

Sustainable Frederick County



A *New* Framework for Sustainability

Office of the County Executive
Sustainability and Environmental Resources
Frederick County Government
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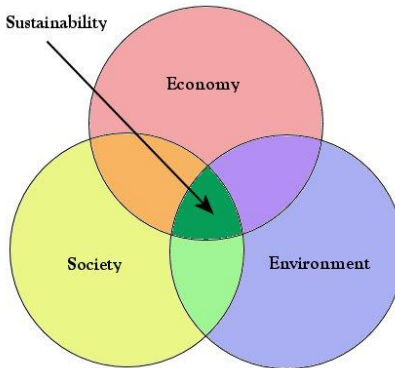
A *New* Framework for Sustainability

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What is Sustainability?

Sustainability is the long-term ability to provide an excellent quality of life for citizens, a thriving economy for businesses and jobs, and conservation of important resources. Sustainability means that the needs of the present and the needs of the future both have weight. A sustainability framework requires that decisions are made that give consideration to the economy, society, and environment.



Sustainable Frederick County

This New Framework for Sustainability operates under the “Sustainable Frederick County” banner. Initiatives include not only those specifically carried out by the Office of Sustainability and Environmental Resources, but also the work of the many Divisions that comprise Frederick County Government. Sustainability programs include internal programs that “lead by example” as well as projects designed to serve and engage the public.

Frederick County has a fundamental commitment to its constituents to make decisions that protect the economic, social, and environmental health – the sustainability – of the community. Making decisions and taking action that is sustainable recognizes the “big picture” and takes into account the impact on future generations as well as today’s pressing needs.

This Framework provides an internal guide to the organization of the County’s sustainability program as we move ahead. It includes a vision for the sustainability program, discussion of guidance related to sustainability, focus areas for the program (practices, policies, and partnerships), and an implementation plan to measure short-term progress.

Establishing the Office of Environmental Sustainability (OES) in 2008 was a strong statement of commitment to sustainability and the environment. The County Executive seeks to restore the functions that were created under OES and update the charge for the next five years. The current Office of Sustainability and Environmental Management, which also includes watershed protection efforts formerly in the Division of Public Works, provides a valuable mechanism for coordinating the efforts of County

divisions/departments and for providing consistent communication between the County and the community-at-large.

Building a sustainable future for Frederick County is not solely the work of government. There is a role for every member of the community, whether an individual, business, or organization, to engage in sustainability and stewardship efforts. As only one piece of the puzzle, the County cannot do it alone, but will provide leadership to the community as we move forward.

Given the economic, social, and environmental challenges we face as a nation, state and county, the time is now to embrace sustainability and respond with action at the local level. This Framework provides a mechanism for setting priorities, focusing resources, and determining the most appropriate and effective actions needed to achieve a sustainable future.

Focus Areas

This Framework offers a systematic approach for integrating sustainability into county government and the community. Frederick County serves many roles in promoting sustainability throughout the community. Below are three focus areas where effort and actions should be concentrated.

- 1. Practices** - Improve internal operations to achieve a sustainable organization and model sustainable practices.
- 2. Policies** - Incorporate sustainability principles and goals into plans, regulations, policies, and funding decisions that impact the broader community.
- 3. Partnerships** - Work with organizations, businesses, citizens and other community partners to address those issues that require community-wide action.

Mission

The mission of the Office of Sustainability and Environmental Resources is to offer practical solutions for protecting the environment, conserving energy and living sustainably in Frederick County, Maryland.

The Office of Sustainability and Environmental Resources collaborates with County divisions, businesses, citizens, and other organizations to advance improvements and innovation in:

- Air and Water Quality
- Energy Efficiency and Renewable Energy
- Green Building and Smart Growth,
- Resource Conservation, Pollution Reduction and Land Protection
- Waste Reduction and Recycling

Leadership • Collaboration • Stewardship • Community

- Sustainable Economic Development, and
- Citizen Participation and Community Engagement.

Vision

Sustainable Frederick County:

- Helps to make Frederick County a great place to live, work, and do business.
- Creates concrete initiatives, metrics, and strategies for internal operational and external community sustainability. Provides transparency by reporting areas of success and opportunities for improvement. Benchmarks progress against similar communities.
- Leads by example. Saves money through energy efficiency and conservation. Transitions to clean energy. Pilots new and transformative technologies that benefit the community.
- Promotes business innovation. Facilitates the development of new businesses and technologies. Supports good-paying local jobs in these industries.
- Safeguards clean air, water, and a healthy environment for all. Works with the community to ensure that Frederick County is a great place to live and work today and for future generations.
- Supports public participation in an open and transparent government and complements the County Executive's community-driven initiatives.

Four Year Implementation Plan

Recommendation: Create a “Sustainable Frederick County” banner for sustainability initiatives.

- Relaunch the website www.sustainablefrederickcounty.org, newsletter, and social media under this moniker on July 1, 2017.
- Create a program launch July 1, 2017 with initiatives listed below.

Recommendation: Launch new programs on July 1, 2017 and throughout the year. For program visibility, do public events, County Executive briefings, press releases, social media promotion.

July 1:

- Reforestation: Creek ReLeaf: New Reforestation program with signups due by May 31, 2017. Approximately 40 acres of county land planned for tree planting. 19 applications on private land received by May 31, 2017 totaling 198 acres. OSER will announce successful applicants August 2017.
 - FY'17 Reforestation Budget: \$1,443,300
 - FY'18 Reforestation Budget: \$1,554,653
- Frederick Solar Cooperative with MDSun: 169 households joined the co-op and 27 signed a contract for installation by May 31, 2017. Over 238.87 KW will be installed; the average size is 9.14 KW. This adds to 66 previous Solarize

installations where OSER created a public-private partnership to install 511.6 KW.

- Maryland Energy Administration, Maryland Smart Energy Communities (MSEC) initiative: One June 6, 2017, MEA awarded Frederick County \$65,855 for one cost share on one new electric bus and for an exterior LED lighting upgrade at the Bell Court Apartments.
- Comprehensive Energy Plan: The Comprehensive Energy Plan (CEP), which is an internal plan with a goal of 50% reduction of nonrenewable energy consumption by 2024, will be revamped in Fiscal Year 2018.
- Announce participation in STAR Communities program, a nonprofit organization that works to evaluate, improve, and certify sustainable communities.
- CIP Update: OSER has Capital Improvement Program (CIP) projects in the pipeline, most of which are in partnership with DPW. There are 182.8 acres completed, 182.7 in design, and 359.21 in development. These 724.71 acres from the CIP plus 288 acres of practices like street sweeping, septic upgrades, and enhanced performance of the County's wastewater treatment plant at Ballenger McKinney, will help OSER to reach its goal of 1,013 acres of watershed restoration by December 30, 2019.
- OSER moves July 1, 2017 to the Office of the County Executive.
- New Positions: Approved beginning July 1, 2017 are an Admin Specialist IV, the Sustainability Program Coordinator funded at 50% (previously 100% grant funded) and the Program Specialist (previously 100% grant funded). These positions help the County to conduct energy and sustainability planning that saves the county money, execute CIP projects, and address regulatory goals for stormwater.

After July 1:

- Power Saver Retrofits (PSR): OSER will finish household enrollment, implement homeowner retrofits, and promote success stories for program participants. The program is funded by an Empower Maryland grant from the Maryland Energy Administration's Maryland Clean Energy Communities program. PSR includes \$750K for home energy retrofits for low to moderate income households and a nonprofit partnership with Rebuilding Together, along with contracts with two local firms to do upgrades.
- Green Building: Commercial Property Assessed Clean Energy (PACE) Loans: Launch is planned for late summer 2017: Partner with Office of Economic Development on outreach. Third party agreement is currently under legal review.
- Volunteer: Green Leader Brigade: Develop new volunteer programs and trainings and deploy. Fall 2017: Tree ID and Tree planting event.
- Scoop your Poop: Launch a new water quality-focused campaign to control pollutants from pet waste. Late 2017/Early 2018.
- Septic Pumpout Rebate: Launch 2018.
- Stream Report Cards: Issue report cards for all major streams in Frederick County in fall 2017.

Recommendation: Conduct Energy and Greenhouse Gas Emissions Reduction Planning and Execution

- Reinststate the Energy Efficiency Committee as the Smart Energy Committee in FY'18. Hold quarterly meetings.
- Update the Comprehensive Energy Plan with County Divisions and renew the County's focus on reducing nonrenewable energy consumption. July 1, 2017- June 30, 2018. Present report at end of update. Provide yearly updates to the County Executive and County Council.
- Work with Metropolitan Washington Council of Governments (MWCOG) on updates to community Greenhouse Gas Emissions inventory.
- Continue to execute goals of the Maryland Energy Administration (MEA) Smart Energy Communities (MSEC) program.
- Upgrade the County's Energy Management functions in the areas of tracking energy consumption and billing, benchmarking building performance, developing performance standards for building energy for retrofits and new construction, assisting in the purchase of electricity contracts, tracking the progress on the Comprehensive Energy Plan, and working with divisions to help identify retrofit priorities. Continue to establish measure progress towards goals from baselines with metrics, and apply for resources through grants for projects to execute the goals.
- Develop an electric vehicle charging policy for County-owned property in FY'18.

Recommendation: Conduct Sustainability Planning.

- Sustainable Action Plan: Create closeout report for SAP that was effective through FY'16.
- Join STAR Communities by July 1, 2017. About STAR: "STAR Communities is a nonprofit organization that works to evaluate, improve, and certify sustainable communities. We help cities and counties achieve a healthy environment, a strong economy, and well-being for their residents. We administer the STAR Community Rating System (STAR), the nation's leading framework and certification program for local sustainability."
 - Begin certification efforts in earnest July 1, 2018.
 - Certify by July 1, 2019.
- Livable Frederick: Coordinate implementation with Planning and Permitting Division on the Environment and Energy portion of the Livable Frederick plan and work to align with STAR.

Recommendation: Update the charge for the Frederick County Sustainability Commission

- Update Resolution 09-02, which passed on March 26, 2009 to create the 13-member FCSC to advise the Board in the areas of community sustainability and environmental leadership. Revise the structure for the FCSC to answer to the County Executive, and update the Commission's role.
- Schedule quarterly meetings with County Executive and FCSC to review major county sustainability priorities and community outreach on these topics.

- SME: Commission members will provide subject matter expertise on various sustainability topics to include solar photovoltaics, electric vehicles, energy efficiency upgrades in commercial and residential buildings, forestry, clean water, clean air, agriculture, environmental education, and other topics.
- Work with County Executive to develop specific policies.
 - Example: EPP: Commission is working on Environmentally Preferable Purchasing initiative authorized by County Executive. Commission held Sustainable Procurement Summit on May 25 with Sustainable Maryland. Municipalities were invited to participate to learn about taking advantage of larger procurements, and a member of the Procurement and Contracting office spoke.
- Legislative and Policy Feedback: FCSC to provide feedback to County Executive and County Council on county policy/ordinances and state legislation.
- Continue to conduct outreach events: Coordinate events on sustainability resources for community, schools, and businesses.
 - Past workshops include seminar at FCC and event at Brook Hill United Methodist on topics like electric vehicles, solar PV, property assessed clean energy loans, sustainability in the schools, etc.
 - Commission has indicated support for an upcoming event in fall 2017 that could focus on composting opportunities.
- Continue to coordinate Sustainability Awards: Presented annually to 1 employee or office of Frederick County government, 1 organization (municipality, non-profit, or private), and 1 member of the general public who lives or works in Frederick County that have made outstanding contributions in helping Frederick County advance sustainability efforts.
- STAR Communities: Commission to assist with STAR Communities metrics and certification.
 - Integrate Sustainability Indicators: Metrics developed with the Office of Sustainability and Environmental Resources to track community sustainability. Tie-in with Livable Frederick and STAR.

Recommendation: Continue implementation the Green Homes Challenge and add a Green Business Program

- Where the GHC was originally envisioned as a self-certification program with handbooks, under OSER it has become a citizen engagement tool with a web-based interface that helps the Office to build and maintains relationships. OSER proposes to continue to manage this effort.
- Compile business resources like Property Assessed Clean Energy (PACE) loan program and utility programs for businesses.
- Review green building initiatives and policies in FY'19.

Recommendation: Continue implementation of NPDES MS4 permit and industrial permits for stormwater

- These efforts follow the schedules set forth in their permits. Permit-required programs are outlined in separate documents.

Appendix

Strategic Plans

Planning, Implementation, Reporting and Scorecards of Countywide sustainability initiatives under a Sustainable Frederick County banner.

- **Livable Frederick:** Comprehensive Plan document currently in draft. Has significant tie-ins with sustainability planning, particularly in the development of trends, indicators. Has tie-ins with STAR Communities certification for benchmarking, metrics, communication.
- **Energy and Climate:** Multiple plans for energy and greenhouse gas emissions
 - Comprehensive Energy Plan (CEP): On September 16, 2010, the CEP was adopted as guidance to operating divisions of county government. The CEP establishes definitive annual goals annual to reduce the county's use of non-renewable energy over a 15-year period in its office buildings, vehicle fleet and facilities by 50% or more by 2024.
 - MEA Smart Energy Communities program: Under the leadership of OSER, Frederick County Government adopted three goals of the MEA MSEC program and has active grants to meet part of these goals. Goals will need to be reassessed with the CEP update:
 - Energy Efficiency Goal (A 15% reduction in kWh/gross square feet within 5 years of the baseline year): Goal was adopted by Board of County Commissioners as Resolution 14-16 on August 7, 2014. A baseline year of FY2012 was adopted.
 - Renewable Energy Goal (20% of electricity consumed by the community will come from renewable energy sources by 2022): Goal was adopted by Board of County Commissioners as Resolution 13-24 on October 31, 2013. A baseline year of FY2012 was adopted to meet goal by 2022. Ground- and roof- mounted solar will need to replace the WTE option because that project is not economically viable at this time.
 - Transportation Petroleum Reduction Goal (A 20% reduction in on-road gasoline and diesel consumption within 5 years of the baseline year): Goal was adopted by Board of County Commissioners as Resolution 13-24 on October 31, 2013 to reduce petroleum consumption by Frederick County Vehicles from a FY2011 baseline.
 - Greenhouse gas emissions inventories and reports:
 - Mayor's Climate Protection Agreement: On April 9, 2007, the County passed Resolution 07-14: Endorsement of the U.S. Mayors' Climate Protection Agreement (MCPA). The Sustainable Action Plan includes a goal to reduce greenhouse gas emissions by 25% by the year 2025 based on this agreement. This reduction strategy is based on a baseline inventory year of 2007. The Frederick County Sustainable Action Plan (SAP) for County Operations for Fiscal Years 2011-2015, adopted by the BOCC on August 10, 2010, includes this goal.
 - Internal inventories: FCG 2007, 2010, 2012
 - External inventories: 2007, 2012, 2015
 - On November 12, 2008, MWCOG issued its National Capital Region Climate Change Report which estimates that based on current business as

usual (BAU) population growth projections for the region, greenhouse gas emissions will increase 35-38% by 2030 and 43-47% by 2050. In response to these projections, the report sets forth emissions goals for three target years, calling for reductions of:

- 10% below BAU levels by 2012;
- 20% below 2005 levels by 2020; and
- 80% below 2005 levels by 2050.

MWCOG has standardized regional inventories and is now conducting the external inventories for Frederick County.

- **General Sustainability:** Internal and external focus
 - The BOCC adopted a Sustainable Action Plan (SAP) for County Operations on Thursday, August 26, 2010 for Fiscal Year 2011-2015. The SAP provided a coordinated, 5-year strategy for the integration of sustainable practices into Frederick County Government Operations and decision-making processes. A 32-member team of Frederick County government employees produced the SAP. The plan aimed to integrate sustainable practices into county operations and decision-making processes. The last Board of County Commissioners did not provide leadership support for the implementation of the plan, and the team was disbanded; however OSER did focus on implementing elements of the plan (particularly those relating to energy and the environment) and will provide a summary report of the SAP accomplishments.
- **Watershed Management:** Driven by stormwater permit compliance
 - **Frederick County Stream Survey:** Reports and watershed scorecards on the health of our streams that are created from monitoring data collected by FCG. New set of scorecards every 5 years; next round of reports will be released fall 2017.
 - **Watershed Assessments, Restoration and Retrofit Assessments:** Reports for each major watershed in Frederick County.
 - **TMDL Restoration Plan:** Plan to meet all TMDLs in Frederick County, includes watershed modeling, restoration plan tracking, schedule.
 - **Financial Assurance Plan:** Shows adequate funding to meet NPDES MS4 permit. Required by MD statute.
 - **Watershed Restoration and Protection Plan:** Shows funds and expenditures of the stormwater remediation fee
 - **Illicit Discharge Detection and Elimination program:** Responds to citizen complaints of dumping and spills. Has high-profile results.
 - **Commercial and Industrial Hotspot Investigations:** Proactive program that looks for pollutant discharges in these areas.
 - **Industrial Discharge Permit compliance:** County has 11 facilities with industrial permits that we inspect each year and keep in compliance.

Policies

- **Sustainability:** On August 26, 2010, the BOCC passed Resolution 10-24 to provide an “Organizational Commitment to Sustainability”, which demonstrates a significant commitment on the part of Frederick County Government to establish and implement policies, guidelines, goals and strategic actions to promote sustainability.

- **Sustainability Commission:** The BOCC passed Resolution 09-02 on March 26, 2009 to create the 13-member FCSC to advise the Board in the areas of community sustainability and environmental leadership.
- **Thermostats:** The County Manager approved Frederick County Government Administrative Policy and Procedures Thermostat Settings in County Buildings policy #12-54 on December 27, 2012. In general, building thermostats are set at a maximum of 70 degrees for heating set point and minimum of 72 degrees for cooling set point with specified variances for different types of HVAC systems.
- **Anti-Idling policy:** Anti-idling is in Vehicle Operations and Procedures section 6.5.
- **Wind and Solar Zoning Ordinance:** Ordinance 09-11-515A dated May 8, 2009. A recent update to the Zoning Ordinance includes requirements pertaining to large-scale solar arrays.

Operational Programs

- **Energy Efficiency Projects:** Frederick County is committed to implementing energy efficient practices in its own properties. Frederick County performed over 29 energy audits of its owned and occupied buildings and completed an Energy Efficiency Retrofits - County Buildings Project; that included HVAC efficiency upgrades at Rose Hill Maintenance Shop, Senior Center, and Pinecliff Park A-frame building; LED lighting retrofits in courthouse courtrooms and lobby; and a heat reflecting roof at the Emmitsburg Community Center. Traffic and signal lights have been upgraded to LEDs.
- **LEED:** FCG invested in USGBC LEED certification for the Brunswick Library, a 15,400 square-foot branch which opened in spring 2011. 5 county staff have been LEED GA certified and 1 LEED AP certified.
- **Solar PV and Hot Water installations and assessments:** OSER participated in an assessment of potential solar photovoltaic installation at the Health Department, Adult Detention Center, and Catoclin Creek Nature Center in conjunction with a Metropolitan Washington Council of Governments and EPA Clean Energy Collaborative Procurement Initiative. Additional facilities were investigated by Solar City. A solar hot water heater was installed at the Adult Detention Center using federal block grant funds.
- **Computer Power Management:** OSER conducted an assessment of Power Management for Computers and Peripherals as part of an Urban Sustainability Director's Network initiative in 2012.
- **Smart Energy Committee:** The Energy Conservation Committee was comprised of a cross-section of county employees and met to discuss current conservation and energy efficiency initiatives, learn about new conservation technologies, and share future plans for energy conservation. The committee reviewed and encouraged conservation initiatives throughout the County. It formed in 2005 and made annual presentations to the County Commissioners on conservation efforts that provided ongoing operating savings of over \$150,000 annually. A Smart Energy Committee will take its place in FY'18.

Targeted Community Programs

- **Green Homes Challenge:** Online self-certification with DIY actions. Yearly recognition event for participants. Handbooks with resources for participants. Navigation support. www.frederickgreenchallenge.org.
 - **Be a Power Saver:** Challenge to save energy and save money
 - **Be a Green Leader:** Challenge to reduce environmental impact

- **Be a Renewable Star:** Challenge to use renewable energy
- **Green Teams:** Staff and Green Ambassadors work with businesses and organizations to help green teams with program development. Provide speakers and tabling for events.
- **Powerware Parties:** Hosted events that use network marketing to promote Green Homes Challenge and actions to reduce energy consumption. “Powerware” freebies given like outlet insulators.
- **Green Ambassadors:** Volunteer speakers and facilitators who engage the public on sustainability topics, particularly related to green energy initiatives.
- **Power Saver Retrofits:** Runs special initiative that provides funding for low- and moderate- income households for energy efficiency retrofits. \$750K MEA grant for 75+ households in FY’18. Ties into *Be a Power Saver* element of *Green Homes Challenge*.
- **Frederick Solar Coop/Solarize Frederick:** Creates bulk purchase contracts for wholesale prices for small-scale private solar installations. Offers grants and tax incentives for installations when available. Promotes community solar programs. Ties into *Be a Renewable Star* element of *Green Homes Challenge*.
- **Electric Vehicles:** Share mapping services that show where EV charging exists in Frederick County. County has applied for VW settlement funds through MWCOG for EV charging infrastructure on publicly accessed FCG property. Obtain grants for cost share on Electric Buses and conduct outreach with FCSC about electric vehicles.
- **Watershed Outreach:** Outreach programs driven by stormwater permit requirements. Tie into *Be a Green Leader* element of *Green Homes Challenge*.
 - **Creek ReLeaf:** Brand-new reforestation program for private property owners. County pays for easement, trees, planting and shelters, 5 year maintenance and triennial inspections in exchange for permanent protection of forested area. Open enrollment every year; current enrollment ends May 31 with goal of 40 private acres of installation, 40 of county owned property in FY’18.
 - **Scoop your poop:** Pet waste education and collection program under development. Requirement of *E. coli* restoration plans.
 - **Litter and Floatables:** education, community cleanups.
 - **Only Rain Down the Drain:** Storm drain stenciling events, kits for groups to stencil drains.
 - **Green Leader Brigade:** New program to provide trainings and hands-on events for citizen volunteer corps.
 - **My Brookies:** Initiatives to protect brook trout populations. Standing initiative for all brook trout restoration efforts.
 - **Neighborhood Green:** Provides residential-scale stormwater management education, special initiatives to install subsidized stormwater features like rain gardens, tree planting, and conservation landscaping. NFWF funding for 100 installations in Brook Trout watersheds ends September 1.
 - **Watershed Restoration:** NPDES permit requires outreach for all watershed plans. Outreach is also specifically targeted to the communities that have active watershed restoration projects. For example, Point of Rocks area has delivery of multiple projects and constant communication with community representatives.
- **Frederick County Sustainability Commission:** Resolution 09-02 passed on March 26, 2009 to create the 13-member Frederick County Sustainability Commission to advise the

Board in the areas of community sustainability and environmental leadership. The SC Work Plan was approved April 20, 2010. The FCSC is a volunteer citizen commission designed to provide input on County policies, conduct community outreach, assist with sustainability initiatives

- **PACE**: Property Assessed Clean Energy loans for businesses that can be borrowed and repaid through a special tax assessment. Ordinance passed. Third party servicer selection underway.
- **Green Building**: In July 2012, Frederick County adopted the 2012 ICC International Building Code and the 2012 International Residential Code as required by Maryland law. OSER worked with graduate students from George Washington University to evaluate and improve incentives for green building in Frederick County.