

HENNEPIN COUNTY  
MINNESOTA



Best practices for  
organics recycling  
in schools



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## Introduction

Organics recycling is a rapidly growing component of waste management in Hennepin County.

### How organics recycling works

In organics recycling programs, organic waste including food scraps, napkins, and certified compostable products are collected and hauled separately from trash and conventional recycling. Organic waste is sent to a composting facility, where the waste is managed to produce compost, a nutrient-rich soil amendment that is used in gardens, farms, and landscaping projects.

Organics recycling is also commonly referred to as composting. Throughout this document, organics recycling will be referred to as organics recycling or composting, whereas conventional recycling refers to recycling of materials such as paper, bottles, and cans.

Organics recycling puts our trash to better use to create a compost – a nutrient-rich soil amendment. Here’s how the organics recycling cycle works:



- 1** The food scraps we collect are delivered to a composting facility.
- 2** About six months to a year later, the composting process is complete.
- 3** Compost is used in gardens to help grow the food we eat.



### Big opportunities to reduce trash

Organics recycling is a highly valuable waste management option for schools. Organics recycling helps schools reduce the environmental and financial costs associated with trash disposal because organic waste makes up such a large portion of a school’s waste composition.

A 2010 study by the Minnesota Pollution Control Agency found that 50 percent of school waste is organic materials, with almost half of that being food waste.

### About this guide

This guide aims to help schools implement successful and sustainable organics recycling programs. This guide combines the experiences of more than 150 local schools that have incorporated organics recycling along with professional advice from Hennepin County.





## Benefits of organics recycling

Organics recycling is good for the environment, can help improve conventional recycling, and can ease disposal costs.

### Better for the environment than landfilling

Without an organics recycling program, organic waste is collected and disposed of as trash. Depending on your location and waste hauler, trash in the county is either sent to a landfill or burned to generate energy at the Hennepin Energy Recovery Center. Organic waste decomposing in landfills generates methane, a potent greenhouse gas, and the moisture content of organic waste makes incineration less efficient.

### Creates valuable compost

Additionally, organics recycling creates a valuable product – compost. Compost provides nutrients to plants, improves the ability of soil to hold water, and maintains beneficial microorganisms. This improves soil and reduces the need for pesticides and fertilizers. Compost is commonly used in school gardens, landscaping projects, community gardens, and road construction projects.

### Improves conventional recycling



Organics recycling has been shown to reinvigorate conventional recycling and raise awareness of waste reduction in

general, resulting in further environmental and economic benefits. Many schools take pride in teaching students the environmental stewardship value of organics recycling.

### Reduces disposal costs

From an economic perspective, organics recycling is a cost-effective waste management strategy. In Hennepin County, trash disposal is more than twice as expensive as organics composting, and has added costs of a 17 percent state solid waste tax and 21.5 percent Hennepin County solid waste fee. On the other hand, processing organic waste costs \$25 per ton and is exempt from the state tax and county fee.

Without effective recycling programs, schools manage the majority of their waste as trash. Large amounts of trash mean large dumpsters that need to be serviced almost daily, which results in higher disposal costs.



## The composting process



Organic waste collected at schools is hauled to a commercial composting facility.



There, the organic waste is mixed with yard waste to get the correct ratio of carbon and nitrogen and the right moisture levels.



The materials are laid out in piles, aerated to introduce oxygen, and left to compost and cure.



During this time, bacteria works to heat the piles and break down materials. Depending on conditions, it can take as little as six months for organic waste to naturally decompose into finished compost.



Before it's ready to be used, the compost is screened to remove contaminants, which are materials that cannot be composted.



Common contaminants found in organics recycling include plastic utensils, foil condiment packets, plastic bags, and milk cartons.

## Managing food waste with food-to-animals



Food-to-animals programs are an alternative option to composting. These programs are limited to food items only. For this reason, organics recycling for composting diverts the most waste, but food-to-animals works well for some schools.





## The importance of reducing contamination



To ensure the sustainability of organics recycling programs, local composters need to receive organics that are free of contamination, or non-compostable materials, so they can consistently produce clean, nutrient-rich compost that people want to purchase and use. The quality and subsequent sale of finished compost

depends on the quality of the organic material collected. Compost that contains plastic, glass, and other contaminants is difficult to sell and can only be used for low-end purposes.



Contamination is a growing concern at local compost sites. Compost facilities are equipped to handle low levels of contamination, but loads that are too contaminated will be rejected and disposed of as trash.

Therefore, it is important that schools create organic loads that are low in contamination by educating the entire school community about properly sorting waste.

### Tips for minimizing contamination

#### Minimize or eliminate single-use packaging and disposables



Try to avoid using small items like condiment packets and plastic utensils that are hard to sort off of students' trays. Instead, buy condiments in bulk

and use reusable or compostable utensils.

#### Collect food waste only

This is a good option to simplify the process, especially for schools with a variety of packaging.

### Have cafeteria waste station monitors



Schools have found this to be one of the most effective ways to make sure items end up in the right bin.

Monitors can be students, staff, or volunteers, including parents. Monitors educate students on how to sort their waste and can

pick contaminants out of containers. Provide gloves and grabbers for monitors.

Monitors are essential during the initial stages of your organics recycling program. If your site has sufficient support, maintaining monitors beyond the initial stage will help ensure the ongoing success of your program.

### Adjust how you dismiss students

When you first start organics recycling, it will take time for the students to get up to speed. Long lines may occur at schools that dismiss students all at once.

You can reduce congestion by allowing students to dispose of their waste when they are done eating or dismiss them by table. Other options are to set up your containers in a way that allows for the flow of two lines or have several setups in different parts of the cafeteria as opposed to one central location.

### Grant funding to minimize contamination

Hennepin County's school recycling grant funds can be used to cover stipends for cafeteria waste station monitors, waste grabbers, bulk condiment dispensers, and reusable food service ware to replace disposables.

## Frequently asked about items

### Recyclable paper

Although recyclable paper like school and office papers and newspaper is technically compostable, it should be recycled.

Recycling paper, especially high-grade white office paper, helps drive the recycling market and reduce our reliance on trees to make new paper. Organics recycling is a good way to manage paper products that can't be recycled because they are low quality or contaminated with food, such as napkins and facial tissues.



### Milk cartons and juice boxes



Milk cartons are confusing because composting facilities used to accept them for organics recycling. But starting in 2012, local recycling facilities began accepting materials like milk cartons

and juice boxes for recycling. These items contain high-quality paper between layers of either foil or plastic, and technology now exists to separate the layers and recycle the high-grade paper. Additionally, the plastic or foil in cartons have been found to be contaminants in the composting process that are difficult to remove.

### Compostable products and plastic-coated paper

Certified compostable products, including paper and plastic plates, bowls, cups, containers, and utensils, are accepted for organics recycling. For items to be accepted, they must have the term “compostable” or the BPI logo on them. This shows that they are certified compostable.

If an item doesn't have the term “compostable” or the BPI logo and you're unsure whether or not it's compostable, it's best to put that item in the trash. This will help ensure the organics recycling is clean and free of contamination.



### Liquids

Although some moisture is needed in the composting process, too much moisture creates odor issues. Liquid waste should be dumped down the drain. Many schools use a liquid bucket or barrel with a strainer to prevent clogs. Disposing of liquid waste separately will reduce leaks in bags, and ensure that recyclables like milk cartons are empty so they can be recycled.





# Getting your program started

## Steps to starting organics recycling

Successful school organics recycling programs have taken the following steps to get their programs going. Remember that although one person can bring organics recycling into a school, it takes the entire school community to make it work!

- Engage key school staff, including custodial and food service personnel.
- Get administrative approval. Make sure your school's administrator understands the benefits of organics recycling.
- Add organics recycling to your existing hauling contract, or choose a hauler that offers the service.
- Set up organics recycling containers in the school, and label all of your containers.
- Educate students and staff on how to properly sort their waste. Communicate the importance of organics recycling and the goals of your recycling and waste reduction efforts with all members of the school community, including parents.

## What you'll need to get started

You will need the following to start an organics recycling program:

- Color-coded containers and signs
- Compostable bags
- Hauling service
- Educational materials



## Choosing a hauler

Many waste haulers that provide service for trash and conventional recycling pick up organics. Check with your current waste hauler to see if they offer organics recycling service. It's also a good idea to shop around for the best price.

Look for a hauler who is flexible to changes in service so you can modify your trash and organics recycling service levels as your program develops.

Find a list of haulers at [hennepin.us/businessorganics](http://hennepin.us/businessorganics) under organics recycling for composting.

## Setting up your dumpsters

To avoid unnecessary costs, start off with a small dumpster for organics recycling. You can always increase the size of the dumpster as your organics collection expands and improves.

The simplest setup is to keep all the dumpsters together. Placing the trash dumpster closer than the recycling and organics recycling dumpsters may result in recyclables and food waste being disposed of in the trash dumpster.

Label the dumpsters to help maintenance staff identify quickly and accurately what waste goes where.



*Dumpsters are placed side by side to make proper disposal easy and convenient.*

## Deciding where to set up containers in the school

When starting an organics recycling program, it may help to start in the cafeteria and expand to other areas over time. Just remember that collecting organics exclusively during lunch does not take full advantage of the program. Other schools start by collecting paper towels in the restrooms then moving on to collecting in the cafeteria and other areas.

The cafeteria and kitchen, where the most food waste is produced, are the most obvious places to collect organics.



Restrooms are easy to include because restroom waste is almost exclusively paper towels. Be sure to still provide a trash container in each restroom for other items.

Making organics recycling available in faculty lounges helps promote the program to staff.

Breakfast and snack waste as well as paper towels can be collected

from classrooms. There are a couple of approaches that schools can take when collecting organics from classrooms. Each classroom can have a small organics container that is emptied by custodial staff or student volunteers. Or there can be waste stations in the hallway that multiple classes share. Just like in the cafeteria, the waste station should include organics, recycling, and trash.



## Labeling containers

Posters and signs are vital to the success of recycling programs. Signs prompt users to sort their waste and assist in identifying compostable and recyclable items. Put labels on each bin and post signs at eye level.

Hennepin County has labels and posters available for free. See what's available and place an order at [hennepin.us/schoolrecycling](https://hennepin.us/schoolrecycling).



You can also create your own posters and labels to use instead of or in conjunction with the Hennepin County signs. When creating signage, avoid excessive wording and use pictures of materials that belong in each container. Alternatively, you can attach examples of the specific items used at your school to a sign or on a rack above the bins. Use the same color scheme for signs as you do for bins: red or gray for trash, blue for recycling, and green for organics recycling.





## Creating waste stations

Provide separate containers for trash, organics, conventional recycling, and liquid waste. Place the containers together to create a waste station, and have good signage to identify which container is for which waste stream.

Make sure the containers and/or signs are color-coded:

- Red or gray for trash
- Blue for recycling
- Green for organics recycling

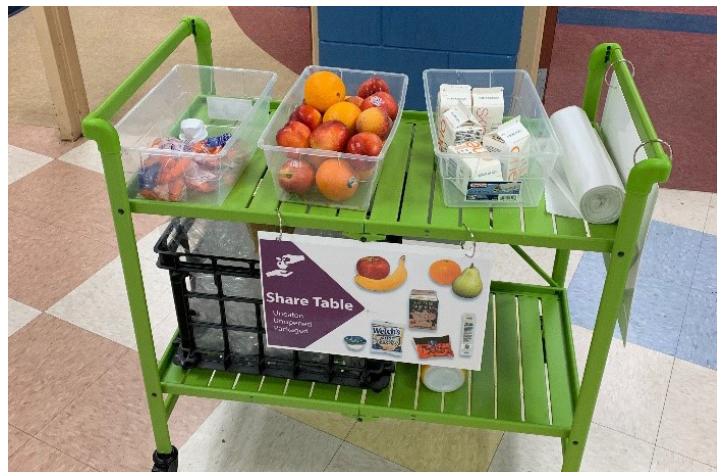
This helps users easily and quickly determine what waste stream the containers are for. In addition to color-coding, different shapes of containers and lids can help differentiate the containers.

## Create a sharing table

If your school allows, provide a sharing table to help prevent food waste. Collect whole fruit, packaged foods like crackers or cereal, uneaten food, and unopened milk for other students to take. Hennepin County's school recycling grants now cover supplies to set up a sharing table.



Susan Lindgren Elementary in St. Louis Park has a sorting table with two bars, one for signage and another for examples. Rings around the holes in the table are color-coded along with the barrels underneath.



## Do we need sorting stations?

While not necessary, schools have found sorting stations to be beneficial. Schools that use sorting stations find them to be aesthetically pleasing and more user-friendly, especially for younger students, as they provide a place for students to set their trays and have both hands available for sorting. However, there are many good examples of successful organics recycling programs that do not have sorting stations.

Schools in Hennepin County have purchased sorting stations from the following businesses. This list does not constitute an endorsement of any of these companies, nor do we claim this list is complete.

- Jim Murphy, Murphy Construction Services Inc., 612-366-1389, [recyclesortingtables.com](http://recyclesortingtables.com)
- Ross, Rapids Foodservice Contract and Design, 612-339-4010, [rapidscontract.com](http://rapidscontract.com)
- Wyoming Machine, Inc., 651-462-4156, [wyomingmachine.com](http://wyomingmachine.com)





## Collecting organics

### Compostable bags and food service ware



Be sure to use certified compostable food service ware that has the term “compostable” or the BPI logo.

You should also use certified compostable bags with the BPI logo to collect your organics.

Certified products have been tested to ensure they fully break down at commercial composting facilities. The Biodegradable Products Institute has more information on which products are certified compostable. Learn more at [bpiworld.org](http://bpiworld.org).

Products labeled biodegradable, degradable, and oxo-degradable are often made of either plastic or bio-plastic with an additive that causes the plastic to break down into small pieces. These degradable products are not compostable and should not be used in organics recycling programs.

School districts typically purchase compostable bags through the state contract. To purchase through the state contract, visit [hennepin.us/schoolrecycling](http://hennepin.us/schoolrecycling) in the organics recycling in schools section.

Private schools are not eligible to use the state contract. There is a list of local vendors of compostable bags and food service ware on [hennepin.us/businessorganics](http://hennepin.us/businessorganics) in the organics recycling for composting section.

### Trays

Whether your school uses compostable or disposable trays, used trays should be stacked and disposed of separately to conserve space in the dumpster and reduce the number of bags needed.

In a study of Minnesota school waste, a 96-gallon cart held 920 stacked trays but only 114 trays when not stacked. If your hauler is ok with it, stacked trays may be placed directly into dumpsters or carts without being bagged.

## Educating and engaging the school community

Schools have used a variety of techniques to promote the organics recycling program while making it fun and educational for staff and students. Some of the methods schools have used include:

- Create or show videos (videos on sorting waste at school and reducing contamination in the organics recycling are available at [hennepin.us/schoolrecycling](http://hennepin.us/schoolrecycling))
- Hold a kick-off celebration
- Practice sorting recycling, organics, and trash in classrooms with items or photos of items found in your school
- Work closely with your waste hauler to monitor progress
- Conduct waste audits
- Integrate with curriculum
- Make it into a competition
- Use resource management contracts with waste haulers (learn more at [pca.state.mn.us/quick-links/resource-management](http://pca.state.mn.us/quick-links/resource-management))



# School organics recycling resources

## Hennepin County school recycling

[hennepin.us/schoolrecycling](https://hennepin.us/schoolrecycling)

Kira Berglund, School Recycling Coordinator,  
[kira.berglund@hennepin.us](mailto:kira.berglund@hennepin.us),  
612-596-1498

## School recycling meetings

Hennepin County hosts school recycling meetings every other month during the school year. The meetings provide an opportunity for school staff and volunteers to learn about environmental topics and share successes and challenges related to their recycling and organics programs.

If you are interested in attending or presenting at a meeting, contact Kira Berglund at [kira.berglund@hennepin.us](mailto:kira.berglund@hennepin.us).

## Financial assistance available

Hennepin County offers recycling grants to schools to help with startup costs of organics recycling. Grant funding can be used for bins, barrels, carts, sorting stations, compostable bags, compostable foodware, initial organics hauling for new programs, reimbursement for monitors to oversee waste sorting, and stipends for teachers to start and lead environmental clubs. Learn more at [hennepin.us/schoolrecycling](https://hennepin.us/schoolrecycling).

Hennepin County also offers environmental education grants to help organizations, including schools, to empower their audiences to reduce waste, increase recycling, protect land and water, and conserve energy. Learn more at [hennepin.us/greenpartners](https://hennepin.us/greenpartners).

## Compost sites in the Twin Cities

Organics recycling is hauled to one of these compost sites. Both of these sites offer tours for students and adults. Contact the compost sites for details.

- Specialized Environmental Technologies composting facility in Rosemount, [mulchstoremn.com](https://mulchstoremn.com)
- Shakopee Mdewakanton Sioux Community Organics Recycling Facility, [smscorf.com](https://smscorf.com)



Hennepin County  
Environment and Energy  
[hennepin.us/schoolrecycling](http://hennepin.us/schoolrecycling)  
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