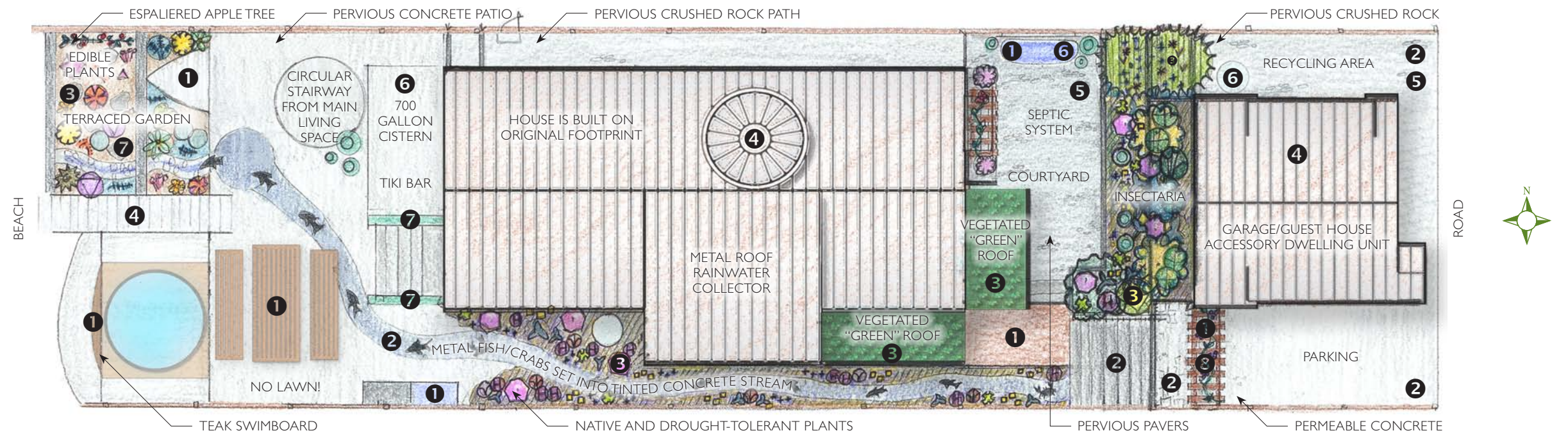




## GoingGreen AT THE BEACH

# SUSTAINABLE LANDSCAPING



HOMEOWNERS: Dave and Anna Porter  
www.goinggreenatthebeach.com

ARCHITECT: GMS Architectural  
www.gmsarch.com

BUILDER: Chaffey Homes  
www.chaffeyhomes.com

PUBLIC RELATIONS: Green Dog Enterprises  
www.greendogenterprises.com

LANDSCAPES:   
www.otak.com

  
A DESIGN-BUILD LANDSCAPING COMPANY  
www.frogonalogparks.com

  
www.triadassociates.net

### 1 SALVAGED & RECYCLED

- Water feature is self-contained, recirculating created with salvaged tub and faucets
- Backsplash created from leftover or scrap construction materials
- Landscape elements made from scrap lumber leftover from construction
- Patio sink is salvaged from the old home and reused as an "ice bucket"
- Salvaged teak swimboard reused

### 2 PAVING & PATHWAYS

- All surfaces are pervious or permeable, whether with pervious paving, vegetation, gravel or crushed rock
- Small courtyard adjacent to office is filled with pervious pavers to retain the pervious quality of soil by leaving small voids for water to seep through to the soil below
- Paving in driveway is permeable concrete
- Pervious concrete pathway is both functional and aesthetic with a symbolic blue-tinted waterway pattern that leads from the entrance to the back of the home and embedded with artistic metal fish and crabs
- Even the steps to the guest house are made from pervious concrete

### 3 PLANTINGS

- All plants are native or drought tolerant and therefore require less water to maintain
- No lawn means no mowing, giving the homeowners more time to spend relaxing on the deck
- All landscaping is organic, using no herbicides, pesticides or chemical fertilizers
- Soil amended with compost from Cedar Grove Compost, a local company that processes organic materials from all over the region into usable, healthy, sterile soil
- Plantings under decking on the garage/guest house feature insectary baskets filled with plants that attract beneficial insects and provide splashes of color
- Vegetated roofs designed by Triad Associates slow the flow of rainwater from the roof as well as provide a "living" cover at the main entrance to the home
- To protect the ground from erosion, no soil was left bare
- Planting beds are mulched to retain moisture in soil and keep out weeds

### 4 STRUCTURES

- Retaining walls are made from Pisa Stone
- Wood structures such as arbors are made from scrap lumber leftover from the construction of the home
- Stairs off patio were reconstructed using tigerwood
- Constructed streambed of natural, local cobblestones flows through the terraced garden
- The home itself was rebuilt on the original home's footprint so no impervious surface was added
- Teak swimboard was salvaged and reused as part of a patio picnic table arrangement

### 5 SERVICES

- Septic system carefully updated, intended for monitoring and inspection every two years
- Dedicated household recycling area facilitates homeowners' collection of recyclables

### 6 IRRIGATION

- Efficient drip irrigation is the back-up system for using rainwater in the cistern
- The all-metal roof provides a clean surface for collecting rainwater into a 900-gallon cistern for use in irrigation
- Pervious and permeable paving allows groundwater to continuously recharge, so plants need minimal potable water for maintenance

### 7 EDIBLE LANDSCAPING

- Edible landscaping and perennials for perpetual use and enjoyment
- Planter boxes next to patio stairs are filled with edible herbs, conveniently located near the kitchen and wine cellar
- Terraced garden features edible herbs as well as provides space for the family's annual vegetable garden
- Main entrance arbor welcomes visitors with a grapevine for perennial edible fruit and colorful foliage
- Espaliered apple tree takes up less space as it runs along a fence, and provides food

# GOING GREEN AT THE BEACH

## Basic Principles for a Healthy Landscape from Snohomish County

- Plant lots of trees.
- Plant native trees and shrubs.
- Don't use fertilizers.
- Don't use herbicides and pesticides.
- If your site abuts a shore or streambank, leave the bank natural and don't clean brush and debris out of the stream.

## I Fought the Lawn and the Lawn Won...

- Lawns are only able to absorb 1/10 the rainfall of a forest.
- Turf has shallow root system that is not able to stabilize stream banks.
- Runoff from turf results in erosion, flooding and aquatic habitat destruction.
- One hour of mowing with a gas powered mower = 20 miles in a car.

## Plants appropriate for the Pacific Northwest include:

-  UPRIGHT ROSEMARY
-  GOLDEN OREGAN
-  GOLD/SILVER THYME
-  PURPLE SAGE
-  GOLDEN SAGE
-  CALENDULA
-  SEA STATICE
-  CROCOSMIA
-  HARDY GERANIUM
-  LAVENDER
-  SHASTA DAISY
-  CHIVES
-  PROSTRATE ROSEMARY



Porter home view to the southwest.

Sustainable landscape design often includes simple approaches to outdoor living spaces that are functional, beautiful and environmentally-friendly. And because this site is next to a major body of water—Puget Sound—it was

critical to provide a design that would be non-toxic and would not promote erosion. It was also important to provide the homeowners with a landscape that is easily maintained without the use of harmful chemicals, and a yard that can slow the flow and retain rainwater on-site to prevent erosion. It was equally important for the homeowners to have edible and ornamental landscaping elements as they are avid organic gardeners.

The site itself is a long, narrow one that runs on an east-west axis. It is only 31.5 feet wide and 125 feet long, stretching from a road on the east to Puget Sound on the west. Rainwater

moves from east to west as the property slopes towards the sea. There is development all along this shoreline, and most sites include a bulkhead or retaining wall to defend coastal land and the homes that sit upon them from erosion. Bulkheads are generally not considered to be friendly to the natural sea habitat, and the homeowners considered removing theirs. But removing only one bulkhead among hundreds lining the shore would destabilize this particular home site and effect little change to the overall shoreline. Therefore, the Porters opted to leave theirs in place until a better solution arises. Check with your local agencies to see what's most appropriate for your shoreline project.

To protect the site and ultimately the water in Puget Sound, runoff water from the roof of the house is captured in a cistern and used to irrigate the gardens. Porous paving allows water to infiltrate through the soil into the groundwater and allows the walking paths to be placed without concern for runoff drainage. The primary pathway that leads from the road to the

patio on the west side of the home is embellished with blue-dyed concrete and metal sculptural fish in a literal and symbolic path; it joins a constructed waterway that leads from the patio down through the terraced gardens to Puget Sound.

The native and regionally adapted plants—mostly grouped for full southern exposure—require less water and maintenance, and are naturally pest-resistant so can flourish without the use of harmful chemicals. Just in case, an insectary hangs in artful baskets to attract beneficial bugs. Productive plantings placed throughout the site provide aesthetics, color and food value. Triad Associates designed two vegetated roofs that welcome the homeowners and visitors at the main entrance to the home, using an integrated design that provides stormwater mitigation while protecting from the elements.

By using local materials and products throughout the project, the landscaping also contributes to the local economy and saved on transportation costs.

## For further information:

### SNOHOMISH COUNTY

Snohomish County Surface Water . . . . . [www1.co.snohomish.wa.us/Departments/Public\\_Works/Divisions/SWM/Services/](http://www1.co.snohomish.wa.us/Departments/Public_Works/Divisions/SWM/Services/)

Sustainable Development Task Force . . . . . [www.sustainablesnohomishcounty.org](http://www.sustainablesnohomishcounty.org)

Snohomish County Native Plants Program . . . . . [www1.co.snohomish.wa.us/Departments/Public\\_Works/Divisions/SWM/Work\\_Areas/Outreach/Native\\_Plants/](http://www1.co.snohomish.wa.us/Departments/Public_Works/Divisions/SWM/Work_Areas/Outreach/Native_Plants/)

### WASHINGTON STATE

WA Department of Ecology Property Owner Guides . . . . [www.ecy.wa.gov/programs/sea/publications.htm#property](http://www.ecy.wa.gov/programs/sea/publications.htm#property)

Puget Sound Shorelines . . . . . [www.ecy.wa.gov/programs/sea/pugetsound/tips/tips.html](http://www.ecy.wa.gov/programs/sea/pugetsound/tips/tips.html)

Washington Native Plant Society . . . . . [www.wnps.org/](http://www.wnps.org/)

WA Toxics Lawn and Garden Chemicals and Pests . . . . . [www.watoxics.org/homes-and-gardens/lawn-and-garden](http://www.watoxics.org/homes-and-gardens/lawn-and-garden)

Natural Lawn and Garden Hotline (Seattle) . . . . . [www.seattletilth.org/hotline](http://www.seattletilth.org/hotline)

Natural Landscapes (Kitsap County) . . . . . [www.naturallandscapes.org](http://www.naturallandscapes.org)

Natural Yard Care (King County) . . . . . [www.metrokc.gov/dnrp/swd/naturalyardcare/index.asp](http://www.metrokc.gov/dnrp/swd/naturalyardcare/index.asp)

### UNITED STATES

Invasive Alien Plants . . . . . [www.nps.gov/plants/alien/factmain.htm#p1lists](http://www.nps.gov/plants/alien/factmain.htm#p1lists)

U.S. Plants Database . . . . . <http://plants.usda.gov/>