



# GUIDE FOR AN

## Eco-Friendly Home Building

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# Abstract

Eco-friendly home building in Perth is essential for promoting sustainability and reducing environmental impact. With Perth's growing population and unique climate, energy-efficient designs can minimize resource consumption while lowering utility costs. By using sustainable materials, installing solar panels, and optimizing natural ventilation, eco-friendly homes contribute to a greener future. They also enhance indoor air quality and create healthier living spaces for families. Adopting eco-conscious construction practices helps combat climate change, conserves water, and reduces waste. Additionally, these homes are increasingly valued in the real estate market, making them a wise investment. Eco-friendly home building is key to a sustainable Perth.

## 1. Introduction

Building an eco-friendly home in Perth is an excellent way to contribute to a sustainable future while enjoying long-term benefits. With the city's unique climate and growing focus on green living, eco-conscious home design has become increasingly important. An eco-friendly home minimizes environmental impact by using sustainable materials, energy-efficient systems, and water-saving solutions. It promotes healthier living spaces, reduces utility costs, and adds significant value to your property. This guide explores practical tips and strategies for creating a green home in Perth, from selecting eco-friendly construction materials to incorporating renewable energy solutions. Start building a sustainable future today!

## 2. Comprehensive List of Eco-Friendly Building Materials

With the proliferation of green or eco-friendly building materials, no longer is there a need to compromise. You can even furnish an entire house with eco-friendly products.

Buying products for your green home remodel can be a challenge: how can you distinguish the genuinely eco-friendly building materials from those that are green only in name? The eco-friendly building products on this list are either sourced from renewable materials or from recycled content. Some products, notably Forest Stewardship Council (FSC) lumber, are sourced responsibly and the supply chain is transparent. Other products like low- or no-VOC paints and coatings are healthier than their chemical-laden counterparts.

### Hard Flooring

#### Bamboo Flooring

Bamboo is not a wood, but a fast-growing grass that is harvested under cultivated conditions as a cash crop. Bamboo grows to harvestable maturity in only about five years, making it a very eco-friendly building material.

#### FSC Wood Flooring

FSC stands for Forest Stewardship Council, a non-profit organization that seeks to make sure timber is harvested in an environmentally sustainable way that is also socially beneficial. When you buy flooring

products labeled as FSC certified, you can be assured that it has been harvested with the best interests of both forests and citizens in mind.



### **Salvaged or Reclaimed Wood Flooring**

Old wood planks salvaged from demolition jobs can make great material for floors, lending them an antique charm. Salvage yards and architectural antique stores may stock large quantities of salvaged solid wood flooring and other wood planks.

### **Recycled Ceramic or Porcelain Tile**

Used ceramic tile may be available from salvage companies and architectural antique stores. The styles are often very unique.

### **Resilient Flooring and Carpet**

#### **Linoleum Flooring**

As an alternative to vinyl tiles and sheet flooring, linoleum is a more eco-friendly choice. Linoleum is manufactured from linseed oil resins mixed with wood and cork particles. Linoleum is easy to recycle, as well. As long as the linoleum is free of adhesives, it can even be composted.<sup>1</sup>

#### **Cork Flooring**

Cork is a renewable material harvested from Mediterranean cork oak trees. The bark renews itself rather quickly after it is stripped from the trunks of the trees. Cork is an important renewable cash crop in some Mediterranean nations, so its use is both eco-friendly and economy-friendly.

### **Natural or Recycled Carpeting**

A great many carpeting products are made from synthetic fibers made from chemicals, but there are also natural-fiber carpets available, including wool, seagrass, coir, jute, and sisal. Salvage companies may also carry moderately worn carpeting from demolition jobs.

### **Recycled Rubber Flooring**

A variety of flooring materials are available that are fabricated from recycled rubber products, such as old tires. Rubber flooring tiles or rubber sheet flooring can be a great choice for recreation or workshop spaces. Recycle rubber underlayment padding is also available for use under carpeting.

### **Paint, Stains, and Sealers**

#### **Low-VOC Paint**

VOC stands for Volatile Organic Compounds, referring to organic chemicals such as formaldehyde, which can outgas into the air. VOCs are what give oil-based paints their unpleasant smell. Low-VOC paints have a smaller ratio of these organic compounds.

#### **Zero VOC Paint**

Some paints do away with all VOCs. They can be expensive but may be the best choice for people with high sensitivity to VOCs.

#### **Natural Paint**

Natural or organic paints use only natural earth materials and are biodegradable. A real natural paint is entirely free of petrochemicals, which are present even in most zero-VOC latex paints.

#### **Non-Toxic Stains and Sealers**

Non-toxic stains and sealers are made without VOCs and combustible materials.

### **Walls and Ceilings**

#### **Recycled Content Drywall**

Drywall panels such as EcoRock are made with as much as 80-percent recycled materials.

#### **FSC Wood Framing**

For structural framing work, you can opt for lumber that carries the FSC certification.

#### **Salvaged Structural Members**

Salvage yards very often will have large quantities of 2X framing lumber. If you are willing to pick through large quantities of lumber for good pieces, you can save a considerable amount of money while ensuring that no trees have been killed to remodel your house.

#### **Special Finishes**

#### **Recycled Glass Countertops and Tiles**

A variety of countertop materials and wall and floor tiles are available that make use of pulverized and recycled glass.



### **Grasscloth Wallpaper**

Most wallpaper is vinyl-based, but you can also use grasscloth wallpapers that use renewable grasses.

### **Caulks and Adhesives**

#### **Soy-Based Caulks and Sealants**

Most caulk uses chemical acrylics. But for an eco-friendly alternative, buy soy-based sealants.

#### **Low-VOC Adhesives and Sealants**

As with paints, low-VOC adhesives have lower ratios of VOCs such as formaldehyde and petrochemicals.

### **Insulation**

#### **Soybean Foam Spray Insulation**

Instead of fiberglass batt insulation, spray insulation made of soybean foam can offer the same insulating value.

#### **Shredded Paper or Cellulose Insulation**

Shredded and treated with fire retardants, shredded newspaper, and other cellulose materials makes for excellent pour-in insulation for attic joist cavities.

#### **Shredded Denim Insulation**

Shredded blue jeans and other cloth materials also makes good pour-in insulation for attic spaces.

#### **Recycled Plastic Insulation**

Along with cellulose insulation, another injectable insulation is made from pellets of recycled plastics, such as milk cartons.

#### **Sheep's Wool Insulation**

As an alternative to fiberglass batts, rolls of sheep's wool insulation can be used to insulate wall cavities and ceiling cavities. With a cost of about \$60 per roll, sheep's wool is a bit expensive but has an excellent R-value.

## **Wood and Millwork**

### **Salvaged Millwork and Trim**

Salvage yards and architectural antique stores often carry a substantial inventory of wood trim and millwork, often in styles that are hard to find elsewhere.

### **FSC Wood Millwork and Trim**

If buying new wood trim and millwork, look for products carrying the FSC certification.

## **Roofing**

### **Recycled Metal Roofing**

Look for metal roofing panels made from recycled aluminum, steel, copper, or alloys that combine different metals.

### **Slate Tile Roofing**

Slate and other stone roofing products contain natural earth ores and are chemical-free.

### **Clay Tile Roofing**

Roof tiles made from clay consist of natural earth ores that are baked; they contain no petroleum or chemicals.

### **Fiber Cement Shingles**

As an alternative to asphalt shingles, fiber cement is entirely free of petrochemicals.

### **FSC Wood Shakes**

If you would like natural wood shakes for your roof, look for products that carry the FSC certification, which ensures that the lumber has been harvested in a manner that is environmentally and socially sound.

### **Living (Plant-Based) Roofing**

As a coming trend, green roofs integrate living plant material into the roofing surface. Green roofs have been popular in parts of Europe for decades, but are now becoming very popular all across the world. Green roofs have extremely good insulating properties.

## **Exterior Cladding**

### **FSC Wood Siding**

If opting for wood siding, choose products that carry the FSC certification.

### **Reclaimed Wood Siding**

You may be able to find weather barn wood, and other recycled siding materials at salvage yards and stores specializing in used building supplies.

### 3. What Is Green Architecture? How to Build an Eco-Conscious Home



Green architecture is an eco-conscious approach to home building and design that aims to reduce the strain put on the environment. This includes how homes are built and outfitted as well as how they function, from the architecture to the building materials and the appliances inside. These green building choices minimize negative impacts on the environment, create homes that work smarter and more efficiently, and make the most of natural and sustainable resources. With green architecture, environmental considerations are just as integral as factors like cost or color. Learn more about the principles of green architecture, plus decorating and design ideas to consider for your own home.

#### Principles of Green Architecture

Climate change, a growing awareness of diminishing resources, and a desire to live more sustainably have brought environmentally conscious building to the forefront. But many of the concepts behind green architecture aren't new. In fact, they're very old—as in ancient-civilization old. Before HVAC systems or even glass windows, living areas were built to produce natural airflow, maximize daylight, and rely on natural ways of heating and cooling.

Today, there are numerous opportunities—large and small, natural and technology-based—for making greener choices. Mary Homa, vice president and design consultant at P.E.A. Builders, a company specializing in sustainable building, shares five overarching design principles of green architecture.

#### 1. Attention to Property Details

Consider the topography of the land. Can the house be built to take advantage of natural features? How can it be constructed with minimal harm to the natural habitat? This includes designing the house

for the best orientation to the sun, specifically for windows and solar panels, for maximum heat and light. "In the north, we orient most of the living space (great room, kitchen, dining) to the southern exposure, with most windows on this side of the home," says Homa.

## **2. Material Selections**

There are two facets to selecting green building materials. The first is choosing the best materials, including long-lasting materials that withstand wear and use. "Things like hardwood floors or well-built cabinetry that won't have to be replaced in a few years," says Homa. Or opt for materials that work harder to protect the home, like cool roof shingles that reflect heat in especially sunny areas. Secondly, source materials as locally as possible to reduce energy usage, carbon emissions, and even packaging that results from shipping.

## **3. Maximizing Space**

A "well thought-out floor plan that doesn't waste space" is another key element of green architecture, according to Homa. An efficient layout is more effectively heated and cooled to save on energy over time. Plus, a right-sized (versus oversized) home saves on building materials and energy upfront. Layouts should also be designed to last, with universal design principles in mind, to avoid major renovations down the line.

## **4. Tight Building Envelope**

A home's building envelope is a critical part of green architecture. "Think superior exterior wall systems, efficient windows, and lots of insulation," says Homa. She recommends triple-pane fiberglass windows (or double-pane composite for cost savings), and high solar heat gain glass (or SHGC) on south windows in northern climates.

However, new, efficient windows make less of an impact if the rest of the home isn't insulated, and the same is true for energy-efficient HVAC choices. This principle ensures the whole house is sealed so that climate control isn't wasted by air leaking out of or into the home.

## **5. Green Technology**

Green architecture isn't limited to natural materials. Homa points to things like photovoltaic (PV) solar panels, radiant flooring, and geothermal heating and cooling systems as technology to consider when building a home. Car chargers are another newer element Homa puts in this category. In many cases, green technology is about prioritizing renewable energy sources and making those resources accessible to the home now or in the future. "Every home that we build is solar ready; the PV can be installed at the time of the build or at a later date," says Homa.

## **Green Remodeling Ideas**

"One size fits all" is a big misconception about green architecture, according to Homa. For example, geothermal technology is a common request, but it's not always the answer. "We discuss with clients the pros and cons for their lot, needs, and budget. Geothermal may be the best option, or another heating/cooling system." Similarly, green building isn't all-or-nothing. Inefficient layouts can still benefit from a tight building enclosure, and making smart material selections isn't negated by not having solar energy.

Although many green architecture principles are implemented in foundational elements, green building doesn't only apply to new builds. There are plenty of opportunities to make sustainable, eco-conscious choices in remodeling projects, too.



If you're looking to remodel with sustainability in mind, Homa recommends numerous smaller projects that can make your house more efficient.

- Install an on-demand water heater. Also called tankless water heaters, these heat water immediately when engaged, so there's no water wasted while waiting for the shower to get hot and no unnecessarily heating a large tank of water just so it's available as needed.
- Improve the building envelope. Replace windows or add insulation to areas that need it.
- Update to energy-efficient LED light fixtures and bulbs.
- Add an ERV (Energy Recovery Ventilator) or HRV (Heat Recovery Ventilator). "We call this the "lungs of the home," says Homa. These can be used to pre-heat or pre-cool air being brought into the home to reduce HVAC usage.



### **Green Decorating Ideas**

Decorating presents the opportunity to think green as well. When shopping, look for key labels and certifications that indicate a product is eco-conscious or sustainably produced—you'll likely recognize some of the most common ratings like Energy Star and WaterSense.

Kristin Bartone, creative director and principal of Bartone Interiors, recommends finding Forest Stewardship Council (FSC) building products and furniture. "By selecting products made from FSC certified wood, you are decreasing deforestation, global warming, and increasing conservation efforts by preventing extinction of certain plants and animals important to the rainforest ecosystem," Bartone says.

### **Slow Decorating and Secondhand Items**

Choose long-lasting, locally sourced furniture and decor. Consider slow decorating, a design trend that promotes mindful selection and quality products rather than buying quickly available, low-quality products that fit an immediate need. Or outfit your home by buying secondhand and using architectural salvage, which not only recycles materials but also goes hand-in-hand with buying locally.

### **Water-Conserving Fixtures**

If you're updating kitchen or bath fixtures, look for opportunities to conserve water. "Conserve water by using a dual flush toilet," says Lina Galvao of Curated Nest. "This reduces the volume of water used to flush." You can also find low-flow faucets, water-saving showerheads, and greywater recycling systems, including products that recycle shower and tub water for use in toilets.

### **Low-VOC Materials**

Select furniture and materials like paint that have low or no VOCs (volatile organic compounds). Bartone also suggests avoiding upholstered goods with added flame-retardant chemicals. These steps reduce off-gassing, which can decrease indoor air quality. In addition, Galvao points to Greenguard Certification, provided when an item meets chemical emissions standards.

### **Energy-Saving Tech**

You can also look for ways to make energy-saving upgrades, like occupancy-sensing light switches (so you never have to worry about someone turning off lights) and replacing old appliances with more efficient Energy Star-rated models. Even a smart home system that controls temperature and electricity usage or monitors for water leaks can up a home's efficiency, says Galvao.

### **Green Building Terms to Know**

Green architecture can also be discussed as green building, green design, or sustainable building. The terminology varies based on the type of project, the professionals involved, or even the local vernacular. When building green, here are a few terms to know:

Circular construction is a concept that includes reusing, sharing, and upcycling building materials. Galvao gives the example of using locally-sourced reclaimed wood for building or in furniture, which diverts waste from the landfill.

A net-zero home, or zero-energy home, produces as much power as is needed to run the house. For example, a house that generates power through solar panels and makes enough energy to run the entire home.

A passive home is a house built to need as little energy as possible. Not only does it produce its own power, but it also has an incredibly robust building envelope and design intended to minimize required energy usage.

Blower door tests determine how energy efficient your home is by measuring how much air is entering and escaping your home.

There are also terms to note when looking for professionals to work with on green building projects. You might see LEED (Leadership in Energy and Environmental Design) listed behind a builder or designer's name with other professional credentials, in the description of a completed building project, or in the details of a design firm, architect, or builder. LEED recognizes energy-efficient building practices and projects that meet their energy-efficient standards. LEED is certified by the Green Building Council (GBC), and there are multiple levels of certification. However, Homa notes that LEED is more prevalent in commercial design than residential design. There are many other green-related credentials you might encounter, including the National Association of Home Builders' Certified Green Professional (CGP) certification.

## 4. Eco-Friendly Features To Add To Your Home



Eco-friendly, energy-saving home features aren't just good for the environment—they're also good for your wallet, and for making your listing stand out from the competition. If you're thinking about selling or renovating your home, trying to lower your energy output, or simply want to save money on your monthly bills, you've come to the right place. Here are eight popular home features that can lower your bills, reduce energy waste, and make your home more desirable to future buyers

### 1. Energy-Efficient Lighting

Timers, dimmers, and smart lighting systems make it easy to adjust brightness and get only the wattage you need at any given time. Installing these systems gives a home more of a luxury feel, and it also allows the homeowner to spend less money on electricity in the long run. Another helpful tip: LED lightbulbs use up to 90% less energy than traditional bulbs, and they also last up to 25 times longer. Consider replacing your indoor and outdoor lights with LED bulbs whenever possible.

### 2. LEED Certification

The Perth Green Building Council awards Leadership in Energy and Environmental Design (LEED) certification to buildings and homes that meet its standard for energy efficiency and environmental friendliness. In addition to sounding sexy to potential buyers, LEED-certified homes require less maintenance, cost no more to build than other homes, and save homeowners 20-30 percent on utility bills, making them a winning proposition for both buyers and sellers.

### 3. Sustainable, Natural Material

Eco-minded buyers love to see homes built using sustainable materials like bamboo and salvaged wood. The same type of buyer will appreciate and look for a home designed to maximize natural lighting and outdoor views in as many rooms as possible. Finally, consider landscaping that preserves the property's original trees and plants as much as possible.

#### **4. Garden Space**

Gardens are an increasingly popular item on homebuyers' wish lists. Many people are on a mission to eat as much local, sustainable food as possible, and they love seeing properties that could make their farm-to-table fantasies come true.

#### **5. Solar Panels**

The installation (and cost of the panels themselves) isn't cheap, but rooftop solar panels can generate a large amount of energy—and potentially a good amount of savings over the long run, too. In addition to gaining your own renewable energy source, you may also be eligible for a residential federal tax credit, property tax exemption, or other government incentive when you install solar panels.

#### **6. Proper Insulation**

A well-constructed house with adequate insulation holds its temperature longer and requires less cooling or heat to reach the desired temperature. Make sure that all windows and doors are properly installed, and that you fix any major leaks, drafts, duct or ventilation issues before listing your home. These issues will come up during inspection and can affect the home value and the final price.

#### **7. Smart Thermostats**

These easy-to-use temperature systems make any home look instantly more modern; They also save you an average of 10-12 percent on heating and 15 percent on air conditioning, according to popular smart system Nest.

#### **8. ENERGY STAR Appliances**

That blue square symbol that appears on certain washing machines, dishwashers, refrigerators, and more household appliances isn't just a marketing tool; It's an official sign that the product was verified energy-efficient by the Perth Environmental Protection Agency. These appliances require less energy to operate, and therefore save you (and any future tenants or buyers) money on utility bills.

## **5. Ways To Make Your New Home More Energy Efficient**

Creating energy-efficient homes has become the need of the hour across Western Australia. Optimising energy can reduce carbon footprints and help you save money in the long run. This is especially true in Perth, which boasts hot and dry summers.

If you are moving into a new home after the end of your tenancy, make sure you focus on energy-saving measures and protect non-renewable resources like coal or oil .Emphasise on leveraging tips and tricks to make your home energy-efficient. It is good to know your household electricity pricing and incorporate proven measures ranging from proper insulation to cool roofing materials, sealing leaks, and investing in energy-star-rated appliances and cleaning tools for better results

Today, we are sharing 10 incredible ways to help you make your new abode more energy-efficient. Also, keep your windows clean and dust-free to let natural light brighten up all your rooms.

Let's Get Started!



### **Upgrade Windows to Ensure Good Air Flow**

Make sure your new home has natural ventilation through windows. This will automatically save your electricity consumption because natural airflow can remove hot air built up in the rooms and maintain clean, fresh air.

So, it is good to install double-glazed windows in your abode to minimise heat loss in winter and keep your rooms cool during hot summers. Also, add vertical blinds and curtains to control the light and air in the house as per your requirements.

Make sure you keep your windows clean inside and outside, including skills, frames and panes to prevent air pollutants. Vacate cleaning Perth professionals also wash windows to help tenants pass their rental inspection because windows play a crucial role in attracting potential tenants for the property.

### **Proper Insulation is a Must**

Did you know that ceiling and roof insulation can reduce electricity bills by up to 45 per cent? A well-insulated home prevents or slows the heat flow within the premises, keeping all rooms cool in winter and saving electricity consumption on air conditioners. This will also reduce dependency on HVAC systems and dust accumulation in the filters, promoting healthy indoor air.

To avoid heat loss, seal all the gaps around doors, windows, sills, and electrical outlets. You can use silicone to seal floorboards, skirting boards, and architraves around doors.

### **Use LED Lights in All Rooms**

Replace the traditional incandescent bulbs with energy-optimising LED lights in your new home in Perth. It can help you cut down electricity consumption while lowering your utility bills. The best part is that they last longer and use up to 80 per cent less electricity.

It is good to regularly wipe down your light fixtures and fittings to prevent the accumulation of dust and debris with a damp microfiber cloth. This will boost their efficiency and provide appropriate lighting in all rooms.

If you want something fancy and innovative, invest in a smart lighting system that adjusts brightness based on the time of day and your needs.

### **Invest in Energy-Efficient Home Appliances**

It is good to consider the government-regulated Energy Rating Label to compare the energy efficiency of household appliances such as washing machines, air conditioners, refrigerators, ovens, and microwaves.

Remember that an appliance is highly efficient if it has more energy stars on the label. So, carefully invest and save on your electricity bills.

If you want to save more energy, keep all your appliances clean and grease-free. Many vacate cleaning Perth experts recommend using vinegar and other natural products to clean ovens, microwaves, and other appliances regularly to enhance their functionality and durability.

### **Install Solar Panels To Your Home**

Believe it or not, installing solar panels is one of the best ways to conserve non-renewable resources such as coal, natural gas, oil, and nuclear energy. Solar panels use sunlight to produce energy. You can save electricity bills, reduce greenhouse gas emissions, and protect the entire environment.

Tip: Homes that invest in solar panels are also eligible for financial incentives, such as rebates from the state government.

### **Reduce Hot Water Usage**

Heating water requires a lot of energy on a regular basis. Statistics show that it consumes more than 25 % of household energy. So, it is good to reduce hot water usage in your kitchen, bathroom and laundry. You can use eco settings on washing machines and dishwashers and focus more on cold water washes. Also, install low-flow faucets and showerheads in your bathrooms.

### **Deep Clean HVAC Air Ducts or Filters**

Dust-laden air ducts or filters can affect the functionality and efficiency of your HVAC system, allowing them to consume more electricity. This will also increase your energy bills.

So, it is good to keep your air filters clean according to the manufacturers' instructions. Make sure you vacuum clean vents to get rid of the gunk. After that, remove stubborn gunk and allergens using white vinegar.

### **Control a Programmable Thermostat**

You should invest in a smart thermostat, which lets you set heating and cooling schedules throughout the day as per your requirements. This will prevent unnecessary energy usage and save your electricity consumption and bills. It can be a great addition to your new home.

### **Maintain Your Large Appliances**

The clogged vent at the back of your refrigerator, washing machine and other large appliances work harder and require more energy. Thus, it is imperative to vacuum those areas on a regular basis using a proper brush attachment to maintain and take care of household appliances.

### **Incorporate Energy-Saving Cleaning Hacks**

This cleaning hack will help you save electricity in the long run. Consider the following tips:

Sweep hard floors using a broom instead of an electric sweeper

Blot the carpet stains with a damp cloth instead of a steam cleaner

Use microfiber cloths to remove dust and save electricity bills

Use rubber gloves to remove embedded pet hair

Wash your windows daily to allow natural air.

If you are at the end of your tenancy, book experts for a quality vacate cleaning Perth and save your hard-earned bond money. Professionals use sustainable cleaning practices to save energy and reduce carbon deposits while tackling dust and grime from surfaces.

These are some of the best hacks to help you make your new home more energy-efficient. It is good to optimise electricity consumption and install solar-powered appliances to save the planet and your utility bills.

## **6. Eco-Friendly Cleaning Products Experts Swear By**

Choosing cleaning products can be overwhelming—there are so many options, and endless ingredients to worry about. The push for eco-friendly cleaning products comes from both companies and consumers, with the goal of promoting sustainability while keeping your family safe from harsh ingredients.

These products pay special attention to ingredients and use plant-based formulas that can be biodegradable, non-toxic, and sustainable. They're good for us and good for the environment, which makes them an excellent choice (especially for homes with pets and kids).

But what exactly makes something eco-friendly? Experts share insights with us, along with a list of green cleaning products that will brighten up your home and your cleaning routine. Choosing eco-friendly home cleaning products is just one piece of the sustainability puzzle, and if you're looking to make other changes, check out these articles on sustainable living, sustainable brands, and sustainable packaging.

### **Arm & Hammer Baking Soda**

#### **Pros:**

It's affordable and available in most grocery and convenience stores

It won't irritate skin

It's a mild alkaline that cleans, deodorizes, and acts as a gentle abrasive

**Cons:**

It tends to leave a residue, even if you wipe it up fast

It won't be a huge surprise for avid cleaners, but baking soda really is a miracle cleaner and a naturally occurring substance. You can use it to deodorize your fridge, clean kitchen counters, remove stains from carpets, polish silverware, and even whiten your teeth. You can use baking soda to make your own cleaning products at home too.



**Dr. Bronner's Pure Castile Soa**

**Pros:**

It's so incredibly safe that you can use it as a shampoo and hand wash

It can be mixed with baking soda to create a hard-working soft scrub

Highly concentrated, so a little goes a long way

**Cons:**

If you clean a surface with castile soap, you'll likely have to follow up with a more acidic cleaner to get rid of residue left behind

It works less efficiently with hard water

Dr. Bronner's Pure Castile Soap is made with all plant-based materials and is fully biodegradable—and the packaging is 100 percent recyclable too. Note that it's three times more concentrated than most other liquid soaps, so you're definitely getting the best bang for your buck, but always remember to



dilute it. You can use it as an eco-friendly laundry detergent, for washing pets, mopping, and more. Wojenski even uses it as a produce wash!

### **Grove Co. Multi-Purpose Cleaner**

#### **Pros:**

It boasts two times more grease-cutting power than most natural homemade cleaners

Reviewers love the natural fragrances—there are four light, refreshing scents, plus an unscented version

Comes with a reusable glass bottle

#### **Cons:**

It should only be used on non-porous surfaces, like glass, plastic, metal, and varnished wood

Grove Co.'s Multi-Purpose Cleaner is heavily concentrated, so you can use a one-ounce bottle of concentrated solution to produce 16 ounces of cleaner. "Most cleaners are primarily water and create extra waste both in packaging and distributing," Wojenski says. This, in part, makes the concentrate a more sustainable choice. This two-pack of concentrate comes with a reusable glass spray bottle, so next time, you'll only need to purchase the concentrate. The formula is 92 percent plant-based and biodegradable.

### **Aunt Fannie's Vinegar Wash Floor Cleaner**

#### **Pros:**

It can be used with floor cleaning machines, buckets, and spray bottles

The wash naturally reduces air odors without a strong artificial fragrance

#### **Cons:**

It has a slight vinegar odor that some may find unpleasant

Aunt Fannie's Vinegar Wash Floor Cleaner is EPA-certified and healthy for both pets and children, so you can clean wood, stone, and tile without fear. The formula, comprised of vinegar, essential oils, and plant-based ingredients, boasts great grime-lifting powers. One verified Amazon reviewer was even wowed by its amazing ability to get rid of pet odors. Just remember to dilute it before using.

## **7. Conclusion**

Building an eco-friendly home in Perth is a step toward a sustainable and responsible lifestyle. By incorporating energy-efficient designs, using renewable energy sources, and opting for sustainable materials, you can reduce your environmental footprint while saving on utility costs. Eco-friendly homes not only benefit the planet but also create healthier and more comfortable living spaces. They are an investment in the future, promoting a greener community and enhancing property value. With Perth's climate and growing commitment to sustainability, adopting eco-conscious home building practices is both practical and essential. Start your journey today and contribute to a more sustainable tomorrow.

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