



ENVIRONMENT & SUSTAINABILITY CHAPTER Sustainability Initiatives Content Area

Sustainability Initiatives Guiding Principle.
In 2035, Fairfax is a city with sustainable practices that preserve, conserve, use and recycle resources.

Sustainability Initiatives Goal 1. Increase the use of sustainable practices, technology, design and materials in the City.

Outcome SI1.1. Minimized energy demand with the application of energy efficient design features and technologies..

Action SI1.1.1. Promote the efficient use of energy by residents, business owners and workers to achieve a 30% reduction in energy use from current levels by 2035; a 40% reduction from current levels by 2040; and a 55% reduction from current levels by 2050.

Action SI1.1.1.1. Continue to support and expand programs that promote and/or implement energy efficiency improvements, e.g. Home Performance with ENERGY STAR, Weatherization Assistance Program.

Action SI1.1.1.2. Provide incentives to residents and businesses to conduct energy and sustainability retrofits, e.g. reimbursement for energy efficiency upgrades.

Action SI1.1.1.3. Promote voluntary benchmarking for commercial buildings.

Action SI1.1.2. Develop criteria for construction of new buildings to LEED (Leadership in Energy and Environmental Design) Silver or ICC (International Code Council) International Green Construction Code standards.

Action SI1.1.2.1. Pursue incentives to encourage energy efficient design and building, such as expedited permitting for LEED or "green" building construction.

Action SI1.1.2.2. Review local building codes and zoning regulations to identify potential barriers to achieving greater energy efficiency.

Outcome SI1.2. Increased use of locally generated renewable energy sources.

Action SI1.2.1 Adopt a policy to commit to achieving 100% renewable electricity use by 2035.

Action SI1.2.2. Revise applicable codes, zoning ordinances and design guidelines to help facilitate local renewable energy deployment.

Action SI1.2.3. Provide incentives to residents and businesses to install renewable energy systems.

Action SI1.2.3.1. Implement programs that offer energy financing solutions for residential and commercial sectors, e.g., PACE, green back, etc.

Outcome SI1.3. Reduced waste and increased reuse and recycling of materials.

Action SI1.3.1. Implement the Solid Waste Management Plan, which establishes waste reduction goals and outlines how the City manages solid waste and recycling.

Outcome SI1.4. Minimized water demand in the community.

Action SI1.4.1. Develop and provide water conservation incentive programs and education for residents and businesses to promote best practices, i.e., green roofs, rain barrels, rain gardens, etc., to achieve a 2% reduction in local water use per year.

Action SI1.4.2. Promote water efficient practices and products, including the use of permeable surfaces.

Action SI1.4.3. Develop and implement incentives to encourage the new construction of water efficient buildings and landscaping.

Sustainability Initiatives Goal 2. Provide access to healthy food, community facilities and recreational opportunities that support physical activity and healthy lifestyles.

Outcome SI2.1. Access to healthy, regionally-grown foods.

Action SI2.1.1. Evaluate regulations that permit urban agriculture on publicly owned property and/or space for onsite community gardens in new multifamily and mixed-use developments.

Action SI2.1.2. Work with Fairfax County to develop a healthy food access plan.

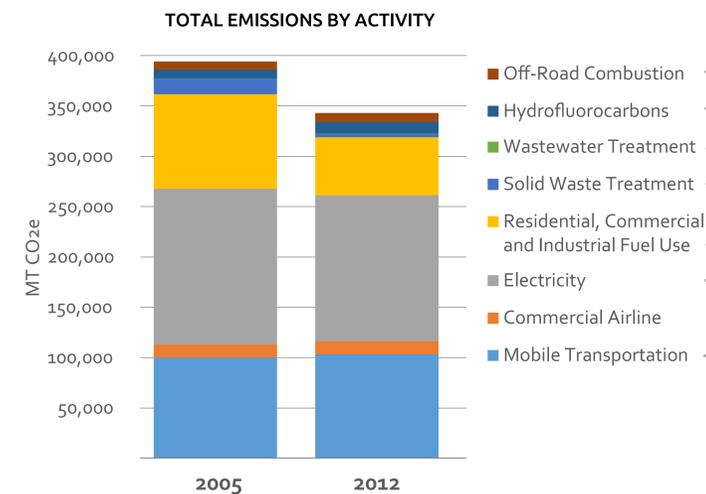
Outcome SI2.2. Access to parks, recreation, community facilities, trails and open space.

Action SI2.2.1. Promote walking and trail use as part of a healthy community initiative.

Action SI2.2.2. Partner with Fairfax County and NOVA Parks to improve and expand the local and regional park system.

FIGURE 101: Greenhouse Gas Emissions

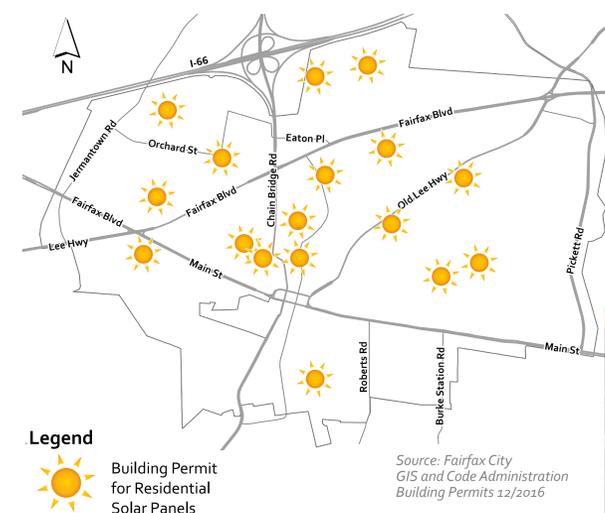
This summary of the City of Fairfax's greenhouse gas (GHG) inventory measures GHG emissions from community-wide activities, including the residential, commercial, industrial, and government sectors. All emissions are reported in metric tons of carbon dioxide equivalent (MT CO_{2e}). CO₂ equivalents offer a universal standard of measurement that allows for the comparison of different greenhouse gases based on their ability to trap heat in the atmosphere. Greenhouse gas emissions across all sectors in the City of Fairfax decreased by 13% between 2005 and 2012; from 394,172 MT CO_{2e} to 342,951 MT CO_{2e}.



Source: Greenhouse Gas Emissions Inventory for the Metropolitan Washington Region (2005-2012): http://www.mwcog.org/store/item.asp?PUBLICATION_ID=521



FIGURE 103: Solar Energy & Solarize NOVA Data



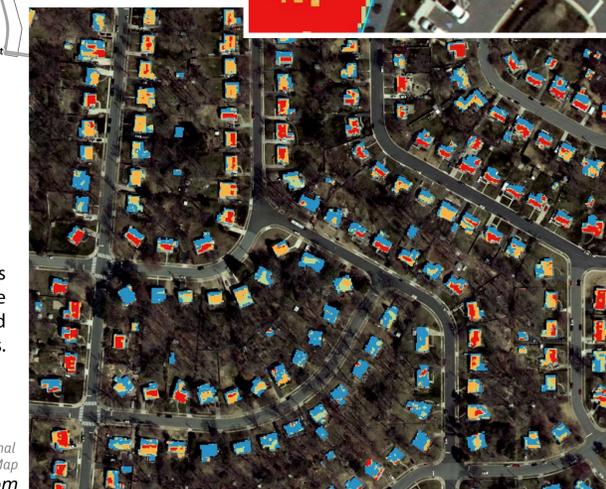
Legend

- Very Poor (Shaded or No Sun)
- Poor (Shaded)
- Good (Not Shaded)
- Very Good (Full Sun)

Legend

- Building Permit for Residential Solar Panels

Source: Fairfax City GIS and Code Administration Building Permits 12/2016



The Northern Virginia Solar Map is a web tool that homeowners and business owners can use to get an estimate for the potential size of a solar photovoltaic system that can be placed on the roof and the potential annual electricity savings.

Source: Northern Virginia Regional Commission Solar Map
www.novasolarmap.com

Metrics:

- Energy use per capita.
- Number of buildings certified by a green building rating system (LEED, ENERGY STAR, Passive House, etc.).