



# City of Bowie

## Memorandum

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**Thursday, August 3, 2023**  
Alfred D. Lott, ICMA-CM, CPM,  
City Manager

### **STATUS REPORT**

1. FY23 State of the Environment Report - the Department of Planning and Sustainability has completed its annual State of the Environment report, which is a summary of the previous fiscal years accomplishments as they relate to the Sustainability and Climate Action Plans and efforts by staff and the community in these areas.



# STATE OF THE ENVIRONMENT

ANNUAL REPORT  
FISCAL YEAR  
2023



**Department of Planning  
and Sustainability**



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## Introduction

The 2023 City of Bowie *State of the Environment Report* provides a comprehensive overview of the City's environmental activities and sustainability initiatives for Fiscal Year 2023 (July 1, 2022, through June 30, 2023). The report provides performance measurements and metrics for all Green Bowie programs and environmental initiatives, including actions related to the Green Team, the Environmental Advisory Committee, and the Council-approved Sustainability and Climate Action Plans.

This report is organized into four sections:

1. **City Accomplishments.** This section highlights the City's achievements in various categories, drawing inspiration from the Sustainable Maryland Certified program, of which the City has been a member since 2013.
2. **City Environmental Indicators.** This section encompasses the work of multiple departments and divisions including Public Works, Community Services, Parks and Grounds, The Bowie Police, and Planning and Sustainability, and showcases the City's dedication to its sustainability goals.
3. **Climate Action Plan Progress.** In this section, the report provides a status update on the Climate Action Plan and the associated Implementation Plan, outlining the progress made towards our climate-related goals.
4. **Sustainability Plan Annual Update.** The final section offers an annual update on the City's Sustainability Plan, detailing ongoing efforts and future strategies to ensure sustainable practices across various sectors.

The Department of Planning and Sustainability is responsible for tracking and updating this information. The Sustainability Manager oversees the process, with valuable input from both the Watershed Manager and Sustainability Planner.



## Accomplishments

In this section, we present the achievements of the Green Team Executive Committee, along with its associated subgroups, the Environmental Advisory Committee, dedicated staff, and enthusiastic resident-volunteers. The accomplishments are structured around, and thoughtfully aligned with, the major components of the Sustainable Maryland Certified Program.

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### Community Action

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- Subscriptions to the monthly Green Bowie e-newsletter are up to 1,246.
- Two of the 13 certified Green Schools received recertification by Maryland Association of Environmental and Outdoor Educators (MAEOE). All schools are certified.
- The annual Green Schools forum was held at Benjamin Tasker Middle School and featured a presentation on composting by staff from Heather Hills Elementary, presenting on their pilot composting project with Prince George's County Public Schools and MAEOE.
- Planning staff began an Equinox and Solstice Series as part of the Sustainability Webinars and completed both the Spring and Summer episodes. They can be found on the City YouTube channel and address seasonally relevant topics.
- The City was recertified under the Sustainable Maryland Certified program.

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### Community Based Food Systems

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- The annual Farmers Market was held on Sundays from May through October and hosted over 10 local vendors.
- The Community Gardens program continued at Kenhill Center with a total of 52 plots for residents, 42 of which are spoken for.
- The food waste curbside pickup program continued with 256 homes included in the program, meaning about 25% of the program area is actively participating.
- The Bowie Crofton Garden Club, with assistance from the Green Team, Environmental Advisory Committee, other volunteers, and some staff, hosted their annual Spring Plant Sale at the Belair Mansion. This event highlights native plants, pollinator-friendly plants, and local vendors.



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## Energy

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- The City issued 71 individual lawn mower rebates, 18 leaf blower rebates, 31 hedge trimmer rebates, 8 weed whacker rebates, and an additional 12 rebates for “suites” or sets purchases which includes a lawn mower and at least two other tools. In total 164 tools were accounted for in 129 rebates.
- The Energy Audit Program continued with 26 participants receiving a no-cost comprehensive energy audit through BGE’s Home Performance with ENERGY STAR® program.
- Solar panels were installed at an additional 105 additional buildings within the City, both residential and commercial.
- The Grants Office funded 14 home energy audits for participants in the Single-Family Rehab Program.
- The City continued its participation in Demand Response where we curtail energy on high usage days.

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## Health and Wellness

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- The Green Bowie Veterans Day 5k hosted upwards of 300 people for its fourth annual event.
- Green Bowie (the umbrella term for green-related events and program hosted by the Sustainability Division) hosted three yoga events at the Belair Mansion as well as a Green Summer Kickoff event featuring yoga and “green” exhibitors. These events rang in over 100 residents in total.
- The Green Team’s Wellness subgroup hosted a Zumba and Movie night in the fall and one wellness event at the Kenhill Center in the spring. These events were very well-received.

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## Natural Resources

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- Five out of seven planned weed warrior events were held at Whitemarsh Park and Belair Meadows with a total of 53 volunteers. These events are hosted by the Green Team’s Natural Resources subgroup.
- The City was recognized by the Arbor Day Foundation for the 31<sup>st</sup> consecutive year as a Tree City USA community. The City has been a part of the foundation since 1992.
- The Plant One Tree on Us program continued with 84 trees planted on private, residential lots.



- Seven habitats were added to the certified habitat line-up of schools, businesses, & homes.
- Backyard compost bin sales continued, with a total of 50 bins sold. A new order of bins was completed to continue this program.
- The Green Team's Green Schools subgroup helped plant gardens at Heather Hills and Pointer Ridge Elementary Schools.
- The Green Team's Natural Resources subgroup hosted 8 garden cleanup days for their 4 monarch waystations with 47 volunteers. New informational signs were put at each location with information leading back to a brand-new webpage with further information on monarch waystations and pollinators.
- The City was recertified as a Community Wildlife Habitat by the National Wildlife Federation.
- The Environmental Advisory Committee (EAC), along with Planning staff and volunteers, began a stormwater management project on the Midwood Stormwater Pond. The EAC presented this plan to the council and began prepping the site for plantings in FY24. The Green Team's Natural Resources subgroup aided the effort by hosting a series of transplanting events, along with volunteers, to have all plants prepped for FY24.

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## Miscellaneous

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- Public Works held special two Styrofoam and Paper Shredding events. In October of 2022 they collected 42 lbs. of Styrofoam and 8.6 tons of paper and in June of 2023 they collected 66 lbs. of Styrofoam and 10.7 tons of paper.
- The IT department recycled 1,530 lbs. of City-owned electronics through two pickups (August and January).
- The Police Department participated in both National Prescription Drug Take Back Days (April & October), collecting over 773 pounds of unused prescription and over-the-counter medications used by humans and pets alike.
- Council passed resolutions recognizing several significant initiatives, including Earth Month (April), Earth Day (April 22), National Bike Month (May), Chesapeake Bay Awareness Week (June 3-11), Pollinator Week (June 19-25), and Energy Efficiency Month (October).
- The City was recertified by the Department of Housing and Community Development as a Sustainable Community for another five years. We have been certified since 2013.



## City Environmental Performance Indicators

| Indicator                                                                                    | FY19   | FY20     | FY21      | FY22      | FY23      |
|----------------------------------------------------------------------------------------------|--------|----------|-----------|-----------|-----------|
| <i>Number of:</i>                                                                            |        |          |           |           |           |
| <b>Batteries recycled with the Big Green Box (lbs.)</b>                                      | -      | 11       | 0         | 87        | 80        |
| <b>Buildings that installed solar panels</b>                                                 | 81     | 80       | 59        | 79        | 105       |
| <b>Certified NWF habitats</b>                                                                | 8      | 6        | 1         | 5         | 7         |
| <b>Energy audit rebates issued by City</b>                                                   | 71     | 15       | 4         | 48        | 26        |
| <b>City-owned electronics recycled (lbs.)</b>                                                | 3,167  | 1,216    | 2,452     | 2,828     | 1,530     |
| <b>Food waste program participants</b>                                                       | 67     | 20       | 6         | 10        | 9         |
| <b>Lawn mower rebates issued</b>                                                             | 239    | 72       | 78        | 144       | 129       |
| <b>Medications collected at National Prescription Drug Takeback events (lbs., all types)</b> | 758    | 545      | 1,013     | 896       | 773       |
| <b>Park trees planted</b>                                                                    | 15     | 15       | 19        | 15        | 18        |
| <b>Rain barrels registered (self-reported)</b>                                               | 27     | 4        | 7         | 2         | -         |
| <b>Single-use plastic bottles saved by using City-owned bottle filler stations</b>           | -      | -        | -         | 5,364     | 10,081    |
| <b>Storm drains with “No Dumping” markers added</b>                                          | 26     | 176      | No events | No events | No events |
| <b>Stream cleanup participants</b>                                                           | 100    | No event | No event  | 211       | 251       |
| <b>Street trees planted</b>                                                                  | 300    | 200      | 200       | 185       | 202       |
| <b>Trees planted with Plant One Tree on Us</b>                                               | 13     | 54       | 77        | 91        | 84        |
| <b>Trash/Recycling collected at all cleanups (lbs.)</b>                                      | 1,775  | No event | No event  | 3,930     | 3,295     |
| <b>Weed Warrior Volunteers</b>                                                               | 89     | 36       | No events | 10        | 53        |
| <i>Solid Waste Division Data:</i>                                                            |        |          |           |           |           |
| <b>Total number of tons collected</b>                                                        | 30,143 | 29,556   | 32,642    | 29,885    | 29,740    |
| <b>Number of tons land filled</b>                                                            | 20,645 | 20,267   | 22,189    | 20,310    | 21,032    |
| <b>Number of tons recycled</b>                                                               | 9,498  | 9,289    | 10,452    | 9,576     | 8,704     |
| <b>Percent of solid waste stream recycled</b>                                                | 32     | 31       | 32        | 32        | 32        |
| <i>*A dash indicates information not available*</i>                                          |        |          |           |           |           |



## Climate Action Plan Progress

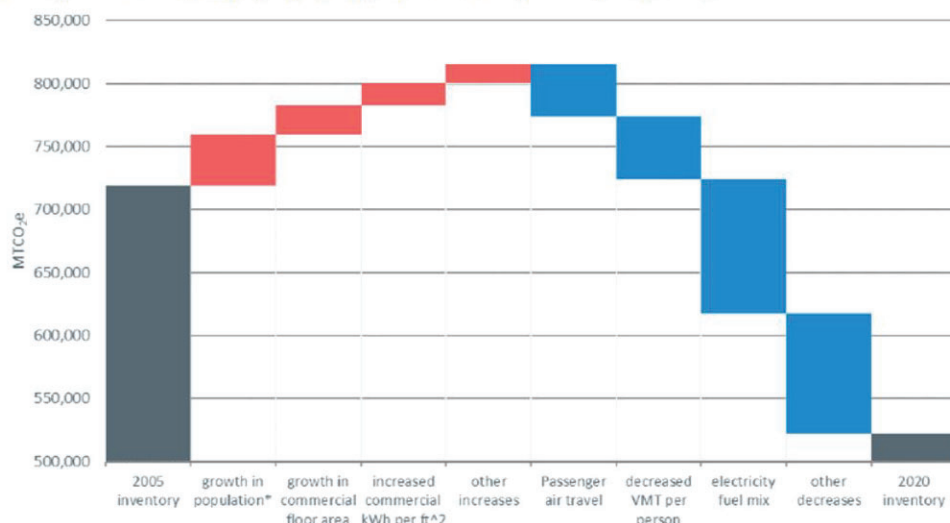
The City's current Climate Action Plan (CAP), adopted in 2020, sets an ambitious goal of 50% reduction in greenhouse gas emissions from 2015 levels by 2030. To advance this objective, the Council approved the Climate Action Plan Implementation Plan in 2022. This plan outlines specific strategies and actions to be undertaken from 2022 to 2025, aligning with the expiration of the current CAP.

For detailed information on the objectives the City will be focusing on until the formulation of a new plan, likely in Fiscal Year 2025, please see pages 10 and 11. These objectives serve as a roadmap for City efforts during this period. Please note, we have marked items from the Prince George's County CAP that align with our own, as regional coherence is essential to success.

According to the most recent update from the Metropolitan Washington Council of Governments (MwCOG or COG), who provides bi-annual greenhouse gas community analyses, the City has made significant strides towards reducing our emissions. Since COG's 2005 baseline inventory, we have achieved an impressive 27% reduction in emissions. Our efforts to decrease single-occupant vehicle rides have shown positive results, while concurrently focusing on electrification of the grid and use of renewables.

### GHG CONTRIBUTION ANALYSIS

The City of Bowie GHG Contribution Analysis results show what has driven increases and decreases in emissions between inventory years 2005 and 2020. The graph shows the main drivers increasing emissions (red bars) are growth in population, commercial space, and increased commercial electricity energy intensity. Driving down emissions (blue bars) are mainly a cleaner grid, reduced vehicle miles traveled (VMT) per person, and reduced passenger air travel.



Note: \* Includes effects of population on residential energy, VMT, and waste generation.



## EMISSIONS SUMMARY

The City of Bowie community-wide greenhouse gas (GHG) emissions decreased by 27% between 2005 and 2020, despite a 10% growth in population. In 2020, forests and trees sequestered more than 10,000 metric tons of CO<sub>2</sub> equivalent (MTCO<sub>2</sub>e) or 2% of total emissions.



*The chart above identifies emissions sources and sequestration (capture) efforts. Please note, COG uses a 2005 baseline and had its own 2020 goal for the region which differs slightly from our internal goal of a 50% decrease from 2015 baseline levels.*



## City Government Objectives

| Action # | Action Area                    | Action Item                                                                                                  | Objectives                                                                                                                                                                                                     | Metrics                                                                                                         |
|----------|--------------------------------|--------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|
| 1        | Energy Efficiency & Renewables | Commitment to energy efficiency and renewable energy usage in City operations<br><br><b>PGCAP: CO-4, M-1</b> | 1. Prioritize solar & renewable projects in Capital Improvements Plan (CIP) energy projects; ongoing                                                                                                           | # of CIP projects with an energy efficiency or renewables focus                                                 |
|          |                                |                                                                                                              | 2. Budget for and purchase software for in-house emissions benchmarking of City facilities by 2024                                                                                                             | Acquisition of benchmarking software                                                                            |
|          |                                |                                                                                                              | 3. Evaluate the feasibility of LED light replacements at City facilities and parks annually and on an individual basis as needed.                                                                              | Completion of LED and/or generator replacement projects                                                         |
|          |                                |                                                                                                              | 4. Evaluate the feasibility of generator replacements with renewable sources annually and on an individual basis as needed.                                                                                    |                                                                                                                 |
| 2        | Transportation                 | Promote EV infrastructure<br><br><b>PGCAP: M-4, M-6</b>                                                      | 1. Update budget guidance language for vehicle acquisitions to reflect efficiency goals & cost reduction over the lifetime of an electric vehicle (EV) vs. an internal combustion engine (ICE) vehicle by FY24 | Completed/update budget guidance language<br>Completion of fuel usage study/<br>Creation of Fuel Reduction Plan |
|          |                                |                                                                                                              | 2. Adopt a Fuel Reduction Plan by reviewing baseline fuel usage, Miles Per Gallon (MPG) of vehicles, and Vehicle Miles Travelled (VMT) data while incorporating future goals by 2025.                          | # of EVs or hybrids acquired for City operation and<br># of charging stations at City facilities                |
|          |                                |                                                                                                              | 3. Promote telework for City employees where possible, noting that this will not be possible for all positions; ongoing.                                                                                       | # or % employees teleworking                                                                                    |
| 3        | Operations                     | Green purchasing & zero-waste procurement<br><br><b>PGCAP: M-10</b>                                          | 1. Expand upon current green purchase policy and begin tracking items purchased via database/resources                                                                                                         | Promotion of green-friendly procurement database & tracking of green procurement                                |
|          |                                |                                                                                                              | 2. Implement food waste program at City Hall for staff by 2024                                                                                                                                                 | Implementation of food waste program at City Hall for staff                                                     |
|          |                                |                                                                                                              | 3. Move away from plastic or wasteful giveaways                                                                                                                                                                |                                                                                                                 |
|          |                                |                                                                                                              | 4. Expand upon healthful and/or less wasteful vending machine options                                                                                                                                          | # of items in machines that are sustainably packaged and/or healthier options                                   |
| 4        | Carbon Sequestration           | Expand Urban Tree Canopy<br><br><b>PGCAP: M-11, A-5</b>                                                      | 1. Establish a new/updated No Net Loss Policy, combining the 2013 Street Trees Policy with the new Development Review Guidelines by 2023                                                                       | Completion of updated No Net Loss Policy                                                                        |
|          |                                |                                                                                                              | 2. Regularly measure tree canopy for assessment towards the adopted 45% goal                                                                                                                                   | Completion of tree canopy assessments as data is provided                                                       |
|          |                                |                                                                                                              | 3. Expand tree planting rebate program by 2024                                                                                                                                                                 | # of Plant One Tree On Us (POTOU) trees given/budgeted                                                          |
|          |                                |                                                                                                              | 4. Convert as much turf to ecological landscaping (incorporating trees and promoting native species), when                                                                                                     | Creation of map showing potential areas for conversion to ecological landscaping & sq. feet of                  |



## City Government Objectives

| Action # | Action Area             | Action Item                                                                                                               | Objectives                                                                                                | Metrics                                                                              |
|----------|-------------------------|---------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|          |                         |                                                                                                                           | possible and feasible                                                                                     | non-park properties or public rights-of-way converted to ecological landscaping      |
|          |                         |                                                                                                                           | 5. Develop a native species promotion policy for internal operations by 12/31/22.                         | # of park and street trees lost and replanted                                        |
|          |                         |                                                                                                                           | 6. Update Public Works Specifications to address native species policy for stormwater management projects | Completion of native species promotion policy for internal operations                |
|          |                         |                                                                                                                           |                                                                                                           | Discussion and/or completion of update to Public Works Specifications                |
| 5        | Operations & resilience | Develop a Municipal Resiliency Plan                                                                                       | 1. Assess the need for a Smart Cities Task Force and/or Smart Cities workshops by 2023.                   | Compilation of Smart Cities data and distribution to Directors and appropriate staff |
|          |                         | Resilience: the ability to recover after a disaster and developing systems for mitigation.<br><br><b>PGCAP: M3, A1-A8</b> | 2. Incorporate Emergency Response Plan into overall Resiliency Plan                                       | Creation of Resiliency Plan, if deemed necessary through analysis                    |
|          |                         |                                                                                                                           | 3. Incorporate a climate equity policy into resilience planning to equitably provide emergency services   |                                                                                      |

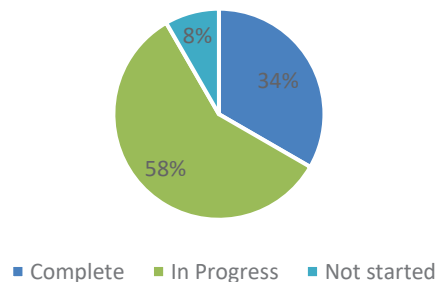


## Sustainability Plan Annual Update

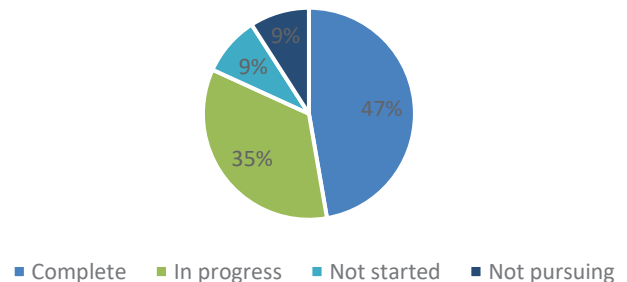
The Sustainability Plan, initiated in 2016 as a comprehensive 10-year roadmap, has allowed the City to make significant strides towards our sustainability-related goals. As we approach the sunset period, it is essential to take a moment to reflect on the progress achieved on the 25 overarching goals that span critical topics such as Business, Nature and Wildlife, Waste Diversion, Education and Outreach, and more. The City has successfully completed one third of all defined goals, with an additional two thirds in progress, with ongoing efforts and dedicated work being invested in each of them.

The 25 goals are supported by 57 strategies and 103 actions for the City to pursue. We are thrilled to share that nearly 50% of these are complete with an additional 35% in progress. More information on which strategies have been worked on can be found in the attached update. Together, we are shaping a more resilient, more eco-friendly, and all around more sustainable future for Bowie. The journey towards sustainability is a shared responsibility and we appreciate the effort and enthusiasm from all our stakeholders.

**Sustainability Plan  
Goal Progress**



**Sustainability Plan  
Strategy Progress**



*The Sustainability Plan annual update begins on the following page.*



# CITY OF BOWIE SUSTAINABILITY PLAN



PLAN

ANNUAL UPDATE - AUGUST 2023





## Breakdown:



## 25 Goals



## 57 Strategies



## 103 Actions





# Jobs and Business

A robust business community is one that creates local jobs and expands the city tax base, has businesses that provide goods and services needed by the community, employs people from the community, and, in many cases, has businesses managed or owned by individuals who live in the community. A community that supports an independent, diverse, and green-minded business network will help create a local economy that recycles a much larger share of revenue back into itself—enriching the whole community. The goals in this section focus on increasing commercial occupancy, supporting small businesses, and getting businesses to go green.

## Goals



**Goal JB1: Achieve 100% occupancy of retail space and under 10 percent vacancy of office space in the City**

➡ Retail occupancy is 94.1% and office vacancy is 11%.



**Goal JB2: Increase the number of businesses participating in Bowie Small and Independent Business Programs annually from 46 to 100**

➡ Over 300 clients were served by Small and Independent Business Programs.



**Goal JB3: Increase the number of participants in the Green Bowie Business Certification Program from 2 to 150.**

➡ There are 11 Green Bowie Businesses.

## Highlights

- The City launched a Sustainability Grants for businesses program and was able to reimburse two local businesses for making energy efficiency upgrades.



# Health and Wellness

An analysis of the USDA Agricultural Marketing Service's 1997 arrival data from the Jessup, Maryland, terminal market found that the average pound of produce distributed at the facility traveled more than 1,685 miles. This suggests that your meal travels approximately that far from farms to your plate. Though this varies based on where you live, it is not uncommon to see strawberries from California in a store in Maryland. These "fresh foods" may be a few days old before they reach your grocery shelves. Local foods need not travel so many miles—they are often harvested within a few hours or a day of being delivered to the farm stand, farmers market, or the grocery store's local produce section. Fresh food has a high nutritional value and a high concentration of

vitamins. You are likely to have more choices locally because more fragile items do not have to endure the trauma of shipping.

According to the County and state health departments and the Center for Disease Control and Prevention, the incidence of diabetes, heart disease, and obesity is higher in Prince George's County than in the State of Maryland and in the United States. These are conditions that can be controlled through policies, access to healthy food, and education. The goals in this section focus on participation in activities related to well-being, producing and consuming locally grown food, and health-related policies and programs.

## Goals



**Goal FW1: Achieve 20% resident participation in programs that promote the production, distribution, purchase, and consumption of food that is sourced within 200 miles.**



We continue to promote the farmers market, national farmers market week, and the community garden plots.



**Goal FW2: Increase participation in physical fitness and wellness programs and events by 20%.**



The City's Green Bowie Veterans Day 5k returned for the fourth year with more than 300 participants.

## Highlights

- The Green Bowie e-newsletter provides readers with a plant-based recipe each month.
- Green Bowie hosted three more yoga events, in partnership with the Belair Mansion.



# Nature and Wildlife

Protecting and maintaining the natural environment for the benefit of people, plants, and animals is an important element of a healthy, beautiful community. Creating or enhancing green spaces, parks, and trails, as well as cleaning up litter in the City, ranked in the top priorities of the community engagement voting activity conducted as a part of this plan preparation. This indicates that Bowie's natural environment contributes to an aspect of the City that many residents and visitors are attracted to and highly value.

Bowie's previous Green Infrastructure and Environmental Infrastructure Plans gave the City a head start protecting its natural resources in 2003 and 2007. In 2012 and 2013, studies were conducted to determine how to best manage and improve forest conditions by increasing tree canopy, increasing forest diversity, and removing invasive species. The goals in this section address ways to implement tree planting, create and maintain habitat, and reduce litter.

## Goals



**Goal NW1: Protect, preserve, and enhance existing forest and tree canopy coverage to reach the 45% tree canopy goal.**

➔ Staff determined the City's canopy is currently at 44%.



**Goal NW2: Create native landscaping on 300 additional public and private properties to help improve water quality and create new habitats for wildlife.**

➔ 7 new habitats were added.



**Goal NW3: Remove invasive plant species from at least 300 acres of land.**

➔ General maintenance continued on invasive plants but no new areas were removed.



**Goal NW4: Increase participation in City cleanup and litter educational programs by 30%.**

➔ All 15 eligible City roads in the Adopt-a-Road program have been adopted and received their first cleanup.

## Highlights

- The Plant One On Us program, which provides free native trees to residents, resulted in 84 trees planted.
- Information from the Chesapeake Conservancy show the City's current tree canopy is 44%.



# Communication

The purpose of communication varies from information and promotion to education and public safety. From a City perspective, it has the large task of meeting all of those purposes and reaching all members of a community. During the ImagineBowie campaign, extra efforts were made to reach all stakeholders, including those which have been hard to reach (African-American, Hispanic, and millennial demographics). Such efforts need to continue throughout the plan's implementation by expanding the City's use of electronic communication methods, while also increasing public participation in order to enter a new phase of communication. The goals in this section focus on engaging the community through various media outlets such as social media and e-newsletters.

## Goals



**Goal CC1: Increase City Alert System subscriptions from 4,907 to 10,000.**

➡ Goal met



**Goal CC2: Increase the reach of the City's social media from 6,800 to 16,000 people.**

➡ Goal met



**Goal CC3: Increase Green Bowie e-newsletter subscribers from 588 to 1,500.**

➡ Currently: 1,286 or a 23% increase from FY22.

## Highlights

- The Sustainability Webinars started a sub series that focuses on equinox and solstices and seasonally appropriate topics, hosting both the spring and summer talks in FY23.



# Community

A strong community provides a sense of belonging, which enables individuals to look outside themselves and contribute to the welfare of others. Community and “sense of community” were consistent themes throughout the engagement process. Bowie residents embrace neighbor-to-neighbor interactions and opportunities to share ideas and problem solve together. People want to connect; it makes them feel like they are a part of something, and it improves their quality of life. People also feel good when they do something positive for someone else, or for something bigger than themselves.

## Goals



**Goal CT1: Create or enhance 10 public gathering spaces.**



We are constantly working to update and enhance public gathering spaces, parks, and amenities.



**Goal CT2: Increase resident participation in Emergency Services programs from 100 to 300.**



This goal is no longer relevant.



**Goal CT3: Increase the number of public art pieces from 7 to 20.**



A Martin Luther King Jr mural was commissioned and painted on the side of the Bowie gym. DCS held an unveiling event.



**Goal CT4: Involve 500 residents in a City-led resident sustainability certification and award program.**



No goal update available yet.



**Goal CT5: Involve 6,000 residents in events and programs that strengthen neighborhood connections.**



Five neighborhood mini grants were awarded.

## Highlights

- City water bottle filling stations diverted over 10,000 water bottles from landfills in FY23.



# Education

Education drives action. Someone might not think twice about the rush of water and pollutants that go down the storm drains without someone pointing out the range of impacts from erosion, to habitat disruption, to impacts on the Chesapeake Bay. When a community shows that it cares and knowledge is shared in a common cause, much progress can occur. Driving action through education can happen at all ages, starting with our children in schools, through higher education, and on to formal and informal adult education. In the school environment, incorporating sustainability into the curriculum can make learning more fun, as problem-solving connects students to the real world in their backyards and in their neighborhoods. When they are engaged and excited about what they are learning in school, students take those lessons home. For example, if they are growing their own food and composting at school, they might encourage their families to do the same at home because it is fun and they understand the value.

## Goals



**Goal ED1: Achieve Green Schools Certification at all schools within the City limits.**

➡ All schools have been certified, and two schools re-certified this year.



**Goal ED2: Increase Green Bowie program awareness to 90% for residents over 18.**

➡ No goal update available yet.



**Goal ED3: Provide a way for all community members in the City to report sustainability actions and have at least 2,000 participate in reporting.**

➡ No goal update available yet.

## Highlights

- The Green Schools subgroup of the Green Team held its annual forum at Benjamin Tasker Middle School and focused on composting and recycling efforts in the schools.



# Mobility and Connectivity

Bowie enjoys the benefit of convenient access to Baltimore, Washington, D.C., western Maryland, the Chesapeake Bay, and the Eastern Shore. Bowie Town Center serves as a transit hub with the nearby Park and Ride serving as a transfer station for nearly all of the buses serving the City. The MARC station provides another transit center at the north end of the City. Many actions in the Climate Action Plan address the need to develop transit-oriented communities, increase usage of public transport, and expand the City's biking and hiking networks to reduce per capita vehicle miles traveled.

However, more needs to be accomplished in terms of decreasing traffic by creating interconnected trails and sidewalks throughout the City. The Washington, D.C. metropolitan area, which includes suburbs in Maryland and Virginia, is ranked first nationally in the cost of traffic congestion per commuter, with congestion costing \$1,834 per commuter and causing 82 hours of delay annually. The goals in this section address increasing the City's Walk Score and encouraging more walking and biking trips.



City residents take advantage of the trail located at Whitemarsh Park.

## Goals



**Goal MC1: Increase City's Walk Score from 25 to 50 and encourage more walking and biking trips.**

➡ No goal update for FY23

## Highlights

- A Commercial Area Bicycle & Access Study was completed as well as a City-wide bicycle rack inventory.
- A Complete Streets re-design plan for Kenhill Drive was drafted and reviewed.



# Water

Water is one of Earth's most valuable resources and it needs to be protected by keeping it clean and using it efficiently. When it rains, water runs off roofs, parking lots, streets, and lawns instead of soaking into the soil the way it did before development. This water (e.g. stormwater), along with everything it picks up along the way ( fertilizers, oil and grease, litter, etc.), ends up in storm sewers and ditches that discharge to streams, rivers, and lakes. This process contributes to the presence of toxic contaminants in the Chesapeake Bay. Only 2.5% of the Earth's water is freshwater, and only 1% of that is accessible. To ensure future supplies of fresh, clean water, this precious resource must be conserved. The goals in this section focus on ways to save and clean water at a local level.



A new pet waste station installed at Whitemarsh Park.

## Goals



**Goal WA1: Implement practices and programs to save and clean water on 2,000 properties in the City.**



No update available.

## Highlights

- Staff presented the watershed model at Heather Hills Elementary School and the Baysox STEM Fair in spring of 2023.



# Recycling and Composting

Recycling and composting are two of the easiest and most familiar actions individuals can take to be sustainable and help their community. The City's current recycling rate is about 33%, but other nearby areas have reached a recycling rate of over 50%, and there is plenty of room for improvement.

Food waste presents a monumental opportunity to reduce landfill waste and associated emissions. The EPA estimates that about 25% of all waste sent to a landfill is actually food waste that could be composted. The City will continue its work on backyard composting and food waste initiatives.



Curbside food waste collection bins getting ready for delivery.

## Goals



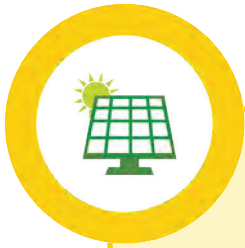
**Goal RC1: Decrease the tonnage of residential waste sent to the landfill by 30%.**



Residents have many ways to reduce residential waste including recycling, composting and food waste programs, plus special events for collecting unused medications, shredding, styrofoam and electronics.

## Highlights

- The Food Waste program has 256 participants.



# Energy and Climate

Energy and Climate are major topics for action in the Climate Action Plan adopted in 2015. However, it is a five-year plan, and this plan looks to 2026. Climate change will be an issue for many decades to come, and will need to be continually addressed. In 2020, the City will need to consider updating its Climate Action Plan. In addition, solar projects in Bowie are of high importance to continue and increase past 2020. Switching to renewable energy sources can drastically reduce greenhouse gas emissions, and solar has been positively received in the City, with solar capacity increasing by over 50% each year since 2010.



A photo of the City's solar farm.

## Goals



**Goal EC1: Reduce greenhouse gas emissions by at least 20%.**



According to MWCOC, the City has reduced emissions by 27% since 2005.



**Goal EC2: Increase renewable energy generation from 9 to 40 MW hour production.**



Goal met

## Highlights

- The solar farm came on-line and offsets electricity usage from nine City facilities.

# Strategy Status

● Completed

● In Progress

○ Not Started

✘ Not Moving Forward

| Strategy                                                                                                                                                                                                                   | Time frame | Status |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------|
| <b>GROWTH</b>                                                                                                                                                                                                              |            |        |
| <b>JB1.1:</b> Continue to nurture a diverse and stable business environment that supports all community needs.                                                                                                             | Short-Term | ●      |
| <b>JB2.1:</b> Support and foster small and independent businesses.                                                                                                                                                         | Short-Term | ●      |
| <b>JB2.2:</b> Start a Buy Local Campaign to support Bowie businesses.                                                                                                                                                      | Mid-Term   | ○      |
| <b>JB3.1:</b> Organize two green business workshop or networking events per year.                                                                                                                                          | Short-Term | ●      |
| <b>JB3.2:</b> Schedule in-person assessments with 10-15 businesses per year to identify ways to go green.                                                                                                                  | Short-Term | ●      |
| <b>FW1.1:</b> Create and maintain a community garden with plots on City property that residents can use to grow food.                                                                                                      | Short-Term | ●      |
| <b>FW1.2:</b> Expand Bowie Farmers Market.                                                                                                                                                                                 | Mid-Term   | ●      |
| <b>FW1.3:</b> Adopt a Community Food System Plan.                                                                                                                                                                          | Mid-Term   | ✘      |
| <b>FW1.4:</b> Create a vertical farm or food forest for residents to use.                                                                                                                                                  | Long-Term  | ✘      |
| <b>FW2.1:</b> Create a City-sponsored wellness initiative by partnering with local organizations.                                                                                                                          | Short-Term | ●      |
| <b>NW1.1:</b> Use social marketing to develop a tree planting campaign.                                                                                                                                                    | Short-Term | ●      |
| <b>NW1.2:</b> Enhance and maintain the City's current tree rebate program.                                                                                                                                                 | Short-Term | ●      |
| <b>NW2.1:</b> Achieve and maintain National Wildlife Federation Community Wildlife Habitat Designation (at least 200 homes, 6 community sites, and 5 schools certified as wildlife habitats plus additional requirements). | Short-Term | ●      |
| <b>NW2.2:</b> Increase the number of certified Monarch Waystations.                                                                                                                                                        | Short-Term | ●      |
| <b>NW2.3:</b> Encourage resident participation in the Bay-Wise certification program.                                                                                                                                      | Short-Term | ●      |
| <b>NW3.1:</b> Encourage the removal of invasive species from private land.                                                                                                                                                 | Short-Term | ○      |
| <b>NW3.2:</b> Remove invasive species from public land.                                                                                                                                                                    | Short-Term | ●      |
| <b>NW4.1:</b> Host volunteer cleanups around the community.                                                                                                                                                                | Short-Term | ●      |
| <b>NW4.2:</b> Create an educational and public awareness campaign to sensitize residents to the negative impacts of litter on the environment.                                                                             | Mid-Term   | ●      |

**NOTE:** "Complete" does not necessarily mean "finished" Many of these programs continue to be implemented & marketed.

| Strategy                                                                                                                                                       | Time frame | Status                                                                                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------------------------------------------------------------------------------------|
| <b>UNITY</b>                                                                                                                                                   |            |                                                                                       |
| <b>CC1.1:</b> Provide 10 workshops per year about emergency responses for storms, flooding, etc. for residents and promote City Alert System at all workshops. | Short-Term |    |
| <b>CC1.2:</b> Encourage residents to sign up for City Alert at all City events.                                                                                | Short-Term |    |
| <b>CC2.1:</b> Encourage residents to like or follow the City on social media at all City events.                                                               | Short-Term |    |
| <b>CC3.1:</b> Encourage residents to sign up for the Green Bowie e-newsletter on the spot at all Green Bowie events.                                           | Short-Term |    |
| <b>CC3.2:</b> Change Green Bowie e-newsletter to a monthly distribution from quarterly.                                                                        | Mid-Term   |    |
| <b>CT1.1:</b> Investigate areas to create more green space.                                                                                                    | Short-Term |    |
| <b>CT1.2:</b> Install more amenities in the public gathering spaces (interpretive signs, park benches, picnic tables, drinking fountains, etc.).               | Mid-Term   |    |
| <b>CT2.1:</b> Recruit and train more Community Emergency Response Team leaders.                                                                                | Short-Term |    |
| <b>CT2.2:</b> Offer home emergency kits for residents to purchase.                                                                                             | Short-Term |    |
| <b>CT3.1:</b> Expand the City's Public Art Master Plan.                                                                                                        | Mid-Term   |    |
| <b>CT4.1:</b> Develop a citizen sustainability certification program that encompasses a range of sustainability efforts.                                       | Short-Term |    |
| <b>CT4.2:</b> Provide an annual award to residents who make significant achievements in sustainability.                                                        | Short-Term |  |
| <b>CT5.1:</b> Hold quarterly community roundtables hosted by City and/or community organizations to discuss community issues.                                  | Short-Term |  |
| <b>CT5.2:</b> Work with churches, non-profits, businesses, and other organizations to host diversity and cultural awareness gatherings and/or events.          | Short-Term |  |
| <b>CT5.3:</b> Increase promotion, benefits and participation in the "Neighbors Helping Neighbors Program".                                                     | Short-Term |  |
| <b>ED1.1:</b> Provide biannual workshops to assist with meeting Green School requirements.                                                                     | Short-Term |  |
| <b>ED1.2:</b> Partner with Bowie-Crofton Garden Club and the City's Education Committee to provide grants to schools that pursue green projects.               | Short-Term |  |
| <b>ED2.1:</b> Develop an outreach campaign to reach audiences that are underrepresented or not represented in current program activities.                      | Short-Term |  |
| <b>ED3.1:</b> Develop a sustainability projects monitoring and tracking system.                                                                                | Short-Term |  |
| <b>MC1.1:</b> Develop and implement a promotional campaign to bring awareness of existing trails for biking, hiking and family walks.                          | Short-Term |  |
| <b>MC1.2:</b> Expand existing trails for biking, hiking, and family walks into a safe interconnected network.                                                  | Long-Term  |  |

| Strategy                                                                                                                                                                                                               | Time frame | Status |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------|
| <b>PROGRESS</b>                                                                                                                                                                                                        |            |        |
| <b>WA1.1:</b> Encourage the installation of rain gardens.                                                                                                                                                              | Short-Term | ●      |
| <b>WA1.2:</b> Encourage the installation of rain barrels.                                                                                                                                                              | Short-Term | ●      |
| <b>WA1.3:</b> Increase participation in the mulching mower rebate program for residents.                                                                                                                               | Short-Term | ●      |
| <b>WA1.4:</b> Increase resident awareness of practices and programs to save and clean water.                                                                                                                           | Short-Term | ●      |
| <b>WA1.5:</b> Create and adopt a Watershed Plan.                                                                                                                                                                       | Short-Term | ✕      |
| <b>WA1.6:</b> Install five additional pet waste stations.                                                                                                                                                              | Short-Term | ●      |
| <b>WA1.7:</b> Encourage planting of native vegetation within the stream buffer.                                                                                                                                        | Mid-Term   | ●      |
| <b>RC1.1:</b> Enhance educational programs on household recycling and composting.                                                                                                                                      | Short-Term | ●      |
| <b>RC1.2:</b> Increase the number of households that are composting to 2000.                                                                                                                                           | Short-Term | ●      |
| <b>RC1.3:</b> Investigate a Food Recovery Program to collect food that would otherwise go to waste from restaurants, stores, and other places to give to local emergency food programs, such as the Bowie Food Pantry. | Short-Term | ✕      |
| <b>RC1.4:</b> Install public recycling bins at all City parks and other public areas.                                                                                                                                  | Mid-Term   | ●      |
| <b>RC1.5:</b> Investigate implementing a Pay-as-You-Throw pricing structure.                                                                                                                                           | Long-Term  | ✕      |
| <b>EC1.1:</b> Continue to implement the Climate Action Plan.                                                                                                                                                           | Short-Term | ●      |
| <b>EC1.2:</b> Evaluate and update the Climate Action Plan in 2020.                                                                                                                                                     | Mid-Term   | ●      |
| <b>EC2.1:</b> Assist with developing a Community Solar Program for renters and low-income residents by organizing partnerships.                                                                                        | Mid-Term   | ●      |
| <b>EC2.2:</b> Investigate ways to support solar battery storage projects for City facilities, residential properties, and businesses.                                                                                  | Long-Term  | ●      |
| <b>EC2.3:</b> Investigate the feasibility of a renewable microgrid project.                                                                                                                                            | Long-Term  | ●      |