

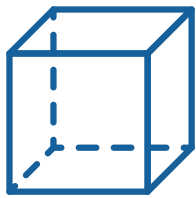


photo credit Jeff Silvia

ASSESS AND PLAN YOUR SITE

You need to consider all of these aspects when designing your garden, so get out there and evaluate your site!

SPACE



What areas of your space do you want to plant?

Measure your available planting space to help figure out how many plants you will need.

- Draw your site, including the trees, buildings, and hardscapes that you will be working around. Measure the spaces you plan to fill with natives so you plant the correct sized plants!
- Be aware of “micro-climates” where it gets very hot, such as a concrete patio with potted plants in full sun, or shaded areas that stay cooler than normal. Watch how the sun moves through these areas.



photo credit Jeff Silvia

SUN



Where is your sun and your shade?

Make sure you choose the right place for your plants so that they get the amount of sun they need to thrive:

- Full sun plants need a minimum of 6 hours of sun.
- Part sun plants need 3 to 6 hours of sun.
- Shade plants need only 3 hours of sun.
- Plant shade loving plants under oaks or other large trees and behind the shade of large buildings.
- Are you inland? Consider your landscape and climate. When purchasing plants, make sure you consider whether you are inland or coastal. Some plants need full sun on the coast but only part sun inland.

SOIL



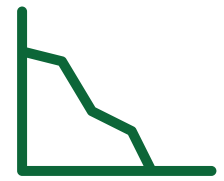
What kind of soil do you have?

Is it fast-draining (sandy) or does it have a lot of clay and hold water?

Quick test: Dig a hole 12” wide and 8” deep. Fill it with water:

- Drains in less than 30 min - Good drainage.
- Drains in 30-60 minutes - Slow drainage.
- More than 60 minutes - Poor drainage!
But don't worry, you can amend your soil to accommodate desired plants or simply chose plants that don't mind very poor drainage (look for clay-lovers).

SLOPE AND LOCATION



What areas are sloped and where do they drain to?

Where are you? Different plants thrive in different conditions.

- Include erosion-control plants on slopes and water-lovers in areas that collect moisture.
- Are you creating a coastal or inland garden? For an El Segundo Blue Butterfly garden, we recommend sites no more than 1.5 miles from the ocean.
- Are you near a natural landscape? You may want to include those natives in your design. Make sure to use the correct species - not garden varieties or hybrids - if you are close to sensitive habitat!

CREATE YOUR VISION

FOR EL SEGUNDO BLUE BUTTERFLY GARDENS

(Less than 1.5 miles from the coast)



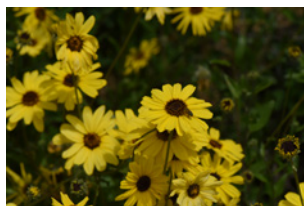
The El Segundo Blue Butterfly requires a particular buckwheat to thrive.

- Seacliff buckwheat (*Eriogonum parvifolium*) is the host plant for the butterfly's entire lifecycle. In nature, seacliff buckwheat is found at beaches, dunes, and coastal bluffs. Read about this, and other natural CA landscapes in "[Introduction to the Plant Life of Southern California: Coast to Foothills.](#)"
- All buckwheats are not the same! California buckwheat is NOT the same as seacliff buckwheat and it is not used by ESBs at all, so be very careful to select the correct host plant.

Other plants are also necessary for the El Segundo Blues to thrive.



- Check out this [link](#) for a list of species suitable for creating El Segundo Blue Butterfly habitat.
- For good-quality habitat, your site should be one-third (33%) seacliff buckwheat and one-third (33%) mix of California bush sunflower (*Encelia californica*) and California sagebrush (*Artemisia californica*).
- The remaining species can be selected from the list as desired.
- Associated plants in this habitat will provide year-round color that include dazzling spring wildflower displays along with quieter fall colors, such as the rust-red seacliff buckwheat fertilized flowerheads.



FOR OTHER NATIVE GARDENS

Choose local natives, as these plants provide better habitat and are more likely to survive.

- Find out what is native to your area using [Calscape.org](#), [Las Pilitas plant community](#), or Theodore Payne Foundation [plant databases](#).
- Your community might be oak woodland, chaparral, coastal sage scrub, etc.
- You can design multiple communities into your garden if you want! For example, add a little wetland or riparian woodland into your otherwise chaparral yard.
- Need a guide to help you design your garden? The California Native Plant Society has some design advice here, and check out some of these books below.
 - Try "[Designing California Native Gardens](#)" for more info on community gardening.
 - Check out "[The Drought-Defying California Garden: 230 Native Plants for a Lush, Low-Water Landscape](#)" and "[California Native Plants for the Garden](#)" to learn about plants you might want to use in your garden.
 - Or "[The California Native Landscape: The Homeowner's Design Guide to Restoring Its Beauty and Balance](#)" for design ideas.



photo credit laspilitas.com

How much of your landscape will be dedicated to local native plants?

- Native plants have different water needs than non-native "ornamentals." Keep your irrigation systems separate so you don't over water your natives. If you want to mix and match, choose varieties that tolerate the same amount of garden water.
- Consider what you plan to use the garden for, as this should influence your design.
- Strive for at least 70% native to maximize benefits to wildlife.

When selecting plant species, be mindful of their ultimate size.

- Refrain from planting too many plants to avoid a crowded and unhappy garden. Refer to [Calscape.org](#) or our plant guide for size specifications.
- Can't wait for your large shrubs and trees to grow? Fill in the spaces in between with shorter-lived species like fast-growing shrubs, perennials, annual wildflowers, and bunch grasses.
- Don't overplant! It will be a pruning nightmare later.

You may also want to check the blooming times of the plants you want. Many California natives bloom in spring, but it is possible to select a variety of plants so that something is blooming all year round.

Check our [list](#) of garden architects and landscapers for help with your garden planning and maintenance.

PREPARE YOUR SITE



REMOVE UNWANTED NON-NATIVES

- It's time to remove your lawn. This [video](#) will guide you. And as a bonus – it also tells you how to install a rain garden!
- If you have any ornamentals you plan to replace, go ahead and remove those now.
- Weed your entire site. It will be harder to remove them later after you plant. Don't forget to remove weeds before they seed, or you will have MORE weeds next year! If possible, water the soil after removing lawn or weeds to allow remaining grasses and weeds to re-sprout, so that these can be removed AGAIN before planting.
- While there are many effective methods to remove weeds, there are no 100% guaranteed ways to eliminate them completely. You will still have to weed after planting your new garden (because weed seeds blow in), however, there is a turning point where the natives establish and the non-natives find it hard to compete. That's the sweet spot you will be waiting for in your garden, and it will happen. Be patient!



IRRIGATION

We recommend one of the first two options below for residential areas and small landscapes. If you plan to install sprinklers or a drip system, do it BEFORE you plant.

- Hand-watering
 - Negative:** It is labor intensive.
 - Positives:** Only the plants themselves are watered, potentially reducing the number of non-native weeds. Looking at the plants as you water gives you information about the health of individual plants and allows you to easily regulate how much water each plant gets.
- Broad-cast irrigation (sprinklers or similar)
 - Negative:** The entire slope will be watered, potentially encouraging weeds.
 - Positive:** It is easiest to use and durable when using metal piping and risers. They can be turned on manually to water the entire area at once, making between-storm watering easy, and promotes wildflower seed germination. The system will require little maintenance.
- Drip irrigation
 - Negative:** Higher maintenance than sprinklers, and needs to be left on for VERY long periods of time because it distributes very little water.
 - Positive:** Reduces water loss due to evaporation and easily regulates watering amount.

* *Note: When working within the Coastal Zone, such as beach bluffs, there may be requirements in place that the irrigation system must be non-plastic and removable once the habitat is stable.*



EROSION CONTROL

- Typically, erosion control measures are required for large-scale landscapes with slopes.
- Smaller projects within sandy soils or steep slopes many need the help of jute netting. It can be installed over an entire site and placed strategically around native plants. This is a cost-effective way to cover the ground to prevent erosion as the new plants mature. During rainstorms, the jute netting will slow the impact of individual rain drops, absorb initial water, and then allow the ground to evenly absorb the rainfall. As the plants grow, the netting will slowly degrade.
- If you're not on the immediate coast and don't have sandy soil, you can use lots of mulch instead of jute netting.



SOIL AMENDMENTS

- Don't do it! Fertilizer is not needed when planting natives in naturally occurring soil. Stay away from Miracle Grow and other amendments with excessive nutrients that will harm your plants.
- Don't till or overly disturb the soil either, as this will bring dormant weed seeds to the surface.
- If your soil is highly compacted and drains very poorly, you can supplement with gypsum, compost, and/or worm castings, as well as lots and lots of mulch to bring the soil "back to life."
- Container plants will need a little bit of diluted fertilizer once a year.
- Remember, pots are microclimates and will benefit from a layer of mulch on top of the soil to retain moisture. As the mulch decomposes it will also add organic nutrients to the container's soil.



photo credit Ann Dalkey

INSTALLING YOUR NATIVE PLANT GARDEN

ORDER OR PICK-UP YOUR PLANTS

At present, local native plants are only available through specialty growers.



NURSERIES FOR NATIVE GARDENS

(Hours vary, check websites or call in advance. Some take online orders.)

Theodore Payne Foundation:
10459 Tuxford Street, Sun Valley, CA 91352

C&S Nursery:
3615 Hauser Blvd., Los Angeles, CA 90016

International Garden Center:
155 N. Pacific Coast Highway, El Segundo, CA 90245,

Matilija Nursery:
8225 Waters Rd, Moorpark, CA 93021

California Botanical Garden (Closed during Summer): 1500 N College Avenue, Claremont, CA 91711

Las Pilitas Nursery:
3232 Las Pilitas Rd, Santa Margarita, CA 93453

Tree of Life Nursery:
33201 Ortega Highway, San Juan Capistrano, CA 92675

Plant Material (multiple locations):
3081 Lincoln Ave., Altadena, CA 91001

3350 Eagle Rock Blvd., Los Angeles, CA 90065

3024 La Paz Dr., Los Angeles, CA 90039

Hahamongna Nursery
4550 Oak Grove Dr., Pasadena, CA 91103



EL SEGUNDO BLUE BUTTERFLY HABITAT PLANTS

It is important to purchase plants from vendors who source their seeds from known locations that contain the correct genetic material for the El Segundo Blue Butterfly.

PALOS VERDES PENINSULA LAND CONSERVANCY-

Order online at pvplc.org/plant-sales and pick up at their office 916 Silver Spur Rd. Suite 207, Rolling Hills Estates, CA 90274

INSTALL YOUR GARDEN

Native plants do best when planted in cool months, November through March. Here is a guide to planting your garden, courtesy of Theodore Payne Foundation.

- Do NOT amend your soil. Native plants like native soil.
- SOAK:
Water your plants in their pots thoroughly the day before planting. This encourages vigorous growth and reduces transplant shock.
- DIG:
Dig a hole that is at least twice as wide as the container and approximately ½" less in depth.
- WATER THE HOLE:
Fill the hole with water and let it drain to ensure sufficient moisture for the new plant. If the soil is very dry, repeat this step 2-3 times.
- PLANT:
Remove plant from container, disturbing the roots as little as possible. If the plant is rootbound, it's okay to gently separate the roots and rough up the edges of the rootball. Set the plant into the hole. The top of the rootball should be slightly (1/4-1/2") higher than the surrounding soil. Position the plant and return the native soil to the hole. Pack gently but firmly.
 - Optional: If hand watering, you can create a berm around the plant. For a one-gallon plant, it should be approximately two feet in diameter.
 - Note: If you use drip or overhead irrigation, creating a berm is not recommended.
- MULCH:
Spread 3-4" of mulch (consider natural Cedar or Redwood) between new transplants, leaving at least 2-3" clear around the stem or crown of each plant. Mulch is critical to plant survival, as it moderates soil temperatures and helps retain soil moisture. Consider also using a "nurse rock" – a softball size or larger rock placed on the southwest side of the crown of the plant – to shelter the crown and roots from heat, help the soil retain moisture, and function as a natural drip system as your plant gets established.
- WATER:
After planting, water the area well. If hand watering, fill the berm area around the plant and let it drain. Repeat 2-3 times to remove air pockets and ensure wet soil around and below the rootball.

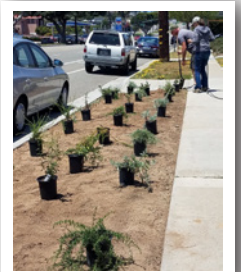
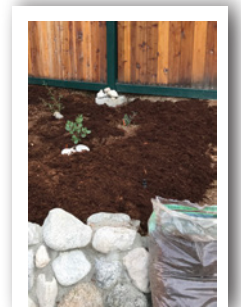


photo credit Miki Payne



GETTING PLANTS ESTABLISHED



photo credit Jeff Silvia



1st Year



2nd Year



3rd Year

- After planting, have patience! Native plant growth is slow to start and best described as: 1st year they sleep, 2nd year they creep, and 3rd year they leap. This is because they are investing in their root structure first, which is important for drought tolerance.
- Some plants will not make it, no matter how excellent your care routine is. Expect that 20% will be lost through no fault of your own.
- Plants will take 1-3 years to establish. Large trees/shrubs and slow growing plants take longer to establish than fast-growing perennials.
- Sample Watering Schedule:
 - For the first two weeks, water aggressively to insure the root zone is thoroughly wetted, 2-3 gallons per 1-gallon plant. Generally, twice a week suffices, but if the weather turns hot and dry, the plants may need more water. If it rains, then the irrigation can be held off.
 - Next month: Water on a weekly basis, depending upon weather.
 - Taper to every two weeks, then to a monthly basis, depending upon weather.
 - Water through April, selecting cool days for irrigation. If plants are installed late (e.g. March – May), then supplemental irrigation may be continued into June.
- Since everyone's site is different, here is some watering advice from Theodore Payne to help you customize your watering schedule:
 - Watering natives correctly is essential. Improper watering is the primary reason for plant loss. Most native plants prefer deep infrequent soaks, rather than frequent shallow soaks. Though roots should not be allowed to dry completely, some dryness is good.
 - How often you water will depend on your plants, your soil, sun exposure, and the weather. Sandy soils drain well but dry out quickly, requiring more frequent irrigation. Heavy (clay) soils retain moisture longer than sandy soils, meaning you will need to water less often, and it will be easier for you to overwater your plants by watering them before they need it. Plants in full sun will need watering more often than those in shady spots. Soil dries out more rapidly when it's warm or windy than during cool, still, or overcast weather.
 - At least twice a week, check the root ball of new plants by digging with a hand trowel or your finger 3-4" below the surface. If the soil is moist, do not water. If dry, water slowly until the root area and surrounding soil are completely wetted. To encourage deep rooting and minimize disease, always water thoroughly and deeply – up to five gallons per plant (a minimum of 2-3 gallons for a 1-gallon plant).
 - If you have clay soil or a slope, check soil moisture again after watering to be sure that the water has soaked in. If runoff is a problem, several short applications on the same day may be needed for adequate saturation.
 - Place plants on automatic watering only after determining water needs. When weather changes, change the schedule to accommodate plant needs. During the winter months, set the controller to manual



photo credit Ann Dalkey

CARING FOR YOUR NATIVE GARDEN

AFTER ESTABLISHMENT

After the first season of growth, the root systems should be established enough that the plants can follow their natural ability to survive the summer drought. Morning fogs and overcast provide much of the plants' moisture during this time on the coast and inland plants are adapted to natural rains.

- Supplemental irrigation in winter during the second year's growth will help in furthering the root growth.
- Because rainfall has become more unpredictable, with a few years of ample rains followed with winters of scarce rains, supplemental irrigation can be provided after the establishment period. During dry winters, supplemental irrigation may be provided from December through March or April.
- Some plants that have summer dormant periods can keep a greener look with some summer water.
- You may also want to deep water a few days before a heat wave, but don't water plants that don't like summer water (ceanothus, manzanita, penstemon, flannel bush, woolly blue curls).

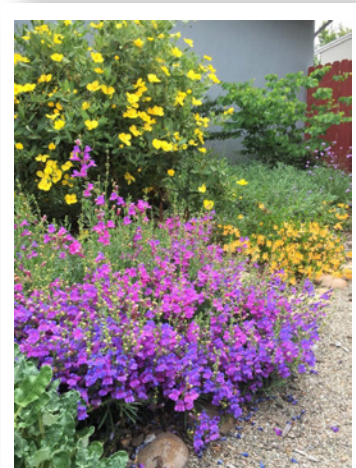


photo credit Jeff Silvia

LONG-TERM MAINTENANCE

Your garden will need some care going forward, including supplemental irrigation, pruning, and weeding.

- Weed before they seed! Work by hand and try not to disturb the soil. Early vigilance and jute netting or mulch will deter their growth and block new seeds from taking root. Weeds need to be controlled while the plants are developing because weeds have the ability to smother native plants. Once the plants mature, their canopies will cover the ground better to deter the growth of weeds.
- Most plants will look nicer if you prune spent flowers and broken branches. You may also want to prune to get a certain shape. Prune in fall/winter after plants are done with their growth phase or are dormant.
- Check out "[*California Native Gardening: A Month-by-Month Guide*](#)" for advice on garden care.
- Check out "[*What's Wrong With My Plant? \(And How Do I Fix It?\): A Visual Guide to Easy Diagnosis and Organic Remedies*](#)" for advice on sick plants.



photo credit CNPS.org

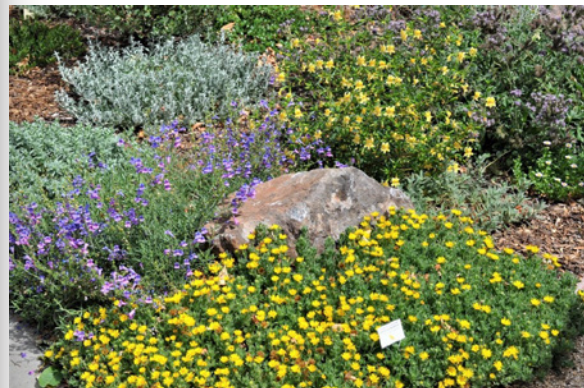


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