Green Team Meeting Notes – November 3, 2016
Secretary - Joe Thompson, Chair, Green Team
In attendance – David Brosch, Arlene Christiansen, Eric Erickson, Sarah Mosely, Tracey Toscano, Tim Young

1. Sustainable Maryland Recertification

- The Green Team members reaffirmed University Park's commitment to obtain Sustainable Maryland recertification in 2017.
- The Green Team members thought it was useful to pursue Sustainable Maryland recertification, as it enables the Town to pursue certain grants.
- University Park has recently implemented many sustainability actions that will enable the town to recertify.
- The September / October edition of Municipal Maryland magazine was entirely devoted to the Sustainable Maryland program. See red boxes and text on pages 9, 15, and 16 of this PDF for brief notes on the progress the Town has made.

2. Town Strategic Planning

Meeting participants thought the Green Team should spur the Town of University Park to focus on the following activities in 2017 and beyond (not prioritized):

- Formally recommend that the Town of University Park adopt the Sustainability Plan developed by Allison Harwick, after an opportunity to discuss amendments.
- The Green Team can play a key role in the Mosquito program by organizing block captains and citizen engagement with the Town's formal program.
- The Town should pursue a Park Plan encompassing the entire Town Park to encourage the right land use in the right place, help with stormwater management, and increase wildlife habitat,, among other benefits. Such a plan can be completed through partnership with the University of Maryland and will give the Town access to grant opportunities.
- Expand the composting pilot town-wide and reduce trash pickup from twice a week to once a week to free up public works staff for other activities.
- The Town should help the county and neighboring municipalities pursue a regional composting facility to reduce packer drive miles.
- The Green team can play a key role advising the Town on sustainability issues and coordinating town-wide activities with other committees.
- The Town should continue to pursue Transportation Demand Management.

3. New Business

- The Green Team resolved to have recurring meetings on the first Thursday of every month at 7:30 PM.

Municipal Maryland

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On the cover ...

Registered Sustainable Maryland municipalities gathered for a group photo at MML's 2015 fall conference in Cambridge. Registered Sustainable Maryland municipalities are recognized each year during MML's fall conference. This year recognition will occur at the business meeting on October 14 at the Solomons Holiday Inn.

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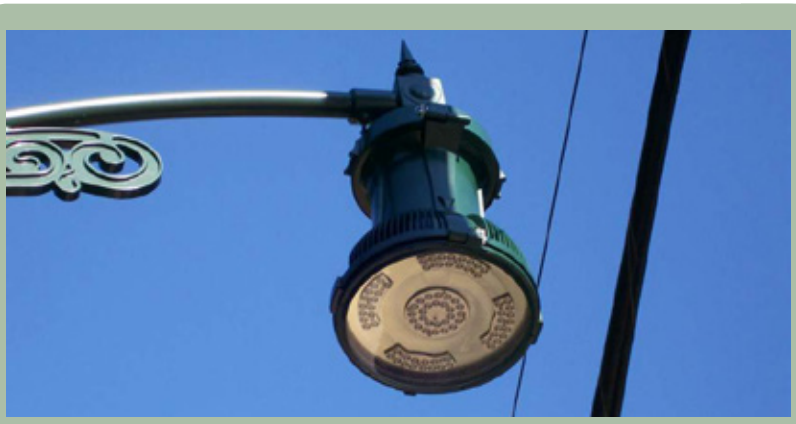
Local Actions: Maryland

By Tracy Gant, MML President



Edmonston LED Street Light

Emmitsburg Farmers Market

Easton Smart Car

Green Teams

The Maryland Municipal League has been a proud supporter of the Sustainable Maryland program since its inception in 2011. Our organization's commitment to the economic, social, and environmental sustainability of Maryland's 157 municipalities is amplified through the hundreds of local actions that have been certified in this program, ranging from installing energy-efficient LED streetlights, to starting local farmers markets, to fostering stewardship activities that improve the health of a local watershed. It is also reflected in the Green Teams that have been organized at the local level, comprised of elected officials, municipal staff, business owners and residents, whose personal passion and professional expertise have been harnessed to advance the improvement of the places they call "home."

During this time, 66 municipalities have registered with the program, and of those, 30 have successfully become Sustainable Maryland Certified. In addition, many municipalities have successfully become re-certified in the program. Through re-certification, these communities have also demonstrated an expansion of the depth and breadth of their sustainability initiatives, and offer new and innovative examples for other Maryland towns and cities to model as they strive toward achieving the same goals.

The Green Teams that are fostered at the local level by Sustainable Maryland have helped implement hundreds of cost-effective solutions to the challenges of the early 21st century, from composting programs that help ease landfill fees, to new solar arrays that power wastewater treatment plants and reduce polluting emissions, to creative "Buy Local" campaigns that help keep more dollars circulating within local economies.

Key to Sustainable Success

2016-17 and Mayor, Edmonston

Our state's incorporated towns and cities face many obstacles as they navigate their obligations to maintain and improve the quality of life, make efficient investments, and protect natural resources. The Maryland Municipal League is committed to supporting our stakeholders in these efforts by connecting them with the most effective resources available. The Sustainable Maryland framework, featuring Green Teams completing a variety of Actions as they progress towards achieving certification, is an excellent tool for addressing these challenges. In the following pages, you will meet the people engaged in this work, and learn about the model projects they have achieved at the local level. Their accomplishments offer a road map to a sustainable future for all communities. ■

Tracy Gant, MML President, 2016-17 Mayor, Edmonston

Bladensburg Eco-pole

Hyattsville Parking Compliance Vehicle

Frederick Shop Local emblem

Brentwood Solar Panels on Town Hall

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Sustainable Maryland

Over the past five years a growing number of local governments in Maryland have become proactive in their efforts to create healthy, resilient, and sustainable communities. In lieu of broad federal and frequently jumbled state efforts, local governments have begun to look to citizen-led, and integrated efforts in areas such as energy efficiency, pollution reduction, waste water treatment, and flood hazard reduction. This work has been strongly encouraged and dramatically focused by the Sustainable Maryland program of the Environmental Finance Center at the University of Maryland. There are 66 municipal governments that are now certified or enrolled in the program.

Each begins with the creation of a local green team that focuses on both broad planning across Three Pillars (social equity, economic viability, and environmental well being) – and identifying a number of specific projects that count as progress toward the goals most appropriate to that community and enhancing its quality of life. State and federal support is sought where needed but the keys are citizen involvement, local government engagement, and outreach. Assembled here are examples of this work to highlight the value, benefits, and impact in communities across Maryland.

The Sustainable Maryland program reflects the challenges of finding champions for "Governing Green" in every community. Chief among these are ensuring the vision and availability of financial and human resources to begin and support these efforts. It is for these reasons we share this special theme issue on the Sustainable Maryland program.

Gary G. Allen
Executive Director
Center for Chesapeake Communities

Registered Sustainable Maryland Municipalities

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Green = Have earned Sustainable Maryland Certified designation
Black = working toward earning sustainable Maryland Certified designation

Sustainable Maryland Overview

By Mike Hunninghake, Sustainable Maryland
Environmental Finance Center – University of Maryland

ENVIRONMENTAL FINANCE CENTER

Elected officials and municipal staff engage in an exercise to identify and prioritize Political, Environmental, Social, Technological, Economic and Legal (PESTEL) issues and stakeholders, at a Sustainable Maryland Leadership Training.

Maryland's incorporated towns and cities face challenges both locally unique, and broadly similar, when it comes to addressing the long-term viability of their communities. Economic constraints are often foremost on the minds of elected officials and tax-paying residents as they seek to maximize their efficiencies while also ensuring the social and environmental sustainability of their communities. They often struggle to carry out sustainability initiatives in the face of a myriad of obstacles, including an absence of comprehensive training, lack of clear policy goals, insufficient funding, and inadequate capacity. Over the last five years, the Environmental Finance Center at the University of Maryland has been the home of a unique initiative designed to help fill these gaps and address these issues: the **Sustainable Maryland program.**

The Sustainable Maryland program supports Maryland's 157 municipalities as they seek cost-effective and strategic ways to revitalize their communities, protect their natural assets, and strategically design a resilient future where residents and businesses can thrive. The **"Sustainable Maryland Certified" designation** is a prestigious award conferred on towns and cities and is considered by their peers, by state government, and by experts and civic organizations to be a significant indicator that the municipality is a statewide leader in these efforts. Sustainable Maryland-registered and certified municipalities implement practices that lead to cost savings in energy, water and waste bills. The program helps improve overall efficiency, cut waste, stimulate local economies, and improve long-term community resilience.

Since 2011, Sustainable Maryland has registered 42% of Maryland's municipalities and certified 30 towns and cities. Sustainable Maryland Certified communities represent more than a half million Maryland residents, and collectively have completed more than 600 individual sustainability actions. The certification is a rigorous and meaningful designation. All actions taken by municipalities toward certification are supported by documentary evidence, which is thoroughly reviewed. In order to maintain the prestigious certified status, these communities must reapply every three years for re-certification, which means they must maintain their existing activities and continue to improve. The statewide recognition these communities have achieved through certification has significantly contributed to the steady increase of additional Maryland municipalities registering with, and eventually becoming certified in, the **Sustainable Maryland program.**

The cornerstone of the program is the creation of Green Teams. Sustainable Maryland works with municipalities to pull together a coalition of the willing, made up of municipal staff, elected officials, the business community, and residents in order to utilize their local knowledge and professional experience to address sustainability issues. Once organized, Green Teams then work toward achieving municipal certification. They use the Sustainable Maryland Action menu as a framework toward sustainability, but are essentially free to choose a path that is most appropriate to their town's unique circumstances. The only requirements are that they must complete at least 150 points worth of Actions, including two Mandatory Actions and at least two Priority Actions. These Actions are comprehensive and not simply limited to environmental sustainability, but also embrace health and wellness, promoting local economies, planning and land use, energy efficiency, community-based food, and other aspects that increase livability. Among the more than 80 Actions, they include performing energy audits, developing pet waste programs, developing Buy Local campaigns, and ensuring that there are affordable housing elements in the municipalities' comprehensive plan. By providing a way to measure their success both internally and against other communities, Sustainable Maryland has successfully "gamified" local sustainability efforts, and in the process

created a climate of friendly competition between municipalities, which provides a further incentive for continuous improvement.

In due course, these efforts have established an **action-oriented sustainability network** in Maryland, which provides a community and an avenue for municipalities to learn from each other and replicate projects. At the Leadership Trainings and Green Team Summits that Sustainable Maryland hosts across the state, the recurring feedback received from participants is that they are pleased to learn that they are not alone in their efforts. They are excited to see that there are other individuals and local groups working toward similar goals, and believe the networking aspect of the Sustainable Maryland program to be invaluable.

The successful **re-certification** of the first four certified municipalities from 2012 is another demonstration of the program's success and a significant milestone on a number of fronts. Re-certification demonstrates the value of a having in place a platform and clear organizing principle for harnessing the talents and passion of local leaders. It also provides an ongoing presence for recruiting more diverse voices and experiences to local Green Teams, resulting in a more robust and authentic effort. By choosing to re-certify, municipalities demonstrate not only that they are maintaining effective Actions and implementing plans, but also that the incentives of the Sustainable Maryland program have resulted in both a more refined approach to their existing programs and activities, as well as an expansion of sustainability efforts into new areas. Finally, as the number of certified municipalities and Green Teams expands, cross-sharing of ideas and challenges helps strengthen overall efforts, and creates a team of mentors and role models for other communities and local leaders whose sustainability programs are at a more modest stage.

In the end, transformational change must happen at the local level, and community resilience requires long-term, generational investments. Investing in leadership and in the paradigm shift of our most basic units of local government is the only way to get to large-scale transformation. The Sustainable Maryland program is a unique mechanism for fostering the **continuous improvement and long-term engagement** of communities and encouraging them to effect positive change. Sustainable Maryland helps provide the expertise, guidance, and training to move projects forward that help ensure the long-term economic, social, and environmental health and resilience of Maryland's towns and cities. ■

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Berlin Establishes Stormwater Utility

by Jane Kreiter, Water Resources & Public Works Director, Berlin
& Darl Kolar, EA Engineering, Science, and Technology Inc.

The Town of Berlin had been suffering for years with failing, undersized, and limited stormwater infrastructure and conveyance systems. We were experiencing flooding with higher than average frequency, during even the modest one and two year storm events, which occur multiple times throughout a single year.

As a result, water quality in our Coastal Bays was being negatively impacted by our failing system. Citizens, as well as the Mayor and Council, were eagerly seeking relief. In 2005, the United States Army Corps of Engineers (USACE) initiated a comprehensive evaluation of the Town's stormwater management and conveyance network. The USACE evaluation, completed in 2007, concluded that the Town's stormwater system was significantly undersized in many areas. It was in dire need of significant improvements to provide flooding relief.

Recognizing the need for assistance with developing a plan to design, permit, and construct the stormwater management improvements identified in the USACE report, the Town solicited proposals for a stormwater management engineer. Through this process which included proposal review, interviews and presentations, the Town sought the services of EA Engineering, Science, and Technology Inc. In 2010, the Town connected with the University of Maryland Environmental Finance Center (EFC) to evaluate Berlin's eligibility for EFC's assistance in determining the financial cost of addressing the Town's stormwater management system needs.

Led by Joanne Throwe, the EFC presented Berlin's Mayor and Council with the opportunity for EFC to provide a financial study for stormwater management at no cost to the Town. The Council unanimously approved the receipt of the grant for EFC to complete a financial study. EFC's approach included public outreach meetings in each of the four voting districts within the Town focusing on setting stormwater priorities in those districts. In addition, the stormwater issues and how to address them was a topic at several Council meetings and the focus of a town-wide public work session.

Hearing the concerns of our citizens was very enlightening and helpful. The feedback from each of the community meetings was documented, reviewed, and ultimately played a critical role in developing a strategic plan to address not only the stormwater management issues identified in the USACE report, but those of the impacted residents as well.

After much study, outreach and testing, a report was produced that evaluated all areas in Town and ranked the areas in order of priority. The entire process took about 18 months, but as a result the Town had a good starting point for determining which project(s) would provide the most relief. The specific areas were prioritized and cost estimates associated with the retrofits or new stormwater structures were provided. The study concluded a dedicated funding source was essential to complete the much needed improvements to the Town's stormwater management system. The study detailed how to establish a stormwater utility. As outlined in the plan, the utility would collect a fixed rate or a flat fee from each residence and business based on the amount of impervious areas on their parcel.

Following the completion of the EFC study, the Town acted quickly on the recommendation to establish a stormwater utility. The utility was set up so that each residential property owner would pay a flat fee, while each business owner would pay based on the amount of their property's impervious area. The method used to complete this was identifying an equivalent dwelling unit (EDU). It was estimated that the average residential property had approximately 2,100 square feet of impervious area. The commercial property fee was calculated by dividing the impervious area by 2,100 and multiplying that by the flat rate for commercial properties (which was a lower flat fee rate compared to residential properties).

The fees were not outrageous nor was there much resistance to their implementation. As a result, the Town established a stormwater utility in July 2013. The monthly fees are included in Berlin's water and sewer and electric bills. The fee is used toward the maintenance and upkeep of all of the Town's stormwater infrastructure and conveyance systems.

Berlin worked with the University of Maryland Environmental Finance Center to develop a stormwater management plan.

The establishment of the utility immediately opened up opportunities for low interest loans and grants from government agencies and environmental groups. Since 2013 the Town has been awarded over $2,000,000 in grants. These funds will not correct all the needed infrastructure repairs and construction but will fund the majority of the highest priority areas identified in the report. To date, we have completed one project and have four others that are fully designed, two of which are out for bid and the other two are waiting for permits.

The Town of Berlin is grateful to the EFC and all our partners for helping us become one of the first municipalities to have a stormwater utility not because we were mandated, but because it was the right thing to do to help address flooding in our community and protect the Coastal Bays. ■

Emmitsburg Ensures Quality of Life for Future Generations

By Donald N. Briggs, Mayor, Emmitsburg

Sustainability of a town is about future value - what you want to sustain and how to go about sustaining it. It includes ratcheting "sustainability" into a verb, because sustainability consists of actions to make a town an organic extension of its natural setting and arrest the conflict. Sustaining comes with some pruning as accepted practices have to be modified. There are things and actions you want to sustain and others you do not. A change from prescriptive compliance to a blend with performance ratings and baseline comparisons can give a more accurate and predictable valuation of its progression or regression.

What we want to sustain in Emmitsburg is a time tested quality of life in a rural hamlet with a rich history. With a strong sense of self-sufficiency, Emmitsburg is set amid rolling contour farmed fields at the northern reach of the Catoctin Mountains where Tom's Creek and Flat Run flow through and along part of the town boundary. A setting reinforced by a 1,300 acre greenbelt of preserved land and 2,000 acres of university or town owned mountain land. Emmitsburg's historic pallet includes settlement in the pre-revolutionary 1700s, a more formal establishment in 1785, founding of Mount Mary's University in 1808, and America's first Saint Elizabeth Ann Seton moving here in 1809. Civil War events include serving as an encampment site for thousands of troops, Union one day and shortly thereafter Confederate, as they moved on to the battle of Gettysburg. In 1973 the National Emergency Training Center (NETC) - FEMA/Fire Academy was established. The quaint town of 2,900 residents serves sizable daytime employment at NETC - 750 civilian and contractors, Mount Saint Mary's University - 500 employed (and 2,900 students), and the Shrine of St. Elizabeth Ann Seton – 300 employed. These numbers are bolstered by the steady stream of visitors to the Fallen Firefighters Memorial and the National Shrine Grotto of Lourdes.

For years the town perspective with regard to its place in history and setting became muddled at best and challenging to what was best for the town. In the federally recognized historic district, pedestrian accommodations more and more gave way to vehicular concerns of expediting traffic through town as quickly as possible. The town was in regressive spin and changes were needed. But how? As a springboard to reverse the trend, we integrated US Green Building Council neighborhood development guidelines into our planning. Our main project was to "Take back the Square". While most towns have a main intersection, Emmitsburg has a square. Revitalization of the town square and sidewalks along its main arteries was set as a priority. In partnership with State Highway Administration (SHA), after four years of planning that included public charrettes, work is scheduled to commence in Spring 2017. Other priorities included:

- Becoming a State of Maryland Sustainable Community (SC) and with that came entitlements that included Community Legacy grants. We have since been awarded four 50-50 façade grants for property owners. The total of $200,000 in grants has led to $400,000 of improvements to properties in the SC - Historic District.

The Town's new wastewater treatment plant electricity needs are offset by renewable energy from the solar array built on surplus land at the wastewater plant site.

- Connecting the town from a concentric perspective around the square to make the town more walkable with eight sidewalk connections and one street connection.
- Replacing expensive town street lighting with low emitting diode (LED) lights that reduced the energy expense of lighting by 40%. Project costs were almost 100% covered by a grant and a utility company rebate.
- Becoming a solar renewable energy renewable energy provider to offset town electricity demands. Our solar array was built in two phases, each with over a million kilowatt capacities. The total project cost of over $4.4 million was financed through 20 year power purchase agreements (PPAs) with investors. Emmitsburg had surplus land at its wastewater treatment plant so there was no impact on conservation or agricultural land. By virtual aggregation of town accounts the town compensated for electricity grid reliance with creation of renewable energy. Environmentally, the equivalent of over 1,200 cars a day have been taken off the road. What we could not do because of location and being a car dependent community, we compensated for by being a renewable energy provider. Our new $19.4 million wastewater treatment plant electricity needs are offset by renewable solar energy.
- Continuing our momentum, we applied to become a Sustainable Maryland (SM) certified community, formed a Green Team, and took action to qualify. In the fall of 2015 we earned the certification. This was a critical step in continuing our efforts. SM certification brings guidance, new ideas, education opportunities and most of all staff support.

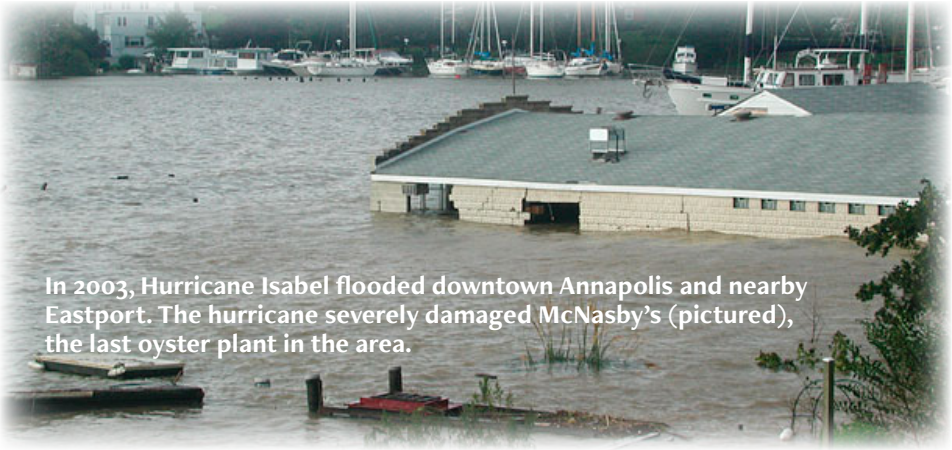
Mark Twain once quipped, "Common sense ain't so common." We took up that challenge! If your municipality hasn't, it should. Sustainability is about every day common sense decisions like being less wasteful, and enhanced actions that respect our natural environment and resources. It's a responsibility of our generation to protect and ensure a quality of life that will endure both now and for those who come after us. ■

Annapolis Addresses Coastal and Tidal Flooding

By Maria Broadbent, Director, Office of Environmental Policy, City of Annapolis

When we think of downtown Annapolis we think of historic buildings on brick-lined streets with beautiful water views. But what can we expect in 10, 20 or 30 years from now? This is a question that all historic seaside communities should be asking themselves.

Settled in 1649, Annapolis has always been defined by the waters that surround it. Early commerce and transportation depended on the City's location at the mouth of the Severn River on the Chesapeake Bay. Today, its location on the water still defines Annapolis. With a population just over 38,000, Annapolis is a capital city, home to the United States Naval Academy and a destination for more than 4 million people each year. Residents and tourists alike are drawn downtown to be by the water.



In 2003, Hurricane Isabel flooded downtown Annapolis and nearby Eastport. The hurricane severely damaged McNasby's (pictured), the last oyster plant in the area.

Annapolis is recognized internationally as "America's Sailing Capital" but we are also a popular fishing and recreational boating destination, with marine-related trades comprising a large part of the City's economy.

However, since its founding, the Annapolis waterfront has been changing, responsible by both by man-made and natural influences. Early colonists found marshy shore land, a shallow port with living shorelines of marsh grasses. As the economy prospered and the population grew, marshes were filled, shorelines were hardened, and waters were no longer pristine.

The Annapolis waterfront continues to change. Over the past 100 years sea-level has risen more than one foot. Nuisance flooding has increased by 925% in Annapolis over the past 50 years, from an average of 4 nuisance floods per year to 40 per year. In addition to the increase in nuisance flooding, the City is constantly reminded that damaging tropical storm surges will continue to impact our location on the Severn River and in turn affect future generations. In 2003, Hurricane Isabel flooded downtown Annapolis and nearby Eastport, creating a new floodplain line and severely damaged McNasby's, the last oyster packing plant in the area.

The City of Annapolis is taking a multi-faceted approach to preparing for floodplain changes as well as preparing for more severe storms. In 2011, with funding from the Maryland Department of Natural Resources, Annapolis commissioned a study on flood mitigation strategies for the City Dock and Eastport areas.

The City is currently working to develop a Cultural Resource Hazard Mitigation Plan which will be a Model Resiliency and Response Plan for Historic Properties. Along with that we are working on the Regulatory Response to Sea Level Rise and Storm Surge Inundation. Meanwhile, we are also working on a Sea Level Rise Strategic Plan and Designing a Cultural Resources Resiliency Plan.

Weather It Together: Protecting Our Historic Seaport is a multi-agency initiative of the City of Annapolis to develop a plan and implementation strategy, which will reduce the risk of damage or loss to private and public properties most vulnerable to the effects of climate change. This 18-month planning effort represents an important collaborative partnership between City, state and federal agencies and private non-profit partners.

Mayor Michael Pantelides was one of four local representatives invited to offer testimony at Congressman John Sarbanes' Field Hearing for Climate Change Adaptation at the United States Naval Academy in 2015.

The City recognizes that our watershed protection and restoration program cannot be separated from our floodplain management program. We must take a comprehensive approach to planning and implementing both programs. To that end, the city has created the Office of Environmental Policy with responsibility for the protection and enhancement of the natural environment within the City of Annapolis through policies and programs that include watershed protection and restoration, floodplain management, resiliency planning, and a variety of other environmental initiatives.

Partnerships with the community and projects like living shorelines and flood resistant stormwater best management practices are key to both initiatives. The recent installation of a living shoreline at the old McNasby's oyster processing plant, now the Annapolis Maritime Museum, funded and installed by the Maryland Department of the Environment, is an excellent example of how these partnerships benefit our environment and the community as a whole.

Through the University of Maryland Environmental Finance Center, Annapolis has partnered with Newport, Rhode Island to share ideas, discuss concerns, collectively develop solutions, and explore ways to leverage available funding to expand resources for environmental water quality to include frequent flooding projects. With Annapolis's location on the Chesapeake Bay and Newport's on Narragansett Bay, both historic communities are working to prepare for what the future will bring.

So I ask all of you that are reading this, what will your water view be decades from now? Do you have initiatives, programs and partnerships in place to mitigate the impact of coastal and tidal flooding on your community? This is a question that all historic seaside communities should be asking themselves. ■

Guide to Sustainability

Local communities are facing increasingly greater threats every day. They are required to address the intersecting challenges of environmental degradation, social injustice, and unstable economies with fewer and fewer resources available to assist them in their efforts. The following pages are offered as a guide to help municipal leaders consider the big picture when developing a comprehensive community sustainability plan. It is intended to provide direction for local sustainability efforts and a sampling of resources to implement action.

What is Sustainability?

In its simplest form, sustainability can be described as meeting the needs of the present without compromising the ability of future generations from meeting their own needs. It is a broad-based approach designed to make us ask: "What sort of world do we want to leave our grandchildren and their children and their children after that?"

Sustainability traditionally focuses on the three pillars of society: *social equity, environmental well-being, and economic vitality.* Without addressing all of these pillars, sustainability will be difficult to achieve. How we treat our vulnerable populations, what we buy, and how we dispose of our waste are all interconnected decisions and are incorporated into the sustainability movement.

While there are many and varied actions that a community can undertake to chart a path toward a more sustainable future, this guide provides basic examples under each sustainability pillar. Whether we are addressing food insecurity, access to health care, the importance of cleaning up our waterways, investing in renewable energy production, or the need to develop resilient economies with robust jobs for local residents, we are tackling the issue of sustainability, which requires fundamental economic and social change to improve human well-being while reducing environmental degradation.

This at-a-glance view offers suggestions on how to lead by example, incorporate various aspects of sustainability into a community's everyday activities, and actively engage citizens in the process. We use the examples of select topics under the pillars of *social equity, environmental well-being, and economic vitality.*

Think Strategically

Because sustainability covers such a wide array of topics, it is necessary to take some time to assess your community's priorities and determine what issues are most relevant to your residents. Develop community-based plans with defined goals to help establish which actions you should take, and in what order of importance.

Set Policies

Enacting laws and policies that direct action in an efficient and coordinated fashion is a vital step in addressing sustainability issues that are deep-seated and complex. Embed your plans within your community's institutional framework. Develop a set of policies, ordinances, and regulations which codify your commitment and help to establish a fundamental shift toward a more sustainable future.

Implement Action

Plans, goals and policies are only as useful as a community's ability to implement action. Municipalities must engage their leadership, municipal staff, and residents to effect greater change. Instituting interventions, outreach and education programs, infrastructure projects, and residential incentives will all help bring your community one step closer to its goals. ■

		Think Strategically	Set P
		Assess, Plan, Set Goals	*Ordinances, Regu*
Social Equity	Community Action	Community Needs Survey Community Asset Map	Green Team Action Plan Sustainability Plan Harwick Affordable Housing Plan
	Community Based Food	Food Desert and Access Map Healthy Food Assessment Food Security Plan	Right of Way Gardening Policy Mosquito program fits here, also related to stormwater
	Health & Wellness Bike Plan and Grant	Community Health Assessment Health Improvement Goals Bicycle and Pedestrian Plans	Municipal Wellness Policies Tree Committee; Public Works
Environmental Well-Being	Park Plan - Fellows Green Space Dubayah - UMD; Tree Committee and Public Works Dppartment	Natural Resource Inventory Conservation Easement Inventory Tree Canopy Inventory and Plan	New and Re-Development Tree Canopy Preservation
	Stormwater & Watershed	Stormwater Asset Map and Plan Septics System Assessment and Inventory Watershed Plan Water Conservation Plan Septics System Management Plan	Stormwater Manager/Coordinator Onsite Stormwater Requirements Stormwater Fee Structure
	Step UP 2 New Town Buses Energy & Resiliency CERT	Energy Audits and Reduction Plans Commuter Plans Community Carbon Footprint Community Resilience Assessment Disaster and Flood Mitigation Plans Climate Action Plan	Anti-Idling Policies Energy Efficiency Policies
Economic Viability	Economic Development	Economic Development Opportunity Assessment Sustainable Economic Development Plan Local Business Directory Green Jobs Plan	Economic Development Director Enable Public-Private Partnerships Composting
	Waste Reduction	Evaluate Municipal and Local Waste Sources	Pay-As-You Throw
	Purchasing	Evaluate Current Purchasing Practices	Sustainable Purchasing

Policies	Implement Action	
ulations, Mandates	***Programs, Education, Outreach***	
Community Policing Affordable Housing Plan Community Policing	Develop a Municipal Green Team Dedicated Sustainability Fund Sustainability Resource Center	Sponsored Cultural Events Diverse Outreach Materials Free Wi-Fi in Public Places
Urban Agriculture Ordinances	Community Garden Farmers Markets	Public Food Forests Healthy Food Options at Events
Safe Routes to School Policies UPPD - UPES Policies	Work Place Wellness Program Community Fitness Classes	Sponsored Health Screenings Bicycle infrastrucutre Bikeways Grant
	Tree Canopy Development Program Tree Committee, Town Incentives, Dubaya - UMD	Easement Outreach
Dedicated Septic System Fund Pet Waste Ordinance	Pollution Prevention Outreach Incentives for Watershed Stewardship on Private Lands	Water Conservation Outreach Pet Waste Education Outreach Mutt Strut Pet Waste Station in Park
Renewable Energy Purchase Policy Carbon Neutral Development	Onsite Renewable Energy Capacity Perform Energy Efficiency Upgrades Residential Energy Programs School, Town Hall, Step UP	Install Anti-Idling Devices Install E-Vehicle Charging Stations Purchase Alternative Fuel Vehicles Police / Public Works Vehicles
Dissuade Predatory Lending Potentially something to emphasize moving forward	Buy Local Campaign Local Business Round Table	Green-Business Certification We've done this for years
One Day Trash Pick-Up	Municipal Waste Reduction Program	Community Single Stream Recycling
Green Requirements in Service Contracts	Sign on to Green Purchasing Cooperative Agreements	Purchase Green Alternatives

Text

ENVIRONMENTAL FINANCE CENTER

Resources

Social Equity	Community Action	Sustainable Maryland- A “one-stop-shopping” program helping municipalities choose a direction for their sustainability efforts, improve access to resources needed to implement action, measure their progress, and gain recognition for their accomplishments
		Business Volunteers Maryland- connects companies and individuals to results-focused volunteerism.
		Sign Up Genius- A free group organizing web tool that helps communities keep track of and communicate with volunteers.
		Easel.ly & Piktocharts- A free web tool that features thousands of infographic templates and design objects which allows users without intensive experience as graphic designers to easily share their visual ideas online.
		Atavist- A free multimedia publishing platform that assists communities design online reports and serves as a storytelling tool.
	Community Based Food	UMD Extension- Provides programs and technical assistance in food & nutrition, home gardening, agriculture, and many more citizen engagement outreach opportunities.
		Local Food Shift- A campaign designed to empower communities to marshall their efforts in beginning to shift their food systems towards the local.
		Maryland Department of Agriculture- Information on Maryland Farmers Markets.
		Managing Maryland's Growth: Planning for the Food System- This publication outlines how the “food system” is central to Maryland's land use planning, economy, and well-being. The report provides case studies, guidelines and models of various local agricutlutral practices and programs.
	Health & Wellness	HEAL Cities & Towns- Free technical assistance and support to local elected officials and their staff to adopt policies that stem the obesity epidemic and create healthy, prosperous communities.
		Healthiest Maryland Businesses-Campaign that engages leaders, provides technical assistance and resources to support healthy employees and businesses.
		Action for Healthy Kids- Provides tools and resources to develop school action plans, programs & practices, and partnerships to combat childhood obesity.
		Maryland Bikeways Program- promote biking as a fun, healthy transportation alternative that is great for our environment.Provides support for projects that maximize bicycle access and fill missing links in the state’s bicycle system.
Environmental Well Being	Green Space	Tree City USA- Provides a framework for developing a robust tree canopy program.
		iTree Inventory- A free software tool that helps communities strengthen their forest management and advocacy efforts by quantifying the structure of trees and forests, and the environmental services that trees provide.
		TREE-MENDOUS Maryland- program aimed at helping citizens restore tree cover on public land and community open space.
		Maryland Urban and Community Forestry Committee Grants- Program helps community groups fund tree planting and education projects statewide to enhance Maryland’s urban forest.
	Stormwater & Watershed	Municipal Online Stormwater Training Center-online platform to provide stormwater education and training that includes tools, resources, and brief educational videos for the purpose of increasing awareness and empowering its stakeholders to take action toward effective stormwater management.
		Mayors' Water Challenge for Water Conservation-Resources and tools to motivate residents to conserve water and energy resources.
		Maryland Sea Grant Extension- Provides grants, capacity, education and outreach,and technical assistance in design assessments, social marketing and behavior change to help the Bay and coastal communities.
		Backyard Composting- Grants and educational tools to help promote residential composting.
		Chesapeake Bay Trust- Grant-making organization dedicated to improving the Chesapeake Bay and its rivers through environmental education, community outreach, and local watershed restoration.
	Energy & Resiliency	Re:Focus Partners- They design integrated resilient infrastructure systems and develop new public-private partnerships to align public funds and leverage private investment for vulnerable communities.
		Groundswell- Assists towns with obtaining 100% wind power.
		CoastSmart Communities Grant- Financial assistance to local governments to encourage the incorporation of coastal hazards, sea level rise, and/ or related coastal management issues into their plans, policies and operations.
		Maryland Smart Energy Communities program- Grant program empowering local governments to adopt energy policy goals and commit to them leading to sustained energy savings and additional opportunities for renewable energy development.
		ICLEI- Provides tools and technical assisatnce to local governments to build more sustainable cities and communities.
Economic Vitality	Economic Development	National League of Cities: Community & Economic Development Committee- Policy resources on issues involving housing, community and economic development, land use, recreation and parks, historic preservation, and international competitiveness.
		DHCD Sustainable Communities- A place-based community revitalization program used to incentivize planning and action.
		DHCD Mainstreet Program- Downtown revitalization program to strengthen the economies of main streest and neighboorhoods.
		U.S. Economic Development Administration- Tools on new and emerging economic development concepts for practitioners and policymakers.
	Waste Reduction	RecycleBank- Free online residential recycling outreach and rewards program.
		Trash summit- Grants, toolkits, and other resources for establishing a large scale community trash clean up.
		TapIt – An app that identifies sites for refillable water bottles helping to reduce the use of plastic bottles.
	Purchasing	Responsible Purchasing Network- Tools and resources on sustainable purchasing policies, practices, and guides.
		NASPO Green Purchasing Guide- Recommended steps and proven strategies to enable the implementation of a green purchasing program with links to other resources offering detailed information on specific elements of the process.
		Trash Network- Database designed to foster connections between volunteers, organizations, businesses, and governments who are involved with solving the litter problem in the Potomac Watershed.
		Maryland Green Travel- Program helps businesses evaluate their procedures, set goals and take specific actions towards environmental sustainability.
		Green America- Comprehensive sustianable purchasing resource helping businesses and communities change their purchasing practices.

For more information and links to the programs identified in this centerfold, please see the MML Guide to Sustainability Resource page at **http://sustainablemaryland.com/grants-resources/**

Backyard Composting Municipal Grant Program

A project of the non-profit NIE Institute

By Doug Alexander, NIE Institute

The mission of the Backyard Composting Municipal Grant program is promoting at-home composting as an easy, cost-effective way to divert residential organic waste from landfills.

Municipalities and residents benefit in a number of ways:

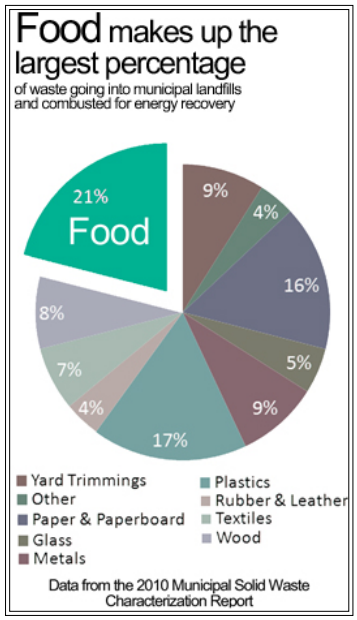
- Backyard composting can reduce tipping fees by thousands of dollars per year. About $15 in tipping fees are saved per compost bin per year — 100 bins save $1,500 a year at $60 per ton; $15,000 over the 10-year minimum life of the bins. (Based on an average of 500 pounds, composted per bin per year.)
- Municipalities can promote home-based composting as part of moving toward the **Maryland Zero Waste Plan.**
- Using a science-based model, this practice turns food scraps, soiled paper, and other organic waste into useful – and free – compost which residents can use in their own gardens.
- As they compost, residents begin to monitor and ultimately reduce their food waste. Losses are estimated at $1,350 - $2,275 per household each year *(Source: Bloom, American Wasteland, page 187)*.

Our backyard composting model is based on the **Town of Cheverly Composting Project**, first implemented in 2011. Cheverly is a suburban community, population 6,200, primarily single-family housing. By partnering with the Town, multiple non- and for-profit organizations, and residents, we could leverage funding. This allowed us to purchase four times as many compost bins (400 bins, 25% of 1,600 homes compost) resulting in 100 tons of waste being diverted from our local landfill, plus $5,900 saved in tipping fees each year. We also found residents willing to invest $20 to purchase the bins (good quality compost bins retail for $80 to $100 with shipping). Making a relatively modest investment provided incentive for them to take composting seriously and to continue their composting efforts over time.

Implementing the program required new legislation by the Town Council to permit and create guidelines for composting. Backyard Composting provided the informational framework for the new regulations.

Besides the Council, several organizations were involved in implementing the project, including the Cheverly Green Infrastructure Committee (our Green Team), the Public Works Department, the Cheverly Community Market (where we sold bins), and of course numerous residents. We worked together to purchase, store, market, and sell the bins.

Funding came from multiple sources. The Town provided about $4,000 of funding, about one-quarter of the $16,000 total.



Non-profit and corporate donations were $4,000. Residents purchased the 400 compost bins for $20 each for a total of $8,000. The total savings in tipping fees over the 10-year minimum life of the bins is expected to exceed $100,000. That's a huge return on the Town's $4,000 investment.

Backyard composting is a sensible step in moving toward the **Maryland Zero Waste Plan,** which will eventually require municipalities to compost food scrap and soiled paper waste, and to recycle up to 90% of all waste, significantly reducing landfill waste. Eliminating food scrap and soiled paper waste from the landfill reduces the potent greenhouse gas methane and extends the useful life of the landfill.

Sustainable Maryland has been a wonderful partner in helping to promote the Backyard Composting Program at its summits and in producing a one-hour webinar for municipalities.

BackyardComposting.org provides everything a municipality needs to get started, including a Composting Guide that covers all aspects of composting (browns and greens, what and what not to compost, etc.), flyers, sign-up forms and other print materials, and a 40-minute training video for residents.

As the program expanded to other local municipalities, we used our growing purchasing power to seek worldwide quotes on compost bins and have negotiated the lowest price per compost bin, $31 each plus shipping, with our vendor, EnviroWorld. Not only are these bins available at the lowest price, they were the highest quality of the dozen bins we purchased and inspected.

Backyard Composting will help municipalities who would like to implement this program by setting up their purchase with the vendor and providing a grant of $6 per compost bin, up to a maximum of $2,400 to help get them started. ■

Links:

Backyard Composting Project
www.BackyardComposting.org

Maryland Zero Waste Plan
http://tinyurl.com/hbysu2q

SM Composting Webinar for Municipalities
http://tinyurl.com/zhrzzc5

The Gazette newspaper story about Cheverly Composting Project
http://www.backyardcomposting.org/#!blog/c1nv8

MML Fall Conference

October 13-15, 2016
Holiday Inn – Solomons

Attend MML's fall conference to:

- Select MML's 2017 legislative priorities
- Learn at training sessions
- Network with fellow municipal officials

Sustainable Maryland municipalities will be recognized at MML's business meeting on Friday, October 14 (1:15 - 2:30 p.m.)

Visit mdmunicipal.org/fallconference for more conference details and to register.

Deadlines

- September 12 (5:00 p.m.) – hotel reservations
- September 16 – discounted pre-registration
- September 30 – pre-registration
- October 5 - registration changes/cancellations (for refunds)

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ImagineBowie: A City's Planning Process Through Engagement

By Lorraine Doo, Doo Consulting, LLC.

Everything is connected. This phrase was coined by the American ecologist Barry Commoner, as one of his four laws of ecology in his 1971 book, *The Closing Circle.* The four laws are:

1. *Everything is connected to everything else.* There is one ecosphere for all living organisms and what affects one, affects all.

2. *Everything must go somewhere.* There is no "waste" in nature and there is no "away" to which things can be thrown.

3. *Nature knows best*. Humankind has fashioned technology to improve upon nature, but such change in a natural system is, likely to be detrimental to that system.

4. *There is no such thing as a free lunch*. Exploitation of nature will inevitably involve the conversion of resources from useful to useless forms.

There are of course many other versions of the "everything is connected to everything else" law over the centuries, and across all cultures. This only provides greater support for its veracity. So what does this "everything is connected" theory have to do with a city sustainability plan? A great deal in fact, because developing a plan is a process, not a product.

In order to create a meaningful sustainability plan, one must understand and leverage a variety of connections. Furthermore, within the plan itself, there will be connections that must be understood for their own impacts - such as the connection between water use and energy consumption, or indoor air quality and productivity improvement. Understanding these interdependencies will help to prepare a better plan and engage the right people in the development and implementation.

In 2015, the City of Bowie decided to create a sustainability plan. It already had an approved Climate Action Plan and had made significant progress on its objectives. In 2013 Bowie was certified under the Sustainable Maryland program and was working on its three-year action plan. The Department of Planning and Economic Development is responsible for overseeing the work related to the Climate Action Plan, and a Green Team of volunteers had implemented the Sustainable Maryland projects. However, the City planners recognized that even though they offered programs, there was very little engagement from residents, and almost none from businesses. Attendance at educational sessions was low and did not represent the resident population. Further, there were only two certified green businesses after three years. Increasing engagement was a top priority for the Sustainability Planning project.

Barriers Assessment. The consulting team began the project by conducting a barriers assessment to try to learn why participation in the City's programs was low, and to find out what residents knew about existing City sustainability initiatives. In late December 2015 and early January 2016, a survey was released to assess knowledge, awareness, and interests. 360 individuals and 25 businesses responded to the survey which was distributed electronically and on paper. Participation in this survey was the highest the City has ever had. The consulting team followed the survey with a Hispanic focus group (conducted in Spanish) and then with a daylong facilitated visioning exercise with 100 individuals. The interactive event, called ImagineBowie, was conducted in such a way to encourage participants to envision and describe the sustainable features their city would have in 25 years. This exercise generated an extensive list of concepts which was translated into nearly 100 objectives, goals, and actions. This list became the foundation for the sustainability plan. Ideas included community gardens, improved transportation options, better access to bicycle paths, eliminating food waste, creating green and/or living buildings, wind power, and innovative technology. Other issues arose during the facilitated discussion, such as more communication from the City, different educational programs, and different locations for the programs.

Residents chose community gardening as the most highly ranked initiative in Bowie's Sustainability Plan.

ImagineBowie was followed by events targeted at millennials – and held in bars. A facilitated session was also held with high school students, with similar positive results and engagement. The whole program culminated in a citywide celebration, where all of the objectives were displayed for the public to view, discuss, and vote. Not surprisingly, the interests and priorities were consistent. In Bowie, community gardening was still the most highly ranked.

Lessons Learned. At the beginning of this endeavor, City leadership expressed concern about difficulties attracting people to their programs. This continued to be a challenge throughout the contract due to internal staffing and City policies. Bowie continued to have difficulty attracting participation to its programs – even for interesting evening programs with great topics and the final celebration at City Hall.

The critical lessons for Bowie in developing its sustainability plan and improving engagement from the residents and businesses are to enhance promotion and develop partnerships. Promotion must come in the form of using social media more effectively. For any municipality that does not have the staff or skill set, the recommendation is to secure a grant and bring in a person who can create the tools and systems that will work for the organization, and train the team to use them effectively. Partnerships are the other side of the coin. Identifying and nurturing partnerships within the City agency and the community are critical actions, both when developing the plan and when implementing the programs. Each individual and organization will have their network and can assist in promoting programs and initiatives. City staff and Green Team members should be tasked with developing the partnerships and maintaining them over the long term. These relationships will also help ensure that the programs are created that meet the interests or needs of the community.

Sustainability planning is a process that connects the whole community. By making the connections, and communicating the information frequently with the right information, everyone will feel that they are a part of the plan. When people feel they are part of something, they will help ensure its success. Everything is connected.■

Frederick: Paint the City Green

By Jenny Willoughby, Sustainability Manager, Frederick

As I crested the hill on I-270 in September 2001, I fell in love with the charming City of Frederick. The sun was bright orange and hanging low in the sky, the air was warm, and the city street lamps were just turning on to light up the night. Nestled in the valley and flanked to the west by a forested mountain and to the east by the Monocacy River, this little city captured everything that I wanted in a community. I didn't know then that I would become the City's sustainability manager or that I would be helping to grow the canopy of this little community.

I say "little" community because it still feels that way even though it's the second biggest city in the state with a population of about 70,000. Today, I think about how Frederick has grown from a farming town to bustling city. Its history as a farming community reaches back to 1745, when some of the area's first farms were settled by German immigrants. Since that time, more land was cleared for agriculture and City streets.

Science shows that trees help clean our air and water and can provide significant energy savings, in addition to all the terrific benefits for wildlife. Of all the sustainable projects, Frederick chose to focus on tree canopy because it's inexpensive, easy to engage residents, and can help jumpstart sustainability for the community. Technology is terrific for encouraging sustainability among residents, but the simplicity of gathering residents of all ages near a stream to plant a tree doesn't compare to any gadget or gizmo. And it's those trees along the creeks, or riparian buffers, that benefit water quality.

Frederick now requires a minimum 50-foot riparian buffer along all of its waterways for new development and no new construction is allowed in floodplains. Floodplains are often dedicated to the City for use as public park land, which the City has been actively planting to help improve waterway health and increase its overall tree canopy. Over the past few years, approximately 52 new acres have been forested along riparian areas with assistance from a State grant. For perspective, Frederick's land area is about 22 square miles, or about 14,200 acres.

Despite Frederick's Tree City USA designation and the distinction of being the oldest Tree City in Maryland, the last urban tree canopy assessment in 2009 revealed that the City had only 14 percent canopy cover, significantly lower than other municipalities in the region. Annexed land is often old farmsteads with very few trees, the ideal blank slate to begin a new development and plant a viable forest. To meet the statewide goal of 40 percent canopy coverage by 2030, we need to plant nearly 3,700 more acres of forest. At about 100 trees per acre, that's nearly 370,000 trees. As Frederick annexes new land into the City boundaries these numbers increase.

Some of this forest will be planted as land is developed. Developments over 40,000 square feet are subject to the State Forest Conservation Act

The "Five Trees for Me" program encourages residents to plant 5 trees in private yards, HOA common spaces, and private land.

(FCA) and required to plant forest under protective easements. Ideally, forest plantings are concentrated in critical land areas, such as floodplain, wetland, and steep slope areas and along waterways. Forest conservation plantings include a variety of native species of various mature sizes that will form a rich riparian forest community.

In addition, street trees count toward the FCA tree planting requirements in new developments. While this is an excellent step to increase canopy, the quality of these urban street trees is a concern. Street trees often are smaller and shorter-lived because the planting spaces have limited and compacted soil volume, which disrupts access to nutrients and water. Where feasible, City staff works with developers to shift planting street trees into the front yards of new homes, so that the tree matures to its fullest potential. With the onsite yard location, these trees can shade both the home and sidewalk, avoid heaving sidewalks, and reduce impacts to utilities.

While tree planting in new development areas is an important part of increasing canopy, the majority of land available for planting is on residential properties, according to the *2009 Report on the City of Frederick's Existing and Possible Urban Tree Canopy.* This is true for most municipalities. Keeping the 488,500 trees in mind and understanding that the City needs residents to accomplish the 40 percent goal, I offered a short tree course in Fall 2014 for residents to encourage more planting on private land. It was so successful that I offered it in spring and fall 2015 as well.

The tree trainings are easy to replicate in your community by offering simple hikes or walks with the City arborist or forester in local parks and along streets. If your municipality doesn't have an arborist or forester, ask to borrow one of the local Forestry Board members, a Master Gardener, or a local arborist who is willing to teach tree identification.

I began emphasizing the need for each resident to plant five trees in private yards, HOA common spaces, and other private land. The "Five Trees For Me" program was born. The biggest hurdle is that residents often feel paralyzed at all the choices and leave their yard blank for fear of planting the wrong tree. The tree training is a way to show the variety of choices for different planting spaces and help residents make good choices for their landscape.

In the Summer of 2016, Frederick launched a tree map for residents and businesses to show where they've planted trees and to be counted as part of Frederick's canopy. The City arborist inventoried the street trees and those seeded the map. As each tree is added, the stormwater, air quality, and energy savings benefits are tallied real-time so each resident can see how they can positively impact their own lot and community. A Capital Improvement Project funds the customized online mapping program called OpenTreeMap.

A true community effort, the City's Sustainability Committee, garden clubs, the Frederick County Forestry Board, Master Gardeners, and folks who attended the tree training will be asked to help neighbors choose appropriate trees for their landscapes. As the program gains momentum, we hope to share our successes and hurdles with other Sustainable Maryland communities so they can replicate the project.■

Tree canopy on Market Street in Frederick.

Solar field in Poolesville.

Rural Town Goes Solar

By D. Wade Yost, Poolesville Town Manager

Poolesville, a rural town of 5,500 residents nestled in the center of a 93,000 acre Agricultural Reserve, leaps into the 21st century green technology field with a 1.1 mega-watt solar array covering six acres and consisting of over 4,000 panels. For the elected officials and staff, this was a formidable task and frankly, a significant learning experience.

The genesis of the project was to explore alternative energy sources for the Town's Wastewater Treatment Plant. All the research pointed toward solar as our best option. With the facility's large energy requirements, purchasing a large solar array was cost prohibitive. As an alternative, a solar power purchase agreement (PPA) was considered. A PPA is a financial agreement where a developer designs, permits, finances and installs a solar energy system on municipal property at no cost. The developer sells the power generated to the Town at a rate that is lower than the power company's rate. This lower electricity rate serves to offset the municipality's purchase of electricity from the grid. The developer receives income from the sale of electricity as well as any tax credits and other incentives generated from the system. The PPA requires the Town to purchase electricity for a 20-year period, and the developer is responsible for the operation and maintenance of the system for the duration of the agreement. At the end of the PPA contract term, the Town can renegotiate the PPA, have the developer remove the array or choose to purchase the solar array at fair market value.

Negotiating the PPA was intense, challenging and took nearly two years to complete. Developing an understanding of power agreements, electrical billing charges, and negotiating across the table with folks that are experts in this field necessitated a deliberate community involvement process while becoming knowledgeable on the issues. Fortunately, the Maryland Energy Administration provided helpful insight and guidance throughout the process. For the most part, the community advocated in favor of the solar development project. The only skeptical public scrutiny came from residents living in close proximity to the solar array and most of their concerns were mitigated by adding landscaping.

While negotiating a PPA, there are some key components that you and your legal counsel will need to consider.

Contract length

- PPAs generally have terms of 15 to 25 years. This will play into the rate structure.

Construction/operational milestones

- To ensure the timely achievement of the commercial operation date, a PPA should include deadlines for items such as:
  - Permit acquisition for construction
  - Construction contract execution
  - Construction commencement
  - Evidence of the purchase of solar panels

Contract Termination

- A PPA should give you the opportunity to terminate the contract if certain events do or do not occur before the commercial operation date. These events may include:
  - Lengthy repair after severe weather
  - Not receiving the necessary construction or operation permit approvals
  - The inability to secure financing
  - Not securing transmission access

Rate Terms

- The cost of solar energy depends on factors such as geographic location, the quality of the solar resource, the cost of PV cells and labor. A PPA should outline flat rates or electric rate escalators.

Interconnection agreement

- The PPA should detail who is responsible for the cost of metering the power being transmitted into the grid, and both parties should be aware of the best rate option for that meter.

End of term expectations

- At the end of PPA's term, the solar owner may remove the PV system or sell it to the customer. If you opt to buy the system, the contract should include a provision to have the system appraised at fair market value.

The Poolesville Solar Project is part of the larger Sustainable Poolesville initiative to educate Town residents. The initative encourages energy conservation and sustainability by addressing the long term impacts of fossil fuels such as pollution, global warming, and climate change. A kiosk provided by the developer is displayed on the Town's website and details the amount of energy produced daily and information on the reductions in greenhouse gas emissions. Poolesville provides tours for the local high school ecology program and other interested parties to increase the community's knowledge of renewable energy.

The financial incentive structure is an important aspect for developing solar projects. Monetary savings are realized, however they are not substantial and were not the driving force behind Poolesville's decision to seize the opportunity. To take full advantage of the PPA and power company rate structures, consideration should be given to the solar array size, the Maryland virtual metering law, and contract with a third party electrical supplier for periods when the solar array doesn't cover the full energy requirements.

Overall, setting aside the challenges of negotiating the PPA, every aspect of the solar array has been positive and an invaluable tool to spotlight our community's green initiatives. These efforts show how a small town in the middle of a large county can be a leader in green technologies. ■

Greening a City of Grace

By Erika Quesenberry-Sturgill, Economic Coordinator, Havre de Grace

Mayor William T. Martin announced shortly after being sworn in both a goal and an initiative to reduce the carbon footprint of Havre de Grace, the city by the Chesapeake Bay in Harford County. To bring about the types of meaningful changes Mayor Martin foresaw required a great deal of thought and some very creative methodologies.

Mayor Martin challenged his staff to get creative in their thinking and to put into action goals expressed by the long-standing Havre de Grace Green Team.

"We followed a principle, a quote really, of Archbishop Desmond Tutu," Mayor Martin explained. "Do your little bit of good where you are; it's those little bits of good put together that overwhelm the world."

Havre de Grace purchased two Polaris/GEM cars to replace standard six-cylinder automobiles for short trips around the City. The operating cost of 3 cents per mile for the GEM cars compared with 12 to 14 cents per mile for standard autos saves money and reduces the carbon footprint.

One of the most creative initiatives to date has been a significant reduction of the City's carbon footprint by changing the City's fleet vehicles. Rather than the standard fossil-fuel vehicle for short trips through the City on tours, inspections or between events and activities, Polaris/GEM cars were purchased. Operating at a cost of 3 cents per mile rather than 12 to 14 cents per mile of a standard six-cylinder automobile, brings some savings. But it is the reduction of the carbon footprint of this still small fleet of two electric vehicles that was the main goal.

The two GEM cars, bearing the city logo, were delivered in the summer of 2016 and immediately put into action. They carried officials in the Independence Day Parade and carried Governor Larry Hogan through the City on a recent tour.

Havre de Grace Deputy Director of Administration Jim Newby even found a way for the City to purchase the vehicles that saved a different kind of green in the way of City funds. "We are utilizing a Visa Card 2% Cash Back program to bank sufficient funds to purchase these new electric vehicles without utilization of budget funds," he explained.

The American-made Polaris/GEM cars seat four passengers and have space to haul items as well. Havre de Grace installed a stanchion for electric service to these vehicles for recharging in front of City Hall. "The City of Havre de Grace, I am very proud to say, has flipped the switch," Mayor Bill Martin explained to a recent public meeting. "All City buildings have switched over to solar power from the solar farm in nearby Perryman and we're off the electricity grid in favor of renewable solar energy."

Mayor Martin believed the City of Havre de Grace could realize a significant cost savings and "do more good" in greening our shared environment efficiently and effectively in the first year of his administration. The City-owned buildings are now 100% powered through solar sources. This change allows Havre de Grace to be both environmentally conservative as well as fiscally responsible.

Havre de Grace's Director of Finance George DeHority led the charge to negotiate the best possible contract to take the City of Havre de Grace to a 100% solar-powered municipality. The benchmark for completion will be the end of December 2016. That contract was made with Constellation Energy who supplies the City with just over six megawatts per year of electricity for municipal operations. Constellation Generation advised Havre de Grace that the source of this solar power is derived from a 20-megawatt solar generating facility in Perryman, located a short distance away in Harford County.

Harford County Government also utilizes the same generation facility for power to operate the Sod Run Wastewater Treatment Plant, located close to the generating station. Government water production and wastewater treatment facilities are traditional heavy users of electric power.

Havre de Grace is also leading the charge with small projects that have big results. Among these are the continued operations, and corporate funding, of a completely volunteer-supported organization, the CAT (Citizens Against Trash) Club of Havre de Grace. CAT Club members patrol the City's streets picking up trash, emptying trash cans, ensuring cigarette outposts are available and regularly maintained, and otherwise ensuring the City shines. Upon receiving recognition for their efforts from the 88-year old Havre de Grace Chamber of Commerce, CAT Club members confirmed they remove tens of thousands of discarded cigarette butts and bags of bottles, cans, and other debris from streets and storm drains that may otherwise end up in our precious Chesapeake Bay.

New signage identifies the old growth trees in Tydings Park to visitors. Donated books are gaining new life after the City became the first municipality in Harford County to install and charter Little Free Libraries. To date nearly 400 books have been donated and recycled back into the community.

The City also installed LED up-lights rather than traditional street lights in the downtown business district. Existing street lights not replaced on this rolling multi-year project, are being improved to reduce energy consumption. Recycling containers are installed throughout City gathering places and supplied at the numerous festivals and events held in Havre de Grace each year.

The message is even being heard and carried out by City businesses with the Tidewater Marina in the center of Havre de Grace being recertified July as a Maryland Clean Marina for their environmentally sound practices.

Havre de Grace is a city which is going green to protect, promote, and preserve our natural resources and our Chesapeake Bay.■

Building Local Economies: Plug the Leaky Bucket!

By Vickie Grinder, Thurmont Main Street Manager

Building a local economy has historically been a challenging endeavor, while sustaining a local economy becomes the focal point of a more difficult undertaking.

Glocal-/ˈglōk(ə)l/
Reflecting characterized by both local and global considerations:

Oxford Dictionary, Oxford Press

Local economies have experienced the evolution into a global economy, and economic uncharted waters are still remnants from the downturn of 2007. Small towns have experienced an even greater mission to build the local economy, and preserve the economic progress which has already been established. Many contributing factors exist to this dilemma, but one obstacle shared by many towns and cities, large or small, is how to change the psychology of the community to "Buy Local" and instill the value associated for all in the community. Ecommerce is here to stay and we will continue to shop online, but we can still shop local by thinking "Glocal" for all within the community while supporting the local merchants who are also your neighbors.

The Leaky Bucket

In economic terms it means focusing on attracting more revenue into the town, while slowing down the rate of leakage through local sourcing, adding value locally, and using local resources. New businesses, better benefits, investments, grants, etc., may be filling the bucket, but if goods and services are acquired outside the community, this becomes one of the holes in the Leaky Bucket process. How can we plug a few of those leaks?

Buy Local Programs

Thurmont is very vigilant with "Buy Local" platforms and has developed a "Thurmont Business Bucks" program which focuses on a local buying incentive. Thurmont Business Bucks is a gift certificate format sold in increments of $25 and $50 which may be used at one of the participating 36 local businesses. The consumer purchases a gift certificate at the town office, and receives a booklet to accompany the certificate which lists all participating merchants with a description, location, and all pertinent information about that particular business. Thurmont Business Bucks does not offer any discounts, so the merchant is receiving full face value of the gift certificate. Once the full amount of the gift certificate is redeemed, the merchant returns the gift certificate to the town office, and a check for the full amount returns to the merchant.

Thurmont Business Bucks is just one of several incentives to keep local bucks in the community, and the convenience of not having to leave town to purchase a gift. Thurmont Business Bucks saves fuel and time for shoppers while keeping the local dollars in the community. The cost of instituting a "Buy Local" gift certificate program is relativity inexpensive as the only expense is printing the certificates, envelopes, and directory of merchants.

"When you purchase at local, independently owned companies rather than nationally owned businesses, more money is kept within your community. For every dollar spent at a local business, 73¢ stay in the community versus 43¢ at non-local companies. Locally owned businesses tend to support other local companies, which in turn encourages their profitability as well as the growth of the local tax base, and less tax burden on residents.

(Source: Neil Collins, Contributing Writer, Silicon Valley Biz Journal. (2016).

The multiplier results from the fact that independent locally owned businesses recirculate a far greater percentage of revenue locally compared to absentee-owned businesses.

Why not use a gift card program versus gift certificates?

Obviously, the perfect solution in a high-tech society, but this avenue was not feasible for the local merchants due to setup expenses for equipment and cards. Thurmont Business Bucks was the most cost effective route for this type of program.

Benefits to Buying Local

Builds community relationships
Keeps your taxes lower
Local job creation
Sense of community pride
Enhances local democracy
Supports non-profit organization through donations

Source: American Independent Business Alliance (2015).

Farmers Market

Thurmont enjoys a very well attended **Farmers Market** by vendors and customers. The Farmers Market is centrally located in the downtown area which will give Main Street businesses added exposure in the long run. The Thurmont Green Team participated in a few of the Farmers Markets this year, and provided gifts of 150 native trees in the summer and seedlings in the fall to patrons. In addition, for National Farmers Market Week in August, Thurmont Main Street presented free tote bags to attendees which included local business coupons, rack cards, pens, etc., along with local materials supplied by the County.

Small Business Saturday sponsored by American Express is held the Saturday after Thanksgiving. Participating businesses are spotlighted daily on social media the week prior to Small Business Saturday with the proprietors displaying a Shop Small advertisement.

The **Thurmont Business Showcase** was created to highlight the numerous products, services, and restaurants within the Thurmont community. Participating businesses supply attendees with information, and giveaways for a five-hour expo. Demonstrations from local businesses such as fitness, health, history, etc., are held throughout the Showcase.

Thurmont Main Street Center

The Main Street Center features local artists and authors, locally made products, participating business literature, restaurant menus, and visitor information for points of interest in the Thurmont area.

Future

While no one program will be a panacea for preventing the economic leakage, these programs serve as a core beginning to building a local economy by creating awareness. With the volatile economic conditions ever changing, new and better strategies will be needed to sustain economic development policies currently in place. With the constant fluxing in the marketplace through technological innovations, most planners have learned to not necessarily develop tomorrow's strategies on yesterday's success.

Thurmont is a small town just like many of our other Main Street partners across the state, so we share "commonomics" encouraging people to "Buy Local" while communicating the benefits in the community. We recycle paper, bottles, etc., why not recycle our money. ■

Thurmont Business Showcase
Takin' Care of Business!

UPCOMING events & meetings

events

MARYLAND MUNICIPAL LEAGUE • 410-268-5514

ANNUAL CONVENTION

June 25-28, 2017 • Ocean City Convention Center

June 10-13, 2018 • Ocean City Convention Center

FALL CONFERENCE

October 13-15, 2016 • Solomons

October 11-14, 2017 • Rockville

NATIONAL LEAGUE OF CITIES • 202-626-3105

CITY SUMMIT

November 16-19, 2016 • Pittsburgh, Pennsylvania

November 15-18, 2017 • Charlotte, North Carolina

CONGRESSIONAL CITIES CONFERENCE

March 11-15, 2017 • Washington DC

INTERNATIONAL CITY/COUNTY MANAGEMENT ASSOCIATION • 202-962-3540

ANNUAL CONFERENCE

September 25-28, 2016 • Kansas City, Missouri

October 22-25, 2017 • San Antonio, Texas

meetings

MEETINGS

September 2016

8 Legislative Committee, Annapolis
10 Board of Directors, College Park
10 Hometown Emergency Preparedness Ad Hoc Committee, Annapolis
14 Southern Maryland Chapter, La Plata
15 Legislative Committee, Annapolis
15 Carroll Chapter, Manchester
15 Montgomery Chapter, Takoma Park
15 Prince George's Chapter, New Carrollton
15 Joint Municipal Clerks/Attorneys Department, Gaithersburg
16 Code Enforcement & Zoning Officials Association, Bowie
17 Convention Planning Committee, Annapolis
20 Eastern Shore Chapter, Chestertown
22 Municipal Parks & Recreation Department, Bowie
22 Municipal Public Works Department, Boonsboro
26 Washington Chapter, Keedysville
28 Engagement and Outreach Committee, Annapolis
30 Executive Committee, Annapolis

October 2016

13 Board of Directors, Solomons
13 Legislative Committee, Solomons
20 Cecil-Harford Chapter, Chesapeake City
20 Joint Montgomery/Prince George's Chapter, Glenarden
26 Engagement and Outreach Committee, Annapolis
27 Frederick Chapter, Middletown

November 2016

5 Convention Planning Committee, Annapolis
9 Southern Maryland Chapter, North Beach
10 Montgomery Chapter, Somerset
17 Prince George's Chapter, North Brentwood
28 Washington Chapter

Website of the Month

MML Guide to Sustainability Resources

For more information and links to the programs identified as Resources (page 16), please visit the MML Guide to Sustainability Resources page:

http://sustainablemaryland.com/grants-resources/

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