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Adapted plants

Plants that reliably grow well in a given habitat with minimal attention from humans in the form of winter protection, pest protection, water irrigation, or fertilization once root systems are established in the soil. Adapted plants are considered to be low maintenance but not invasive. See also, [native plants](#), [invasive species](#).

Aerator

A device installed on sink faucets to reduce their water use and the energy needed to heat water. Faucet aerators, coupled with low-flow shower heads, can reduce your home's water use by 50%. If an aerator is already installed on your faucet, it will have its rated flow imprinted on the side. This should read 2.75 gpm (gallons per minute) or lower.

Biomass

Plant material such as trees, grasses and crops that can be converted to heat energy to produce electricity.

Blackwater

Wastewater generated from toilets and kitchen sinks that contains high levels of bacterial pollutant. See also, [greywater](#).

Borate

Borate is used as a wood preservative that is non-toxic to humans but highly toxic for wood-boring insects like termites.

Built environment

The man-made creation of or alterations to a specific area, including its natural resources. On a home site, this includes everything that has been disturbed during construction.

Buildable land

The portion of the site where construction can occur. When used in density calculations, the calculation for buildable land excludes public streets and other public rights of way, land occupied by non-residential structures, public parks, and land excluded from residential development by law.

Carbon footprint

A measure of an individual's, family's, community's, company's, industry's, product's or service's overall contribution of carbon dioxide and other [greenhouse gases](#) into the atmosphere. It takes into account energy use, transportation methods and other means of emitting carbon. A number of carbon calculators have been created to estimate carbon footprints, including one from the [U.S. Environmental Protection Agency](#).

Carbon neutral

Achieving an overall neutral (zero) total carbon release, brought about by balancing the amount of carbon released with the amount sequestered. It is typically achieved by reducing energy use and obtaining energy from renewable sources combined with offsetting remaining [emissions](#) through such means as [carbon offsets](#).

Carbon offset

The act of mitigating one's carbon emissions, often purchased through a carbon offset provider that uses the money for carbon-sequestering activities including tree planting, renewable energy, energy conservation and methane capture.

Catchment area

The surface area on a roof that captures rainwater for direction into a rainwater harvesting system.

Chlorofluorocarbons (CFCs)

Hydrocarbons that deplete the stratospheric ozone layer.

Climate change

The variation of the average temperatures, rainfall and other measures of global or regional climate over time, whether caused by natural processes, humanity's influence or a combination of both.

Composite wood

A product consisting of wood or plant particles or fibers bonded together by a synthetic resin or binder. Examples include plywood, particle-board, OSB, MDF, composite door cores.

Cool pavements

Materials and construction methods used in roads, driveways, parking lots, sidewalks, and other hard surfaces, which perform to reduce the absorption, retention and emittance of solar heat, thus minimizing urban [heat island effect](#). Techniques to achieve cool pavements include the use of coloration, materials, porosity and other processes that promote solar reflectivity and cooling through augmented air filtration and evaporation.

Daylighting

The controlled admission of natural light into a space through glazing with the intent of reducing or eliminating electric lighting. By utilizing solar light, daylighting creates a stimulating and productive environment for building occupants.

Drip irrigation system

An irrigation system that slowly applies water to the root system of plants to maximize transpiration while minimizing wasted water and topsoil runoff. Drip irrigation usually involves a network of pipes and valves that rest on the soil or underground at the root zone.

Dual-flush toilet

A toilet with two flush volumes. The normal flush rate is designed for solid waste, and the reduced flush rate is for liquid waste. Well-designed dual-flush toilets meet the requirements of ASME A112.19.14, and must be labeled as such in the product literature (e.g. user manual).

Embodied energy

The amount of energy required to manufacture and transport a product, material or service. For example, culinary water's embodied energy includes the energy required for pumping and transporting the water from its source, the treatment process, and delivery to homes and businesses.

Emission

The output of [greenhouse gases](#) and other pollutants from mechanical, industrial, transportation or other processes.

Energy efficient

Maximizing, or at least increasing, the ratio between productive output and energy use.

Geothermal

"Geothermal" literally means "earth heat." It is often used to describe two different types of alternative energy source. "True" geothermal energy is less commonly used. It draws on energy generated in the earth's core, about 4,000 miles below the surface, via steam and hot water produced inside the earth to heat buildings or generate electricity. More common are geothermal heating and cooling systems that capitalize on the relatively constant temperature of the ground to transfer heat. These systems don't actually use the geothermal energy generated deep within the earth; instead, they use a heat-transfer liquid to move heat from a few feet below ground into a house during cold months, and from the house to the ground during hot months.

Greenhouse gas

A gas in the atmosphere that traps some of the sun's heat and preventing it from escaping into space. Greenhouse gases are vital for making the Earth habitable, but increasing greenhouse gases contribute to [climate change](#). Greenhouse gases include water vapor, carbon dioxide, methane, nitrous oxide, and ozone.

Greywater

Wastewater generated from domestic processes such as washing dishes, laundry and bathing. Greywater makes up 50-80% of residential wastewater. Greywater can be used for irrigation, reducing water waste. See also, [blackwater](#).

Heat island effect

The incidence of higher air and surface temperatures caused by solar absorption and re-emission from roads, buildings and other structures. See also, [cool pavements](#).

HEPA (High Efficiency Particulate Absorbing)

An extremely effective air filter that removes nearly all air particulates.

Hydronic system

A heating or cooling system that relies on the circulation of water as the heat-transfer medium. A typical example is a boiler with hot water circulated through radiators.

Hydrochlorofluorocarbons (HCFCs)

Refrigerants used in building equipment that deplete the stratospheric ozone layer, but to a lesser extent than CFCs.

Infill site

A site that is largely located within an existing community. For the purposes of [LEED](#) for Homes credits, an infill site is defined as having at least 75% of its perimeter bordering land that has been previously developed.

Invasive species

Defined by Executive Order 13112 as “an alien species whose introduction does or is likely to cause economic or environmental harm or harm to human health.” Not all non-native species are considered invasive. Invasive species differ by region, and can be identified through local and state agencies. The U.S. government has created a [list](#) of regional agencies is provided. See also, [adapted plants](#), [native plants](#).

LEED

The [U.S. Green Building Council's Leadership in Energy and Environmental Design \(LEED\)](#) Green Building Rating System™ is the nationally accepted benchmark for the design, construction, and operation of high-performance green buildings. LEED gives building owners and operators the tools they need to have an immediate and measurable impact on their buildings' performance. LEED promotes a whole-building approach to sustainability by recognizing performance in five key areas of human and environmental health: sustainable site development, water savings, energy efficiency, materials selection, and indoor environmental quality.

Micro-irrigation

Irrigation system with small sprinklers and micro-jets or drippers designed to apply small volumes of water. The sprinklers and micro-jets are installed within a few centimeters of the ground, while drippers are laid on or below grade.

Native plants

Plants that have evolved within their own ecological habitats, and are not invasive within their own native ranges. Native plants provide food and shelter to indigenous wildlife, stabilize shorelines and fields, etc., growing in balance with surrounding plant and animal species. See also, [adapted plants](#), [invasive species](#).

Photovoltaics

A solar power technology that uses solar cells or solar photovoltaic arrays to convert light from the sun directly into electricity.

Post-consumer recycled content

Material used and then [recycled](#) by consumers. This is distinguished from by-products of the manufacturing process that are recycled (pre-consumer recycling).

Potable water

Water suitable for drinking, generally supplied by the municipal water systems.

Rain garden

Swales (low tracts of land that water flows to) with vegetation designed to absorb rain water in ways that reduce stress on storm drains and replenish ground water.

Recycling

The collection, reprocessing, marketing and use of materials that were diverted or recovered from the solid waste stream.

R-values

A measure of thermal resistance (the number of watts that will be lost per square meter at a given temperature difference). The inverse of U value (i.e., $R=1/U$).

Solar panel

A device that collects energy from the sun and converts it into electricity or heat.

Solar window screens

A mesh screen that is used to block insects as well as light and heat from the sun.

Sustainable forestry

The practice of managing forest resources to meet the long-term forest product needs of humans while maintaining the biodiversity of forested landscapes. The primary goal is to restore, enhance and sustain a full range of forest values—economic, social and ecological.

Thermal envelope

The thermal enclosure created by the building exterior and insulation. Improving the thermal envelope is one of the most important aspects to creating an energy efficient home.

U value (U factor)

A measure (often used for windows) of thermal conductivity that is the inverse of R value. A lower U value means a more energy efficient window.

Vegetated roof

A roof partially or fully covered by vegetation. By creating roofs with a vegetated layer, the roof can counter-act the heat island effect as well as provide additional insulation and cooling during the summer.

Volatile organic compounds (VOCs)

Carbon compounds that participate in atmospheric photochemical reactions (excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides and carbonates, and ammonium carbonate). The compounds vaporize (become a gas) at normal room temperatures.

Walk-off mats

Interior mats designed to reduce dust and debris. Walk-off mats should be placed at the entrances and allow for a few strides on the mat to be most effective.