

School Waste Reduction and Recycling Case Studies

San Jose, California

Thanks to the initiative of two environmentally concerned students, Gunderson High School in San Jose now has a successful, self-sustaining program for recycling white paper. The program goes along with the school's aluminum and cardboard recycling efforts.

Students Taylor Sublett and Juliane Ritter started by contacting the San Jose Environmental Management Office, which provided them with free recycling bins from the city's curbside recycling program (which collects newspapers, glass, aluminum, steel, and plastic bottles). Taylor and Juliane then enlisted the help of teachers who were willing to place bins in their classrooms and educate their students on what types of paper should go into the bins. When the bins were full, students or teachers' aides were assigned to transfer collected paper to barrels located in the school library.

The recycling program was a success from the start, and the amount of paper exceeded expectations. This volume posed a problem: how to store the paper so that it remained dry and did not pose a fire hazard. After researching the question, Taylor and Juliane decided to buy several 50-gallon, closeable steel drums and to raise money from the PTA, Boosters Club, and other groups.

The profits from the sale of collected paper are enough to cover the costs of delivering the paper to the recycler. Although the profits are small, Taylor says, "More important than money is the satisfaction of knowing that Gunderson High School is now part of the ecological hope for the future."

Source: Reprinted with permission from *How to Set Up a School Recycling Program* by The American Plastics Council, formerly the Council for Solid Waste Solutions, (Washington, DC: 1990).

Corvallis School District, Oregon

Western View Middle School in Oregon's Corvallis School District has introduced several new programs to reduce waste at the school. The school newsletter, which is distributed eight times a year to 700 people, is being reduced from its current 18-page length. Reducing the size of advertisements and giving phone numbers to receive forms instead of placing forms in the newsletter has reduced the newsletter by several pages.

Locker Clean-Out Days occur about four times a year in limited areas at a time. Now, recycling of paper materials is part of this cleanup. Ninety-gallon rolling containers are used to collect magazines, newspapers, and students' papers, which can then be recycled. Students monitor the containers to ensure that materials are separated by type.

Teachers try to reduce paper waste by changing their copying habits. They accomplish this reduction by arranging more on the page, by shortening the lengths of handouts, by reducing the number of handouts, by copying on both sides of the paper, and by not making extra copies.

Because Western View Middle School has a kitchen that prepares the food for all 16 schools in the district, a vermicomposting program was started in 1996. This program was initiated by students who learned about worm composting and visited some other schools in Oregon with working worm farms. The kitchen staff collects fresh fruit and vegetable scraps in rolling bins, and students weigh and add the scraps to the worm composting bins during their student leadership class.

Source: Department of Environmental Quality, Oregon Resource Efficiency Program: Western View Middle School District 509J (Portland, OR: DEQ, 1996).

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Portland, Oregon

Tualatin High School in Portland, Oregon, has a variety of methods to reduce the amount of waste in the school. Each year approximately 30,000 garbage bags are purchased at Tualatin High School. Although the custodial staff believes wastebasket liners are necessary, they are willing to change some of their practices. Now, only soiled liners are changed each night. In the cafeteria, only those garbage cans that are more than half full are emptied between the lunch periods each day.

Even the cafeteria staff is trying to reduce waste. Since there is no staff or setup for washing trays and silverware, all food is served on disposable items. However, the cafeteria is using less wasteful serving packages such as wax tissue pickups instead of small paper food trays. These pickups are used for a la carte items such as individual slices of pizza. Because the pickups use less paper and cost less, there is a reduction in waste and a cost savings.

Additionally, the school is trying a new product—a washable, reusable, 16-inch pizza box. These “Boomerang Boxes” are used to deliver the five or six pizzas ordered each day at the school. The boxes are then rinsed and sent back to the pizzeria, where they are washed in the dishwasher. This pizza box could prevent 900 cardboard pizza boxes, which cannot be recycled because of food residue, from becoming additional waste.

To reduce the amount of paper waste, the journalism class has monitored the number of school newspapers printed and the number not read. Finding that just over 300 papers were not taken, students reduced the amount of newspapers printed by 300. Since the newspaper is printed seven times a year, this

reduction means 2,100 newspapers are no longer wasted. The reduction in printing costs is also significant (\$1,260) because each copy of the newspaper costs 60¢ to print.

Source: Harding Lawson Associates, A Model Waste Prevention Program: Tualatin High School (Portland, OR: Harding Lawson Associates, 1994).

Claryville, New York

“Take what you want, but eat what you take.” This is a familiar dining hall saying at Frost Valley YMCA Environmental Education Center. The saying is the foundation for good, solid waste management within the center, and it serves as an introduction to the resource recovery process that all students participate in during their stay.

Students are encouraged to eat all the food they take, but what is left is carefully separated into liquid and paper waste. The food is weighed and the results are announced so everyone can see how well the group is doing at reducing waste at the source. The food material is then transported to the Resource Management Center, where it is mixed with wood chips and tree trimmings. The mixture of food waste and wood waste sits in a pile for 12-14 weeks while microbes do their work to convert carbon to carbon dioxide, water, and humus. The pile is aerated at regular intervals to speed decomposition.

After the initial composting is complete, the compost is screened to remove oversized particles, which are returned to the composting area for an additional 4-6 weeks. The end-product goes to the greenhouse, where yesterday’s leftover food is helping to grow tomorrow’s vegetable crops.

Source: Claudia E. Swain, *Revise, Recycle, and Recover: Realizing Our Resources* (Claryville, NY: Frost Valley YMCA, 1991).