

The ABC's of a School Recycling Program

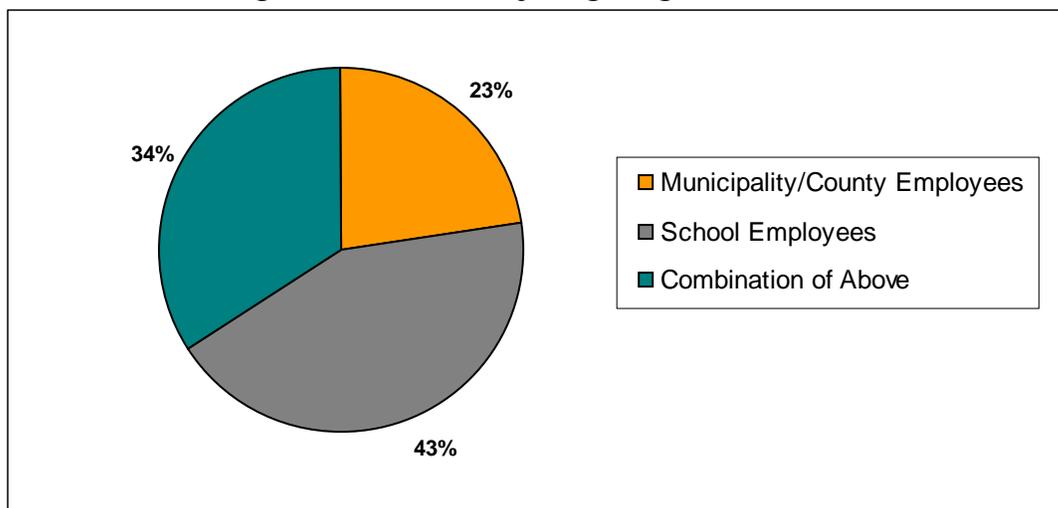
School recycling programs are essential to creating community norms for recycling. Setting up a school recycling program takes planning to build partnerships, establish long term collection plans, and identify key benefits to the individual school or school system. Remember that relying solely on one motivated teacher or staff member to handle the collection does not always lead to a consistent program from one year to the next. However, motivating those in-house allies to help the program run smoothly is an excellent partnership!

In late 2006, DENR's Division of Pollution Prevention and Environmental Assistance (DPPEA) conducted a survey about the day-to-day operations of recycling programs in North Carolina schools. Local governments and school systems returned 31 usable surveys in response to the request, for a response rate of 16 percent. These respondents represent a total of 1,004 elementary, middle and high schools in North Carolina. Of these schools, 77 percent reported having a recycling program for at least one school. Only one survey respondent, a town, reported having no recycling program in any of its schools. The remaining respondents reported recycling programs at some but not all schools within the district.

Program Coordination

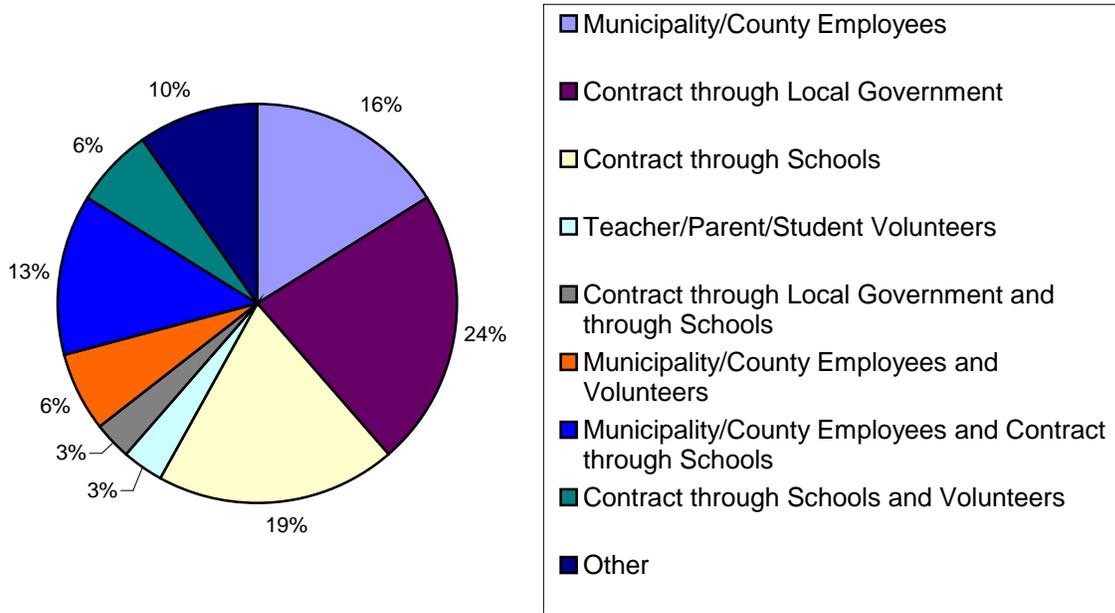
The party responsible for coordinating school recycling programs varies widely across the state, as shown in Figure 1.

Figure 1: School Recycling Program Coordinators



A combination of organizations provides collection of recyclables to schools, as shown in Figure 2 on the next page.

Figure 2: Recycling Service Provider



Finances

Survey respondents were asked, "Does collection of recyclables result in a net cost increase or decrease?" Forty-five percent of respondents did not know, 29 percent reported a decrease, 13 percent reported an increase, and 16 percent reported neither an increase nor decrease. Seventy-seven percent of respondents reported schools received no revenues from haulers for the sale of their recyclables. Only 10 percent reported they received some revenues and six percent did not know.

Collection Details

School recycling programs use a variety of sizes of recycling containers, as shown in Table 1 and in pictures below.

Table 1: Size of School Recycling Containers*

14-18 Gallon Bins	32-96 Gallon Roll Carts	4-8 Cubic Yard Dumpsters	20-40 Cubic Yard Roll Offs	Other
29%	58%	55%	13%	26%

* Totals do not add to 100% because respondents could select more than one option.



18-Gallon Recycling Bin
Taken from www.ci.durham.nc.us



Roll Cart
NC DPPEA Photo



Recycling Dumpsters
NC DPPEA Photo



Taken from www.recycling-revolution.com



Iredell County Can Trailer
NC DPPEA Photo

Frequency of recycling collection also varied. Recycling is collected weekly at 29 percent of school programs, biweekly at 16 percent, monthly at 10 percent, and on an as needed basis at 19 percent. The remaining 29 percent of programs have collection schedules that vary by school or material type.

The table below shows the different types of items collected for recycling throughout North Carolina schools. Cardboard, a material only recycled by 77 percent of respondents, is relatively easy to recycle and can generate funds for schools. Another material that may generate funds is aluminum. In fact, many of the 84% of respondents who reported recycling aluminum cans also reported receiving revenues from the sale of cans. The disposal of motor oil in a landfill is illegal in North Carolina and the disposal of oil filters and plastic bottles will be banned in the next few years. Yet only 29 percent of respondents reported recycling motor oil or filters.

Table 2: Types of Materials Recycled

Material Type	Percent of Respondents Recycling at One or More Schools*
Aluminum Cans	84%
Cooking Oil	29%
Corrugated Cardboard	77%
Glass	52%
Magazines	77%
Mixed Paper	87%
Motor Oil and/or Filters	29%
Newspaper	87%
Plastic Bottles	77%
Steel Cans	68%
White Office Paper	90%
Other	19%

* Totals do not add to 100% because respondents could select more than one option.

Respondents reported that school recycling programs most commonly do not commingle materials (55 percent). Thirty-two percent commingle all materials and 13 percent separate fibers from containers (dual stream).

Nineteen percent of respondents reported at least one school in their district has a composting project. Another 23 percent of respondents were unsure if there were any composting projects in their area, and 55 percent said there were none.

Slightly more than half (52 percent) of local governments and school districts do not keep records on the volume or weight of materials collected. However, 39 percent do keep records on volume or weight, while 10 percent did not know if such records are kept. Of the respondents able to provide data (32 percent), approximately 11 tons (or 22,848 pounds) of recyclables were collected per school per year. Based on data from

29 percent of respondents, schools recycled approximately 2 pounds of materials per student per year.

Convenience is always important when setting up a recycling program. Over 50 percent of respondents have a recycling bin in every classroom.

Table 3: Student Access to Recycling Bins

In every classroom	In some classrooms	In cafeteria	Outside	In other locations	Varies by School	Other
55%	13%	39%	6%	26%	65%	13%

Recycling Responsibilities and Training

The table below shows when schools or local governments offer training on recycling operations.

Table 4: Timing of School Recycling Operations Training

Monthly	Several Times per Year	Once per Year	When Program Begins	When Program Changes	Given to New Staff or Students	Upon Request
0%	26%	19%	55%	39%	10%	2%

As shown in the table below both students and custodial staff are involved in the collection of recyclables.

Table 5: Recycling Responsibilities and Training Opportunities

	Students	Teachers	Custodial Staff	Administration	Parents	Other/Not Sure
Responsible for emptying bins	77%	48%	81%	13%	10%	19%
Receives Training	74%	87%	71%	39%	**	16%

* Totals do not add to 100% because respondents could select more than one option.

** "Parents" was not a possible answer to the question on who receives recycling training.

School Recycling Guidelines

If you are considering starting a recycling program at your own school, there are resources to help you. DPPEA has collected suggestions in *React*, a guidebook for increasing participation in recycling programs. Follow these guidelines, taken from *React*, when setting up a school recycling program:

- **Organize a coordination team.**
 - o Involve students, parents, teachers, custodial staff, local solid waste/public works departments and community representatives.
- **Determine which recyclables are in your waste stream.**
 - o Perform a Waste Composition Study and categorize the trash to determine what waste can be minimized or recycled. Use the results of the audit to help create a specific recycling program.
- **Identify a local market for recyclables.**
 - o Contact local recycling facilities to see what materials they collect and what services they provide. Be sure to find out how recyclables should be separated and what items can be commingled.
 - o Find local recycling facilities via the North Carolina Markets Directory web site at www.p2pays.org/DMRM. Contact the school's current waste hauler to see if they provide recycling services as well. If your local government solid waste office already has a curbside or business-recycling program, see if the school can be added to the pick-up schedule.
- **Select the type of recycling program that would be best for each school.**
 - o Contract with a private hauler, tap into curbside recycling pickup within the community or establish a mini drop-off facility at the school for the entire community to drop off recyclables. Make sure to have all aspects of your program in place before collecting any recyclables to prevent the accumulation of items that you cannot recycle.
- **Work out a budget for the collection program.**
 - o Obtain money from the school budget, PTA fundraising or partnerships with local businesses/civic groups. Recycling should reduce the school's waste stream, so look into reducing the frequency of trash pick-ups and allocating those savings towards the pick-up of recyclables.
- **Establish a system for collecting and storing recyclables.**
 - o Place bins in easily accessible areas within the school. Focus on areas that generate recyclables, such as classrooms, the cafeteria, teacher lounges and copy rooms.
 - o Classroom bins can be old copy paper boxes, plastic storage containers or a local government curbside recycling bin.
 - o Have students help decorate the bins with their own artwork or pictures from the Recycle Guys or RE3.org Web pages. This helps them feel ownership of the program and is a great way to get them involved. Each class could decorate

their own bin or the school could have a contest to pick the most creative picture for each grade level.

- Check with the fire marshal for storage and collection requirements.
 - If a private hauler will be collecting the recyclables make sure to set aside storage space for the containers allowing truck access. Designate a publicly accessible drop-off area if establishing a drop-off facility for the community.
- **Educate the school and the community about the program.**
- Inform all school personnel, students, parents and the community how the program will work. Let everyone know what can and cannot be recycled.
 - Ready-made graphics are available on the RE3.org and Recycle Guys Web sites for easy printing. Monthly newsletters or e-mails can be an effective way to inform the community and parents of the recycling program's progress. Educate volunteers and staff on the storage and collection procedures, and the location of containers.
 - Integrate environmental lesson plans and recycling education into the curriculum. Add a North Carolina recycling fact to the school announcements each week, or show the RE3.org or Recycle Guys commercials on the school television.
- **Set overall and individual goals.**
- Convey the goals of the project to all participants and give specific examples of how each person/class/school can help reach these goals. Tally the totals and track progress for all to see. For example, put posters in the hallways with fun facts: "Last month the paper recycled from our school saved four trees."
- **Reward the doers.**
- Let students know that a cleaner environment is a prize they can all enjoy. Other incentives can be given to students and classes who participate, such as field trips to a MRF or a landfill and RE3.org and/or Recycle Guys t-shirts/stickers/posters.

Track and share the results

To the extent possible, keep track of how many pounds or tons of material are collected over time to evaluate the program's performance and to set benchmarks for improvement. (note – this could be included in the goals section above).

School Recycling BMPs

Some communities have established school recycling operations that may provide ideas for new recycling programs or programs looking to make adjustments. Links to a few of these excellent programs are listed below.

Mecklenburg County

<http://www.charmeck.org/Departments/LUESA/Solid+Waste/School+and+Kids+Recycle+Corner/Home.htm>

Winston-Salem

<http://www.cityofws.org/Home/Departments/RecycleToday/Articles/SchoolRecycling>

