**RESCAPE CALIFORNIA:**

**8 PRINCIPLES FOR REGENERATIVE LANDSCAPES**

ReScape California is a non-profit organization that educates about and advocates for a whole-systems approach to landscaping that works in harmony with the natural world and addresses the changing environment. ReScape’s landscaping practices are based on 8 regenerative principles which foster soil health, sequester carbon, conserve water and protect habitat and valuable resources while reducing waste and preventing pollution in our communities and watersheds.

**SACRAMENTO RIVER WATERSHED**

A watershed is all the land in a region from which rain collects and drains into a common creek, river, lake or bay. The water in a watershed moves across the land and through the storm drain system both underground and on the surface. Water that flows onto streets and into gutters is called urban runoff. On the way to the creeks and rivers, urban runoff picks up pollutants that eventually end up, untreated, in our waterways.

The 27,000 square-mile Sacramento River Watershed drains the Sacramento Valley, the Modoc Plateau, and parts of the Cascade Range and Sierra Nevada Range. This watershed is one of the largest in the United States and covers most of northern California. The Sacramento River carries 31% of the state’s total surface water runoff. The mouth of the Sacramento River is at Suisun Bay near Antioch where it combines with the San Joaquin River, flows into the San Francisco Bay and ultimately meets the Pacific Ocean under the Golden Gate Bridge.

Whether your landscape is next to a creek or miles away, your activities impact the quality of water in the Sacramento River Basin. In healthy landscapes, water from rain or irrigation percolates through soil that is rich in organic matter and alive with organisms. Living soils absorb and retain much of the water while also filtering out pollutants before the water reaches the aquifer or watershed. Incorporating ReScape’s 8 Principles into your landscaping practices will ensure that you are helping to protect the watershed and minimize pollutants that reach the waterways where we live, work and play.

---

**Need Help?**

Hire a landscape professional trained in ReScape’s 8 Principles. Visit our ReScape Qualified Landscape Professional Directory at [www.rescapeca.org](http://www.rescapeca.org)
8 LANDSCAPE PRINCIPLES OF RESCAPE CALIFORNIA

1. Act Local
   Built landscapes are a part of the larger ecosystem of the Sacramento Watershed and they can contribute to its health if designed and maintained using sustainable practices.

2. Reduce Waste
   Reduce waste by choosing the right plants, avoiding invasive plant species, using recycled and salvaged products in the landscape, and by composting, mulching and grasscycling plant debris.

3. Nurture Soil
   Soils are living ecosystems and when landscape practices allow the soil food web to thrive it can filter pollution, store water, provide plant nutrients and help plants resist pests naturally.

4. Sequester Carbon
   Healthy vegetation works together with soil rich in organic matter and beneficial microorganisms to remove carbon dioxide from the air and store it as soil carbon, an important strategy for addressing climate change.

5. Save Water
   Use a holistic approach of creating drought resistant soils with compost and mulch, select plants naturally adapted to summer-dry climates, use stormwater, greywater and recycled water in the landscape as much as possible, and use efficient irrigation systems that include self-adjusting, weather-based controllers.

6. Conserve Energy
   Reduce the need for mowing and shearing, shade buildings and paved areas, use efficient outdoor lighting, and buy local landscape products.

7. Protect Water & Air
   Maximize permeable surfaces and minimize stormwater runoff, use integrated pest management, minimize the use of synthetic pesticides and avoid overuse of fertilizers, reduce fossil fuel consumption, and plant trees to remove CO2 and absorb air pollutants.

8. Create Habitat
   Biodiversity is crucial to the health of natural ecosystems and by using native plants and increasing the diversity of plant palettes, our built landscape can provide food, water and shelter for birds, butterflies, beneficial insects and other welcome creatures.

Resources:
- Calscape Native Plant Nursery Directory: [www.calscape.org](http://www.calscape.org)
- California Association of Nurseries & Garden Centers Directory: [www.cangc.org](http://www.cangc.org)
- Our Water Our World Eco-Friendly Product Locator: [www.ourwaterourworld.org](http://www.ourwaterourworld.org)
- Regional Water Authority: [www.bewatersmart.info](http://www.bewatersmart.info)
- Sacramento River Watershed Program: [www.sacriver.org](http://www.sacriver.org)
- Sacramento Stormwater Quality Partnership: [www.beriverfriendly.net](http://www.beriverfriendly.net)

More information, including how-to guides, available at [www.rescapeca.org](http://www.rescapeca.org)
RESCAPE CALIFORNIA: ACT LOCAL

ReScape California is a non-profit organization that educates about and advocates for a whole-systems approach to landscaping that works in harmony with the natural world and addresses the changing environment. ReScape’s landscaping practices are based on 8 regenerative principles which foster soil health, sequester carbon, conserve water and protect habitat and valuable resources while reducing waste and preventing pollution in our communities and watersheds.

Our Act Local principle recognizes that built landscapes are part of the larger Sacramento River Watershed and can contribute to its health when designed and maintained using sustainable practices. Landscapes designed with an awareness of local conditions, including climate, surrounding plant communities and site specific features, will thrive as well-functioning ecosystems that provide wildlife habitat, conserve resources and require fewer inputs than conventional landscapes.

SIMPLE STEPS TO ACT LOCAL

1. Evaluate climate, exposure and topography to reveal both the opportunities and limits of the site.

2. Assess the soil and test drainage. This will help you determine the soil quality, types of plants it can best support and any need for amendments.

3. Identify existing flora and fauna to determine native vegetation, wildlife habitat and sensitive areas.

4. Consider the wildfire risk and integrate firescaping techniques such as creating a defensible space around your home and reducing potential fuel load from plants.

5. Use local plant communities as models. A plant community is a group of plants that recurs with relative consistency. Common plant communities in the Sacramento Region include Riparian Woodland, Valley Grassland, Foothill Woodland, Chaparral and Freshwater Marsh.

ACTING LOCALLY PROTECTS OUR WATERSHED

- Identifying problems such as soil compaction encourages runoff that in turn contaminates waterways.

- Selecting appropriate plants that will thrive without the use of chemical inputs reduces pollution headed to our watershed.

- Protecting your home and landscape against fire that can leave the soil bare and vulnerable to increased runoff, erosion and sedimentation protects local creeks and rivers.

Resources:
- Calscape Native Plant Nursery Directory. [www.calscape.org](http://www.calscape.org)
- California Association of Nurseries & Garden Centers Directory. [www.cangc.org](http://www.cangc.org)
- California Invasive Plant Council. [www.cal-ipc.org](http://www.cal-ipc.org)
- Our Water Our World Eco-Friendly Product Locator. [www.ourwaterourworld.org](http://www.ourwaterourworld.org)
- Regional Water Authority. [www.bewatersmart.info](http://www.bewatersmart.info)

More information, including how-to guides, available at [www.rescapeca.org](http://www.rescapeca.org) | info@rescapeca.org | 415.766.0191

Published in a series of ReScape California’s 8 Principles to Landscaping with support from Sacramento Stormwater Quality Partnership.

www.beriverfriendly.net
Our **Reduce Waste** principle reduces waste by choosing the right plants, avoiding invasive plant species, using recycled and salvaged products, and by composting, mulching and grasscycling. Landscapes designed and maintained with waste prevention in mind help reduce the tons of plant debris generated annually as well as the amount of embodied energy consumed by our landscapes.

**SIMPLE STEPS TO REDUCE WASTE**

1. **Select appropriate plants.** Choose plants that can grow to their natural size in the allotted space to reduce the need for pruning. Replace sheared hedges with natural shaped hedges. Avoid invasive species.

2. **Keep plant debris on-site by composting, mulching and grasscycling.** Reusing plant trimmings improves soils, helps conserve water and keeps organic matter out of our landfills.

3. **Prune selectively and properly.** Pruning should complement the natural form and strengthen the structural integrity of the plant.

4. **Water carefully** to prevent rampant growth that weakens plants and generates unnecessary plant debris. Make certain water is going where it is intended; watering hardscapes and fences should be avoided.

5. **Use salvaged items and recycled content materials** in your hardscapes and raised beds or simply to add an interesting design element.

**REDUCING WASTE PROTECTS OUR WATERSHED**

- Composting and mulching reduces fossil fuel consumption resulting from hauling and processing plant debris off-site.
- Selecting plants that will thrive without unnecessary chemical inputs that contaminate the watershed reduces urban runoff and improper disposal.
- Avoiding invasive plants eliminates their inadvertent spread along creeks and rivers where they will need to be removed and disposed of.

**Resources:**

- Calscape Native Plant Nursery Directory. [www.calscape.org](http://www.calscape.org)
- California Association of Nurseries & Garden Centers Directory. [www.cangc.org](http://www.cangc.org)
- Our Water Our World Eco-Friendly Product Locator. [www.ourwaterourworld.org](http://www.ourwaterourworld.org)
- Regional Water Authority. [www.bewatersmart.info](http://www.bewatersmart.info)

More information, including how-to guides, available at [www.rescapeca.org](http://www.rescapeca.org) | info@rescapeca.org | 415.766.0191

Published in a series of ReScape California’s 8 Principles to Landscaping with support from Sacramento Stormwater Quality Partnership.

www.beriverfriendly.net
Rescape California is a non-profit organization that educates about and advocates for a whole-systems approach to landscaping that works in harmony with the natural world and addresses the changing environment. Rescape’s landscaping practices are based on 8 regenerative principles which foster soil health, sequester carbon, conserve water and protect habitat and valuable resources while reducing waste and preventing pollution in our communities and watersheds.

Our Nurture Soil principle is rooted in the practice of feeding the soil, not the plant, to encourage a thriving soil food web. Healthy soils are the foundation of any garden and can provide plant nutrients, filter pollution, retain water, and store carbon. The native soil in the Sacramento area has been significantly altered by human activities such as agriculture, urban development and mining—past gold dredging destroyed some soils and created new ones in the process. Building healthy soil in your garden starts with assessing the current conditions and determining what the soil needs (a soil test can help).

**Simple Steps to Nurture the Soil**

1. **Protect the soil from compaction.** Create clearly defined paths and or raised beds to prevent compaction and maintain a healthy soil structure that allows water to permeate and soil organisms to thrive.

2. **Defend against erosion.** Keep your soil covered with mulch, plants or cover crops to prevent erosion from rain and wind.

3. **Amend with compost and sheet mulch.** Adding compost improves the soil’s water-holding capacity, provides nutrients for plants and feeds the soil web. Sheet mulching can be used to establish a new garden area or remove a lawn without herbicides while enriching the soil.

4. **Mulch regularly with organic materials such as chipped plant debris.** A 3 inch layer of mulch will slowly decompose, adding organic matter and nutrients to your soil. Avoid the use of bark mulch or gorilla hair—they do not add much in the way of nutrients.

5. **Feed soils naturally and avoid synthetic, quick release fertilizers.** Topdress beds and trees once or twice a year by applying compost around your plants. Avoid quick release fertilizers which can damage soil microbes.

**Nurturing the Soil Protects Our Watershed**

- Choosing organic amendments that feed the soil avoids chemical inputs that can contaminate waterways.
- Storing carbon in the soil helps to mitigate the effects of climate change.
- Increasing the soil’s water-holding capacity reduces runoff and prevents sedimentation of streams and stormwater drains.

**Resources:**

- Calscape Native Plant Nursery Directory. [www.calscape.org](http://www.calscape.org)
- California Association of Nurseries & Garden Centers Directory. [www.cangc.org](http://www.cangc.org)
- Our Water Our World Eco-Friendly Product Locator. [www.ourwaterourworld.org](http://www.ourwaterourworld.org)
- Regional Water Authority. [www.bewatersmart.info](http://www.bewatersmart.info)
- UCCE Master Gardeners of Sacramento County. [sacmg.ucanr.edu](http://sacmg.ucanr.edu)

More information, including how-to guides, available at [www.rescapeca.org](http://www.rescapeca.org) | info@rescapeca.org | 415.766.0191

Published in a series of Rescape California’s 8 Principles to Landscaping with support from Sacramento Stormwater Quality Partnership.
ReScape California is a non-profit organization that educates about and advocates for a whole-systems approach to landscaping that works in harmony with the natural world and addresses the changing environment. ReScape’s landscaping practices are based on 8 regenerative principles which foster soil health, sequester carbon, conserve water and protect habitat and valuable resources while reducing waste and preventing pollution in our communities and watersheds.

The principle of Sequester Carbon recognizes that healthy vegetation works together with soil rich in organic matter and beneficial microorganisms to remove carbon dioxide from the air and store it as soil carbon, an important strategy for addressing climate change. As the amount of carbon dioxide in the atmosphere reaches new highs, solutions to the climate change crisis must come from all of us. ReScape’s regenerative landscaping practices can help capture and sequester carbon.

**Simple Steps to Sequester Carbon**

1. **Apply compost and feed the soil food web.** Compost improves conditions for the beneficial bacteria, fungi and microorganisms that help to absorb carbon and keep it locked in the soil.
2. **Add organic mulch to bare soil.** A 3-inch layer of mulch helps soil retain moisture, encourages microbial activity and prevents erosion.
3. **Limit soil compaction and minimize disturbance.** Rototilling destroys the microorganisms and fungi that bind up carbon in the soil. Sheet mulch instead when preparing garden beds.
4. **Reduce synthetic fertilizers, pesticides and herbicides.** Synthetic inputs negatively impact the macro and microorganisms that keep carbon locked up in your soil. When synthetic fertilizers are exposed to water the reaction produces nitrous oxide, a harmful greenhouse gas.
5. **Protect mature trees and plant large stature trees.** Through photosynthesis, trees draw CO2 out of the air. They use some of that carbon for growth and exude some of it through their roots to feed soil organisms.

**Carbon Sequestration Protects Our Watershed**

- Using compost and mulch increases a landscape’s permeability and water-holding capacity. This means water can penetrate and soak into previously compacted soils.
- Planting and protecting trees stabilizes the soil and reduces erosion from winter rains that can lead to sedimentation in local creeks and rivers.
- Creating a diverse soil food web and healthy soils helps filter contaminants.

More information, including how-to guides: [www.rescapeca.org](http://www.rescapeca.org)

tel: 415.766.0191  
email: info@rescapeca.org  
1008 General Kennedy Avenue, Suite 210, San Francisco, CA 94129
Rescape California is a non-profit organization that educates about and advocates for a whole-systems approach to landscaping that works in harmony with the natural world and addresses the changing environment. Rescape’s landscaping practices are based on 8 regenerative principles which foster soil health, sequester carbon, conserve water and protect habitat and valuable resources while reducing waste and preventing pollution in our communities and watersheds.

The principle of Save Water is necessary in California’s Mediterranean climate with extended periods of drought. Rescape’s approach to water conservation includes creating drought resistant soils, selecting plants naturally adapted to our climate, using rainwater and greywater, and installing efficient irrigation systems. Outdoor water use accounts for 30-60% of residential water consumption in California—you can reduce this amount and still have a beautiful, thriving garden.

**Simple Steps to Save Water**

1. Create drought resistant soils with compost and mulch. A robust, living soil, with sufficient organic content, is the foundation of a water conserving landscape.

2. Grow California natives or Mediterranean plants that are adapted to our summer-dry climate. Many of these plant species tolerate hot, dry summers with little or no water once established.

3. Replace or reduce your lawn by sheet mulching and planting a drought tolerant garden. Lawn replacement rebates may be available from your local water district.

4. Implement hydrozoning. Grouping plants by their water needs, into hydrozones, prevents over-watering and allows you to place thirstier plants in areas that naturally collect water.

5. Install high-efficiency irrigation and rainwater collection systems. Drip irrigation technologies apply water accurately, to the root zones, at the rate that it can infiltrate.

**Saving Water Protects Our Watershed**

- Using compost and mulch increases a landscape’s permeability and water-holding capacity. This means water can penetrate and soak into previously compacted soils.
- Selecting plants that require less water and using high efficiency irrigation systems limits runoff.
- Watering properly and efficiently promotes healthy plant growth and eliminates the need for chemical inputs that can end up in our waterways.

Resources:
- Calscape Native Plant Nursery Directory. [www.calscape.org](http://www.calscape.org)
- Our Water Our World Eco-Friendly Product Locator. [www.ourwaterourworld.org](http://www.ourwaterourworld.org)
- Regional Water Authority. [www.bewatersmart.info](http://www.bewatersmart.info)
- Save Our Water. [www.saveourwater.com](http://www.saveourwater.com)
- UC Davis Arboretum All-Star Plant Database. [arboretum.ucdavis.edu/plant-database](http://arboretum.ucdavis.edu/plant-database)

More information, including how-to guides, available at [www.rescapeca.org](http://www.rescapeca.org) | info@rescapeca.org | 415.766.0191

Published in a series of Rescape California's 8 Principles to Landscaping with support from Sacramento Stormwater Quality Partnership.
ReScape California is a non-profit organization that educates about and advocates for a whole-systems approach to landscaping that works in harmony with the natural world and addresses the changing environment. ReScape’s landscaping practices are based on 8 regenerative principles which foster soil health, sequester carbon, conserve water and protect habitat and valuable resources while reducing waste and preventing pollution in our communities and watersheds.

Our **Conserve Energy** principle recognizes that conventional landscaping practices such as mowing, leaf blowing and transporting materials long distances consume large amounts of fossil fuels. A regenerative landscape conserves energy by reducing the need for mowing and shearing, by shading buildings and paved areas, using efficient outdoor lighting, and buying local landscape products.

### Simple Steps to Conserve Energy

1. **Plant and protect trees to moderate building temperatures.** Shading buildings minimizes the need for air conditioning in the hot summer months. In the winter trees can help reduce heating needs by slowing the wind.

2. **Design lighting carefully.** Use energy efficient bulbs and take steps to minimize light pollution.

3. **Choose equipment for fuel conservation.** Use hand powered tools when possible. When power tools are necessary, select fuel efficient or electric models.

4. **Purchase local products from local suppliers.** Buying local reduces the fuel consumption and air pollution from transporting products. Emissions from cars and trucks is a leading contributor to air pollution in the Sacramento area.

5. **Shade paved areas and air conditioners.** Sacramento County residents can receive free shade trees through the Sacramento Shade Tree Program.

### Conserving Energy Protects Our Watershed

- Planting trees stabilizes the soil and reduces erosion from winter rains that can lead to sedimentation in local creeks and rivers.
- Installing high-efficiency or solar-powered lights and pumps reduces greenhouse gas emissions that contribute to climate change.
- Using hand-powered tools eliminates the need for fuel and avoids spills that can end up in storm drains and waterways.

**Need Help?**

Hire a landscape professional trained in ReScape’s 8 Principles. Visit our [ReScape Qualified Landscape Professional Directory at www.rescapeca.org](http://www.rescapeca.org)

**Join ReScape!**

Be a part of California’s regenerative landscape community by becoming a ReScape member. More details at [www.rescapeca.org](http://www.rescapeca.org)

**Resources:**
- California Association of Nurseries & Garden Centers Directory. [www.cangc.org](http://www.cangc.org)
- Our Water Our World Eco-Friendly Product Locator. [www.ourwaterourworld.org](http://www.ourwaterourworld.org)
- Regional Water Authority. [www.bewatersmart.info](http://www.bewatersmart.info)
- Sacramento Shade. [www.sactree.com/shadetrees](http://www.sactree.com/shadetrees)

More information, including how-to guides, available at [www.rescapeca.org](http://www.rescapeca.org) | [info@rescapeca.org](mailto:info@rescapeca.org) | 415.766.0191

[www.beriverfriendly.net](http://www.beriverfriendly.net)
Our Create Habitat principle acknowledges that biodiversity is crucial to the health and resiliency of the local landscape. Plant and animal diversity is one of the many factors that make the Sacramento River watershed unique and beautiful. More than 1,000 local plant species bloom during the year, supporting hundreds of native pollinators, beneficial insects and other organisms that contribute to a healthy landscape. The population of the Greater Sacramento Region is expected to keep growing, and new development often negatively impacts wildlife habitat. ReScape’s landscaping practices can help create wildlife habitat.

### SIMPLE STEPS TO CREATE & PROTECT WILDLIFE HABITAT

1. **Diversify your plant palette.** Include annuals, biennials and perennials of different sizes, shapes and colors. Plant evergreen and deciduous trees and shrubs that bloom at different times.

2. **Choose California native plant species first.** Many native plants flourish in the Sacramento area, often with less water and maintenance.

3. **Provide food and water.** Select plants that will provide food in a variety of ways—from berries to nuts to nectar. Let some plants go to seed. Be sure to change water in birdbaths every few days to avoid creating breeding sites for mosquitoes.

4. **Create shelter and safe places for raising young.** Shelter allows wildlife a safe place from predators and also from extreme weather, like Sacramento’s hot summers. Cover can be provided by a dry-laid rock wall, roosting box, pond, boulders, or native vegetation.

5. **Eliminate the use of pesticides.** Pesticides do not kill only the targeted pest species. Birds, bees, butterflies and beneficial insects are also vulnerable.

### CREATING & PROTECTING WILDLIFE HABITAT PROTECTS OUR WATERSHED

- Attracting beneficial insects helps control pests without the use of pesticides.
- Selecting native plants prevents the spread of exotic invasive plants.
- Providing food, water and shelter enhances local habitat and increases biodiversity.

Resources:

Calscape Native Plant Nursery Directory. [www.calscape.org](http://www.calscape.org)


Our Water Our World Eco-Friendly Product Locator. [www.ourwaterourworld.org](http://www.ourwaterourworld.org)

Regional Water Authority. [www.bewatersmart.info](http://www.bewatersmart.info)

Sacramento Area Beekeepers Association. [www.sacbeekeepers.org](http://www.sacbeekeepers.org)

[www.beriverfriendly.net](http://www.beriverfriendly.net)
Our Protect Water and Air Quality principle recognizes that landscaping practices impact the environment both near and far. Sacramento’s bowl-shaped valley naturally traps air pollution. Conventional gardening practices that rely heavily on gas-powered tools and hauling materials off-site contribute to poor air quality. These same practices can impact water quality by increasing pollutants in stormwater runoff. ReScape practices can enhance water and air quality by minimizing contaminants in urban runoff, reducing emissions and absorbing air pollutants.

SIMPLE STEPS TO PROTECT WATER & AIR QUALITY

1. **Manage pests naturally.** Plant a mix of flowering plants to attract beneficial insects that feed on pests. Choose organic, non-synthetic products to control outbreaks—look for the Our Water Our World symbol at local nurseries for eco-friendly products.

2. **Keep soil covered.** Use a 3 inch layer of mulch. Reapply as needed; mulch will slowly decompose and add organic matter to the soil.

3. **Design a rain garden to capture water.** A rain garden is a shallow depression designed and planted to slow runoff and hold water until it soaks into the soil.

4. **Minimize impervious surfaces like concrete and asphalt.** Impervious surfaces don’t allow water to soak into the ground. Choose permeable materials instead for any hardscaping like patios and paths.

5. **Plant trees.** Sacramento’s air quality is rated as one of the worst in the nation—planting more trees can help clean our air. Select trees that match your microclimate and space.

**PROTECTING WATER & AIR QUALITY PROTECTS OUR WATERSHED**

- Increasing permeable surfaces decreases runoff, protects the biology of the watershed and contributes to the restoration of local streams, creeks and wetlands.
- Planting trees decreases runoff and absorbs air pollutants.
- Covering the soil with mulch prevents erosion and sedimentation in waterways.

Resources:
- California Association of Nurseries & Garden Centers Directory. [www.cangc.org](http://www.cangc.org)
- Our Water Our World Eco-Friendly Product Locator. [www.ourwaterourworld.org](http://www.ourwaterourworld.org)
- Sacramento Tree Foundation. [www.sactree.com](http://www.sactree.com)
- Regional Water Authority. [www.bewatersmart.info](http://www.bewatersmart.info)

More information, including how-to guides, available at [www.rescapeca.org](http://www.rescapeca.org) | info@rescapeca.org | 415.766.0191

Published in a series of ReScape California’s 8 Principles to Landscaping with support from Sacramento Stormwater Quality Partnership.