

Planning & Planting a Sustainable Landscape



Waterwise Landscape at
Tacoma's EnviroHouse

Taking time to strategize and plan your landscape will save time, frustration, and maintenance down the road and allow you to develop an overall design that is better suited to the features of your site.

Landscaping significantly impacts the natural resources a building uses. Making sustainable choices about the way a landscape is planned, planted, and maintained can:

- **Make a healthier home** by reducing the amount of pesticides, fertilizers, and other chemicals used for maintenance.
- **Reduce natural resource use and utility bills** by decreasing energy use within your home, water use outside the home, and chemicals used for maintenance.
- **Reduce maintenance, maintenance costs, and help grow healthier plants.**
- **Reduce your site's ecological impact** by restoring natural ecological functions on your site; reducing the amount of runoff; protecting water quality and living things in area streams, lakes and Puget Sound; providing habitat for animals; and absorbing more carbon dioxide.
- **Create a beautiful, relaxing yard** that meets your social, environmental, and economic needs, while improving your quality of life.

Taking time to strategize and plan your landscape will save time, frustration, and maintenance down the road and allow you to develop an overall design that is better suited to the features of your site. The following steps can help you develop a landscape plan:



1. Know Your Site

Understanding soils, plants, and microclimates (areas of your landscape with unique climatic characteristics) will help you design a garden that is suitable for your site conditions. Begin by making a map to scale of your site, noting:

Microclimates: Look for sunny, shady, or partly shady areas; windy or protected areas; hot spots on the south or west sides of the site or created by walls or paved areas that absorb or reflect sunlight; and dry, moist, or wet areas.

Soil types: Learn what types of soil (sandy, loam, or clay) you have in different parts of your garden. Dig small holes around the landscape to test the soil. Note how deep and loose the soil is, how well it drains, and if it is compacted. You can obtain a soil test from a soil-testing lab. (see Soil and Mulch brochure)

Existing plants: Map existing plants. Check to see if plants have been placed in areas that provide the correct sun, moisture, soil, and space for growth. Identify plants that would grow better in another location and whether plants are grouped based on water needs. Note areas that need watering.

Site: Map existing buildings, paved areas, water, septic system components, and utility lines. Note slopes and depressions that could erode, be difficult to mow, or be particularly wet or dry. Identify areas that are difficult or easy to maintain and views you want to screen or maintain.

2. Determine Your Landscaping Preferences

Consider what type of landscape will meet your environmental goals, personal needs, and aesthetic preferences. Look at yards, gardens, arboretums, garden centers, and nearby natural places for ideas. Note landscape features you like. Read garden books and magazines and keep a file of images that appeal to you. Asking these questions may help:

What are your sustainable landscaping goals? Do you wish to conserve water, energy, and/or materials; reduce maintenance; use all rainwater on-site; attract wildlife; use native plants?

What style of landscape do you prefer? Landscape styles include native, water-wise, naturescape (landscaping in a manner that mimics an ecosystem so that people and nature can co-exist), wildlife-attracting, low-maintenance, small space/container, recycled and salvaged materials and plants, formal, informal, and specialty/ collection.

How will you use your landscape? Do you wish to entertain; have a play area; have vegetable garden; screen or enhance views; create a sense of privacy; moderate climate; create scent; attract birds or other wildlife; create year-round interest?

How much time do you wish to spend maintaining your landscape? Some plants and landscape styles will require more maintenance than others.

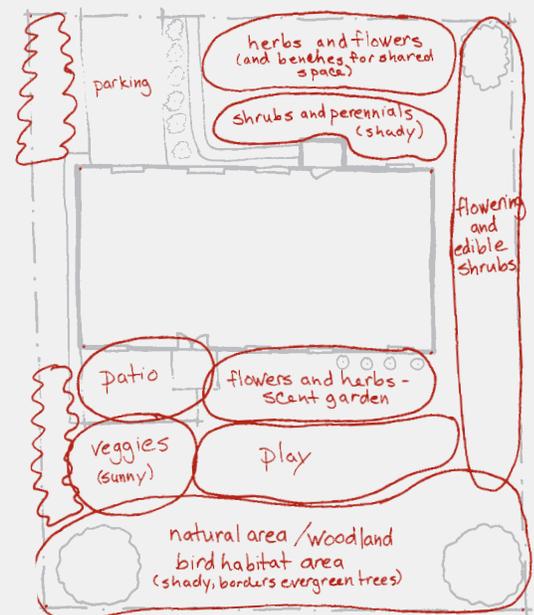
3. Develop a Plan

Select areas that are suited to the uses you identified in step one. Begin to create a landscape plan by placing tracing paper on top of your map of your site conditions and drawing bubbles to outline landscape use areas. While drawing several different layouts, consider:

- **High and low water use zones.** Annual beds, vegetable gardens, and lawns require frequent watering. Shrubs, perennials, trees, and some native plants are more drought-tolerant.
- **Managing temperature and energy use.** Evergreen trees and fences can block wind in the winter; while deciduous trees can block sun in the summer and allow sun through in the winter.
- **Traffic flow and space.** Paths and entrances can be gateways to spaces and create mystery. They are also one way to create distinct spaces within a landscape.
- **Uses suited to different areas.** A sunny area with good drainage in the back of the house could make a good garden. Slopes, areas along fences, and other hard-to-reach sites can be good candidates for low-maintenance plants and groundcovers that will be quick-growing and require little water.
- **How much space you need for different uses.** For example, do you need a large lawn space? If not, consider reducing it to minimize resource use.



Waterwise Garden at Bellevue Botanical Garden



Identify use areas



Select the best landscape plan from those you created in step three and begin to insert symbols indicating plants, patios and paths to scale. Focus on plant masses with certain characteristics that will serve a particular purpose and tie areas together into a unified design. Keep in mind:

- **Hydrozoning** (grouping plants with similar water needs together) saves water by making it easier to give each group of plants only the amount of water it needs. To hydrozone, you can group moderate-water-use plants together in one zone and low-water-use and very low-water-use plants in additional zones. Turfgrass should be placed in its own zone.
- **Manage rainwater onsite and reduce runoff** by minimizing surfaces that water cannot drain through. Use permeable pavers, create an on-site rainwater infiltration area such as a rain garden, and/or harvest rainwater in rain barrels.
- **Keep existing native plants**, especially trees and shrubs, when possible.
- **To create interest and flow** throughout the landscape, use design principles such as: using rhythm and line to direct the eye; maintaining balance with similar visual masses; creating focal points; and maintaining comfortable proportion by layering plants of different sizes.
- **Create year-round interest** with trees and shrubs, which can also define areas. Use ground covers, perennials, and bulbs to tie areas together and create seasonal interest.
- **Irregular lawn designs**, narrow strips of grass (less than six feet), and small lawn areas are difficult to water efficiently.

4. Select the Right Plants

After you have completed a landscape plan, begin selecting plants. See the Plants brochure and other resources for help finding plants that fit your site conditions and needs. Consider:

- **Whether a plant is appropriate for our climate**, will grow well in specific site conditions, and can thrive with little irrigation once established. Plants native to the Northwest or adapted to our climate will require less maintenance and often less supplemental water, provided they are planted appropriately.
- **A plant's mature size and form** (seek sizes for locally-grown plants, as nursery tags may not reflect local conditions). Not needing pruning will reduce maintenance. Look for plants that will compliment each other while growing and when mature.
- **Helping your garden resist the spread of pests and diseases** by choosing pest and disease-resistant varieties and diverse plants. Diverse plants will also help attract birds and insects.
- **Plant form, texture, foliage and bark color, scent, and fruit** can provide touches of beauty and add year-round interest. Winter interest can be created through evergreens, woody trees and shrubs (especially ones with interesting forms or bark), garden art, and trellises.

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Seed pods and dormant grasses can add to winter interest.

5. Practice Proper Planting

Proper planting creates healthier plants. The Puget Sound region experiences dry summers, so vegetation planted after March has much more difficulty surviving and needs much more supplemental water. Autumn and winter are the best time of year to plant in this area.

Before planting, set out plants (still in their pots) and arrange them. To create a landscape that looks natural, avoid planting in rows or spacing plants evenly but rather group plants of the same species in clumps of two or three. Space plants considering their mature size. When ready to plant:

Build healthy soil:

- Loosen soil at least 10 to 12 inches deep throughout planting beds and at least 6 to 8 inches deep in lawns.
- When planting a new garden, enhance soil by thoroughly mixing compost throughout the planting bed (see Soil and Mulch brochure for amounts). If you cannot amend an area larger than the planting hole, do not add compost to the hole since roots may have difficulty growing beyond the interface between amended and native soil.

Plant properly:

- Remove the plant from its pot or burlap. Loosen bound roots and gently remove excess potting soil. Straighten out curving roots and carefully prune encircling and badly damaged (broken, kinked, knotted) roots.
- Dig a hole twice the width of the plant's roots and about as deep. Fill the hole with water and let it drain. Do not work the soil or plant in standing water.
- Build a mound in the bottom of the hole to support the plant's roots.
- Gently spread the roots evenly over the soil mound so that they point outward. The root flare (where the roots join the stem) should be at the soil's surface.
- Fill in the hole halfway with the soil that was removed to make the hole. Fill the hole with water and let it drain. Finish filling in the hole up to the root flare and water.
- Cover the ground around the plant with mulch. Do not mound mulch against tree trunks.
- Water plants as needed until they become established. Even drought-tolerant plants need irrigation their first two or three summers.

Resources:

Water Conservation Program, Tacoma Water: www.tacomawater.com

Tacoma-Pierce County Health Department: www.tpchd.org/naturallyardcare

EnviroHouse at the City of Tacoma Landfill, 3510 S. Mullen St.: phone (253)573-2426; www.cityoftacoma.org/envirohouse

WSU Gardening: <http://gardening.wsu.edu> and www.theinformedgardener.com

King County Native Plant Guide: www.dnr.metrokc.gov/gonative

GreatPlant Picks: www.greatplantpicks.org/

Pierce County Master Gardener telephone answer line: (253) 798-7170

