

# Fund 30015: Environmental and Energy Program

## Focus

Fund 30015, Environmental and Energy Program, supports projects that advance the County's Environmental Vision and Operational Energy Strategy. The Environmental Vision focuses on seven core service areas: Land Use, Transportation, Water, Waste Management, Parks and Ecological Resources, Climate and Energy, and Environmental Stewardship. In addition, in July 2018, the Board of Supervisors adopted an Operational Energy Strategy. This Energy Strategy is intended to



further the objectives of the Board's Environmental Vision by providing goals, targets, and actions in each of the following 10 focus areas: Energy Use and Efficiency, Water Use and Efficiency, Green Building, Innovative Energy Solutions, Electric Vehicles, Goods and Services, Waste Management, Awareness and Engagement, Utility Cost Management, and Reporting and Collaboration. The Energy Strategy promotes cost-effective solutions and an energy-conscious culture for County government agencies and employees. The resulting reductions in energy use will help mitigate escalating energy costs and promote a more sustainable future for Fairfax County. The Strategy is designed to move the County toward its goal of reducing energy use by 20 percent by 2029. In FY 2020, Fairfax County's Office of

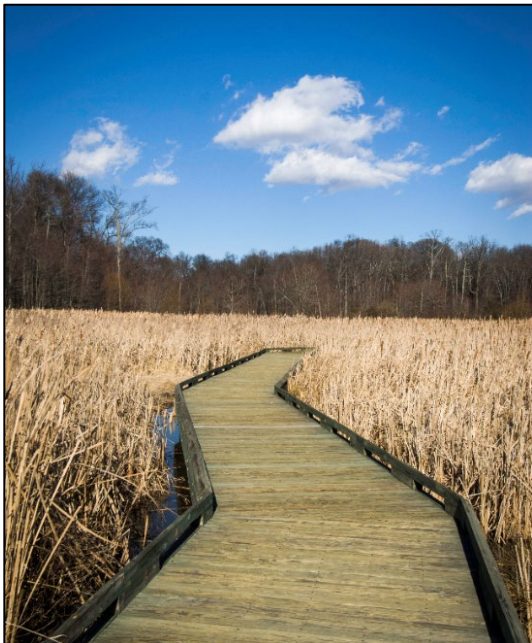
Environmental and Energy Coordination (OEEC) was officially launched. Operating under the Office of the County Executive, the OEEC is responsible for the cross-organizational development and implementation of effective environmental and energy policies, goals, programs, and projects.

Fund 30015 was created to consolidate all projects associated with the Environmental and Energy Strategy Programs. FY 2022 funding of \$1,298,767 has been included for these programs. This funding level represents an increase of \$382,152 from the FY 2021 Adopted Budget Plan. FY 2022 projects were selected based on a process supported by the Environmental Quality Advisory Council (EQAC) and support a variety of environmental initiatives. The selection process includes the application of specific project criteria, review of proposals from County agencies, and identification of projects for funding. Energy Strategy projects have typically been funded using one-time savings available at budget quarterly reviews. Specific funding levels include:

- An amount of \$88,000 is included for the “HomeWise” energy education and outreach program at low- and moderate-income housing in Fairfax County. HomeWise is intended to educate, empower, and enable low- and moderate-income residents to lower their utility bills by reducing their energy and water use. The program emphasizes relationship-building between qualified volunteers and specific communities in the County where energy-efficiency improvements and changes to daily behaviors are likely to have the greatest impact. The program also includes an educational component focused on school-age children to help them make smart choices about their resource use starting at a young age.
- An amount of \$15,000 is included to support a Green Purchasing Program intern who will pursue Zero Waste Certification for the Springfield Logistics Center. The certification process serves as a foundational element from which facilities can achieve cost avoidance, support sustainable initiatives, and improve material life cycles. Zero Waste Certification, which is closely related to DPMM's green purchasing efforts, is a one-time effort that requires significant documentation and third-party certification. The certification cost of \$5,000 is also included. DPMM's preliminary analysis indicates that “Silver” certification could be earned at existing operational levels. If certified, Fairfax County would become one of the first jurisdictions with a certified public facility.

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- An amount of \$50,000 is included to conduct an analysis of the greenhouse gas (GHG) emissions related to the County's purchasing expenditures, or "spend." This expenditure is approximately \$1 billion annually and spans hundreds of sectors and thousands of suppliers. Using spend data from FY 2021, this project will develop a detailed understanding of the environmental impacts of the County's supply chain and inform staff as it develops programs and policies to improve the County's procurement-related environmental footprint. DPMM staff expect that, once measured, the County's supply chain impacts will present a number of opportunities for climate impact reductions that can improve the environment as well as the community's health and well-being.
- An amount of \$36,400 is included to fund the purchase and installation of four water-bottle filling stations at convenient locations within the Newington and West Ox vehicle maintenance facilities. A water bottle filling station is a hands-free way of filling a refillable bottle with tap water, ensuring that both employees and customers awaiting repairs have a healthy hydration option. The bottle-filling stations will replace older drinking fountains that are not being used due to health concerns or because they have fallen into disrepair. It is anticipated that the stations will reduce waste by reducing or eliminating the need for staff and customers to bring their own water and soda bottles, most of which are disposable and end up in the trash. The water bottle-filling stations are expected to include a ticker that will allow staff to track the number of disposable bottles saved by using the filling station.
- An amount of \$300,000 is included to continue the Invasive Management Area (IMA) Program. The Park Authority manages this volunteer program, as well as other invasive removal initiatives. These programs restore hundreds of acres of important natural areas, protect tree canopy, and reach thousands of volunteers. More than 22,000 trained volunteer leaders have contributed 80,000 hours of service since the program's inception in 2005,



improving over 1,000 acres of parkland. This funding level represents an increase of \$50,000 from the FY 2021 Adopted Budget Plan funding level and will support the ecological integrity of additional natural areas and prevent further degradation of their native communities.

- An amount of \$86,000 is included for 1.25 acres of wetland restoration at Green Springs Garden, specifically the restoration of a magnolia bog. This type of bog is a rare geologic feature known to occur only in Virginia, Maryland, and the District. The magnolia bog at Green Springs Garden is one of only 11 known occurrences in Virginia, making its restoration and preservation of particular significance. The bog is located adjacent to a pedestrian trail at Green Springs Garden, offering unique interpretative and educational opportunities for visitors. Restoration activities will include the design and installation of a rock structure to stabilize soil and protect the bog's hydrologic integrity, as well as the removal of non-native invasive plants and installation of native plants. Project partners will include Friends of Green Springs, Earth Sangha, and the Virginia Native Plant Society.

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- An amount of \$75,160 is included to fund the restoration of three acres of meadows at Lake Fairfax. The restorations will establish native plant diversity and provide support to pollinators and native birds. Native plant communities and ecosystem functions including habitat provision and biodiversity will be restored to support wildlife populations, including pollinators and breeding birds. Funding will provide for restoration of three acres of meadows at Lake Fairfax and one-half acre at Green Springs Garden.



- An amount of \$46,400 is included to install an Advanced Oxidation Process (AOP) treatment system at a Park Authority pool to replace the existing ultraviolet (UV) water treatment system. An AOP treatment system improves air quality while yielding both electricity and chlorine cost savings. An AOP unit is more efficient than a UV unit, which reduces the chlorine demand for the pool system, thereby reducing patron and lifeguard exposure when using or maintaining the pool. The improved air quality, which is the primary benefit of an AOP treatment system, is expected to reduce complaints from pool patrons and frequent users such as swim teams. AOP treatment systems require periodic cartridge replacement, but the cartridge replacement costs are offset by cost savings associated with reduced electricity and chlorine consumption.
- An amount of \$80,800 is included for two composting projects. An amount of \$11,800 is included for a Composting Pilot Program at Fairfax County government offices. This program will be managed by an employee volunteer group and each department participating in the pilot will receive a compost bin to place in its office kitchenette. On a weekly basis, a private composting company will remove the bins for off-site composting and provide clean bins. In addition, an amount of \$69,000 is included to support a pilot composting program that is being developed by DPWES's Solid Waste Management Program (SWMP). SWMP plans to implement a pilot drop-off program for residential food scraps, with initial drop-off locations near the existing residential recycling drop-off centers at the I-66 Transfer Station and the I-95 Landfill Complex. The drop-off composting sites will include an enclosure that can hold up to 12 64-gallon carts, to be serviced up to three times per week by the selected contractor(s). SWMP efforts to help educate residents about the new program will include the creation and distribution of fact sheets, the development of an instructional video, and community presentations. During the initial phase of implementation, site attendants will be available to guide residents on what is and is not accepted for composting.

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- An amount of \$130,000 is included for Phase II of a natural landscaping initiative at the Government Center. This project is envisioned as a multi-phase, multi-year demonstration project that reimagines the Government Center grounds while creating inviting, comfortable and aesthetically pleasing outdoor spaces with ample shade and a unifying plant palette.



- An amount of \$75,000 is included for the Watershed Protection and Energy Conservation Matching Grant Program, or “Conservation Assistance Program.” This is a continuing program and is managed by the Northern Virginia Soil and Water Conservation District (NVSWCD). The Watershed Protection and Energy Conservation Matching Grant Program, or “Conservation Assistance Program.” is intended to support energy education, and outreach initiatives and promote community engagement regarding sustainability and conservation issues. The program provides financial incentives to empower civic associations, places of worship and homeowners, through their associations, to implement on-the-ground sustainability projects. The initiative builds on current programs that provide technical assistance, hands-on support, outreach and education to Fairfax County homeowners and residents. Projects will improve water quality, reduce greenhouse gas emissions, and conserve energy and water. The funding provides support for materials and printing, matching grants, outreach and education, site assessments, and inspections.
- An amount of \$127,500 is included for efficiency improvements at selected vacant historic houses maintained by Parks. These historic houses are among the 30 properties being considered for the Resident Curator Program. Under this program, a resident curator assumes responsibility for building rehabilitation in exchange for the right to occupy the property. HVAC inefficiencies and building envelope issues in these houses lead to excessive utility bills and increased maintenance needs while the houses remain unoccupied and discourage potential curators from program participation. Making energy improvements in these houses prior to inclusion in the Resident Curator Program addresses both issues. Energy improvements include adding insulation to crawlspaces and attics, adding weather-stripping and interior storm windows, and upgrading HVAC systems and controls.
- An amount of \$146,192 is included to support the electric vehicle charging stations (EVCS) program and associated software to be located at County facilities for use by employees, patrons and the public. The specific number of charging stations that this amount will fund depends on the needs of the sites and the types of charging stations selected. The purchase of EVCS supports the Board’s updated Environmental Vision, adopted in 2017, which includes objectives intended to reduce both the county’s operational use of energy from fossil fuel sources and the greenhouse gas emissions associated with that energy use. It also supports the Operational Energy Strategy, which envisions transitioning from gasoline-powered passenger vehicles to hybrid-electric and electric vehicles. Consistent with the Board’s policy and strategic direction, in 2020 the county awarded a contract for the purchase of Level II commercial EVCS and software that allows the Department of Vehicle Services to manage usage, set rates, receive payment, bill county fleet drivers for electricity usage, and run sustainability reports.

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- An amount of \$42,315 is included to fund a pilot Energy Efficient Replacement Fund. This fund will assist County departments in purchasing more efficient appliances and equipment when there is a cost premium, and they cannot afford to choose the most efficient option. A wide range of efficiency-related options is often available to purchasers of new appliances and equipment. Although there is not always a cost premium, the most efficient equipment can cost more up-front. When departments are making purchasing decisions, they might not have the funds to pay for slightly more efficient equipment, even though that equipment would have the least cost in the long run due to utility bill savings. At the same time, many departments do not pay their own utility bills and so do not directly reap the benefits of utility bill savings. The fund applies only to replacement purchases; it would not be used to upgrade equipment simply to improve efficiency.

In addition, an amount of \$58,140 has been provided in Fund 10030, Contributory Fund, to continue partnering with two non-profit agencies to support tree planting efforts throughout the County.

### Pandemic Response and Impact

All capital projects are being reviewed as they move into the various stages of development, including land acquisition, design, and construction. It is anticipated that most projects will continue to move forward as planned; however, some projects, such as occupied renovations, will be delayed for safety reasons and some projects may be delayed if it is determined that the General Fund cannot support the future debt service requirements. Staffing constraints may also delay the schedules for upcoming design and construction projects.

### Changes to FY 2021 Adopted Budget Plan

*The following funding adjustments reflect all approved changes in the FY 2021 Revised Budget Plan since passage of the FY 2021 Adopted Budget Plan. Included are all adjustments made as part of the FY 2020 Carryover Review, FY 2021 Mid-Year Review, and all other approved changes through December 31, 2020:*

#### **Carryover Adjustments** **\$15,361,604**

As part of the *FY 2020 Carryover Review*, the Board of Supervisors approved an increase of \$15,361,604 due to several transfers into this fund. A General Fund transfer in the amount of \$7,050,000 in support of the Operational Energy Strategy included \$4,500,000 to support energy efficiency improvements, \$750,000 to support Electric Vehicle charging stations, and \$1,800,000 to support the LED streetlight conversion plan. In addition, a transfer of \$1,588,292 from Fund 30010, General Construction and Contributions, and a transfer of \$6,723,312 from Fund 30020, Infrastructure Replacement and Upgrades, were included to consolidate all Energy and Environmental Projects into Fund 30015, Environmental and Energy Program.

A Fund Statement and a Summary of Capital Projects are provided on the following pages. The Summary of Capital Projects may include some projects without a Total Project Estimate amount. These projects are considered "continuing" projects or projects for which funding is necessary on an ongoing basis (e.g., a contingency or planning project).

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## FUND STATEMENT

Category	FY 2020 Actual	FY 2021 Adopted Budget Plan	FY 2021 Revised Budget Plan	FY 2022 Advertised Budget Plan
<b>Beginning Balance<sup>1</sup></b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Transfers In:</b>				
General Fund (10001)	\$0	\$916,615	\$7,966,615	\$1,298,767
General Construction and Contributions (30010) <sup>2</sup>	0	0	1,588,292	0
Infrastructure Upgrades and Replacement (30020) <sup>3</sup>	0	0	6,723,312	0
<b>Total Transfers In</b>	<b>\$0</b>	<b>\$916,615</b>	<b>\$16,278,219</b>	<b>\$1,298,767</b>
<b>Total Available</b>	<b>\$0</b>	<b>\$916,615</b>	<b>\$16,278,219</b>	<b>\$1,298,767</b>
<b>Total Expenditures</b>	<b>\$0</b>	<b>\$916,615</b>	<b>\$16,278,219</b>	<b>\$1,298,767</b>
<b>Total Disbursements</b>	<b>\$0</b>	<b>\$916,615</b>	<b>\$16,278,219</b>	<b>\$1,298,767</b>
<b>Ending Balance<sup>4</sup></b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

<sup>1</sup> Fund 30015 was created in FY 2021 to consolidate all projects associated with the Environmental and Energy Strategy Programs. Previously, funding for projects associated with environmental initiatives and energy strategies were budgeted in 30010, General Construction and Contributions, and Fund 30020, Infrastructure Replacement and Upgrades. As part of the *FY 2020 Carryover Review*, all existing projects were moved to Fund 30015.

<sup>2</sup> Represents a Transfer In from Fund 30010, General Construction and Contributions, to consolidate all Energy and Environmental Projects into Fund 30015, Environmental and Energy Program.

<sup>3</sup> Represents a Transfer In from Fund 30020, Infrastructure Replacement and Upgrades, to consolidate all Energy and Environmental Projects into Fund 30015, Environmental and Energy Program.

<sup>4</sup> Capital projects are budgeted based on the total project costs. Most projects span multiple years, from design to construction completion. Therefore, funding for capital projects is carried forward each fiscal year, and ending balances fluctuate, reflecting the carryover of these funds.

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## SUMMARY OF CAPITAL PROJECTS

Project	Total Project Estimate	FY 2020 Actual Expenditures	FY 2021 Revised Budget	FY 2022 Advertised Budget Plan
Community - CECAP (2G02-033-000)	\$575,740	\$0.00	\$575,739.58	\$0
Community - EAF (2G02-030-000)	319,723	0.00	319,722.66	0
Community - HomeWise Outreach Program (GF-000057)	184,000	0.00	96,000.00	88,000
Community - NVSWCD Intern Program (2G02-031-000)	7,115	0.00	7,115.00	0
Contingency (2G02-034-000)		0.00	118,281.08	0
EIP - DPMM - Green Intern (2G02-028-000)	25,000	0.00	10,000.00	15,000
EIP - DPMM - Supply Chain GHG Emissions (2G02-037-000)	50,000	0.00	0.00	50,000
EIP - DVS - Pollinator Meadow (GF-000060)	45,515	0.00	45,515.00	0
EIP - DVS - Water Fountains (GF-000067)	36,400	0.00	0.00	36,400
EIP - FCPA - Bike to Parks Pilot (PR-000140)	60,000	0.00	60,000.00	0
EIP - FCPA - IMA Program (2G51-046-000)		0.00	414,745.53	300,000
EIP - FCPA - Magnolia Bog Restoration (PR-000130)	86,000	0.00	0.00	86,000
EIP - FCPA - Meadow Restorations (PR-000131)	269,328	0.00	194,168.36	75,160
EIP - FCPA - Pool UV Replacement (PR-000143)	46,400	0.00	0.00	46,400
EIP - FCPA - Solar Panels Support (2G51-047-000)	50,000	0.00	50,000.00	0
EIP - FCPA - Sully Woodlands Center (PR-000139)	250,000	0.00	250,000.00	0
EIP - FCPA - Watch the Green Grow (2G51-045-000)	41,500	0.00	41,500.00	0
EIP - FCPA - Water Smart Controls (PR-000138)	138,000	0.00	138,000.00	0
EIP - FEEE - Composting Pilot (2G02-027-000)	92,800	0.00	12,000.00	80,800
EIP - FMD - Natural Landscaping (GF-000058)	335,000	0.00	205,000.00	130,000
EIP - NCS - Permeable Athletic Court (GF-000059)	156,000	0.00	156,000.00	0
EIP - NVSWCD CAP Program (2G02-036-000)		0.00	75,000.00	75,000
Energy - FCPA - Historic Houses (PR-000128)	127,500	0.00	0.00	127,500
Energy - FCPA - Lighting (PR-000135)	266,859	0.00	266,859.33	0
Energy - FCPA - Unstaffed HVAC (PR-000129)	45,000	0.00	45,000.00	0
Energy Strategy - EV Stations (GF-000063)	1,646,192	0.00	1,500,000.00	146,192
OES - FCG - FMD Retrofits (GF-000064)	6,508,868	0.00	6,466,552.76	42,315
OES - FCG - LED Streetlights (GF-000065)	2,295,496	0.00	2,295,495.74	0
OES - FCPA - Lighting and Retrofits (PR-000136)	571,701	0.00	571,701.23	0
OES- FCG - Energy Contracts (ESCO) (2G02-035-000)	2,363,823	0.00	2,363,823.00	0
<b>Total</b>	<b>\$16,593,960</b>	<b>\$0.00</b>	<b>\$16,278,219.27</b>	<b>\$1,298,767</b>