

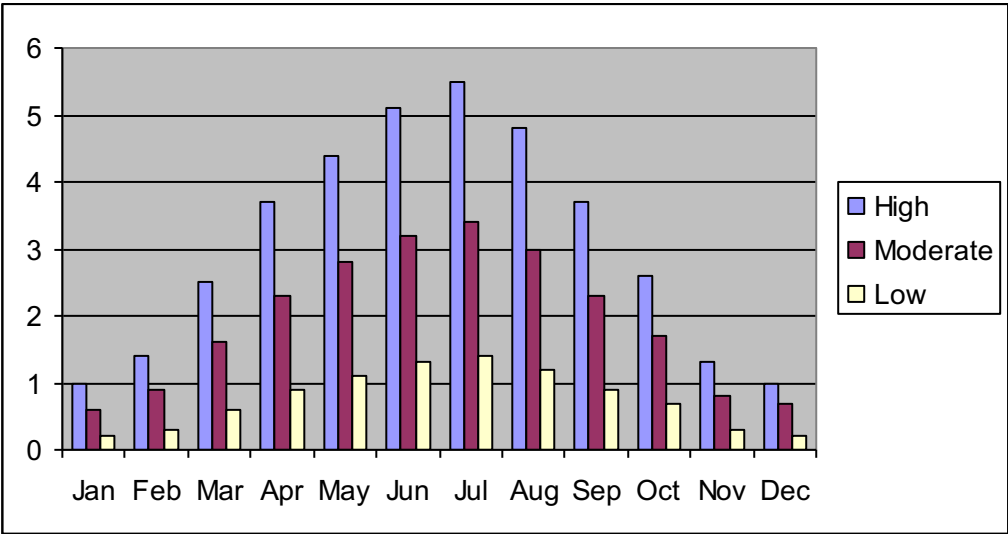
Water-Wise Landscaping Resources

WUCOLS IV table (Water Use Classification of Landscape Species)

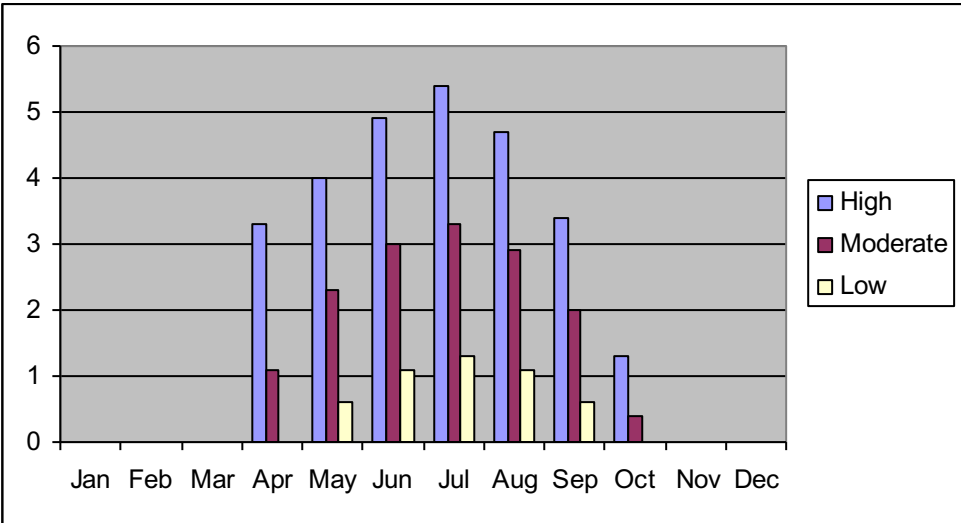
- ucanr.edu/sites/WUCOLS/

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
or email Julie@MontanariDesigns.com

Arboretum All-Stars (100 water-wise plants)

- 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)
- Regional Parks Botanic Garden (California Natives) (nativeplants.org)
- Going Native Garden Tour (GoingNativeGardenTour.org)
- Bringing Back the Natives Garden Tour (BringingBackTheNatives.Net)

Resources for Drip Irrigation:

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

Sheet Mulching (Lawn Removal) Instructions:

- lawntogarden.org/residents

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

- California Native Plant Society (cnps.org)
- Bay Area Water Supply and Conservation Agency (BAWSCA) (bawasca.org)
- Master Gardeners of San Mateo and San Francisco counties (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 = πr^2 , where π (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