

IT'S **on** US

HERNDON SUSTAINABILITY PLAN



Adopted December 12, 2017
Town of Herndon, Virginia

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Plan Scope

This plan is divided up into three sections. The first section includes background and introductory information for the plan development and overall plan utility. The next section could be considered the actual plan document. It lays out the specific objectives and recommended action items to achieve those objectives. It also identifies the various components the Town intends to address with respect to environmental sustainability, explains how those components are important, and briefly summarizes current Town initiatives associated with that component. The final section functions as the work plan for plan implementation. This guide is principally designed for use by Town staff to assign, monitor, and report on plan progress. This document will be updated annually with new and revised action items and strategies. Appendices may be added as further research and data collection efforts are completed.

In its current form, the plan is mainly designed to direct Town of Herndon operations and policies though its intent is to fully engage and empower the public as active participants. This dynamic establishes the duality of the plan's use as both a local government and a community instrument for systematically addressing responsible environmental practices and policy.

Why a Sustainability Plan?

The Town of Herndon is committed to ensuring environmental sustainability achievement for current and future generations. The Herndon Sustainability Plan is envisioned and crafted to promote a dynamic of conscientious behavior that mandates an effort to coalesce community needs with ecological resource management. The plan provides a framework for attaining certain measures of environmental sustainability and set benchmarks for long term implementation of the principles it purports. It outlines Herndon's sustainability goals and strategies for not just becoming a part of the work that's done but guiding all the work that's done.

This plan largely follows the direction provided in the Town Council's 2035 Vision statement for Cultivating a Sustainable Environment, as follows:

As an environmentally focused leader in the region, Herndon chooses its own destiny as a sustainable small town – an oasis in the midst of urban Northern Virginia. Through thoughtful planning, the town has a network of sidewalks, trails, streets, and connections to public transportation that provides residents the opportunity for one-car or no-car living. The town's extensive recreational facilities, including its public golf course, community center, nature center, and numerous neighborhood parks enable residents to enjoy a high quality of life. As Herndon grows, its stewardship and environmental best practices assure high

quality, sustainable development that is characterized by enduring and attractive structures and green space. Our residents and businesses embrace a cleaner, greener lifestyle.

The significance of environmental sustainability derives from its connection to quality of life, stability, and equity. The pollutants in our water, air, and soil have a direct, though often unseen, impact on our health. Mitigating environmental risks may make financial sense, but also provides security and peace of mind to residents. Herndon's ability to live within ecological constraints today is critical because it determines, in part, what environmental resources and risks future generations will inherit. The Town of Herndon government is trying to make activities in the Town more sustainable for these reasons.

The Town of Herndon government has the capacity to make its operations more sustainable by altering its practices and procedures. It also has the capacity, through leadership, policy, and regulation, to encourage residents and businesses to behave in more sustainable ways. Rather than define activities as simply "sustainable" or "unsustainable," this plan will identify more sustainable approaches to Town operations and governance, and move the Town of Herndon towards a healthier, safer, and more ecologically sound future.

What is Environmental Sustainability?

Environmental Sustainability can be defined several different ways. For the purposes of this plan in the context of a local government, the following definitions are offered.

The Environmental Protection Agency explains sustainability as "based on a simple principle: Everything that we need for our survival and well-being depends, either directly or indirectly, on our natural environment. To pursue sustainability is to create and maintain the conditions under which humans and nature can exist in productive harmony to support present and future generations."

In the first issue of its first volume, the Journal of Environmental Sustainability provided a synthesis of environmental sustainability principles that defined the term as "meeting the resource and service needs of current and future generations without compromising the health of the ecosystems that provide them." This description further expressed the term as a "condition of balance, resilience, and interconnectedness that allows human society to satisfy its needs while neither exceeding the capacity of its supporting ecosystems to continue to regenerate the services necessary to meet those needs nor by our actions diminishing biological diversity."

Ecological economist Herman Daly was one of the first scholars to study what it means to be sustainable. Daly suggested that "environmental sustainability is the rates of renewable resource harvest, pollution creation, and non-renewable resource depletion that can be

continued indefinitely.” This broad characterization was made from a national capital perspective.

The legibility of environmental sustainability on the local level is based more on the mutual and individual choices the Herndon community makes to promote and ensure healthy living and a shared balance between the needs of the community and its environmental resources. Local solutions addressing ecological imperatives and quality of life services can collectively mitigate the perils of resource intake rates that surpass rates of resource regeneration. The tenets of this plan work within the parameters of this understanding of environmental sustainability.

Plan Background

The Herndon Town Council’s 2035 Vision Statement, adopted November of 2014, established the initial directive for pursuing environmental sustainability policy. That direction was formalized with the adoption of the 2035 Vision Strategic Plan in July of 2015 that mandated development of a dedicated plan and program to manage Herndon’s environmental sustainability strategies and practices. From the beginning, plan development was managed by a professional staff team from the Departments of Public Works and Community Develop, but relied heavily on collaboration from other Town departments, Herndon residents and business owners, and appointed committee members. It was an iterative process that involved the public at various milestones during plan development.

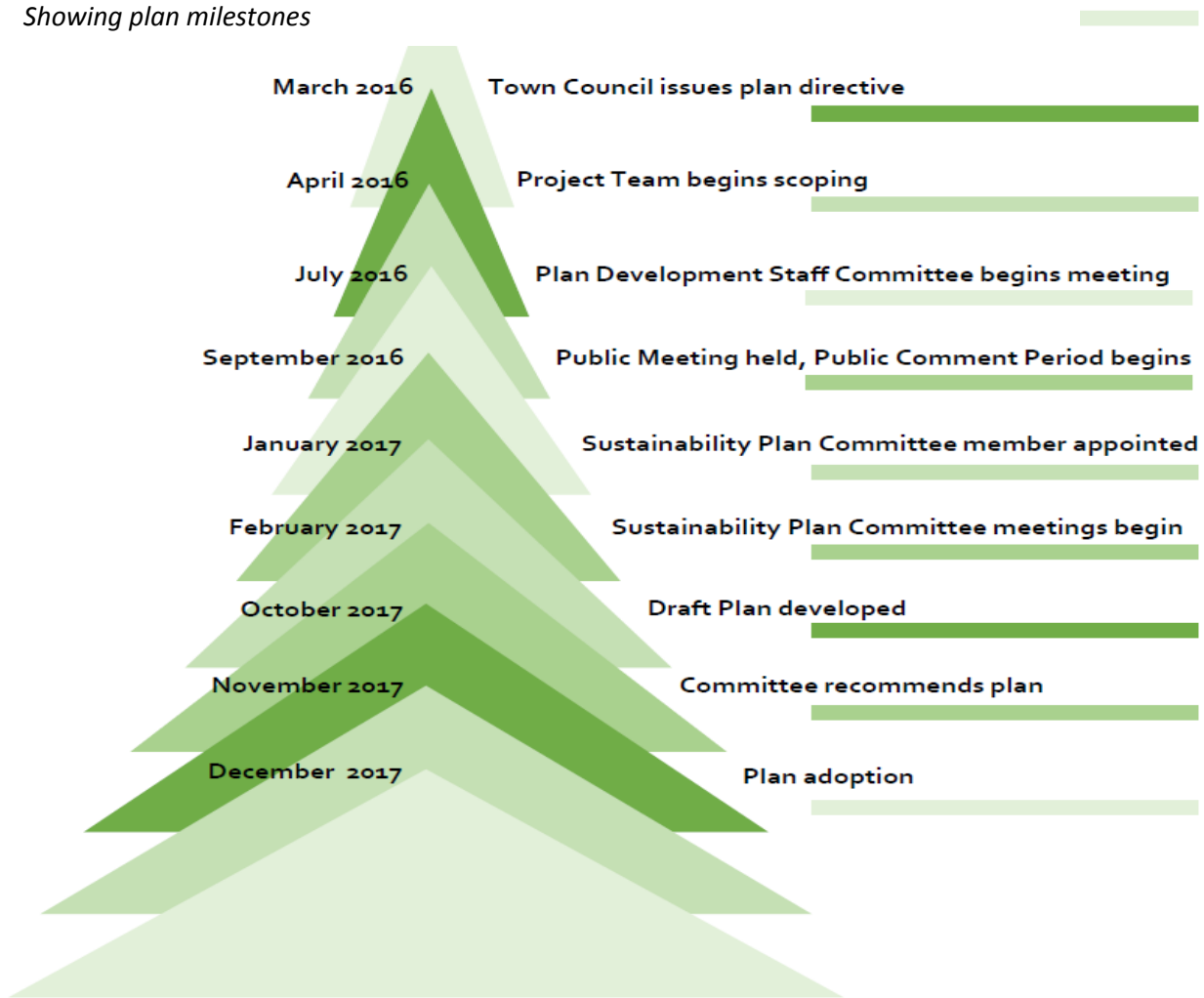
Before the plan could be framed, a discovery phase was launched to principally determine what work the Town was either already conducting or was underway that in some manner improve environmental quality locally or regionally. Discovery also included early evaluation and discussion of areas that had already been identified for possible opportunities for enhanced stewardship. This phase was steered by a staff committee comprised of representatives from the Town’s departments and divisions. The effectiveness of the plan depends on its comprehensiveness and the coordination between various Town operations so it was vital to get all staff to the table early on for an open conveyance of ideas, understanding, and possible challenges. In addition to reporting on and assessing current Town policies, programs, processes, etcetera; each committee member was provided a sustainability plan from another local municipality to review. Members then presented assessments of those plans with specific observation on the strategies and action items that may be considered in Herndon. Through work with the staff committee, a scope and framework for Herndon’s plan was crafted. The group also initiated the action item matrix to serve as the basis for the plan content ideas that would be presented during the next phase of plan development, the community kick-off.

Following the discovery phase, the project team created a website for the project and held a public workshop. This community kick-off phase was intended to seek public input on the plan

scope, notify the community of the planning effort, and promote the plan. A draft plan outline and other documents originating from the staff committee’s work were published on the website and made available at the public workshop. Every Town household and business were sent a postcard invitation to the workshop, which was well attended. The workshop was divided into a group information session followed by separate stations representing the different chapters of the plan. Each station had posters listing the action items that were under consideration for inclusion in the particular chapter and was hosted by staff members. Staff explained the various programs and projects listed and collected feedback from the attending public. The comments received at the workshop and through the website proved invaluable to progression of the plan. The plan scope was refined and additional ideas were incorporated into the draft for further evaluation.

Plan Development Timeline

Showing plan milestones

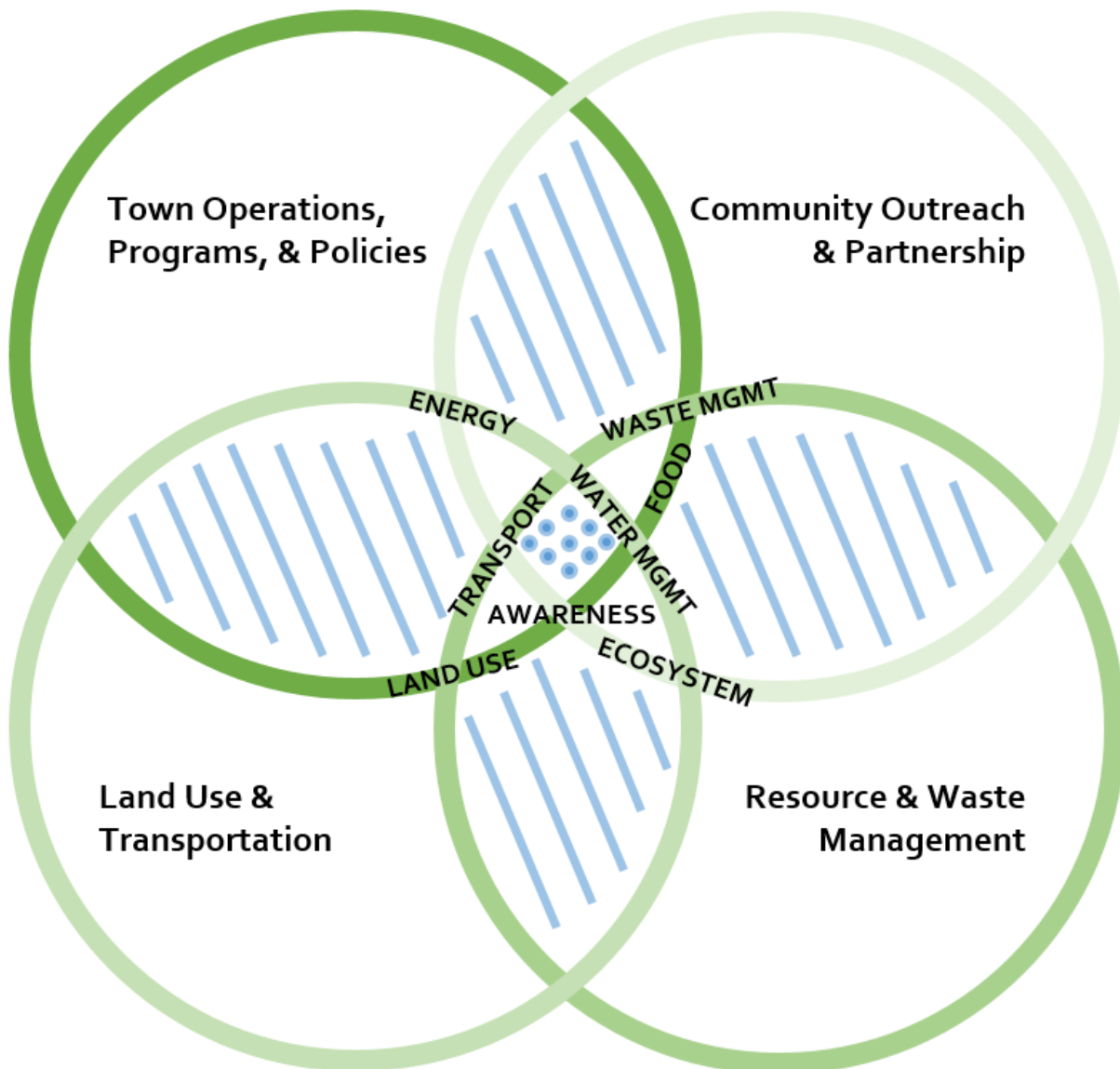


Plan writing commenced with the Town Manager appointment of the Herndon Sustainability Plan Development Committee and Subcommittees. The main group was comprised of staff,

and local residents and business owners, and tasked with guiding the plan content and format. The committee members also served as chairs of the subcommittees. There were four subcommittees, each representing major components of the plan. These were mostly comprised of local residents and served as working groups that provided research and analysis on the different initiatives in review. Each subcommittee issued a report that prioritized action items and offered initial findings on feasibility. Those reports provided the necessary information for the project team to devise the first draft of the plan. With expected overlap between subcommittees and with the intent to maximize plan clarity, the plan was reframed to its current eight chapters.

Plan Subcommittee to Plan Chapter Exchange

Demonstrating overlap between subcommittees



Upon completion of the draft of the plan, which included important coordination and integration with the Town's comprehensive plan and Fairfax County's sustainability initiatives, staff worked with the plan development advisory committee to refine the plan. The plan would be implemented upon adoption by the Herndon Town Council by resolution. This plan will be implemented as a living document that would continue to evolve with regular assessments and updates. It is also designed to function as an open document in which opportunity for public input remains on-going.

Chapter One

ENERGY

Energy Efficiency, Renewable Energy, & Fuel Economy

This chapter contains Herndon’s plan for energy efficiency, renewable energy, and fuel economy. As with most chapters of this plan, the energy strategies outlined below are principally intended to guide Town operations. There are also however important strategies for collaboration with the entire Herndon community.

By what means we receive energy to power our facilities, equipment, and vehicles, has ecological consequences. Air quality in particular is heavily influenced by the various levels of carbon released into the environment caused by the burning of fossil fuels. If not managed properly, these emissions can degrade natural resources and hinder community livability and viability. Air pollution is regulated regionally though Herndon can do its part in addressing these issues locally by seeking opportunities for energy savings, practicing fiscal responsibility, and establishing a culture in which Herndon residents and businesses are encouraged to similarly pursue more environmentally aware energy sources and devices. Air quality can also be managed through high multi-modal transportation service levels and strong landscaping and tree canopy policy, both of which are discussed in other plan chapters.

The Town of Herndon owns several facilities throughout Town, most notably the Herndon Municipal Center, Herndon Community Center, Herndon Centennial Golf Course, Herndon Police Department, Herndon Town Shop, and the Town Hall, all of which require electricity to operate. The Town and all businesses and residents in town receive electricity from Dominion Energy. Fossil fuels still dominate Dominion’s energy production though the utility company is working towards a 15% renewable energy goal by 2025. Currently, Dominion has 37 wind, solar, biomass, and hydroelectric facilities in Virginia and operates a Green Power Program that allows customers to purchase energy originating solely from renewable facilities.

The Town also operates a fleet of heavy and light vehicles from mostly powered by gasoline and diesel fuels though the fleet also includes several gas and electric hybrid vehicles.

Herndon partnered with Northern Virginia Regional Commission through its community energy initiative for a Herndon Solarize NOVA program, which sought to encourage the use of solar power for homes and businesses.

OBJECTIVES

- *Establish energy baselines capturing electricity and fuel use data in Town facilities and by the Town vehicle fleet.*
- *Reduce energy use in Town Facilities and increase energy efficiency through the use of energy efficient upgrades, and improved operations and policies.*
- *Explore renewable energy use in Town facilities using public utility alternative energy sources and possible town-owned solar or wind facilities.*
- *Inform and empower Herndon residents and businesses on the opportunities and benefits of energy efficient upgrades, energy reducing practices, and the use of renewable energy.*
- *Continue improvements to Town vehicle fleet fuel economy with reduced reliance on petroleum fuels and expanded availability and use of alternative energy sources.*

2018 ACTION ITEMS

1. Conduct an energy audit for Town Facilities including the Municipal Center, Community Center, Town Shop, and Police Department. Other facilities may be included. Develop report on the audit findings to include baseline energy use data and recommendations for improved efficiencies. Maintain and update energy usage data.
2. Conduct a study on the availability and sources of renewable energy locally for use by the Town and use by Herndon residents and businesses. Include any available data for current renewable energy use in Herndon to establish baseline for evaluation and set performance measures. Also include an analysis of when and how local governments are encouraging and incentivizing the use of renewables for possible consideration in Herndon.
3. Conduct a review of the Town's current fuel usage, fuel economy practices, and alternative fuel practices and policies of other regional jurisdictions. This review should include establishment of a renewed idling policy.

4. Develop a CIP project sheet for energy efficiency upgrades to Town facilities.

FUTURE ACTION



This plan will be reviewed and updated annually with new and revised action items added as the individual programs and initiatives progress. The plan will evolve and may yield ideas and guide efforts not yet recognized. At the time of initial approval of this document, the long range program for this chapter includes:

- Using the findings from the audit, develop and implement an energy plan that guides policies and operational protocols for improved management of energy use and energy efficiency upgrades.
- Conduct feasibility analysis for the use of renewable energy from both private utility companies and for consideration of installing and operating renewable energy facilities to power Town buildings.
- Pursue partnerships and development of a Town program designed to encourage energy efficient upgrades, energy saving practices, and use of renewable energy by Herndon residents and businesses.

Chapter Two

WASTE

Waste Management: Recycling, Reusing, Reducing

Managing waste has high energy and space requirements and most waste can be a pollutant to water, air, and entire ecosystems if not properly managed. Herndon operates a 30-year integrated refuse and single-stream recycling curbside collection program in partnership with Fairfax County disposal facilities. The Town exceeds the 25% minimum recycling rate required by the Country for total municipal solid waste. The Town also offers yard waste and special collections for residents. Additional disposal services for item such as hazardous waste and electronic waste are available through the County.

The Town has currently been expanding its recycling program by upgrading to curbside recycling carts and installing more recycling receptacles within parks and along public streets. Herndon has managed its litter with regular street cleaning and stream and park clean-up events. The Town also administers and is presently expanding an adopt-a-spot program whereby private entities may sponsor a specific park or road and provide volunteer services for litter pick-up.

OBJECTIVES

- *Establish baselines for waste produced and recycling rates town-wide.*
- *Reduce total town-wide waste tonnage.*
- *Increase the total town-wide recycling rates.*
- *Inform and encourage Herndon residents and businesses to reduce waste and increase recycling.*
- *Continue to employ Town litter management practices and explore possible opportunities to improve the Town strategy.*

2018 ACTION ITEMS

1. Establish baselines for current waste tonnage, landfill costs, diversion rates, recycling tonnage, and any other data that can be used as metrics and exhibits of current waste management practices.
2. Conduct a recycling receptacle network study with an analysis of all current recycling receptacles in Town and recommendations for receptacle locations.
3. Conduct a review on the recycling practices within Town facilities and Town events and establish recycling stations with education components within Town Facilities and at Town events.
4. Conduct a study identifying and evaluating possible local composting partners and reviewing other jurisdiction composting policies and programs.
5. Conduct a review on paper processes and records management in Town facilities and information technology solutions and digital protocols for reducing use and reliance on paper.
6. Conduct review on current litter management efforts and additional strategies to consider.

FUTURE ACTION



This plan will be reviewed and updated annually with new and revised action items added as the individual programs and initiatives progress. The plan will evolve and may yield ideas and guide efforts not yet recognized. At the time of initial approval of this document, the long range program for this chapter includes:

- Develop and implement a plan to further improve the waste program to better manage waste rates and improve recycling rates.
- Establish a composting initiative to encourage private composting practices.
- Implement the installation of new recycling receptacles throughout town.
- Establish new policies for recycling at Town events and at Town offices.
- Implement a plan for reducing Town processes reliance on paper through technological solutions.
- Implement a plan for renewed litter management strategies.
- Evaluate procurement policy for post-consumer recycled content as part of an environmentally preferred purchasing policy.

Chapter Three

WATER

Public Water Management & Storm Water Management

The health of natural and human environments depend on access to a sufficient and clean supply of water. The quantity and quality of this important resource is significantly affected by the localized management of stormwater, water treatment practices, and condition of the public water infrastructure.

In Herndon, residents and businesses have access to public water. Herndon owns and operates the water system infrastructure in town including two storage tanks but receives the water from Potomac River surface water withdrawals via Fairfax County Water Authority. Within the past year the Town achieved improved protections of the water supply with the completion of system-wide leak detection surveys and the installation of an automated meter system among other preventative water loss measures as part of a Preventative Maintenance Program.

Herndon also owns and operates the public storm sewer system within town through a Municipal Storm Sewer System (MS₄) state permit as administered by the Virginia Department of Environmental Quality and mandated by the federal Clean Water Act. The storm sewer system moves and treats storm water from public and private retention and other stormwater management facilities into local waterways. The Town employs various control measures to manage the discharge of pollutants and stem adverse flooding impacts and manages private control measures through a regular inspection program.

Protecting the local waterways and watersheds and subsequently the access to reliable and safe water utilities by managing stormwater is handled mostly at the local level. Herndon manages stormwater through various regulatory instruments. The Town's Chesapeake Bay Preservation Ordinance requires new development to meet stormwater quality regulations and also mandates Resource Protection Area buffers around perennial streams. This ordinance is designed to mitigate the impacts to natural outfall into the Chesapeake Bay watershed through Herndon's local waterways; Sugarland Run, Folly Lick Branch, and Spring Branch. The Town also administers a codified stormwater management program that regulates both quality and quantity through Virginia Stormwater Management Plans for new development. This program controls how rain water is detained, retained, and released in a manner that offsets changes in pervious surface coverage and minimizing non-point source water pollution. The Herndon Erosion and Sediment Control Ordinance similarly seeks to protect water conditions and waterways. Its provisions are intended to prevent degradation of soil and streambed integrity resulting from land disturbing activities.

OBJECTIVES

- *Establish baselines for water use town-wide in general and from Town facilities in particular.*
- *Implement strategies to better manage water use on Town property.*
- *Implement strategies to better manage water use on private property.*
- *Inform and empower Herndon Town residents and businesses to better manage water use.*
- *Continue to implement and improve responsible storm water management practices and policies.*

2018 ACTION ITEMS

1. Conduct a water audit for Town facilities including the Municipal Center, Community Center, Town Shop, Police Department, and Herndon Centennial Golf Course. Other facilities may be included. Audit findings to include baseline water use data and recommendations for improved efficiencies.
2. Conduct a review on current Town facility storm water management practices and the practices of other jurisdictions within the region. This action should include an audit of the Stormwater Management Ordinance, Floodplain Overlay District Ordinance, and Chesapeake Bay Overlay District Ordinance, and a review of the Fairfax County initiatives available to the Town such as the Watershed Protection Program.
3. Conduct a review on current Town facility greywater use and other jurisdiction greywater use.
4. Conduct a study on local government policies and programs focused on reducing water use by residents and businesses.

FUTURE ACTION



This plan will be reviewed and updated annually with new and revised action items added as the individual programs and initiatives progress. The plan will evolve and may yield ideas and guide efforts not yet recognized. At the time of initial approval of this document, the long range program for this chapter includes:

- Develop and implement a plan to better manage water use in town facilities. This plan may involve upgrading fixtures and modifying operational protocols or office practices.
- Establish a water use reduction policy for water use by residents and businesses.
- Review and amend as necessary, the Town's various ordinances related to stormwater management.
- Conduct a study and review jurisdiction cases for implementation and use of green infrastructure and Low Impact Development policies and practices.

Chapter Four

ECOSYSTEM

Local natural Flora & Fauna Resources

Healthy and regenerative local natural systems are important to all manner of community livability conditions from cleaner air and water to recreational outlets and collectively can have positive ecological impacts on regional to global geographical scales. In applying leading environmental stewardship, Herndon continues to strive for the protection of the native flora and fauna and their natural habitats within the town.

Herndon's natural environment and all the living things that define it are a limited but cherished commodity in Town. As a largely built-out community, there remains few opportunities for conserving additional swaths of natural landscaping and local habitat however Herndon, with a combination of local parkland and Resource Protection Areas, has been able to manage land use in manner that retains green space throughout town. Town of Herndon, Fairfax County, and Northern Virginia Park Authority parks and resource protection areas comprise of approximately 32% of the Town. Of that acreage, around 62% is natural landscaping. These areas have assisted in establishing a fairly robust urban canopy that has also been achieved through the Town's Community Forestry Program, tree preservation ordinance, landscaping ordinance, and streetscape guidelines. Herndon has received Tree City USA certification every year for the past 25 years and the Herndon Centennial Golf Course has been designated a Certified Audubon Cooperative Sanctuary.

The Town anticipates an increased urban canopy and enhanced focus on local natural systems with the future implementation of several street improvement projects that have notable landscaping components and the construction of a nature center. These projects have been approved through the Capital Improvements Program and demonstrate Herndon's commitment to local ecological resources. Invasive plant removal and tree planting volunteer programs, pollinator waystations and native plant gardens, and stream cleanups and awareness events like Naturefest are a few of the past and existing initiatives the town has employed to conserve the native, natural environment in Herndon

OBJECTIVES

- *Expand and enhance natural open space within Town on both public and private property.*

- *Improve local environmental conditions to promote healthy ecosystems for native flora and fauna.*
- *Inform and empower Herndon residents and businesses to become stewards of natural resources within Town.*

2018 ACTION ITEMS

1. Conduct a study on the current use of pesticides on Town property and research strategies for better managing pesticide use.
2. Conduct a study on pollinator policy and programs including recommendations for strategies Herndon should consider implementing.
3. Audit the zoning ordinance in conjunction with a study of other jurisdiction zoning code to determine if the landscaping ordinance should be amended to strengthen regulation regarding native species and natural landscaping.
4. Continue to seek Tree City USA Certification and evaluate other certifications that Herndon may consider striving for in the future.

FUTURE ACTION



This plan will be reviewed and updated annually with new or revised action items added as the individual programs and initiatives progress. The plan will evolve and may yield ideas and guide efforts not yet recognized. At the time of initial approval of this document, the long range program for this chapter includes:

- Evaluate pesticide use report then development and implement plan for improved management practices.
- Review and renew Town Nutrient Management Plan.
- Evaluate pollinator report then develop program.
- Evaluate findings of zoning ordinance audit and amend code accordingly.
- Pursue third party certifications and accolades.

- Conduct a study on local government tree fund programs and evaluate how it could best work in Herndon.
- Conduct a street tree audit and tree canopy data collections and analysis. I-tree software may be utilized for this effort.
- Develop and implement an urban forestry plan.
- Expand the Town's program for volunteer-based invasive plant removal on Town property.
- Develop a tree walk or tree garden program that identifies various tree species in Town.
- Expand and maintain the town's native plant garden as a demonstration project.

Chapter Five

LAND USE

Development & Building Policy & Code

Land use dictates how physical landscapes are shaped and the intensity of human impact on the environment. Sensible management of land use policy and regulation is essential in ensuring a healthy and vital environment for everyone working and living in Herndon. Herndon, much like the rest of Northern Virginia continues to undergo swift growth. Development pressure along with its traditional suburban land use model have challenged the Town's ability to follow environmentally sustainable best practices. Separation of land uses, a transportation network coordinated around personal motor vehicle service levels, and low densities have defined the Herndon landscape. With the onset of Metrorail in Herndon and recent redevelopment, the Town has however begun to employ more policies analogous with Smart Growth, low impact development, and transportation-oriented development principles with a focus on form, multi-modal access, use flexibility, and environmental quality.

Most chapters of the Town's Comprehensive Plan contain guidance pertaining to environmentally conscious land use policy. Its Natural Environment chapter focuses on how Herndon can best manage development to mitigate environmental impacts. As guided by the Comprehensive Plan, Herndon recently adopted new zoning districts in the downtown and the metro station area that are more urban in form and provide for a mix of uses and additional public and private green space. While still largely reflective of the Town's suburban growth pattern, Herndon's zoning ordinance has also begun to include provisions focused on healthy environments and quality of life targets.

OBJECTIVES

- *Continue to improve regulatory environment to align with ecologically responsible land development and use.*
- *Encourage and increase green building practices on public and private property.*

2018 ACTION ITEMS

1. Conduct an audit of the Herndon Zoning Ordinance identifying local code that may be amended to advance environmental sustainability principles. Possible Zoning Ordinance Text Amendments may include:
 - Land use flexibility- zoning districts with more mix of uses allowances
 - Required bicycle parking- for new development
 - Electric vehicle charging stations- for new development
 - Green building practices certification- such as LEED for new development
 - Dark skies exterior lighting- standards to reduce light glare/pollution
2. Conduct a study on strategies for encouraging and incentivizing green solutions for development in town.
3. Conduct a study identifying how local jurisdictions have used green building codes either as a requirement or as a voluntary action, and evaluating the feasibility, costs, benefits, and options for use in Herndon.

FUTURE ACTION



This plan will be reviewed and updated annually with new and revised action items added as the individual programs and initiatives progress. The plan will evolve and may yield ideas and guide efforts not yet recognized. At the time of initial approval of this document, the long range program for this chapter includes:

- Evaluate zoning ordinance audit and amend ordinance accordingly.
- Evaluate findings of incentivizing green development practices report including cost/benefit analysis and feasibility consideration, then if deemed valid and feasible, develop and implement program.
- Evaluate findings of green building code study then, if deemed valid and feasible, employ policy or pursue adoption of green building code.
- Conduct a study on workforce housing policies, specifically considering the environmental benefits such as reduced reliance on personal vehicle commuting, with potential for development and implementation of similar policy in Herndon.
- Conduct a study on local jurisdiction Low Impact Development policies and practices and evaluate the benefits and costs of incorporating Low Impact Development policy in Herndon.
- Conduct a study on independent third party certification for green building practices, such as LEED and SITES, with potential for adoption of new policy.

Chapter Six

TRANSPORT

Multi-Modal Transportation & Livability

Transportation systems designed for high service levels of non-motorized travel modes, most commonly bicycling and walking, and shared vehicle modes such as transit and carpools, are beneficial to community livability and public health. A multi-modal approach to transportation planning that aims to reduce reliance on personal motor vehicle trips is also beneficial to our natural resources. Air quality, water quality, and green space conservation are particularly impacted by motor vehicle emissions and the space requirements of an automobile-centric approach.

Herndon's transportation infrastructure skews towards a suburban land use pattern within a greater metropolitan area. The modal split is focused towards motor vehicles and the roadway design is focused on personal vehicle service levels. Public right-of-way and parking lots are major land uses and vehicle access, mobility, and adequate parking are some of the most important considerations dictating development.

Herndon has however for many years planned for an increased emphasis on bicycle, pedestrian and transit service levels. The Town's Comprehensive Plan and Capital Improvements Program were early indicators of the Town's recognition of the importance of accommodating alternative means of transportation. Herndon has also appointed a Pedestrian and Bicycle Advisory Committee and adopted Streetscape Guidelines that are largely attentive to ensuring safe and comfortable pedestrian and cyclist infrastructure. The Fairfax Connector provides bus service throughout Town including a new Herndon circulator route that loops between downtown Herndon and the Herndon Metrorail Station.

Herndon benefits from three regional trails, most notably the W&OD Trail, that provide important bicycle and pedestrian connectivity throughout town and into neighboring jurisdictions. Those trails work with a strong pedestrian network that includes sidewalks on most of Herndon's streets.

The area's rapid growth and the arrival of Metrorail have accelerated the Town's efforts to enhance walkability and bikeability and have served as a catalyst for transportation-oriented development. The Town is now pursuing its first dedicated pedestrian and bicycle master plans and has coordinated with Fairfax County on an access management plan for both Metrorail Stations servicing Herndon. Herndon has also undertaken several area plans with significant multi-modal considerations and amended its zoning code to allow for improved quality in service across all trip modes.

OBJECTIVES

- *Improve the safety, connectivity, and comfortability of pedestrian and cyclist facilities throughout Herndon in coordination with Fairfax and Loudoun Counties.*
- *Improve the modal split in Herndon by reducing personal vehicle miles traveled and managing transportation demand.*
- *Improve accessibility to transit and transit level-of-service.*

2018 ACTION ITEMS

1. Develop and adopt a Herndon Bicycle Network Master Plan to include a network map of current bicycle facility stress levels and a network map of planned facilities.
2. Develop and adopt a Herndon Pedestrian Safety and Mobility Plan to include a profile of Herndon walkability, strategies for improving walkability, and an action plan for improvements.
3. Conduct an audit on Herndon bus stop level-of-service and review of the Herndon bus routes.
4. Conduct a study on the costs and concept program for expanding bicycle sharing service into Herndon in coordination with Fairfax County.
5. Update the Streetscape Guidelines to ensure safe and comfortable facilities for alternative modes of transportation and provide a clear guide for profession development staff, consultants, and developers.

FUTURE ACTION



This plan will be reviewed and updated annually with new action items added as the individual programs and initiatives progress. The plan will evolve and may yield ideas and guide efforts not yet recognized. At the time of initial approval of this document, the longer range program for this chapter includes:

- Begin implementation of the Herndon Pedestrian and Bicycle Plans.

- Re-evaluate Complete Streets Policy and evaluate a new policy for Transportation Demand Management that offers direction for demand solutions such as trip reduction programs and incentives for transit and carpooling.
- Evaluate modeling techniques that consider multi-modal service levels, which could be utilized to better inform and control transportation improvement decisions.
- In coordination with zoning ordinance updates and streetscape guidelines updates, pursue programs that encourage and increase the bicycle parking amenities and bicycle trip generation.
- Evaluate Town's Safe Routes to School efforts, and in coordination with Fairfax County, pursue programs for the Herndon public schools.
- Evaluate and renew or establish as necessary, a town-wide ADA Transition Plan.
- Evaluate town-sponsored bicycle rides and training sessions.

Chapter Seven

FOOD

Access to Healthy Food

Food systems planning that focuses on the use of local products have positive environmental implications as well as public health benefits. Locally produced food is inherently more accessible and can be more economical. A privately tended garden can yield sustaining levels of produce with little cost. Without the need for preservatives, processing, and packaging, local food is typically healthier. The processing, packaging, and transportation of food produced elsewhere require energy and fuel that may contribute broader environmental degradation.

There is no shortage of access to healthy food in Herndon. Within the Town's four square miles there are five grocery stores with several more just outside the Town's boundaries. Much like any metropolitan area though, access to local food is in shorter supply. Herndon was one of the first municipalities in Northern Virginia to address that deficiency by operating a weekly farmer's market. In addition to the market, the Town's first private community garden was recently built and Herndon has partnered with a local non-profit for the construction of the Town's first public community garden. The Town has also recently initiated a fruit trees on public property effort starting with four apple trees in a local park. Herndon is also fortunate to have local businesses that support the local food movement for both its public health and environmental benefits.

OBJECTIVES

- *Enhance and expand access to local healthy foods to all members of the Herndon community.*
- *Explore opportunities for local food production on public and private property.*
- *Inform and empower Herndon residents and businesses on the benefits and means of growing, eating, serving, and selling locally sourced food.*

- *Reduce food waste originating from both residential and commercial properties.*

2018 ACTION ITEMS

1. Conduct review on current Town managed local and healthy food systems planning.
2. Conduct a study evaluating local jurisdiction local and healthy food system planning strategies and measures for possible consideration in Herndon.

FUTURE ACTION



This plan will be reviewed and updated annually with new or revised action items added as the individual programs and initiatives progress. The plan will evolve and may yield ideas and guide efforts not yet recognized. At the time of initial approval of this document, the long range program for this chapter includes:

- Evaluate report on local food systems planning then development and implement plan for establishing programs and increasing access to healthy and locally-produced foods.
- Establish public policies and programs for using, growing, and encouraging local foods.
- Develop program to acknowledge business that have responsible local food and food waste policies.
- Evaluate the opportunity, benefits, costs, for establishing an urban farm co-op.

Chapter Eight

AWARENESS

Much of this plan strategizes how the Town government can operationally advance environmental sustainability but it is participation by Herndon's citizens and businesses that will truly safeguard plan effectiveness and longevity. This chapter sets the program for the collaborative campaign to promote specifically, the various components of this plan, and generally, the proven principles and practices of environmentally responsible living.

As the outreach arm of this document, this chapter's objectives and action items were developed to maximize educational opportunities and opportunities for engagement in such a manner to ensure that the issues contained within and a robust sense of empowerment are properly communicated and fully understood. Conveyance of the right message is critical for community support of these sustainability initiatives. This goal will benefit from a diversified marketing program that leverages local news media, social media, and coordinated promotional materials.

Success at all levels of the Herndon Sustainability Plan is dependent on a well-defined partnership between Town officials and the various private entities of the greater Herndon community. In addition to the Town's residents and businesses; homeowner associations and civic and social organizations such as the Herndon Environmental Network, Friends of Runnymede Park, Herndon High School's Environmental Club, Herndon Woman's Club, or the Chamber of Commerce should serve as important partners. Fairfax County, which maintains several sustainability programs available to the Herndon citizenry, is also a key partner.

OBJECTIVES

- *Inform Herndon residents and businesses to better understand environmental impacts of everyday living.*
- *Encourage and empower Herndon residents and businesses to become active participants towards a safer and more sustainable relationship with the local environment.*

2018 ACTION ITEMS

1. Conduct a review on the current opportunities available to promote the tenets of this plan and educate on the benefits and practices of sustainability. This may include participation at existing Town events and incorporation into existing published materials and social media platforms. The review should also contain recommendations for additional outreach opportunities.
2. Conduct a review identifying the existing Town initiatives such as Naturefest and current amenities such as the W&OD trail that should be considered for incorporation into a new comprehensive and coordinated promotional campaign.
3. Develop and hold a first annual Herndon Environmental Sustainability Week with dedicated events to promote the plan and engage the public. This week can be held in coordination with other associated events, either new or existing.
4. Develop a workshop program on topics such as composting, stormwater re-use, recycling, personal carbon footprint assessments, bicycle safety, gardening, and eradicating invasive plants. A study should be conducted as part of the program development to determine which workshops the community would prefer and a feasibility analysis clarifying how the Town can operate the program.
5. Evaluate local jurisdiction environmental sustainability program's web presence and pursue ways in which to enhance content, functionality, and presence of the Town's sustainability webpage.

FUTURE ACTION

This plan will be reviewed and updated annually with new or revised action items added as the individual programs and initiatives progress. The plan will evolve and may yield ideas and guide efforts not yet recognized. At the time of initial approval of this document, the long range program for this chapter includes:

- Develop and implement a coordinated awareness campaign with publication series, events, workshops, posters/brochures, etc. that promotes the plan principles and encourages the public to become partners towards a healthier environment.

- Seek partnerships with local organizations to assist in awareness campaign and other plan initiated activities.
- Further develop and hold annual environmental events to promote and foster environmental sustainability.
- Pursue opportunities for coordinated efforts with other jurisdictions, regional agencies, and local government resources such as the Virginia Municipal League and Northern Virginia Regional Commission.
- Establish programs for town employee awareness and environmentally responsible business recognition.



PLAN MANAGEMENT

The Herndon Sustainability Plan is designed to operate with diverse functionality as an internal work plan, educational and advocacy document, and overall program guide. Implementation of this plan relies on participation by all town government activity centers and comprehensive collaboration with the community's institutions, businesses, organizations, and residents. This all-encompassing and wide-ranging dynamic will require a dedicated and well-articulated plan management approach to ensure effective coordination. This section summarizes the structure of plan implementation and provides specific principles that will guide plan management throughout implementation.

The Departments of Public Works and Community Development will provide project management. Plan coordinators from each of these departments will chair a staff-only Green Team comprised of liaisons from the various Town activity centers and a Sustainability Advisory Committee comprised of Herndon residents.

The Herndon Green Team liaisons will provide professional expertise and in-depth knowledge of the activities of the divisions they are representing. They will also serve as plan advocates and a conduit for explaining the plan tenets, significance, and purpose to all employees. This group will hold regular meetings bi-annually to report plan progress, review the plan and recommend updates, and evaluate any budgetary implications of pending or future action items.

The Herndon Sustainability Advisory Committee will similarly convene bi-annually to review the plan and reports from the Herndon Green Team. The committee will provide further recommendation for plan modifications and specific endorsements for the next cycle of action items that should be funded and pursued. This annual amendment demonstrates the living and long-lasting features of the plan. It will be evaluated and updated every year as action items are achieved and objectives met, and new strategies and projects are developed. The plan can also evolve with changes to its scope and goals as more data becomes available, technological solutions advance, or funding sources shift.

As plan implementation commences and further goals are established, the advisory committee's mission may expand to a more active role in promoting the plan and engaging the public.

The following principles will advise how plan execution and maintenance will be monitored and managed:

- With this plan, the Town of Herndon seeks to lead by example. By demonstrating a thoughtful and comprehensive commitment to evaluating and improving how the Town conducts business through an environmental sustainability lens, the Town offers a model for other members of the local and even regional community.
- All elements contained within and resulting from this plan will be developed, implemented, and managed using equitable environmental justice practices. The Environmental Protection Agency defines environmental justice as “the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to environmental laws, regulations, and policies.” In achieving this, it will be important to provide outreach to the Spanish speaking population in Herndon.
- While this plan outlines a program that the Town of Herndon largely can initiate apart from another jurisdiction, its value and breadth of accomplishment are magnified through the partnerships that can be forged and leveraged with Fairfax County and other local environmental programs. The various natural systems and resources that define our environment after all do not begin and end at municipal boundaries. The more regional reach we can attain, the larger an impact can be achieved for mitigating adverse impacts to those natural systems and resources.
- For the past four years, the Town has sought and been awarded Go Green Certification through the Virginia Municipal League’s Green Government Challenge. This accolade is scored on a jurisdiction’s reported environmentally responsible activity in categories such as Energy Efficiency, Water Stewardship, and Community Involvement. This environmental sustainability plan will serve as a vehicle for continued and expanded eligibility for Go Green Certification. Plan implementation and updating will be coordinated with the annual certification effort.
- For most actions initiated by this plan, feasibility from a funding and staffing requirements standpoint must be analyzed and considered. Existing resources will be leveraged to the greatest extent possible however necessary additional resources, both internal and external, are anticipated. In considering cost effectiveness, intergovernmental and other private funding opportunities will be explored as well as existing programs that can provide technical or material assistance.
- Carrying out this plan will rely on active and sustained volunteerism as well as personal decision-making. Action items like workshops, invasive plant removal, and street tree audits require community participation and ambitious goals like increasing recycling town-wide, hinges on the actions of individual residents and businesses. This

dependence on community willingness to participate to some level highlights the importance of a pro-active and all-inclusive approach to awareness.

The table below lists the various Sustainability Plan projects to be activated in 2018. It programs the work by instructing task management and will be used as the primary reporting tool.

HERNDON SUSTAINABILTY PLAN ACTION ITEM TABLE

#	Action Item	Plan Chapter	Plan Goal	Year Activated	Responsible Activity Center	Funding Source(s)	Status
1	Energy Audit	Energy	1	2018	DPW	GF	Open
2	Renewable Energy Study	Energy	3	2018	CD	TOH	
3	Town Fleet Review	Energy	5	2018	Town Shop	TOH	
4	Energy Efficient Upgrades CIP sheet	Energy	2	2018	DPW	TOH	
5	Establish baseline Waste metrics	Waste	1	2018	DPW	TOH	
6	Recycling Receptacle Network Study	Waste	3	2018	DPW/CD	TOH	
7	Recycling at Town Facilities Review	Waste	3	2018	DPW/CD	TBD	
8	Composting Program Study	Waste	2	2018	CD	TOH	
9	Paper Processes Review	Waste	2	2018	IT	TOH	
10	Litter Management Review	Waste	5	2018	DPW/CD	TOH	Open
11	Water Audit	Water	1	2018	DPW	TBD	
12	SWM Review	Water	5	2018	DPW/CD	TOH	
13	Greywater Use Review	Water	2	2018	DPW	TOH	
14	Private Water Use Review	Water	3	2018	DPW	TOH	
15	Pesticide Use Review	Ecosystem	2	2018	DPW	TOH	

16	Pollinator Program Study	Ecosystem	2	2018	CD	TOH	
17	Landscaping Ordinance Review	Ecosystem	1	2018	CD	TOH	
18	Certifications Review	Ecosystem	1	2018	CD	TOH	
19	Zoning Ordinance Audit	Land Use	1	2018	CD	TOH	
20	Green development Practices Study	Land Use	1	2018	CD/DPW	TOH	
21	Green Building Code Study	Land Use	2	2018	DPW	TOH	
22	Herndon Bicycle Plan	Transport	1	2018	CD	TOH	
23	Herndon Pedestrian Plan	Transport	1	2018	CD	TOH	Open
24	Bus Stop Audit	Transport	3	2018	CD	TOH	
25	Bicycle Sharing Program Study	Transport	2	2018	CD	TOH	Open
26	Streetscape Guidelines Update	Transport	1	2018	CD	TOH	Open
27	Food Systems Planning Review	Food	1	2018	CD	TOH	
28	Local Food Systems Study	Food	2	2018	CD	TOH	
29	Review of Plan Promotion Opportunities	Awareness	1	2018	CD	TOH	
30	Review of Plan Promotion Events	Awareness	1	2018	CD	TOH	
31	Sustainability Week	Awareness	1	2018	CD	TOH	
32	Workshop Program	Awareness	2	2018	CD	TOH	
33	Webpage Development	Awareness	1	2018	CD	TOH	Open