

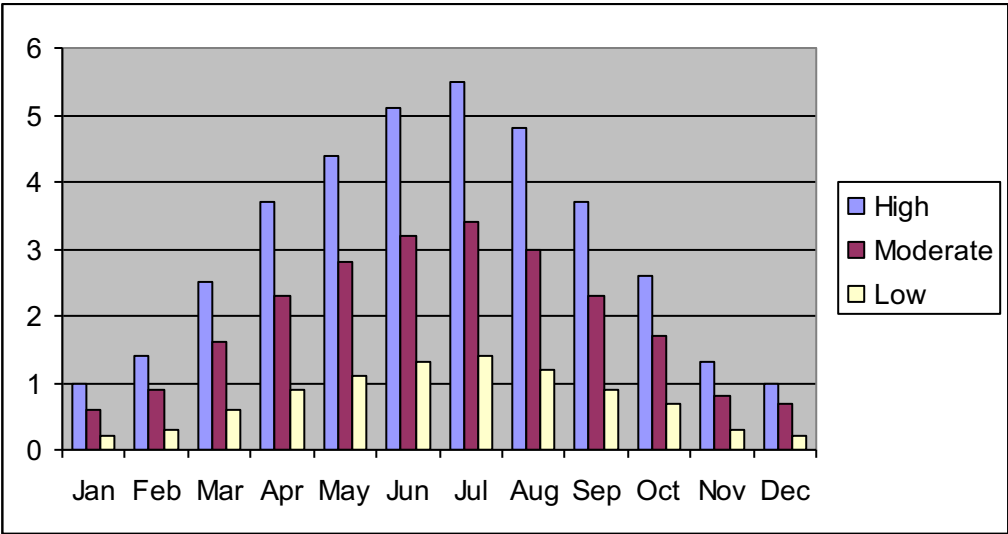
# Water-Wise Landscaping Resources

## WUCOLS IV table (Water Use Classification of Landscape Species)

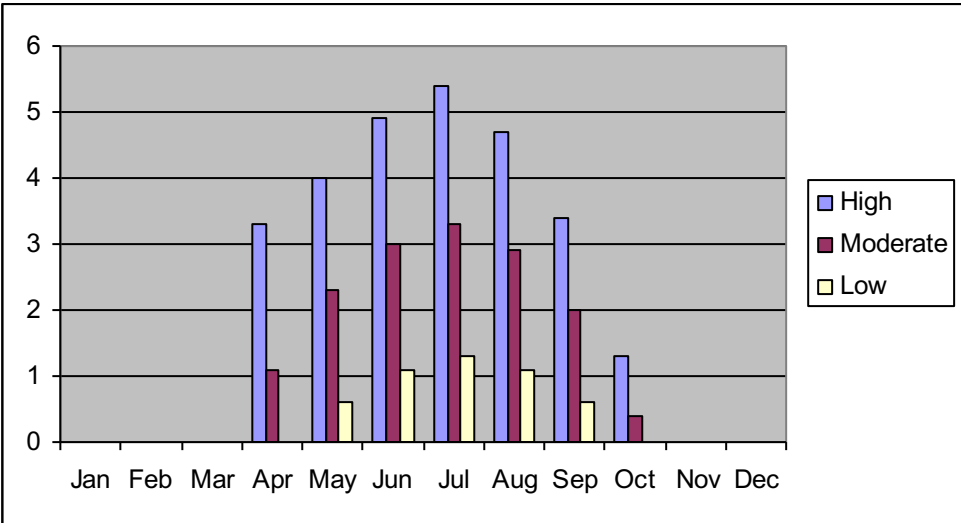
- [ucanr.edu/sites/WUCOLS/](http://ucanr.edu/sites/WUCOLS/)

## Approximate Water Needs of Plants in Bay Area, in Inches per Month

(High water use plants include lawns & annuals. Medium includes many popular shrubs. Low includes many California natives and Mediterranean plants.)



## Approximate Irrigation Needs of Plants in Bay Area, in Inches per Month (assuming typical rainfall patterns)



For more information go to [SMSF-Mastergardeners.ucanr.org](http://SMSF-Mastergardeners.ucanr.org)  
or email [Julie@MontanariDesigns.com](mailto:Julie@MontanariDesigns.com)

### **Arboretum All-Stars (100 water-wise plants)**

- [Arboretum.ucdavis.edu/arboretum\\_all\\_stars.aspx](http://Arboretum.ucdavis.edu/arboretum_all_stars.aspx)

### **Books about Water-Wise Landscaping and California Native Plants:**

- **Plants and Landscapes for Summer-Dry Climates;** Nora Harlow
- **Reimagining the California Lawn;** Carol Bornstein, David Fross, Bart O'Brien, John Evans
- **Landscape Plants for California Gardens;** Bob Perry
- **California Native Plants for the Garden;** Carol Bornstein, David Fross, Bart O'Brien
- **Growing California Native Plants,** Marjorie G. Schmidt
- **Designing California Native Gardens;** Glenn Keator, Alrie Middlebrook
- **The American Meadow Garden;** John Greenlee
- **Designing with Succulents (and other titles);** Debra Lee Baldwin
- **Sunset Western Garden Book;** Kathleen Brenzel, editor
- **Rainwater Harvesting for Drylands;** Brad Lancaster
- **The Water-Wise Home;** Laura Allen

### **Display Gardens and Garden Tours focused on California Native Plants:**

- San Francisco Botanical Garden (formerly Strybing Arboretum) ([SFBotanicalgarden.org](http://SFBotanicalgarden.org))
- Regional Parks Botanic Garden (California Natives) ([nativeplants.org](http://nativeplants.org))
- Going Native Garden Tour ([GoingNativeGardenTour.org](http://GoingNativeGardenTour.org))
- Bringing Back the Natives Garden Tour ([BringingBackTheNatives.Net](http://BringingBackTheNatives.Net))

### **Resources for Drip Irrigation:**

- The Urban Farmer Store, San Francisco ([Urbanfarmerstore.com](http://Urbanfarmerstore.com))
- Foothill College holds classes, Los Altos Hills ([Foothill.edu](http://Foothill.edu))

### **Sheet Mulching (Lawn Removal) Instructions:**

- [lawntogarden.org/residents](http://lawntogarden.org/residents)

### **Local Organizations for help with Water-Wise Landscaping and Native Plants:**

- California Native Plant Society ([cnps.org](http://cnps.org))
- Bay Area Water Supply and Conservation Agency (BAWSCA) ([bawasca.org](http://bawasca.org))
- Master Gardeners of San Mateo and San Francisco counties ([smsf-mastergardeners.ucanr.edu/](http://smsf-mastergardeners.ucanr.edu/)). Hold classes on a variety of topics.

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## Water-Wise Ground Covers

This is a partial list of plants that will cover ground with low to medium water. The walkable ground covers will require even irrigation (overhead spray or sub-surface drip). The sprawling shrubs will perform well with drip irrigation.

Research plants to learn about growth patterns, sun requirements, drainage needs, pest problems, etc.

Turf like/walkable: No-mow turf (Various mixes, available at Delta Bluegrass and others).  
Elfin Thyme (*Thymus praecox* 'Elfin'). Sun to part shade.  
Kurapia (*Lippia nodiflora*). Sun to part shade. Available in sod form.  
Periwinkle (*Vinca minor*). Avoid hot sun. Use in controlled locations.  
Silver Carpet (*Dymondia margaretae*). Sun to part shade.  
Yarrow (*Achillea millefolium*). CA Native. Avoid hot sun.

Sprawling shrubs: Australian Fuchsia (*Correa* 'Dusky Bells' and others). Sun or shade  
Bougainvillea (*Bougainvillea* 'Oo-La-La' and others). Full sun.  
Bramble (*Rubus pentalobus*). Part shade to shade.  
California lilac (*Ceanothus griseus horizontalis* and others). CA native.  
Avoid hot sun.  
Coprosma (*Coprosma kirkii*). Sun to part shade.  
Cotoneaster (*Cotoneaster horizontalis*). Sun to shade.  
Dwarf Coyote Bush (*Baccharis pilularis* 'Pidgeon Point'). CA native. Sun.  
Germander (*Teuchrium lucidrys*). Sun.  
Grevillea (*Grevillea* 'Cranberra Gem' and others). Sun to part shade.  
Hummingbird sage (*Salvia spathacea*). Avoid hot sun.  
Juniper (*Juniperus communis* and others). Sun to part shade.  
Kinnikinnick (*Arctostaphylos uva-ursi*). CA native. Sun or shade.  
Myoporum (*Myoporum parvifolium*). Sun.  
Rosemary (*Rosmarinus officinalis* 'Huntington carpet'). Sun.  
Sonoma sage (*Salvia sonomensis*). Avoid hot sun.  
Tea Tree (*Leptospermum scoparium* 'Horizontalis' and others). Sun.  
Yerba Buena (*Satureja douglasii*). CA native. Avoid hot sun.

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# Irrigation

## Converting inches of water to gallons when irrigating individual plants:

1. Calculate area of plant: Area of a circle =  $\pi r^2$ , where  $\pi$  (pi) is approximately 3.14 and r is the radius of the circle. The radius is  $\frac{1}{2}$  the diameter of the plant.
2. Plant area (in square feet) = plant radius (in feet) squared x 3
3. 1" of water over plant area (in cubic feet) = plant area (in square feet) x 1/12 foot
4. 1 cubic foot = 7.5 gallons. 1/12 cubic foot = 0.6 gallons.
5. 1" of water (in gallons) = Plant area x 0.6

Plant diameter (in feet)	Plant radius (in ft)	Plant area (in sq ft)	1" water over plant area (in gallons)
1	0.5	.8	.5
2	1	3	1.9
3	1.5	7	4.4
4	2	12	7.5
5	2.5	19	12
6	3	28	18
8	4	50	31
10	5	78	49

## Converting inches of water to gallons and run times when irrigating garden bed:

1. Calculate square feet in garden area.
2. Count emitters in garden area.
3. 1" of water over 1 square foot = 0.6 gallons
4. Run time for 1" of water = (sq ft of garden x 0.6 gallons) / (number of emitters x gallons/hour/emitter)

### Example #1: 100 square feet planting area, 50 emitters, 2 gallons per hour per emitter

1. 1" of water = 100 square feet x 0.6 gallons/square foot = 60 gallons
2. 50 emitters x 2 gallon/hour = 100 gallons /hour
3. Run time for 1" water = 60 gallons / 100 gallons/hour = 0.6 hours = 36 minutes

### Example #2: 40 square foot, 60 emitters, $\frac{1}{2}$ gallon per hour per emitter

1. 1" of water = 40 square feet x 0.6 gallons/square foot = 24 gallons
2. 60 emitters x  $\frac{1}{2}$  gallon/hour = 30 gallons/hour
3. Run time for 1" water = 24 gallons / 30 gallons/hour = 0.8 hours = 48 minutes