



This guide is written to assist and inspire gardeners with installing a water wise landscape in the arid Inland Empire region of California. Plants highlighted in this guide use moderate to low amounts of water and are generally available at your local nursery or garden center.

# Why Go Water-Wise?

Water is growing more and more scarce in California and in order to make supplies last, we have to conserve wherever possible. A great place to start is in your yard—landscape irrigation accounts for 70% of home water use in our driest areas, but by following the ideas presented to you in this guide you will be able to reduce the amount of water you use, save money, and have a beautiful yard. Besides, as you will see on the following pages, whether you prefer a colorful garden, or a shady place to relax, there are hundreds of beautiful plants to choose from which are adapted to our climate and require very little water to look amazing.

# Soil

The soil in your garden is one of the most important factors affecting whether a plant thrives, or merely survives. Soil has a direct effect on a plant's roots and their ability to collect nutrients and moisture from the soil. Textures in the Inland Empire region range from fast-draining sand to waterlogged clay.

There are many ways to determine your soil type, ranging from take home tests which you can purchase at your local garden center, to mailing in a

soil sample. But for a general quick and easy way to discover what type of soil is in your yard, try the soil test to the right.

Once you have determined your soil type, it is possible to amend your soil with nutrients to ensure plant success. While it is possible to change the soil type by adding soil amendments, the best solution is to find the right plant for your soil. And luckily, here in California, we have many beautiful native plants adapted to our climate and soil types!

# Soil Texture Test:

Take a handful of moist soil from your garden, and give it a firm squeeze (note-soil should be moist, not sopping wet). Then, open your hand and give it a poke with your finger.

#### If it:

- holds its shape when you open your hand, but crumbles when you poke it, you have loamy soil
- 2. holds its shape when you open your hand, but doesn't budge when you poke it, you have clay soil
- crumbles as soon as you open your hand, you have sandy soil

However, if you want to learn more about soil amendments, contact the University Cooperative Extension Farm Advisor or local Master Gardener group at http://cesanbernardino.ucda.

## Mulches

Mulches play an important role in reducing evaporation, covering and cooling the soil. When used correctly, they can minimize soil erosion and reduce weed growth. The texture and color of the mulch can add a finished look to any landscape. Mulches are available in both organic (bark) and inorganic (rock or gravel) forms.

## Planning & Design

Deciding what to do in your garden can be a fun and inspiring project! Use the steps outlined below to start thinking about your design. For large or complicated projects, speak to a professional designer or check out garden and design books from your local library, nursery, or botanic garden.

## Step 1: Take inventory of your yard

- Sunlight Levels: what areas of your garden receive full sun (6 hrs or more); partial sun or filtered light; and shade.
- Site Drainage: Do you have areas that are particularly wet or dry?
- Climate: Do you get winter frost? Where do your rain gutters end? Does your yard get a lot of wind? How do seasonal winds, like the Santa Ana Winds, blow across the property? Consider where you could plant to create a windbreak.
- Views: Make note of any views you want to keep, like a mountain view or your neighbor's trees; or screen off, such as a utility area.
- Soil Type: Conduct the quick soil texture test above to see whether you have clay, loam, or sand soils. Knowing what type of soil you have onsite can help ensure plant success.
- Circulation: How do you move through the space—are there walkways? Do you want to add, remove or change a path?
- Existing plants and trees: Determine which ones you like and which ones you wish to replace. Please note that you can have large trees professionally pruned to bring in more light and views. Most of the time, it is better to keep old trees rather than wait 25 years for a replacement tree to grow in.
- Other Considerations: Consider potential impacts your changes might have on your neighbors' yards, especially with regard to water runoff and things like trees, fences, and walls which are on or near property boundaries.

# Step 2: Ask yourself how you will use your yard

O What do you like the least in your yard? O What do you like the most in your yard? O How much money do you want to spend? O How much time do you spend in your yard? O Do you want a place for outdoor entertaining? O Do you have children or pets that would play in the yard? O Do you enjoy gardening, or would you hire someone to maintain the yard for you. O Do you have any specific allergies? O Would you like a fragrant garden? O Do you want to attract birds or butterflies?

O Are there views you would like to enhance or conceal?

manicured or wild?

O What do you want your garden to feel like: open or enclosed;

# Step 3: Get inspired

- O Go for a walk, look through magazines or search online and collect pictures of the gardens and plants you find attractive.
- O Discover what grows naturally in your area by going for a hike in a nearby wild area.
- O Visit local botanic gardens (see listed at end of publication) for inspiration.

# Step 4: Limit the Turf Areas

- O Plant turf only where it will be used--if the only time you step on your grass is to mow it, consider replacing it with native or other low water use plants which have lower weekly maintenance and are more appropriate for our climate.
- O Avoid placing turf under trees because most trees need less water.

## Climate & Watering

In San Bernardino County, we get the majority of our annual precipitation in the cooler winter months and very little rainfall during the hot summer months. Installing an efficient irrigation system and providing plants with the right amount of water at the right time is key to getting plants established so that they can eventually survive on natural rainfall.

#### Irrigation 101

If you have a pre-existing irrigation system, take a moment to become familiar with its different components. For detailed information about how to update or retrofit your existing system, contact your local hardware store, irrigation store, or conservation district. Consider hiring an expert for large or complicated jobs.

### Efficient Irrigation

O Plan to install or retrofit an existing irrigation system with appropriate efficient irrigation fixtures. For the latest efficient irrigation models check www.bewaterwise.com.

- O Contact your local water supplier and conservation district for additional information about upcoming workshops and rebates.
- O Create separate valves (zones or stations) for high, medium, and low water using plants; areas that are in the sun, shade, and filtered shade. One tip, from experts, is to create a map for how you defined the irrigation areas and keep it with your gardening tools to reference in the future.
- O Consider investing in a "smart" irrigation timer or contoller which will automatically adjust your garden's watering schedule based on weather or soil conditions. Follow the sample watering guide on the next page to set each zone by season. (note- if your garden is maintained by a contractor or gardener, inform them about what you are doing so that they won't adjust run times to previous levels).
- O Consider adding a rain sensor to turn off your irrigation system when it rains.
- O Make sure that water from your irrigation system is kept away from your house and pathways to avoid structural water damage.
- O Avoid overspray and runoff by giving yourself an irrigation system tune-up once a year (see checklist below).

#### Frigation Tune-Up Checklist Check sprinklers in the spring, summer and fall. Turn on each valve and check for the following problems: ■ Water runoff Heads tilted or misdirected ■ Swampy areas ■ Visible dry areas: sprinkler spacing ☐ Plant material performing poorly too far apart ☐ Water spraying on the street Obstruction of spray pattern □ Valve leaking ☐ Popup system not fully extending ☐ Head clogged $\square$ Spray is not reaching proper ☐ Head leaking or broken area ☐ Plants blocking sprinkler ☐ There are doughnut shaped dry ■ Spray is misting or fogging areas of turf ☐ Spray is overshooting planting Sprinkler nozzles blown off

Very Low water using plants should not require any supplemental irrigation once they are established. Follow your watering schedule for the first 4-6 months, then turn it off on these plants and only water them when they need it.

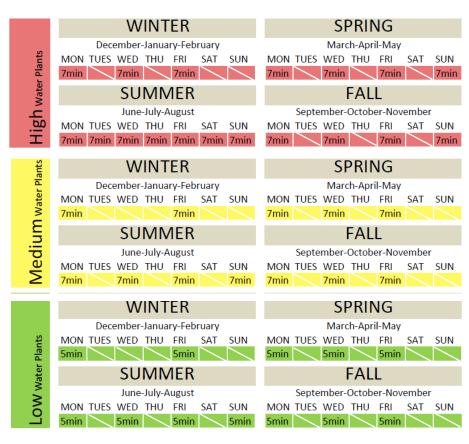
In the following pages you will find a variety of California Friendly® plants which are labeled as high (H), medium (M), low (L) or very low (VL) water users. Create a chart, like the one below, to set your irrigation timers for each plant zone, by season.

Creating an irrigation schedule, like the one below can seem daunting at first since they rely on a variety of factors, including the type of irrigation system installed, soil type, and plant material.

Take the guesswork out of your schedule by using the water calculator in the Garden Spot at www.bewaterwise.com/calculator to create a schedule for your specific plant material and irrigation system--it's quick, easy, and free!

Make sure to check with your local water agency for watering schedules and restrictions that may be in effect.

To the right is a sample schedule for a traditional sprinkler system in a garden with sandy loam soil. Keep in mind that watering schedules and times will be different for drip or microspray irrigation.





Blue Fescue



California Fuchsia



California Grape



Catalina Cherry

Name	Category	Size (h x w)	Light	Water
Aeonium sp.	Succulent	to 3' x 3'	full sun	L-VL
Aeonium arboretum				
Aloe	Succulent	1-2' x 1-2'	full sun	L-VL
Aloe vera				
			- "	
Australian Willow	Tree	20-30' x 15-25'	full sun	M
Geijera parviflora		2.5' 1.0'	c II	
Beard Tongue Penstemon palmeri	Perennial	3-5' x 1-2'	full sun	L
Blue Fescue	Grass	under 1' x 1'	partial sun	M-L
Festuca ovina glauca	Orass	Under 1 X 1	pariai suri	I T I-L
Bougainvillea	Vine	5-20' x 5-20'	full sun to	L-VL
Bougainvillea sp.	VIIIC		partial shade	L V L
Butterfly Vine	Vine	15-20'	full sun to full	L
Mascagnia macroptera			shade	
California Fuchsia	Perennial	2-3' x 2'	partial shade	L-VL
Epilobium canum				
California Poppy	Annual	1' x 1'	full sun	L-VL
Eschscholzia californica				
California Redbud	Shrub	6-20' x 10-15'	full sun to	L-VL
Cercis occidentalis			partial shade	
California Wild Grape	Vine	25-40'	full sun to	L-VL
Vitis californica			partial shade	
Catalina Cherry	Shrub	20-50' x 20-30'	full sun	L-VL
Prunus ilicifolia		00 40' 10 15'	C 11	1 \ //
Catalina Fernleaf Ironwood	Tree	20-40' x 12-15'	full sun	L-VL
Lyonothamnus floribundus	Supplies	4-8' x 6-12'	full sun	L-VL
Century Plant Agave americana	Succulent	4-0 X 0-1Z	IUII SUN	L-VL
Chitalpa	Tree	15-25' x 15-25'	full sun	L
Chitalpa tashkentensis	1100	13 23 × 13 23	1011 3011	
Cleveland Sage	Perennial	3-5' x 5-8'	full sun	L
Salvia clevelandii				
Coast Live Oak	Tree	20-60' x 30-70'	full sun to	VL
Quercus agrifolia			partial shade	
Common Myrtle	Shrub	8-12' x 8-12'	full sun to full	L
Myrtus communis			shade	
Coyote Brush	Perennial	1-5' x 5-9'	full sun	L-VL
Baccharis sp.				

Flower Color	Bloom Season	Notes
yellow flowers	March-July	leaves grow in a rosette formation
yellow flower stalks	March-July	flowers attract humming birds; gel from leaves have medicinal proper- ties
n/a	n/a	weeping growth habit; good for small yard and patios
white to pink; hybrids may have other colors	March-May	flowers attract humming birds
white seedstalks in the spring	n/a	prized for its blue-gray mounding foliage
colors vary by species, red, purple, orange, yellow, white	March-October	large vine that can be trained to drape over a fence or groundcover
yellow blooms with brown, but- terfly shaped seeds	March-August	evergreen vine; fruit resembles a butterfly; can be trained as a shrub
red flowers in the fall	August-November	flowers attract birds and butterflies; silvery folliage
golden orange	March-September	plant seeds in the fall for spring color
magenta flowers, winter seed pods, some fall color	February-May	works well as a small patio tree; blooms attract birds
fruits late spring-summer	March-August	red fall foliage; fruits after 3rd year; attracts birds and wildlife
white flower spikes; red to black berries	April-August	works well as a perimeter screen, can be shaped into a tree
white flower clusters	May-July	does best in sandy soils; needs occasional deep watering
n/a- blooms once in life cycle after 10 years	n/a	sculptural plant adds structure to landscapes with gray-blue leaves
proflific light pink blooms	May-August	blooms attract birds; great small patio tree
purple	May-July	fragrant; attracts birds and butter- flies
small yellow flowers; acorns	March-May	grow slowly; old trees have magnificent sculptural forms
white flowers	June-August	fragrant foliage; blooms attract birds and butterflies
small, white flowers	March-August	evergreen shrub or groundcover



Fernleaf Ironwood



Cleveland Sage



Common Myrtle



Coyote Brush



Fairy Duster



Flannel Bush



Hens-and-Chicks



Indian Hawthorn

Name	Flower Color	Bloom Season
Deer Grass	2-3' flower stalks	June-August
Muhlenbergia rigens		
Douglas Iris	blue-violet	March-May
Iris douglasiana		
Evergreen Currant	red berries in spring-summer	February-June
Ribes viburnifolium		
Fairy Duster	2" pink to orange tufft	April-July
Calliandra eriophylla		
Flannel Bush	brilliant yellow	March-May
Femontodendron sp.		
Gray Lavender Cotton	olitary yellow button flowers	March-July
Santolina sp.		
Hens-and-Chicks	pink flowers	March-June
Echeveria sp.		
Indain Hawthorn	white to pink	February-May
Rhaphiolepis indica		
Kangaroo Paw	commonly red or lime green; varries	March-November
Anigozanthos sp.	by species	N4- 1 1
Lamb's Ear Stachys byzantina	purple pink flowers	May-July
Lantana	purple, yellow or white, depending	year round blooms
Lantana sp.	on variety	year roona bioonis
Large Mediteranean Spurge	lagre chartruse flowerheads	March-August
Euphorbia characias	lagic chambe newemedae	T IGICITY (OGCOT
Lavender	purple fragrant blooms	March-August
Lavandula sp.		1.10.10.17.109001
Lemonade Berry	small pink flowers; red berries in sum-	March-May
Rhus integrifolia	mer	,
Lion's Tail	showy orange fuzzy blooms	November-January
Leonotis leonurus		
Live Forever	reddish flowers	March-June
Dudleya sp.		
Manzanita	pinkish white urn shaped flowers	February-May
Arctostaphylos sp.		
Mexican Bush Sage	purple and white flowers grow on	year round blooms
Salvia leucantha	stalks	
Mexican Feather Grass	green to golden flowers	August-October
Nassella tenuissima		

Light	Size (h x w)	Water	Notes	Category
full sun to partial shade	2-3' x 2-3'	L-VL	green foliage turns blond in summer heat;	Grass
shade	2'-1'	L	evergreen strappy leaves	Perennial
partial shade	3-5' x 8-12'	L-VL	works well under trees	Perennial
full sun	1-3' x 1-3'	L	flowers attract butterflies and hummingbirds,	Shrub
full sun	8' x 10-20'	VL	avoid clay soils; will not tollerate summer water	Shrub
full sun	2' x 3-4'	L	striking silvery foliage; can form a 1' high carpet in mass plantings	Perennial
full sun to par- tial shade	6" x 1'	L-VL	sculptural rosette forms come in a variety of colors and sizes	Succulents
full sun to par- tial shade	2-5' x 2-5'	M	very low maintenence	Shrub
full sun	to 6' x 2'	M-L	unique, long lived flowers; flowers attrack hummingbirds	Perennial
full sun to par- tial shade	4-6" x 2'	L	leaves are silvery, soft and "fuzzy" to the touch	Ground- cover
full sun to partial shade	1-3' x3-6'	M-L	year round flowers; needs to be pruned severely at least once a year	Ground- cover
full sun to partial shade	2-3' x 2-3'	L	gray green foliage year-round with striking flowers; excellent accent plant	Perennial
partial shade	3' x 5'	L	fragrant; attracts birds and butterflies; silvery folliage	Shrub
full sun	5-12' x 2-15'	L-VL	background evergreen shrub	Shrub
full sun	3-6' x 3'	M-L	fast growing with unusual flowers; dark green Ifoliage	Shrub
full sun to par- tial shade	1-2' x 1-2'	L-VL	sculptural rosette forms; work well as a ground cover	Succulents
full sun to par- tial shade	1-15' x 5-15'	L-VL	does best on slopes; dislikes summer watering; striking red bark	Shrub
full sun to par- tial shade	3-5' x 3-5'	L	fast growing with gray-green foliage	Perennial
full sun to par- tial shade	1-2'x 1'	L-VL	foliage turns blond in summer; spreads easily- avoid in areas near wilderness	Grass



Large Spurge



Lemonade Berry



Live-Forever



Manzanita



Verbena



Red Clusterberry



Rock Purslane



Rock Rose

Name	Flower Color	Bloom Season
New Zealand Cabbage	fragrant white flowers	June-August
Cordyline australis		
New Zealand Flax	orange-red flowers	March-June
Phormium tenax		
Olive Tree	n/a	n/a
Olea europea		
Palo Verde Tree	profuse yellow blooms	June-August
Parkinsonia sp.		
Pink Melaleuca	pink bottle brush flowers	March-October
Melaleuca nesophila		
Pride of Madera	purple blossoms on 20" cone	April-June
Echium candicans		
Red Clusterberry	deep purple	March-September
Verbena bonariensis		
Red Clusterberry	small white flowers in spring; red ber-	March-November
Cotoneaster dammeri	ries in fall	
Rock Purslane	prominent fuschia blooms	March-June; October
Calandrina grandiflora		
Rockrose	white to pink	March-August
Cisitus sp.		
Rosemary	blue-white	year round blooms
Rosmarinus officinalis		
Sea Lavender, Statice	deep purple	March-September
Limonium perezii		
Sticky Monkey Flower	peach colored blooms in spring	March-August
Mimulus sp.	summer	
Stonecrop	yellow	February-May
Sedum sp.		
Strawberry Tree	white urn shaped flowers; decorative	October-February
Arbutus unedo	red fruit	
Sugar Bush	small white flower clusters followed by	March-April
Rhus ovata	red berries	·
Toyon, Christmas Berry	white flower clusters in fall with red	October- February
Heteromeles arbutifolia	berries in winter	
Wild Buckwheat	white, pink, yellow	March-September
Eriogonum sp.		
Wild Lilac	deep blue	March-May
Ceanothus sp.		,

Light	Size (h x w)	Water	Notes	Category
full sun	to 10' x 5'	L	unique form works well in backgrounds to add interest	Grass
full sun	6-8' x 8-10'	L	showy foliage with upright blade shaped leaves	Grass
full sun	to 30' x 25-30'	L	silvery gray foliage; fruitless varieties exist	Tree
full sun	15-20' x 15-20'	L-VL	green trunk; good patio tree; may have spines	Tree
full sun	10-15' x 8-18'	VL	works well on slopes; attractive accent plant	Tree
full sun	6-8' x 4-6'	L	deer resistant; blooms attract birds, bees, butterflies	Perennial
full sun	4-6' x 2-4'	L	blooms attract birds and butterflies	Perennial
full sun to par- tial shade	1' x 10'	M-L	works well in planter beds	Ground- cover
full sun to par- tial shade	1' x 2-3'	L-VL	striking blooms form on a long stalk attracting birds and butterflies	Succulents
full sun	2' x 2-5""	L	works well between large shrubs	Ground- cover
full sun	3-4' x 2'	L	fragrant folliage can be used in cooking; attracts wildlife	Shrub
full sun to par- tial shade	2'-4'	L	flowers work well in flower arangements	Perennial
full sun	1-3' x 1-3'	L	hybrids available in different colors; blooms attract humming birds	Shrub
full sun to par- tial shade	to 6" x 2'	L-VL	low growing succulent	Ground- cover
full sun	10-25' x 10- 25-	M-L	great small patio tree	Tree
full sun	15-20' x 15-20'	VL	evergreen background shrub; attractive shaggy bark	Shrub
full sun to par- tial shade	10-15' x 8-15'	VL	can be trimmed into a small tree; fruit attracts birds in winter	Shrub
full sun	varies by species	L-VL	attracts wildlife and butterflies	Shrub
full sun	3-10' x 3-8'	L	shrub or groundcover varieties; flowers attract birds and butterflies	Shrub



Stonecrop



Sugar Bush



Toyon



Wild Lilac







































2 Yellow Lantana Lantana camara Fremontodendron Californicum



6 Olive Tree
Olea Europea













2



4



- Blue Fescue
  Festuca glauca
- 2 Strawberry Tree

  Arbutus unedo
- New Zeland Flax

  Phormium tenax
- 4 Kangaroo Paw
  Anigozanhos flavidus
- 5 Deer Grass

  Muhlenbergia rigens

- 6 Lamb's Ear
  Stachys byzantian
- 7 California Poppy

  Echscholzia californica
- 8 Ornamental Strawberry
  Fragaria chiloensis
- 9 Lion's Tail
  Leonotis leonuris





















New Zeland Flax

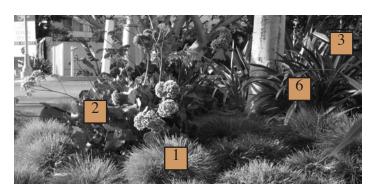
6 Lilly of the Nile

Phormium tenax

Agapanthus africanus































Miniature Pine Tree

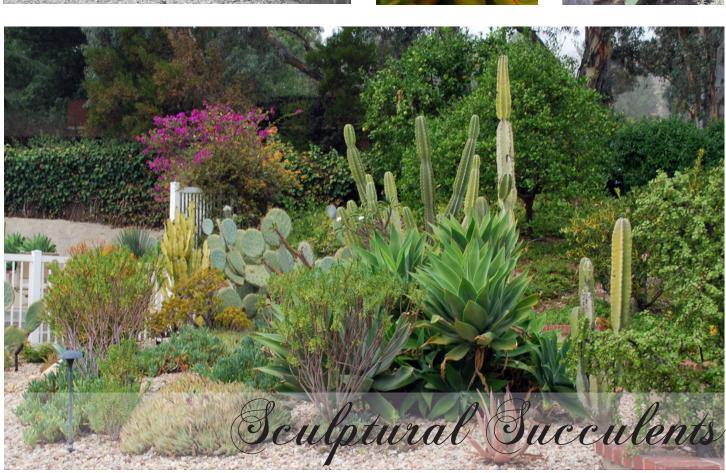
















Notes:		

#### **Demonstration Gardens**

Rancho Santa Ana Botanic Garden Garden Hours: 8 a.m. - 5 p.m. daily 1500 N. College Ave Claremont, CA 91711 (909) 625-8767 www.rsaba.org

Chino Basin Water Conservation District Garden Garden Hours: 8 a.m. - 5 p.m. daily 4594 San Bernardino St. Montclair, CA 91763 (909) 626-2711 www.cbwcd.org

Maloof Foundation Garden Garden Hours: Thurs & Sat. noon-4:00 5131 Carnelian Street Alta Loma, CA 91701 (909) 980-0412 www.malooffoundation.org

San Bernardino Valley Water Conservation Garden Garden Hours: expected to open April 2011 5500 University Parkway San Bernardino, CA 92407 (909) 537-7684

Western Municipal Water District Conservation Garden Garden Hours: 10 a.m. to 4 p.m.daily 450 E. Alessandro Blvd. Riverside, California 951.571.7100

www.wmwd.com/landscape

#### Information and **Publications**

Metropolitan Water District of Southern California This site has up to date information about water supplies, rebate

opportunities and gardening tips on the "Carden Spot" web page. Visit online at: www.bewaterwise.com

Water Wise Gardening for the Inland Empire.

www.wmwd.watersavinaplants.com

The Theodore Payne Foundation for Wildflowers & Native Plants. Inc. www.theodorepayne.ora

The Lady Bird Johnson Wildflower Center

Excellent plant database with images, conservation and restoration tips. www.wildflower.org

#### Recommended Readina

Care & Maintenance of Southern California Native Plant Gardens

Landscape Plants for California Gardens

Sunset Western Garden Book

California Native Plants for the Garden

#### **Acknowledgements**

Special thanks to the Inland Empire Landscape Alliance Technical Committee, for their time, effort, expertise, and support to bring the "Water-Wise Homeowner Landscape Guide" into formation. This report would not have been possible without the aracious support of the United States Bureau of Reclamation.

#### Image Credits

In the order that they appear in publication: Elizabeth Hurst; kulkahhan from flickr.com; BriAnna Weldon; I.G. in S.F. from flickr.com: BriAnna Weldon: BriAnna Weldon: Elizabeth Hurst: Marlis 1 from flickr.com; jodybaadonas from flickr.com;

master kurokun from flickr.com; Elizabeth Hurst; BriAnna Weldon; Elizabeth Hurst: Elizabeth Hurst; J.C. in S.F. from flickr. com; M.Dolly from flickr.com; Richard cooper from flicker.com; Ambernectar 13 from flicker.com; Gogo from flicker. com; hiddenmeadows.us; Calflora.net; cactuscenter.com; BriAnna Weldon; BriAnna Weldon; Elizabeth Hurst; DaleH from flicker.com; Elizabeth Hurst; laspilitas. com; BriAnna Weldon; Elizabeth Hurst; lames T Savadage from flicker.com; Mshades from flicker.com: Elizabeth Hurst: Elizabeth Hurst; Elizabeth Hurst; BriAnna Weldon; joeysplanting from flicker.com; sftrajan from flicker.com; mikebaird from flicker.com; daitenau23 from flicker.com; pennyeast from flicker.com; kulkahhan from flickr.com; nautical2k from flicker.com; hortulus from flicker.com; cactuscenter. com; weedingwildsuburbia from flicker. com; yumievriwan from flicker.com; Elizabeth Hurst; Elizabeth Hurst; Elizabeth Hurst; Elizabeth Hurst; patrick\_standish from flickr.com; Ambernectar 13 from flickr. com; ReaA from flickr.com; black diamond from flickr.com; Laurent jung from flickr.com; wildwoodbunnies.com; BriAnna Weldon; martin\_heigan from flicker.com; BriAnna Weldon; BriAnna Weldon; Elizabeth Hurst; Elizabeth Hurst; Elizabeth Hurst; BriAnnaWeldon

#### Disclaimer

The information contained in this booklet is for general information purposes only. The information presented is intended to represent up-to-date and accurate information; however, any reliance you place on said information is strictly at your own risk. The creators and distributors of this booklet are in no event liable for any loss or damage in connection with presented information. Views, listings, and information do not constitute a recommendation or endorsement of the distributors of this manual, or the United States Bureau of Reclamation