Today more and more cities are recognizing the value of sustainable development and environmental resources. In addition to good schools, homes, and amenities, residents are increasingly looking for opportunities to experience community, enjoy the outdoors, and connect with nature. Protection of environmental resources, efficient use of land, and sustainable design practices are critical actions that can pay off as quality of life dividends and create a healthier environment and community.

With sound planning and proper protections in place, Manassas seeks to avoid the potential negative impacts of development by encouraging sustainable best practices and taking steps to conserve natural resources. Manassas strives to be a greener city with standards and incentives designed to increase tree canopy and open space. The City encourages walkable, bike-friendly development located near public transit and is supportive of redevelopment that makes more efficient use of land, energy, and other resources. Manassas is also committed to making healthy lifestyle choices convenient and accessible to residents and demonstrates this through its “Healthy Eating Active Living” (HEAL) Community initiatives.

The strategies in this chapter will help Manassas develop a more holistic approach to environmental sustainability and health. Recognizing that environmental and health impacts extend beyond municipal boundaries, the strategies highlight ways to work with regional partners to address identified needs. These strategies, when combined with the other chapters of this plan, will create a more sustainable, resilient, and healthy Manassas.
Goal Statement

Manassas will be a sustainable and resilient city that values the environment, encourages access to nature, and provides a safe, pleasant, and healthy community for residents of all ages, abilities, and incomes.
Objectives and Strategies:

**General**

ESH 8.1 Adopt a broad-based sustainability ethic that incorporates best practices and modern approaches into City policies and programs.

ESH 8.1.1 Develop a holistic sustainability plan that inventories natural resources and provides a blueprint for creating a thriving, sustainable community. Consider implementing an assessment tool, such as Leadership in Energy and Environmental Design (LEED) for Cities and Communities, to set goals and measure progress.

ESH 8.1.2 Coordinate with regional partners, such as the Metropolitan Council of Governments, Northern Virginia Regional Commission, and the Prince William Health District, to align priorities and resources for maximum impact.

ESH 8.1.3 Create an environmental and health review checklist for land use applications and support development plans that demonstrate a commitment to sustainable development practices.

ESH 8.1.4 Expand resources for residents, business owners, and property managers to promote environmental stewardship, including topics such as tree planting and maintenance, installation of renewable energy, recycling, and waste prevention.
Vegetation & Tree Canopy

ESH 8.2 Support diverse native vegetation as a core function of the urban landscape to boost property values, cut energy consumption, reduce costs for stormwater management and erosion control, and make the City a more beautiful place.

ESH 8.2.1 Update the City’s urban tree canopy study and establish targeted goals to increase coverage.

ESH 8.2.2 Establish an aggressive urban tree planting program with dedicated funding for planting and replacing trees on public land and public rights-of-way.

ESH 8.2.3 Strengthen development standards impacting vegetation and tree canopy, such as reevaluating standards for preserving mature trees, providing incentives to developers that protect or replant trees beyond what the zoning standards require, and formally adopting a list of specimen or champion trees to be preserved.

ESH 8.2.4 Ensure the City qualifies for and maintains its status as a Tree City USA community.

ESH 8.2.5 Plant and promote the use of regionally-adapted, native, and drought tolerant plants, including turf-to-forest conversions and pollinator gardens.

ESH 8.2.6 Support the conservation of local and regional biodiversity by promoting the protection and enhancement of native plant communities and pollinator and wildlife habitats while managing invasive plant and animal species.
Green Infrastructure

ESH 8.3 Create a green infrastructure network (see Map 8.1) of interconnected natural areas, parks, and green streets, recognizing the value of nature for a healthy, resilient, and prosperous community.

ESH 8.3.1 Protect, restore, and connect natural areas and enhance access to natural open space in all development, redevelopment, and capital projects.

ESH 8.3.2 Encourage conservation easements and other programs that protect sensitive environmental areas, such as wetlands, flood plains, stream buffers, and steep slopes, to maintain or enhance the beneficial ecosystem services these areas provide.

ESH 8.3.3 Preserve and increase vegetated buffer areas along streams, wetlands, and floodplains, integrating trails and passive recreation opportunities in an environmentally-sound manner where appropriate.

ESH 8.3.4 Strengthen buffer standards and consider their expansion as they apply to incompatible uses, such as protecting natural open space in public parks from negative impacts of adjacent land uses.
Map 8.1 shows parks, tree canopy, streams, stormwater facilities, and floodplains that make up the City’s existing green infrastructure network. Manassas seeks to complete this network by preserving natural areas and closing network gaps with open space, green streets, and constructed green infrastructure.
**Water Resources**

ESH 8.4 Protect, enhance, and restore the integrity of the City’s water resources.

**ESH 8.4.1** Review City water resource management practices and policies and recommend improvements that promote sustainable stormwater management, encourage the use of green infrastructure, and protect water and habitat quality.

**ESH 8.4.2** Reduce loss of open waterways and natural stream habitats by discouraging additional underground piping of city streams and encouraging daylighting of piped streams.

**ESH 8.4.3** Enhance the protection of streams and natural wetlands by updating development standards to protect and restore buffer areas, exploring the use of erosion hazard setbacks from streams, and considering public acquisition of natural areas along waterways for linear parks and open space.

**ESH 8.4.4** Encourage developers to incorporate environmentally-sensitive approaches to stormwater management into site planning, including low impact development techniques and preservation and restoration of natural land forms.

**ESH 8.4.5** Limit the extent of impervious surfaces by encouraging the use of semi-pervious or pervious surfaces in new development or redevelopment projects in order to minimize stormwater runoff.

**ESH 8.4.6** Protect the City’s floodplains by ensuring floodplain maps are updated and maintained. Consider amending allowable development density calculations to exclude floodplains.

**ESH 8.4.7** Educate, encourage, and incentivize property owners to implement water resources stewardship practices, with a focus on retrofitting sites that lack adequate stormwater treatment with rain gardens and other low impact development measures.

**ESH 8.4.8** Implement measures to improve pollution prevention and contingency planning for hazardous substances that may pose a threat to surface and groundwater quality, and ensure these practices and policies are also implemented at all City facilities as an integral component of City operations.
Air Quality & Emissions

ESH 8.5 Create a more safe and secure future by encouraging the reduction of fossil fuel consumption and emissions that are harmful to human health and the environment.

ESH 8.5.1 Encourage new development to design, construct, and operate with a reduced emissions footprint by encouraging high performance, green buildings, green sites, and green neighborhood standards and practices, such as the U.S. Green Building Council’s Leadership in Energy and Environmental Design (LEED) certification program, Earthcraft, Energy Star, or other similar systems.

ESH 8.5.2 Create policy and financial incentives to encourage increased building and site performance that reduces greenhouse gas emissions and the City’s overall carbon footprint.

ESH 8.5.3 Promote compact block and street networks and a built environment that facilitates walking, biking, and bus riding to provide alternatives to the use of single occupancy vehicles and reduce greenhouse gas emissions.

ESH 8.5.4 Encourage the use of renewable energy by reducing regulatory barriers and providing resources for the installation of solar and geothermal equipment.

ESH 8.5.5 Reduce vehicle-related emissions through increased fuel efficiency, reduced vehicle miles traveled, fleet downsizing, anti-idling efforts, and use of alternative fuel sources.

ESH 8.5.6 Support the use of energy-efficient transportation by encouraging the siting of, and promoting the availability of, electric vehicle charging stations and expanding the availability of bicycle facilities throughout the City.

ESH 8.5.7 Encourage citywide waste prevention, recycling, and composting to reduce greenhouse gas emissions by expanding education and outreach programs, encouraging the purchase and use of recycled products, and requiring recycling plans for commercial and multifamily residential projects.
Noise & Light Pollution
ESH 8.6 Promote efforts to reduce the impact of noise and light pollution.

ESH 8.6.1 Apply special use permit conditions and accept rezoning proffers that limit lighting and noise impacts on adjacent properties and the City as a whole. Support development standards that address lighting and noise pollution.

ESH 8.6.2 Continue to work with the Manassas Regional Airport and railroad authorities to minimize noise from air and rail traffic while maintaining the vitality of each.

ESH 8.6.3 Require new development adjacent to the airport or railroad to assess noise impacts and provide reasonable noise mitigation for residential units.
**Public Health**

ESH 8.7 Transform the community by supporting health and wellbeing and promoting opportunities for healthy, active living.

**ESH 8.7.1** Leverage the City’s status as a “Healthy Eating Active Living” (HEAL) Community to implement policies and programs that improve community health.

**ESH 8.7.2** Participate with community health agencies in developing a comprehensive community health needs assessment and integrate with HEAL policies and programs to improve the health of Manassas residents.

**ESH 8.7.3** Create convenient and safe opportunities for physical activity for residents of all ages, abilities, and income levels.

**ESH 8.7.4** Explore partnerships to ensure housing and neighborhoods are safe and sanitary, and develop systems for rapid response and remediation when unsanitary conditions, such as rodents, arise.

**ESH 8.7.5** Plan for access to healthy, affordable, locally-grown foods for all neighborhoods by supporting urban agriculture and considering the creation of community gardens on public lands.

**ESH 8.7.6** Encourage the expansion of medical and health services in the City, particularly within the Sudley Medical character area.

**ESH 8.7.7** Create a more equitable transportation system for those with disabilities by implementing Complete Streets (Map 6.2) and making streets and rights-of-way safe and accessible for everyone.