



ENVIRONMENT & SUSTAINABILITY CHAPTER Natural Environment Content Area

Natural Environment Guiding Principle. In 2035, Fairfax is a city with a healthy ecosystem of naturally flowing streams, native plants, wildlife, contiguous natural habitat areas and a healthy tree population.

Natural Environment Goal 1. Preserve and promote a healthy environment through policies and programs that improve the quality of the City's natural resources.

Outcome NE1.1. Clean and protected water resources and watersheds in the City.

Action NE1.1.1. Reaffirm the City's Chesapeake Bay Preservation program (Appendix C) and zoning ordinance regulations.

Action NE1.1.1.1. Enforce and strengthen the provisions of the regulations.

Action NE1.1.2. Continue to partner with the Northern Virginia Soil and Water Conservation District to implement the Virginia Conservation Assistance Program that encourages residents and businesses to manage stormwater runoff more effectively by installing green infrastructure, e.g., green roofs, rain gardens, permeable surfaces, etc.

Action NE1.1.3. Enhance zoning regulations that encourage the installation of green infrastructure in new developments.

Action NE1.1.4. Continue to enforce the erosion and sediment control ordinance and strengthen it as new technology and best practices become available.

Action NE1.1.4.1. Reduce soil erosion in developed areas.

Action NE1.1.5. Retain and acquire riparian areas as open space or parkland.

Action NE1.1.6. Reduce and prevent point and nonpoint source pollution.

Outcome NE1.2. Clean, healthy air that supports plant, animal, aquatic and human life.

Action NE1.2.1. Implement the Metropolitan Washington Council of Government's (MCOG) Regional Climate and Energy Action Plan, within the City's legal, financial and political limitations, to achieve the regional goal to reduce GHG emissions 20 percent below 2005 levels by 2020, and 80 percent below 2005 levels by 2050.

Action NE1.2.2. Continue to partner with MCOG to conduct greenhouse gas inventories and regularly report on the City's progress towards achieving greenhouse gas emissions reductions.

Outcome NE1.3. A diverse well-managed urban forest dominated by native species.

Action NE1.3.1. Develop an urban forest management plan to protect and enhance the City's urban forest.

Action NE1.3.2. Partner with public and private groups and/or establish a tree fund to increase the quantity, density and diversity of trees on public and private land to achieve a tree canopy goal of 40%.

Action NE1.3.2.1. Promote the use of native species.

Action NE1.3.4. Maintain the City's Tree City USA designation.

Action NE1.3.5. Educate the public on the importance of tree planting and preservation to improve air quality, reduce urban heat islands and support a more walkable environment.

Action NE1.3.6. Update zoning regulations and public facilities manual for tree preservation, removal and planting of preferred species for trees located along streets, parking lots and riparian areas.

Outcome NE1.4. A diverse population of native vegetation protected from invasive plants.

Action NE1.4.1. Develop a strategy to control invasive species that threaten natural ecosystems, including identifying and mapping areas impacted by invasive plant species.

Action NE1.4.2. Educate the community on the detriments of invasive species and the benefits of sustainable, ecologically-beneficial site design and landscaping practices.

Action NE1.4.3. Support the development of community and habitat gardens on underutilized parcels and public lands.

Action NE1.4.4. Partner with public and private groups to manage invasive plants.

Outcome NE1.5. Restored and preserved natural open spaces and contiguous greenway corridors that provide natural habitats for plants and wildlife.

Action NE1.5.1. Restore disturbed areas along streams and in conservation easements with native species.

Action NE1.5.2. Pursue opportunities to purchase and preserve in perpetuity privately-owned open space.

Natural Environment Goal 2. Prepare for the impacts from natural and man-made hazards.

Outcome NE2.1. Reduced risk and improved preparedness to meet the challenges associated with natural and man-made hazards.

Action NE2.1.1. Participate in the National Flood Insurance Program's (NFIP) Community Rating System, a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum NFIP requirements.

Action NE2.1.2. Understand the risks and develop a resiliency plan to set priorities and allocate resources to manage risks associated with natural and man-made hazards.

Action NE2.1.3. Continue to work with the Northern Virginia Hazard Mitigation Advisory Committee, to regularly update the Northern Virginia Hazard Mitigation Plan.

Outcome NE2.2. Reduced exposure to hazardous chemicals and pollutants in the environment.

Action NE2.2.1. Continue to install and maintain animal waste clean-up stations at community centers, school yards, parks, trails and other community gathering places.

Action NE2.2.2. Reduce light pollution and protect nighttime skies.

Action NE2.2.2.1. Enhance exterior lighting standards, including standards for light glare and light trespass.

Action NE2.2.2.2. Pursue certification as an International Dark Sky Community.

Action NE2.2.3. Continue to enforce noise standards.

Action NE2.2.4. Promote the proper disposal or recycling of household hazardous waste.

Action NE2.2.5. Educate on the identification, risks and remediation of radon in buildings.

Action NE2.2.6. Develop integrated pest management and nutrient management plans.

Action NE2.2.7. Promote the responsible use of pesticides and fertilizers.

FIGURE 93: Overall Stream Health

Overall stream health was calculated using physical, biological, and habitat assessments.

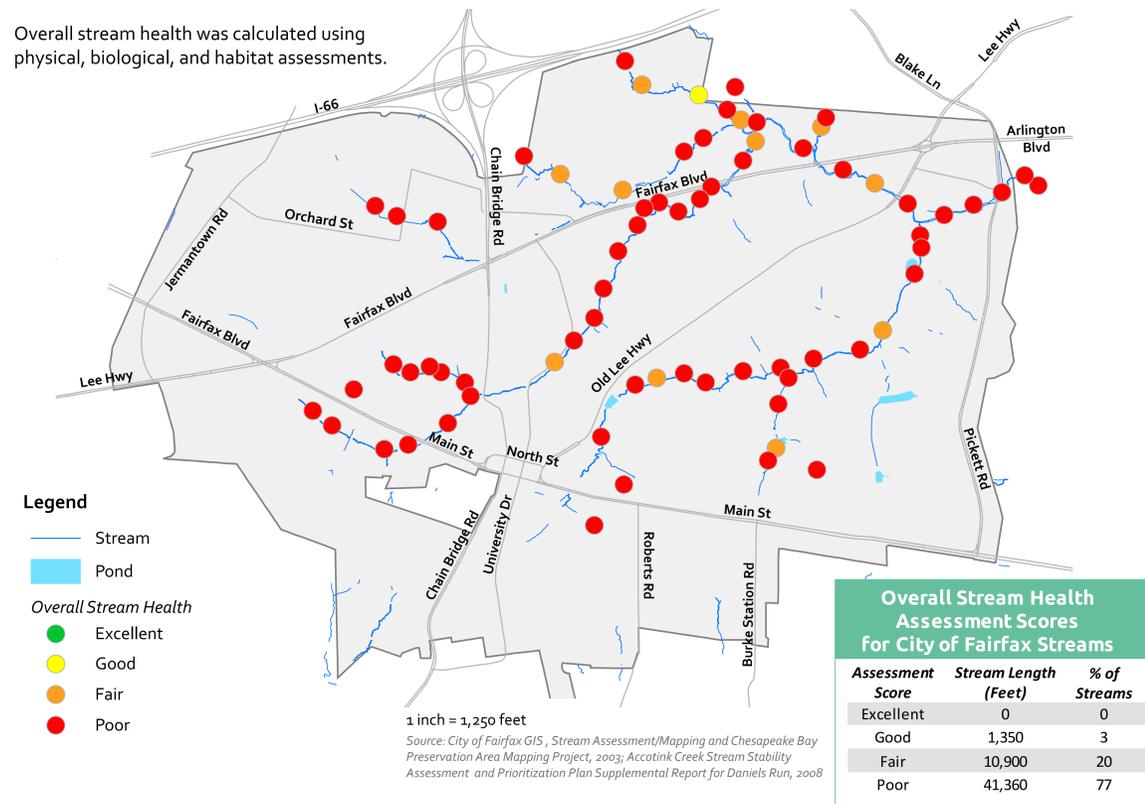


FIGURE 99: Invasive Species

Invasive species are, generally, non-native species that cause ecological or economic harm. Some of the most common and highly invasive species in City Parks are:



Bamboo
Typically planted for its screening abilities, however, it grows very fast and can quickly colonize an area if not contained



Mile-a-Minute/Devil's Tail
Grows very fast enveloping small native plants and forming a dense carpet



English Ivy
An evergreen climbing plant that climbs up trees in search of more light and covers native ground cover



Kudzu
A climbing, semi-woody, perennial vine that kills or degrades other plants by smothering them under a solid blanket of leaves



Honeysuckle Bush
Produces copious amounts of "junk food" berries that birds eat and disperse, spreading this highly invasive shrub



English Ivy at Ashby Pond

Source: City of Fairfax Parks & Recreation Department, 2016

Metrics:

- Percentage of impervious area
- Water quality data
- Number and percentage of streams with a health rating of excellent
- Citywide greenhouse gas (GHG) emissions
- Number of days ozone levels exceed healthy levels
- Percentage of tree canopy
- Number of acres that are designated as an active invasive management area (areas where invasive plant species are removed and controlled).