

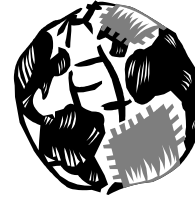
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Produced by
Recycling & Waste Reduction Services
Western Michigan University
210 Physical Plant
Kalamazoo, MI 49008
(269) 387-8165
www.pp.wmich.edu/rs/



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WMU Sustainability Guide

Even before you begin reading, you may be thinking to yourself; here goes another attempt by environmentalists to try and change the way I live my life. Well, you may be surprised to find out just how involved you already are in preserving the environment and just how big of an environmental footprint you leave on the earth and the campus of Western Michigan University. WMU is committed to creating a sustainable campus that is mindful of its impact on the natural environment and making sustainability a lifestyle for the students and staff of the university. This goal however, cannot be accomplished alone. WMU students, faculty and staff must work together. In doing so, we must be mindful of our impact on the natural world and strive to make changes necessary for a sustainable university. Although at the moment, the impact being made on the university may not be visible, it is extremely important to maintain a sustainable campus and lifestyle. We only have one planet and how we treat it now will determine what our children, grandchildren and friends are left with for their future. The only way to accomplish this goal is if WMU, as a community, can learn how to “think green” and take action. We need to constantly be aware of the affects we have on the environment and how they affect WMU. This guide is designed for you to see what you can do to help the Earth and be aware of the impact each individual can make.

Waste Reduction

Reducing waste is only one way to be sustainable on campus and at home. There are many ways students and staff can reduce waste on and around campus. By following the 3R’s (Reduce, Reuse, and Recycle), together we can accomplish our goal

Toward Environmental and Academic Excellence

I propose a different ranking system for colleges based on whether the institution and its graduates move the world in a more sustainable direction or not. Do four years at a particular institution instill knowledge, love, and competence toward the natural world, or indifference and ignorance? Are the graduates of this or that college suited for a responsible life on a planet with a biosphere? -David Orr

of becoming a sustainable campus. By reducing waste and recycling, we can help the planet and make our campus a clean and more enjoyable place to learn. Currently, WMU students and staff throw away over 3,300 tons of trash in one year. In addition, nearly 1900 tons or 35% of the waste produced at WMU is recycled. We should be recycling closer to 50%. So now, you might ask, what can you do to reduce waste?

Reduce the amount of waste you produce

- ♻️ RECYCLE, RECYCLE, RECYCLE!!!!
- ♻️ Purchase fresh fruits and vegetables instead of prepackaged items. This not only reduces waste in our landfills but also contributes to a healthier lifestyle.
- ♻️ Buy as many products as you can in bulk.
- ♻️ Use reusable mugs instead of paper or Styrofoam.
- ♻️ Try to avoid using paper plates, plastic silverware, and paper napkins whenever possible. These items cannot be recycled. Try bringing your own plate or silverware to a party or social event where disposable tableware is usually present. You may start a new trend that will have a lasting and positive affect.
- ♻️ When eating in dining halls, don't take more than you can eat. You can always go back for seconds.
- ♻️ Purchase durable items that will last longer, even if they are more expensive.
- ♻️ If you live off campus, recycle at a local recycling station and learn how to compost if you don't already.

Reduce paper waste

- ♻️ Edit on screen instead of on paper.
- ♻️ Avoid printing out unnecessary hard copies of documents or e-mails.
- ♻️ Print double-sided copies when you have to print something out.
- ♻️ Circulate documents/postings instead of printing out a copy for everyone.
- ♻️ Course packs should be printed on both sides of the paper.

Students: Encourage your professors to use both sides of the paper for handouts and course packs.



To stop junk mail from arriving in your mailbox send a letter asking to be removed from the mailing list to:

Mail Preference Service
Direct Marketing Association
P.O. Box 9008
Farmingdale, NY 11735-9008



Reuse

- ♻️ Save food containers for storage.
- ♻️ Save scrap paper that can be used on the back side.
- ♻️ Buy pens and pencils that can be refilled.
- ♻️ Save envelopes and put a new label on the outside.
- ♻️ Buy re-manufactured laser toner cartridges.
- ♻️ Try repairing broken items before purchasing new.

Recycle

Recycling at WMU is maintained by Recycling & Waste Reduction Services. You can find recycling bins in classrooms, offices, residence halls, campus apartments, and recycling



clusters along sidewalks. The tall yellow and blue bins located in classrooms and offices are for paper waste only, but the clusters along the sidewalks throughout campus are for paper, glass, plastics and metals, and trash. Be mindful that only appropriate materials should not be placed



in any recycling bin. Contamination causes the recyclables in the bin to become trash. You can recycle old phonebooks, course catalogs and paperback books with the paper. R&WRS can also pick up your used printer cartridges and polystyrene foam (Styrofoam) and send them to a local recycling facility. Just call and someone will pick them up.



Recycling and Waste Reduction Services sponsors the Fall Move-In program to collect cardboard and polystyrene foam and the Trash-to-Treasures program to donate unwanted items and food to the Kalamazoo Deacon's Conference.

The Trash-to-Treasures program is a great way to help the less fortunate in the Kalamazoo community and reduce the amount of



waste placed in a landfill. For questions, comments, or if you need a recycling bin you can contact R&WRS at 387-8165, located in room 210 in the Physical Plant, next to Waldo Stadium.

Did you know...? WMU offices are only recycling about 60% of the material that should be recycled.

The process doesn't end with recycling. It is equally important to purchase recycled goods.

Why buy recycled products?

1. **Buying Recycled Conserves Resources-** Using recycled materials allows us to cut down fewer trees, mine fewer minerals, use less water, pump less oil out of the ground and emit fewer pollutants.
2. **Buying Recycled Reduces Waste and Pollution-** Each step in the manufacturing process of any product creates waste and pollution. Reducing the number of steps in the process through recycling efforts reduces waste and pollution.
3. **Buying Recycled Conserves Energy-** By avoiding the initial extraction of raw materials from the earth, energy is conserved.
4. **Buying Recycled Creates Jobs-** The collection, processing, and manufacturing of recycled material employs many more individuals than traditional waste disposal practices and adds value to resources once labeled waste.
5. **Buying Recycled Improves Competitiveness-** As companies and industries conserve resources and energy, and reduce waste through recycling related activities, they also increase their efficiency and competitiveness in the marketplace.



What products are made from recycled material?

So, you might wonder, what happens to the materials I put in the recycle bin? What does it get recycled into? You might be

surprised at all the different things recycled materials can become: Toys, t-shirts, fiberglass, new glass bottles, rulers, jewelry, envelopes, paper products, egg cartons, newsprint, car parts, and even fiberfill for ski jackets and sleeping bags.

Fun facts...

- 5 recycled plastic bottles make enough fiberfill to stuff a ski jacket!
- Paper recycling began in the U.S. in the 1930's.

Transportation

It is obvious that transportation and parking are huge problems for those who commute. But, is it necessary to commute by automobile or is there another way to arrive on campus? Why deal with the parking hassle if you don't have to? There are many different methods of transportation to and from campus available for students, faculty and staff. Just because our society and culture has taught us the best form of transportation is to drive everywhere doesn't mean it is the most efficient



or safe method of getting there. Driving a car to campus is extremely expensive compared to other modes of transportation. The estimated annual cost to own a vehicle is \$6,200 per year. If more people use alternative methods the chances are higher that these services will be supported and enhanced. For this reason alone, it is important to choose alternate forms of transportation.

Transportation Alternatives

- Take the bus! If you are not sure how or have questions about taking the bus check the web site provided on the WMU page. The website is www.wmich.edu/auxiliary/busroute. The website is useful and full of valuable information. And, WMU students ride FREE with a Bronco card.
- Carpool as often as possible. Carpooling is a great option for faculty, staff and students. It saves money, the wear and tear on your vehicle, and gives you the opportunity to converse with colleagues.

Try walking to class. This is great for students and staff because it is free and also helps you stay in shape. It also has a lower impact on the environment.

Try biking to campus. By riding your bike you are again getting in shape and helping conserve our natural world. The only cost for biking is a bicycle and helmet; low cost compared to the cost of an automobile and maintenance.



Current WMU transportation statistics

- 22,896 student, employee, and staff parking stickers were issued for the 2001-2002 academic year.
- The WMU Department of Public Safety reported **352** auto accidents in 1999. Most auto accidents in the nation involve pedestrians; specifically children, the elderly, and the disabled.
- As of 1999, **56.6%-63%** of the student population owns a commuter sticker.
- *On an average day, **127,000** miles are driven by campus commuters. This calculation is made assuming only one round trip is made per day.



- *An estimated **97,336 lbs.** of pollutants are released into the atmosphere surrounding WMU each day.
- * Calculations based on 1999 statistics.

***There are many health problems associated with pollutants from vehicles. However, humans aren't the only creatures affected. A negative impact is also brought upon plant and animal species. There is also the risk of global climate change due to contributed amounts of carbon dioxide emitted into the atmosphere.

Did you know...? The average vehicle emits its weight in carbon each year, thus contributing to global warming.

****Consider alternative forms of transportation. Most are beneficial to you and the environment.**

Conservation

Energy Conservation

Conserving natural resources is extremely important for our environment. Through energy conservation you are conserving non-renewable resources. Non-renewable resources are sources of energy that are only here for a limited time. Once they are used up, they are gone forever. Renewable resources on the other hand can be used over and over again. Currently, non-renewable sources are our primary providers of energy. Therefore, it is critical that we conserve the energy we have available and use it efficiently.



WMU is a member of the EPA Energy Star Partnership program and the EPA has provided energy saving tips for consumers. Some of those tips are provided below. These can be performed at work, school, or in your home.

- Turn off lights when you leave a room.
- Avoid portable heaters.
- Turn off printers unless you are printing.
- Buy only "Energy Star" office and teaching equipment.
- If you use a desk lamp make sure it uses fluorescent light bulbs instead of incandescent bulbs.
- Keep your thermostat set at 70°F during the winter and 76°F or higher in the summer. If you want to save money at home, set your thermostat at 68°F in the winter and 76°F in the summer.
 - Make sure your personal dress accommodates the appropriate weather conditions. In the summer months wear cool, light-colored clothing. During the winter months, wear warm sweaters and layers.
- During the cooler months either open the drapes to let sunlight in or close them to keep the heat in on cloudy days and at night. During the summer months, keep the blinds or drapes closed to keep the sun out.

- ☞ Choose cold water for laundry and be sure that you clean out the dryer lint trap.
- ☞ Close vestibule doors if they are propped open.

WMU is currently doing many things to make the university more energy efficient. If you haven't noticed, Schneider Hall has occupancy sensors in all classrooms and restrooms. By doing this, energy consumption was reduced by 33.5% between 1998 and 1999. Dunbar

Hall also has occupancy sensors in the classrooms. WMU has made the commitment to purchase "energy star" appliances and equipment. The Maintenance Services office has made preventative maintenance improvements on heating and air conditioning equipment and is scheduling maintenance for heating, ventilation, and air conditioning equipment to prevent problems from occurring.

For the 2000-2001 year we saved \$44,891 in electricity.

Did you know...???
Change a light, CHANGE THE WORLD
 Lighting can account for a quarter of a home's energy use. Buying and using an energy-efficient compact fluorescent bulb is like spending a nickel to save a quarter in utility bills. In fact, replacing a common 75-watt incandescent bulb with a 20-watt compact fluorescent will produce the same amount of light while saving \$35-50 in utility costs over the life of the bulb and eliminating the need for the electric utility to burn about 500 pounds of air-polluting coal.

Future Plans

- All the lighting in Waldo library and certain areas of the Bernhard Center are being converted to more energy efficient lighting.
- The Student Recreation Center will have the metal halide lights converted to compact fluorescent in court areas, multi-purpose areas, and at the climbing wall. The weight room and pool will have daylight harvest sensors to keep lights off when natural lighting is sufficient.

Campus Computer Use

Did you know...? One of the largest consumers of energy on campus is computers, monitors, and printers. The most current data available shows that in January 2001 WMU had 10,708 computers on campus, not including student personal computers.

Did you know...? 100 Energy Star computers and monitors can save \$10,000 in energy costs over 5 years.

"Green" Computing

Some tips on green computing include:

- ☞ Turn equipment off when you're not using it, including when you will be away from your desk for more than 5 minutes.
 - A monitor left on consumes between \$48 and \$160 a year. A photocopier consumes \$500 in that same amount of time.
- ☞ Use the back sides of paper to print out draft copies.
- ☞ Do on-screen editing to eliminate excess print-outs.
- ☞ Recycle printer cartridges.
- ☞ Eliminate cover sheets.
- ☞ Use recycled computer paper.
- ☞ Save paper **and** money: send E-mail.
- ☞ Recycle waste paper.
- ☞ Use a file compression utility to get more bytes from floppies.

Did you know...? A 17-inch monitor uses **40%** more energy than a 14-inch monitor!

Did you know...? A single high density 3.5-inch floppy disk can hold the equivalent of 750 sheets of paper.

Some myths and facts about computers

Myth: A screen saver saves energy.

Fact: Screen savers do just the opposite. They consume just as much energy as when the system is in active use. The best screen and energy saver is to turn your monitor off when not in use! The next best thing is

to use your computer's power management feature to automatically shut down the monitor when it is not in use.

Myth: Your computer's life is shortened by turning it on and off.

Fact: Electric equipment life is a function of operating hours and heat. Both of these are reduced when equipment is switched off. Modern hard drives are designed and tested to operate reliably for thousands of hours including thousands of on/off cycles. Therefore, you CAN turn your computer, monitor and printer on/off.

Water Conservation

We don't often think about water when we hear the word conservation. Usually energy and wildlife conservation are the first to come to mind. But, conserving water is just as important. There are several things you can do to conserve water, whether you live on or off campus.

- 🗑️ Take shorter showers. Showers use 5 gallons of water per minute.
- 🗑️ When you are brushing your teeth, doing dishes, shaving, or washing your face don't run the water continuously. When you brush your teeth use a cup full of water to rinse your mouth.
- 🗑️ Avoid using your garbage disposal. They use more water than you may think. Put garbage in your trash or compost.
- 🗑️ Operate dishwashers and washing machines when they are fully loaded. This saves energy, water and detergent.
- 🗑️ Store drinking water in the refrigerator instead of letting the tap run until the water is cold.
- 🗑️ Don't use your toilet as a waste basket.
- 🗑️ Never pour water down the drain when there is another use for it.



Did you know...? Each person in the U.S. uses about 578 liters of water per day. In comparison, a person in Africa uses only 47 liters while another in Europe uses about 334 liters per day. (United Nations Environment Programme)

Did you know...? About 3% of the Earth's water is fresh. Three-fourths of the fresh water is in the polar icecaps and glaciers.

WMU is taking many steps to conserve water. Several projects have been completed and many others are underway. In 1999, \$14,000 was saved by conserving water.

Hazardous Materials

If you come across hazardous materials or you need to dispose of them, make sure they are disposed of properly. Proper disposal leaves little or no trace of the material left behind to cause damage to the environment.

Here is a list of items that should NOT be thrown into the trash:

- Nail polish
- Ammonia-based cleaners
- Paint, paint thinner, and varnish
- Chlorine bleaches and disinfectants
- Small batteries
- Any pesticides

There are several places for hazardous waste disposal. The Kalamazoo County **Household Hazardous Waste Facility** can take your household products, batteries, mercury, gasoline, used oil and filters, antifreeze, oil-based paints, and paint thinner. They are at 1301 Lamont Ave., Kalamazoo, MI. (269) 373-5211

The Division of Environmental Health & Safety on WMU campus is on-call 24 hours a day for hazardous waste spills on campus and collects chemical wastes, lamp ballasts, partially full aerosol cans, fertilizers, and pesticides.

Recycling and Waste Reduction Services collects empty aerosol cans, toner cartridges, scrap metal, inkjet cartridges, and small batteries.

If you have a question about hazardous materials you may call Environmental Health and Safety at (269) 387-5590.

What is “Eating Green?”

Our eating habits can have a significant impact on the environment. Eating green is eating in a way that reduces that impact. Some things you can do to eat green are;

- ❖ Use your own mug instead of disposables. This helps the environment and some businesses may give you a beverage discount.
- ❖ Eat low on the food chain by considering a vegetarian or vegan diet. Meat production has a negative impact on the environment. It is energy, resource, and pollution intensive.
- ❖ Try to buy foods that are locally grown or from a local grocer. Some places to consider are;
 - The People’s Food Co-op
 - The Natural Health Center
 - Sewall Health Stores. *Attention students:* Sewall offers a 10% discount with your Bronco card.
 - Farmer’s Market
- ❖ Use cloth napkins and towels.
In the long run, cloth napkins and towels are cheaper than purchasing paper towels and paper napkins.
- ❖ Try to pack a “no waste” lunch.
Pack a lunch that creates no waste by using reusable storage containers, your own mug, silverware and a cloth napkin.
- ❖ Avoid eating out at places that use significant amounts of excess packaging.

This we know...
The Earth does not belong to us.
We belong to the Earth.
All things are connected
Like the blood that unites one family.
We did not weave the web of life.
We are merely a strand in it.
Whatever we do to the web
We do it to ourselves.
- Chief Seattle

Did you know...?

It takes 2,500 gallons of water, 12 pounds of grain, 35 pounds of topsoil, and the energy equivalent of 1 gallon of gasoline to produce one pound of beef.

If Americans reduced their intake of meat by 10%, 100,000,000 people could be fed using land, water, and energy that would be freed up.

In a nut shell, 10 things you can do to help save the environment:

- 1) Take shorter showers
- 2) Drive less
- 3) Buy less stuff
- 4) Avoid “disposables”
- 5) Bring your own grocery bag to the market
- 6) Buy recycled products
- 7) Avoid hazardous or toxic substances
- 8) Stop “junk mail”
- 9) Recycle
- 10) Eat Green

How can you become eco-active?

One step in becoming an earth friendly campus is getting involved and letting your voice be heard. There are several student organizations on campus that are committed to preserving the Earth. The more student involvement they have, the larger and more active the group can become. Each organization has its own individual style and method to approaching local, national, and global issues. Even if an organization isn’t directly geared toward helping the environment in one way or another the environment is usually affected.

Check with the Student Activities and Leadership Program in 2420 Faunce Student Services Building or at (269) 387-2115 for information on current registered student organizations.

“Love in action has the answer” – Julia Butterfly Hill

Treat your campus well

- 🗑️ Don't litter! Not only is littering bad for the environment but it is also a crime in this state. Don't take the chance!
- 🗑️ If you see litter, pick it up and throw it in the trash.
- 🌹 Take time to stop and smell the roses, listen to the birds sing and notice the natural environment of which you are a part.
- 🌸 Enjoy the wonderful scenery on campus and the many plants and flowers planted along the sidewalks and in flower beds.

Enjoy nature off campus

There are many places in Kalamazoo and Portage to walk, bike, or go for a nice jog. Take advantage of these places. They are open to the public and full of wildlife, plants, and other wonderful surprises.

- ❖ *The Kalamazoo Nature Center* offers learning opportunities, has trails to walk and workshops to attend. Students receive a discount on membership. The Nature Center is located at 7000 N. Westnedge Ave.
- ❖ *Asylum Lake* preserve is another excellent place to go for a nature walk. It is owned by WMU and is located off Drake Road, just a few miles from campus and across from the new Engineering School.
- ❖ *Al Sabo Preserve* is a little further away but it is worth the trip. Al Sabo is located off 12th street north of Parkview Ave. You'll find many exciting plant species and wildlife. For those of you who enjoy a nice jog or bike through the woods this is the place for you.
- ❖ *The Kal-Haven Trail* is a bicycle and hiking trail that totals 34.1 miles one way. The trail passes through natural areas and towns. If you enjoy long walks and a serene environment this is the place for you. The trailhead is off 10th St., north of W. Main St.

There are many other places to enjoy. See the phone book or contact the local parks and recreation departments for more information.

Who do you contact?

If you have any questions, comments or suggestions about this guide feel free to call the Recycling and Waste Reduction office at (269) 387-8165

You may also contact any of the following for other questions specific to a department or area.

The Environmental Studies Department (269) 387-2716

WMU Environmental Health and Safety (269) 387-5590

www.ehs.wmich.edu

If you would like storm water information please visit www.ehs.wmich.edu/waterweb.htm

WMU Landscape Services (269) 387-8557

WMU Transportation (269) 387-8512

Kalamazoo Metro Transit (269) 337-8201

Kalamazoo County Recycling Hotline (269) 384-8110

City of Kalamazoo Recycling (269) 337-8215