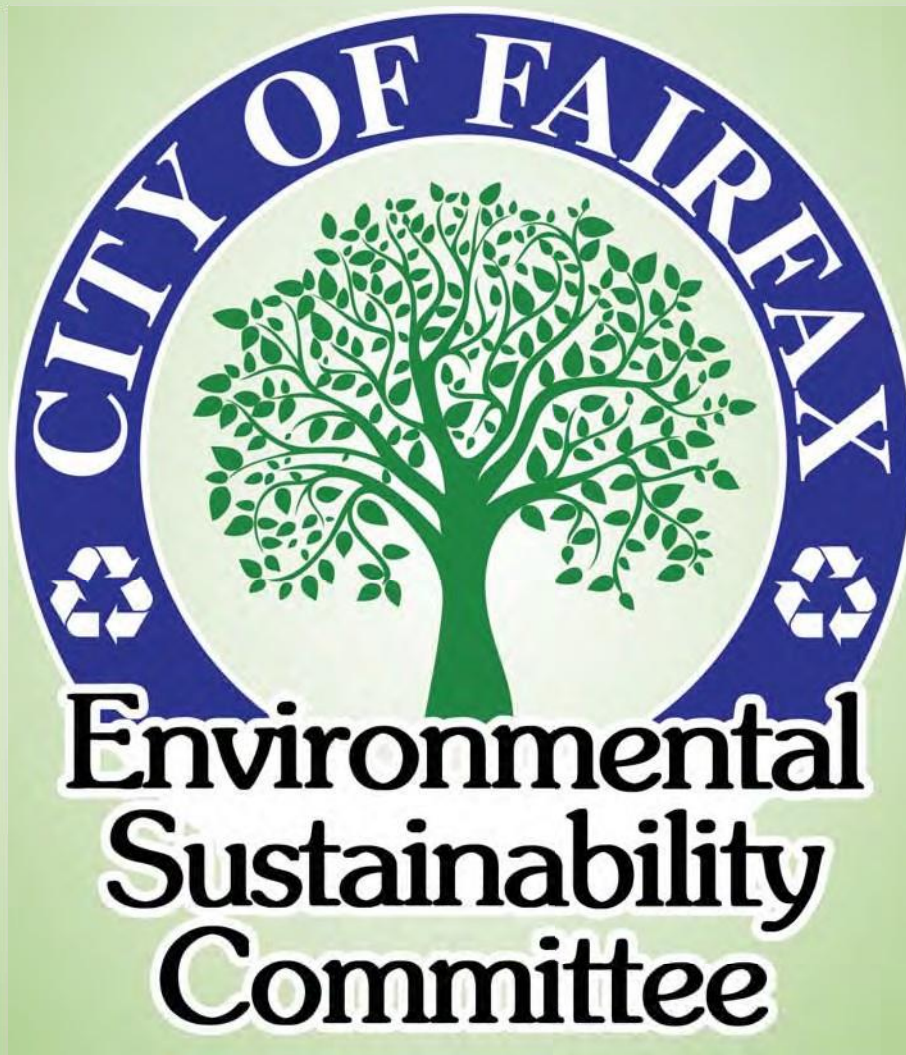


**CITY OF FAIRFAX**  
**ENVIRONMENTAL SUSTAINABILITY COMMITTEE**  
**2016 ANNUAL REPORT**



**Committee Members:**

Tim Killian (Chair)  
Bruce Knight  
Susan Crate  
Jon Buttram  
Charish Bishop

Judy Fraser (Vice-Chair)  
Adam Basinger  
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Michael Lee



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## INTRODUCTION

**This report summarizes the areas the Environmental Sustainability Committee (ESC) has focused on in the past year, identifies current programs and initiatives as well as unmet challenges that the City faces.**

During 2016, the ESC focused on energy efficiency, invasive species and park stewardship, fuel storage tanks, pollinators, and development reviews. Several of our committee meetings were used as a platform for expert speakers in the area of pollinators, fuel storage tanks, and invasive plants. In addition, we received briefings on the 2035 Comprehensive Plan, the Paul VI High School Property Redevelopment, and the City of Fairfax Earth Day Program. The ESC supported Fairfax High School (FHS) environmental programs and the environmental club at Lanier Middle School. The ESC membership roster is now full as two new members were appointed in 2016 to fill vacancies from 2015.

## COMMITTEE ADMINISTRATION

The nine-member Committee is currently complete as the two vacant positions at the end of 2015 were filled with two new members (Michael Lee and Charish Bishop) who were appointed in March and June 2016 respectively. In June, Tim Killian was re-elected by the Committee to serve in the role of ESC Chair for a second term. In addition, Judy Fraser was elected to serve as Vice-Chair. Stefanie Kupka, the City's Sustainability Coordinator, is the ESC's staff liaison and provides administrative support to the committee. Several citizens informally support and advise the Committee on a regular basis and this number has grown in the last year. In addition, the Committee includes a student representative from FHS, Marianna Lipold.

The ESC met with the City Council for a work session in February 2016 to present the 2015 Annual Report. In addition, the ESC met with City officials and other working groups for briefing and discussions on topics including the Earth Day Event activities and the 2035 Comprehensive Plan. Peg Weis, Parks and Recreation, provided an overview of the activities to be included as part of the Earth Day Program at Providence Park. Cindy Petkac, Planning Division Chief, briefed the ESC on the development of the new Comprehensive Plan.

## OUTREACH AND EDUCATION

As part of its outreach efforts, the Committee sponsored the sixth annual Earth Art Show, supported Solarize NoVA through participation and yard signs, provided funding for Bike to Work Day, and had an informational booth at the Fall Festival. Further, several ESC meetings were platforms for the *Protecting Our Natural Environment* Speaker Series where Committee members and city residents listened to presentations from experts in the fields of pollinators, fuel storage tank management, and invasive plant species at Blenheim.

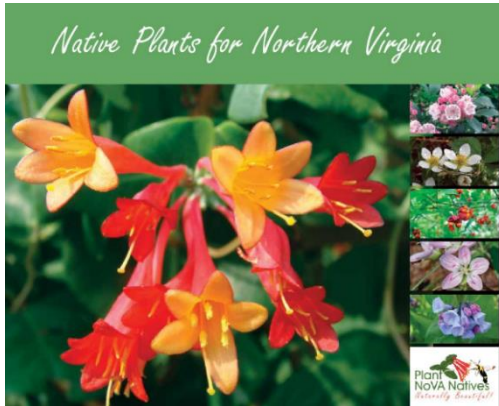
This year the Earth Art Show was held at City Hall from April 16 to 30 and included over 75 pieces of artwork from Daniels Run, Providence and Lanier. The Committee awarded prizes to two students from each school, and with the help of Cameron's, a city bakery, and city staff, held a reception on April 27 in honor of the artists in our schools.



The ESC's Fall Festival participation was a great success due to a well-attended booth. The 2016 themes included invasive plants, native plants, and waste reduction & recycling. ESC members and citizen supporters distributed handouts on stormwater and pollution concerns, recycling information, composting, and invasive plant species. The ESC booth featured a recycling game where residents identified waste streams that could be recycled and those that should be disposed as municipal solid waste. In addition, FHS Green Club participants and ESC members dressed up as the "bag monster" in an effort to share environmental concerns presented by plastic bags.







The ESC also provided space for the FHS Green Club whose volunteers helped staff our booth. Donations from the offering of the *Native Plants for Northern Virginia* guides at the ESC booth benefited the Green Club.

The Sustainability Coordinator, Stefanie Kupka, worked on the development and implementation planning for the web-based Neighborhood and Workplace Sustainability Challenges in cooperation with several cities across the country under an innovative grant award. As part of the grant, a web based application was created, which registers and tracks the scores of participants that complete sustainability activities. A website user manual and implementation manual was also developed. The City is in the process of customizing the website and planning for implementation. The ESC reviewed and provided comments on the draft activity lists associated with the Challenge modules. There are three modules of activities that focus on challenging residents and businesses to be 'green', 'healthy', and 'involved'. As part of implementation planning, Stefanie worked with four George Mason students. The students assisted with the development of social media marketing strategies and content, which will be used to help promote the Challenges and engage participants.

## SCHOOLS

The City of Fairfax schools receives support from the ESC through funding of school-based ECO-Club or Green Club projects, through ESC coordinated events and through its close liaison with the School Board via the School Board representative. The ESC maintains close ties with the Green/ECO Clubs to promote environmental education efforts at the four schools. These educational programs emphasize environmental stewardship, energy efficiencies, technologies and resource protection.



As noted earlier in this report, the ESC sponsored and coordinated with city students for the Earth Art show on April 27th. In addition, City students supported the ESC at the Committee's Fall Festival booth. The ESC embraces every opportunity to reach out to the next generation of environmentally in-tuned professionals and leaders. To accomplish this, the ESC includes a student liaison from FHS.

Throughout the year the ESC recognized the City's school's successes with multiple environment-related courses of studies and club activities that met the educational and character building needs of our students. To this end the ESC appreciated our schools' many environmental projects, awards and achievements including; the Virginia Naturally school award, national and regional environment related competitions in urban forestry, watershed conservation, and environmental protection and wind power technologies.

City schools continued to excel in environmental sustainability projects and competitions, placing first, third, sixth, seventh and eighth out of 10 places in the 2016 Caring for Our Watershed Competition at George Mason University and earning the Eco-Schools USA Green Flag Award from the National Wildlife Federation. City schools have extensive environmental education programs that included the restoration of approximately 50% of school grounds back to native plant and wildlife habitat at Daniels Run.

Every school year, students participate in a minimum of one grade-specific project such as creating and maintaining red wiggler worm bins, planting bulbs, growing submerged aquatic vegetation, and raising American Shad. In addition, classes visit a vegetable garden in the fall and again in the spring to plant seeds, harvest crops, and learn all about plant parts, functions, pollination and additional life processes lessons. School-wide efforts in recycling and composting has reduced the amount of waste by 4,790 lbs. since beginning the initiative's inception.



The ESC was pleased to support and fund a team of Lanier Middle School Students with their Eco Journey project. The students presented a 3D design model of an idealized community that utilized sustainable development principles. The design was based on the actual topographic location of Kamp Washington area in the City of Fairfax. The students presented their project to a full

house at the June ESC meeting. It was evident that the students put a lot of hard work and thought into this project. Lanier Middle School Science Teacher, Faiza Alam, provided guidance and support throughout the project.



## ENERGY EFFICIENCY

The City teamed up with Local Energy Alliance Program (LEAP) and the Northern Virginia Regional Commission (NVRC) to participate in the Solarize NoVA program, which took place March 15 through May 15, 2016. The Solarize NoVA program provided the community with free solar assessments; free home energy check-ups; and the ability to purchase solar

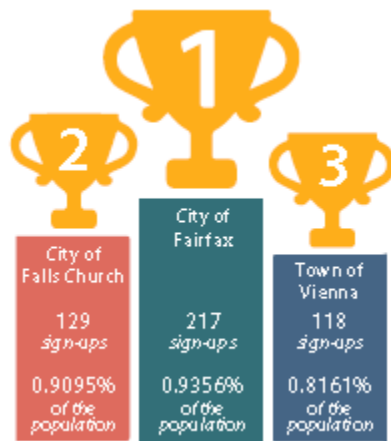


Photo Voltaic systems at a discounted price and with a pre-negotiated contract. Several ESC members took advantage of the free solar assessments for their homes, and featured signs in their yard promoting the program.

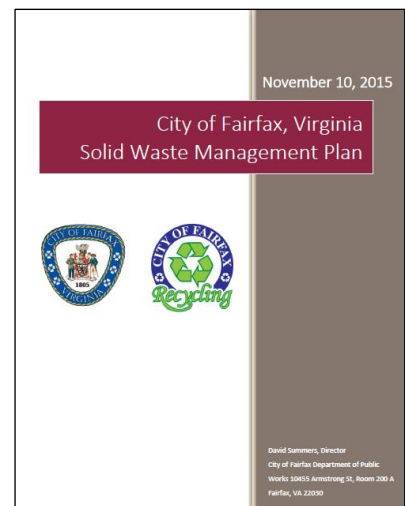
The City of Fairfax held a friendly competition with Falls Church and Vienna to see whose community could get the greatest number of sign-ups as a percentage of the overall population. The City of Fairfax won the competition with 217 sign-ups, which represents 0.9356% of the population. The campaign resulted in the installation of nine solar installations in 2016.

The City of Fairfax will be participating in the Spring 2017 Solarize NoVA program, which is scheduled to run from April 18 through June 30.

## RECYCLING AND SOLID WASTE

In 2015, the City of Fairfax contracted Gershman, Brickner & Bratton, Inc. to develop a new Solid Waste Management Plan (SWMP). The SWMP was approved by the Mayor and City Council on November 10, 2015.

The ESC expresses continual support for the Solid Waste and Recycling Coordinator position identified in the report. Currently, the City Sustainability Coordinator serves in this role but with only hours needed to address the mandatory reporting requirements to the state. For the SWMP to function as intended, this position must at least be filled by 0.5 Full-Time Employee Equivalent (FTEE).





## 2035 COMPREHENSIVE PLAN

The June meeting was a forum for Cindy Petkac, Planning Division Chief, to present to the ESC and guests information on the development of the 2035 Comprehensive Plan. The ESC received an overview of the Comprehensive Plan process, public engagement strategy, chapter outline, content areas, and schedule. The ESC offered the Planning Division Chief several initial recommendations such as:

- Incorporating desired aspects of the Fairfax Boulevard Plan into the new Comprehensive Plan;
- Revise the Chapter 4 title to “Natural Environment” and integrate sustainability as a theme throughout the document;
- Providing clear definitions for open space, green space, recreation areas, etc.; and
- Incorporate into the plan the identification of pervious/impervious area; waste reduction and recycling; stream health and water quality; green space connectivity; invasive plants and tree canopy.

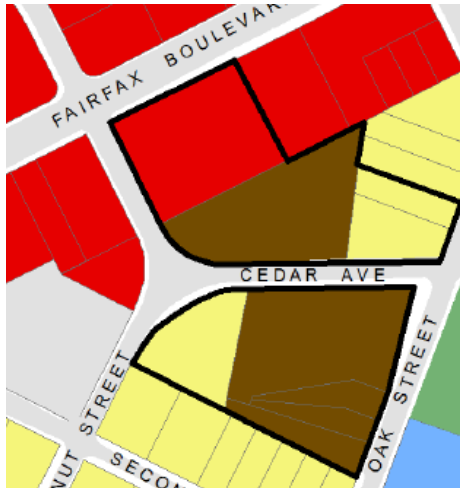
In September, the ESC submitted comments to the Planning Commission regarding the draft Vision Statement to the 2035 Comprehensive Plan. Our review resulted in a position that the document identified many qualities for the City of Fairfax that we agreed were reflective of what we hope our City exhibits in 2035. However, we did offer some recommendations that we thought would improve the Vision Statement.





## DEVELOPMENT REVIEW AND COMMENT

The ESC sought and took advantage of the opportunity to review and comment on several proposed City redevelopment projects. The committee reviewed the Generalized Development Plan (GDP) for the Breezeway/Fairfax Gardens Redevelopment (Avalon Fairfax City) and the Davies Property at 4131 Chain Bridge Road.



In February, members of the ESC met to review and discuss the **Breezeway/Fairfax Gardens Redevelopment** (Avalon Fairfax City) by Cooley LLC. The group reviewed the set of Rezoning/Special Exception/Special Use Plan drawings and the Cooley LLC Avalon Fairfax City resubmission package dated January 19, 2016. Subsequently, the ESC submitted comments to the City Planner in March. Comments addressed considerations for stormwater management impact, green space, tree plan and canopy, connectivity, and incorporating energy efficiency and water usage elements from Leadership in Energy and Environmental Design (LEED).

Members of the ESC met in June to review the plans for the **Davies Property Project**. Comments were then submitted to Mayor and City Council in July. The committee identified various recommendations that include”

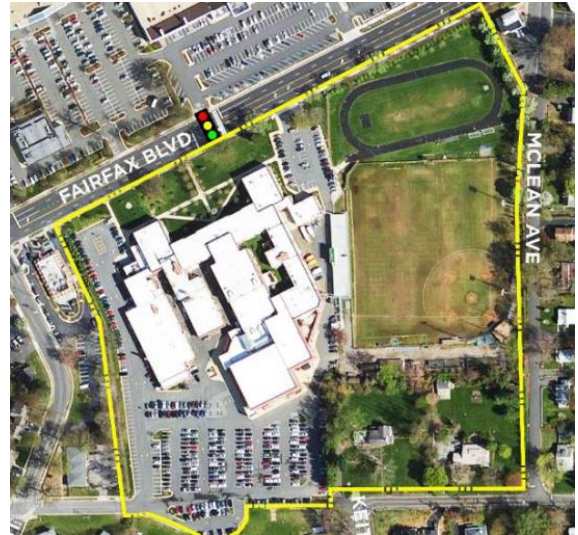
- Offsite tree mitigation;
- Adding green space by extending the bike trail from the east end of Breckinridge Road to along the south side of the Davies property;
- Increasing the number of trees and shrubs along the public walk-ways of Chain Bridge road and University Road; and
- Seeking a LEED Silver rating.



The ESC also reviewed the second set of submission plans in November and developed draft comments, but delayed submission when the working session with Mayor and City Council was pushed back.

IDI Group representatives, David S. Houston (Blank Rome LLP), Pat Rhodes (IDI Group), and Bill Zink (Christopher Consultants) attended the March ESC Meeting to discuss the **Paul VI High School Property Redevelopment**. They discussed the process for developing a master plan and soliciting input from community and city officials. ESC members used the opportunity at this meeting with IDI Group to offer some initial recommendations, such as:

- Incorporating innovative stormwater management strategies to improve the water quality of nearby streams;
- Adding woodland areas to help control stormwater runoff through more permeable surfaces for rainwater capture and infiltration; and
- Consideration of native plants, low impact design, green building standards, solar energy, connectivity, water conservation, and repurposing materials from the current development.



The entitlement process was expected to extend into early 2017 and then the site plan process would begin which would take another year. The ESC expects to be involved with providing input and recommendations on behalf of the Mayor and City Council in 2017.

In 2017, the ESC welcomes further reviews of future development/redevelopment projects in support of the City's environmental and sustainability goals. In addition, the ESC will continue to refine the project review checklist use to both help identify projects of interest to the committee and aid the review and comment development process.

## INVASIVE PLANT SPECIES, TREES, LAND AND PARK STEWARDSHIP

The ESC funded a project to plant native plants at the Historic Blenheim/Civil War Interpretive Center. Considering the potential for this location as a demonstration area to show the community how an area can be improved with invasive plant removal and native plantings, the Committee unanimously approved this request from ESC member Judy Fraser and Valerie Morgan, City resident and member of the Community Appearance Committee. Ms. Morgan removed overgrown invasive plants. The ESC funding served to replace the invasive species with

dozens of native plants and provided signage to educate the public on native plants.

The September meeting was held at Blenheim, where Ms. Morgan reported on her efforts and how the ESC funding was used. This was followed by with a well-attended tour of the new native plant garden where she shared the fruits of her time spent removing invasive plant species and planting the new native plants with ESC members and guests.

The ESC expresses continual support for funding a full-time Arborist position for the City. The technical skills and planning guidance provided by this position would reverse a recent declining trend in the management of our tree inventory and urban forest. Our trees are a very important part of the appearance of our community and provide several ecological and health benefits.

## POLLINATORS

Fairfax resident, beekeeper, and ESC volunteer, Frank Linton, provided an overview of honey bees and beekeeping at the October meeting. Mr. Linton has kept honey bees since 2005 and is an Eastern Apiculture Society (EAS) certified Master Beekeeper. Due to Mr. Linton's efforts, beekeeping is allowed in the City of Fairfax and homeowners may host beehives, sponsor beehives, or become beekeepers themselves.



Mr. Linton's presentation addressed the importance of honey bees due to their role in pollinating about one-third of the food we eat, including most fruits, vegetables, nuts, and berries. Most plants require insect pollination, mostly frequently by bees. These plants provide numerous environmental benefits, for example, they produce oxygen, prevent erosion, and purify water."

Honey bees and other pollinators are at risk from multiple causes including habitat loss, invasive species, pollution, misuse of pesticides, and climate change. The risk to the honey bee population is high as nearly half of the managed honey bee colonies in the United States died in 2015. Homeowners can do several things to provide pollinator-friendly habitat, such as:

- letting weeds and other yard plants blossom,
- planting pollinator-friendly, and
- providing habitats for native bees.



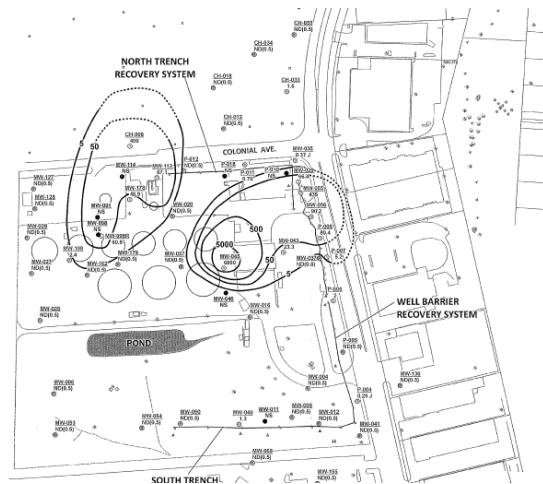
To attract pollinators, gardeners can use a wide variety of plants that bloom from early spring into late fall, include plants native to your region, and eliminate pesticides whenever possible.

## FUEL STORAGE TANKS

In November, Andrew Wilson, Fire Marshal, briefed the ESC on the history of the aboveground fuel storage tanks at the Fairfax tank farm complex on Pickett Road. There are four oil distribution companies that occupy the complex: Motiva Enterprises, Amoco Oil Company, Citgo Petroleum Corporation and Old Dominion Terminal LLC. To provide a sense of the complex's capacity, the Motiva Enterprises operation alone has nine two-million-gallon Aboveground Storage Tanks (AST) that supply petroleum at a rate of one million gallons per day.







The presentation included an overview of the release resulting from an underground piping petroleum leak at the former Star Enterprise Terminal and now Motiva Enterprises Terminal on Pickett Road that was discovered in 1990. The leak resulted in a petroleum-contaminated groundwater plume that extended 2000-feet from Pickett Road to the Mantua community. Under EPA's direction, construction of a groundwater remediation system to clean up the petroleum-contaminated groundwater began shortly thereafter and began operation in 1991. There are two major components of the remediation system, one located inside the Motiva Enterprises Terminal, and the other located in the community side known hereby as the Mantua system.

Further, Mr. Wilson provided an overview of the Virginia Department of Environmental Quality Revised Facility and AST Regulations affecting the Fairfax tank farm complex. The AST regulations were revised on November 1, 2015. The AST regulations were revised primarily to incorporate new performance standards for certain aboveground storage tanks (1 million gallon or more AST facilities) located in the City of Fairfax as mandated by the 2011 General Assembly (CH 884 of the 2011 Acts of Assembly). By July 1, 2021, the impacted facilities must satisfy specific requirements for strength testing, and release prevention barriers.

## CONCLUSION

The Committee members are residents and/or business members who have volunteered to serve on the ESC to help the City improve its environmental sustainability. In its seventh year, the ESC has become better known and more visible throughout the community, but the members see that much greater awareness of issues of environment and sustainability issues is needed to encourage additional active partners to protect and support our natural resources. We welcome more opportunities to review and comment on proposed development projects in the City. The ESC anticipates providing input into the Environmental Sustainability Chapter of the Fairfax City 2035 Comprehensive Plan. Further, we are excited to support the roll out of Workplace and Neighborhood Sustainability Challenges, Sustainability Procurement "Playbook" and STAR Leading Indicators Pilot Project grant initiatives.

As always we will continue to share our insights and raise awareness about environmental issues



including stormwater management, solid waste/recycling, energy efficiency, local effects of climate change, invasive plant species and other issues and challenges that affect our City's sustainability goals.

The City's sustainability ultimately will rely on proactive leadership and an engaged and informed citizenry. The Committee appreciates input from residents and welcomes all interested parties at ESC meetings. We thank the City Council and Mayor for their continuing support and staff members for their attentiveness to our concerns as we all work together to improve the current and future sustainability of the City and its residents.



## 2017 WORK PLAN

There are certain key activities inherent in the ESC charter and in consideration of our support to the City's Sustainability Coordinator that will be on our agenda for 2017. These activities involve items that continue to be and will likely always be recurring on our yearly work plan such as support of school environmental programs at all of the City schools, reviewing and commenting on land use and development proposals, and providing recommendations for the General Assembly legislation package (e.g., reduction or elimination of bottled water and plastic shopping bags).

In addition, the ESC expects to be involved in several new activities and initiatives on the City calendar for 2017. The ESC plans to play a role on the Advisory Committee for integrating sustainability into the 2035 Comprehensive Plan. We will support the implementation of the Workplace and Neighborhood Sustainability Challenges, Sustainability Procurement "Playbook" and STAR Leading Indicators Pilot Project grant initiatives. The ESC will advise Mayor and City Council on budget considerations such as the hiring of a Solid Waste and Recycling Coordinator as identified in the Solid Waste Management Plan and a full-time Arborist. The ESC will also begin to identify the specific ways that global climate change is impacting our community.

The ESC 2017 environmental and sustainability priorities are:

- Provide City Council with sustainability recommendations on new commercial and municipal development and renovation projects
- Integrate environmental and sustainability opportunities into the 2035 Comprehensive Plan
- Promote understanding and awareness of the City's natural resources
- Support stormwater management actions and policies
- Identify opportunities to educate citizens on energy, environmental and sustainability issues
- Support City solid waste and recycling program implementation