

RESILIENCE & SUSTAINABILITY HIGHLIGHTS

SEPTEMBER 2025

ENERGY EFFICIENCY/ CLEAN ENERGY

Incorporating Resilience into Building Energy Performance Standards (BEPS): UPDATE: The project consultants conducted an inventory of City energy savings projects and practices with City staff. The insurance working group consultant is exploring potential insurance savings associated with codifying resilience-based BEPS requirements. The Department of Planning & Zoning assigned Planner Mojgan Jahanian to the project. The City is using grant funds for consulting assistance through Council Fire, including providing technical expertise, data gathering and attending meetings in creating a BEPS code for Annapolis. A policy working group meeting is planned for September to which the Deputy City Manager for R&S is assigned.

Project Summary: Grant funding was secured through the Department of Energy (DOE) for technical assistance in drafting and implementing a Building Energy & Resilience Performance Standard (BERPS) model code. Existing Building Performance Standards (BPS) are designed to reduce the greenhouse gas footprint of the existing building stock, but only apply to larger buildings, not smaller buildings and residential buildings most prone to damage from natural disasters. This project seeks to address these policy shortcomings by designing and implementing BERPS for smaller buildings with an emphasis on jurisdictions with significant climate risk. This will not require the City to revise its code but will provide a framework and technical assistance to guide revisions to the City Code. (Bipartisan Infrastructure Law: Resilient and Efficient Codes Implementation (RECI)). \$200,000 of the grant funds are dedicated to Annapolis.

LED Street Lights

a) **Funds for LED streetlighting:** The City has received confirmation from the US Department of Energy that its Energy Efficiency Community Block Grant (EECBG) funds (\$76,480) are available, and may be used for LED lights and EV chargers.

The City has formally agreed to the conditions of a grant from The Maryland Energy Administration in the amount of \$67,250 for conversion of 73 street lights to LEDs in place of their current inefficient fixtures, as well as upgrading an energy intensive HVAC unit. Work will begin once the grant accounts are

approved by City Council and created within Munis for staff to use. Conversions will be made along Forest Drive.

b) LED Retrofit technology (historic district lights) - UPDATE: The City has identified an LED retrofit for downtown fixtures which would cost \$575 per light. These retrofits would reduce the cost of maintenance and energy. These retrofits are supported by the U.S. Department of Energy's Energy Efficiency and Conservation (EECBG) Block grant funds. R&S has engaged DPZ Historic Preservation on the lighting requirements for downtown. Two retrofits will be installed soon to test the characteristics and ease of installation.

c) LED retrofit technology (cobra head street lights) - UPDATE: The City has processed work orders through BGE to change out 70+ street lights throughout the City. These lights are City-owned and BGE-maintained, and are in the "cobra head" style. Most of these will be converted from 400W High Pressure Sodium to 100W LED, funded entirely by MEA and DoE.

d) Ownership of City Street Lights - UPDATE: Tanko Lighting has completed its study of the ownership and maintenance of City street lights and identified significant savings that the City can realize by purchasing non-city owned street lights and maintaining all street lights within the City.. Currently, a portion of the street lights are owned and maintained by BGE, some are owned by the City and maintained by BGE, and the remainder are owned and maintained by the City. The report has been shared with DPW and next steps will be discussed by the City Manager's office and DPW, which is the department responsible for streetlight maintenance.

GreenHouse Gas Emissions Inventory and Climate Action Plan – UPDATE: R&S has gathered accurate data from key Annapolis staff and relevant institutions on all subject areas. Consultant, KERAMIDA, Inc. has run an initial analysis and will provide a full report of the GHG inventory by the end of the summer. Stakeholders were identified to form a task force to identify goals in the climate action plan in each GHG-reduction category which the City may enact and support in ways beneficial to community institutions.

Project Summary: 2008 inventories (based on 2006 data) will be updated in one comprehensive document for (1) City facilities emissions and for (2) community emissions. Accompanying this inventory will be (3) a greenhouse gas/ pollution reduction action plan to reach the goals set in the 2040 comprehensive plan, 2040 Annapolis Ahead. Based on the estimated cost of Phase II, this project will

need to be split into two phases: 1) the data inventory and and reduction measures (currently encumbered) and 2) the pollution reduction plan/climate action plan (funded by FY26 proposed budget as contractor services).

Community Solar - UPDATE: - R&S has the opportunity to subscribe to community solar through an agreement with a subscription contract from “Solar For All”, which is the state’s selected vendor of solar credits. Based on the City’s past BGE bills, it is estimated that solar-based energy credit will yield annual savings to the City between \$66,000 and \$127,000. Over a 20 year period, the City could save between \$1,300,000 and \$1,900,000 in energy expenses and reduce 51,071 metric tons of CO2 emissions. This pollution reduction is equivalent to the absorption of CO2 by 16,318 acres of forest or the equivalent of removing 11,012 gasoline powered vehicles from roads. There is no cost to the City to participate in a community solar program.

ECOLOGICAL ENHANCEMENT

Demonstration Program to Build Green Roofs on City Bus Shelters: UPDATE: Central Services and DOT identified bus shelters for the pilot project. Central Services is exploring vendors for green roof installation, which may be the same vendor selected for the City’s green roof maintenance contract for this project and existing green roofs police headquarters, Pip Moyer Recreation Center, and DPW Maintenance Facility).

Project Description: This is a pilot project to demonstrate the benefits of green roofs on bus shelters. It included 5 bus shelters. This project is intended to provide ecological enhancement through improved air and water quality, stormwater absorption, and decreased temperature benefits.

Pollinator Habitat at the Solar Park - Site preparation and planting will not begin until MDE signs off on the emissions monitoring main requirements this fall or early spring 2026. The design, plant selection list, and implementation timeline are complete.

Project Summary: The proposed design covers 18.5 acres, mostly outside of the fence line. Limits on plantable areas are impacted by steep slopes (outside the fence line), existing stormwater BMPs, and the height of the solar arrays. The work is being reviewed and coordinated with DPW regarding design around stormwater practices, mowing schedules, and emissions sampling schedules per MDE requirements.

LWLA is experienced in working on native meadows in Maryland and is experienced in installing meadows above soil caps. The firm has estimated implementation costs of about \$6000 per acre, which enables the City roughly 35 acres per the budget provisions in the Capital Improvement Program. The site may be planted in phases over multiple years. Current funding is sufficient for design and implementation of a significant area of usable planting space. Once a final design and project timeline is developed, the City will reapproach Novis Renewable regarding its financial participation in the project.

Plastic Bag Ban: Compliance remains excellent with no citations issued to date. Several warnings were issued during the first few months after the ban went into effect. Informational flyers were distributed to grocery stores, convenience stores, and restaurants. The City distributed bags through community centers during food drives, at local churches, and other local community service organizations. Bins with bags are located on transit buses (all routes). Fliers were distributed to retailers to aid with posting requirements; most retailers were found to have already posted the ban notices. The County health department will aid the City by providing education to Annapolis retailers during their regular inspections.

ELECTRIC VEHICLES/CHARGING INFRASTRUCTURE

EV Charging Functionality in Hillman Garage

There have been issues with functionality of the fast chargers in Hillman Garage. Premium parking is responsible for the maintenance of the Hillman charging stations. The following information regarding maintenance and down-time of the Level II and Level III (fast) chargers is provided by Annapolis DOT:

- At present (9/9/25), 1 out of the 4 Level III chargers is non-functional. Repairs are underway, and this charger is expected to be back in service by September 20.
- The average repair time for these ABB E-mobility chargers typically ranges from 4 to 8 weeks.
- These chargers experience high usage, as charging is provided free of cost.
- Service delays may sometimes occur occasionally due to challenges in sourcing parts.

- DOT is working with Premium to shorten repair turnaround times, but please note that Premium Parking has its own internal processes that must also be followed for repair approvals.

Hillman Garage - EV Chargers

Level III Chargers:(Fast)

Total Units: 4 dual EV chargers with 8 connectors (CCS/CHAdeMO).

Outages this year:

- One unit was down for 3 months.(Jan - March)
- A second unit was down for 2 months.(May - June)
- A third unit has been down since (Aug 18th - present)

Total downtime : 185 charger days

Total uptime : 836 charger days

Current Uptime: 81.57%

Level II Chargers:(Medium)

Total Units: 3 dual EV chargers with 5 connectors (J1772)

Uptime: 100%

Electric Street Cars/Trolley - UPDATE: The Resilience Authority is drafting a Request for Proposals for a feasibility study. In August, City and Resilience Authority staff, Alderman Savidge, Councilwoman Rodvien, and the Denker Foundation met with MDOT Planning & Development staff regarding the interest of MDOT and potential funding of an electric street car system potentially paired with Bus Rapid Transit (BRT). MDOT supports the pursuit of a feasibility study but highlighted high costs of such a system and no current state funding. MDOT wishes to be a partner in this endeavor and encourages consideration of incorporating BRT to a City transit plan. The study group for this project, that includes VAAAC, has rebranded as the Annapolis Sustainable Development Coalition to be able to capture

elements of transit beyond street cars and the associated economic, development, and community enhancement opportunities.

Project Summary: Alderman Savidge has proposed the re-establishment of an electric street car system for Annapolis. A potential first route would connect City Dock to Main Street to West Street to Parole Center and eventually connect to AAMC and the Annapolis Mall area. The Denker Foundation has provided research into trolley/street car systems across the country and has been partnering with City staff (DOT, R&S, DPZ), Ald. Savidge and the RA to further develop a proposal.

The RA/City/AACounty (with financial support from the Denker Foundation) are partnering around the development of a trolley route(s) to enhance clean, attractive, and equitable transit that provides opportunities for economic development and low/moderate income housing. The City provided \$100,000 in its FY26 budget for a feasibility study along the West Street corridor. The County provided \$50,000 in its FY26 budget towards this project. The Denker Foundation will provide additional funding towards this study. Information gathered from the Community Streetcar Coalition conference demonstrated that not only are streetcars an excellent, clean, and quiet transit option, but that they can serve as an effective economic development, community development, and low to moderate income housing development tool..

City Ferry Pilot Project - UPDATE: In August, the City was informed by MTA that the FTA was providing an opportunity to request a change in the propulsion system for Low-No Emissions Ferry grants. Based on directions to other federal agencies, it was clear that grants would not be released to grantees unless their propulsion systems were in alignment with Trump administration priorities. Therefore, the City requested and was approved for hybrid diesel-electric propelled ferries. The RFP for the ferry has been revised accordingly and will be submitted to MTA for approval along with the RFP for the 5th street ferry landing improvements once the Department of Labor executes the new grant agreement. The Notice of Intent to Award must be approved by the Maryland Transit Administration (MTA) before the successful bidder may be informed and the Notice may be published. The RFP for the landing sites has been submitted to MTA for review and approval before the RFP may be published. NOTE: Funding for this project was paused in late February pending grant program review by the federal government.

Project Summary: The pilot project will run a ferry/or ferries across Spa Creek, with weekend service (Friday – Sunday) and then will expand to other locations and an expanded schedule depending on ridership and other user feedback. This project is funded for the design/build of up to two hybrid

diesel-electric ferries, landing site improvements and charging infrastructure. Anne Arundel County also requested a grant agreement change from all electric to a hybrid diesel-electric system. The Regional Chesapeake Bay Ferry project has not submitted for ferry design and construction funding and therefore was not subject to any pause in grant funding.

STORMWATER RESTORATION PROJECTS AND FEES

Residential Stormwater Credit Program - In July, R&S met with the DPW Stormwater team to discuss advertising the residential (and commercial) stormwater credit programs, which are enabled in the City Municipal Code. These credits provide a 50% reduction in the stormwater fee; practices include rain barrels, rain gardens, green roofs, pervious pavers, etc.

Improvements to the stormwater website are being made and DPW would prefer to maintain a central hub – R&S will assist in development and direct traffic from its page to DPW's in order to boost engagement.

R&S intends to use its upcoming expanded outreach capacity to encourage adoption of this opportunity, which will dually serve as MS4 Minimum Control Measure (MCM) credit.

Annapolis Maritime Resilience Initiative (AMRI) - UPDATE: 10 top priority projects were identified and prioritized and are moving towards 10 percent design as per funding requirements; however, funds may be sufficient to design to 30%. Also, back flow preventers are planned for street ends in the core area of Eastport. It is being considered whether back flow preventers will be installed at all Eastport street ends. Vulnerable areas and priorities were determined after gathering information during two public meetings, stakeholder meetings, and field analyses.

Project Summary: The AMRI initiative is funded by a NFWF grant of \$820K for feasibility assessment, including public engagement, and design. The project will identify, prioritize, and begin design for critical resilience building nature-based projects for the Back Creek watershed, focusing on Eastport, to address sea level rise, flooding, and shoreline and streamline erosion. Currently, the project is in the community outreach and engagement stage to gain understanding from the community where they experience flood vulnerabilities. The Resilience Authority is leading the project in partnership with the City and with communications support by Council Fire.

Eastport Flood Mitigation Project - UPDATE: The City identified back flow preventers at street ends as an effective stormwater control measure. See above in the AMRI discussion.

Project Summary: The City has a FEMA grant of \$300k to identify and design short-term flood mitigation measures (e.g. installation of a pump at the end of Bay Shore Avenue and a back flow preventer at the end of 2nd street). The City also has \$120K through the Army Corps of Engineers to model the stormwater system in Eastport and provide recommendations for improvements. The Eastport Flood Mitigation project is being developed in tandem with the closely associated AMRI.

RESILIENCE BUILDING/HABITAT & ECOSYSTEM RESTORATION - GRAY and GREEN INFRASTRUCTURE

Severn Whole Watershed Partnership - UPDATE: Year 1 projects were agreed to in early September by the state management team (Department of Natural Resources, Maryland Department of the Environment, Maryland Department of Agriculture, the Critical Area Commission, the Maryland Department of Planning, and the Maryland Department of Emergency Management.) Most of the \$2M of Year 1 water quality and ecological improvement projects are within City limits. A press release listing those projects is planned for mid-September.. The Partnership is beginning to prioritize projects for funding for years 2-5 of the five year grant.

Project Summary: On March 6, DNR announced that the Severn River Watershed Project was selected as one of the five projects for funding through the Maryland Whole Watershed Act grant program. At least \$2M in funding and technical assistance will be provided annually by the State over a five-year period. \$250,000 in water quality monitoring funding is also provided. Resilience Authority negotiates the level of funding and the projects selected (\$43M in projects were identified in the application). The Severn River project was selected for the category of “predominantly suburban area.” The grants cover work for restoring waterways, uplifting communities, and enhancing wildlife habitats. Local stakeholder organizations are part of the partnership with the City, County, and Resilience Authority. The project is a comprehensive, watershed-scale approach to ecosystem restoration that includes infrastructure improvements and community-driven planning. The application was submitted by the City of Annapolis, Anne Arundel County, and the Resilience Authority of Annapolis and Anne Arundel County. NOTE: These are state funds authorized by the Maryland Whole Watershed Act of 2024.

Hawkins Cove – Applications for MDE and Army Corps of Engineers permits were submitted in June based on 30 percent design plans. On June 11, the Maryland Board of Public Works approved a \$700,000

DNR Green Space Equity (GSE) award for the Truxton Green Network Connector, a project to formalize the trail between Hawkins Cove and Primrose Rd (Phase 1), then connecting to the Truxton Park Spa Creek north trailhead (Phase 2).

MD Resilience Action Planning - UPDATE: DPW stormwater engineers provided project information and stormwater mitigation needs to the consultant, Straughan Environmental to complete the “Ready for Resilience” analysis step of the project. The consultants continue to examine City policies, practices, and plans to develop nature-based solution recommendations and identify community assets and priority areas.

Project Summary: UMD's Environmental Finance Center invited Annapolis to participate in a 4-month coastal resilience seminar series, with 7 other coastal jurisdictions. Following resilience-building education seminars, the Project Advisory Group began technical assistance to each jurisdiction to develop a Resilience Work Plan prioritizing nature-based projects. Jackie Guild and Dyland Laconich are the staff representatives for Annapolis, Cathy Welker represents the Environmental Commission, Rob Savidge is the elected representative, and Breaking Boundaries, LLC (Randy Rowell) is the local disadvantaged communities representative.

OTHER PROJECTS

Smart Lighting Pilot Program - UPDATE: R&S has received a contract from US Ignite for a 6-month equipment loan. R&S has collaborated with Central Services and DOT to conceptualize a 6-month “Brightening Smart Communities with Innovation” project to cover Historic Downtown Annapolis and Pip Moyer. This technology will provide a public Wi-Fi pilot to expand the capabilities of transportation options, accessibility, and public safety in town.

Electric Leaf Blower Financial Assistance Program - UPDATE: The City has entered into a one-year (renewable) agreement with the Chesapeake Bay Trust to administer the City’s electric leaf blower rebate program. Once the program is ready to launch, mailers will be sent to 6000+ residents and landscapers to notify them of the rebate application portal.

Project Summary: \$105,000 is available with FY26 funds for a residential and commercial rebate program for residents and commercial landscape/lawn care companies to transition assistance in meeting the City’s legislation banning the use of gas powered leaf blowers. **Task Force to Study**

Houseboats, Floating Homes and Commercial Marine Vessels- UPDATE: The Task Force has submitted

its final report to the R&S and will present its recommendations during a City Council work session scheduled for September 18.

Project Summary: In January, R-46-24 Houseboats, Floating Homes and Other Commercial Marine Vessels created a task force to study the impacts, including environmental impacts, on the City of houseboats and other commercial marine vessels. Membership includes watershed organizations and requires reporting of environmental impacts of the identified vessels. With the assistance of City Council members and the Mayor, staff compiled a list of potential task force participants for the Mayor's consideration. The Task Force must disband within three months of its final report.

Conservation Easements research - UPDATE: R&S expects to receive Phase 2 of the research done by consultant, McCrone, who is assisting with the research to complete documentation of City easements, including unlisted easements which are referred to in other planning documents. For easements which are described but not mapped, the firm will also provide a map of the area. McCrone is specialized in surveying, engineering, and land records, and has previously contracted with the City for this type of work. Further input from DPZ has been provided from their review of Planning Commission meetings regarding intent to create easements.

Project Summary: The Annapolis Conservancy Board (ACB) and the Maryland Reentry Resource Center (MDRRC) have become concerned about the status and access to properties encumbered by city conservation easements. Working with MDRRC's Chesapeake Climate and Conservation Corps intern, a comprehensive list of issues of City easements was created based on the list of easements he Deputy City Manager for R&S, the Director of Transportation, the County Officer, and Councilwoman Lisa Rodvein) on the City's website. This information was provided to the Conservancy Board for further action in updating the information connected to easements such as deeds, plats, and GIS mapping. OOL has created a right of entry agreement for all City easements in order for MDRRC to gain access to all City managed easements.

LEGISLATION AND POLICY

In August, a memorandum was provided to the Committee concerning EV fleet requirements in other Maryland local jurisdictions and by the State of Maryland, including laws, policies, and incentive programs. This memorandum was prepared by the R&S summer intern.

PUBLIC EDUCATION AND ENGAGEMENT

Bioblitz, September 2025: R&S has partnered with the Recreation and Parks department to host a 2nd annual bioblitz via the iNaturalist app to engage residents in identifying and photographing species of wildlife during September to promote awareness of local biodiversity.

Monarch Butterfly Migration: Information about how the fall southern migration of monarch butterflies and plants needed for sustenance and rest during this migration is available on the City website on the Home News Flash page and social media posts are prepared.

Eurasia Russian student delegation visit to Annapolis: On July 16, a delegation of Russian college and graduate students visited Annapolis for a presentation on resilience building programs and policies/legislation. The Mayor and R&S presented major resilience projects followed by a R&S led tour of City Dock and other City resilience features. The Eurasia Foundation is funding these students to visit the U.S. and learn about U.S. programs and policy making around environmental sustainability.

CLIMATE CHANGE LITIGATION

Climate Deception Lawsuit: City of Annapolis vs. B.P. et al:- Preparations are underway for the October 6 oral argument before the Supreme Court of Maryland by the City of Annapolis, Anne Arundel County, and the City of Baltimore. The three jurisdictions are appealing the dismissal of their lawsuits by lower courts that ruled that the city and county claims could not be brought under state law.

Case summary: This is a lawsuit brought by the City of Annapolis against fossil fuel companies and their trade association, the American Petroleum Institute, seeking damages and other relief based on the companies' alleged concealment of information and deceptive marketing practices concerning their products' contributions to climate change and climate change impacts.

STAFF

Ashley Diaz joined the staff on August 20 as an Environmental Programs Manager. While duties between the three Resilience & Sustainability staff members overlap and intersect, Ashley's primary

responsibilities are electric vehicles and infrastructure, wildlife habitat, stormwater and nature based resilience building projects, public education and engagement, and environmental and sustainability certifications. Dylan Laconich will focus on energy savings initiatives, including solar, and will complete work with the pollinator habitat at the solar park. Ashley will serve as the staff liaison to the Environmental Commission and Dylan will serve as the staff liaison to the Conservancy Board.