

EnviroHouse

CITY OF TACOMA



Build Green. Live Green.

A green building and natural landscape exhibit featuring readily available, environmentally friendly materials to create a healthy home and planet.

Design and content adapted from the Seattle Public Utilities Sustainable Building Program.

[FSC-certified logo with chasing arrows symbol with 100% inside]

Printed with soy ink



The EnviroHouse will inspire you...

with a variety of interior, exterior and landscape ideas. Whether you're planning a full remodel, replacing an old appliance or just want some eco-friendly decorating tips, the EnviroHouse has it all. This brochure offers only a glimpse of some of the rooms; it is best to experience the EnviroHouse in person with a guided tour where you can collect product literature on many of its features, including:

- Recycled-content carpet, countertops, furniture, tile, sidewalk, decking and roofing
- Water-saving showerhead display
- Non-toxic paint and wall coverings
- Energy-efficient windows, lighting and appliances
- Insulation options using recycled or organic products
- Solar electricity
- Cork and bamboo flooring
- Synthetic turf, natural grasses and native plants
- Weather-controlled irrigation system
- Composting systems for food, yard and pet waste

what is green building/sustainable living?

Green building is a way to approach the design, construction and operation of your home that allows for the least negative impact to our environment while providing a healthier living space.

Green building and sustainable living involve using building materials and products that create a healthier, more energy- and water-efficient home:

- More durable materials
- Less-toxic paints
- ENERGY STAR® appliances
- Energy-efficient lighting
- Water-saving devices
- Rapidly renewable and recycled-content products

why go green?

The responsibility for sustaining our world as a healthy environment rests with us all. By incorporating green building and sustainable living practices, you'll provide for today's needs and the needs of future generations.

- **Health: Good for you**
 - Improved air quality
 - Natural light
 - Natural, low-toxic materials
- **Money: Good for your wallet**
 - Energy- and water-efficient (lower utility bills)
 - Durable, low-maintenance materials
 - Marketable for resale
- **Environment: Good for the planet**
 - Resource-efficient
 - Minimize waste
 - Reuse and recycle

how do you go green?

- Identify what aspects of green building/sustainable living are important to you.
- Talk with a professional (contractor, architect, landscaper, real estate agent) about building and living green.
- Ask your local supplier to stock green building products.

contents

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kitchen



Fluorescent lighting uses about 75% less electricity than incandescent bulbs

Cabinets made of sustainably managed and harvested Lyptus® wood

Faucet aerators reduce flow rate and use less water

Sink is salvaged and reused from Habitat for Humanity

Dishwasher with Single Rack Wash™ feature conserves water and energy

Countertop resin made with 40% recycled content

Refrigerator with TriSensor™ Electronic Climate Control to save energy

Cork flooring is a durable, naturally replenished material

green options

Appliances & Lighting

The average kitchen accounts for 20%-40% of a home's total energy bill. Energy-efficient appliances and proper lighting design increase a kitchen's performance, reduce bills and conserve resources.

Cabinetry

Whether you update, upgrade or replace, find cabinetry made of wood that is formaldehyde-free and is Forest Stewardship Council-certified to better protect forests and your indoor air.

Countertops

Select countertop and backsplash options that stand up to hard use while being kind to the planet. Such materials include recycled glass and plastic, end-grain bamboo, recycled paper, sustainable wood and recycled aluminum.

Faucets

Durable, efficient faucets conserve water while tackling the job at hand. An easy way to conserve water is with an aerator that attaches to your existing faucet.

Flooring

The busiest room in the house deserves flooring that combines comfort, beauty, durability and environmental smarts, such as cork, bamboo, recycled-content tile, salvaged stone and natural linoleum.

Easy, low-cost ways to go green now

- Compost food waste.
- Replace regular light fixtures or bulbs with fluorescent ones.
- Install a faucet aerator.
- Buy organic foods.
- Use earth-friendly cleaners and detergents.

Salvage & recycle

- Dispose of old appliances at the Tacoma Landfill, where the fluids are removed and parts are recycled.
- Donate or buy reusable countertops, cabinets and sinks at Habitat for Humanity, (253) 779-8149, or the ReHarvest Center, (253) 531-5845.
- Sell or buy reusable building materials online at 2Good2Toss.com (up to \$99).

bath



Fluorescent lighting uses about 75% less electricity than incandescent bulbs

Other feature not shown in photo:

- Showerhead display features various water-saving models
- Solatube skylight with reflective tubing for increased and consistent light output

Faucet aerators reduce flow rate and use less water

100% recycled backsplash made from glass bottles

Countertop made from post-consumer recycled paper

Sink is salvaged and reused from Habitat for Humanity

Toilet saves water with air pressure flush

Cabinets made of sustainably managed and harvested Lyptus® wood

75% recycled ceramic tile made from waste glass

green options

Wall tile

Look for locally produced designs — tile manufacturing is a thriving cottage industry in the Pacific Northwest. Purchase ceramic, glass, terrazzo or concrete tile with recycled content. Choose stone tiles that don't require a sealant, or use a non-toxic version.

Toilets

If your toilet was installed before 1992, save water by replacing it with a new efficient, low-flush one that's 1.6 GPF (gallons per flush) or less. Dual-flush toilets save even more with the option of a full or half-flush.

Showerheads

Older showerheads can use more than 5 gallons of water per minute. New, low-cost models can use as little as 1½ gallons of water per minute. Some models include a shut-off valve, which reduces the shower stream to a trickle while the user soaps up.

Sinks

Sinks make great reuse candidates. Save money and resources by refinishing your existing sink or look for a vintage or salvaged model. When buying a new sink, make durability a priority. Look for sinks with lifetime warranties made with these common materials: enameled cast iron, porcelain, solid surface or stainless steel.

Faucets

Bathroom sinks are the most heavily used in the house, so look for durable faucets with lifetime warranties and ceramic disc valves. An easy way to conserve water is with an aerator that attaches to your existing faucet.

Flooring

Bathroom floors must tolerate constant moisture, standing water, frequent scrubbing and high traffic. Because the demands are so great, effective flooring options are somewhat limited. Some of the more green floors include tile, natural linoleum, stone and laminates. Make sure to use low-VOC glues and adhesives when installing floors.

Easy, low-cost ways to go green now

- Install a faucet aerator.
- Replace old showerhead with a low-flow model (1.5-2.0 GPM).
- Use organic cotton bath towels.
- Replace regular light fixtures or bulbs with fluorescent ones.
- Use earth-friendly cleaners.

Salvage & recycle

- Donate or buy reusable sinks, bathtubs and toilets at Habitat for Humanity, (253) 779-8149, or the ReHarvest Center, (253) 531-5845.
- Sell or buy reusable building materials online at 2Good2Toss.com (up to \$99).

living room

Fluorescent lighting uses about 75% less electricity than incandescent bulbs

Insulation made with recycled and organic products that don't contain harmful gases and chemicals

Window treatments made with 100% recycled polyester fabric

Trim is remanufactured lumber from salvaged sources

Zero-VOC paint contains no harmful chemicals

Low E and argon windows reduce heat loss and block UV rays

Table made of Ecowheat, a sustainable alternative to wood

Bamboo flooring is a rapidly renewable resource

Carpet tiles made with post-consumer, recycled-content fiber

green options

Flooring

A larger room designed for multiple uses can feature a variety of environmentally friendly flooring, which can include combinations of hard and soft flooring such as bamboo and recycled-content carpet tiles, or salvaged stone and area rugs made with natural materials.

Windows

The type of windows you choose has a big impact on your heating and cooling costs. Energy-efficient windows will help keep your home cooler in the summer and warmer in the winter. Look for windows with Low-emittance (Low-E) coating and argon gas filling; this combination boosts energy efficiency by nearly 100% over single pane clear glass.

Window treatments

Whether you prefer shades, blinds or curtains, look for window treatments made with natural and organic material, such as organic cotton, hemp and flax. Fabric is available with non-toxic dye chemicals. Bamboo can be found in natural woven shades and as hardware in Roman shades as well as decorative rods.

Furniture

There are many components that can make a piece of furniture eco-friendly. Some things to look for include simple construction for easy disassembly and reuse or recycling, wood obtained from sustainable forests or salvaged wood, padded and filled with organic cotton or pesticide-free wool, and use of natural upholstery and non-toxic finishes.

Lighting

Installing compact fluorescent light bulbs is one of the easiest ways to save on your electricity bill. While incandescent bulbs cost half as much as fluorescent ones, fluorescent bulbs use about 75% less electricity than incandescent bulbs, last 10 times longer and produce the same amount of light. Fluorescent bulbs may be used in a variety of light fixtures, such as recessed cans, track lighting, ceiling and pendant fixtures, wall sconces and under cabinets.

Insulation

Choose insulation with a high R-value (measure of the thermal resistance). Look for insulation that is made with recycled materials such as denim jeans, wood fibers and newspaper, or organic products such as soy beans. These products do not use harmful gases and chemicals, which eliminates any VOC concerns.

Easy, low-cost ways to go green now

- Decorate with environmentally friendly accessories, such as soy wax candles, recycled glass coasters or a hemp tablecloth.
- Use low- or no-VOC (volatile organic compounds) paint.
- Install fluorescent fixtures or light bulbs.

Salvage & recycle

- Donate reusable household items to charities.
- Sell or buy reusable building materials and furniture online at 2Good2Toss.com (up to \$99).

exterior



green options

Decks

Wood: Look for naturally rot-resistant species such as cedar, juniper and cypress, or highly-durable tropical woods like Ipe.

Recycled plastic/composite lumber: Recycled plastic and composite lumber is more durable than wood, requiring little maintenance and lower long-term cost.

Siding

Fiber cement siding is composed of cement, sand and cellulose fibers. Available in shingles, planks or sheets, it is usually textured to look like wood siding or stucco finish. Fiber cement siding is more durable than wood, is insect and UV resistant, and is warranted to last 50 years.

Solar

Solar panels contain hundreds of small cells that collect the sun's energy and convert it to electricity. Typical solar installations include flat roof, sloped roof, building integrated and ground mount.

Roofing

Select safe and durable roofing materials, such as asphalt shingle, concrete tile, slate, fiber-cement, steel, aluminum and clay tile. A durable and safe roof is cost effective, reduces landfill deposits, is maintenance free and fire resistant.

Green roofs: Green roofs consist of various roofing layers topped with a soil-like growing medium and plants chosen for their ability to withstand a roof's extreme conditions. Benefits include an additional insulating layer; capturing, filtering and slowing roof runoff; and extending the life of the roof.

Rainwater harvest

Rain barrels are positioned at the bottom of downspouts to capture rainwater coming off your roof for use in your yard and garden. However, if you have certain kinds of roofing material that have been treated with certain chemicals, avoid using the water for edible plants or herbs.

Composting

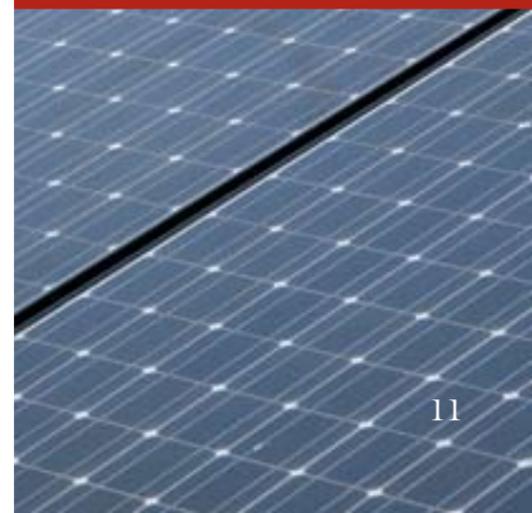
Rather than allowing nature to take its course, a composting system provides an optimal environment for a quicker conversion of organic material to compost. With very little time, money and effort, you'll be rewarded with organic fertilizer for your indoor plants, yard and garden.

Easy, low-cost ways to go green now

- Compost food, garden and pet waste.
- Use a rain barrel to collect water from the roof for later use in the garden.

Salvage & recycle

- Sell or buy reusable building materials, including roofing and siding, online at 2Good2Toss.com (up to \$99).
- Recycle old shingles, siding and decking at local private recyclers found in the phone book under "Recycling Services."



landscape



Other features not shown in photo:

Synthetic turf made from recycled tires requires no water or pesticides and no mowing

Rain garden collects, infiltrates and filters stormwater runoff

green options

Irrigation systems

Irrigation controllers: Save water by programming the controller to deliver a specific amount of water. Programming the controller for early morning watering will reduce evaporation and allow the plants to uptake water before the hot part of the day. Weather-based controllers will save additional water by automatically reducing run times during rainy or cool weather.

Drip irrigation: Save water by placing the water exactly where it is needed without overspray or evaporation.

Permanent in-ground irrigation systems: In-ground irrigation systems commonly rely on pipe material made from polyvinyl chloride or PVC. Recent research raises questions about vinyl's impact on human health and environmental safety. Polyethylene is an increasingly available PVC alternative used in the irrigation and plumbing industry.

Patios, walkways and paths

In order for walkways and patios to last, consider more than their surface materials. Especially when designing for rain to percolate into the soil below, the surface and structure underneath the surface must be carefully prepared. Consider these natural, salvaged and recycled-content materials: concrete with fly ash, broken concrete, permeable or salvaged concrete pavers, recycled glass pavers, salvaged clay brick, salvaged stone, crushed quarry rock, wood chips and nutshells.

Mulch

Mulches are layers of material placed around plants to inhibit weed growth, minimize soil erosion and runoff, reduce watering needs by keeping soils moist and define areas. Some organic mulch choices include compost, leaves, wood chips and nutshells. In addition to being used as mulch, compost can also be used when preparing garden, lawn or plant bed soil to encourage healthy plant growth while reducing your landscape's water, fertilizer and pesticide needs.

Rain garden

A rain garden includes landscape elements featuring plants that thrive in wet conditions coupled with soils that allow safe ground percolation. Rain gardens must be carefully designed and located to avoid flooding and causing damage to your home or neighboring properties.

Rockeries & raised beds

Rockeries can reduce water use, runoff and erosion by helping water soak into the ground. Raised beds provide a design feature in the landscape, defining spaces and accentuating transitions. Natural and durable material choices include broken concrete, locally harvested wood timbers, recycled plastic and salvaged stone.

Easy, low-cost ways to go green now

- Choose less toxic pest and weed controls.
- Keep grass clippings on the lawn after mowing.
- Use compost on your lawn and garden.

Salvage & recycle

Salvaged and found objects add personality and a sense of history to your landscape while taking some burden off landfills. Add creative — salvaged — touches to your landscape with pots, planters, seating, gates and artwork.

Natural grass is drought-tolerant and requires less water and mowing than most turf grass

Drip irrigation provides direct watering and uses less water than traditional overhead methods

Native and adapted plants require less water and less fertilizer than non-native, non-adapted plants

TAGRO Mulch helps conserve water and reduces weeds and the need for chemicals

Permeable pathways allow water and air to seep into the soil



laundry



Irrigation controller with weather monitoring system to water according to local weather



Zero-VOC paint contains no harmful chemicals



ENERGY STAR® washer uses 50% less water than standard models

Other features not shown in photo:

- Solatube skylight with reflective tubing for increased and consistent light output
- ENERGY STAR®-qualified exhaust fan features nearly silent operation and fluorescent light
- High efficiency water heater with insulation free of CFC and HCFC ozone depleting gases

Learn about green options for the laundry room at www.cityoftacoma.org/EnviroHouse.

about the **EnviroHouse**

The City of Tacoma EnviroHouse is a permanent model home showcasing green building and natural landscape ideas, materials and techniques to create a healthy home and planet. The EnviroHouse champions the benefits of sustainable living and building practices to homeowners, builders, suppliers, landscapers, real estate agents and the general public, highlighting readily available products for new and existing homes and yards.

hours

Wednesday – Friday: 10 a.m. – 3 p.m.

Saturday – Sunday: 11 a.m. – 5 p.m.

Hours are subject to change. For current hours, go to www.cityoftacoma.org/EnviroHouse, or call (253) 573-2426.

location/directions

Tacoma Landfill, 3510 S. Mullen St., Tacoma, WA 98409

From I-5: Take exit 132 and merge onto SR-16. Take the Fircrest/Center Street exit (1C). At the traffic light, go straight onto South Mullen Street and follow the road to the landfill. The EnviroHouse is on your left before the recycling center.

resources

Built Green Washington: www.builtgreenwashington.org

Energy Conservation (Tacoma Power): www.tacomapower.com

Green Home Remodel Guides (Seattle Public Utilities): www.seattle.gov/sustainablebuilding

Natural Yard Care: www.cityoftacoma.org/naturalyards

Northwest EcoBuilding Guild: www.ecobuilding.org

Reduce, Reuse, Recycle (City of Tacoma): www.cityoftacoma.org/solidwaste

Surface Water Quality (City of Tacoma): www.cityoftacoma.org/surfacewater

Tacoma-Pierce County Built Green®: www.mbapierce.com/builtgreen

TAGRO (City of Tacoma): www.tagro.com

Water Conservation (Tacoma Water): www.tacomawater.com



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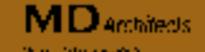
Presenting partners



Solid Waste Management
Surface Water Management
Wastewater Management



Industry partners



WASHINGTON

