

# GOVERNOR'S ENVIRONMENTAL EXCELLENCE



**AWARDS**

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**The Governor’s Environmental Excellence Awards recognize successful and innovative efforts that improve Virginia’s environment. The annual awards program is run as a partnership between the Department of Environmental Quality and the Department of Conservation and Recreation.**

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## Cabinetworks Group, Inc.

**SOLVENT RECLAMATION PROGRAM** **GOLD**

Cabinetworks Group Inc. (Cabinetworks) manufactures kitchen cabinets and other home improvement items for over 20 brands. The Group's Mount Jackson facility, located in the Shenandoah Valley, initiated a Solvent Reclamation Program to address environmental concerns and enhance sustainability in cabinet staining and finishing. With an annual production exceeding one million components, the plant's generation of hazardous waste and emissions of volatile organic compounds (VOC) were coming close to regulatory limits. Cabinetworks understood that these environmental impacts would need to be addressed if they wanted to continue to grow. Instead of looking only at additional emission control devices to capture VOCs after usage, Cabinetworks looked further upstream in their process for options.

Cabinetworks partnered with another company, Blue Ridge Solvents and Coatings, to implement two key strategies. They adjusted solvent composition, reducing VOC content by 25%, and introduced a solvent recycling program, converting hazardous waste into reclaimed solvent through distillation. Over three years, this effort saw 70% of hazardous waste transformed into reclaimed solvent, significantly reducing waste disposal volume and cutting VOC emissions by 42%. The project yielded substantial financial benefits, saving nearly \$1 million over three years.



**CABINETWORKS**  
GROUP

The project reduced reliance on virgin solvent by an impressive 51%, contributing to decreased raw material consumption. In 2023, the solvent reclamation program expanded to a second facility in another state. This expansion increased access to solvent for recycling and reduced disposal costs by 55%, generating monthly savings of up to \$10,000 for the facility. The Solvent Reclamation Project exemplifies Cabinetworks' commitment to environmentally responsible manufacturing practices, effectively addressing environmental challenges, reducing waste, and achieving significant financial gains without costly pollution control devices. It demonstrates an innovative and cost-effective approach to fostering environmental responsibility in the industry.



## Church & Dwight Co., Inc.

**REMOVAL OF AMMONIA AND PHOSPHORUS FROM CONDOM MANUFACTURING PROCESS** **GOLD**

The Church & Dwight Co., Inc. (Church & Dwight) facility in South Chesterfield launched an environmental project in 2016 with the goal of minimizing the environmental impact of condom manufacturing. For years, Church & Dwight worked to reduce the amount of ammonia and phosphorus used in production. Through diligent efforts, they reduced ammonia consumption by 46% by 2022, resulting in the elimination of 785,000 pounds of ammonia. The company's efforts continued until it found a process that eliminated the need for ammonia and phosphorus.

Church & Dwight has been using essentially the same chemical manufacturing process for over 30 years. Changing the process required significant monitoring and quality assurance, and the attention to detail required to maintain product quality extended the trial period and delayed full implementation. By the end of 2022, the facility had fully transitioned to an ammonia and phosphorus-free chemistry, effectively reducing consumption, and eliminating fugitive emissions of ammonia into the air. This transition not only contributed to environmental sustainability but also saved the facility approximately 100,000 to 200,000 pounds of ammonia and 204,000 pounds of phosphorus-based



chemical processing annually. In addition, it significantly reduced carbon dioxide emissions associated with ammonia production, which Church & Dwight tracks as part of its scope 3 greenhouse gas emissions. In addition, the new chemical process is 65% cheaper per 10,000 items produced.



## MYR Energy Services, Inc. / DESRI / Nevados

### BARTONSVILLE ENERGY FACILITY **GOLD**

MYR Energy Services, Inc. (MYRE), in partnership with D.E. Shaw Renewable Investments (DESRI), are working to bring the Bartonsville Energy Facility online. Currently under construction, the project represents a groundbreaking initiative in renewable energy and sustainability. This impressive 130-megawatt solar facility sprawls across approximately 1,000 acres in Frederick County, with a resolute commitment to environmental responsibility demonstrated by the strategies they chose.

The project's location at the foot of the Appalachian Mountains brought challenging rolling terrain that required adaptive solutions. Traditionally, when sites are prepared for utility scale solar installations, the site is graded to create a flat surface. Grading is not only costly during the construction process, but it also affects the ability to control erosion, flooding, and muddy runoff. This was addressed by designing the solar array to use Nevados all-terrain trackers that adapt to the terrain using articulated joints, the technology's first time being used in Virginia. Using Nevados reduced the need for extensive grading

by allowing the solar panels to follow the natural curves of the landscape. In doing so, the partners were able to minimize soil disturbance and preserve topsoil during construction. Following the existing terrain also reduced the project's need for steel piling by 23%.

The partners also implemented other water quality protection approaches. Directional boring was used in place of traditional techniques to minimize the impact on sensitive waters. To underscore the project's commitment to effective erosion control, 28 retention ponds were incorporated into the design.

The Bartonsville Energy Facility serves as a model for sustainable solar development across the Commonwealth. Its emphasis on innovation is evident through its pioneering use of technology and construction methods. The facility is projected to contribute approximately 284,700 MWh of clean energy to Virginia annually after coming online later this year.



# Patrick Henry's Red Hill, Ward Burton Wildlife Foundation, and Virginia Outdoors Foundation

RED HILL – PATRICK HENRY NATIONAL MEMORIAL **GOLD**

The Patrick Henry Memorial Foundation placed a permanent open-space easement on Red Hill, the home of Patrick Henry, the first Governor of the Commonwealth of Virginia. The easement resulted in 600-acres being preserved through the Virginia Outdoors Foundation. The conservation easement is intended to protect the historic and open space qualities of the property, fund additional interpretation of existing historic elements while enabling the installation of several new historic interpretive elements. The preservation of Patrick Henry's Red Hill was made possible through the partnership of the Patrick Henry Memorial Foundation, the Ward Burton Wildlife Foundation, Virginia Outdoors Foundation, and Beechtree Group with funding from the Virginia Land Conservation Foundation and Preservation Trust Fund.

Red Hill is open to the public 362 days per year, providing substantial outreach and education to both youth and adults and receives over 10,000 visitors each year. Patrick Henry's Red Hill provides visitors with opportunities to experience the property from the perspective of its previous inhabitants. Red Hill contains the home, law office, and burial site of Patrick Henry. The property also includes a reconstructed slave cabin and cemetery for enslaved African Americans, including life stories from families of those who are buried in the cemetery.

The property also has important ecological significance,

containing prime farmland, contributing to the Virginia Natural Land Network which allows unrestricted movement of wildlife, and runs along a segment of the Staunton State Scenic River. The easement placed on Red Hill gives the land a permanent voice.



Red Hill  
Patrick Henry National Memorial



VIRGINIA OUTDOORS  
FOUNDATION

## RTX

RAYTHEON SUSTAINABILITY **GOLD**

Raytheon, a major business unit within RTX, operates primarily at the Dulles site, where it plays a crucial role in software development, testing, program administration, and business development across five leased buildings. They also manage the Chesapeake depot, specializing in the overhaul and repair of the Military AEGIS missile defense system. Raytheon places a strong emphasis on environmental sustainability, adhering to RTX's corporate policies, and has implemented a broad range of projects to reduce its environmental impacts.

They have successfully reduced greenhouse gas emissions by 15% over the past five years and have decreased water usage by 10% through comprehensive water balance assessments. Energy usage decreased due to a variety of efforts ranging from employee engagement through promoting "shut-if-off" practices to efficiently managing HVAC and building automation systems. Water conservation efforts include completing an annual water balance, low-flow fixtures, and HVAC upgrades reducing the usage of the evaporating towers. Raytheon also



COLLINS AEROSPACE  
PRATT & WHITNEY  
RAYTHEON

achieved a 20% reduction in waste generation by prioritizing the waste hierarchy: reduce, reuse, and recycle. In addition, an internal team has been working to identify and roll out alternatives to hydrofluorocarbons and per- and polyfluoroalkyl substances ahead of EPA regulatory requirements.

The company actively engages in Environmental, Social, and Governance disclosures and collaborates with ENERGY STAR,

and their sustainability efforts have led to a significant impact, with 25% of their electricity now being sourced from renewable sources. Employees have also contributed over 5,000 volunteer hours to local communities. Raytheon has integrated sustainability and climate risk mitigation into their Business Resilience and Crisis Management processes, ensuring a holistic approach to environmental responsibility.



## Capital Region Land Conservancy

NEW MARKET HEIGHTS BATTLEFIELD – HASKINS TRACT **SILVER**

The Capital Region Land Conservancy (CRLC) acquired the Haskins Tract, 49-acres of land within the core area of New Market Heights Battlefield in eastern Henrico. The project was made possible using funding from the Virginia Land Conservation Foundation and the American Battlefield Protection Program.

The property was identified by ConserveVirginia, a key tool in guiding land conservation to ensure the highest conservation outcomes. The tract specifically supports ConserveVirginia's goals to protect cultural and historic preservation, improve water quality, and preserve scenic landscapes. An example of the cultural and historic value of this acquisition is the preservation of an 800-foot stretch of earthworks where the 22nd US Colored Troops fought in 1864.

A conservation easement held by the Department of Historic Resources (DHR) includes best management practices and 100-foot wooded buffers along streams, wetlands, and water bodies. To protect important habitats and potential archaeological resources, the DHR easement does not allow for commercial timber, the development of structures, or major land use changes.

The eastern boundary of the property contributes to the Four Mile Creek – Deerlick Branch Stream Conservation Unit. It is also within the Lower James River Important Bird Area and is habitat for threatened bats and the flowering Swamp Pink. CRLC plans to highlight the property's significance by installing publicly accessible pedestrian trails, interpretive signs, and educational programming to extend the benefits of this preserved land.

CAPITAL REGION  
LAND CONSERVANCY 



## The Lee Family

### PIERCES LOW GROUNDS SILVER

The Pierces Low Ground tract, located in Bryants Corner near Emporia, comprises 2,818 acres that have been permanently protected through the partnership of the Lee family, the Virginia Land Conservation Foundation, Rock Springs Forestry, The Nature Conservancy, the US Endowment for Forestry, Enviva, the Virginia Outdoors Foundation, and Beechtree Group.

The entirety of the property is classified by ConserveVirginia as valuable land to preserve. The tract specifically supports ConserveVirginia's goal to protect agriculture and forestry, natural habitat and ecosystem diversity, floodplains and flooding resilience, and water quality.

The property supports local employment and benefits the local economy through farming and forestry. The land is crucial for water quality, with riparian protection zones to reduce pollution in the Meherrin River, an impaired water body. The tract also hosts significant wildlife, including threatened bird species and a scenic riverfront with old-growth cypress-tupelo swamp trees.

Management plans for both forestry and agriculture emphasize best practices for environmental protection. The property contains important archaeological sites, with restrictions to protect these areas. Conservation of this tract contributes significantly to local ecology, economy, and cultural heritage.



## Prince William County Department of Public Works & Micron Technology, Inc.

### NEABSCO CREEK BANDALONG LITTER TRAP: CONTROLLING URBAN STORMWATER LITTER SILVER

The Neabsco Creek Bandalong project was initiated in 2019 in response to the pressing environmental issue of urban stormwater litter and plastic pollution in Prince William County. This pioneering collaboration between the Prince William County Department of Public Works, Micron Technology, Inc. (Micron), and local environmental non-profit organizations aims to control litter and plastic pollution from a 10,000-acre drainage area, which encompasses densely populated regions like Dale City, Woodbridge, and the Route 1 corridor.

At its core, the project revolves around the installation of a substantial in-stream litter trap known as the Neabsco Creek Bandalong, which has demonstrated remarkable effectiveness in capturing between 85% to 90% of stormwater litter and plastic pollution that would otherwise have polluted the 300-acre Neabsco estuary and the Potomac River. Over two years, the litter trap has captured approximately 25,000 pieces of expanded polystyrene, contributing to the restoration of the estuary's aquatic habitat and significantly reducing both environmental and economic costs.

This successful public-private-nonprofit partnership not only highlights the efficiency of the Bandalong technology but also underscores the potential for collaboration among diverse stakeholders in addressing pressing environmental challenges. With the project's efficiency and effectiveness, the Neabsco

Regional Park and its 300-acre estuary now offer a cleaner and more pleasing environment for visitors while making substantial strides in diminishing stormwater litter and plastic pollution in the region. In just two years, the project has resulted in the recycling of approximately 8,000 single-use #1 and #2 plastic bottles, diverting them from the estuary. This project serves as a blueprint for other jurisdictions seeking innovative solutions to pollution issues and emphasizes the significance of partnerships in environmental conservation endeavors.



# Rappahannock Regional Solid Waste Management Board (R-Board) / Aquia Harbour Host Lions Club

## ELECTRONICS RECYCLING PROGRAM SILVER

The Rappahannock Regional Solid Waste Management Board (R-Board) and Aquia Harbour Host Lions Club partnered to create an Electronics Recycling Program. The program is dedicated to reducing electronic waste in Fredericksburg and Stafford County by offering convenient recycling collection at the landfill. This partnership focuses on recycling or refurbishing residential electronics. The Brooke Point High School Virginia Student Training and Refurbishment Program, referred to as the VA STAR program, plays a vital role by identifying reusable components that can be given to those in need. Unusable electronics are responsibly dismantled, and proceeds from recycling are used to benefit the community through the Aquia Harbour Host Lions Club.

This program's success stems from its commitment to environmental stewardship and community involvement. It was inspired by a desire to benefit both the environment and the local community. In 2021, the Stafford Middle School Leo Club, sponsored by the Lions Club, constructed a shed for electronic waste collection at the R-Board, marking the beginning of its growth. The program has continued to expand, with the addition of an electronics collection shed at the Belman Road Convenience Center in 2023, further increasing its impact in diverting electronic waste from landfills. The sheds allow for year-round collection.

Since its inception, the program has steadily expanded, diverting over 48,960 pounds of electronic waste from



## Tech 4 Troops

### T4T RESPONSIBLY RECYCLING ENVIRONMENTAL PROGRAM SILVER

At Tech for Troops (T4T), part of its core mission is responsible electronics recycling. T4T collects used electronics to be refurbished for Veterans and their families, sold, or recycled, which prevent electronics from ending up in landfills. To date, T4T has recycled 800 tons of electronic waste, with a goal of recycling 100 tons annually through public support.

T4T understands that its ability to serve veterans and the environment is dependent on the quantity of electronics collected. The organization worked to allow both state and federal agencies to be allowed to surplus computers through T4T. With the passage of legislation, at the state level in early

2020 and federal level in late 2022, T4T can now receive donated equipment from Virginia state agencies and federal executive agencies, including the Department of Defense.

T4T focuses on responsible recycling, conserving resources, reducing pollution, and saving landfill space. All refurbished computers either go to veterans, are sold online, or are responsibly recycled, contributing to a circular economy. All equipment is recycled through R2 certified companies to ensure the recyclers follow responsible practices for electronics recycling. T4T also works to reduce carbon, water, energy, and waste, while raising environmental awareness.





## Danville Utilities

### ENERGY EFFICIENCY GRANT PROGRAM THROUGH THE AMERICAN RESCUE PLAN ACT & DANVILLE UTILITIES HOME\$AVE REBATE PROGRAM **BRONZE**

Danville Utilities recognized that both the utility and customers benefit from system-wide energy efficiency. With improved customer energy efficiency, the utility can lower its operating and supply needs because of reductions in overall energy demands, which benefits the environment and saves customers money. Danville Utilities began its energy efficiency effort with the Home\$ave Rebate Program, which aims to promote environmental sustainability and energy efficiency among homeowners in their service area. It encourages homeowners to invest in energy-efficient equipment to reduce energy consumption and lower electric bills. Participants can receive rebates for various equipment, including refrigerators, water heaters, windows, insulation, washing machines, dryers, ranges, and electric vehicle chargers. After purchasing qualifying equipment or performing tune-up services, homeowners submit rebate applications, and upon successful review, they receive cash rebates in the form of checks. This program not only benefits homeowners by reducing energy bills but also has a positive environmental impact by lowering energy consumption and greenhouse gas emissions. From 2014 to 2022, it helped 2,185 customers save a total of approximately 9,500,000 Kilowatt-hours, equivalent to the annual energy use for almost 850 homes.

Danville Utilities expanded on the efforts of its Home\$ave program with an Energy Efficiency Grant Program, funded through the American Rescue Plan Act. It allocates one million dollars from the American Rescue Plan funding to provide new HVAC equipment and insulation. The program focused on those that were most in need of assistance, using data analysis, demographic information, and assessments by the Danville Redevelopment and Housing Authority (DRHA) and Social Services. DRHA coordinated the improvements and received funding from Danville Utilities to reimburse contractors providing services.

A total of 57 home efficiency projects have been completed, resulting in improved comfort and safety for homeowners who would otherwise have struggled to make these necessary upgrades. In the first year, the energy use of 20 homes was reduced by 134,314 kWh. The program benefits customers by reducing their utility bills and helps Danville Utilities by curbing demand on the electrical grid and conserving natural resources.



# The Drexel-Morrell Center

**BELMEAD ON THE JAMES, INC. BRONZE**

Belmead on the James, Inc. (BOJI) recently acquired the historic Drexel-Morrell Center property in Powhatan County, known for its rich cultural history. This property is now safeguarded by a perpetual historic preservation and open-space easement held by the Virginia Board of Historic Resources. The easement protects a 1898 historic frame dwelling, a frame stable, and 56-acres of open-space land, all of which are listed on the Virginia Landmarks and National Historic Registries.

This project supports the Cultural and Historic Preservation category of ConserveVirginia and aims to serve historically underserved communities. The Drexel-Morrell Center acts as a hub for cultural and educational activities, such as archiving, museums, storytelling, ancestry research, lectures, and workshops. Its focus is on preserving the history of African Americans in the region and honoring Saint Katharine Drexel's contributions.

The Drexel-Morrell property is not just historically significant but also ecologically valuable. It features open-space land, meadows, forests, streams, wetlands, and farmland. The perpetual easement ensures the protection of these elements and their vital role in conserving wildlife habitat and promoting sustainable agricultural practices. The project is accessible to the public year-round, as required by the easement.



## Fairfax Department of Public Works and Environmental Services – Solid Waste Management Program

**I RECYCLE: BUS SHELTER AD PROJECT - HONORABLE MENTION**

The Fairfax Department of Public Works and Environmental Services' Solid Waste Management Program (SWMP) has a team dedicated to providing education and engagement services regarding waste reduction, recycling, solid waste management, and county ordinances to diverse audiences, including the general public. The "I Recycle: Bus Shelter Ad" project aimed to increase awareness among historically marginalized communities in Fairfax County about proper recycling practices. The campaign partnered with local community leaders with modest social media followings, or those working with over 500 residents, to promote SWMP messages.

This project featured campaign ads highlighting local community champions, prominently displayed at bus stops along high-traffic routes. The ads, available in both English and Spanish, showcased individuals and the items they were recycling, keeping the messages concise and complementing the images with the statement: "I recycle," along with instructions for viewers to do the same. By promoting proper recycling practices and waste reduction, the project contributed to significant environmental benefits. The funding for this project, generated from taxes on plastic bag usage, meant 600,000 fewer plastic bags in circulation, reducing plastic pollution and its environmental impact.



**FAIRFAX COUNTY  
DEPARTMENT OF PUBLIC WORKS  
AND ENVIRONMENTAL SERVICES**



# University of Virginia – Facilities Management Fleet

## SAFE AND SUSTAINABLE DRIVER TRAINING PROGRAM - HONORABLE MENTION

The University of Virginia initiated a fleet replacement program, strategically transitioning to smaller and electric vehicles while concurrently installing 24 electric vehicle charging stations on their grounds. The fleet replacement was paired with a program to teach sustainable driving habits, called the Safe and Sustainable Driver Training Program. This proactive approach resulted in a commendable 15% reduction in CO2 emissions compared to previous years, making a significant contribution to environmental conservation. Additionally, their concerted efforts led to a substantial decrease in diesel vehicles, reducing their environmental impact.

Collaborating with professors and students on a Capstone project that harnessed vehicle sensor data, the university achieved a 46% reduction in idling time and a 75% decrease in seat-belt violations. UVA's sustainability efforts have also attracted attention from industry leaders. Notably, the National Renewable Energy Laboratory, which is part of the US Department of Energy, conducted a study involving four

other university fleets across North America, focusing on the use of telematics as a measurement tool for sustainable fleet management. Many organizations require safety training for those operating its vehicles, but few include sustainability in the training.



**GOVERNOR'S**  
**ENVIRONMENTAL**  
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**AWARDS**

A decorative laurel wreath in green, positioned at the bottom of the text block, framing the word 'AWARDS'.