

## **Westernport School Cafeteria Waste Reduction Plan**

On April 20, 2018, a food waste audit was conducted at Westernport by staff from the Northeast Recycling Council (with assistance from Mrs. Martin, the head custodian). A total of 94 pounds of food scraps were collected. Extrapolated on a monthly basis, this amount equals nearly a ton of food waste generated at Westernport each month.

On May 22, NERC staff met with teachers and staff at Westernport. All grades were represented at the meeting, along with the school's Food Services Coordinator. The discussion focused on ways to implement food waste reduction at the school. NERC staff provided an overview of "Waste Free" lunches and USDA school lunch choice. The Food Services Coordinator voiced her support for school lunch choice as a means to save money for the school and reduce waste.

Strategies discussed included taking photos of the lunch choice options to post and circulate to students prior to lunch time. The Food Services Coordinator voiced concern over the younger students' ability to effectively make choices in a timely manner, so she and others in the meeting discussed using photos or images of the choices to assist younger students.

NERC staff conducted research on school lunch choice, Waste Free lunches, and other food waste reduction practices for school cafeterias. The ideas presented in this *Westernport School Cafeteria Waste Reduction Plan* reflect the ideas discussed by teachers and staff, and NERC's resulting research.

In September, NERC returned to the school to discuss the proposed plan with the school principal and third grade teacher, Sarah Llewellyn, who agreed to coordinate the cafeteria waste reduction efforts. It was agreed that the school would implement Waste Free Lunches, Offer vs. Serve, and a pilot composting program with the third grade classes. NERC conducted another cafeteria waste audit on April 26, 2019, with the results showing that the school had reduced waste by more than 40% through the implementation of these measures. *See Attachment C for the audit comparisons.*

### **Waste Free Lunch**

"Waste Free Lunch" is an easy way to start reducing cafeteria waste. It sends a positive message that promotes awareness about waste and action that students, teachers, and staff can undertake. "Waste Free" presents a goal that may not be attained, but through the practice cafeteria waste is significantly reduced.

#### To start:

- Send note home to parents/guardians explaining the goals of reducing cafeteria food waste at Westernport. Include tips on packing a "waste free" or "reduced waste" lunch. Also, if adopted, explain the "offer vs. serve" school lunch choice for students eating cafeteria prepared meals (discussed below). *See Attachment A for a sample "Parent/Guardian Letter."*
- Get teachers/staff on board in order to set a model. Provide all teachers/staff with the information provided to parents.

*Have students design “Waste Free Lunch” Signs for posting in the school cafeteria:*

Tips could include:

- Take only one napkin
- Only take a straw if necessary
- Eat healthy and eat what you take

### **Cafeteria Offer vs. Serve Meals**

Offer Versus Serve (OVS) or “School Lunch Choice” is a concept that applies to menu planning and the meal service. OVS is a USDA approved policy that allows students to decline some of the food offered in a reimbursable lunch or breakfast. The goals of OVS are to reduce food waste and to permit students to choose the foods they want to eat.

A complete lunch offering, includes these components: protein, grains, fruits, vegetables and milk. Through OVS, several choices within each category are available daily from which students can select a complete lunch. Students must select at least three components with at least one being a fruit or vegetable to make a meal.

As with “Waste Free Lunches,” parents/guardians should be notified of school lunch choice, explaining that students are required to take a healthy, required number of protein and vegetable options. School choice simply allows students to choose which ones they would prefer to eat. School choice has proven to be a healthy option for students and significantly reduces cafeteria waste.

*To implement:*

Step 1: Take photos (or cut out images from a magazine) of common school cafeteria foods. Put the photos or images on card stock, with a Velcro backing.

Step 2: Make a poster, with Velcro on it, for posting the food choice items for the day. Display the poster in the cafeteria so that students in line waiting to be served can view it.

Step 3: Have teachers announce to students prior to lunch what’s for lunch, and what the choices are.

Step 4: As students line up for lunch, have lunch monitors review choice options for younger students, using the poster as a guideline.

### **Vermi-Composting**

“Vermi-composting” or composting with worms is a great way to teach students about composting, soil science, and more. Vermi-composting is relatively easy to set-up and maintenance tasks can be undertaken by all ages of students. These systems are very suitable for starting school composting, are low cost, and suitable for classroom maintenance. Red wiggler worms eat food waste and then deposit their castings in their bin (“worm home”). Castings are very rich in nutrients, nontoxic to touch, and look like fine-textured soil. Oxygen and moisture are required to keep this compost healthy.

*How to get started:*

Worm home: Obtain a plastic bin (a Rubbermaid or similar container works well), a wooden box or manufactured worm composting bin. This bin should be at least 2.5 gallons in size. The bin needs to have holes drilled into it on all sides, about every 2 inches apart.

Worm bedding: Fill the worm home with damp shredded or torn cardboard and paper. The bedding must be uniformly wet, but not soaking/dripping.

Order or purchase red worms (red wigglers or *Eisenia fetida*). Red wigglers can be inexpensively and easily ordered online or talk with a local bait shop. Make sure the worms are red wigglers! Other worms, such as earthworms will not survive in a bin.

Feeding the worms: Worms can eat classroom or cafeteria food scraps, including—bread, pasta, fruits (no citrus or banana peels) and vegetables. Bury the food scraps under the worm bedding. Egg shells should be added periodically. DO NOT add fats, meats, or dairy products.

### **School On-site Composting**

Because several Westernport teachers expressed interest in school food scraps composting, a suggested way to undertake this project is to start small and evaluate the undertaking before implementing schoolwide.

Option 1: Collect food scraps a few times this fall and place them in one of the school compost bins. Keep a log of how many buckets of food scraps were collected and put into the bin. One collection could be done when Athena comes to the school in October. If another collection is done, it will need to be monitored to ensure that just food scraps are collected.

Collect enough leaves, straw, or other “carbon” material to mix into the compost bin with the food scraps. Wood shavings can be sprinkled over the food scraps as well. Let the composting material set over the winter to see how the set-up works.

Option 2: To limit the amount of food scraps collected, consider collecting just from one lunch period once per week (“Compost Fridays,” for example). This would allow for a relatively small amount of material collected, and more consistency in collection. This option would better serve to educate participating students and teachers/staff in food waste collection, the composting process, etc.

Perhaps the older students’ lunch period could work, as they need less assistance. Older students learn quickly how to efficiently separate remaining food scraps from other trash in order to expedite the scraping of food scraps into the compost collection bucket. A teacher or staff person would still want to oversee at least some of the collection to ensure that only food scraps are collected (maybe rotate this task). Students could be engaged to carry the bucket out to the compost bin and cover the food scraps with leaves.

If the kitchen staff is amenable, preparation food scraps could also be collected for composting.

*See the Attachment B - “Basic School Composting Recipe”.*

There are many available, free vermicomposting and composting student activities that can be utilized in the classroom. Science, math, social science, and even history lessons come to life through hands-on learning with vermi-composting and onsite school composting.

### **School Environmental Club**

Engaging students through joining an Environmental Club would help in promoting, training, and ensuring success in helping to implement the above recommendations. Club members would gain leadership, mentoring, public speaking, and other skills from the experience.

## Resources

### *Waste Free Lunches*

<http://www.wastefreelunches.org/>

Maryland Waste Free Lunch Challenge - <http://news.maryland.gov/mde/2016/04/20/maryland-department-of-the-environment-brings-its-waste-free-lunch-challenge-to-churchville-elementary-school-in-harford-county/>

Waste Free Lunch in Laurel, MD - [https://qconline.com/school-lunch-waste/image\\_465aec11-ab7c-5cb1-9858-19e5b0631f33.html](https://qconline.com/school-lunch-waste/image_465aec11-ab7c-5cb1-9858-19e5b0631f33.html)

<https://www.epa.gov/students/pack-waste-free-lunch>

### *Offer vs. Serve*

Harwood County Public Schools OVS -

<https://www.hcps.org/departments/businessservices/foodandnutrition.aspx>

<https://www.fns.usda.gov/tn/serving-myplate-yummy-curriculum>

<https://traytalk.org/2018/08/29/schools-reduce-food-waste-in-creative-ways/>

<http://goodfood.ucla.edu/>

<https://www.northjersey.com/story/life/food/2018/07/25/paterson-nj-schools-offers-more-food-choices-cut-food-waste-waste-not-nj/771788002/>

### School Composting

School Cafeteria Waste Reduction

<https://nerc.org/documents/schools/FoodServiceWasteReductionInSchools.pdf>

Composting at School - PowerPoint

<https://nerc.org/documents/schools/SchoolCompostingOptionsPresentation.pdf>

School Composting Options

<https://nerc.org/documents/schools/SchoolCompostingOptions.pdf>

School Food Scraps Composting

[https://nerc.org/documents/nercnews/Food Scraps Composting At Schools BioCycle.pdf](https://nerc.org/documents/nercnews/FoodScrapsCompostingAtSchools_BioCycle.pdf)

### *Lunch Meal Clip Art*

<http://wikiclipart.com/lunch-tray-clipart/>

<https://clipartxtras.com/categories/view/51accd1facc3fd2a3f88760b1a3f41f08892a863/school-lunch-menu-clipart.html>

<https://www.pinterest.com/pin/128845239319193151/>

Dear Parents and Guardians:

Between 30-40% of all food is wasted in our country. In September 2015, the US Environmental Protection Agency (EPA) and US Department of Agriculture (USDA) announced a national goal to reduce food waste by 50% by the year 2030. Westernport is embarking on an opportunity to reduce the amount of trash generated during lunch times while doing something that is good for the environment. We are undertaking a few simple projects to reduce our food waste.

Last year with the help of a representative from the Northeast Recycling Council, we conducted a food waste audit at our school. We found that 94 pounds of food scraps were collected in just one day. Extrapolated on a monthly basis, this amount equals nearly a ton of food waste generated at Westernport each month.

Please note, we are NOT encouraging students to reduce what they eat or not safely save leftover food for later consumption or to take home. As always, we encourage our students to eat healthy. Please reinforce this with your child and we will do the same at school. Rather, we are encouraging reducing and composting of food scraps that typically would have gone into the trash.

*Here is a brief description of the projects we are undertaking:*

- *“Waste Free Lunch”* is an easy way to start reducing cafeteria waste. It sends a positive message that promotes awareness about waste and action that students, teachers, and staff can undertake. “Waste Free” presents a goal that may not be attained, but through the practice cafeteria waste is significantly reduced. For those of you who pack your child’s lunch, I’ve enclosed some “waste free lunch” tips for your consideration.
- *Offer Versus Serve (OVS)* or “School Lunch Choice” is a government approved policy that allows students to decline some of the food offered for lunch or breakfast. The goals of OVS are to reduce food waste and to permit students to choose the foods they want to eat.

At Westernport we will be promoting OVS to our older students (3<sup>rd</sup>-5<sup>th</sup> graders). As always, our lunches include these components: protein, grains, fruits, vegetables and milk. Several choices within each category are available daily from which students can select a complete lunch. Students must select at least three components with at least one being a fruit or vegetable to make a meal. Students may, of course, choose more if they wish.

We’ll be working with our Cafeteria Manager and our older students to inform them of our daily lunch offerings, help them make appropriate healthy meal choices that they will enjoy, while also encouraging students to eat what they take in order to reduce waste.

- *A Pilot Composting Project* will be started at Westernport. We will be collecting leftover food scraps once per week, just during our 3<sup>rd</sup> grade lunch period. Allegany Recycling Program donated two compost bins to the school. We are excited to try converting our food scraps into compost in order to potentially use the compost in a school garden.

Through composting we can divert materials from disposal and, along with starting a small school garden, create an outdoor science learning opportunity for our students. Third grade teacher, Ms. Sarah Llewellyn, has agreed to take on our composting project. Staff from the Northeast Recycling Council and the Allegany County Recycling will help ensure our pilot gets off to a successful start!

We will begin our waste reduction efforts under a trial basis in order to evaluate and fine-tune them. We may find that one or all of the projects are not feasible for us. Hopefully, we can work out the kinks. These projects have the potential to save our school money by reducing our trash disposal needs. Ultimately, we hope our efforts help to inspire our students to be responsible stewards of the environment.

Please talk with your children about our new waste reduction efforts and ask them how they feel about them. If you have any questions, suggestions, or concerns, please feel free to call me at 359-0511 or email me at [alexa.fazenbaker@acpsmd.org](mailto:alexa.fazenbaker@acpsmd.org).

Sincerely,

Principal Fazenbaker

## Note to Parents/Guardians

Please help us Reduce, Reuse and Recycle here at Westernport!



# Pack waste free food!

Did you know that up to 50% of items in school/preschool bins come from food and drink packaging is brought from home?



## Pack

- Snacks in reusable containers
- Drinks in a reusable bottle
- Reusable utensils when needed
- A reusable lunchbox or back-pack



## Avoid

- Lunches packed in plastic bags, cling film or foil
- Disposable drink boxes, cans, cartons and bottles
- Disposable forks and spoons
- Pre-packaged lunches or single serve items





## Basic School Composting Recipe

### 2-3 Parts Carbon - “Brown” materials

- Woody, dry materials- sawdust or wood shavings, leaves, soiled paper, shredded paper, straw, animal bedding

### 1 Part Nitrogen - “Green” materials

- Green, wet materials, such as cafeteria scraps, grass clippings, garden trimmings (no weeds), manures (no cat or dog)

### ➤ Combine organic materials in proper ratios

### Keep it small!

- Mowing, grinding, chipping, or shredding

### Contain it!

- Minimum of 3 x 3 x 3
- Bin or pile

### A little soil or finished compost

### Moisture

- Just a little, like a damp sponge
- Leave lid or cover off during rain
- Required to keep compost microorganisms alive & active

### Air/Aeration

- Turn or aerate materials
- Or, place materials on perforated pipes



### Other Needs

- Shovel or Pitch Fork
  - ✓ Or, bobcat/tractor
- Covered area or bin for storage of leaves/carbon sources
- Thermometer
  - ✓ For hot composting



## Acceptable Materials

- ✓ Vegetable food scraps, peels
- ✓ Fruit scraps, peels
- ✓ Nuts & nut shells
- ✓ Dairy, cheese
- ✓ Coffee grounds/filters & tea bags
- ✓ Napkins, paper towels
- ✓ Leaves, garden trimmings
- ✓ Shredded paper
- ✓ Sawdust



### DO NOT COMPOST

- Meat/Bones/Grease
- Weeds
  - Tomatoes & squash may sprout “volunteers”
- Cat litter or dog manure

*\*\* Small amounts of meat & grease, e.g., in soups, casseroles, sauces should be fine. Eggs & egg shells are fine.*

**Westernport Elementary School  
Food Waste Audit Report**

| <b>Lunch Period</b> | <b>Weight – First Audit</b> | <b>Weight – Second Audit</b> |
|---------------------|-----------------------------|------------------------------|
| First               | 15.5 pounds                 | 11.5 pounds                  |
| Second              | 15.5 pounds                 | 13.5 pounds                  |
| Third               | 17 pounds                   | 8 pounds                     |
| Fourth              | 13 pounds                   | 7 pounds                     |
| Fifth               | 18 pounds                   | 7 pounds                     |
|                     | 79 pounds                   | 47 pounds                    |

*First Audit - April 20, 2018 (a Friday)*

*Second Audit – April 26, 2019 (a Friday)*

The reduction in food scraps for the kindergarten through fifth graders from the first to the second audit was 32 pounds or 40.5%.

The reduction in food scraps for the third through fifth graders was 26 pounds or 54.17%.

The third graders have composted 170 pounds of cafeteria waste to date.