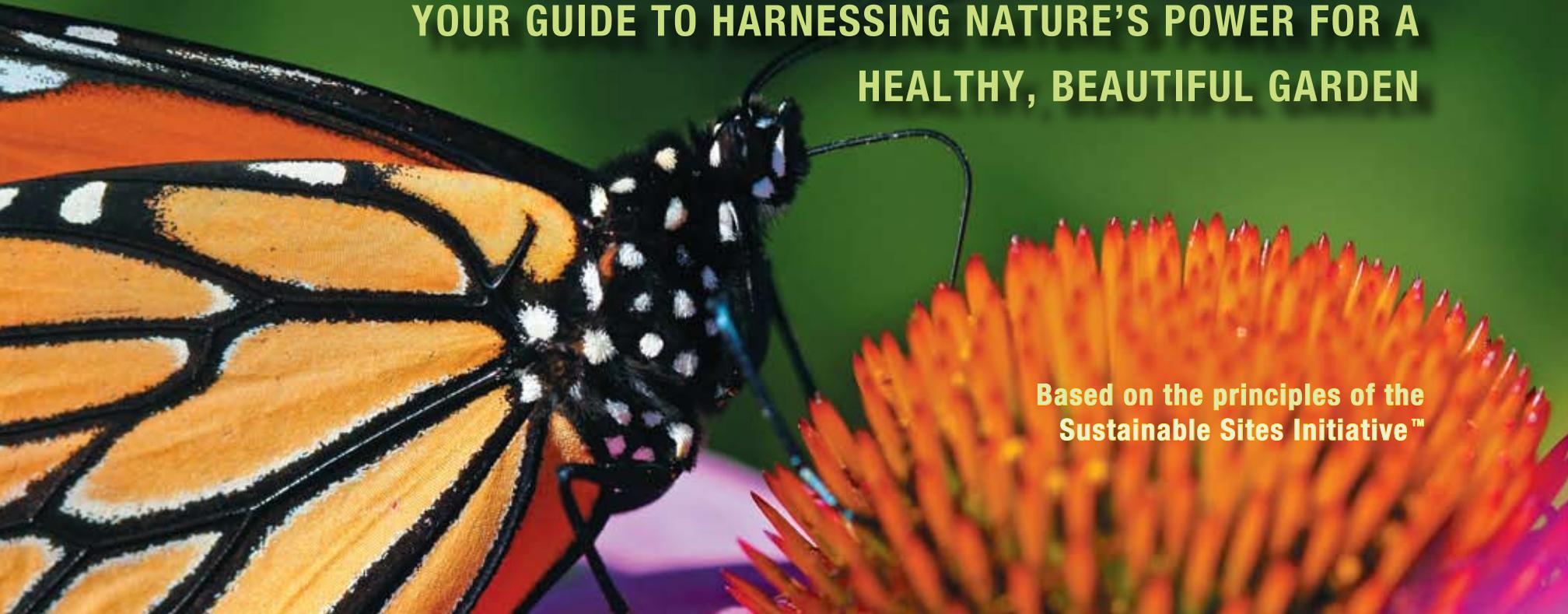


# LANDSCAPE FOR LIFE™

YOUR GUIDE TO HARNESSING NATURE'S POWER FOR A  
HEALTHY, BEAUTIFUL GARDEN

Based on the principles of the  
Sustainable Sites Initiative™



# HEALTHY HOME GARDENS

Every home landscape has the potential to help clean air and water, reduce flooding, cool your town or city, and combat climate change. Yet conventional gardening practices too often work against nature, damaging the environment's ability to provide these natural benefits that support the health and well-being of you, your family, and your community.

[www.landscapeforlife.org](http://www.landscapeforlife.org)

Landscape For Life shows you how to work with nature, no matter where you live, whether you garden on a city or suburban lot, a 20-acre farm, or the common area of your condominium.

*Working with nature means growing plants suited to your soil conditions and the amount of precipitation that falls naturally in your area. Fragrant mimosa and autumn sage, left, flourish in a Texas garden. Photo: Andy and Sally Wasowski, Lady Bird Johnson Wildflower Center*



## WHY LANDSCAPE FOR LIFE?

- Twenty times more pesticide is applied to home lawns and gardens than to agricultural lands, raising a number of health and environmental concerns.
- Nationally, 26 percent of municipal waste is landscape trimmings and food scraps. This material could be recycled but instead clogs landfills and costs cities money.
- Every day nationwide, landscape irrigation consumes more than 7 billion gallons of costly drinking water, at least half of which may be wasted.

## SUSTAINABLE LANDSCAPES CAN SAVE MONEY

- Strategically planting trees, shrubs, and vines to cast cooling shade can reduce home air conditioning costs by 15 to 50 percent.
- Using alternatives to potable water for garden irrigation can reduce water bills by as much as 25 percent.
- Composting and using mulch made from sources of organic matter found right in your backyard can reduce the need for expensive fertilizers as well as local landfill costs.
- Planting and preserving trees can save money and increase property values. In Minneapolis, street trees resulted in savings of \$6.8 million in energy and \$9.1 million in stormwater treatment costs, and increased property values by \$7.1 million.

*Twenty-six percent of the waste shipped to landfills is compostable. Composting keeps this material out of landfills and transforms it into a rich soil amendment that helps plants thrive, right. Photos: Bigstock.com*



# CONVENTIONAL AND SUSTAINABLE LANDSCAPES

## HOW THEY COMPARE

### CONVENTIONAL LANDSCAPE

- Usually dominated by turfgrass inappropriate for the region
- Typically receives regular, often unnecessary, applications of fertilizer
- Often treated with synthetic pesticides
- Can include invasive plants that threaten natural areas
- Treats rainwater as a waste to be removed from the site
- Can generate stormwater runoff that pollutes local waterways
- Usually irrigated with municipal drinking water
- Often provides little, if any wildlife habitat
- Sends garden trimmings to landfills
- May do little to improve home energy efficiency
- Often contains materials that pollute air, soil, and water

Top photo: Andy and Sally Wasowski, Lady Bird Johnson Wildflower Center  
Bottom left and right: public domain images via Wikipedia



Opposite page: Conventional landscapes provide little habitat for wildlife. They often are irrigated with costly drinking water and include invasive plants that reduce food for native animals and insects. In eastern states Chinese silvergrass, *Miscanthus sinensis*, far left, escaped from gardens, and displaces native species in old fields and along roadsides and forest edges. At right: A sustainable native landscape includes a native buffalograss lawn and plants that nurture wildlife. Rainfall flowing off a home's roof into a rain barrel is used to irrigate the garden.

### SUSTAINABLE LANDSCAPE

- Features lawn alternatives and regionally appropriate turfgrass
- Puts natural soil organisms to work for fertility
- Harnesses natural processes to manage pests
- Does not include invasive plants
- Manages rainwater as a resource to be used on the site
- Designed to prevent stormwater runoff and protect local waterways
- Irrigated with alternatives to potable water
- Includes native plants that support wildlife
- Recycles garden trimmings as compost or mulch
- Promotes home energy efficiency
- Made of non-polluting, local materials

Photo top left: Andy and Sally Wasowski, Lady Bird Johnson Wildflower Center  
Top right: Ward Wilson. Bottom: Flemming Christiansen



# COMPARING GARDEN PERFORMANCE

## SANTA MONICA, CALIFORNIA

In 2003, the city of Santa Monica created two gardens in the front yards of adjacent bungalows — one landscaped in the traditional way and the other with sustainable, climate-appropriate native plants.

### CONVENTIONAL GARDEN

- Features non-native plants inappropriate for the local climate
- Includes a standard, user-controlled sprinkler system for irrigation
- Lacks a stormwater management strategy

*Plants in the conventional garden are not adapted to the Southern California climate and require considerable irrigation. Clockwise from upper left: lilac, Nikko Blue hydrangea, Queen Elizabeth rose, and Japanese maple. Center photo: Santa Monica garden/garden, Plant photos: public domain images via Wikipedia*



*The sustainable garden features native plants that provide food and shelter for wildlife. Clockwise from upper left: hummingbird sage, showy penstemon, manzanita, and coast sunflower.*

### HOW THEY COMPARE

From 2004 to 2008, Santa Monica tracked each landscape's water consumption, yard waste, maintenance costs, and other factors.

#### Water Use:

The Sustainable Native Garden used 77% less water.

#### Yard Waste:

The Sustainable Native Garden produced 66% less waste.

#### Maintenance Cost:

Maintenance of the Sustainable Native Garden cost 68% less.

### SUSTAINABLE NATIVE GARDEN

- Features native California plants adapted to local conditions
- Includes a water-conserving drip irrigation system
- Captures stormwater and replenishes groundwater using a dry creek bed and dry wells

*Center image: Santa Monica garden/garden. Plant photos: public domain images via Wikipedia*





# STEP-BY-STEP TIPS FOR YOUR LANDSCAPE

The Landscape For Life website makes it easy to transform your home garden into a beautiful and healthy refuge for you and your family.

For ease of use, the website is divided into six major sections — Getting Started, Soil, Water, Plants, Materials, and Human Health. Each section includes helpful advice on gardening practices that take advantage of natural processes at work on your property.

## www.landscapeforlife.org

Your guide to creating a garden that's both beautiful and sustainable

Photo at left: Andy and Sally Wasowski, Lady Bird Johnson Wildflower Center



Getting Started helps you lay the groundwork for greening your garden.

# GETTING STARTED

To make your garden both beautiful and sustainable, you need to become familiar with the natural forces at work there — what type of soil you have, how much rainfall you receive, and what plants grow naturally in your area. The Getting Started section of the website walks you through the process of collecting information about your landscape.

## In this section of the website you'll find

- How to do a simple Landscape For Life site assessment
- A checklist for garden renovation and new construction
- What to ask if you're hiring a landscape designer, landscape architect, or contractor
- A checklist for choosing a new home site
- And more

Photo above: André Karwath





Among the things your site assessment will identify are (clockwise from top) places for relaxing outdoors, where to plant trees to shade your home from the summer sun, and where rainwater can be captured for landscape use.

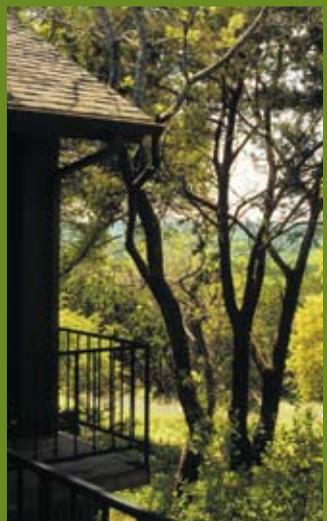
## UNDERSTANDING YOUR SITE

The Landscape For Life site assessment helps you understand the natural processes at work on your property so you can harness them to create a beautiful and healthy, pest-free garden that is easier and less costly to maintain. When you're finished you will have the information you need to choose the plants, design strategies, and maintenance practices that make sense for you.

Start by sketching a basic template of your property. Consulting a plat map or site survey can be helpful. Using colored pencils on graph paper, draw your house and property to scale, allowing a quarter inch per foot. Locate walks, driveways, and other paved surfaces, major landscape features such as decks, the garage, and outbuildings. Also note where underground utilities, such as water, gas, and electric lines, enter the house.

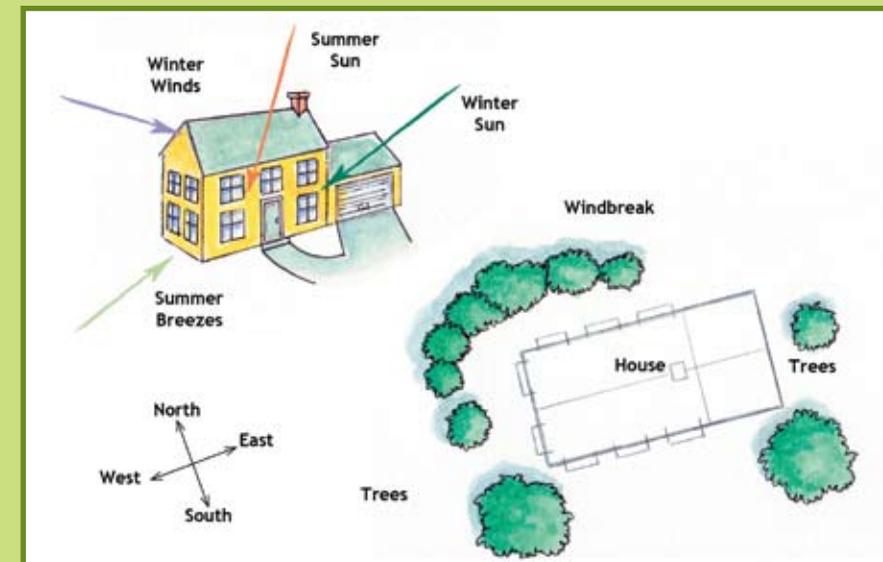
For more information on getting started see [www.landscapeforlife.org](http://www.landscapeforlife.org)

Top image: Bigstock.com. Bottom left: Nancy Arazan. Bottom right: Andy and Sally Wasowski, Lady Bird Johnson Wildflower Center



## More things to include in your site assessment:

- On your landscape template, note areas of your home that are affected by the sun and wind. See the illustration at right and [www.landscapeforlife.org](http://www.landscapeforlife.org) for more information.
- Note areas with undisturbed native soil and vegetation that should be protected. Also mark places where topsoil was removed or compacted, where it stays wet or is dry and exposed.
- Locate a well-drained spot for a compost pile.
- Sketch in wetlands or waterways on or adjacent to your property.
- Mark where rainwater flows down gutters and paved surfaces.
- Mark in red any invasive plants on your property, which should be removed.
- Identify your plant hardiness zone.
- Determine average annual and monthly precipitation rates for your area.
- Identify your ecoregion and its major native plant communities.
- Mark any large trees because they are valuable landscape elements that should be protected.
- Note areas that receive sun all day, and those that receive morning sun, midday sun, afternoon sun only, or full shade.



A simple landscape plan will help you devise the most effective strategies for an energy-conserving landscape. Note which areas of your home are affected by the sun and wind (upper left) to determine the best placement of plantings (lower right). The plan above is for a home in the eastern states, where cold winter winds generally come from the north and west.

- Locate an area for convenient storage of recyclables.
- Note shady, protected, or private areas for relaxation or socializing, open areas for outdoor games and physical exercise, and sunny areas where it would be appropriate to grow edible plants.



Healthy soil absorbs rainwater, helping to prevent floods, and cleanses the water as it percolates into the ground. A critical carbon sink, soil also stabilizes the earth's climate. Home and professional tests can provide information about your soil that will help you determine appropriate plant choices.

## SOIL

Modern industrial society has left much of the earth's soil eroded, exhausted, and polluted. Too much fertilizer, the horticultural equivalent of fast food, and other traditional horticultural practices have unwittingly contributed to the problem. But it's possible to restore and harness the natural soil food web to create the healthy, functioning soil that is the foundation of a healthy ecosystem — right in your home garden.

Photo at left: Lynn Betts. Above: Bigstock.com

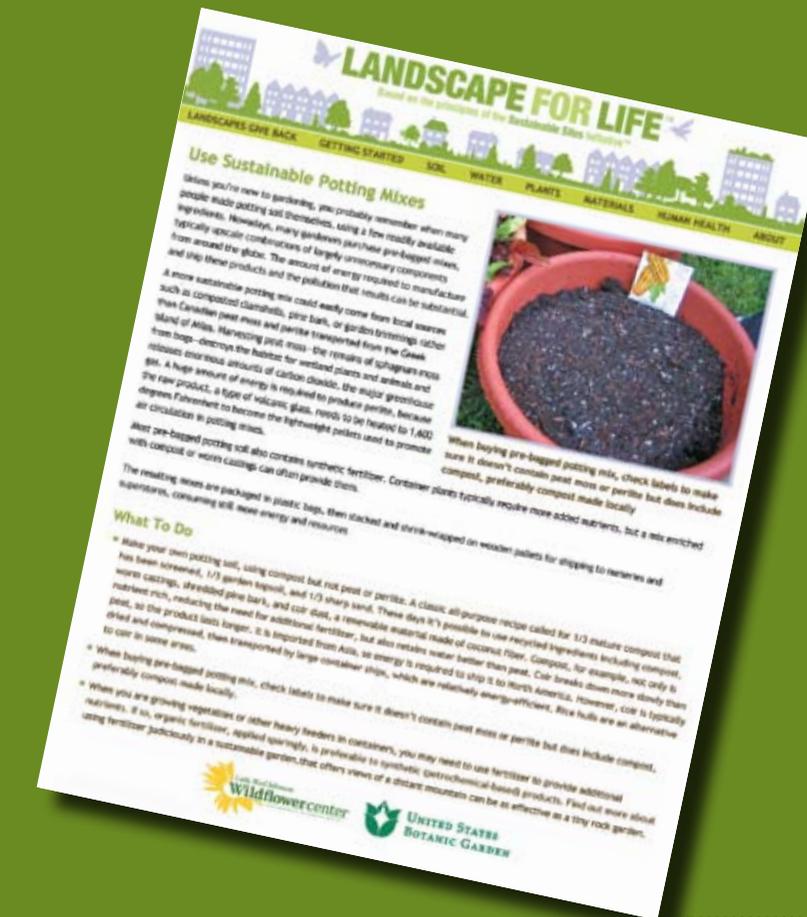
**Soil Fact**  
The U.S. is losing soil ten times faster than its natural replenishment rate due mostly to erosion by wind and rain.



## In this section of the website you'll find

- "Slow" food for fertile soil — from compost and organic mulches to green manures
- Sustainable remedies for "problem soils"
- How to prevent compaction, the bane of urban and suburban soils
- Sustainable potting mixes
- And more

Photo above: public domain image via Wikipedia





Promote soil fertility by applying organic mulches (top). Used as mulch or a soil amendment, compost made from fallen leaves and other organic materials on your property (bottom) may provide most of your plants with all the nutrients they need.

## “SLOW” FOOD FOR FERTILE SOIL

Feeding your plants a steady diet of fertilizer can be harmful. It produces a temporary burst of growth but can destroy the microscopic organisms, earthworms, and other creatures that are key to soil health. Disposing of garden trimmings in landfills robs the soil of nutrients and perpetuates the need for store-bought fertilizer.

In natural landscapes, nature maintains soil fertility by transforming fallen leaves and branches into rich organic matter. The same natural recycling is at work in a compost pile. It can take years in nature. But when you compost, you give nature’s decomposers everything they need to recycle much faster. Many sources of organic matter are available for free in your backyard, including leaves and lawn clippings. When composted and used as a soil amendment or mulch, they provide essential nutrients for your plants.

For more information on soil practices see [www.landscapeforlife.org](http://www.landscapeforlife.org)

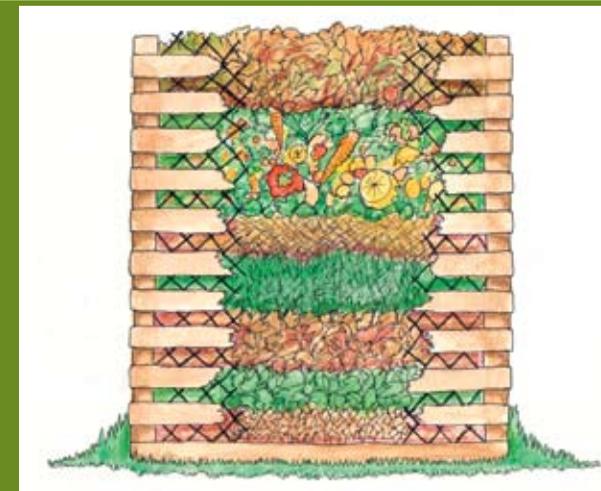
At left: public domain images via Wikipedia



## Tips for making and using compost to feed the soil organisms that in turn feed your plants:

- Locate your compost pile in a well-drained spot on your property that is shaded from the hot afternoon sun.
- Purchase or build a compost bin to keep the organic material in and wildlife out. The bin should be about 4 feet in diameter and 3 feet high.
- Feed nature’s recyclers a balanced diet by filling the bin with alternating layers of high-carbon “brown” materials, such as leaves, newspaper, and chipped woody trimmings, and nitrogen-rich “green” materials, such as grass clippings and other green garden trimmings and kitchen scraps.
- Provide the air and moisture the decomposing organisms at work in your compost pile need. Turn the pile with a garden fork as often as necessary to keep the materials damp to the touch. If they’re wet, turn the pile to increase aeration. Too much air will dry out the materials and slow decomposition, so if they’re dry, add water as you turn over the pile.
- Maximize airflow by shredding large materials before adding them to the bin, and by building your compost pile on a foundation of wood chips or other coarse organic material.
- It’s a good idea to have two compost piles — a full pile that is “finishing” and another for adding new material.

Nature’s recyclers need a balanced diet of carbon (C) and nitrogen (N). Alternating layers of “brown” and “green” materials will provide the C:N ration of 30:1 that creates the most nutritious compost.



- Finished compost is dark in color and smells earthy, like soil. But there’s no single point at which compost is finished — it depends on how you want to use it. For most garden applications, it’s fine to use compost that still has a few recognizable bits of leaves or twigs, which will finish decomposing in the soil. If you plan to use compost in seed-starting mixes, it may be better to use highly finished compost.
- An inch-thick topdressing of compost on your planting beds is generally all that is needed to keep your soil healthy and provide your plants with a balanced source of nutrients.



The sight and sound of water is relaxing, and may promote stress reduction and healing. From decorative fountains and tubs to pre-formed pools and ponds with delicate water lilies, far left, water features have become popular garden amenities. Sustainable water features are not only beautiful but also conserve potable water and energy.

## WATER

Drinking water is expensive and increasingly in short supply, yet we often lavish it on our landscapes. Meanwhile, instead of treating rainwater as a valuable resource and using it, our landscapes are designed to get rid of it as quickly as possible. The good news is that you can harvest non-potable water to irrigate your landscape and prevent polluted stormwater from running off your property.

Photo at left: public domain images via Wikipedia. Above: Bigstock.com

**Water Fact**  
Public water supply and treatment facilities like the one at right cost a lot of money and consume enough electricity annually to power over five million homes.



## In this section of the website you'll find

- Tips for a water-thrifty landscape
- Alternatives to irrigating with potable water
- Smart strategies for managing stormwater
- Sustainable water features
- And more

Photo above: Manuel Broussard/FEMA. Photo at right: Holly Shimizu





At left is a residential rain garden in Seattle. Among the lovely native plants recommended for Pacific Northwest rain gardens are Nootka rose, left, and western columbine, right.

## CREATE A RAIN GARDEN

One of the most effective ways to prevent stormwater runoff in a home landscape is to create a rain garden. Basically, a rain garden is just a strategically located low area where water can soak naturally into the soil. Like the rest of your ornamental garden, it can be full of colorful plants.

Rain gardens have many other benefits, too. They can help protect your community from drainage and flooding problems. They protect local streams and lakes from the many pollutants often carried by stormwater as well as the erosion it can cause. By increasing the amount of precipitation that filters naturally into the ground, rain gardens replenish underground water supplies. They also provide valuable habitat for birds, pollinators like butterflies and bees, and many of the beneficial insects that help keep your garden healthy by keeping pest populations in check.

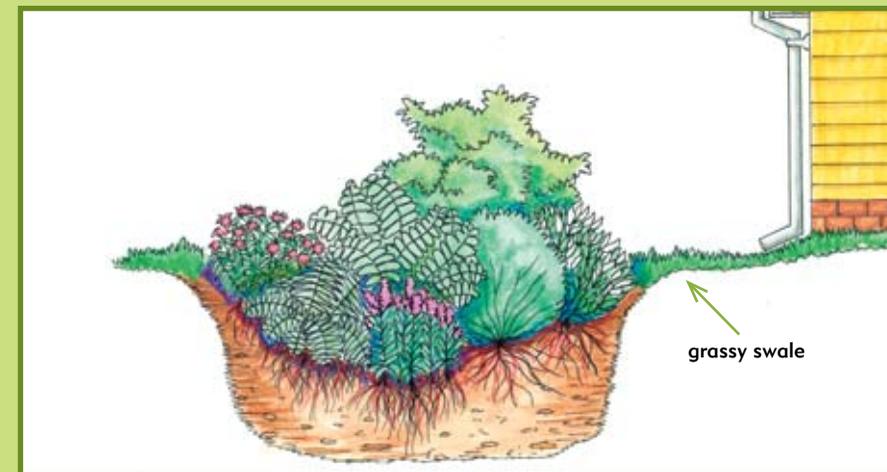
For more information on water practices see [www.landscapeforlife.org](http://www.landscapeforlife.org)

Top photo: Nancy Arazan. Bottom left and right: Walter Siegmund



### Things to consider when planning a rain garden:

- **Where to put it**  
Locate your rain garden either near the house to catch only roof runoff, or farther away to collect stormwater from the lawn as well as the roof. A rain garden can also capture precipitation flowing off of paved areas. Keep it at least 10 feet from your house to prevent moisture problems.
- **How big?**  
A typical residential rain garden ranges from 100 to 300 square feet, but the time needed to dig the depression, the cost of plants, and the size of your property will help determine how large yours should be. The size of a rain garden that can manage most or all of your runoff also depends on what type of soil you have and how much roof and/or surface area will drain into it.
- **How deep?**  
A rain garden should be 4 to 8 inches below the level of the surrounding land.
- **Is it necessary to improve drainage?**  
If your soil drains poorly, you may need to add a layer of sand or gravel at the bottom of your rain garden.
- **How to connect it to a downspout**  
To direct stormwater from a downspout, bury a length of plastic pipe in a shallow trench that slopes down to the rain garden, or create a grassy swale.



Rain gardens should be 4 to 8 inches below the level of the surrounding land. Above, a grassy swale directs the rainfall from the downspout to the garden.

- **What to plant**  
It's helpful to think of a rain garden as comprised of three wetness zones. In the lowest zone, put species that can tolerate short periods of standing water as well as fluctuating water levels, because a rain garden will dry out during droughts or at times of year when precipitation is sparse. Species that can tolerate extremes of wet soils and dry periods are also appropriate for the middle zone, which is slightly higher. You can put plants that prefer drier conditions at the highest zone or outer edge of your rain garden.



Many native plants are good candidates for home gardens. Far left: Harlequin blueflag, *Iris versicolor*, is a lovely native of northeastern states. Alpine aster, *Aster alpinus*, left, is found in the Rocky Mountains and Pacific Northwest.

## PLANTS

As wilderness shrinks and suburban acreage increases, what we plant in our gardens is increasingly important. Much of the remaining natural landscape has been overrun by invasive species and fragmented by roads, subdivisions, and industrial complexes, tattering the web of life that supports us. However, home gardens can mimic the complexity of disappearing forests, prairies, and deserts, provide wildlife habitat, conserve energy, and enrich our lives with beauty.

Left: public domain image via Wikipedia. Above: H. Zell

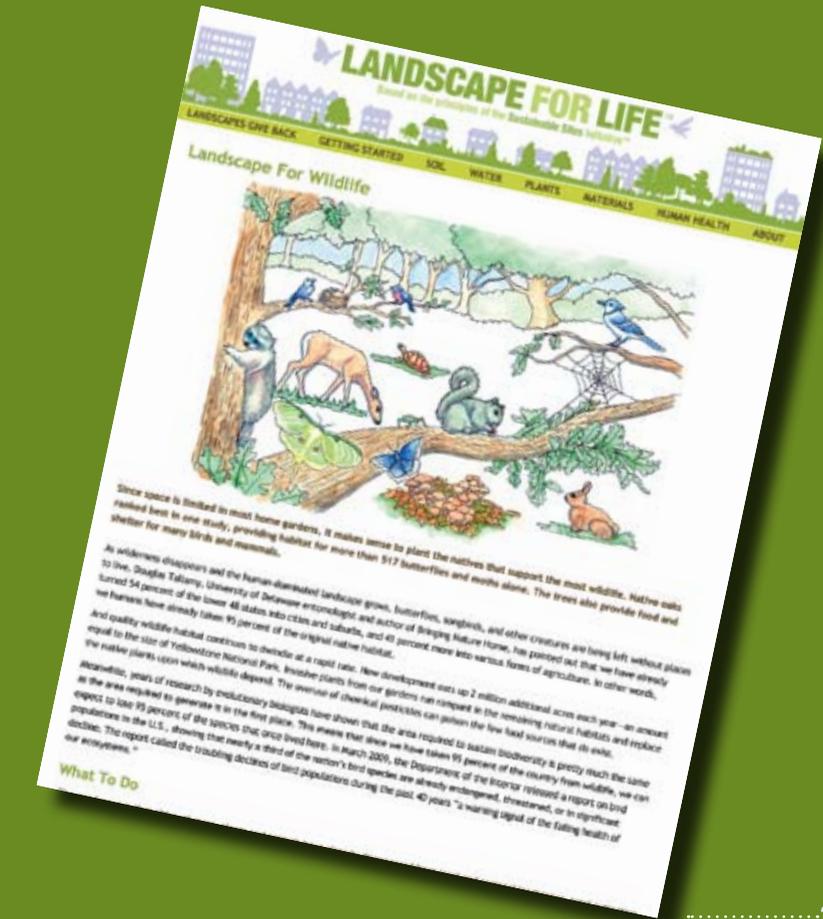
**Plant Fact**  
 Invasive non-native species like Chinese wisteria cause \$138 billion of damage annually in the United States.



## In this section of the website you'll find

- How to determine which plants are right for your site
- Sustainable turf varieties for your region
- Native landscaping made simple
- Gardening for wildlife
- And more

Above: public domain image via Wikipedia





The woodland and prairie landscapes at left include various vertical layers of vegetation. Bottom right: The deepest belowground layer of a prairie consists of the long taproots of plants like purple poppy mallow.

## PROTECT AND RESTORE YOUR LANDSCAPE'S VEGETATION

The sum total of a garden's vegetation, from the smallest fern to the tallest tree, is technically known as its biomass. Producing and maintaining biomass is one of most important functions of a natural ecosystem or a manmade one like a home landscape.

When land is developed, its natural vegetation is typically removed. In most cases, the conventional landscaping that replaces it has less biomass. This diminishes the land's ability to provide natural benefits, from absorbing stormwater to cooling towns and cities.

Home gardeners can restore their landscape's biomass. One way is to minimize the paving and maximize the vegetation. Another is to re-establish the various vertical layers that were present in the site's original natural landscape.

For more information on planting practices see [www.landscapeforlife.org](http://www.landscapeforlife.org)



Top: public domain image of Garden in the Woods via Wikipedia. Bottom left: courtesy of Shaw Nature Reserve. Bottom right: Wing-Chi Poon

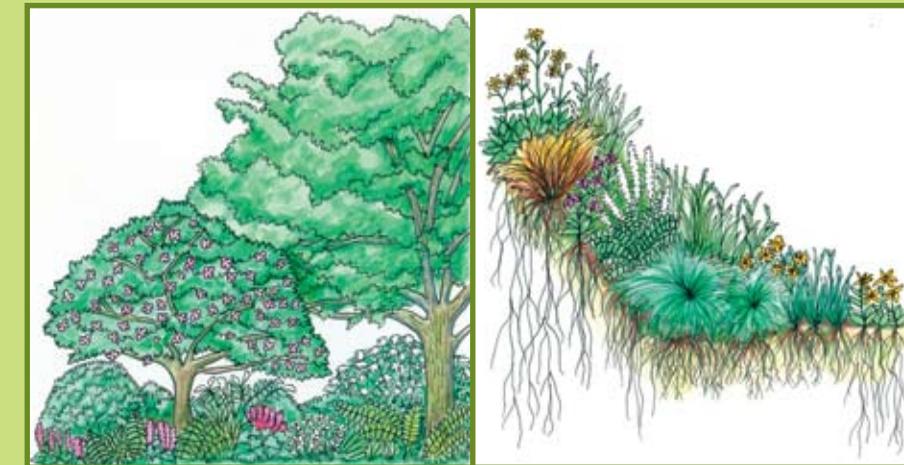
### What you can do to increase your garden's biomass:

- **Replace paved areas with plantings.** For example, two ribbons of pavement with a low groundcover in between provides more biomass than a driveway of solid asphalt.
- **Re-create the layers of plant growth found in local natural landscapes.** All native plant communities consist of various vertical layers. These are most obvious in deciduous forests. The tallest canopy layer is composed of mature trees. Saplings and smaller flowering trees like dogwood and redbud comprise the understory. Below is the shrub layer. The lowest aboveground layer consists of wildflowers, ferns, grasses, and sedges.

Coniferous forests, with their dense stands of evergreen trees, typically have little understory, but can have a dense shrub layer and ground layer of wildflowers and mosses.

Shrub-dominated plant communities, such as Southern California's chaparral, have layers of different-sized shrubs, such as ceanothus and scrub oak, with a ground layer of herbs and grasses.

Prairies also have distinct vertical layers. The earliest plants to emerge in spring hug the ground. Each successive emerging plant overtops the next, with the tallest grasses and asters and other late-blooming wildflowers ending the growing season.



Like a native forest, a woodland garden, left, can have four aboveground layers of vegetation: a canopy of the tallest trees, an understory of smaller flowering trees, shrubs, and a ground layer of herbaceous plants including ferns and wildflowers. Like their wild counterparts, prairie gardens, right, can also include several vertical layers, including grasses and wildflowers of different heights. All plant communities also have underground layers. In a prairie, these range from fibrous-rooted grasses to wildflowers with deep taproots.

Restoring vertical layers can also serve aesthetic purposes. In forested regions, for example, the tall trees create a cathedral-like enclosure. Adding understory trees provides a human-scale "ceiling." Shrubs serve as "walls" that divide spaces horizontally and provide privacy. Wildflowers and ferns create a much more diverse and interesting ground layer than lawn.



## MATERIALS

Landscape materials can cause environmental damage well before they are installed in a garden. Harvesting and transport consume energy and generate pollution. And the problems continue even when the materials are dismantled if they are discarded in a landfill instead of reused or recycled. Fortunately, the growing number of “certified green” products is making it easier for homeowners and gardeners to find less toxic, recycled, and local materials.

Photo at left: Andy and Sally Wasowski, Lady Bird Johnson Wildflower Center. Above: Bigstock.com

When planning a landscape project, the best course of action is to reduce the amount of stone or other materials required by downsizing if possible, and to reuse materials already on site. If you're buying new, opt for products made or extracted in your area.

**Materials Fact**  
In 2004, cement production generated as much carbon dioxide, the major greenhouse gas, as 20 million cars.



## In this section of the website you'll find

- How to find certified green products
- A guide to buying sustainable wood
- Alternatives to concrete and blacktop for driveways, paths, and patios
- Designing for disassembly and reuse
- And more

Photo above: Joe Mabel





Many forests, like the ones in Oregon pictured at left, are still clearcut, causing substantial ecological damage. Runoff carries eroded soil into streams, harming aquatic life. Removing the trees severely reduces the land's ability to provide habitat for forest plants and animals.

## A GUIDE TO BUYING WOOD

While consumers clamor for lists of woods to choose or avoid, experts are hesitant to provide them. A species may be endangered in one area and responsibly harvested in another. In the case of domestic trees like Douglas fir, it's not the species but rather the old-growth forests in which they are sometimes cut that are rare.

For wood to be truly renewable, trees must be grown in forests managed for sustainable yield, not cut down faster than they can regrow. Most forests are still managed for maximum yield in so-called even-age stands of one species and one size of tree, drastically limiting the diversity of plants and animals that can live there.

When purchasing wood for decks, arbors, fences, or outdoor furniture, look for lumber from forests managed for sustainable yield and maximum biodiversity.

For more information on materials practices see [www.landscapeforlife.org](http://www.landscapeforlife.org)

Top photo: Russel Lee. Bottom: M.O. Stevens



### More wood tips:

- Reusing materials already on your property or those salvaged from a nearby location is more environmentally friendly than purchasing products made of virgin resources. It is usually less expensive, too.
- Look for lumber and other wood products that bear the logo of the Forest Stewardship Council (FSC) or the Sustainable Forestry Initiative (SFI), independent nonprofit organizations which have determined that the materials meet a set of rigorous standards. Information on the standards, the certification process, and how to find suppliers is available on the websites of the U.S. chapter of the FSC ([www.fscus.org](http://www.fscus.org)) and the SFI ([www.sfiprogram.org](http://www.sfiprogram.org)).
- To support the regional economy and conserve energy, purchase products that have been harvested and manufactured locally rather than shipped across the country or from the tropics.
- To eliminate offgassing or leaching of toxins into the air, soil, and water, do not purchase wood that has been treated with chemicals. Instead, choose a naturally rot-resistant species grown in your area.
- Sometimes wood from regionally invasive tree species is available. By buying it you help solve two problems at once — you use a local material and also promote the removal of trees that threaten natural areas.



When purchasing new wood for a deck or other landscape project, look for lumber that has been harvested and milled in your region and certified by an independent organization such as the Forest Stewardship Council or the Sustainable Forestry Initiative.

- Keep in mind that wood may require maintenance over its lifetime. When paints or other finishes are necessary, choose the least toxic products available.

Above right: public domain image via Wikipedia



Research shows that encounters with everyday nature restore concentration, calm anxiety, and reduce aggression in both adults and children.

## HUMAN HEALTH

Home landscapes are a place to gather with family and friends, and a safe place for children to play. They offer opportunities for physical exercise, reducing medical costs due to heart disease, strokes, diabetes, and some cancers. Plants cleanse the air we breathe, removing pollutants that trigger asthma and other illnesses. And our gardens are where many of us have our only daily contact with the rest of nature, connecting us with the changing of the seasons and the rhythms of life.

Photos: Bigstock.com

**Health Fact**  
Children, whose internal organs are still developing, are particularly vulnerable to the health problems garden pesticides may pose.



### In this section of the website you'll find

- Landscaping that improves your health and quality of life
- Tips for limiting pesticide exposure
- Easy edible gardening
- The health risks of light pollution and how to avoid them
- And more

Photo: Bigstock.com





A community garden like the one at left is a good option if you don't have room at home to grow edible plants. Beautiful vegetable varieties such as Swiss chard, bottom left, can be tucked into flowerbeds.

## GROW A FOOD GARDEN

A vegetable garden can be a perfect blend of beauty and utility. Nothing beats the flavor of homegrown produce. And growing your own food organically minimizes your exposure to the pesticide residues found on most commercial crops.

Backyard food production can also be good for the environment. Much of the recent discussion of the environmental footprint of food has focused on tallying "food miles," the distance it travels from farm to table and the resulting energy consumption and pollution. Nothing is more local than food grown steps from your kitchen.

But the number of food miles isn't the only measure of environmental impact. Fertilizer use generates significant greenhouse gas emissions. Chemical pesticides are energy intensive to produce, and toxic. And irrigating with municipal water puts more pressure on often scarce and expensive potable water supplies.

For more information on healthy practices see [www.landscapeforlife.org](http://www.landscapeforlife.org)

Public domain images via Wikipedia



## Tips for a sustainable vegetable garden:

- **Incorporate some edible plants throughout your landscape.** A vegetable garden doesn't have to be a separate area of your property. Tuck herbs and beautiful vegetable varieties like Ruby or Rainbow chard into your flowerbeds. Blueberry bushes are a good substitute for a privet hedge. And even if your yard is small, there's probably a suitable dwarf variety of apple, pear, or other fruit.
- **Garden organically.** Take advantage of natural biological processes to increase soil fertility and manage pests, instead of resorting to synthetic fertilizers and pesticides. Use compost and organic mulches to enrich the soil, and grow flowers and herbs that attract beneficial insects that prey on pests.
- **Irrigate with alternatives to drinking water.** Put captured rainwater, air conditioning condensate, or other potable water alternatives to work in the garden, but not graywater from sinks and other sources, which can be contaminated with soaps and pathogens.
- **Don't overcultivate your soil.** Excess rototilling and even digging can destroy healthy soil structure, generate greenhouse gases, and encourage weed growth. Instead, use compost and other organic mulches to prepare and maintain vegetable beds.
- **Grow plants from seed.** This significantly reduces the environmental impacts of transport and packaging and enables you to grow heirloom varieties rarely available at nurseries. Seed is also less expensive than plants.

Photo above right: Biswarup Ganguly



One of the best ways to minimize your exposure to the pesticide residues in most conventionally grown crops is to grow some herbs, vegetables, and fruits at home, avoiding the use of chemical pesticides.

- **Grow heirloom fruits and vegetables.** Modern, mass-produced cultivars of food crops have some desirable characteristics, including disease resistance. But as agriculture and kitchen gardening have come to rely on mass-produced seeds, heirloom fruits and vegetables adapted to various regions have become rare. And modern crop breeding has resulted in a high degree of genetic uniformity, making our food supply vulnerable to pest and disease epidemics. Growing heirloom varieties helps promote the genetic diversity of crops and preserves your region's culinary history.



# LANDSCAPE FOR LIFE™

Based on the principles of the Sustainable Sites Initiative™

## WHO WE ARE

Landscape For Life is based on the principles of SITES, The Sustainable Sites Initiative, the nation's first rating system for sustainable landscapes ([www.sustainablesites.org](http://www.sustainablesites.org)), an interdisciplinary effort by the American Society of Landscape Architects, the Lady Bird Johnson Wildflower Center at The University of Texas at Austin, and the United States Botanic Garden in conjunction with a diverse group of stakeholder organizations. SITES offers technical tools for professionals who design, construct, operate, and maintain landscapes of all sizes. Landscape For Life presents this information in an easy-to-use form for homeowners and gardeners.

*Photo: Andy and Sally Wasowski, Lady Bird Johnson Wildflower Center*

Landscape For Life is a project of the United States Botanic Garden and the Lady Bird Johnson Wildflower Center at The University of Texas at Austin

For more information, see [www.landscapeforlife.org](http://www.landscapeforlife.org)

Written by Janet Marinelli

Design and illustrations by Elizabeth Ennis

