YOU CAN DO IT!

HOW TO CONVERT YOUR TIRED SCHOOL LAWN INTO A BEAUTIFUL NATIVE PLANT GARDEN

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GET STARTED

There has never been a better time to convert your school's tired, unused lawn area to a beautiful and vibrant California native plant garden that students, parents, teachers, and the local community will enjoy.

You can support pollinators and local wildlife by using California native plants in your new garden to create valuable habitat for birds, butterflies and moths, and bees. Many California native plants are the only host plants for our native pollinators, so planting the right plants in your school's garden can make all the difference for the survival of these creatures.

With the passage of Assembly Bill 1572—which will be implemented in stages, beginning January 1, 2027—public and private schools and universities in California will no longer be able to water nonfunctional turf/lawn areas with potable (drinking) water.

NON-FUNCTIONAL TURF (NFT) is any lawn that does not serve any real purpose besides aesthetics. Examples are:

• Parking strips
• Decorative lawns on the fronts or sides of buildings
• Lawns in areas that cannot be accessed

FUNCTIONAL TURF is not affected by this law. Functional turf is defined as an area used for recreational purposes or community gathering and may be formal or informal. Examples of functional turf are:
• Sports fields
• Playgrounds
• Picnic grounds
• Civic or ceremonial gathering areas
• Social gathering areas

Prospect Sierra Elementary's entrance garden ("before"), 2060 Tapscott, El Cerrito

ENGAGE YOUR STAKEHOLDERS

As with any design project, begin by communicating with potential stakeholders for your project.

Your principal, schoolteachers, your school's maintenance liaison, interested parents, and of course your students may wish to be involved in the transformation of your lawn-to-garden project.

Your principal may guide you on areas that will need to be converted, and what is possible, budget-wise. (Though the conversion can be done fairly cheaply.)

Your school's maintenance liaison may have valuable advice on things like irrigation zones, and not planting in Zone 0—the first five feet next to any building in high fire severity zones.

Teachers may have specific requests for the garden in terms of educational purposes and how they expect students to use the space.

Involving students can be invaluable to the appreciation and ongoing care of the new garden.

Parents may be able to fundraise and organize or provide volunteer labor for installation and ongoing care of the garden.

Deciding how the new space will be used will drive the design and development of the new space, so it's important to have feedback and buy-in from your stakeholders as you begin planning.

CHECK FOR LOCAL AND STATE REBATES

Local water districts may offer financial incentives to replace turf with a drought-tolerant garden. Some water districts offer additional incentives to use a majority of California native plants in the new garden.

For a limited time, the East Bay Municipal Water District (EBMUD) is offering additional financial incentives for converting school lawns (and other commercial properties) prior to the implementation of AB 1572, so be sure to complete your project by December 31, 2026, to earn these

additional monies while they are available. Information on EBMUD's Cash for No Grass rebate can be found here.

The State has also offered lawn to garden rebates at various times as well, so be sure to check for that possibility in addition to what's offered locally.

There may be specific rules or incentives for how the lawn is to be removed, the timing of installation of new plants (during the cooler, rainy season rather than during months of warmer weather when plants would need more water to get established), as well as which irrigation system may be used. For example, most rebate programs require that spray irrigation is replaced with drip or inline drip irrigation, as drip is more efficient. Any rebate program will likely prohibit the use of certain higher water plants, and not all California natives are drought tolerant, so keep that in mind.

Rebates are NOT retroactive, so it's important to apply and be approved for your lawn to garden conversion project BEFORE demolition of the existing lawn area begins.

Most rebates have a deadline for completing the project, so be sure to adhere to those guidelines when planning your installation timeline.

PLAN THE GARDEN ON A REALISTIC TIMELINE

Expect to spend several months planning the design and implementation of your new garden. With multiple stakeholders comes multiple opinions about how the project may ultimately be brought to fruition, and what elements it will contain. The project may also need to work through administrative and school district approvals before work can begin.

The best time to install your new native plant garden is usually during the cooler, wetter months of late fall, winter, and early spring.

Native plants are available year-round in the trade and at retail native plant nurseries, and you can get an idea of availability by checking which nurseries are growing certain plants at CalScape, by filtering on nursery availability.

The requirements of your lawn to garden rebate program may guide you on installation timing, but aim to install the new garden when it can be easily monitored for the first few months in case irrigation needs to be adjusted, etc. There is more likelihood of plant loss when a garden is installed during school breaks or at the end of the school year when access to the site may be restricted for a period of time.

REMOVE THE LAWN THROUGH SHEET MULCHING

Even if your lawn is dead it will often revive with rain, so consider one of the options below to help ensure that you don't end up with a mess of old lawn and new garden intermixed a few months after your installation. There are multiple ways to eliminate turf but be sure to check and see if your lawn to garden rebate program stipulates how you may do so.

The most sustainable way to eliminate the existing turf (and undesirable weeds such as Bermuda grass, crabgrass, oxalis, etc.) is to sheet mulch, which means killing the lawn in place by cutting off the sunlight to the turf for a period of time. There are a number of resources online about sheet mulching, but check out this video to learn how to do it.

Sheet mulching means covering grass with cardboard to cut off the light to the grass, then covering the cardboard with wood chips/mulch to allow the grass to decompose over time, usually within 2-3 months. Pervasive weeds may take longer to eliminate. After the grass is dead you can then dig right into the layers of old cardboard and mulch to plant your new garden.

Depending on what you are going to plant, you can add a layer of compost before the mulch to enrich the soil. (Native plants are probably better without this step but some rebates require that you add it.)

It’s advisable to dig a small channel about 4-6” back and down from any hardscape edges to allow the woodchips/mulch to settle rather than spill out onto the adjacent hardscape. A pickax works well for this task, and the cardboard still gets placed into this area all the way up to the hardscape edge (the sheet mulching video describes this process).

Be sure to keep the cardboard and wood chips/mulch pulled back at least 12” from the root ball of any existing plants, as well as existing trees.

You can lay the cardboard first, then the compost, then the wood chips, OR you can lay the compost first, then the cardboard, then the woodchips. OR you can skip the compost and simply use cardboard and cover it with woodchips/mulch. It is extremely important that the cardboard pieces overlap so that no light gets through to the grass.

We normally recommend 1" of compost if you're using it. EBMUD requires 2-3" of much; if you have more your layers are too 'fluffy' come planting time, and you are planting in mulch rather than soil. Check to see what your rebate requires. The layers will compress a bit thoough, with wind, rain, and time.

Cardboard is free at places like Costco, appliance stores, furniture stores, etc. You will want it to be 'clean' or you'll need to remove the shiny tape/labeling which won't decompose, as well as staples. If you wish to purchase cardboard, storage facilities and some landscaping stores now sell cardboard in rolls.

Landscape fabric IS NOT RECOMMENDED for a variety of reasons, since it's not great for the soil or new plants. Also, it's worth noting that some rebate programs prohibit the use of landscape fabric in your lawn to garden project.

REMOVE THE LAWN THROUGH DIGGING OR WITH SOD CUTTING TOOLS

An alternative to sheet mulching is eliminating the lawn through either hand digging or using a sod cutting tool. The downside to this is that the process is more labor intensive than sheet mulching, and the dug-up soil/turf has to be either reused onsite in some way, such as in the creation of mounds and berms, or sent to a landfill—which usually involves a dumping fee.

You may choose to hand dig out the lawn. It can be time consuming and hard labor, but it's feasible if you are up to the challenge.

A sod cutting machine (available at tool rental stores) can slice away the top layer of your lawn, leaving the soil underneath exposed. You will still need to hand dig around trees, and along hard edges like your driveway, etc. This can be a quick way to remove the lawn, but it does tend to annihilate the old pop-up risers which may still need to be converted to drip irrigation. If soil needs to be replaced after this process, you will typically just add topsoil (which is not nutrient rich) to even out the grade.

DESIGN THE NEW GARDEN

There are many considerations in planning your new garden space. Common questions to help guide the direction of the design are:

How will the new garden be used?

Will the new garden be only ornamental, such as along a parking lot edge or in front of the school office, or will it be a space in which outdoor classroom activities will take place, or teaching tools stored? Will students be allowed to access the space? What about the public?

What are the elements that will affect the design of the space? Is the area in sun or shade, and is the area sloped or flat? What else is nearby that might affect the design? For instance, if the area is a potential gathering space for students but next to the street, you may want to plan for shrubs along the

perimeter to help create a sense of enclosure and safety. Do a site walk with other stakeholders to talk through your design suggestions and get feedback and other ideas for how you might approach the project.

If the space is ornamental only, then you may be able to plant more densely and worry less about access other than for maintenance. More information about maintenance is included later in this guide. Planting densely and allowing the plants to brush against each other (but not crowd each other out) can help with weed control and create better habitat for creatures seeking to find shelter.

Prospect Sierra Elementary's entrance garden, 2060 Tapscott, El Cerrito

If students and teachers will use the garden then you'll want to consider and plan for possibly multiple circulation routes through the space. Perhaps you'll even have a larger space within the garden for students to gather. If so, think of ways to offer seating for classrooms or visitors such as boulders, old stumps or logs, or benches.

Paths through the space should be at least 3' wide or possibly wider if the space will house classroom activities. Good materials for paths could be anything permeable such as small gravel (we like 3/8" or ¼" size with an irregular edge so it 'settles'), mulch/woodchips, stepping stones, or pavers. If you're using mulch/woodchips, consider lining the paths with twigs and branches, stones, or other materials to visually guide visitors to keep to the paths.


Prospect Sierra Elementary's newly planted entrance garden, 2060 Tapscott, El Cerrito

Plants next to paths should be safe, appealing, and durable enough to stand up to occasional foot traffic—so avoid brittle, thorny/prickly, or overly active insect-attracting plants in these spots. It's better to use these plants in other spots within the garden. The section further in this guide entitled "What California native plants should you choose?' will help in choosing your plant palette.

In addition to the potential for paths and gathering spaces, think about other elements of the garden. Will there be anything else serving as a focal point besides the plants? Examples of focal points include a walkthrough arbor to serve as an entry/exit point, a shade area using a structure, umbrellas, or a large tree, a fountain or birdbath as a valuable water source for wildlife, boulders for lizards, areas for student art or sculptures, a dry creek bed or rain garden to help slow water runoff, and so on.

Are there any themes for parts of your garden? Schools have created gardens using edible, medicinal, and cultural native plants used by Indigenous peoples, or developed native garden designs based on colors, textural and sensory exploration, famous literature, and so on. The possibilities are endless!

Who will care for the new garden?
It's imperative to understand who will care for the new native plant garden before you get too far along in the design process. Will your school district handle the garden maintenance? What are their practices and is there flexibility in how the garden will be cared for? Could your native garden be maintained by teachers, students, and volunteers?

Native plants attract a variety of pollinators and wildlife, so understanding when—and if—plants should be pruned and maintained can be a matter of life and death to the pollinators using your plants. For instance, common manzanita is thought to hosting 54 varieties of butterflies and moths and their caterpillars in the larval stage. Left alone, some of these caterpillars will metamorphosize to become moths and butterflies and repeat the life cycle, and some of these caterpillars will contribute to the food web by becoming meals for birds, which is also important. If the maintenance crew for your garden prunes your manzanitas into rounded shrubs every few months, the very habitat you've created for wildlife is being destroyed and removed.

Educating your maintenance crew on best practices for your new garden ensures that the habitat you've worked to establish has a chance to survive and support all the pollinators it attracts. In addition to letting plants grow into their natural forms, plan to prune only at the right time (if pruning necessary at all).

Be sure to abstain from using chemicals such as pesticides and herbicides—which generally do not discriminate in what they kill.

It is also best practice to 'leave the leaves' to keep insects safe during fall and winter lifecycles, as many butterflies and moth pupa overwinter in leaf litter. When you compost leaves, you are composting butterflies! If you must disturb the leaves at all, gently move them off of pathways and into the adjacent flower beds rather than remove them all together.

What California native plants should you choose?
There are so many choices that choosing plants for your new native garden can be overwhelming. A good place to start developing your potential plant palette is to investigate the plants that are locally native to your site by checking your garden's address at https://calscape.org/search Calscape lets you filter by light needs, water needs, size, pollinator value, nursery availability and more. You can download your results into a spreadsheet and do further investigation to narrow your list.

It's okay to have some statewide, non-local natives included in your palette, but do aim for the for a majority to be 'keystone plants' to provide the most value to your local pollinators. Keystone plants are those that provide food for many species of birds and insects. Examples of great keystone plants suitable for most gardens include manzanita, California lilac, currants, buckwheats, coyote bush, oaks, and sage varieties. For a list of keystone plants, check out: https://bringingbackthenatives.net/keystone-species-signs

An interior planting bed, Prospect Sierra Elementary, 2060 Tapscott, El Cerrito

Pay attention to the expected size of the plants you are selecting. It can be hard to imagine that a tiny 4” plant will quickly grow to be 10’ tall and wide, but some plants can and will. When plotting your plants on a planting diagram, give the plants the room they need from the beginning so they don’t need to be constantly pruned to fit within a confined space. If a plant gets large, perhaps you only need one specimen in the garden. And alternatively, if a plant is small even at maturity, plant several in a group or drift for more visual impact and to make them easier for pollinators to find. Examples of plants that look good in drifts include some of the smaller buckwheats, penstemon, monkeyflower, and California aster.

Site plants properly for recommended light and water needs. For example, if you have a higher water tree already in the garden that will remain, plant more water tolerant natives around it’s dripline so both can be happy. If a plant is a full sun loving variety, resist the urge to place it where it will be too shaded, and may lean towards sunlight or be more susceptible to pests because it’s unhappy. If a plant is listed as a sun lover at the coast but you are 100 miles inland in desert-like heat, check to make sure that plant can truly tolerate that kind of heat and sun—perhaps it would survive only if in afternoon shade.

Group plants with similar water needs together or within the same overall zone in your design, so that when it’s time to install irrigation your plants will be happier getting what they want (or don’t) in terms of water. Some California native plants can survive on rainfall alone, *if* you plant natives

local to your area. If you include plants that are from other areas of California or from creekside locations, your plants may need supplemental irrigation. Not all California native plants are drought tolerant, so there is no single approach to watering a garden with a varied palette of plants.

Watch out for plants that can be overly aggressive and spread well beyond their intended space. Examples include goldenrod, Matilija poppy, California fuchsia, and California aster. It's okay to use these if you have the right spot where they can be contained as needed but be aware of their potential.

The best planned gardens offer four season interest instead of all at once, so take note of the bloom times of different plants when planning your plant palette. Consider foliage color, berries, ornamental bark, and interesting textures to supplement flower blooms as well. Remember that your school site may be mostly empty during the summer months, so focus on fall, winter, and spring bloomers for the majority of your selections if you can.

Depending on the size of your garden, you may not need a huge palette of plant choices. Rather than aiming for a 'plant collection,' aim for continuity and harmony in the garden by repeating plant choices, and using larger groupings of small plants as mentioned previously. A smaller palette of choices will often be easier to maintain as well.

Think about how you'd like to layer your plants. Many times, layering will involve positioning the shortest plants in the foreground, with the tallest in the background, along with some 'exclamation points' through the middle for visual surprises. This would be a traditional layout in front of a building for instance. However, along a pathway, the shortest plants may be along the path edges and the taller plants may be closer to the adjacent buildings or in the back of the garden. Plant layers can also be manipulated to include the tallest specimens along the outer perimeter of the garden to create a feeling of coziness and privacy as well.

Be aware that there are many forms of some of the most common California native plants such as manzanita, California lilac, currant, and buckwheat, so whether you need a 1-2' tall groundcover to spread 8' wide or an 8' tall upright focal point shrub, with a bit of research, you'll likely find good candidates for your garden needs. Beloved and hardy plants that will do well in most California native gardens include:

Manzanita (*Arctostaphylos*)
California Lilac (*Ceanothus*)
Currant (*Ribes*)

Buckwheat (*Eriogonum*)
Milkweed (*Asclepias*)
Toyon (*Heteromoles arbutifolia)*
Sage (*Salvia*)
Monkeyflower (*Mimulus*)
Coyote Brush (*Baccharis*)
Hollyleaf Cherry (*Prunus*)
Oak (*Quercus*)
Snowberry (*Symphoricarpus*)
Coffeeberry (*Frangula*)

Examples of brittle plants that are not well suited for path-adjacent plantings include Sages, Monkeyflower, Penstemon, Coyote Mint, and some of the smaller varieties of buckwheat.

Examples of thorny/prickly plants to avoid placing next to paths include thorny varieties of currants and gooseberries, native roses, and some varieties of California lilac.

Finally, it's a good idea to understand and properly site any plants that are super-attractive to insects in your garden. Milkweed is an obvious example. It is invaluable to plant your *local* variety of California native milkweed for the sake of monarchs. When milkweed is leafed out and in bloom it is usually covered with a variety of insects—from golden aphids to milkweed bugs, ladybugs (eating the aphids), ants, and hopefully monarch eggs and caterpillars. All that activity can make brushing against the leaves a bit, well…icky, so DO plant only your *local* (and only your local) native milkweed but site it farther away from paths where all that action can carry on without human interference.

Keep editing and refining your plant list as you complete your design plans. Remember that there are many ways to have the garden turn out well, and no

matter how perfect the garden may look one week, plants under and overperform, and yes, die, and the garden will change over time.

ORDER OF EVENTS + INSTALL & IRRIGATE THE NEW GARDEN, AND GENERAL TIPS

Some commonly shared tips about the installation of your new garden include:

The order of events related to the new garden are usually demolition first, then hardscape changes such as paths or gathering areas like patios, then plants and irrigation in tandem at the end.

If you don't have good drainage, create it. Berm or mound soil in areas where plants like manzanita and California lilac will be planted. For other plants, plant 'high' by leaving the root ball of the new plant at least 1" above grade, so that when your top dressing of mulch/bark is added, it is even with the top of the root ball, rather than creating a basin around the plant that would collect water and possibly drown the plant during the rainy season.

Don't amend your soil. If you sheet mulch to eliminate your lawn, your soil will already be healthy from the breakdown of the dead turf and disintegrating cardboard and mulch chips. If you don't sheet mulch and wish to add soil, only add top soil which has little nutrient value. Native plants generally don't need or want amended soil. When planting, add in some of the existing soil as well as the topsoil into each hole.

If you need help sourcing plants, check out the "Find a Nursery" section on the Bringing Back the Natives Garden Tour's website to view a list of local nurseries growing native plants.

Position your plants through out the garden before you plant, so that you can adjust and compare the layout to the intended plan. Once you have everything in position and all looks good, start planting.

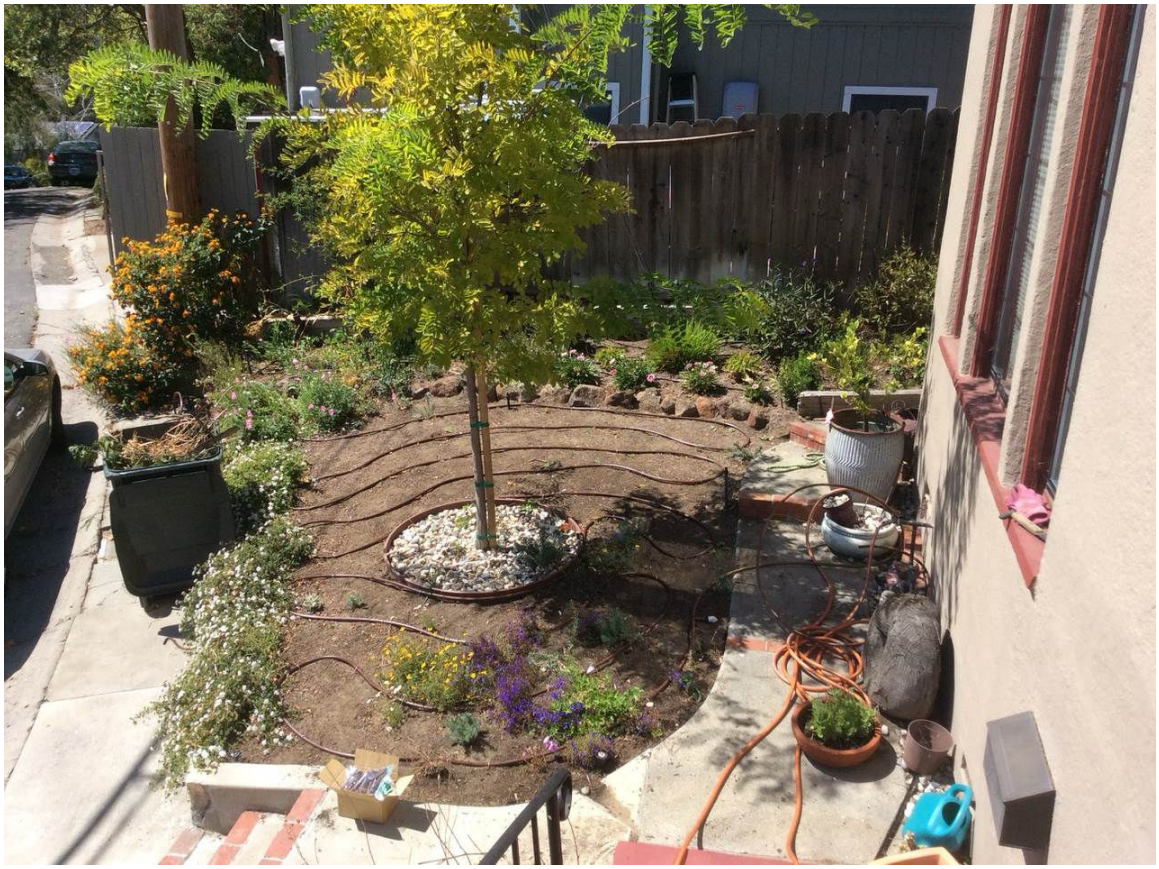
Do add a finishing layer of bark/wood chips to give the garden a finished look, help keep moisture in the soil and hide irrigation lines. Keep the mulch pulled away from the trunk and root balls stems of each plant.

Consider adding labels to your new plants to increase awareness of the value of your new garden and its additions.

Prospect Sierra Elementary plant signage, 2060 Tapscott, El Cerrito

For irrigation, note that many rebate projects prohibit the use of spray irrigation. Many native plant aficionados use **inline drip** such as Netafim for an elegant solution that results in efficient water use and happy plants. Netafim is also a great low-maintenance option for a site with a lot of foot traffic.

Inline drip tubing, such as Netafim, has emitters prebuilt inside the tubing and evenly spaced at either 12", 18", or 24" intervals. The tubing lays on the soil, but under the mulch, in roughly parallel lines, spaced apart between 12", 18" or 24". The water emits very slowly, at a rate of .6 or .9 gallons per emitter per hour. After the water has run for 30 to 60 minutes, you have a deep saturation across the soil, with little evaporation or runoff. Below the surface, the water funnels out and down. Plants are thus encouraged to develop deep roots, making them more drought tolerant. The water pressure is strong through the line, for a consistent application of up to 600 linear feet, depending on your water pressure, distance of the lines, etc. If anything gets in the way the system flushes it out, so there is no clogging. In the short term, you may need to hand water new plants a bit if some spots don't have complete coverage where a plant's new rootball is located. In the long term, the plants will have roots everywhere (which is why we want to apply water everywhere, like rain), so it won't matter if an emitter is right next to the plant.



Netafim layout: it is installed after sheet mulching, but before planting

Netafim can be connected at the valve, or to one of the former "pop up" risers from your lawn (all the other popups on that zone would then get capped off). Connector pieces, along with "L," and "T" pieces are all available where you buy Netafim. You also usually use metal stakes to hold the tubing in place across the soil. “Agrifim” is a similar product by a different manufacturer and would be a good alternative. Either works the same way, so buy what you can find. These products can be purchased at local contractor supply houses such as The Urban Farmer in Richmond or San Francisco Horizon, Watersavers, or Ewing Irrigation. Amazon and some wholesale nurseries sell it as well. Read more about Netafim here.

YOU CAN DO IT!

Hopefully the variety of topics covered in this guide have given you the information and incentive you need to convert your unused school lawn area into a beautiful California native plant garden benefiting your school population, community, and nearby wildlife.

You can find a list of designers specializing in native plant gardens who may be able to consult on your project here.

If you have questions, please reach out to Kathy Kramer at the Bringing Back the Natives Garden Tour at (510-236-9558)

Kathy@KathyKramerConsulting.net, or landscape designer Kelly Marshall at www.kmgardendesign.com or (925-914-0327).

Good luck; we're rooting for you!

Kelly Marshall, owner of Kelly Marshall Garden Design, has been designing Bay Area gardens for 20 years and specializes in creating beautiful California native gardens that are appropriate for our climate and benefit local wildlife. You can reach her at (925) 914-0327; Kelly@KMGardenDesign.com