



## Maryland Green Registry MEMBER

The Maryland Green Registry promotes and recognizes sustainable practices at organizations of all types and sizes. Members agree to share at least five environmental practices and one measurable result while striving to continually improve their environmental performance.

# Maryland Department of the Environment



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State Government  
Member since July 2009

## Management and Leadership

### Environmental Policy Statement

*The following policy was first established in 2008 and has been re-approved each year by the Secretary of the Maryland Department of the Environment:*

*The mission of the Maryland Department of the Environment is to protect and restore the environment for the health and well-being of all Marylanders. MDE is committed to conducting agency operations in a manner that protects the environment and demonstrates good stewardship of the world's natural resources. The Department will do so by adhering to the following principles at all levels and functions of our organization and at all locations:*

- 1. Complying with all environmental regulatory requirements and state Executive Orders;*
- 2. Pursuing environmental protection and pollution prevention practices through our environmental objectives and operation procedures;*
- 3. Providing appropriate environmental training and educating employees to encourage environmental responsibility at work and at home; and*
- 4. Ensuring continual improvement of the Department's environmental management system through annual reviews and audits.*

*The Department will achieve this high level of performance by integrating these objectives into an Environmental Management System that will guide and provide the necessary structure.*

**Environmental Team**

*MDE's Environmental Management System Team is comprised of representatives from the following Administrations: Air and Radiation Management, Budget and Financing, Emergency Preparedness and Planning, Information Management and Technology Land Management, Operational Services, Science Services, Water Management, the Attorney General's Office, the Office of the Secretary. The team meets quarterly and is responsible for the following:*

- *Identifying and reviewing annually all federal, state and local environmental regulatory requirements applicable to the Department, including Executive Orders.*
- *Identifying annually environmental aspects over and above regulatory requirements that the Department should address in its Environmental Management System.*
- *Identifying and recommending to the Secretary for approval environmental performance goals and measures for MDE, and*
- *Implementing training and awareness programs to educate key employees about their responsibilities in managing activities consistent with the MDE Environmental Policy.*

**Annual Goals**

*MDE's annual goals for 2017 include the following:*

- *Implement the agency's energy plan to meet a 10% electrical energy usage reduction goal from a 2010 baseline by FY 2020 (see Energy Efficiency section);*
- *Increase MDE's recycling rate by maintaining proper signage and optimal placement of recycling containers;*
- *Implement two new paper use reduction projects ( see Solid Waste Reduction section); and*
- *Continue employee engagement efforts through new employee orientation and The Heron, MDE's employee newsletter.*
- *Continue progress in discussions with Montgomery Park landlord regarding the installation of solar panels at main facility and/or adjacent facilities on the premises.*

**Environmentally Preferable Products and Services**

*MDE has expanded its online permitting and invoicing services to improve customer service and reduce paper use. We also make our publications, including department newsletters, available online.*

**Environmentally Preferable Purchasing**

*The Maryland Department of General Services has specified five areas of environmentally preferable products (EPP) under the Green Maryland Act of 2010: janitorial supplies, disposable food service products, paper and office supplies, paint, and electronic and IT products. Additional product or service categories may be added in future years and MDE has requested that WaterSense specifications be included. MDE submits an annual report to DGS on its EPP spending.*

*MDE is purchasing paper with 50% recycled content and computers that conform to EPEAT, ENERGY STAR and the IEEE standards. MDE also purchases ENERGY STAR office equipment and hybrid, plug-in hybrid and flex fuel fleet vehicles. See section on Fleet Vehicles.*

**Environmental Restoration or Community Environmental Projects**

*MDE distributes environmental information at fairs and festivals throughout the state and sponsors numerous events such as the Clean Water Business Expo, Tawes Awards for a Clean Environment and the Environmental Science Student Internship and Award. MDE staff have also made presentations to school groups on recycling, stormwater control, and other environmental topics.*

*In MDE's local community, staff have participated in cleanup events at the Gwynns Falls Trailway and at local West Baltimore elementary schools. MDE staff have also worked with the non-profit, Real Food Farm, to assist with their fall harvest. MDE staff donate gently used clothing, household items and toys to the local charity organization, Paul's Place. MDE staff has also conducted numerous tours highlighting the green features of the Montgomery Park building.*

**Independently-Audited Environmental Management System**

*MDE has implemented an EMS since 2008, but it has not yet been audited by a third party.*

## Waste

### **Solid Waste Reduction and Reuse**

*MDE has reduced its paper procurement 49.6% from FY '09 - FY '15, an annual reduction of 9,474 reams of paper. The reduction was largely due to increased use of electronic communications and forms, and double-sided printing and copying. The biggest gain came when our IT department made a software change to set all networked printers to automatic duplex printing. This reduction of approximately 47,895 lbs annually offers cost savings as well as a reduction in the following environmental impacts associated with paper production on an annual basis:*

*Wood Use: 44 tons*

*Net Energy: 643 million BTUs*

*Greenhouse Gases: 54 MTCO<sub>2</sub>e*

*Volatile Organic Compounds: 53 lbs*

*Water Consumption: 408,428 gallons*

*Solid Waste: 36,624 lbs*

*(These environmental impact estimates were made using the Environmental Paper Network Paper Calculator found [www.papercalculator.org](http://www.papercalculator.org).)*

*The EMS Team has been very active in promoting paper reduction projects. In March 2015, it sent a department-wide survey asking about current and potential paper reduction practices. The survey results provided over 80 practical ideas. The EMS team has implemented 12 of these to date and undertakes a number of new initiatives each year while also monitoring efforts among individual departments. Some of these practices include the following:*

- MDE has also moved to electronic timekeeping, eliminating a number of forms including timesheets, leave request and timekeeping change forms.*
- MDE encourages employees to reduce printing and faxing by viewing documents online and requesting information (bid, proposals, data, etc.) in electronic format. MDE also encourages employees to use Fortis, a document management system that has been in use at MDE since 1998. Fortis has a proven track record of success in streamlining administrative processes and reducing paper use and more programs at MDE are adopting this system.*
- The mail room at MDE's headquarters collects more than 520 pounds of unwanted mail each year including mail to former employees. One of MDE's summer interns worked through several bins of this mail to remove MDE addresses from mailing lists. MDE employees have also been encouraged to remove their names from mailings that they are no longer*

*interested in receiving by calling directly or through [dmachoice.org](http://dmachoice.org) or the app PaperKarma.*

- *Each of MDE's fax machines receives up to 150 pages of junk faxes per year. With about 35 fax machines at Montgomery Park alone, that's nearly 10 reams of paper. Our summer intern made phone calls to remove MDE fax extensions from a number of unwanted fax lists and MDE employees were encouraged to do the same. MDE is also actively exploring how to phase out fax machines.*
- *MDE uses Xerox Colorqube printer/copier/scanner equipment which uses solid ink sticks, eliminating the use of printer cartridges which need to be recycled when empty.*
- *The Attorney General's office at MDE uses the electronic filing option provided by county courts and provides electronic records to opposing council to reduce paper use.*
- *MDE successfully initiated a rule change to Maryland Rule 7-202 to allow state agencies to give electronic notice to interested parties of the filing for a petition for judicial review, if the person has consented to electronic notice. The prior rule required notice by first class mail. The rule was signed on December 13, 2016 and will have a significant impact on paper usage.*

*In addition, for all company-wide meetings and social events, reusable plates, cups and utensils are used. Unwanted office supplies are redistributed through the Department's Swap Area and unwanted office equipment is sent to a government surplus site for reuse. MDE also holds regular freecycle events that allow employees to give away and exchange items from home.*



## **Recycling**

*In 2015, MDE achieved a 38.47% recycling rate at all five of its locations. At our headquarters at Montgomery Park, we achieved a 44.49% recycling rate by recycling 32.16 tons of waste including 14.9 tons cardboard, 4.98 tons mixed paper, and 2.77 tons of commingled containers. This amounted to a cost savings of \$1,865 of avoided disposal costs. Using EPA's WARM model ([www.epa.gov/warm](http://www.epa.gov/warm)) the recycling of these materials reduces greenhouse gases by 31 metric tons of carbon equivalent (MTCE).*

*In 2011, MDE's Recycling Team initiated an athletic shoe recycling drive with a goal of 500 pairs of shoes. As of December 2016, 2,600 pairs of shoes have been collected and sent to 1) Nike's recycling plant in Memphis, TN as part of the Nike ReUse a Shoe program where they are ground down and reused in athletic surfaces and other product, 2) [Soles4Souls](#), and 3) local shelters including The Helping Up Mission and Paul's Place.*

*MDE also recycles Tyvek envelopes, toner bottles, drums and cartridges for the few printers that remain that use ink cartridges. As mentioned above, most of the printers at MDE have been replaced with Xerox Colorqubes, which use print sticks and eliminate the need for ink cartridge recycling.*

**Composting**

*In 2010, MDE initiated a composting pilot project which collected over 4,000 lbs of food waste and coffee grounds from the break rooms which were composted in containers and at community gardens to create rich organic matter for office plants and gardens. Following the success of this pilot, food waste (an estimated 5,850 lbs annually) is now collected twice a week from containers lined with biodegradable bags in all 8 of our break rooms and in our lobby conference rooms. The waste is then hauled away and composted by Veteran Compost. The composting of this waste amounts to an annual greenhouse gas reduction of 3 MTCO<sub>2</sub>e. MDE is also working with Montgomery Park management to expand food waste collection to all tenants. The Maryland Lottery and Gaming Control Agency began food waste collection in 2016.*

**Hazardous Waste/Toxic Use Reduction**

*MDE conducted a chemical clean out of its labs in June 2009 and uses EMS Team representatives to review future procurement of hazardous materials. Reviews are now conducted annually to determine when there is a need to remove hazardous waste from the site.*

## Energy

**Energy Efficiency**

*MDE headquarters is located at Montgomery Park, an energy efficient building, which maximizes use of daylight and has an ice storage tank HVAC system that makes use of lower electrical rates during nighttime. In addition, MDE has an agency energy plan that is updated annually. It has enabled the agency to meet and exceed the EmPOWER Maryland initiative goals by reducing electrical usage at our Baltimore headquarters in FY 2013 by 19% over a 2007 baseline.*

*Our current energy plan aims to continue to exceed the new state energy reduction goal of 10% by FY2020 from a 2010 baseline. **MDE has surpassed this goal with a 29.61% reduction in electrical usage in FY 2016 over FY 2010.** This has been accomplished through a number of initiatives, but most importantly, a complete lighting retrofit accomplished in 2015 at the Montgomery Park headquarters and the Annapolis Field Office.*

*The lighting retrofit was made possible through the utility rebate program. Altogether, over 2,700 light fixtures were replaced and over 100 occupancy sensors were installed. Total utility rebates from BGE amounted to over \$188,000, which allowed both both projects to be paid for through savings in just one year. These savings amount to 581,458 kWh and \$65,210 annually.*

*MDE employees also do their part by shutting down all office equipment when not in use and turning off lights when not needed. In addition, MDE has purchased Energy Star office equipment, switched to more energy efficient flat screen computer monitors, and developed a policy in 2012 to ensure maximum use of networked printers over personal desktop printers. This policy reduces energy use as well as the waste and costs associated with printer cartridges. In January 2010, MDE removed eight vending machines for energy saving purposes and has also removed the motorized projection screens in our conference rooms.*

*At the Annapolis Field office, dual-pane windows, energy efficient garage doors and and new HVAC equipment was installed as part of a lease renegotiation in 2012.*

*MDE's reduced electrical usage (prior to the lighting retrofit) amounts to a greenhouse gas reduction of 39 MTCO<sub>2e</sub> (metric tons carbon dioxide equivalent).*

## **Transportation**



### **Employee Commute**

*State employees receive free transportation on MTA routes including local buses, the Baltimore Metro Subway, and Light Rail. MDE headquarters is located at Montgomery Park, which is located on two bus lines. Montgomery Park provides a shuttle to both the Baltimore Convention Center and the Camden Yards light rail/MARC commuter rail station during the morning and evening commutes. MDE uses state policies to promote and manage teleworking and compressed work week schedules.*

*Montgomery Park has five designated parking spots onsite close to the building entrance for those that carpool. The property also has twelve electric vehicle charging stations located in the front and back parking lots. Employees use these stations for personal as well as state vehicles.*

*Expanding on these efforts is the MDE Alternative Transportation Group (ATG). The ATG works to increase MDE staff's use of transportation options such as transit, carpooling, biking and walking, rather than driving alone. The ATG also provides information to encourage telecommuting. The ATG organizes*

*diverse events, activities and information-sharing opportunities to encourage use of alternative transportation. Examples of activities include the following:*

- *Creating a shared document on Google Drive, accessible to all MDE staff, to help employees search and connect with others looking to carpool and bike to work together.*
- *Organizing and leading First Thursday of the month lunchtime walks and walks at lunchtime on other days of the month. The group also created a new, “Leisurely Walkers” group for walkers who prefer a leisurely pace to lunchtime walks.*
- *Participating in Walk Maryland Day, with a special lunchtime walk*
- *Obtaining approval for staff to go to the Pigtown Farmers’ Market on Thursday afternoons, and leading two walks to the market*
- *Maintaining an onsite “Transit Information Center” at MDE’s Montgomery Park office. The Center includes copies of transit schedules, bicycle information, and related maps*
- *Presenting MDE Brown Bag Lunches topics to educate and encourage staff to increase their walking, bicycling, carpooling, transit usage, and teleworking. Topics have included Travelling Locally While Protecting Air Quality, How to Get Started Taking Transit, including an overview of tools available for mapping transit routes; a guest speaker from the Maryland Transit Administration (MTA) who spoke about upcoming changes to the transit system, and a screening of the film “The Walking Revolution,” by the Every Body Walk campaign.*
- *Sponsorship of an MDE Transit to Work Day;*
- *Tour of the Maryland Transit Administration bus facility, call center, and offices, and a chance to try the MTA bus bike racks;*
- *Participating in MDE’s Annual “GIS Day,” including the following:*
  - *Creating and presenting a GIS map of MDE staff’s residential zip codes to show commuting distances and opportunities for use of lower carbon footprint commuting choices.*
  - *Printing and displaying maps of MTA’s planned new BaltimoreLink overhaul of the current transit system and discussion of features of the plan*
  -
- *Organizing and co-sponsoring a Bike to Work Day reception and rally at Montgomery Park*
- *Successfully urging Montgomery Park management to install a pedestrian entrance gate to the Blue Lot parking area.*



- *Participating in the U.S. Environmental Protection Agency's (EPA) Air Quality Awareness Week, including conducting an MDE social media campaign to encourage staff to alter their home and travel activities to reduce their air quality impacts.*
- *Creating an MDE Commuter Tool spreadsheet on the MDE intranet to facilitate ridesharing and matching of walkers, cyclists, and transit riders to commute together.*

*The ATG conducted an employee commuting survey on a weekly to biweekly basis for six months, February-August, 2014. Early results show that for the 6-month period, over 500 unique respondents to the survey documented a total of 116,553 single passenger miles avoided. This resulted in an estimated savings of \$23,800 in fuel and maintenance costs, including an estimated 5,977 gallons of fuel.*

**Efficient Business Travel**

*Employees use conference calls and webinars to reduce travel.*

**Fleet Vehicles**

*Of MDE's 229 fleet vehicles, 154, or 67%, are either hybrid vehicles or run on alternative fuels. These include:*

<i>Bi fuel (CNG and Gas)</i>	<i>6</i>
<i>Diesel</i>	<i>8</i>
<i>Ethanol and gas</i>	<i>119</i>
<i>Hybrid</i>	<i>16</i>
<i>Plug in Hybrid</i>	<i>5</i>

*Montgomery Park has 12 electric vehicle charging stations.*

*MDE has also addressed the environmental impacts of its fleet of 12 boats and research vessels. In 2002, the Annapolis Field Services Program began the conversion of all outboard motors to 2-stroke direct injected Evinrude E-TEC or Yamaha 4-stroke engine, meeting EPA emission standards as well as the California Air Resources Board three-star rating for ultra-low emissions. The 2-stroke direct injected and 4-stroke engines burn 35% to 50% less gasoline, use up to 50% less lubricating oil, reduce air emissions by 75%, reduce water pollution by preventing the release of gasoline into the surface waters, reduce smoke and fumes and are significantly quieter.*

## Water

### **Water Conservation**

*Montgomery Park has a rainwater collection system that uses the rainwater to flush toilets. The building also has waterless urinals. The site is landscaped with native species plants that require no irrigation. The Annapolis Field Office has dual flush toilets.*

*Water aerators have been installed on faucets in all MDE restrooms to reduce water use from 2.2 to 0.5 gallons per minute.*

### **Stormwater Management and Site Design**

*Montgomery Park has 30,000 square feet of green roof as well as bio-retention areas in the front parking lot area which filter stormwater runoff.*

## Other

- In 2003, Montgomery Park received the Environmental Protection Agency's Phoenix Award as the preeminent property nationwide among outstanding "green building" development projects that have returned environmentally compromised properties to productive use.*  
<http://www.montgomerypark.com/green.html>



**View our video**

**Profile Updated December 2016**



*Help build a greener, more sustainable Maryland through voluntary practices that reduce environmental impacts and save money.*

*Learn more at [www.green.maryland.gov/registry](http://www.green.maryland.gov/registry)*

