ordinance No. 859 to ensure that it was consistent with AB1881.

Ordinance No. 859 applies to all new and rehabilitated landscapes associated with residential uses with a total landscape area equal to or greater than 2,500 square feet and all new and rehabilitated landscapes associated with commercial or industrial uses. This includes:

1. Commercial development.
2. Industrial development.
3. Residential development:
  - Multi-family development
  - Single family common areas
  - Single family homes
  - Erosion control landscaping (slopes over 3 feet in vertical height)
  - Model homes
4. Road rights-of-way.
5. Parks and public lands.
6. Landscaping associated with entry sign monuments.



Photo Credit: Eastern Municipal Water District



*Invasive plants are prohibited near MSHCP conservation areas.*



*Ceanothus griseus—Louis Edmunds  
Photo Credit: Tree of Life Nursery*



*KB Homes Martha Stewart Collection  
Photo Credit: Moises Lopez*

7. Fuel modification areas - applicants are encouraged to consult with the County Fire Department, determine their fuel modification requirements, and select fire-resistant plant material.
8. Flood control areas including retention/detention basins and water quality swales ('bioswales')
9. Development adjacent to Multiple Species Habitat Conservation Plan (MSHCP) and other conservation areas — applicants are required to consult with the Environmental Programs Department (EPD) to determine acceptable plant species that may be planted within the vicinity of MSHCP conserved lands.

B. In the event that the water purveyor for a proposed project has adopted more stringent water-efficient landscape requirements, the more stringent guidelines shall be taken into consideration during the County's landscape review process.

### 3. What Are The County's General Landscaping Design Guidelines?

Landscaping and proper irrigation is a critical component of any successful development project. Landscaping should define a sense of space by making a statement, ensuring community continuity, complementing good architectural design, and creating a cohesive finished product. Emphasis on California Friendly® design elements can achieve aesthetic objectives while acknowledging the practical water constraints of our unique geographic environment.

Design guidelines have been adopted for a number of communities throughout the County. Many of these guidelines contain specific landscape requirements that must be reflected in landscape plans for these areas. For more information, please see the Riverside County Planning Department's web page for design guidelines.

Conceptual Landscape Plans and/or Landscaping Minor Plot Plans shall incorporate the following design guidelines relative to their respective product type(s). Such plans shall also follow Section 5 of this Landscaping Guide and incorporate the use of drought-tolerant/water-efficient plants to reduce water demand. A rich variety of plantings and hardscape should be selected and integrated appropriately into the landscape design based on their intended uses. Landscaping Plans shall be prepared by a Landscape Architect licensed by the State of California and shall consist of plants found in the Riverside County California Friendly Plant List (Plant List) included in this Guide as Attachment A.

#### A. Single Family Residential Design Guidelines:

1. Turf areas shall be used sparingly in response to functional recreational needs and shall be in compliance with the Water Budget Formula (Section 9 of this Guide).



*Hesperaloe parviflora*



California Friendly® Model Home.  
Photo Credit: Eastern Municipal Water



*Osteospermum fruticosum*

2. Trees, shrubs, and groundcover shall be incorporated within single-family development projects to create a comfortable and aesthetically pleasing environment for residents and those viewing from public areas.

County-Wide Guidelines	Minimum Shrubs <sup>1</sup> , Groundcover, and Mulch	Minimum Trees		Automatic Irrigation
		15 gal. <sup>3</sup>	24" box <sup>3</sup>	
All	50% <sup>2</sup>	1	1	With smart controller
Corner Lot Returns	50% <sup>2</sup>	1	3	With smart controller

The following minimum standard shall be applied to front-yard typical landscaping plans:

### Minimum Front Yard Landscaping Standard

- Notes:** <sup>1</sup> Of this amount, 60% shall be 5 gal. foundation shrubs and 40% shall be 1 gal. shrubs. 50% of the area underneath the shrubs shall be covered by a vegetative, drought-tolerant groundcover, and/or mulch.
- <sup>2</sup> Calculating number of shrubs: Area for shrubs to be divided by 25 sq. ft. The resulting number is the total number of shrubs that must be planted to achieve full coverage.
- <sup>3</sup> The 24" box tree shall be a minimum 2" caliper and the 15 gal. tree shall be a minimum 1" caliper.

3. Landscape architects are strongly encouraged to use clinging vines, espaliers, trellises, and shrubs to enhance the architecture and define attractive private open spaces.
4. Front yard areas should be designed using landscape elements pertaining to the form, horizontal and vertical lines, hardscape and softscape, and ornate qualities that are compatible with the primary structure. Visual openness and water efficiency should be maintained. Special attention shall be given to selecting appropriate trees and plants that, at their maturity, will be in scale with the house and yard.
5. Landscape architects are encouraged to use visual focal points such as boulders, landscape mounds, planter beds, etc.
6. To the extent feasible, existing mature trees and shrubs that represent the existing significant landscaping elements shall be preserved.
7. Vegetative ground cover that will absorb rainwater and reduce runoff shall be used. Permeable surfaces should be used wherever possible to reduce paving.



*Lavatera assurgentiflora*

8. Air conditioning, mechanical equipment, and trash enclosures shall be screened from the public right-of-way with suitable plantings.
9. Landscaping shall be included as part of the design for a fence or wall. It should be used to soften and screen large masses of blank wall surface area and deter graffiti.
10. Model homes shall display a sign indicating that the home features water efficient planting and irrigation. The sign shall be displayed in the front yard and be clearly visible to home buyers.
11. Check with local water purveyors' and Metropolitan Water District's web sites for rebate programs that incentivize California Friendly® landscaping and irrigation systems.

**B. Multi-Family Residential Design Guidelines:**



*Chitalpa tashkentensis*

1. Turf areas shall be used sparingly in response to functional needs and shall be in compliance with the Water Budget Formula (Section 6 of this Guide).
2. Trees, shrubs, and groundcover should be incorporated within multi-family development projects to create a comfortable and aesthetically pleasing environment for residents and those viewing from public areas.
3. Landscape architects shall use clinging vines, espaliers, trellises, and shrubs to enhance the architecture and define useful public and private spaces.
4. Landscape architects shall integrate visual focal points such as boulders, landscaped mounds or berms, sculpture, and public art into their planting design.
5. Planting plans shall utilize hardy native or drought tolerant trees, shrubs, and groundcover that are easy to water and maintain.
6. Paved areas, especially parking lots, must incorporate adequate shading. Off-street parking and shading plans shall comply with provisions in Section 18.12 of Ordinance No. 348.
7. Seating options in landscaped areas should be provided. They shall be constructed of durable, easy-care material such and treated with a graffiti resistant coating.
8. Entrances to alleys must be landscaped. Walls in alleys abutting residential uses shall be screened with landscaping such as clinging vines. Landscape areas



Photo: Courtesy of Tree of Life Nursery  
[www.treeoflifenuresery.com](http://www.treeoflifenuresery.com)



adjacent and between garages in alley-loaded residential areas are encouraged.

9. Pedestrian walkways should be safe, visually attractive, and well defined by landscaping and lighting.
10. Landscaping shall be included as part of the design for the fence or wall. It should be used to soften and screen large masses of blank wall surface area and to deter graffiti.
11. Planting plans shall complement the landscape elements between the proposed project, surrounding streetscapes, and adjacent publicly maintained landscaping to ensure community continuity and character.
12. Model homes shall display a sign indicating that the home features water efficient planting and irrigation. The sign shall be displayed in the front yard and be clearly visible to home buyers.



*Photo Credit: Tree of Life Nursery*

## C. Commercial, Mixed Use, and Industrial Design Guidelines:

1. Landscaping is required to be in scale with adjacent buildings and be of appropriate size at maturity to accomplish its intended goals. A balance of deciduous and evergreen trees should be used.
2. Landscaping shall be incorporated around the base of buildings (except loading or service areas) to soften the edge between the parking lot, structure(s), and street. Such landscaping should be accentuated at entrances to provide a focal point.
3. New projects proposed adjacent to existing residential land uses shall incorporate adequate landscape screening/buffering.
4. Berming in conjunction with landscaping should be used at the building edge to reduce structure mass and height along façades.
5. Evergreen trees and shrubs shall be used whenever a landscape screen or buffer is required.
6. Service areas, equipment, and solid enclosures must be screened using landscaping such as tall shrubs and clinging vines especially those properties whose side yard fronts a primary street or abuts a residential property.
7. Design and locate perimeter planters and plantings for the purpose of creating a physical barrier, providing a visual screen, and shading the parking area. The parking lot and perimeter landscape shall also be designed



*Photo Credit: Arid Zone Trees*



*Vines soften fences and walls and deter graffiti. They shall have designated valves for irrigation.*



*This recreation center is themed after the local wine country.*



*Park Master Plan and Photo*



for safe and convenient pedestrian circulation throughout, including designated paths across perimeter planters.

8. Plans shall comply with provisions in Section 18.12 of Ordinance No. 348.
9. Landscaping shall be included as part of the design for the fence or wall. It should be used to soften and screen large masses of blank wall surface area and to deter graffiti.
10. Hardscape amenities such as benches, seating areas, and trellises, shall be included and designed to be consistent with the landscaping.
11. Landscaping plans shall complement the landscape and hardscape elements between the proposed project, surrounding streetscapes, and adjacent publicly maintained landscaping to ensure community continuity and character.
12. Turf areas shall be used sparingly in response to functional needs and shall be in compliance with the Water Budget Formula (Section 9 of this Guide).

## **D. Park Design Guidelines:**

1. A balance of deciduous and evergreen trees shall be used.
2. Landscaping shall be included as part of the design for the fence or wall. It should be used to soften and screen large masses of blank wall surface area and to deter graffiti.
3. Landscaping shall complement the landscape and hardscape elements between the proposed project, surrounding streetscapes, and adjacent publicly maintained landscaping to ensure community continuity and character.
4. Plans shall comply with provisions of Section 18.12 of Ordinance No. 348.
5. Seating options and drinking fountains in landscaped areas should be provided. Seating and drinking fountains should be constructed of durable, easy-care material such as concrete and shall be treated with a graffiti resistant coating.
6. Adequate lighting shall be incorporated into the landscape design pursuant to the prevailing local or state standards.



*Anigozanthos flavidus - red cultivar*

7. Sprinklers or other emitters shall be positioned so that no irrigation water shall come in contact with drinking fountains, picnic tables, benches, playground equipment, buildings, or other hardscape features.
8. Plans shall conform to the standards and be approved by the maintenance district responsible for perpetual maintenance.

**D. Entry Monument Guidelines:**

1. Monuments shall define a sense of space, individuality, and arrival. Each monument should be different from adjacent tracts and hold their own style.
2. To define a sense of arrival and place, entry monument shall incorporate 5 gallon or greater size shrubs, and boulders, annual color plants, lighting or other distinct visual focal points.
3. Monuments shall incorporate signature trees that complement the community theme. A minimum 36 inch box or larger shall be used. Where only one signature tree is incorporated in the monument landscaping plan, such a tree shall be a 42 inch box size or greater. Entry lighting shall be used on signature trees.



*Photo: Courtesy of Arid Zone Trees*

## 4. What Is the Required Landscape Documentation Package and When Does it Get Submitted?

Most projects that require discretionary permits are required to prepare a Conceptual Landscape Plan. This is done early in the land use development process to ensure compliance with Ordinance No. 859, applicable community design guidelines/standards, and other important planning concepts. It also allows decision makers the opportunity to review and approve landscape commitments made by the land developer. The Conceptual Landscape Plans shall include the elements of the Planting Plan identified with a red asterisk (\*) in Chapter 5.

Prior to receiving a building permit, new or rehabilitated landscapes subject to Ordinance No. 859 must prepare and submit a Landscape Documentation Package to the County Planning Department for review and approval. The package shall include the following elements:

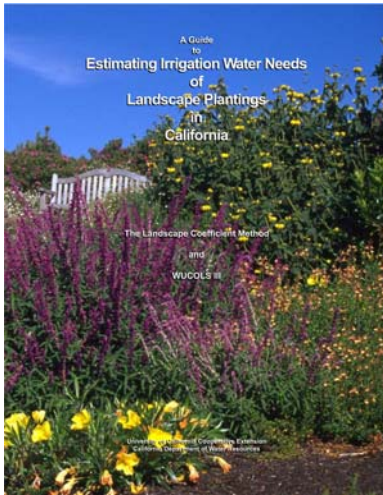
1. Project Information
2. Planting Plan
3. Irrigation Design Plan
4. Soil Management Plan
5. Grading Design Plan



*Rendering of Fossanova Vineyards  
Courtesy Tim Jachlewski, In-Site Landscape Architecture*

Items 1, 2, 3, and 5 above are submitted as a Minor Plot Plan. Item 4 shall be completed and submitted prior building final inspection. The following pages describe the specific requirements for each of the





The WUCOLS III guide provides estimated water uses for landscape plants. It can be downloaded from: [www.owue.water.ca.gov/docs/wucols00.pdf](http://www.owue.water.ca.gov/docs/wucols00.pdf)

forementioned Landscape Documentation Package elements. Each landscape package must be submitted with applicant’s signature, date, and a statement indicating, “I agree to comply with the requirements of Ordinance No. 859 and submit a complete Landscape Documentation Package.”

## 5. What Should My Planting Plan Include?

Landscape plans for permits and/or approvals described in Section 2 shall be prepared by a landscape architect licensed by the State of California. Plant species must be selected from the Plant List found in Attachment A of this Landscaping Guide. The species listed are not guaranteed for all situations. Consultation with a landscape architect, arborist, the proposed maintenance entity, or a local plant nursery is recommended. In order to incorporate plant species other than those listed, the project applicant must provide the Planning Director with the following:

1. Water use requirements per Water Use Classification of Landscape Species (WUCOLS III) or field data verifying the plant’s landscape (crop) coefficient.
2. Plant species description from Sunset Western Garden Book or other comparable source.
3. Comparison to a similar species included in the plant list.

The following minimum design standards identified with an asterisk (\*), together with the appropriate elements of Section 3 of this Landscaping Guide, shall be incorporated into Conceptual Landscape Plans. Conceptual plans are also required to provide an estimate of the landscape’s Maximum Annual Water Use (see Section 9). All of the following standards are required as part of the Landscape Documentation Package Submitted as a Minor Plot Plan:

- A. Plants shall be selected based on their level of maintenance, durability, mature widths and heights, aesthetic appeal, and thematic qualities. A greater percentage of “low” or “very low” water use plant species is strongly encouraged.\*
- B. Shade trees shall be provided for residential, commercial and industrial building parking lot and open space areas. They shall be incorporated to provide natural cooling opportunities and for the purpose of energy and water conservation. Plants shall be placed in a manner to maximize summer shade.\*
- C. Plant species must be selected based on their appropriate plant hardiness climate zones as defined by Sunset Western Garden Book. The climate zones are also depicted in Figure 1 and are noted on the Plant List included as Attachment A of this Landscaping Guide.\*
- D. All non-turf planting areas (except hydroseeded areas) must be mulched on a regular basis to retain moisture, suppress weeds,



Inland Empire Utilities Agency—LEED Platinum Certified Building  
Photo Credit: IEUD



Regular application of mulch retains moisture and suppresses weeds.  
Photo Credit: R Cedar, LLC

and moderate soil temperature. Mulch depth, type, and maintenance replenishment frequency must be noted on plans.\*

1. Planting areas shall be mulched with a three inch (3") minimum layer of organic wood mulch. Areas of groundcover planted from flats shall be mulched with a one and one half inch (1 1/2") minimum layer of organic mulch.
2. Some maintenance districts require differing mulch thicknesses. The more stringent (thicker) requirement shall prevail.
3. Color enhanced mulches are discouraged.
4. Mulch may be omitted for native revegetation projects upon the recommendation of the project biologist.
5. Planting areas in the desert regions (Sunset Climate Zones 11 and 13) shall be mulched with a two inch (2") layer of decomposed granite (DG) /gravel mulch.



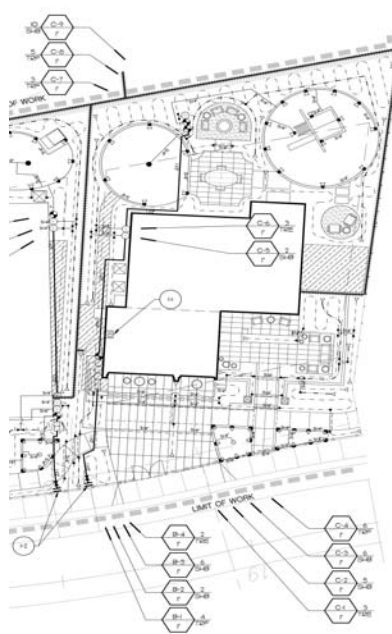
Decomposed granite mulch

- One inch (1") minus granite mulch is suggested for aesthetic purposes.

- E. Turf shall be used as a functional recreational element and not solely for aesthetic purposes.\*
1. Small, irregularly shaped turf areas shall be avoided.
  2. Turf areas shall be sized and shaped to minimize overspray and runoff.



Planting Plan



Irrigation Plan



Hydrozones - Plants grouped and irrigated based on water use requirements



*Turf to serve as a functional recreational component.*



*Space plants appropriately so that their mature width does not require excessive pruning.*  
Photo Credit: Greg Rubin, California's Own Nursery



*Maintaining community cohesiveness is essential to establishing a sense of "place" and "destination."*  
Photo Credit: Arid Zone Trees

3. Lower water use, warm season turf grasses are encouraged. Grasses such as Bermuda, which are dormant (brown) in the winter, are acceptable if the maintenance entity over-seeds with perennial rye on an annual basis during the dormancy period.
  4. Turf is prohibited within County road rights-of-way, unless the turf areas are contiguous to turf areas within parks, residential front yards, cemeteries or golf courses.
  5. Turf is prohibited on slopes greater than 4:1.
  6. Turf areas less than eight feet (8') in width shall be irrigated with subsurface irrigation or other low volume irrigation technology.
- F. Plants must be grouped and irrigated on separate valve zones (hydrozones) based on their water use requirements, slope aspect, and sun/shade microclimate.\*
  - G. If low water use plants (those that can also survive/flourish with medium water application) are used in a medium water use hydrozone, they must be counted as medium water use in the irrigation calculations.\*
  - H. Shrub planting/spacing shall be designed so that their mature width will not require excessive pruning. Excessive pruning is discouraged.\*
  - I. The contractor shall tag one plant of each variety with the plant's scientific name, and cultivar or variety if applicable, and common name. This is to ensure that accurate replacement plants are installed if necessary.
  - J. To prevent graffiti, self-clinging vines shall be planted to ensure full coverage of the public facing side of all walls.\*
  - K. The Planting Plan shall be prepared at the same scale as the Irrigation Plan and, at a minimum, shall identify the following:
    1. Proposed and existing trees, shrubs, ground covers, vines and turf areas indicated within the developed landscape area and within publicly maintained landscape areas within 200 feet (200') of proposed project site. Where appropriate, plans should incorporate the surrounding elements of surrounding landscape components to ensure community cohesiveness.\*
    2. Individual trees, shrubs, and groundcover plants drawn at their average growth size to ensure coverage of the area to be landscaped.\*
    3. Legend including plant symbol, genus, species, common name, spacing, size, quantity of each type of plant by container size, water use per applicable WUCOLS III Zone, and detail call-out (i.e.: P-1, P-2, P-3, etc.).\*
    4. Any special landscape area(s).\*



Model home reduces front yard turf area by planting low- water use shrubs



Photo: Courtesy of Steve Morgan Landscaping



A Weather Based Irrigation Controller (WBIC) is a sprinkler control device that automatically adjusts irrigation schedules in response to changing weather or environmental conditions.

5. Location of each hydrozone, area (in square feet) devoted to landscaping, and a break down of the total area by landscape hydrozones.\*
6. Existing trees, shrubs, groundcovers, turf areas that are to remain and any existing landscape elements that are to be removed. \*
7. Type of mulch and application depth.
8. Stabilizing products to be used on slopes.\*
9. Type and surface area of any water features.\*
10. Location of street lights. Trees shall be located so that there is a minimum of ten feet (10') of clearance with respect to the lights.
11. Root barrier noted for trees within six feet of hardscape.
12. Property lines, limit-of-work lines, streets, and street names.\*
13. Building locations, driveways, sidewalks, and other hardscape features.\*
14. Appropriate four inch (4") graphic scale, title block, page numbers, and north arrow, notes, details, and specifications.\*
15. Estimated Maximum Annual Water Use (MAWA).\*
16. Existing land uses adjacent to the boundaries of the project site including residential development, individual homes, commercial development, fuel modification zones and any MSHCP regulated open space.\*
17. Defensible space or zone around building or structure(s) is required per Public Resources Code Section 429(a) and (b). Fire-prone plant material and highly flammable mulches shall be avoided.\*
18. Avoidance of invasive plant species near parks, buffers, greenbelts, water bodies, and open spaces.\*
19. Type and installation details of any applicable storm-water best management practices.

## 6. What Should My Irrigation Plan Include?

Irrigation systems shall be designed, constructed, managed, and maintained to achieve the highest overall efficiency possible. Efficiency is measured by the amount of water beneficially used to sustain plant life divided by the amount of water applied. Efficiency is affected by the attributes of the controller, method of irrigation, irrigation equipment, proper hydrozoning, site topography, condition and size of plants, and weather conditions.

Although an irrigation plan is not required at the conceptual stage of a land use project, it is required as one of four key components of



*MP Rotator sprinklers are 15% more efficient than conventional spray applica-*



*Standard low-emission hub.*



*One of many "smart controller" options.*

a Landscape Documentation Package submitted as a Minor Plot Plan prior to an applicant pulling a building permit. Other key components of the Landscape Documentation Package include the Planting Plan (Section 5 of this Guide), Soils Management Plan (Section 7), and the Grading Design Plan (Section 8). If the water purveyor for a proposed project has adopted more rigorous irrigation efficiency standards, then the more rigorous standard would prevail.

Landscape Minor Plot Plans shall be prepared by a landscape architect licensed to work in the State of California. Irrigation plans shall include the following minimum irrigation design standards:

- A. Irrigation systems shall be designed, maintained, and managed to meet or exceed an average irrigation efficiency of 0.71. High efficiency irrigation methods (e.g. drip, MP rotators, micro-sprays) shall be utilized.
- B. All irrigation systems shall be designed to prevent runoff, overspray, low head drainage, and other similar conditions where water flows off-site on to adjacent property, non-irrigated areas, walkways, roadways, or structures. Check valves are recommended.
- C. Optimally, overhead irrigation should occur between the hours of 8 p.m. to 9 a.m. Check with local water purveyor to determine the correct watering window for your project and schedule accordingly.
- D. Overhead irrigation shall not be permitted within 24 inches of any non-permeable surface. There are no restrictions on the irrigation system type if the landscape area is adjacent to permeable surfacing and no overspray and run off occurs.
- E. Irrigation systems shall be designed, constructed, managed, and maintained to achieve as high an overall efficiency as possible. The irrigation system shall be designed to ensure that the dynamic pressure at each emission device is within the manufacturer's recommended pressure range for optimal performance.
- F. Rotors and spray heads shall be designed and installed with minimized overspray onto paved surfaces, structures, and non-vegetated areas. The design shall be head-to-head coverage with matched precipitation heads and a maximum of fifty percent (50%) diameter overlap. Rotors and spray heads shall be zoned separately. Half rotors and full rotors shall be zoned separately unless matched precipitation nozzles are used.
- G. For drip line installations, in-line pressure regulators shall be used per factory recommendations for the specific irrigation products being used. If drip line is being installed, it must be filtered at the valve along with any other necessary equipment.
- H. Irrigation systems shall be zoned according to plant water use, slope aspect, and sun/shade microclimate. If low water use plants (that can also survive/flourish with medium water application) are used within a medium water use hydrozone, they must be counted as medium water use in the irrigation calculations.



**How Can I Find A “Smart” Controller?**

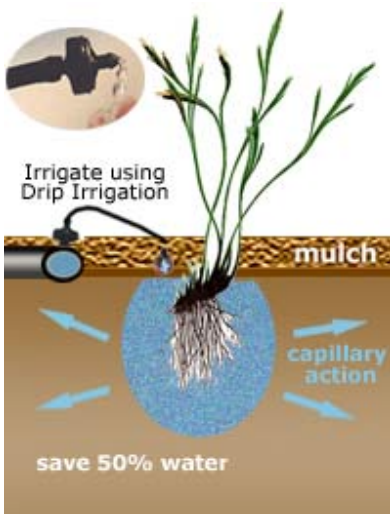
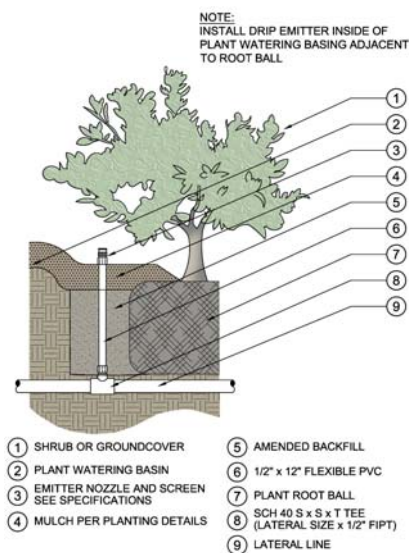
The Irrigation Association regularly tests “smart” controllers and provides a list of recommended controllers for commercial or private use. Below are the tested and recommended smart controllers from the Association’s 2009 list.. For more information and a current list of controllers, see the Irrigation Association’s web site located at: <http://www.irrigation.org/SWAT/Industry/ia-tested.asp>

- Alex-Tronix Enercon Plus
- Alex-Tronix Smart Clock
- Aqua Conserve Aqua ET-9
- Calsense ET2000e
- Cyber-Rain XCI
- ETwater Smart Controller
- Hunter ET System
- Hunter Solar Sync
- Hydrosaver ETIC
- Irritrol Smart Dial
- Rain Bird ESP: LX & SMT
- Rain Bird ET Manager
- Rain Master RME Eagle
- SMG Superior Controls Sterling 8
- Toro Intelli-Sense
- Toro RKS w/Tipping Rain Bucket
- WaterOptimizer
- Weathermatic SL1600
- WeatherTRAK

- I. Water systems for common open space areas shall use non-potable water if approved facilities are made available by the water purveyor. Provisions for the conversion to a non-potable water system shall be provided within the landscape plan. Systems designed to use non-potable water shall be designed to meet all applicable standards of the California Regional Water Quality Control Board and the Riverside County Health Department. With the exception of single family residential units, all irrigation plans shall be designed for recycled water in areas that are scheduled for recycled water in the future.
- J. All irrigation systems shall be equipped with the following:
  1. A smart irrigation controller which automatically adjusts the frequency and/or duration of irrigation events in response to changing weather conditions.
  2. A rain sensing device to prevent irrigation during rainy weather;
  3. Anti-drain check valves installed at strategic points to prevent low-head drainage.
  4. A manual shut-off valve as close as possible to the point of connection of the water supply to minimize water loss in case of an emergency or routine repair.
  5. A pressure regulator when the static water pressure is above or below the recommended operating pressure of the irrigation system.
  6. Backflow prevention devices.
  7. Riser protection components for all risers in high traffic areas.
- K. Irrigation systems shall be scheduled so that the irrigation precipitation rate does not exceed the infiltration rate of the soil. The irrigation schedules shall include the recommended irrigation days per week, number of cycles per day, minutes of run times per cycle, and estimated amount of applied irrigation water, expressed in gallons per month and gallons per year.
- L. A baseline irrigation schedule shall be provided on the plans for the six-month initial plant establishment period. The contractor shall adjust the schedule to meet site specific requirements and use the baseline schedule to set the weather-based controller. The schedule currently in effect shall be posted in the controller.
- M. A second baseline irrigation schedule shall be provided on the plans which incorporates the specific water needs of the plants throughout the post-establishment calendar year. The contractor shall adjust the schedule to meet site specific requirements and use the baseline schedule to set the weather-based controller. The schedule currently in effect shall be posted in the controller.

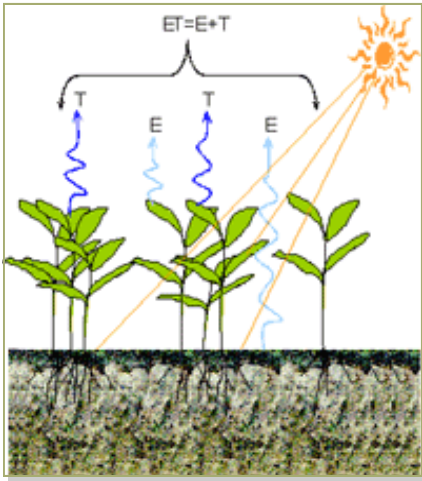


Standard low-emission bubbler.



Drip irrigation is 30% more efficient than conventional spray applications.

- N. The irrigation schedules shall include the recommended irrigation days per week, number of cycles per day, minutes of run times per cycle, and estimated amount of applied irrigation water, expressed in gallons per month and gallons per year.
- O. The controller shall be operational and set to real-time weather prior to the completion of the 90-day maintenance period of the installing contractor.
- P. Commercial projects shall include a Central Controller programmed to distinguish irregular flows (e.g. broken valve, line, spray head, etc.), temporarily shut off the affected branch or the entire system, and send an immediate electronic message to the maintenance entity.
- Q. Residential Front Yard Typical Irrigation Plans must demonstrate that sufficient capacity exists on the specified irrigation controller to supply adequate additional zones for future side and backyard landscaping. More than one controller per residential unit shall be avoided.
- R. Dedicated landscape meters are required for all projects greater than 2,500 square feet except single family homes.
- S. Separate valves shall be provided for separate water use planting areas so that plants with similar water needs are irrigated by the same irrigation valve. All installations shall rely on highly efficient state of the art irrigation systems to eliminate runoff and maximize irrigation efficiency as required by this Landscaping Guide.
- T. Static water pressure, dynamic or operating pressure and flow reading of the water supply shall be measured. These pressure and flow measurements shall be conducted at the design stage. If the measurements are not available at the design stage, the measurements shall be conducted at the installation.
- U. The capacity of the irrigation system shall not exceed the capacity required for peak water demand based on water budget calculations, meter capacity, or backflow preventer type and device capacity.
- V. Sprinkler heads and other emission devices shall have matched precipitation rates unless otherwise directed by the manufacturer.
- W. In mulched planting areas, the use of low volume irrigation is required to maximize water infiltration into the root zone.
- X. Non-turf areas on slopes greater than 25% shall be irrigated with drip irrigation or other low volume irrigation technology unless an alternate design or technology can demonstrate adequate irrigation with no runoff or erosion.
- Y. Long, narrow, or irregularly shaped areas including turf less than eight feet in width in any direction shall be irrigated with subsurface irrigation or low-volume irrigation technology.



Evapotranspiration = the loss of water to the atmosphere from plants and soil.



*Photo: Courtesy of Greg Rubin, California's Own Nursery.*

Z. The Irrigation Plan shall be prepared at the same scale as the Planting Plan and, at a minimum, shall identify the following:

1. Location and size of service lateral(s) and water meter(s).
2. Point of connection (POC) location and static pressure at POC.
3. Total flow rate (gallons per minute) and designed operating pressure (psi) for each overhead spray and bubbler circuit, and total flow rate (gallons per hour) and design operating pressure (psi) for each drip and low volume irrigation circuit.
4. Precipitation rate (inches per hour) for each overhead spray circuit.
5. Pressure loss calculations for valve with worse condition.
6. Location, size, and type of all irrigation components including, but not limited to, smart controller, central controller ( backflow prevention device, ball valves, anti-drain check valves, pressure supply (main) line, lateral lines, pipe sizing, valves, spray heads, rotors, drip, low volume irrigation equipment, gallons per minute, pressure regulators, and pumps. Water sense components are strongly recommended.
7. Hydraulic Calculation worksheet including flow rate (gallons per minute) and design operating pressure.
8. Precipitation rate (inches per hour) for each spray type circuit.
9. Irrigation legend with the symbol, manufacturer name, model number (or non-proprietary description for publicly funded projects), separate symbols for irrigation equipment with different spray patterns, spray radius, and precipitation rate.
10. Location, size, and type (high, medium, low) of each hydrozone.
11. Topographic elevation lines to determine slope.
12. Irrigation system details for assembly and installation. Calculation for the project's landscape Water Budget. (Section 10 of this Landscaping Guide).
13. Irrigation design plans shall contain the following statement, "I agree to comply with the criteria of Ordinance No. 859 and to apply the criteria for the efficient use of water in the irrigation design plan."





## 7. What Is Required In A Soil Management Plan?



*Soil sampling is performed after mass grading. A laboratory analyzes the soil and recommends necessary amendments for remediating the limiting soil characteristics.*

Soil amendments improve the water holding capacity of the soil, adjust soil pH, provide nutrients, and improve drainage. Agronomic soil tests are required to determine the recommended types, rates, and application methods of soil amendments. Implementation of the recommendations is required to help ensure optimum soil conditions for the specified plants.

A Soils Management Plan is required as a component of the Landscape Documentation Package and must be completed and inspected (see Section 10) by the County Landscape Inspector prior to receiving a Certificate of Completion. The following information is intended to guide applicants through the development and implementation of the soils management component of the Landscape Documentation Package.

A. Prior to Building Final Inspection, the project applicant or his/her designee shall:

1. Perform a preliminary site inspection;
2. Determine the appropriate level of soil sampling and sampling method needed to obtain representative soil sample(s);
3. Conduct a soil probe test to determine if the soil in the landscape area has sufficient depth to support the intended plants; and
4. Obtain appropriate soil sample(s).



*Soil sampling tools.*

B. The project applicant shall submit soil sample(s) to the appropriate laboratory for analysis and recommendation. At a minimum, the soil analysis should include soil texture; infiltration rate determined by lab test or soil texture infiltration rate tables; pH; total soluble salts; sodium; and recommendations.

C. Prior to the Pre-Installation Inspection, the Soils Management Plan shall be submitted electronically to the County Landscape Division to be included as part of the Landscape Documentation Package and shall include the following:

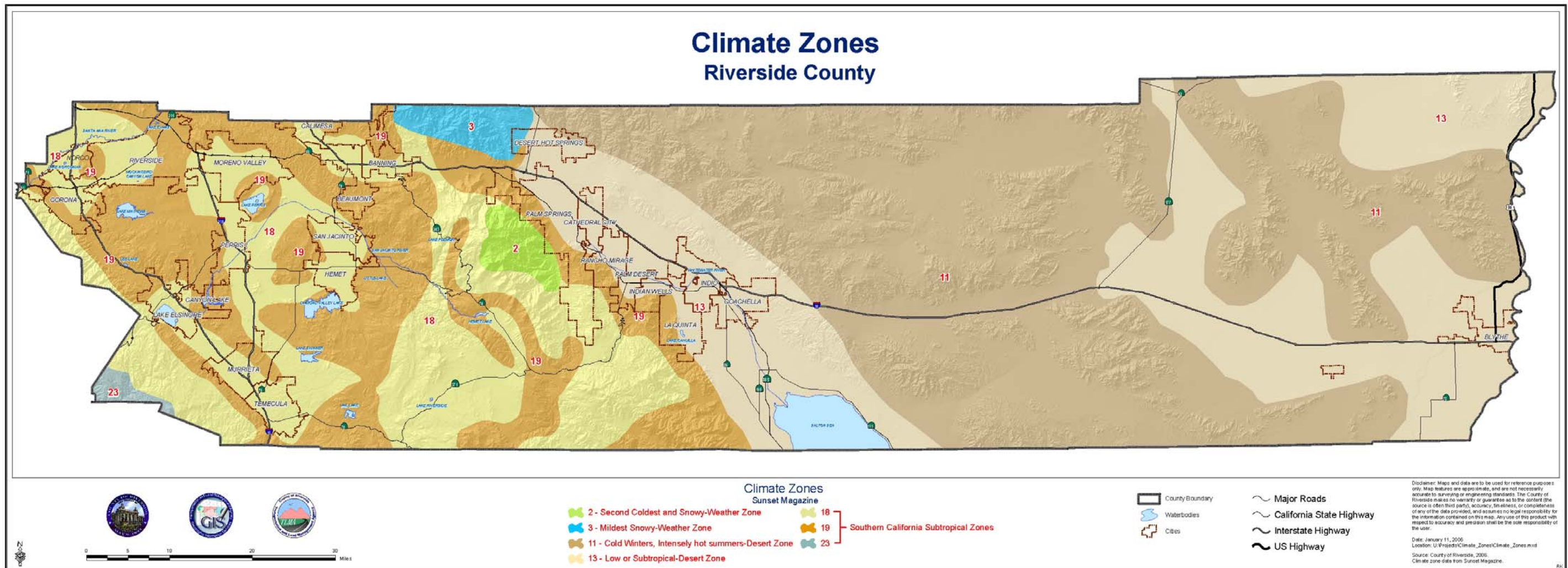
1. Soil type;
2. Identification of limiting soil characteristics; and
3. Identification of planned soil management actions to remediate limiting soil characteristics.
4. Documentation verifying implementation of the soils analysis report recommendations.



*Soil is prepped for better plant growing conditions*



FIGURE 1

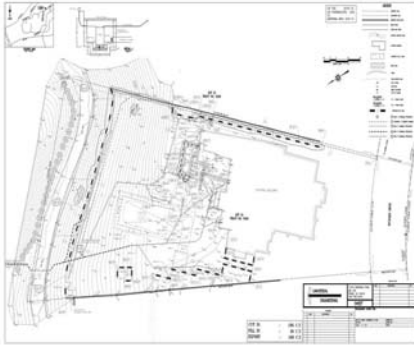




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## 8. How Do My Grading Plans Relate to My Landscape Design Requirements?



For the efficient use of water, grading of a project shall be designed to minimize soil erosion, runoff, and water waste. To ensure that this occurs, the Landscape Documentation Package shall include rough or precise grade elevations prepared for the project by a licensed civil engineer. The County Planning Department recognizes that rough grading plans may be reviewed by another department on a parallel track with the Landscaping Package. Therefore, the applicant shall provide the most current version of the rough grading plans with each subsequent landscape plan check review.

## 9. What Is A Water Budget And How Is It Calculated?



Water budgets are used to assist designers and governing authorities to verify compliance with the State and local requirements for water conservation. Water budgets also assist with water demand management. A water budget determines how much water a particular landscape needs over a specified period of time. The Maximum Annual Water Allowance (MAWA) is calculated and compared to the Estimated Annual Water Use (EAWU) to verify that the project landscaping is not exceeding the allowed water use. It is important to note that AB1881 requires water budgets to account for the surface area of water features.

If the water purveyor for a proposed project has adopted more rigorous irrigation efficiency standards, then the more rigorous standard would prevail and must be reflected in the water budget for the proposed project.

### A. Maximum Annual Water Allowance and Evapotranspiration Rate (ET<sub>o</sub>).

ET<sub>o</sub>, or Annual Reference Evapotranspiration Rate, is the quantity of water evaporated from adjacent soil surfaces and transpired by plants in terms of inches for a particular climate zone. Your total square footage of landscape and ET<sub>o</sub> are essential components of the MAWA formula (below).

$$\text{MAWA (in gallons)} = (\text{ET}_o)(0.62)[0.7 \times \text{LA} + 0.3 \times \text{SLA}]$$

Where:

ET<sub>o</sub> is reference evapotranspiration

SLA is the amount of special landscape area in square feet

LA is total landscape area (incl. SLA) in square feet



Photo Credit: Sunset Magazine on-line blog "Fresh Dirt"

ET<sub>o</sub> rates vary according to climate, the ET<sub>o</sub> rate must be identified for your project in order to calculate MAWA. ET<sub>o</sub> data is taken from the California Irrigation Management Information



**TABLE 1**

CIMIS Station	Location	Reference ETo
24	Thermal	73.03
25	Rancho Mirage	71.40
34	Rancho California	49.54
36	Blythe	71.40
44	UC Riverside (Riverside)	56.37
55	Palm Desert	72.77
62	Temecula	66.14
118	Cathedral City	57.06
130	Temecula East	49.54
135	Blythe Northeast	70.80
136	Oasis	71.40
141	Mecca	62.68
151	Ripley	71.40
154	Salton Sea North	71.65
162	Indio	71.40
176	La Quinta	71.40
179	Winchester	57.33

System (CIMIS). Table 1 will help you find your ETo. If your project is not within one of the weather station areas listed, use the closest representative station.

To ensure the attainment of water-efficient landscape goals, the County requires that landscapes not exceed a maximum water demand of 70% of its referenced ETo. However, applicants are advised that local water purveyors may impose a stricter conservation standard for calculating the maximum allowable percentage of ETo allotted to projects within their service area. Therefore, landscape plans and MAWA calculations must comply with the standard that is stricter and adjust the aforementioned formula accordingly. Early consultation with the prevailing water agency is encouraged.

**B. Estimated Annual Water Use (EAWU).**

EAWU for water budgets shall be calculated using the following formula. Please note that a separate EAWU calculation must be performed for each hydrozone within the proposed project.

$$EAWU \text{ (in gallons)} = (ETo)(0.62)[((PF \times HA)/IE) + SLA]$$

Where:

ETo is reference evapotranspiration

PF is Plant Factor

HA is hydrozone area in square feet

IE is irrigation efficiency (minimum 0.71)

SLA is the amount of special landscape area in square feet

For purposes of the water budget formula:

1. Turf and the surface area of water features are considered to have a *high* water requirement.
2. Temporarily irrigated areas are considered to have a *low* water requirement. Refer to Table 2 to establish your PF for each hydrozone.
3. The average Plant Factor (PF) is established by the WUCOLS III for plants that are considered high, medium, low, and very low based on their water requirements. The WUCOLS plant category designation for any given plant can differ depending on the region in which the plant is used. For more information, see California Friendly Plant List (Attachment A).
4. For the purpose of determining the EAWU, average irrigation efficiency (IE) is assumed to be 0.71 because all irrigation systems must be designed to meet or exceed an average irrigation efficiency of 0.71.
5. Special landscape area is defined as an area of the landscape dedicated to edible plants, areas irrigated with recycled water, and publicly accessible areas dedicated to active play such as parks, sports fields, golf courses, where turf provides a playing field or where turf is needed for high traffic activities.

**TABLE 2**

Plant Category	Average PF
High	0.8
Medium	0.5
Low	0.2
Very Low	0.1



WUCOLS III Region	Corresponding Sunset Zones
1	2,3,14,15,16,17
2	8,9
3	22,23,24
4	18,19,20,21
5	11
6	13

Plant water use requirements can vary according to regional climate zones. The PF figure used in the EAWU calculation above is derived from the plant category designation identified by WUCOLS for the region in which a given plant is used in a landscape. For example: Albizia julibrissin is a low water using tree in WUCOLS Regions 1 and 2 with an average PF of 0.2 but a medium water using tree in WUCOLS Regions 3-6 (see WUCOLS columns in Plant List included as Attachment A) with an average PF of 0.5.

Since many plants are identified by their associated Sunset Zone, Table 3 illustrates the relationships between the Sunset Zones and WUCOLS regions. Sunset Zones are also displayed geographically in Figure 1.

**C. Finalizing the Water Budget Calculations.**

Add together the EAWU subtotals for each hydrozone within the proposed project, this will be the Sub-Total EAWU. Now, divide that number by 0.85. The resulting number will be the Total EAWU. Subtract the Total EAWU number from the MAWA. The resulting number must be positive. If the number is negative, then adjustments will need to be made to the Planting Plan (e.g. use more vegetation types that consume less water) and/or the Irrigation Plan (e.g. use more efficient application methods).



*Inspectors will confirm that plants are installed per approved plans and are thriving.*

## 10. What Are the County’s Installation and Maintenance Requirements?

Correct installation and consistent landscape maintenance is paramount to water efficient landscaping and water conservation. Regardless of the efficiency of the irrigation design and installation, a landscape can quickly lose its efficiency and aesthetic appeal without proper maintenance. To ensure that the soils management plan is prepared and executed, planting and irrigation components are installed properly, and landscape is maintained throughout a minimum plant establishment period, the County Planning Department will conduct the following series of site visits:

**A. Pre-Installation Inspection**

After the Soils Management Plan is transmitted to the County and the soil preparation measures are implemented by the applicant at the project site, then the applicant shall contact the County Landscape Inspector to arrange for the Pre-Installation Inspection. The County Landscape Inspector will confirm that the soils management plan recommendations are properly executed and the subsurface irrigation system is properly installed and connected prior to the installation of the plants and top dressing.

**B. Landscape Installation Inspection**

The County Landscape Inspector will, at a minimum, confirm that the landscaping has been installed in conformance with the approved planting and irrigation design plans; perform an





Photo: Courtesy of Michael Payne

irrigation audit; verify that the smart controller is set according to the irrigation schedule identified on the irrigation plans; verify that the irrigation system is adjusted to maximize efficiency and eliminate overspray and runoff; ensure that the project meets all other conditions of its landscape approval, verify that the performance security has been approved and executed. Upon successful completion of the Landscape Installation Inspection, a Certificate of Completion will be issued to the project applicant.

## C. One Year Post-Establishment Inspection

Personnel will, at a minimum, verify that plants are established and thriving, and ensure that the post-establishment irrigation schedule is programmed and posted in the controller, and confirm that any remaining Conditions of Approval are met. If components of either the irrigation system or the landscape have been replaced, personnel will confirm that their replacement components reflect the original approved Irrigation and Planting Plans.

Upon successful completion of the Post-Establishment Inspection, the landscaping/irrigation component of the performance bond will be deemed complete. Post-Establishment Inspections are not required for residential or model homes.

## D. At the Planning Director's discretion, projects may be required to maintain an annual maintenance inspection schedule to ensure that the following obligations are met:

1. Smart controllers are monitored and adjusted for maximum operating efficiency and irrigation application equipment is calibrated to provide maximum efficiency.
2. Non-functioning irrigation and hardscape components are replaced with identical or better components.
3. Plant materials that fail to thrive are replaced with identical plant materials or those with similar water requirements.
4. Minimum mulching levels are maintained.
5. Plants are pruned to eliminate irrigation application interference.



Photo: Courtesy of Toyon Designs



Photo Credit: Eastern Municipal Water District.

## 11. How is Recycled Water Used?

Recycled water determined to be available pursuant to Section 13550 of the California State Water Code shall be used for appropriate non-potable uses whenever it: a) provides a beneficial use to the customer, b) is economically and technically feasible, c) is consistent with applicable regulatory requirements, and d) is in the best interests of public health, safety, and welfare. With the exception



Photo Credit: Eastern Municipal Water District.

of non-common areas of single-family home residential developments, irrigation systems must be designed and installed to accommodate the current or future use of recycled water for irrigation. When recycled water is not available, landscape irrigation plans shall provide for below ground installation of purple pipe components to minimize the cost of a retrofit at a later date.

Applicants proposing landscaping that is designated for recycled water use shall consult with the appropriate water purveyor early in the development review process (Conceptual Landscape Plan or prior to a County discretionary action). This will ensure that future recycled water facilities meet the projected demand and that subsequent landscape plans comply with the applicable standards, approvals, and implementation requirements of the local water purveyor, land use agency, and maintenance entity.

Recycled water plans shall be developed in accordance with standards and policies of the applicable recycled water purveyor. Recycled water systems shall be designed to meet regulatory requirements of the California Department of Public Health, California Regional Water Quality Control Board, and the local recycled water purveyor.

<END>



KB Homes Martha Stewart Collection, City of Perris

Photo Credit: Moises Lopez

**We Invite You to Visit the Following Web Sites for More Information or Contact Your Local Water Purveyor to Learn More About Their Respective Water Efficiency Programs:**

**Riverside County Planning Department—Landscape Section**  
<http://www.rctlma.org/planning/content/devproc/landscape/landscape.html>

**Riverside County Water Task Force**  
<http://www.h2oriversidecounty.org/>

**California Friendly/Drought Tolerant Gardens**  
<http://www.bewaterwise.com/knowledge01.html>

**California Department of Water Resources**  
<http://www.owue.water.ca.gov/index.cfm>

**California Friendly Developments**  
<http://www.bewaterwise.com/home03.html>

**California Plant Nurseries**  
[http://www.rctlma.org/planning/content/devproc/landscape/drought\\_tolerant\\_plant\\_nurseries.pdf](http://www.rctlma.org/planning/content/devproc/landscape/drought_tolerant_plant_nurseries.pdf)





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## Attachment A

# County of Riverside California Friendly Plant List

## COUNTY OF RIVERSIDE CALIFORNIA FRIENDLY PLANT LIST

### PLANT LIST KEY

WUCOLS III (Water Use Classification of Landscape Species)	
WUCOLS Region	Sunset Zones
1	2,3,14,15,16,17
2	8,9
3	22,23,24
4	18,19,20,21
5	11
6	13

WUCOLS III Water Usage/ Average Plant Factor Key			
H-High (0.8)	M-Medium (0.5)	L-Low (.2)	VL-Very Low (0.1)

\* Water use for this plant material was not listed in WUCOLS III, but assumed in comparison to plants of similar species

\*\* Zones for this plant material were not listed in Sunset, but assumed in comparison to plants of similar species

\*\*\* Zones based on USDA zones

‡ The California Friendly Plant List is provided to serve as a general guide for plant material. Riverside County has multiple Sunset Zones as well as microclimates within those zones which can affect plant viability and mature size. As such, plants and use categories listed herein are not exhaustive, nor do they constitute automatic approval; all proposed plant material is subject to review by the County. In some cases where a broad genus or species is called out within the list, there may be multiple species or cultivars that may (or may not) be appropriate. The specific water needs and sizes of cultivars should be verified by the designer.

Site specific conditions should be taken into consideration in determining appropriate plant material. This includes, but is not limited to, verifying soil conditions affecting erosion, site specific and Fire Department requirements or restrictions affecting plans for fuel modifications zones, and site specific conditions near MSHCP areas. The designer is ultimately responsible to be familiar with project areas and conditions, and to specify appropriate plants.

Useful information regarding plants that have invasive qualities, including a 'Watchlist' of potentially invasive plants that are new to the region or have not been sufficiently studied, can be found at the website for the California Invasive Plant Council (Cal-IPC) <http://www.cal-ipc.org/>. Additional references and possible resources can be found at the end of this document.

**COUNTY OF RIVERSIDE CALIFORNIA  
FRIENDLY PLANT LIST**

<i>Botanical</i>	<i>Common</i>	<i>Wucols Region 1</i>	<i>Wucols Region 2</i>	<i>Wucols Region 3</i>	<i>Wucols Region 4</i>	<i>Wucols Region 5</i>	<i>Wucols Region 6</i>	<i>Sunset Zones</i>	<i>Mature Height (Feet)</i>	<i>Mature Width (Feet)</i>	<i>Road Right-of-Way</i>	<i>Erosion Control / Slope †</i>	<i>Fuel Mod.(per F.D. approval) †</i>	<i>MSHCP Adjacent †</i>	<i>Water Quality / BioSwale †</i>	<i>Medians 14' Wide (median trees subject to review)</i>	<i>Medians 18' Wide (median trees subject to review)</i>	<i>Medians 28' Wide (median trees subject to review)</i>
<b>TREES</b>																		
Acacia aneura	Mulga	/	?	?	/	L		8, 9, 12-24	15'-20'	15'-20'	✓	✓		N		✓	✓	✓
Acacia farnesiana	Sweet Acacia	?	?	L	L	/	L	13-24	20'	15'-25'	✓	✓		N		✓	✓	✓
Acacia salicina	Willow Acacia	L	L	L	M	/	M	8, 9, 12-24	20'-40'	15'	✓	✓		N		✓	✓	✓
Acacia stenophylla	Shoestring Acacia	VL	L	L	L	/	L	8, 9, 12-24	30'	20'	✓	✓		N		✓	✓	
Aesculus californica	California Buckeye	VL	VL	VL	L	/	/	3-10, 14-24	10'-20'	30'	✓	✓			✓			
Agonis flexuosa	Peppermint Tree	L	/	L	M	/	/	15-17, 20-24	25'-35'	15'-30'	✓	✓					✓	✓
Albizia julibrissin	Silk Tree	L	L	M	M	M	M	4-23	40'	40'	✓	✓						
Arbutus unedo	Strawberry Tree	L	L	L	L	M	M	8-24	8'-35'	8'-35'	✓	✓	✓			✓	✓	✓
Bauhinia forficata	Brazilian butterfly tree	M	M	M	M	/	/	9, 12-23	20'	20'	✓	✓					✓	✓
Bauhinia variegata (purpurea)	Purple orchid tree	M	/	M	M	/	M	13, 18-24	20'-35'	20'-35'	✓	✓					✓	✓
Bauhinia X blakeana	Hong Kong orchid tree	M	/	M	M	/	M	13, 19, 21, 23, 24	20'	20'	✓	✓					✓	✓
Beaucarnea recurvata	Bottle Palm	/	/	L	L	/	L	13, 16-24	15'-20'	6'-8'								
Brachychiton populneus	Bottle Tree	L	L	L	L	M	M	12-24	30'-50'	30'	✓	✓						
Brahea armata	Blue Hesper Palm	L	?	M	?	?	?	10, 12-17, 19-24	20'-40'	12'-25'	✓	✓	✓					
Brahea edulis	Guadalupe Palm	L	?	L	L	L	L	12-24	30'	15'	✓	✓	✓					
Butia capitata	Pindo Palm	L	L	L	L	L	L	8, 9, 12-24	10'-20'	10'-15'	✓	✓						
Caesalpinia cacalaco	Cascalote	?	?	?	?	/	L	12, 13, 21-24	20'	20'	✓	✓					✓	✓
Callistemon citrinus	Lemon Bottlebrush	L	L	L	L	/	M	8, 9, 12-24	10'-15'	10'-15'	✓	✓				✓	✓	✓
Callistemon viminalis	Weeping Bottlebrush	L	L	M	M	/	M	6-9, 12-24	20'-30'	15'	✓	✓				✓	✓	✓
Calocedrus decurrens	Incense Cedar	M	M	M	M	M	/	2-12, 14-24	75'-90'	10'-15'	✓							
Cassia surattensis	Yellow Cassia	?	?	L	L	?	?	19-24	6'-8'	6'-8'	✓	✓						
Cassia leptophylla	Gold Medallion Tree	L	L	M	M	/	/	15, 16, 20-24	20'-25'	30'	✓	✓						
Cedrus deodara	Deodar Cedar	L	M	L	M	M	M	3b-10, 14-24	80'	40'	✓							
Ceratonia siliqua	St. John's Bread, Carob Tree	L	L	L	L	/	L	9, 13-16, 18-24	20'	20'		✓	✓					
Cercis occidentalis	Western Redbud	VL	VL	L	L	/	/	2-24	10'-18'	10'-18'	✓	✓	✓			✓	✓	✓
Chamaerops humilis	Mediterranean Fan Palm	VL	VL	VL	L	M	M	4-24	20'	20'	✓							
Chilopsis linearis	Desert Willow	VL	VL	VL	L	M	M	3b, 7-14, 18-23	15'-30'	10'-20'	✓	✓			✓	✓	✓	✓
Chitalpa tashkentensis	Chitalpa	L	M	L	L	L	M	3-24	20'-30'	20'-30'	✓	✓					✓	✓
Chorisia speciosa	Floss Silk Tree	L	/	L	L	/	M	12-24	30'-60'	30'-60'	✓	✓						
Cinnamomum camphora	Camphor Tree	M	/	M	M	/	M	8, 9, 12-24	50'	60'	✓	✓						
Cotinus coggyria	Smoke Tree	L	L	L	L	L	/	2-24	12'-15'	12'-15'	✓	✓						
Cupaniopsis anacardioides	Carrot Wood	M	/	M	M	/	/	16-24	40'	30'	✓	✓						
Cupressus arizonica	Arizona Cypress	L	M	L	L	M	M	7-24	40'	20'	✓	✓						
Cupressus sempervirens	Italian Cypress	L	M	L	L	M	M	4-24	60'	5'-10'	✓	✓						
Dalbergia sissoo	Sissoo Tree	/	/	/	/	/	M	13, 19, 21-24	25'-50'	35'-50'	✓							
Dracaena draco	Dragon Tree	L	/	VL	L	/	/	16, 17, 21-24	20'	20'	✓							
Eriobotrya deflexa	Bronze Loquat	M	M	M	M	/	M	8-24	15'-30'	15'-30'	✓	✓	✓			✓	✓	✓
Erythrina americana (E. coralloides)	Naked Coral Tree	/	/	L	L	/	/	12, 13, 19-24	30'	30'	✓	✓						

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<b>TREES (continued)</b>																		
Erythrina X sykesii	Sykes Coral Tree	/	/	L	L	/	/	19-24	24'-30'	24'-30'	✓	✓						
Erythrina X bidwillii	Coral Tree	L	L	L	L	/	/	8, 9, 12-24	24'-30'	24'-30'	✓	✓						
Eucalyptus citriodora																		
Eucalyptus microtheca	Coolibah Tree			L	L	L	M	5, 6, 8-24	30'-60'	24'-54'	✓	✓		N				
Eucalyptus papuana*	Ghost Gum	L	L	L	L	M	M	5, 6, 8-24	30'-54'	24'-45'	✓	✓		N				
Eucalyptus polyanthemos	Silver Dollar Gum	L	L	L	L	M	M	5, 6, 8-24	30'-75'	15'-45'	✓	✓		N				
Eucalyptus torquata	Coral Gum	L	L	L	M	/	M	5, 6, 8-24	18'-36'	15'-30'	✓	✓		N				
Ficus microcarpa	Indian Laurel Fig	M	/	M	M	/	M	9, 13, 16-24	60'	75'								
Fraxinus greggii*	Little Leaf Ash	M	M	M	M	M	M	10-13	25'	20'	✓	✓			✓			
Fraxinus uhdei	Shamel Ash	M	M	M	M	H	H	9, 12-24	25'-80'	20'	✓	✓		N				
Fraxinus o. 'Raywood'	Raywood Ash	M	M	M	M	M	M	2b-9, 12-24	25'-35'	25'	✓	✓						
Fraxinus velutina	Arizona Ash	M	M	M	M	M	M	3b-24	30'-50'	30'-40'	✓	✓			✓			
Geijera parviflora	Australian Willow	M	M	L	M	M	M	8, 9, 12-24	25'-30'	20'	✓					✓	✓	✓
Ginkgo biloba	Maidenhair Tree	M	M	M	M	M	?	A3, 1-10, 12, 14-24	35'-50'	15'-25'	✓	✓	✓					
Gleditsia triacanthos	Honey Locust	L	L	M	L	L	L	1-16, 18-20	35'-70'	25'-35'	✓	✓						
Jacaranda mimosifolia	Jacaranda	M	M	M	M	/	M	12, 13, 15-24	25'-40'	15'-30'	✓	✓						
Juglans californica	S. California Black Walnut	M	/	L	L	/	/	18-24	15'-30'	15'-30'	✓	✓						
Juniperus californica	California Juniper	L	L	L	M	M	M	3, 6-12, 14-24	10'-40'	10'-40'	✓	✓						
Juniperus scopulorum 'Tolleson's Weeping'	Tolleson's Weeping Juniper	L	L	M	M	M	M	1-24	20'	10'	✓	✓					✓	✓
Koelreuteria bipinnata	Chinese Flame Tree	M	M	M	M	/	M	8-24	20'-40'	20'-40'	✓							
Koelreuteria paniculata	Golden Rain Tree	M	M	L	L	M	M	A2, 2-24	20'-35'	25'-40'	✓	✓						
Lagerstroemia indica	Crape Myrtle	L	L	M	M	M	M	7-10, 12-14, 18-21	25'	25'	✓	✓			✓	✓	✓	
Lagunaria patersonii	Primrose Tree	L	/	L	L	/	/	13, 15-24	20'-50'	40'	✓	✓						
Laurus nobilis 'Saratoga'	Sweet Bay	L	L	L	L	M	M	5-9, 12-24	12'-40'	12'-40'	✓	✓					✓	✓
Leucanea retusa*	Golden Ball Lead Tree	/	L	L	L	M	M	10-13	12'-20'	12'-20'	✓	✓			✓	✓	✓	
Liquidambar styraciflua (seedless var.)	Sweet Gum	M	M	M	M	/	/	3-9, 14-24	60'	20'-25'	✓	✓						
Lyonothamnns floribundus	Catalina Ironwood	L	/	VL	L	/	/	14-17, 19-24	20'-35'	15'	✓	✓						
Lysiloma microphylla va. thomberi	Desert Fern (feather bush)	?	/	L	L	/	M	12-24	12'-15'	12'-15'	✓	✓				✓	✓	✓
Magnolia grandiflora	Magnolia Species	M	M	M	M	/	H	4-12, 14-24	Varies	Varies	✓							
Melaleuca linariifolia	Flax Leaf Paper Bark	L	L	L	L	/	/	9, 13-24	20'-30'	20'-25'	✓	✓						
Melaleuca quinquinervia (M. vir. Rubifolia)	Cajeput Tree	L	L	M	M	/	M	9, 12, 13, 15-17, 20-24	20'-40'	15'-25'	✓	✓						
Nerium oleander	Oleander (Tree Form)	L	L	L	L	M	M	8-16, 18-24	20'	12'	✓	✓				✓	✓	✓
Olea europaea 'Swan Hill'	Fruitless Olive	VL	VL	L	L	M	M	8, 9, 11-24	25'-30'	25'-30'	✓	✓		N				✓
Oleña tesota	Ironwood	/	/	/	/	L	L	8, 9, 11-14, 18-23	15'-30'	15'-30'	✓	✓						
Parkinsonia floridum (Cercidium floridum)	Blue Palo Verde	VL	VL	VL	L	/	L	8-14, 18-20	35'	30'	✓	✓		✓				
Parkinsonia microphyllum (C. microphyllum)	Little Leaf Palo Verde	/	VL	VL	L	/	L	8-14, 18-20	20'	20'	✓	✓						
Parkinsonia praecox (Cercidium praecox)	Sonoran Palo Verde	/	L	VL	L	/	L	12, 13, 18-20	20'	20'	✓	✓						
Phoenix canariensis	Canary Island Date Palm	L	L	L	L	M	M	8, 9, 11-24	60'	50'	✓			N				

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<b>TREES (continued)</b>																		
Phoenix dactylifera	Date Palm	L	L	L	L	M	M	8, 9, 11-24	80'	20'-40'	✓			N				
Pinus attenuata	Knobcone Pine	L	L	L	L	/	/	2-10, 14-21	20'-80'	20'-25'	✓	✓						
Pinus brutia (eldarica)	Calabrian Pine	L	L	L	L	M	M	6-9, 12-24	30'-80'	15'-25'	✓	✓						
Pinus canariensis	Canary Island Pine	L	L	L	M	M	M	8,9, 12-24	50'-80'	20'-35'	✓	✓						
Pinus coulteri	Coulter Pine	L	L	L	L	M	/	3-10, 14-23	30'-80'	20'-40'	✓							
Pinus eldarica	Afghan Pine	L	L	L	L	M	M	7-9, 11-24	30'-40'	20'-30'	✓	✓			✓	✓	✓	✓
Pinus edulis	Pinyon Pine	L	L	VL	L	L	/	1-11, 14-21	10'-20'	8'-16'	✓							
Pinus halepensis	Aleppo Pine	L	L	L	L	L	L	7-9, 11-24	30'-60'	20'-40'	✓							
Pinus monophylla	Single Leaf Pinyon Pine	L	/	L	L	L	/	2-12, 14-21	10'-25'	10'-15'	✓							
Pinus sabiniana	Gray Pine	VL	VL	VL	L	/	/	3-10, 14-21	40'-80'	30'-50'	✓							
Pistacia chinensis	Chinese Pistache	L	L	M	M	M	M	4-16, 17, 18-23	30'-60'	30'-60'	✓	✓						
Pithecellobium flexicaule	Texas Ebony	? ?	/	? /	? /	L		10 - 13	15'-30'	15'-20'	✓	✓					✓	✓
Pittosporum phylloraeoides	Willow Pittosporum	M	M	L	L	/	M	8, 9, 12-24	12'-20'	10'-15'	✓	✓	✓			✓	✓	✓
Platanus acerifolia	London Plane Tree	M	M	M	M	H	H	2-24	40'-80'	30'-40'	✓		✓		✓			
Platanus racemosa	California Sycamore	M	M	M	M	H	H	4-24	30'-80'	20'-50'	✓		✓		✓			
Platanus wrightii	Arizona Sycamore	M	?	M	M	H	H	8-12	80'	55'	✓				✓			
Podocarpus gracilior (Afrocarpus gracilior)	Fern Pine	M	M	M	M	?	M	8, 9, 13-24	20'-60'	10'-20'	✓							
Podocarpus henkelii	Long Leafed Yellow Wood	M	H	M	M	M	/	8, 9, 14-24	30'-50'	15'-20'	✓							
Podocarpus macrophyllus	Yew Pine	M	M	M	M	M	M	4-9, 12-24	15'-50'	6'-15'	✓							
Populus fremontii	Fremont Cottonwood	M	M	M	M	H	H	1-12, 14-21	40'-60'	30'	✓		✓		✓			
Prosopis alba	Argentine Mesquite	/	L	L	L	M	M	10-13, 18-24	50'	50'	✓	✓		N				
Prosopis chilensis	Chilean Mesquite	/	L	L	L	L	L	10-13	50'	50'	✓	✓		N				
Prosopis glandulosa	Honey Mesquite	/	L	L	L	L	L	10-13, 18-24	30'-50'	30'-50'	✓	✓		N				
Prosopis juliflora*	Arizona Mesquite	/	L	L	L	L	L	10-13, 18-24	30'-35'	30'-35'	✓	✓		N				
Prosopis Phoenix*	Phoenix Mesquite	/	L	L	L	L	L	10-13, 18-24**	20'-30'	20'-30'	✓	✓		N				
Prosopis pubescens	Screwbean Mesquite	/	L	L	L	M	M	10-13, 18-24	30'-35'	30'-35'	✓	✓		N				
Prosopis velutina	Velvet Mesquite	/	L	L	L	M	M	10-13, 18-24	30'-35'	30'-35'	✓	✓		N				
Prunus caroliniana	Carolina Laurel Cherry	L	L	M	M	M	M	5-24	20'-30'	15'-25'	✓	✓	✓				✓	✓
Prunus cerasifera	Purple Leaf Plum	L	M	M	M	M	M	3-22	25'-35'	25'-35'	✓	✓					✓	✓
Prunus ilicifolia	Hollyleaf Cherry	L	L	VL	VL	/	/	5-9, 12-24	10'-25'	10'-25'	✓	✓	✓					✓
Prunus ilicifolia lyonii	Catalina Cherry	L	L	L	L	/	/	5-9, 12-24	45'	30'	✓	✓	✓			✓	✓	✓
Punica granatum	Pomegranate	L	L	M	M	M	M	5-24	8'-10'	8'-10'	✓							
Pyrus Calleryana	Callery Pear	M	M	M	M	M	M	2b-9, 14-21	50'	50'	✓	✓						
Quercus agrifolia	Coast Live Oak	VL	VL	L	L	/	M	7-9, 14-24	20'-70'	20'-70'	✓	✓	✓					
Quercus chrysolepis	Canyon Live Oak	VL	L	L	L	/	/	3-11, 14-24	20'-60'	20'-60'	✓	✓	✓					
Quercus engelmannii	Mesa Oak	/	L	L	L	/	/	7-9, 14-24	40'-50'	80'-100'	✓	✓	✓		✓			
Quercus ilex	Holly Oak	L	L	L	L	M	M	4-24	30'-60'	30'-60'	✓	✓	✓		✓			
Quercus kelloggii	California Black Oak	L	M	/	M	/	/	6-7, 9, 14-21	30'-80'	30'-80'	✓		✓					

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<b>TREES (continued)</b>																		
Quercus lobata	Valley Oak	L	L	/	M	/	/	3b-9, 11-24	70'	70'		✓	✓					
Quercus suber	Cork Oak	L	L	L	L	L	L	5-16, 18-24	30'-60'	30'-60'	✓	✓	✓		✓			
Quercus virginiana	Southern Live Oak	M	M	M	M	M	M	4-24	40'-80'	80'-100'	✓	✓	✓		✓			
Quercus wislizeni	Interior Live Oak	VL	VL	VL	VL	M	/	7-9, 14-16, 18-21	30'-75'	30'-75'		✓	✓		✓			
Rhaphiolepis indica 'Majestic Beauty'	Majestic Beauty Hawthorn	L	L	M	M	M	M	8-10, 12-24	20'-25'	8'-10'	✓	✓				✓	✓	✓
Rhus lancea	African Sumac	L	L	L	L	M	M	8, 9, 12-24	20'-30'	20'-35'	✓	✓	✓					
Robinia neomexicana*	Desert Locust	L	L	L	L	M	M	2, 3, 7-11, 14, 18-24	6'-30'	6'-30'	✓	✓						
Robinia x ambigua	Locust	L	L	L	L	M	M	2-24	40'-50'	20'	✓	✓						
Sabal 'Riverside'	Riverside Palmetto	/	/	M	M	/	/	12-17, 19-24	20'	10'	✓	✓				✓	✓	✓
Salix gooddingii	Black Willow, Goodding's Willow	H	H	H	H	H	H	1-10, 16-24, 26***	15'-30'	15'-30'					✓			
Salix laevigata	Red Willow	H	H	H	H	H	H	1-10, 16-24, 26***	10'-25'	10'-25'					✓			
Salix lasiolepis	Arroyo Willow	H	H	H	H	H	H	1-10, 16-24, 26***	10'-20'	10'-20'					✓			
Sambucus mexicana	Mexican Elderberry	L	L	L	L	M	M	2-24	10'-30'	8'-20'	✓	✓			✓			
Schinus molle	California Pepper Tree	VL	L	VL	L	M	M	8, 9, 12-24	25'-40'	25'-40'		✓		N				
Syagrus romanzoffianum	Queen Palm	L	M	M	M	M	M	12, 13, 15-17, 19-24	50'	20'-25'	✓							
Tecoma stans	Yellow Bells (Tree Form)	/	/	L	L	/	L	12, 13, 21-24	25'	10'-20'						✓	✓	✓
Tipuana tipu	Tipu Tree	M	/	M	M	/	/	12-16, 18-24, H1, H2	25'-40'	30'-60'	✓	✓						
Trachycarpus fortunei	Windmill Palm	L	M	M	M	/	M	4-24	30'	10'	✓	✓						
Tristania conferta (Lophostemon conferta)	Brisbane Box	M	/	M	M	/	/	15-17, 19-24	30'-45'	25'	✓	✓						✓
Tristaniopsis laurina	Water Gum	M	/	M	M	/	/	15-17, 19-24; H1, H2	45'	50'	✓	✓						
Ulmus parvifolia	Chinese Elm	M	M	M	M	M	M	3-24	40'-60'	50'-70'	✓	✓		N				
Umbellularia californica	California Laurel	M	M	M	M	/	/	4-9, 14-24	20'-25'	20'-25'		✓						
Vitex agnus-castus	Monk's Pepper Tree	L	L	L	M	M	M	4-24, H1, H2	8'-10'	8'-10'	✓	✓		N				
Washingtonia filifera	California Fan Palm	L	M	L	L	M	M	8-24, H1, H2	60'	20'	✓	✓						
Washingtonia robusta	Mexican Fan Palm	L	M	L	L	M	M	8-24	100'	10'	✓	✓		N				
<b>SHRUBS</b>																		
Abelia grandiflora	Glossy Abelia	M	M	M	M	M	M	4-24	8'	5'		✓						
Acacia craspedocarpa	Leather Leaf Acacia	? ? ? ?	L	L				8, 9, 12-24	8'-10'	5'-10'		✓		N				
Acanthus mollis	Grecian Urn Plant	M	M	M	M	/	M	5-24	4'-5'	4'-5'								
Adenostoma fasciculatum	Chamise	VL	VL	VL	VL	/	/	6-9, 14-24	5'-12'	5'-12'	✓	✓						
Aloysia triphylla	Lemon Verbena	L	L	L	L	L	L	9, 10, 12-21	6'	6'	✓	✓						
Alyogyne hakeifolia**	Red Centered Hibiscus	/	/	L	L	/	/	13-17, 20-24	5'-8'	5'-8'	✓	✓						
Alyogyne huegelii	Blue Hibiscus	L	L	L	L	/	L	13-17, 20-24	5'-8'	5'-8'	✓	✓						
Ambrosia deltoidea**	Bursage	? ? ? ?	L	L				8-16, 18-24	1'-2'	1'-3'	✓	✓						
Ambrosia dumosa**	White Bursage	? ? ? ?	/	L	L			8-16, 18-24	2'-3'	2'-3'	✓	✓						
Anisacanthus spp.	Desert Honeysuckle	? ?	L	L	L	L		8-13, 18-23	4'	4'	✓	✓						
Arctostaphylos densiflora	Sonoma Manzanita	VL	L	L	L	/	/	7-9, 14-21	5'-6'	7'	✓	✓	✓					
Arctostaphylos edmundsii	Little Sur Manzanita	VL	L	L	L	/	/	6-9, 14-24	3'	12'	✓	✓	✓					

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<i>Botanical</i>	<i>Common</i>	<i>Wucols Region 1</i>	<i>Wucols Region 2</i>	<i>Wucols Region 3</i>	<i>Wucols Region 4</i>	<i>Wucols Region 5</i>	<i>Wucols Region 6</i>	<i>Sunset Zones</i>	<i>Mature Height (Feet)</i>	<i>Mature Width (Feet)</i>	<i>Road Right-of-Way</i>	<i>Erosion Control / Slope †</i>	<i>Fuel Mod. (per F.D. approval) †</i>	<i>MSHCP Adjacent †</i>	<i>Water Quality / BioSwale †</i>	
<b>SHRUBS (continued)</b>																
Artemisia californica	California Sagebrush	VL	L	L	L	L	L	7-9, 14-24	1 1/2'-5'	4'-7'	✓	✓				
Atriplex hymenelytra	Desert Holly	VL	VL	VL	VL	L	VL	3, 7-14, 18, 19	1'-3'	3'	✓	✓		N	✓	
Atriplex lentiformis	Quail Bush	VL	VL	VL	VL	L	VL	3, 7-14, 18, 19	3'-10'	6'-12'			✓			
Atriplex lentiformis breweri	Brewer Saltbush	VL	VL	VL	VL	L	VL	8, 9, 12-24	5'-7'	6'-8'		✓	✓			
Baccharis emoryi**	Emory's Baccharis	M	M	M	M	/	/	4-9, 16-24, 26***	6'-9'	3'-6'			✓			
Baccharis hybrid 'starn'	Thompson Baccharis	L	L	L	L	L	L	7-24	3'	4-5'	✓	✓				
Baccharis pilularis	Coyote Brush	L	L	L	L	/	/	5-11, 14-24	8"-24"	6'	✓	✓	✓			
Baccharis salicifolia**	Mulefat	M	M	M	M	/	/	1-10, 16-24, 26***					✓		✓	
Baccharis sarathroides	Desert Broom	VL	L	VL	L	L	L	7-24	5'	5'	✓	✓				
Berberis thunbergii	Japanese Barberry	L	L	L	L	L	M	A3, 2b-24	4'-6'	4'-6'	✓	✓			✓	
Bougainvillea spp.	Bougainvillea	L	L	L	L	/	M	5, 6, 12-17, 19, 21-24	3'-6'	3'-6'	✓	✓	✓			
Buddleia marrubifolia	Woolly Butterfly Bush	?	L	?	L	/	L	10-13, 18-24	5'	5'	✓	✓				
Buxus microphylla japonica	Japanese Boxwood	M	M	M	M	M	M	3b-24	4'-6'	4'-6'	✓	✓				
Buxus sempervirens	Common Boxwood	M	M	M	/	M	M	3b-6, 15-17	15'-20'	15'-20'	✓	✓				
Caesalpinia gilliesii	Desert Bird of Paradise	L	L	L	L	M	M	8-16, 18-24	10'	8'	✓	✓				
Caesalpinia mexicana	Mexican Poinciana	?	/	?	L	/	L	12-16, 18-24	10'-12'	6'-8'	✓	✓				
Caesalpinia pulcherrima	Dwarf Poinciana	L	L	M	M	/	M	12-16, 18-23	10'	10'	✓	✓				
Calliandra californica	Baja Fairy Duster	/	/	VL	L	/	L	10-24	5'	5'-6'	✓	✓	✓			
Calliandra eriophylla	Fairy Duster	/	/	VL	VL	/	L	10-24	3'	4'-5'	✓	✓	✓			
Calliandra inaequilatera*	Red/Pink Powder Puff								12'-15'	10'-12'						
Callistemon viminalis 'Little John'	Weeping Bottlebrush	L	L	M	M	/	M	6-9, 12-24	3'	3'	✓	✓				
Calocephalus brownii	Cushion Bush	L	/	L	L	/	L	16, 17, 19, 21-24	3'	3'	✓	✓				
Calycanthus occidentalis	Spice Bush	L	L	M	M	/	/	4-9, 14-24	4'-12'	4'-12'	✓	✓			✓	
Carissa macrocarpa	Natal Plum	L	/	M	M	/	M	22-24; H2	5'-7'	5'-7'	✓	✓	✓			
Carpenteria californica	Bush Anemone	L	L	L	M	/	/	5-9, 14-24, 31	6'-8'	4'-5'	✓	✓	✓		✓	
Ceanothus spp.	California Wild Lilac	L	L	L	L	L	/	5-9, 14-24	3'-15'	3'-15'	✓	✓	✓		✓	
Cercocarpus betuloides	Mountain Ironwood	VL	VL	VL	VL	VL	/	3, 5, 7-10, 13-24	5'-12'	5'-12'	✓	✓				
Cercocarpus minutiflorus**	San Diego Mountain Mahogany	L	/	VL	VL	/	/	3, 5, 7-10, 13-24	5'-12'	5'-12'	✓	✓				
Chamaelucium uncinatum	Geraldton Wax Flower	L	L	L	M	/	M	8, 9, 12-24	6'-8'	6'-8'	✓	✓				
Cistus spp.	Rockrose	L	L	L	L	L	L	6-9, 14-24	3'-6'	3'-6'	✓	✓	✓			
Cocculus laurifolius	Cocculus	M	M	M	M	/	M	8, 9, 12-24	25'	25'	✓	✓				
Convolvulus cneorum	Bush Morning Glory	L	L	L	L	L	L	7-9, 12-24	2'-4'	2'-4'	✓	✓				
Convolvulus mauritanicus (C. sasbatus)	Ground Morning Glory	L	L	L	L	M	M	4-9, 12-24	1'-2'	3'	✓	✓				
Cordia boissieri	Texas Olive	?	?	?	L	L	L	8-24	12'	8'-10'	✓	✓				
Cordia parvifolia	Little Leaf Cordia	?	?	L	L	/	L	8-14, 18-24	12'	8'-10'	✓	✓				
Correa spp.	Australian Fuchsia	L	L	L	L	/	M	14-24	2'-5'	2'-5'	✓	✓				
Cotoneaster adpressus praecox	Creeping Cotoneaster	L	L	L	M	M	M	2-24	6'	6'	✓	✓		N	✓	
Cotoneaster apiculatus	Cranberry Cotoneaster	L	L	L	M	M	M	A3, 2-24	3'	6'	✓	✓		N	✓	
Cotoneaster buxifolius**	Cotoneaster Buxifolius	L	L	L	M	M	M	2-24	3'	6'	✓	✓		N	✓	
Cotoneaster congestus (C. micro. gla.)	Pyrenees Cotoneaster	L	L	L	M	M	M	3b-24	3'	3'	✓	✓		N	✓	
Cotoneaster glaucophyllus	Bright Bead Cotoneaster	?	M	?	?	?	?	7-8	5'	5'	✓	✓		N	✓	
Cotoneaster parneyi	Parney Cotoneaster	L	L	L	L	L	L	4-24	8'	10'	✓	✓		N	✓	
Cotoneaster salicifolius	Willowleaf cotoneaster	L	L	L	M	M	M	3b-24	15'-18'	15'-18'	✓	✓		N	✓	
Crassula spp.	Crassula	L	L	L	L	/	L	8, 9, 12-24	1'-4'	1'-4'						
Cuphea llavea	Bat-Faced Cuphea	M	?	?	?	/	/	16-24	2'-3'	3'	✓	✓				



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<b>SHRUBS (continued)</b>															
<i>Dalea bicolor</i>	Dalea	/	/	L	L	/	M	10-13	8'	5'-6'	✓	✓			
<i>Dalea pulchra</i>	Bush Dalea	?	?	?	?	?	L	12,13	8'	5'	✓	✓			
<i>Dendromecon harfordii</i>	Island Bush Poppy	VL	L	VL	L	/	/	7-9, 14-24	8'-20'	8'-20'	✓	✓			
<i>Dendromecon rigida</i>	Bush Poppy	VL	L	VL	L	/	/	4-12, 14-24	4'-8'	4'-6'	✓	✓			
<i>Diosma pulchrum</i>	Breath of Heaven	M	M	M	M	M	M	7-9,14-24	5'	5'	✓	✓			
<i>Dodonaea viscosa</i>	Hopbush	L	L	L	M	/	M	7-24	10'-15'	10'-15'	✓	✓			
<i>Echium fastuosum</i>	Pride of Madeira	L	L	L	L	/	M	14-24	5'-6'	6'-10'	✓	✓			
<i>Elaeagnus pungens</i>	Silverberry	L	L	L	L	L	L	4-24	10'-15'	10'-15'	✓	✓		N	
<i>Encelia californica</i>	Brown Eyed Susan	/	/	VL	L	/	L	7-16, 18-24	3'	4'	✓	✓			
<i>Encelia farinosa</i>	Brittlebush	/	/	VL	L	L	L	8-16, 18-24	3'	4'	✓	✓			
<i>Eremophila maculata</i>	Red Eremophila	L	L	L	L	L	L	8,9, 13-24	3'	6'	✓	✓			
<i>Eriogonum fasciculatum</i>	California Buckwheat	L	L	VL	L	L	L	7-9, 12-24	1'-3'	4'	✓	✓			
<i>Escallonia species</i>	Escallonia	M	M	M	M	/	M	4-9, 14-24	3'-15'	3'-15'	✓	✓			
<i>Euonymus japonicus</i> spp.	Euonymous	L	L	M	M	M	M	4-20	8'-10'	6'	✓	✓			
<i>Euryops pectinatus</i>	Shrub Daisy	L	L	L	L	M	M	8, 9, 12-24	3'-6'	3'-6'	✓	✓			
<i>Fallugia paradoxa</i>	Apache plume	/	?	VL	VL	L	L	2-23	4'-6'	5'	✓	✓			
<i>Feijoa sellowiana</i> ( <i>Acca sellowiana</i> )	Pineapple Guava	L	L	L	M	/	M	6-9, 12-24	10'-25'	10'-25'	✓	✓			
<i>Forestiera neomexicana</i>	Desert Olive	?	?	L	L	L	L	1-3, 7-24	12'-18'	12'	✓	✓			
<i>Fremontodendron</i> spp.	Flannel Bush	VL	VL	VL	L	/	/	4-24	20'	12'	✓	✓	✓		
<i>Galvezia speciosa</i>	Island Bush Snapdragon	L	L	VL	L	?	M	14-24	3'	5'	✓	✓	✓		
<i>Garrya elliptica</i>	Coast Silk Tassel	L	L	L	M	/	/	4-9, 14-24	10'-20'	10'-20'	✓	✓	✓		
<i>Grevillia 'Noellii'</i>	Noel's Grevellia	L	L	L	L	/	M	8, 9, 12-24	4'	4'-5'	✓	✓			
<i>Grewia occidentalis</i>	Lavender Star Flower	M	M	M	M	/	M	8, 9, 12-24	6'-10'	6'-10'	✓	✓			
<i>Hakea laurina</i>	Sea Urchin Tree	L	L	L	L	/	/	9, 12-17, 19-24	10'-25'	9'-30'	✓	✓	✓		
<i>Hakea suaveolens</i>	Sweet Scented Hakea	L	L	L	L	/	/	9, 12-17, 19-24	10'-20'	10'-20'	✓	✓	✓		
<i>Hebe 'Veronica Lake'</i>	Veronica Lake Hebe	M	M	M	M	/	/	14-24	3'	3'	✓	✓			
<i>Heteromeles arbutifolia</i>	Toyon	VL	VL	L	L	/	/	5-9, 14-24	6'-10'	6'-10'	✓	✓	✓		
<i>Heuchera sanguinea</i>	Coral Bells	M	M	M	M	M	M	A1-A3, 1-11, 14-24	1'-2'	1'-2'	✓	✓			
<i>Hibiscus rosa-sinensis</i>	Hibiscus	M	M	M	M	/	H	9, 12-16, 19-24	8'-15'	5'-8'	✓	✓			
<i>Ilex cornuta 'Burfordii'</i>	Burford Holly	L	M	M	M	M	M	3-24	15'	10'	✓	✓			
<i>Ilex vomitoria</i>	Yaupon	L	M	L	L	M	M	3-9, 11-24	15'-20'	10'-15'	✓	✓			
<i>Juniperus chinensis X pfitzeriana</i>	Pfitzer Juniper	L	L	L	M	M	M	A2, A3, 1-24	5'-6'	10'-12'	✓	✓			
<i>Juniperus chinensis 'Torulosa'</i>	Hollywood Juniper	L	L	L	M	M	M	1-24	15'	10'	✓	✓			
<i>Justicia californica</i>	Chuparosa	M	/	VL	L	L	M	10-14, 18-24	6'	6'	✓	✓			
<i>Justicia spicigera</i>	Mexican Honeysuckle	/	?	L	L	/	L	12-24	3'	4'	✓	✓			
<i>Lantana camara</i>	Bush Lantana	L	L	L	L	/	M	8-10, 12-24	6'	6'	✓	✓	✓	N	
<i>Lantana montevidensis</i> (gold cultivars)	Trailing Lantana	L	L	L	L	/	M	8-10, 12-24	2'	6'	✓	✓	✓	N	
<i>Larrea tridentata</i>	Creosote Bush	VL	VL	VL	L	L	L	7-14, 18-21	8'	8'	✓	✓	✓		
<i>Lavandula species</i>	Lavender	L	L	L	L	M	M	2-24, varies per species	2'-6'	2'-6'	✓	✓			
<i>Lavatera assurgentiflora</i>	Tree Mallow	L	M	L	L	/	M	14-24	12'	12'	✓	✓			
<i>Lavatera bicolor</i> ( <i>L. maritima</i> )	Calironia Tree Mallow	L	L	M	M	?	?	6-9, 12-24	8'	4'	✓	✓			
<i>Leonotis leonurus</i>	Lion's Tail	L	L	L	L	M	M	8-24	6'	6'	✓	✓			
<i>Leptospermum laevigatum</i>	Australian Tea Tree	L	L	L	L	/	/	14-24	30'	30'	✓	✓			
<i>Leptospermum scoparium</i> spp.	New Zealand Tea Tree	M	M	M	M	/	/	14-24	4'-12'	4'-8'	✓	✓			
<i>Leucophyllum species candidum</i>	Texas Sage, Silverleaf	L	L	L	L	L	L	7-24	4'-8'	4'-8'	✓	✓			

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<b>SHRUBS (continued)</b>															
Ligustrum japonicum 'Texanum'	Texas Privet	M	M	M	M	M	M	4-24	12'	8'	✓	✓			
Lobelia laxiflora	Mexican Bush Lobelia	?	?	VL	VL	?	M	7-9, 12-24	3'	6'	✓	✓			
Lonicera nitida	Box Honeysuckle	L	M	/	M	/	/	4-9, 14-24	11'	10'	✓	✓			✓
Lycium fremontii**	Wolfberry	/	L	L	L	L	L	8-16, 18-24	9'	9'	✓	✓			
Mahonia species	Oregon Grape	M	M	M	M	M	M	2-12, 14-24	5'-12'	5'-6'	✓	✓	✓	✓	
Malacothamnus fasciculatus**	Mesa Bushmallow	VL	L	VL	L	/	/	7-24	4'-6'	4'-6'	✓	✓	✓	✓	✓
Melaleuca nesophila	Pink Melaleuca	L	L	L	L	/	/	13, 16-24	20'	20'	✓	✓	✓	✓	
Mimulus aurantiacus	Sticky Monkey Flower	L	L	L	L	/	/	7-9, 14-24	4 1/2'	4 1/2'	✓	✓	✓	✓	
Myrica californica	Pacific Wax Myrtle	L	L	L	M	/	/	4-9, 14-24	30'	30'	✓	✓			✓
Myrsine africana	African Boxwood	L	L	L	M	/	/	8, 9, 14-24	8'	6'	✓	✓			
Myrtus communis	Common Myrtle	L	L	L	M	M	M	8-24	6'	5'	✓	✓			
Nandina domestica species	Heavenly Bamboo	L	L	L	M	M	M	4-24	8'	4'	✓	✓			
Nerium oleander	Oleander	L	L	L	L	M	M	8-16, 18-24	20'	12'	✓	✓			
Philadelphus mexicanus	Evergreen Mock Orange	L	M	M	M	M	M	8, 9, 14-24	6'	6'	✓	✓			
Phlomis fruticosa	Jerusalem Sage	L	L	L	L	M	M	3b-24	4'	4'	✓	✓			
Photinia serratifolia (P. serrulata)	Chinese Photinia	M	M	/	M	M	M	4-16, 18-22	30'	30'	✓	✓	✓	✓	
Photinia x fraseri	Fraser's Photinia	M	M	M	M	M	M	3b, 4-24	15'	15'	✓	✓	✓	✓	
Pittosporum tobira and hybrids	Tobira / Japanese Mock Orange	L	M	M	M	M	M	8-24	15'	15'	✓	✓	✓	✓	
Plecostachys serpyllifolia (Helichrysum)	Straw Flower	L	L	L	L	M	M	8, 9, 14-24	1 1/2'	3'	✓	✓			
Plumbago auriculata (campense)	Cape Plumbago	L	M	M	M	/	M	8, 9, 12-24	6'	10'	✓	✓		N	
Polygala dalmasiana	Sweet Pea Shrub	L	M	M	M	/	/	8, 9, 12-24	5'	5'	✓	✓			
Potentilla gracilis (P. fruticosa)	Cinquefoil	M	M	/	/	M	/	A1-A3, 1-11, 14-21	2'-4'	2'-4'	✓	✓			✓
Prunus caroliniana	Laurel Cherry	L	L	M	M	M	M	5-24	10'-25'	8'-25'	✓	✓	✓	✓	
Prunus ilicifolia	Hollyleaf Cherry	L	L	VL	VL	/	/	5-9, 12-24	10'-25'	10'-25'	✓	✓	✓	✓	
Punica granatum 'Nana'	Dwarf Pomegranate	L	L	M	M	M	M	5-24, H1	3'	6'	✓	✓	✓	✓	
Pyracantha species	Firethorn	L	L	L	M	M	M	4-24	4'-10'	4'-10'	✓	✓	✓	✓	
Rhamnus californica	Coffeeberry	L	L	VL	L	/	M	3a-10, 14-24	15'	8'	✓	✓	✓	✓	
Rhamnus crocea	Redberry	L	L	VL	L	/	M	7, 14-24	3'	6'	✓	✓	✓	✓	✓
Rhaphiolepis indica	Indian Hawthorn	L	L	M	M	M	M	8-10, 12-24	5'	6'	✓	✓	✓	✓	
Rhus integrifolia	Lemonade Berry	L	L	VL	L	/	/	8, 9, 14-17, 19-24	10'	10'	✓	✓	✓	✓	✓
Rhus laurina	Laurel Sumac	VL	L	VL	L	/	/	8, 9, 14-17, 19-25	15'	15'	✓	✓	✓	✓	
Rhus ovata	Sugar Bush	L	L	VL	L	M	M	9-12, 14-24	10'	10'	✓	✓	✓	✓	
Rhus trilobata	Squawbush	L	L	L	L	L	/	1-12, 14-21	5'	5'	✓	✓	✓	✓	
Ribes aureum	Golden Currant	L	L	L	L	L	/	A2, A3, 1-12, 14-23	6'	6'	✓	✓	✓	✓	✓
Ribes indecorum	White Flowering Currant	L	L	L	L	L	/	7-9, 11, 14-24	9'	6'	✓	✓	✓	✓	
Ribes malvaceum	Chaparral Currant	VL	VL	VL	L	/	/	6-9, 14-24	5'	5'	✓	✓	✓	✓	
Ribes sanguineum	Red Flowering Currant	L	L	L	M	/	/	A3, 4-9, 14-24	12'	12'	✓	✓	✓	✓	✓
Ribes speciosum	Fuchsia Flowering Gooseberry	L	L	L	M	/	/	7-9, 14-24	8'	10'	✓	✓	✓	✓	
Ribes viburnifolium	Evergreen Current	L	L	L	M	/	/	5, 7-9, 13-17, 19-24	3'-6'	12'	✓	✓	✓	✓	✓
Romneya coulteri	Matilija Poppy	VL	VL	VL	L	/	/	4-12, 14-24	6'-8'	6'-8'	✓	✓	✓	✓	
Rosa banksiae	Lady Bank's Rose	L	L	M	M	M	M	4-24	12'-20'	12'-20'	✓	✓			
Rosa californica**	California Wild Rose	L	L	L	L	/	/	4-24	3'-9'	3'-9'	✓	✓	✓	✓	✓
Rosmarinus officinalis 'Tuscan Blue'	Tuscan Blue Rosemary	L	L	L	L	M	M	4-24	7'	3'	✓	✓			
Rubus ursinus**	Pacific Blackberry	L	L	M	?	?	?	4-6, 14-17	10'-20'	10'-20'	✓	✓			✓
Ruellia brittoniana	Mexican Barrio Ruellia	M	?	L	?	M	L	8, 9, 12-24	3'	1 1/2'	✓	✓			
Ruellia californica	Sonoran Desert Ruellia	?	?	VL	VL	/	L	12, 13	4 1/2'	4 1/2'	✓	✓			

**COUNTY OF RIVERSIDE CALIFORNIA  
FRIENDLY PLANT LIST**

<i>Botanical</i>	<i>Common</i>	<i>Wucols Region 1</i>	<i>Wucols Region 2</i>	<i>Wucols Region 3</i>	<i>Wucols Region 4</i>	<i>Wucols Region 5</i>	<i>Wucols Region 6</i>	<i>Sunset Zones</i>	<i>Mature Height (Feet)</i>	<i>Mature Width (Feet)</i>	<i>Road Right-of-Way</i>	<i>Erosion Control / Slope †</i>	<i>Fuel Mod. (per F.D. approval) †</i>	<i>MSHCP Adjacent †</i>	<i>Water Quality / BioSwale †</i>
<b>SHRUBS (continued)</b>															
<i>Russelia equisetiformis*</i>	Coral Fountain	/	L	M	M	M	M	14, 19-24	5'	5'	✓	✓			
<i>Russelia polyedra*</i>	Wild Coral Fountain	/	L	M	M	M	M	14, 19-24	5'	5'	✓	✓			
<i>Salvia apiana</i>	White Sage	VL	L	VL	VL	L	L	7-9, 11, 13-24	5'	5'	✓	✓			
<i>Salvia argentea</i>	Silver Sage	L	L	L	L	?	?	1-24	10"	2'	✓	✓	✓		
<i>Salvia clevelandii &amp; hybrids</i>	Salvia	L	L	VL	L	L	L	8, 9, 12-24	5'	8'	✓	✓	✓		
<i>Salvia greggii &amp; hybrids</i>	Autumn Sage	L	L	L	L	M	M	8-24	4'	4'	✓	✓	✓		
<i>Salvia leucantha</i>	Mexican Bush Sage	L	L	L	L	/	M	12-24	4'	6'	✓	✓	✓		
<i>Salvia leucophylla</i>	Purple Sage	L	/	L	L	/	M	8, 9, 14-17, 19-24	5'	5'	✓	✓	✓		
<i>Salvia mellifera</i>	Black Sage	L	L	L	L	/	M	7-9, 14-24	6'	5'	✓	✓			
<i>Sambucus mexicana</i>	Mexican Elderberry	L	L	L	L	M	M	2-24	30'	20'	✓	✓			✓
<i>Santolina chamaecyparissus (S. incana)</i>	Lavender Cotton	L	L	L	L	L	L	2-24	2'	3'	✓	✓			
<i>Santolina rosmarinifolia (S. virens)</i>	NCN	L	L	L	L	L	L	3-9, 14-24	2'	3'	✓	✓			
<i>Sarcococca ruscifolia</i>	Fragrant Sweet Box	L	M	M	M	/	/	4-9, 14-24	6'	7'	✓	✓			
<i>Senna artemesioides (Cassia art.)</i>	Feathery Cassia/Senna	L	L	L	L	L	L	8, 9, 12-16, 18-23	3'-6'	3'	✓				
<i>Senna oligophylla (Cassia oligophylla)*</i>	Outback Senna	L	L	L	L	L	L	12-24	5'	5'	✓				
<i>Senna nemophila (Cassia nemophila)</i>	Desert Cassia	/	?	L	L	L	L	12-24	5'	5'	✓	✓			
<i>Senna phyllodenia (Cassia phyllodenia)</i>	Silver Senna/Cassia	?	?	L	L	L	L	12-24	6'	6'	✓	✓			
<i>Senna spectabilis (Cassia excelsa)**</i>	Senna/Cassia spectabilis	?	?	L	L	?	?	12-24	6'	6'	✓	✓			
<i>Senna sturtii (Cassia sturtii)</i>	Sturt's Cassia/Senna	/	/	L	L	L	L	12-24	6'	4'	✓	✓			
<i>Shepherdia argentea</i>	Silver Buffalo Berry	L	?	VL	VL	?	?	1-3, 7, 10	12'	12'	✓	✓			
<i>Simmondsia chinensis</i>	Jojoba	VL	VL	VL	VL	L	L	7-24	6'	6'	✓	✓	✓		
<i>Solanum rantonnetii (Lycianthus rant.)</i>	Blue Potato Bush	M	M	M	M	/	M	12, 13, 15-24	8'-12'	6'-10'	✓	✓			
<i>Solanum xanthii</i>	Purple Nightshade	L	L	L	L	/	L	7-9, 11, 14-24	3'	3'	✓	✓			
<i>Sollya heterophylla</i>	Australian Bluebell Creeper	L	L	L	L	/	/	8, 9, 14-24	3'	5'	✓	✓			
<i>Sophora arizonica</i>	Arizona Sophora	L	L	L	L	M	M	10-13	10'	10'	✓	✓			
<i>Sophora secundiflora</i>	Texas Mountain Laurel	L	L	L	L	M	M	8-16, 18-24	25'	15'	✓	✓			
<i>Sphaeralcea ambigua</i>	Desert Mallow	L	L	L	L	/	L	3, 7-24	4'	3'	✓	✓	✓		
<i>Spiraea douglasii</i>	Western Spiraea	M	M	M	M	M	M	1-9, 14-21	6'	6'	✓	✓			✓
<i>Spiraea japonica</i>	Spiraea	M	M	M	M	M	M	A2, A3, 2-10, 14-21	6'	6'	✓	✓			✓
<i>Symphoricarpos albus</i>	Snow Berry	L	L	L	L	?	/	A3, 1-11, 14-21	2'-6'	2'-6'	✓	✓			
<i>Tagetes lemmonii</i>	Mountain Marigold	L	L	L	L	M	M	8-10, 12-24	6'	6'	✓	✓			
<i>Tecoma alata*</i>	Orange Bells	M	M	L	L	/	M	12, 13, 21-24	8'	5'	✓	✓			
<i>Tecoma garrocha*</i>	Argentine Tecoma	M	M	L	L	/	M	12, 13, 21-24	5'	5'	✓	✓			
<i>Tecoma stans cultivars</i>	Yellow Bells (Shrub Forms)	M	M	L	L	/	M	12, 13, 21-24	10'	8'	✓	✓			
<i>Tecomaria capensis</i>	Cape Honeysuckle	M	M	M	M	/	M	12, 13, 20-24	8'	5'	✓				
<i>Teucrium chamaedrys</i>	Germander	L	L	L	L	M	M	2-24	1'	2'	✓	✓			
<i>Teucrium fruticans</i>	Bush Germander	L	L	L	L	/	M	4-24	8'	8'	✓	✓	✓		
<i>Teucrium marum</i>	Cat Thyme	L	L	L	L	?	?	3-9, 14-24	1 1/2'	1 1/2'	✓	✓			
<i>Vauquelinia californica</i>	Arizona Rosewood	L	?	/	/	M	M	10-13	20'	15'	✓	✓			
<i>Vauquelinia corymbosa angustifolia*</i>	Chihuahuan Rosewood	L	?	/	/	M	M	10-13	20'	15'	✓	✓			
<i>Viburnum japonicum</i>	Viburnum	M	M	M	M	M	/	5-10, 12, 14-24	15'	12'	✓	✓			
<i>Viburnum suspensum</i>	Sandankwa Viburnum	M	M	M	M	M	M	12-24	10'	10'	✓	✓			
<i>Viguiera deltoidea*</i>	Goldeneye	/	/	VL	L	L	L	10-24	3'	3'	✓	✓			
<i>Westringia fruticosa (rosmariniformis)</i>	Coast Rosemary	L	L	L	L	/	M	8, 9, 14-24	3'	3'	✓	✓			
<i>Westringia longifolia</i>	Coast Rosemary	L	?	L	?	/	M	8, 9, 14-24	3'	2'	✓	✓			
<i>Xylosma congestum</i>	Shiny Xylosma	L	L	M	M	M	M	8-24	10'	10'	✓	✓	✓		

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<b>ACCENTS / GRASSES</b>															
Agapanthus species	Lily of the Nile	M	M	M	M	/	M	6-9, 12-24	1 1/2'-5'	1'-2'	✓				
Agave species	Agave	L	L	L	L	/	L	10, 12-24 varies per species	1'-10'	1'-10'	✓	✓	✓		
Alopecurus pratensis**	Yellow Foxtail Grass	?	?	M	?	?	?	7-9, 14-24	2'	2'	✓	✓	✓		✓
Aloe species	Aloe	L	L	L	L	/	L	8, 9, 12-24	1'-3'	1'-3'	✓	✓	✓		
Anigozanthos cultivars (A. flavidus)	Kangaroo Paw	L	L	L	L	/	M	15-24	5'	2'-3'	✓				
Asclepias subulata	Desert Milkweed	L	L	L	L	L	L	1-24	3'-6'	2'-3'	✓	✓	✓		
Bouteloua gracilis	Blue Grama Grass	L	L	?	?	M	?	1-3, 7-11, 14, 18-21	1 1/2'-2'	1'	✓	✓			
Calamagrostis acutiflora	Feather Reed Grass	L	?	M	M	?	?	2b-24	2'-3'	2'-3'	✓	✓			✓
Carex species (non-native)	Sedge	M	M	M	M	/	M	varies per species	1'-3'	1'-3'	✓			N	
Carex species (native)	Sedge	M	M	M	M	/	M	varies per species	1'-3'	1'-3'	✓				✓
Carnegiea gigantea	Saguaro	/	/	VL	L	/	L	12, 13, 18-21	50'	18"-8"	✓		✓		
Cephalocereus spp.	Old Man Cactus	VL	/	VL	L	L	L	13, 21-24	15'-45'	12"-5"	✓	✓	✓		
Cereus peruvianus	Peruvian Apple Cactus	/	?	L	L	/	L	13, 16, 17, 21-24	10'	15'	✓	✓	✓		
Chamaerops humilis	Mediterranean Fan Palm	L	L	M	M	M	M	4-24	20'	20'	✓	✓			
Chondropetalum tectorum	Cape Rush	H	?	M	?	?	?	8, 9, 14-24	3'-5'	4'-6'	✓				✓
Clivia miniata	Kaffir Lily	M	M	L	M	/	M	12-17, 19-24	2'	2'	✓				
Cordyline australis	Giant Dracaena	L	M	L	M	M	M	5, 8-11, 14-24	20'-30'	6'-12'	✓	✓			
Cycas revoluta	Sago Palm	M	M	M	M	M	M	8-24	2'-10'	2'-6'	✓				
Dasyilirion species	Desert Spoon	VL	/	L	L	L	L	10-24	5'	5'	✓	✓	✓		
Deschampsia caespitosa	Tufted Hair Grass	L	L	L	L	/	/	2-24	1'-2'	2'	✓				✓
Deschampsia flexuosa*	Crinkled Hair Grass	L	L	L	L	/	/	2-24	2'	1'	✓				✓
Distichlis spicata 'Stricata**	Salt Grass	M	M	M	M	M	M	7-9, 14-24	2'	1'	✓				✓
Diets bicolor	Fortnight Lily	L	L	M	M	/	M	8, 9, 12-24	2'-3'	1'-2'	✓				
Diets iridioides (vegeta)	African iris	L	L	M	M	/	M	8, 9, 12-24	3'	3'	✓				
Dudleya lanceolata**	LiveForever	L	L	VL	L	L	L	7-24	1'-2'	1'-2'	✓	✓	✓		
Echeveria elegans	Hens and Chickens	L	L	L	L	/	M	8, 9, 12-24	4"	8"	✓				
Echinocactus grusonii	Golden Barrel Cactus	VL	VL	L	L	/	L	12-24	4'	2 1/2'	✓	✓	✓		
Eleocharis macrostachya**	Spike Rush	M	M	M	M	M	M	7-9, 14-24	1'-2'	1'-2'	✓				✓
Elymus magellanicus	Magellan Wheatgrass	L	L	L	L	M	M	3-6, 14-17, 21-24	1 1/2'	1 1/2'	✓				✓
Ephedra viridis*	Morman Tea	L	L	L	L	L	L	1-3, 7-24	3'-4'	3'-4'	✓	✓	✓		
Esposita lantana	Peruvian Old Man Cactus	?	?	L	L	L	L	12-24	8'	2'	✓	✓	✓		
Euphorbia characias wulfenii	no common name	L	L	L	L	?	?	4-24	4'	4'	✓	✓	✓		
Euphorbia ingens*, **	Candelabra Tree	L	L	L	L	?	?	4-25	8'	4'	✓	✓	✓		
Euphorbia milii	Crown of Thorns	/	L	L	L	/	L	13, 21-24	1'-4'	1 1/2'	✓	✓	✓		
Euphorbia rigida	Euphorbia	/	L	VL	L	/	L	4-24	2'	3'-5'	✓	✓	✓		
Euphorbia tirucalli	Pencil Tree (milk bush)	/	/	VL	/	/	L	13, 23, 24	20'	6'	✓	✓	✓		
Ferocactus spp.	Barrel Cactus	VL	VL	VL	L	L	L	8-24	8'-9'	3'	✓	✓	✓		
Festuca (ovina) glauca	Blue Fescue	L	L	M	M	M	M	1-24	1'	10"	✓	✓			
Festuca idahoensis	Fescue	VL	L	?	?	?	?	1-10, 14-24	14"	10"	✓				✓
Fouquieria splendens	Ocotillo	L	/	VL	L	L	L	10-13, 18-20	5'-10'	8'-25'	✓	✓	✓		
Helictotrichon sempervirens	Blue Oat Grass	L	L	M	M	M	M	1-12, 14-24	2'-3'	2'-3'	✓	✓			✓
Hemerocallis hybrids	Day Lily	M	M	M	M	M	M	1-24, H1, H2	6'	2'-3'	✓				
Hesperaloe funifera	Coahuilan Hesperaloe	/	/	VL	L	L	L	12, 13	6'	6'-8'	✓	✓	✓		
Hesperaloe parviflora	Red / Yellow Yucca	/	/	VL	L	L	L	2b, 3, 7-16, 18-24	3'-4'	3'-4'	✓	✓	✓		
Imperata cylindrica rubra	Japanese Blood Grass	H	H	M	M	?	M	2b-24	1'-2'	1'	✓				✓

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<b>ACCENTS / GRASSES (continued)</b>															
<i>Iris douglasiana</i>	Douglas Iris	L	L	M	M	H	/	4-9, 14-24	1'-2'	1'	✓				✓
<i>Juncus acutus**</i>	Spiny Rush	H	H	M	M	?	?	4-9, 14-24	1'	1'	✓				✓
<i>Juncus patens</i>	California Gray Rush	H	H	M	M	?	?	4-9, 14-24	2'	2'	✓				✓
<i>Kalanchoe thyrsiflora</i>	Paddle Plant	L	L	L	L	/	M	13, 17, 21-24	1'-3'	1'-3'					
<i>Kniphofia triangularis (K. galpinii)</i>	Coral Poker	M	M	L	L	/	M	2-9, 14-24	2'	2'	✓	✓			
<i>Kniphofia uvaria</i>	Red Hot Poker	M	M	L	L	/	M	2-9, 14-24	2'	2'	✓	✓	✓		
<i>Leymus condensatus</i>	Giant Wild Rye	VL	VL	M	M	?	?	7-12, 14-24	9'	6'	✓				✓
<i>Leymus triticoides**</i>	Creeping Wild Rye	VL	VL	M	M	?	?	7-12, 14-24	3'	3'	✓				✓
<i>Lilium paradalinum</i>	Leopard Lily	M	M	M	M	M	M	4-7, 14-17	4'-8'	4'	✓				✓
<i>Liriope gigantea**</i>	Giant Lilyturf	M	M	M	M	M	M	2B-10, 14-24	3'	2'	✓				
<i>Liriope muscari</i>	Big Blue Lilyturf	M	M	M	M	M	M	2B-10, 14-24	1 1/2'	1'	✓				
<i>Milium effusum 'Aureum'</i>	Bowles Golden Grass	M	?	?	?	?	?	3b-9, 14-17	2'	2'	✓				✓
<i>Miscanthus sinensis</i>	Japanese Silver Grass	H	H	M	M	M	M	2-24	2'-6'	2'-6'	✓	✓			✓
<i>Miscanthus transmorrisonensis</i>	Evergreen Miscanthus	H	H	M	M	M	M	2-24	2'-3'	3'-4'	✓	✓			✓
<i>Muhlenbergia capillaris</i>	Pink Muhly (Hairy awn muhly)	L	?	M	?	M	M	4-24	3'	6'	✓	✓			✓
<i>Muhlenbergia dumosa</i>	Bamboo Muhly	L	?	M	M	M	M	8-24	3'-6'	3'-6'	✓	✓			✓
<i>Muhlenbergia emersleyi</i>	Bull Grass	M	?	?	?	?	M	2-24	1 1/2'	3'-4'	✓	✓	✓		✓
<i>Muhlenbergia lindheimeri*</i>	Muhly Grass	L	?	M	M	M	M	6-24	4'-5'	4'-5'	✓	✓			✓
<i>Muhlenbergia rigens</i>	Deer Grass	L	M	L	M	M	M	4-24	4'	4'	✓	✓			✓
<i>Nolina species</i>	Grass Tree, Nolina	VL	VL	VL	VL	L	L	varies per species	3'-25'	3'-12'	✓	✓	✓		
<i>Opuntia species</i>	Prickly Pear, Cholla	VL	VL	VL	L	L	L	varies per species	1'-15'	1'-15'	✓	✓	✓		
<i>Pachycereus marginatus</i>	Mexican Fence	/	?	L	L	/	L	13, 16, 17, 21-24	25'	12'	✓	✓	✓		
<i>Panicum virgatum</i>	Switch Grass	M	?	?	?	?	?	1-11, 14-23	4'-7'	2'-4'	✓	✓			✓
<i>Penstemon parryi</i>	Parry's Beardtongue	L	L	L	L	L	L	10-13	3'	2'	✓	✓	✓		
<i>Penstemon superbus**</i>	Superb Beardtongue	L	L	L	L	L	L	10-13	2'-3	2'	✓				
<i>Phoenix roebelenii</i>	Pigmy Date Palm	L	/	M	/	M	M	13, 16, 17, 22-24	6'-10'	6'-8'	✓	✓			
<i>Phormium tenax</i>	New Zealand Flax	L	L	L	M	/	M	7-9, 14-24	1'-9'	1'-5'	✓	✓			
<i>Portulacaria afra</i>	Elephants Food	L	L	L	L	/	L	8, 9, 12-24	12'	12'	✓	✓			
<i>Romneya coulteri</i>	Matilija Poppy	VL	VL	VL	L	/	/	4-12, 14-24	6'-8'	15'	✓	✓	✓		
<i>Scirpus cernuus</i>	Fiber Optics Plant	H	H	H	H	H	H	7-24	2'	2'	✓				✓
<i>Scirpus maritimus**</i>	Bulrush	M	M	M	M	M	M	7-24	2'	2'	✓				✓
<i>Sedum species</i>	Various Sedum	L	L	L	L	L	L	8, 9, 12, 14-24 (per species)	2"-18"	6"-24"	✓	✓	✓		
<i>Senecio cineraria</i>	Dusty Miller	L	L	L	L	/	M	4-24, H1	2'-3'	2'-3'	✓	✓			
<i>Senecio mandraliscae</i>	Blue Chalk Sticks	/	/	L	M	/	M	12, 13, 16, 17, 21-24	1'-1 1/2'	2'	✓	✓			
<i>Sisyrinchium bellum</i>	Blue-Eyed Grass	VL	VL	L	L	M	M	4-9, 14-24	4"-2'	6"-2'	✓				✓
<i>Sisyrinchium californicum</i>	Yellow-eyed Grass	M	M	M	M	M	M	4-9, 14-24	6"-2'	8"-10"	✓				✓
<i>Spartina pectinata*</i>	Praire Cord Grass	M	M	M	M	M	M	1-9, 14-24	5'	3'	✓				✓
<i>Stenocereus thurberi (Lemaireocereus)</i>	Organpipe Cactus	/	/	VL	L	/	L	12-24	15'-20'	12'	✓	✓	✓		
<i>Strelitzia nicolai (protected areas only)</i>	Giant Bird of Paradise	M	/	M	M	/	M	22-24	5'-30'	5'-30'	✓				
<i>Strelitzia reginae (protected areas only)</i>	Bird of Paradise	M	M	M	M	/	M	22-24	5'-6'	5'-6'	✓				
<i>Trichostema lanatum</i>	Woolly Blue Curls	VL	VL	VL	L	/	M	14-24	3'-5'	4'-8'	✓	✓			
<i>Tulbaghia violacea</i>	Society Garlic	M	M	M	M	/	M	13-24	1'-2'	1'-2'	✓				
<i>Yucca species</i>	Yucca, Joshua Tree	L	L	L	L	L	L	varies per species	3'-30'	5'-30'	✓	✓			

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<b>GROUNDCOVER</b>															
Acacia redolens 'Desert Carpet'	Trailing Acacia	L	L	L	L	L	L	13, 18, 19, 23	24"	15'	✓	✓	✓	N	
Achillea tomentosa	Yarrow Woolly	L	L	L	L	M	M	A1-A-3, 1-24	6"	18"	✓	✓	✓		
Anemopsis californica**	Yerba Mansa	?	?	?	?	H	H	7-9, 14-24	6"	1'	✓				✓
Aptenia 'Red Apple'	Red Apple	L	L	L	L	/	H	12, 13, 15-17, 21-24	6"	2'	✓	✓	✓	N	
Arctostaphylos 'Emerald Carpet'	Emerald Carpet Manzanita	VL	L	L	L	/	/	6-9, 14-24	8"-14"	8"-14"	✓	✓	✓		
Arctostaphylos hookeri	Monterey Manzanita	VL	L	L	L	/	/	6-9, 14-24	4'	6'	✓	✓	✓		
Arctostaphylos 'Pacific Mist'	Pacific Mist Manzanita	VL	L	L	L	/	/	7-9, 14-24	2 1/2'	10'	✓	✓	✓		
Artemisia arborescens 'Powis Castle'	Powis Castle Artemisia	VL	L	L	L	L	L	7-9, 14-24	3'	6'	✓	✓	✓		
Artemisia douglasiana**	Mugwort	VL	L	L	L	L	L	7-9, 14-24	2'	2'	✓	✓	✓		✓
Artemisia pycnocephala	Sandhill Sage	VL	L	L	L	L	L	4, 5, 7-9, 14-17, 19-24	2'	3'	✓	✓	✓		
Atriplex semibaccata	Creeping Salt Bush	VL	VL	VL	VL	L	VL	8-10, 12-24	1'	6'	✓	✓	✓	N	
Baccharis 'Centennial'	Centennial Baccharis	VL	L	VL	L	L	L	7-24	3'	4'-5'	✓	✓	✓		✓
Baccharis pilularis	Dwarf Coyote Bush	L	L	L	L	/	/	5-11, 14-24	8"-36"	6'-9'	✓	✓	✓		✓
Baileya multiradiata	Desert Marigold	?	?	?	L	L	L	1-3, 7-23	1 1/2'	1 1/2'	✓	✓	✓		
Calystegia macrocarpa*, **	Morning Glory	L	L	M	M	/	/	7-9, 14-24	2'	10'	✓	✓			✓
Carissa macrocarpa (compact varieteies)	Natal Plum	L	/	M	M	/	M	22-24	1'-3'	3'-5'	✓	✓			
Ceanothus griseus var. horizontalis	Carmel Ceanothus	VL	L	VL	L	L	/	5-9, 14-24	1/2'-2 1/2'	15'	✓	✓	✓		
Cephalophyllum 'Red Spike'	Red Spike Ice Plant	L	L	L	L	/	L	8, 9, 11-24	3"-5"	15"-18"	✓	✓			
Chrysactinia mexicana*	Damianita Daisy	L	L	L	L	L	L	10-13, 18-24	2'	2'	✓	✓			
Cistus corbariensis	White Rockrose	L	L	L	L	L	L	6-9, 14-24	3'-4'	3'-4'	✓	✓			
Cistus salviifolius	Sage Leaf Rockrose	L	L	L	L	L	L	6-9, 14-24	2'	6'	✓	✓			
Convolvulus sabatius	Ground Morning Glory	L	L	L	L	M	M	7-9, 14-24	1'-2'	3'	✓	✓			
Coprosma x kirkii	Coprosma	L	L	M	M	/	/	14-24	1'-3'	4'-6'	✓	✓	✓		
Coprosma petriei 'Verde Vista'	Verde Vista Coprosma	L	L	M	M	/	/	8, 9, 14-24	1'-3'	4'-6'	✓	✓	✓		
Cotoneaster (compact varieties)	Cotoneaster	L	L	L	M	M	M	2-24 (varies per species)	1'-3'	6'-15'	✓	✓	✓	N	
Dalea capitata 'Sierra Gold'	Sierra Gold Dalea	?	?	?	?	L	L	10-13	8"	3'	✓	✓			
Dalea greggii	Trailing Indigo Bush	?	/	L	L	L	L	10-13	1 1/2'	6'	✓	✓			
Dodecatheon clevelandii*	Shooting Star	M	M	M	M	M	M	7-9, 14-24	2'	2'	✓				✓
Drosanthemum floribundum	Rosea Ice Plant	L	L	L	L	/	L	14-24	6"	5'	✓	✓		N	
Duchesnea indica	Indian Mock Strawberry	M	M	M	M	/	M	1-24	12"	3'	✓	✓	✓		
Dymondia margaretae	Dymondia	L	L	L	L	/	/	15-24	2"-3"	20"	✓	✓			
Dyssodia pentachaeta**	Golden Dyssodia	?	M	?	?	M	M	10-13	6"	1'	✓	✓	✓		
Erigeron glaucus	Beach Aster	L	/	M	M	/	/	4-6, 15-17, 22-24	1'	1 1/2'	✓	✓	✓		
Euphorbia rigida	Gopher Plant	L	L	L	L	L	L	4-24	2'	3'-5'	✓				
Gazania rigens hybrids	Gazania	M	M	M	M	M	M	8-24	6"-10"	3'-4'	✓	✓		N	
Helleborus orientalis	Lenten Rose	M	M	M	M	/	/	2b-10, 14-24	1'	2'-3'	✓				✓
Heuchera micrantha	Alum Root	M	M	M	M	M	M	1-10, 14-24	2'-3'	2'-3'	✓		✓		✓
Hymenoxys acaulis**	Angelita Daisy	?	?	?	?	/	M	11-24	1'	1'	✓	✓			
Iva hayesiana**	Poverty Weed	VL	VL	VL	L	/	/	4-9, 14-24	1'	3'	✓				✓
Juniperus (compact varieties)	Juniper	L	L	L	M	M	M	A1-A-3, 1-24	6"-36"	6'-10'	✓				
Keckiella antirrhinoides	Yellow Penstemmon	?	?	L	L	/	/	7-9, 12-24	4'	3'	✓	✓			
Keckiella cordifolia	Heart-Leaved Penstemmon	?	?	VL	L	/	/	7-9, 12-24	5'	5'	✓	✓			
Lampranthus spectabilis	Trailing Ice Plant	L	L	L	L	/	L	12-24	1'	1 1/2'-2'	✓	✓		N	
Lonicera japonica 'Halliana'	Hall's Japanese Honeysuckle	M	M	L	L	M	M	1-24	18"	15'	✓	✓		N	
Lupinus species	Lupine	M	M	M	M	M	M	7-24	1 1/2'	1 1/2'	✓		✓		✓

**COUNTY OF RIVERSIDE CALIFORNIA  
FRIENDLY PLANT LIST**

<i>Botanical</i>	<i>Common</i>	<i>Wucols Region 1</i>	<i>Wucols Region 2</i>	<i>Wucols Region 3</i>	<i>Wucols Region 4</i>	<i>Wucols Region 5</i>	<i>Wucols Region 6</i>	<i>Sunset Zones</i>	<i>Mature Height (Feet)</i>	<i>Mature Width (Feet)</i>	<i>Road Right-of-Way</i>	<i>Erosion Control / Slope †</i>	<i>Fuel Mod. (per F.D. approval) †</i>	<i>MSHCP Adjacent †</i>	<i>Water Quality / BioSwale †</i>
<b>GROUNDCOVER (continued)</b>															
Mahonia repens	Creeping Mahonia	L	L	L	M	M	/	2b-9, 14-24	1'	3'	✓	✓	✓		
Maleophora species	Orange, Yellow Ice Plant	L	L	L	L	/	L	11-24	6"-12"	6'	✓	✓			
Melampodium leucanthum	Blackfoot Daisy	L	L	L	L	/	L	2, 3, 10-13	1'	1'	✓	✓			
Mimulus guttatus**	Seep Monkey Flower	H	H	H	H	/	/	7-9, 14-24	1'	1'	✓				✓
Myoporum 'Pacifcum'	Pacific Myoporum	L	L	L	M	/	/	16-24	2'	30'	✓	✓	✓	N	
Myoporum parvifolium	Prostrate Myoporum	L	L	L	L	/	M	8, 9, 12-24	3"-6"	9'	✓	✓	✓	N	
Oenothera caespitosa	White Evening Primrose	L	?	/	L	L	L	1-3, 7-14, 18-21	8"-12"	2'	✓	✓			
Oenothera stubbei	Baja Evening Primrose	L	L	L	L	L	L	10-14, 18-24	5"	4'	✓	✓			
Osteospermum fruticosum	Trailing African Daisy	L	L	L	L	/	M	8, 9, 12-24	6"-12"	2'-4'	✓	✓		N	
Pelargonium species	Ivy Geranium	M	M	M	M	/	M	8, 9, 12-24; A2, A3	1'	5'	✓				
Penstemon baccharifoliosus	Del Rio	?	?	?	?	L	L	10-13	1 1/2'	1 1/2'	✓	✓			
Pyracantha hybrids	Firethorn species	L	L	L	M	M	M	8, 9, 12-24	30"-36"	3'-10'	✓	✓	✓		
Rosmarinus officinalis 'Prostratus'	Prostrate Rosemary	L	L	L	L	M	M	4-24	2'	8'	✓	✓	✓		
Sarcococca hookerana humilis	Sweet Box	L	M	M	M	/	/	4-9, 14-24	1 1/2'	8'	✓	✓			
Satureja douglasii	Yerba Buena	L	?	M	?	?	?	4-9, 14-24	6"	3'	✓				✓
Stachys byzantina	Lamb's Ear	L	L	M	M	/	M	1-24	1 1/2'	10'	✓	✓			
Stachys coccinea*	Texas Betony	L	L	M	M	/	M	7-10, 12-24	1 1/2'	1 1/2'	✓	✓			
Symphoricarpos mollis	Snow Berry	L	L	?	?	?	/	2-10, 14-24	1 1/2'	1 1/2'	✓	✓			
Teucrium cossonii	Majorcan Germander	VL	L	L	L	/	L	7-9, 14-24	8"	1 1/2'	✓	✓			
Thymus species	Thyme	M	M	M	M	M	M	1-24	1'-3'	2'-3'	✓	✓			
Trachelospermum asiaticum	Asiatic Jasmine	M	M	M	M	M	M	6-24	18"	5'	✓				
Trachelospermum jasminoides	Star Jasmine	M	M	M	M	M	M	8-24	2'	10'	✓				
Tradescantia pallida	Purple Heart Plant	L	/	M	M	H	H	12-24	1 1/2'	3'	✓	✓			
Verbena species	Verbena	L	L	L	L	/	M	varies per species	12"-18"	3'-4'	✓	✓			
Wedelia trilobata	Wedelia	?	?	H	/	/	?	12-13, 21-24	1 1/2'-2'	6"	✓				
Zauschneria californica (Epilobium calif.)	California Fuchsia	L	L	VL	L	M	M	2-11, 14-24	6"	3'-4'	✓		✓		✓
<b>VINES</b>															
Antigonon leptopus	Queens Wreath	M	/	L	L	/	L	12, 13, 18-24	40'						
Bougainvillea species	Bougainvillea	L	L	L	L	/	M	5, 6, 12-17, 19, 21-24	15'-30'						
Campsis radicans	Common Trumpet Creeper	L	L	M	M	M	M	1-21	40'						
Cissus incisa	Texas Grape Ivy	L	M	M	M	/	M	16-24	30'-50'						
Cissus trifoliata	Native Grape Ivy	?	/	?	?	?	L	10-13	30'						
Clematis armandii	Evergreen Clematis	M	M	M	M	M	M	4-9, 12-24	15'-20'						
Clematis texensis*	Scarlet Clematis	M	M	M	M	/	M	2b-11, 14-24	6'-10'						
Distictis buccinatoria	Blood Red Trumpet Vine	M	M	M	M	/	M	8, 9, 14-24	20'-30'						
Ficus pumila	Creeping Fig	M	M	M	M	M	M	8-24	40'-60'						
Gelsemium sempervirens	Carolina Jasmine	L	L	M	M	/	M	4-24	20'						
Hardenbergia violacea	Lilac Vine	M	M	M	M	/	M	8-24	10'						
Hedera canariensis	Algerian Ivy	M	M	M	M	M	M	5-9, 12-24	20'					Not for use near MSHCP	
Hedera helix	English Ivy	M	M	M	M	M	M	3-24	20'					Not for use near MSHCP	
Lonicera hildebrandiana	Giant Burmese Honeysuckle	M	M	M	M	M	M	9, 14-17, 19-24	30'						
Lonicera japonica	Japanese Honeysuckle	M	M	L	L	M	M	1-24	30'					Not for use near MSHCP	
Lonicera sempervirens	Trumpet Honeysuckle	M	M	/	M	M	M	2-24	10'-20'						
Macfadyena unguis-cati	Cat's Claw Vine	L	L	L	L	L	L	8-24	25'-40'						
Mandevilla hybrida	Mandevilla	M	/	M	M	/	M	21-24	15'-20'						

**COUNTY OF RIVERSIDE CALIFORNIA  
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<b>VINES (continued)</b>															
Mascagnia lilacina	Lavendar Orchid Vine	?	?	?	?	?	M	12-24	15'-20'						
Mascagnia macroptera	Yellow Orchid Vine	?	?	?	?	?	M	12-24	15'						
Merremia aurea	Yellow Morning Glory	?	?	?	?	/	M	12-24	25'						
Pandorea jasminoides	Bower Vine	M	/	M	M	/	/	16-24	20'-30'						
Parthenocissus quinquefolia	Virginia Creeper	M	M	M	M	M	M	A2, A3, 1-24	20'						
Parthenocissus tricuspidata	Boston Ivy	M	M	M	M	M	M	1-24	20'						
Podranea ricasoliana	Pink Trumpet Vine	/	M	M	M	/	M	9, 12, 13, 19-24	20'						
Polygonum aubertii	Silver Lace Vine	L	L	L	L	M	M	A1-A3, 1-24	15'-20'						Not for use near MSHCP
Rosa banksiae	Lady Bank's Rose	L	L	M	M	M	M	4-24	20'						
Vigna caracalla	Snail Vine	M	/	M	M	/	M	12-24	10'-20'						
Vitis californica	California Wild Grape	L	M	VL	L	M	M	4-24	30'						
Vitis girdiana	Desert Grape	L	M	L	L	M	M	4-24	30'						
Wisteria floribunda	Japanese Wisteria	M	M	M	M	M	M	2-24	15'-30'						
Wisteria sinensis	Chinese Wisteria	M	M	M	M	M	M	3-24	15'-30'						
<b>TURF</b>															
Cynodon dactylon cultivars	Bermuda	60% of Eto						5-10, 12-24	*Requires over-seeding of Perennial Rye during dormancy.						
Paspalum vaginatum	Seashore Paspalum	60% of Eto						17, 24, H2							
Stenotaphrum secundatum	St. Augustine	60% of Eto						12, 13, 18-24							
Zoysia 'Victoria'	Victoria Zoysiagrass	60% of Eto						8, 9, 12-24							
Buchloe dactyloides	UC Verde' Buffalograss	60% of Eto						1-3,10,11							
<b>PLANTS NOT ALLOWED IN RIVERSIDE COUNTY</b>															
Lobularia maritima	Sweet Alyssum														
Oenothera speciosa	Mexican Evening Primrose														
Pennisetum spp.	Fountain Grass														
<b>PLANTS NOT ALLOWED IN COACHELLA VALLEY MSHCP</b>															
Acacia spp.	Acacia (all species except native cat claw														
Arundo donax	Giant Reed or Arundo Grass														
Atriplex semibaccata	Australian Saltbush														
Avena barbata	Slender Wild Oat														
Avena fatua	Wild Oat														
Brassica tournefortii	African or Saharan Mustard														
Bromus madritensis ssp. Rubens	Red Brome														
Bromus tectorum	Cheat Grass or Downy Brome														
Cortaderia jubata [syn. C. atacamensis]	Jubata Grass or Andean Pampas Grass														
Cortaderia dioica [syn. C. selloana]	Pampas Grass														
Descurainia sophia	Tansy Mustard														
Eichhornia crassipes	Water Hyacinth														
Elaeagnus angustifolia	Russian Olive														
Foeniculum vulgare	Sweet Fennel														
Hirschfeldia incana	Mediterranean or Short-pod Mustard														
Lepidium latifolium	Perennial Pepperweed														
Lolium multiflorum	Italian Ryegrass														
Nerium oleander	Oleander														
Nicotiana glauca	Tree Tobacco														
Oenothera berlandieri	Mexican Evening Primrose														



<b>PLANTS NOT ALLOWED IN COACHELLA VALLEY MSHCP (continued)</b>	
<i>Olea europea</i>	European Olive Tree
<i>Parkinsonia aculeata</i>	Mexican Palo Verde
<i>Pennisetum clandestinum</i>	Kikuyu Grass
<i>Pennisetum setaceum</i>	Fountain Grass
<i>Phoenix canariensis</i>	Canary Island Date Palm
<i>Phoenix dactylifera</i>	Date Palm
<i>Ricinus communis</i>	Castorbean
<i>Salsola tragus</i>	Russian Thistle
<i>Schinus molle</i>	Peruvian Pepper Tree or California Pepper
<i>Schinus terebinthifolius</i>	Brazilian Pepper Tree
<i>Schismus arabicus</i>	Mediterranean Grass
<i>Schismus barbatus</i>	Saharan Grass, Abu Mashi
<i>Stipa capensis</i>	No Common Name
<i>Tamarix</i> spp. (all species)	Tamarisk or Salt Cedar
<i>Taeniatherum caput-medusae</i>	Medusa-head
<i>Tribulus terrestris</i>	Puncturevine
<i>Vinca major</i>	Periwinkle
<i>Washingtonia robusta</i>	Mexican fan palm
<i>Yucca gloriosa</i>	Spanish Dagger
<b>PLANTS NOT ALLOWED IN THE CITRUS / VINEYARD POLICY AREAS</b>	
<i>Aleurites fordii</i>	Tung
<i>Althaea</i> spp.	Hollyhock
<i>Amaranthus hybridus</i> , <i>A. spinosus</i>	Pigweed
<i>Ambrosia</i> spp.	Ragweed
<i>Arbutus unedo</i>	Strawberry Tree
<i>Asclepias</i> spp.	Milkweed
<i>Asparagus officinalis</i>	Asparagus
<i>Bauhinia purpurea</i>	Orchid Tree
<i>Betula</i> spp.	Birch
<i>Bougainvillea</i> spp.	Bougainvillea
<i>Buxus</i> spp.	Boxwood
<i>Camellia Japonica</i>	Camellia
<i>Campsis radicans</i>	Trumpet Creeper
<i>Cassia</i> / <i>Senna occidentalis</i> , <i>C. tora</i>	Coffeeweed
<i>Catalpa bignonioides</i>	Catalpa
<i>Ceratonia</i> spp.	Carob
<i>Cercis</i> spp.	Redbud
<i>Chenopodium</i> spp.	Lambsquarter
<i>Cinnamomum camphora</i>	Camphor Tree
<i>Citrus</i> spp.	Citrus
<i>Cottoneaster</i> spp.	Cotoneaster
<i>Cupaniopsis anacardioides</i>	Carrotwood
<i>Elaeagnus</i> spp.	Elaeagnus
<i>Engeron canadensis</i>	Horseweed
<i>Eriobotrya japonica</i>	Loquat
<i>Erythrina caffra</i>	Coral tree
<i>Escallonia</i> spp.	Escallonia
<i>Eucalyptus</i> spp.	Eucalyptus
<i>Euonymus</i> spp.	Euonymus
<i>Eupatorium capillifolium</i>	Dogfennel
<i>Eupatorium perfoliatum</i>	Boneset
<i>Ficus</i> spp.	Fig
<i>Fraxinus</i> spp.	Ash
<i>Gelsemium sempervirens</i>	Trumpet Flower
<i>Ginkgo biloba</i>	Maidenhair Tree
<i>Gossypium</i> spp.	Cotton
<i>Hardenbergia</i> spp.	Hardenbergia
<i>Helianthus</i> spp.	Sunflower