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UMES Recycles

**A Comprehensive Recycling Plan for the
University of Maryland Eastern Shore**

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A. OVERVIEW

The University of Maryland Eastern Shore (UMES) participates in the the All StAR (All State Agencies Recycle) program as required by the Maryland Recycling Act (MRA), which mandates that State government achieve a waste reduction goal of at least 20%, or to an amount that is determined "practical and economically feasible", but in no case less than 10%.

UMES offers a comprehensive recycling program for buildings/venues across the campus. The program is a cooperative effort between the Physical Plant Department, the University Building Managers, Residence Life personnel, Students for a Greener Campus, and staff/faculty.

B. WHAT MATERIALS DO WE RECYCLE?

The UMES campus recycles three major categories of waste material: 1) Paper/Cardboard; 2) Aluminum Cans; and 3) Plastic. In addition, UMES continues to expand on its collection of a variety of other recyclable materials including batteries, light bulbs, scrap metal, wooden pallets, and electronics. Additional information on the materials currently being recycled on the campus is included below.

1. Paper & Cardboard

Paper is collected throughout campus in designated bins labeled "Mixed Paper" or "Paper." The following paper items can be included within these bins:

- **Newspapers** (i.e. Daily Times, Washington Post, Baltimore Sun)
 - o Newspapers are commonly recycled into paperboard, new newsprint, and insulation and animal bedding products. Recycling newspapers saves valuable space in landfills. Please include any inserts (advertisements, comics & coupons) originally delivered with the paper. Do not include rubber bands or plastic bags.
- **Magazines**
 - o Includes magazines less than ½ inch thick with glue or stapled bindings.
- **Softcover Textbooks**
 - o If the journal or softback book is less than ½ inch thick with a glue binding, you can recycle it in the paper bin.
 - o Any plastic sheet covers must be removed from booklets.
 - o Any wire or plastic spiral bindings must be removed.
 - o If, after removing metal or plastic, the booklets are mainly white office paper, you can put it in the office paper/white paper dumpsters.
- **Phone Books**
 - o University and Somerset/Wicomico phone books can be included in the paper recycling bins
- **Other Common Paper Items**
 - o Paper bags
 - o Junk mail
 - o Manila folders
 - o White or colored office paper
 - o Envelopes
 - o Envelopes with plastic windows

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▪ **Cardboard**

Corrugated cardboard is used to make new paperboard and corrugated cardboard boxes.

- o Cardboard boxes with food residue such as pizza boxes are typically not accepted by the recycling center. The top of the pizza boxes are likely to be accepted if no food residue is visible.
 - o Secure loose, broken down, flat cardboard next to paper recycling bins.
- Cardboard may also be brought to a loading dock or other area accessible to Physical Plant staff for collection.

We CANNOT recycle:

- Thick catalogs with thick glue binding
- Paper lined with plastic or metal
- Paper coated with wax
- Paper with food debris (e.g. pizza box)
- Styrofoam blocks or Styrofoam peanuts

2. Aluminum & Steel Cans

All aluminum and steel cans are accepted. **Aluminum and steel cans are collected together everywhere on campus, regardless of what the label on the bin may indicate (such as “aluminum cans only”).** Aluminum is the most valuable of campus recyclables. Most aluminum cans are soda cans; and some pet food products. Steel cans are food cans, shaving cream, deodorant and some pet food cans. Please rinse all cans and put them loosely into the recycling bin.

We CANNOT recycle:

- Aluminum foil
- Aluminum pie pans
- Aluminum food trays

These commodities tend to burn rather than melt during the recycling process

Aluminum cans are recycled to produce new aluminum cans. Since so much heat and electricity is needed to produce pure aluminum, energetically it is a very costly process. However, once the pure aluminum is created, it is very easy to re-melt it and make new products. 95% of the energy is saved by recycling aluminum instead of creating it from bauxite. By recycling aluminum cans, you are helping to conserve energy. It has been said that when you throw away an aluminum can, you could just as easily fill half of that can with gasoline and pour it down the drain. That is equivalent to the high cost of energy to make a new can from bauxite instead of recycling it.

Steel cans are eagerly sought by the steel industry because they are a good source of steel scrap and their tin coating also can be recovered and recycled. Steel cans are vegetable, coffee, empty aerosol cans, etc. Please recycle your aluminum and steel. They are both very valuable commodities.

3. Plastics

Plastic bottles are collected in recycling bins labeled “Plastic” or “Plastic Bottles.”

It is not necessary to remove the top of your plastic bottle before recycling. We do ask that you remove any liquids from the bottle before placing the bottle into the recycling bin.

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The plastics industry has developed a coding system to help consumers identify different types of plastic resins used in packaging. The codes can be found on the bottom of most plastic containers. Of the many types of plastics used in packaging, two types of plastic are currently recycled at the campus, including:

- ***Plastic Soda/Water Bottles:*** The material used to make plastic soda bottles (polyethylene terephthalate or PET) is recyclable. These bottles are coded with the number 1 and the letters PETE. About 30 percent of all PET bottles sold are recycled into a variety of products. The bottles you recycle could end up as carpet backing, sleeping bag insulation, containers for non-food items, tool handles, auto parts and even clothing.
- ***Plastic Milk Jugs:*** The plastic used in one gallon milk and cleaning supplies (high density polyethylene or HDPE) is also recycled to make products such as trash cans, flower pots and plastic pipe. These containers are coded with the number 2 and the letters HDPE. Other common HDPE #2 plastics include detergent bottles, and other food and liquid containers.

Please do not put any other type of plastic into the receptacle.

Why recycle plastic?

The market for recyclable plastic is not nearly as strong as aluminum and steel. We highly encourage individuals to use reusable water bottles as much as possible. The reality is that it is cheaper for bottling companies in the United States to make new bottles from virgin petroleum than it is to recycle. Consequently, major bottling companies are incorporating decreasingly less post consumer plastic into their bottles. Ideally, the producers of the bottles should be responsible for the products that they are making in such vast numbers. It is important that UMES support the collection of plastics but believe that it is equally as important to educate the community on the economic realities of the recycling market.

4. Other Recyclable Items

Beyond the three major categories of materials (Paper/Cardboard, Aluminum, and Plastic) that UMES recycles, the university continues to expand its support in recycling a wide variety of other waste products commonly produced by the campus. Below you will find additional information on other products currently being recycled at UMES and the process and location for collection.

- ***Ink/Toner Cartridges***

There has been a growing need to find a process to collect and recycle toner cartridges on our campus. Most of the cartridges are large and are used in printers and copy machines in every department on campus. To support in the collection of ink/toners cartridges campus-wide, UMES has developed a collection process to follow that requires all toners and cartridges to be sent back to central receiving for recycling purposes.

Collection Process:

By utilizing the buildings to centralize our collection and recycling, Building Managers for individual buildings should direct floors/departments to collect and deliver used toner cartridges to Central Receiving as necessary. Building managers are encouraged to request a small collection bin for their buildings to accumulate multiple toner cartridges before transporting them to Central Receiving Office for collection. To request a recycling bin for toner cartridges please email your request at dkmaloney@umes.edu. Custodial services will pick up the toner cartridges at each building weekly.

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Toner cartridges will then be moved to the physical plant to shrink wrap and stored for shipment back to vendors.

- ***Light bulbs***

The Physical Plant Department collects and recycles lightbulbs and light ballasts as they are replaced throughout campus. Lighting throughout campus is being updated with high efficiency lights such as LED's and CFL's (Compact fluorescent bulbs). CFL bulbs contain a very small amount of mercury sealed within the glass tubing so it very important that these particular bulbs are disposed of properly. If for some reason, your department has used light bulbs, please email dkmaloney@umes.edu to inquire about the nearest collection/drop off locations.

- ***Batteries***

The university collects and recycles the following types of batteries:

- NiCad batteries (regulated because of the toxic metal cadmium)
- Lead acid and lead gel batteries (regulated because of the toxic metal lead)
- Mercury (button) batteries (regulated because of the toxic metal mercury)
- Lithium batteries (regulated because of the water reactive metal lithium)

Building Managers for individual buildings should direct floors/departments to collect and transport used batteries to the Physical Plant as necessary. Each building will have a large centrally located recycling bin to collect batteries from multiple buildings. Custodial services will pick up the batteries at each building weekly. Battery recycling buckets are available for departmental and office use. To obtain a battery recycling bucket, please email Danna Maloney at dkmaloney@umes.edu.

Why recycle batteries?

Batteries, especially rechargeable batteries, contain toxic heavy metals such as lead, mercury, and cadmium. Each year, billions of used batteries are disposed of into the waste stream in the US which adversely affects the environment, wildlife, and human health.

- ***Food Waste***

Cooking grease/oil is being recycled from our dining facilities.

- ***Computers/IT assets***

The university is currently recycling IT assets such as computers, printers, and copiers.

- ***Glass***

There is no plan for recycling glass on campus as the recycling market for glass is not viable at this time. The university will continue to evaluate opportunities for collecting and recycling glass.

C. Recycling Locations

In an effort to improve the infrastructure supporting the university's recycling efforts, central recycling bin locations were established within most buildings to collect the three major categories of materials from campus buildings: 1) Mixed Paper; 2) Aluminum Cans; and 3) Plastic. The university has also established additional outdoor recycling drop-off locations across campus to support the broader university community. Please reference the "What Materials Do We Recycle" section to determine the

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process/location for recycling other materials beyond the three major categories (i.e. cell phones, batteries, etc.). Individuals should contact their building manager to confirm the location of a building's recycling bins. In some cases, smaller buildings are asked to utilize an adjacent building as the central collection point for recyclables.

UMES has established a "Recycling Station" at the Physical Plant (Parking Lot X) where recyclable aluminum and steel cans, plastic, and mixed paper may be dropped off.

D. Recycling Collection Process

Administrative and Academic Buildings

Indoor and outdoor recycling bins that are accessible to Physical Plant staff are emptied at least once a week. Any of the 3 major recyclable materials may also be brought directly to the Physical Plant Recycling Station.

The building manager is responsible for coordinating the collection of recyclables from individual offices and classrooms to each building's central collection point for recyclables. If you are interested in more information on the recycling plan of your building or on how you can serve as a recycling manager, please contact your building manager or email us at dkmaloney@umes.edu.

Residence Life Buildings

Resident can deposit their recyclables in recycling bins located next to dumpsters in residence life areas. The bins are emptied at least once a week.

Special Events

Recycling services for special events across campus should be requested through the Physical Plant work order system at least 48 hours before the event.

General Recycling Protocol for Campus Buildings

1. Building managers are responsible for coordinating the collection of recyclables from each floor and office to the recycling bins located throughout the building. Building managers are encouraged to identify recycling champions/volunteers to support the collection efforts within their building.
2. If possible place trash, paper, cardboard and plastic/aluminum recycling containers side by side. Each container must contain a clear, plastic liner and have easy-to-read, clearly visible labels.
3. Informational documents (i.e. fliers) with instructions for paper and plastic/aluminum recycling should be posted above each building's recycling container. For example:
 - Plastic Bottles Only!
 - Aluminum / Steel Cans Only!
4. The Health and Safety Office and/or Physical Plant Department can provide all building managers and volunteers with the instructions for recycling within each building.

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5. For those building managers who do not have paper and plastic/aluminum recycling in their buildings, please email us at dkmaloney@umes.edu. The Physical Plant department can provide the necessary resources to support your building's collection efforts.

E. REQUEST A RECYCLING BIN

Please email us at dkmaloney@umes.edu to request a recycling bin in your building. Recycling services for special events across campus should be ordered through the SAP system at least 48 hours before the event.

F. GET INVOLVED

Please contact your building manager if you are interested in supporting the recycling efforts within your building. If you are interested in serving as a volunteer for the overall campus recycling efforts, please email us at dkmaloney@umes.edu

G. UMES'S TOP 10 RECYCLING FAQs:

1. Can newspapers go into the regular paper recycling bins?

Yes, all types of paper can go into the paper recycling bins on campus. This is also known as mixed paper. Examples of mixed paper include newsprint, magazines, paperback books, phonebooks, junk mail, paper sacks, catalogues, paper folders, envelopes, computer paper, copy paper and non-corrugated boxes. Hardback books can be recycled, but the cover must be removed first. Notebooks can be recycled, but the metal spiral needs to be removed. Please put all paper products loosely into the bin (no plastic bags or cardboard boxes). If you have a large quantity of paper that will not fit into the recycling bins, email us at dkmaloney@umes.edu or put in a work order request, and Physical Plant will pick it up.

2. What do I do with cardboard boxes?

All cardboard to be recycled must be broken down. Small boxes may be placed behind your paper recycling bin in the hallway of your campus building. Larger boxes must be transported to your building's loading dock. (Please remove any Styrofoam.) Once cardboard has been collected, it is transported to a 30-yard cardboard compactor located in the loading dock of the Student Services Center.

3. Do caps have to be removed from plastic bottles before recycling?

No. The caps on plastic bottles are made of plastic #2, which is a recyclable product.

4. Do I have to rinse bottles and cans before dropping them in a recycling bin?

Yes. A little residue is OK, but any food mixed with recycling materials automatically becomes trash.

5. Can plastic bags be recycled with plastic containers?

No. The Physical Plant does not accept plastic bags.

*These FAQs apply to UMES students, faculty and staff only. If you are a resident of Somerset/Wicomico County but are not a student or employee of the university, and you have questions about recycling, please call the Physical Plant at 410-621-3040 or email at dkmaloney@umes.edu.

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H. INTERESTING FACTS ABOUT RECYCLING AND THE ENVIRONMENT

- Making cans from recycled aluminum cuts related water pollution by 97%
- Recycling one aluminum can saves enough energy to run a television for three hours.
- Manufacturing new aluminum cans from used beverage containers uses 95% less energy than producing them from virgin materials, an energy saving equivalent to tens of millions of barrels of oil each year.
- By recycling all the oil filters sold annually in the U.S., enough steel would be recovered to build 16 new baseball stadiums.
- 80-90% of all lead acid (motor vehicle) batteries are recycled nationally.
- The average motor vehicle battery contains between 18-22 pounds of recoverable lead, a gallon of sulfuric acid, and about three pounds of polypropylene casing.
- It takes half a barrel of crude oil to produce the rubber in just one tire. (44 gal. = 1 barrel of oil)
- Every ton of recycled paper saves 17 trees, 7,000 gallons of water, and 4,100 kilowatts of electricity.
- It takes 500,000 trees to produce the *Sunday papers* printed in the U.S.
- Every year, Americans dispose of enough plastic film to shrink-wrap the entire state of Texas.
- If every American household recycled just one out of ten milk jug bottles (HDPE) they used, landfills would save 200 million pounds worth of space yearly.
- Americans use 2.5 million plastic bottles per hour.
- Making steel cans from recycled steel reduces energy consumption by 74%, virgin materials by 90%, associated air pollution by 86%, water consumption by 40%, and associated water pollution by 76%.
- All steel products contain at least 25% recycled content.
- Composting saves limited landfill space and turns garbage into a valuable resource. It can reduce your trash and improve plant health and retain soil moisture with the use of the compost.
- Nationally, it takes 15,000 tons of waste buried in a landfill to create one full-time job.
- Recycling that material results in nine jobs.