

green home buyer's guide

{ green home

healthy homes for a healthy environment }





buyer's guide

Buying a home is a significant investment and a choice that will have an ongoing impact on your quality of life – including how you travel to and from work, your family's health, and your utility bills. The home you buy also has an impact on our environment – from the natural resources consumed in its construction to the greenhouse gasses generated to keep it warm. It's a big decision – be informed; do it right.



Cover photo: Pryde & Johnson's Ashworth Cottages Development
Photo below: Ross Chapin Architects

green homes

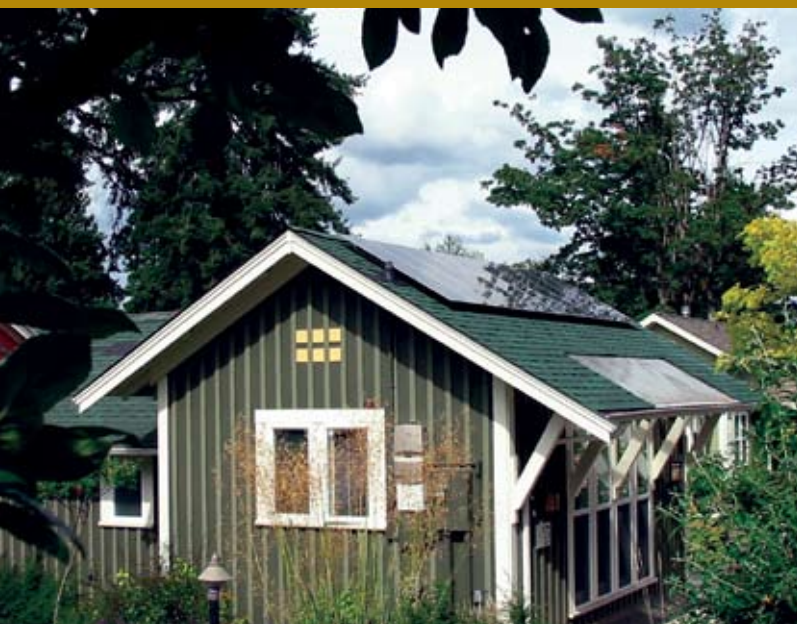
The Northwest Multiple Listing Service (NWMLS), used by real estate professionals in our region, has made it easier for you to find a green or energy-efficient home – be it single-family, townhome or condominium. In addition to searching for homes with criteria such as location or number of bedrooms, you and your real estate professional can also locate available homes that are energy-efficient, that use resources wisely, and that have healthy indoor air quality.

Green homes are now searchable in the NWMLS database with its new Environmental Certifications feature. Green building certifications are used to ensure that a building was designed and built with the environment, health and community in mind. Green homes in Washington can be certified via three primary programs: BUILT GREEN™, ENERGY STAR® and LEED®.

BUILT GREEN™ is a residential green building program developed by the Master Builders Association of King and Snohomish Counties with rating criteria for single-family homes, condominiums, remodels, and housing developments. Certifications range from 2 to 5-Star, with 4 & 5-Star levels that are third-party verified.

Northwest ENERGY STAR® Homes improve the energy efficiency of new homes with a primary focus on energy efficiency and occupant health. Third-party verifiers conduct performance testing on homes to ensure they meet the ENERGY STAR® criteria.

LEED® (Leadership in Energy and Environmental Design) is a national green building certification system created by the U.S. Green Building Council (USGBC). Single-family homes and townhouses are addressed with LEED® for Homes. Larger condominium buildings are covered under LEED® for New Construction. Third-party certifiers award progressive rating levels: Certified, Silver, Gold and Platinum.





what is a green home?

A building is often said to have a “footprint” which represents the outline of the structure on the ground. But any building, including your home, also has an ecological footprint - the environmental impact to build and operate that home. A green home has been constructed to minimize its environmental footprint, while at the same time ensuring comfort, durability, a healthy indoor environment and low utility costs.

Existing Houses

An existing home will be less likely to have been certified via a green building rating system but is an environmentally sound choice nonetheless. In fact, by buying an older house you keep existing neighborhoods vibrant and eliminate the environmental impact of new construction. Energy-efficient upgrades to an existing house, or a full remodel, can be the opportunity to create the green home that fits your specific needs.

location, location, location

Where you buy not only affects the home's current and future value, but also affects your lifestyle. Finding a home in a neighborhood with quick and safe access to restaurants, shopping, recreation and public transportation means you'll spend less time in your car and more time on activities you truly enjoy. And, fewer auto miles will translate into fewer greenhouse gas emissions.

- Check available transit services before buying to ensure you can get to work, school and recreation activities: <http://transit.metrokc.gov>
- To find out if the neighborhood you are considering is walkable, visit www.walkscore.com, or simply wander the area and look for the services you use.
- The cost of car ownership is high - \$9,641/year in 2006.¹ You can achieve transportation cost savings by living in a walkable and transit-oriented community.



The City of Seattle's Green Home Guides cover common remodeling topics, from Home Energy Audits to Roofing, and give helpful hints on materials and strategies to create a home that's healthy, saves money, and is easy on the environment:

www.seattle.gov/dpd/GreenBuilding/SingleFamilyResidential/Resources/RemodelingGuides



size

The average size of a new home in the U.S. has more than doubled in the last 50 years to 2,434 square feet,² while the average size of the family occupying those homes has decreased to just 2.5 people.³ That's almost 1,000 square feet per person! A smaller home is inherently more resource efficient and your ongoing costs for utilities and maintenance will be kept low.

- A well-designed small home can provide the same amenities as a larger one, at a lower cost.
- Don't buy based on square footage alone, instead think about how the home's layout and spaces will fit your needs.
- Multi-use rooms, an office that also serves as a guest room, for instance, allow you to consolidate less frequently used spaces.

site and landscaping

How your lot is landscaped has an enormous impact on water consumption, water quality in our region's waterways, and even the wildlife that live in our urban environment. Appropriate site design practices include leaving part of the building site undisturbed, retaining trees and native vegetation on the site, and amending the topsoil with compost.

- "Rain gardens" that slow stormwater runoff, along with porous surface materials such as pervious pavers, allow rainwater to percolate into the soil in your yard. This reduces the load on municipal storm water systems and allows stormwater to be filtered and cleaned naturally before it enters our waterways.
- Native, drought-tolerant plants and minimal lawn areas reduce the water needed for irrigation.
- Roof run-off can be captured with rain barrels or cisterns and used for site irrigation.
- Trees, especially those to the south and west of a house, provide natural shading that will keep your home cool on hot days.

energy efficiency

Home energy use is responsible for 20% of CO₂ emissions nationwide.⁴ Choosing, or creating, a more energy-efficient home will reduce fuel use, greenhouse gas emissions and your utility bills. In the Northwest an ENERGY STAR® home will be at least 15% more efficient than a home built to current building codes. An energy-efficient home will have:

- A well-insulated, airtight, envelope with minimum R-21 walls, R-38 roofs and R-30 floors (higher is better).
- Windows certified by the National Fenestration Rating Council (NFRC) with a U-Value of .35 or lower.
- ENERGY STAR® rated heating equipment, appliances and light fixtures.
- Gas hot water heaters with efficiencies of .60 or greater and electric hot water heaters with efficiencies of .92 or greater, or a tankless hot water heater.





ten questions to ask about your future home

water conservation

Reducing water use both inside and outside your home will save you money and help ensure that our region continues to have enough water for both people and wildlife. Your green home should include:

- ENERGY STAR® rated front loading clothes washers and dishwashers.
- WaterSense labeled high-efficiency toilets, including dual-flush, rated at 1.28 gallons per flush.
- Low-flow fixtures - maximum 2.0 gallon per minute (gpm) showerheads, 2.0 gpm kitchen faucets, and 1.5 gpm bathroom faucets.

healthy indoor air

The materials and practices used to construct your home will have a serious impact on your family's health. Many of the glues and solvents used in building products, such as particle board and paints, offgas harmful volatile organic compounds (VOCs) you can't see. Improperly constructed and ventilated homes can increase the potential for mold and for health related problems caused by pollutants within the home.

- Your home needs to be well ventilated, either through passive or mechanical means, to ensure good indoor air quality and to keep interior moisture below those that can induce mold growth.
- Moisture-related problems in the building itself can be avoided with features such as foundation waterproofing, grading sloped away from the building and proper flashing around windows and doors.
- Look for insulation and wood products made without urea-formaldehyde, and non-toxic paints, finishes, and adhesives that contain low, or no-VOCs.
- Carpet should be used selectively - new carpet off-gasses harmful VOCs (the new carpet smell) and any carpet, new or existing, traps dust and pollutants.

sustainable materials

Flooring, cabinets, tile, and other products in your home may vary widely in the impact their manufacture has on our environment.

- Using recycled or rapidly renewable resources, such as recycled glass tile or bamboo flooring, limits the environmental impacts from harvesting, mining and the manufacture of new materials.
- Locally produced materials reduce the environmental impact of transportation while also supporting our local economy.
- Wood certified by the Forest Stewardship Council (FSC) is from forests that are managed sustainably.

1. Does the location provide the transit, services and recreation that will serve my, and my family's, needs?
2. Has this home been certified by an established green building program and verified by an independent third party? Be sure to get a copy of the certification.
3. Is the home well insulated, including energy-efficient windows?
4. What is the efficiency of the heating equipment and the hot water heater?
5. Are the appliances and lighting ENERGY STAR® rated?
6. For a new home: what are the projected utility costs for gas, electricity and water? For an existing home: what have the yearly utility costs been? Ask to see copies of utility bills.
7. What will the ongoing water and maintenance needs be for landscaping?
8. What non-toxic materials were used to build this home?
9. What salvaged, recycled or rapidly renewable materials were used to build this home?
10. Is the wood used for the home's construction from a sustainably managed source?



want to learn more?

Public Resources

- City of Seattle Green Building Program: www.seattle.gov/dpd/greenbuilding
- King County Green Tools Program: www.greentools.us

Home Certification Programs

- BUILT GREEN™: www.builtgreen.net
- ENERGY STAR® Homes: www.northwestenergystar.com
- LEED® (Leadership in Energy and Environmental Design): www.usgbc.org

Product Information

- ENERGY STAR® certified appliances, lighting, heating equipment, and other products: www.energystar.gov
- GreenGuard® indoor air quality certified paints, finishes, adhesives, flooring, and other products: www.greenguard.org
- WaterSense labeled toilets, faucets, and other products: www.epa.gov/watersense
- National Fenestration Rating Council certified windows: www.nfrc.org

Further Reading

Choosing Green: The Home Buyer's Guide to Good Green Homes by Jerry Yudelson (New Society Publishers, 2008)

Your Green Home: A Guide to Planning a Healthy, Environmentally Friendly New Home by Alex Wilson (New Society Publishers, 2006)

Green Remodeling: Changing the World One Room at a Time by David Johnston and Kim Master (New Society Publishers, 2004)

The Northwest Green Home Primer by Kathleen O'Brien & Kathleen Smith (Timber Press, 2008)

¹ *Your Driving Costs*, AAA Exchange. Retrieved March 2008 from www.aaaexchange.com/Main/Default.asp?CategoryID=3&SubCategoryID=9&ContentID=23.

² *Housing Facts, Figures and Trends*, NAHB. May 2007.

³ *Households by Size, 1790-2004*, US Census Bureau. Retrieved March 2008 from www.infoplease.com/ipal/A0884238.

⁴ *Draft Inventory of US Greenhouse Gas Emissions and Sinks: 1990-2006*, U.S. EPA, Feb. 2007.



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Powered by King County



King County

www.greentools.us

206.296.4466 or 711 TTY Relay



This information can be made available on request to accommodate people with disabilities.

Photo third from top: Robert Harrison Architects

Photo lower right: Greenleaf Construction



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