



## 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 Environmental Service

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Self-Supporting Maryland State Environmental Agency

Member since June 2016

## Management and Leadership

### Environmental Policy Statement

*Maryland Environmental Service (MES) remains focused on finding innovative solutions to our region's most complex environmental challenges, and on preserving our region's natural resources for generations to come.*

### Environmentally Preferable Products and Services

*In addition to providing environmental services, MES produces the 100% organic Leafgro product, which is used extensively by the landscape industry and homeowners as a source of humus for soil improvement. Leafgro is an outstanding example of recycling at its best. By composting leaves and grass clippings that would have normally been disposed of in a landfill, Maryland Environmental Service converts organic wastes into a valuable resource.*

### Environmentally Preferable Purchasing

*Maryland Environmental Service has a policy that sets forth specific and measurable procurement goals for the purchase of office supplies, electronics, and cleaning products. Tracking the percentage of purchases with measurable sustainability attributes (using a cost basis) from April 1, 2011 to March 31, 2013 resulted in the following:*

- Office Supplies: 75%
- Energy Star Electronics: 81%
- Cleaning Products: 82%

**Environmental Restoration or Community Environmental Projects**

The MES Environmental Dredging and Restoration division focuses much of its attention on restoring the Chesapeake Bay. One strategy is the introduction and monitoring of man-made reef systems called Reef Balls. These specially designed cement structures are lowered into the bay to help rebuild oyster and fishing reefs that have disappeared for a variety of reasons.

**Waste**

**Recycling**

*Maryland Environmental Service has a policy that sets forth specific and measurable goals for reuse and recycling of waste. Major categories in our Recycling Policy include ongoing consumables, electronics, batteries, mercury containing lamps and construction waste associated with facility upgrades or renovations. MES conducted a waste stream audit and an analysis of durable goods disposal in 2013 which determined the following recycling percentages:*

- *Ongoing Consumables*
  - *Mixed Paper* 75%
  - *Cardboard* 88%
  - *Metals* 76%
  - *Glass* 78%
  - *Plastics* 31%
  - *Ink Cartridges* 78%
- *Batteries* 100%
- *Electronic goods* 100%
- *Mercury containing lamps* 100%

*MES also provides a single day recycling program for employee's household electronic waste on a periodic basis.*

**Hazardous Waste/Toxic Use Reduction**

*In addition to recycling spent mercury containing lamps, MES has established goals to only purchase lamps with no more than 70 picograms of mercury per lumen-hour. The findings from a March 2013 inventory of lamps, conducted at our headquarters building, resulted in a very low average of 37.04 picograms of mercury per lumen-hour.*

## Energy

### **Renewable Energy**

*MES has an onsite solar capacity of 590kW at its HQ building. This capacity is generated with a field of 260 kW photovoltaic panels behind the building, 34kW of roofing laminate and 296kW of photovoltaic canopies in the parking lot.*

## Transportation

### **Employee Commute**

*The Maryland Environmental Service monitors and promotes environmentally preferable employee commuting practices including use of efficient vehicles, carpooling, and offers compressed workweek and telecommuting programs. MES also provides bike racks, changing area and showers for employees who may choose to commute via bicycle.*

*To monitor the success of these practices, MES provided all HQ employees with a survey to collect commuting data using SCAQMD procedures. A 43.75 % reduction in conventional employee commutes was calculated from the survey results.*

## Water

### **Water Conservation**

*Irrigation: The following strategies are in place at Maryland Environmental Service's Millersville Headquarters to accomplish 100% non-potable use for the site's irrigation needs:*

- 1. Nonpotable water use: A 5,000-gallon underground cistern harvests rainwater from impervious roof areas on the building. The cistern is not connected to any potable, natural surface, or subsurface water sources.*
- 2. Irrigation: The site is irrigated through a drip irrigation system that is connected to the underground cistern. The drip irrigation strategy allows water to drip slowly to the roots of plants, further decreasing the need for landscape water use. The irrigation system is not connected to any potable, natural surface, or subsurface water sources.*
- 3. Plantings: The building's associated grounds are mainly landscaped using native plants and grasses that thrive with normal amounts of rainfall inherent to our geographical location.*

*Water Efficient Upgrades and Fixture Replacement Policy: MES has installed water efficient showerheads and low flow aerators to all restroom faucets. As the need arises, MES will consider retrofit fixture replacements that meet "U.S. EPA Water Sense Standards". The decision for fixture replacement will be based upon economic assessments that will be performed as part of any future indoor plumbing renovation. These assessments will account for potential water supply cost savings, disposal cost savings, and maintenance cost savings.*

**Stormwater Management and Site Design**

The Maryland Environmental Service's Millersville Headquarters site was designed and constructed with stormwater management strategies to mitigate stormwater volumes through infiltration, harvesting and evapotranspiration. These strategies were designed to meet or exceed state and local requirements for 10 and 100-year storms. The following are in place as part of the approach that accomplishes mitigation of 67% of precipitation falling on site area during a 2 year, 24 hour design storm:

1. Stormwater Harvesting: Stormwater is collected from the building's rooftop and conveyed to the underground cistern. This water is then used for landscape irrigation.
2. Bioretention: The site was designed with six bioretention areas. The bioretention areas provide water quality treatment, storage, infiltration, and evapotranspiration.
3. Vegetated Filter Strip: There is a vegetated strip in the parking lot designed to handle sheet flow from a portion of the parking lot.
4. Infiltration Pond: The stormwater management pond provides water quality treatment, infiltration, and discharge stream channel protection provisions.
5. Stormwater Quality Vault: A concrete vault is used to store stormwater to attenuate peak flows and allow more gradual discharge to the infiltration pond.

The strategies combine for a storage volume exceeding 290,000 gallons. This design was intended to limit disruption of natural hydrology by reducing impervious cover, increasing on-site infiltration, and reducing or eliminating pollution from stormwater runoff. This approach has delivered results that far exceed conventional site and building approaches.

## Green Building

### LEED Gold

*In February 2011, the United States Green Building Council (USGBC) designated the MES Headquarters Building as LEED GOLD using the Existing Building Operations and Maintenance rating system. The MES Headquarters building was recertified as LEED Gold in 2013, and another recertification is underway for 2017, showing our ongoing commitment to sustainable operations and maintenance at our Headquarters Building.*

### Energy Star Rated Building

Maryland Environmental Service (MES) Headquarters Building earned the U.S. Environmental Protection Agency's (EPA's) prestigious ENERGY STAR, the national symbol for protecting the environment through superior energy efficiency. On ENERGY STAR's scale of 1 -100, MES Headquarters Building scored 94.

MES earned its ENERGY STAR rating in part by taking the following actions:

- A reflective white roof is maintained.
- Efficient T-8 linear fluorescent tubes and electronic ballasts, supplemented by skylights, provide primary lighting throughout the building.
- Ongoing commissioning and operation planning exercises ensure that mechanical systems operate at peak performance and efficiency.
- Purchasing of Energy Star electronics is preferred for all office equipment.
- Building Automation Systems allow for continuous monitoring and online control of the HVAC system.
- Occupancy sensors prevent unnecessary use of office lighting.
- Efficient plumbing fixtures decrease energy required for water heating.

*Note: ENERGY STAR was introduced by EPA in 1992 as a voluntary, market-based partnership to reduce greenhouse gas emissions through energy efficiency. EPA's ENERGY STAR energy performance scale helps organizations assess how efficiently their buildings use energy relative to similar buildings nationwide.*



*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)*

