

Waste Assessments and Waste Audits

Waste Assessment

A waste assessment is a general way of looking at a school's waste. It starts with a series of questions to help the school identify, document, and evaluate its waste stream. A site tour of the school is conducted, including classrooms, food preparation and serving areas, science department, athletic department, administrative areas, teacher lounges, and other appropriate departments. Interviews of the school's business manager, custodial and maintenance staff, cafeteria managers, and other appropriate staff are conducted. It is a way of documenting and evaluating what is entering the school (through purchasing, such as copy machine paper), and analyzing what is disposed (waste characterization). A waste assessment can be used as a tool to identify wasteful practices and create opportunities to increase efficiency, reduce waste, and lower costs.

General questions to keep in mind are:

- Why do we purchase this?
- Can we use less of it or use it more efficiently?
- Can we reuse it, recycle it, or compost it?

The goal of conducting a waste assessment is to:

- Document the current waste management system.
- Estimate the types of wastes generated.
- Identify and prioritize waste reduction, reuse, recycling and composting opportunities.
- Outline a plan of action.
- Identify measures of success and track program progress.
- Make program adjustments as necessary.

Waste Audit

A waste audit is a hands-on activity to characterize the types, quantities, and origins of the waste generated in the school. It is a method of determining how much paper, food, and other materials are discarded in the school waste stream. The waste audit presents a qualitative (visual) and quantitative look at materials in the school waste that can be reduced, reused, and recycled. Results of the waste audit can be integrated into a wide range of classroom topics and instruction. Having students assist in the audit or view the audit in progress is a great learning opportunity. During the audit materials are sorted into various categories—recyclable paper, beverage containers, plastics, etc. Weights are recorded. Items can be displayed allowing for discussion by students.

See NERC's school [waste assessment](http://www.nerc.org/documents/school_waste_assessment_form.doc) and [waste audit forms](http://www.nerc.org/documents/waste_audit_sort_sheets.doc) (http://www.nerc.org/documents/school_waste_assessment_form.doc; http://www.nerc.org/documents/waste_audit_sort_sheets.doc).

School Waste Audit Preparation

Form a waste audit team that includes at least one parent, teacher, and/or staff. Be sure to involve or at least consult with the custodial staff so that they are fully aware of your plans. Their guidance and advice will be helpful.

Weighing and sorting the collected trash from the classrooms, teacher work area, etc. will take 1-4 hours depending on the size of the school and amount of waste. The cafeteria set-up (see below) is designed to avoid having to sort materials.

At least Two Days Prior to the Audit

- Announce the audit to all staff, teachers, administration, and students.
- Invite student/classroom participation. At a minimum, one-two students per lunch period to stand by the trash to assist in proper materials sorting would be useful.
- Determine if materials will be displayed for viewing by students.
- Decide on a location to be used for sorting the material. A small area in a hallway or classroom will do. Inside is preferable in inclement weather. If students are to view the materials a larger area will be needed for display.
- Arrange for supplies: bathroom scale, pen, paper, calculator, nonlatex good quality disposable gloves, hand sanitizer, tarps (for work area and to display materials), and plastic garbage bags or bins.

The Day before the Audit is Scheduled:

- Save all school trash (in bags), *except* cafeteria garbage.
- Store in an accessible area, preferably close to where the audit will be conducted.
- If possible, group the bags by “classroom,” “teacher’s lounge,” “bathroom,” etc. Placing a label--using masking tape or labels—on the outside of the bag, is even better.

The Day of the Audit:

- The audit team begins sorting the collected garbage from the previous day.
- Classroom and office materials are sorted by recyclable paper, beverage containers, useable items, trash (plastics, pencil shavings, broken items, paper towels, etc.)
- As materials are sorted sit items on a tarp for display or place in plastic garbage bags or bins for weighing.
- Record weights by material (recyclable paper, beverage containers, reusable, trash)
- At the completion of the waste audit, individuals conducting the audit must return all garbage to bags for disposal and ensure that the work area is clean.

Cafeteria Audit

- Prior to the start of the first lunch period, prepare a minimum of five large garbage containers, with liners. These cans will need to be in place during all lunch periods. Extra liners should be available. Students will scrape their trash into these cans, so they should be in the same location normally used for cleanup. Have a scale and paper and pen ready for recording weights.
- Have three signs made:
 - “Food Scraps & Napkins,”
 - “Meat & Cheese,” and
 - “Trash: Plastics, Straws, Milk/Juice cartons.”
 - If beverage containers are not currently recycled an “Aluminum Cans/Plastic Bottles” sign should also be made.
 - Milk can also be collected separately in a bucket, if desired.
 - If the potential for recycling or composting milk cartons is available, separate these; also, some schools may be able to recycle juice cartons as well, so these could be separated.
 - A crate for unopened items, such as milk, uneaten fruit, packaged items, could also be set up.
- Have student volunteers stand behind the cans. As students come up to scrape their plates, volunteers can help ensure the trash is sorted correctly.
- At least one member of the audit team should be on hand to supervise and to weigh and record collected materials. All materials should be weighed separately, by lunch period, and recorded. Beverage container recyclables should be weighed as well, even if already collected for recycling at the school.

NERC's [Rural School Waste Reduction, Recycling, and Composting Tip Sheets, Case Studies, and Webinar Presentations](http://www.nerc.org/documents/#SchoolWaste) are available for free download (<http://www.nerc.org/documents/#SchoolWaste>).

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