

**Case Study**  
**Eldred School District**  
**School-wide Recycling Program and Waste Reduction**  
**September 2011**

The Eldred School District, located in New York State, is committed to diverting its waste and complying with the Sullivan County mandatory recycling ordinance. The School District has implemented a paper use reduction campaign with the goal of reducing paper usage by 30%.

**Background**

The Northeast Recycling Council, Inc. (NERC) was awarded a United States Department of Agriculture Rural Utility Services Solid Waste Management Grant in 2009 to provide direct technical assistance and training in waste reduction, recycling, and composting to rural schools in Connecticut, New York, and Delaware. Eight schools participated in NERC's Waste Reduction and Recycling (WR&R) project over the course of two years.



The Eldred School District in New York State has an active recycling program. The School District participated in NERC's WR&R project primarily to help bring greater efficiency to its recycling program, improve paper recycling at the District's Mackenzie Elementary School and add beverage container recycling there, and to learn about paper use reduction and potential cafeteria waste reduction options. NERC provided resources on recycling bid specifications, compost options, paper use reduction in schools, and cafeteria waste reduction options. NERC worked with school representatives and the Sullivan County Recycling Coordinator to formulate a WR&R Work Plan, outlining goals and activities to be undertaken through its participation in NERC's project. See Attachment A for the Work Plan.

**Facts at a Glance**

- Mackenzie Elementary School students collect about 180 pounds of recycled paper a week or approximately 7,200 pounds of paper during the school year.
- The School District privatized its solid waste and recycling hauling services.
- The School District implemented a District-wide paper use reduction campaign.

## **Eldred School District Overview**

The Eldred School District serves the town of Highland in Sullivan County, New York. Highland is located just north of the Delaware River in the southwest part of the County. The town is comprised of five hamlets: Barryville; Eldred; Highland Lake; Minisink Ford; and Yulan. The population of Highland is just over 2,400. The School District has approximately 700 students in grades K-12.

Eldred School District is committed to diverting its waste and complying with the Sullivan County mandatory recycling ordinance. At the start of NERC's project, Eldred Junior/Senior High School had a successful school recycling program, collecting: paper and cardboard; beverage containers; toner cartridges; cell phones; and batteries. Mackenzie Elementary School collected paper for recycling. School custodial staff self-hauled all recyclables from the Middle School/High School and the Elementary School to a County transfer station.

## **Nuts and Bolts**

### *Recycling Program*

The School District Superintendent wanted to explore the cost effectiveness of using a private contractor to haul waste and recyclables. NERC provided sample bid language for waste and recycling to the Superintendent. In the spring of 2010, a one-year hauling contract was awarded to a local provider, Thompson Sanitation, to haul garbage and recyclables. Previously, School District custodial staff were responsible for hauling of waste and recycling.

In the Eldred Junior/Senior High School, the science class is responsible for maintaining the school's paper and beverage container recycling program. Each week the science class instructor works with 20 students to collect material. During the 2009 - 2010 school year, the school purchased dual recycling/waste receptacles for the hallways, as well as several for outdoor use. This has served to provide more opportunities for beverage container recycling around the campus and to make the recycling program more integral to the campus.



The fifth graders in Eldred's Mackenzie Elementary School were originally responsible for the school's recycling program. The students collected the paper in bags and transported it to a central location for the custodians to move out to collection containers. Through its participation in NERC's WR&R project, the school purchased plastic green paper recycling bins for each classroom (replacing cardboard boxes).

Additionally, with the urging of the school's custodial staff, the Parent Teacher Association (PTA) purchased blue plastic bins for each classroom for beverage container recycling. They also purchased large blue plastic bins for each wing of the school and the cafeteria for collection of beverage containers.

In the 2010 - 2011 school year, the custodians became integral to the Elementary School's recycling program. They now collect the recyclables from each classroom every Wednesday morning, freeing up the students and the teachers to better focus on class work. Additionally, this serves to institutionalize the program and make it more sustainable in the long term. The custodial staff collect the beverage containers in return for being allowed to keep the redemption money.

### *Waste Reduction*

The Eldred School District Superintendent also wanted to focus on waste reduction in District-wide paper usage and in kitchen preparation wastes and disposables (food and service ware/napkins/packaging). The District had already made some strides in paper reduction through the use of more email notification to parents and a gradual shift to more electronic transmission by teachers, staff, and students. However, the Superintendent stated that the District could realize significant cost savings in paper purchasing and copier maintenance machines through additional reductions in paper use. He set a goal of 30% paper use reduction for the 2011 - 2012 school year.

NERC provided an informational sheet on paper usage reduction in schools. The School Superintendent forwarded the information to all staff at the beginning of the 2011 - 2012 school year. NERC also provided information on successful school cafeteria waste reduction options that have been implemented at other school districts. Both of these documents were posted on [NERC's Website](#).

### **Project Results**

The Eldred School District Superintendent left at the end of the 2009 - 2010 school year. In April 2011, a meeting was held with the new Superintendent, the principal from each of the schools, a PTA representative, the Sullivan County Recycling Coordinator, NERC staff, and others. At this meeting, the new Superintendent noted that it was really the first opportunity that he had had to review the District's solid waste management system.

Crucial to the meeting was a discussion of information to include in a new solid waste and recycling bid package. With the one-year solid waste and recycling contract coming to an end, the School District was looking to again put out a bid package for its solid waste and recycling services. The privatization effort had proved successful and freed up custodial staff to concentrate on other duties. NERC staff and

*By recycling nearly 4 tons of paper during the school year, Mackenzie Elementary reduced carbon dioxide emissions (a greenhouse gas) by about 4 metric tons and saved enough energy to power the average American home for 2 years.*

the Sullivan County Recycling Coordinator suggested that the District, through the bid process and final written contract, ensure that:

- The destination of the collected recyclable materials is identified;
- Tonnage is reported on all recyclables and waste collected on a monthly basis;
- A record of the number of hauls per month (both garbage and recyclables) is provided; and
- The containers to be provided by the hauler are clearly identified.

NERC staff later provided the Superintendent with sample bid language.

The new Superintendent also wanted the District to focus on waste reduction. This would not only result in less trash but significantly reduce purchasing costs with minimal cost outlays to implement the program. The Superintendent noted that the District could save money in paper purchasing and copier maintenance through paper use reduction. He stated that the school had already achieved some reductions in the amount of paper purchased. This was achieved through expanded use of email notifications to parents and a gradual shift to more electronic transmission by teachers, staff, and students. However, he feels with a little work the District can do even better. He would like to see a goal of an additional 30% paper use reduction. He would track this through the District's paper purchases.

The Superintendent was also interested in finding ways that the cafeteria can reduce waste in both its food production and disposables. The Sullivan County Recycling Coordinator was asked to attend a meeting with cafeteria staff to discuss options. NERC staff provided ideas on cafeteria waste reduction that have been implemented at other school districts.

### **Challenges and Solutions**

Challenge: Expanding the Elementary School recycling efforts to include beverage containers.

Solution: Integration of the recycling program into custodial duties, instead of having students responsible for the collection.

Challenge: Reducing paper consumption at the District level.

Solution: Setting a goal for District-wide paper use reduction and adopting a paper use reduction policy for the District.

Challenge: District focus on waste and recycling with the change in Superintendents, budget limitations, and limited teacher involvement.

Solution: Privatization of hauling services to allow for greater efficiencies in the solid waste management systems and removing it from the District's duties. Focus on waste reduction as a means to save money and create a more "sellable" waste reduction opportunity.

### Tips for Success

- Dedicated instructors willing to excite student interest in recycling and spend time on the recycling efforts.
- Involvement of custodians in the collection of recyclables at the elementary school.
- Support and involvement by the County Recycling Coordinator.
- District Superintendent support of waste reduction initiatives.

### Contact Information

Information on Eldred School District can be found on its Website at <http://ecs.schoolwires.com/ecs>.



This material is based upon work supported under a grant by the Utilities Programs, United States Department of Agriculture. Any opinions, findings, and conclusions or recommendations expressed in this material are solely the responsibility of the authors and do not necessarily represent the official view of the Utilities Programs.

## Attachment A

### **Eldred School District Junior/Senior High School Waste Reduction, Reuse, and Recycling Work Plan**

Eldred Junior/Senior High School currently has a successful school recycling program, collecting: paper and cardboard; beverage containers; toner cartridges; cell phones; and batteries. School custodial staff self-hauls all recyclables from the Middle School/High School and the Elementary School to the Highland Transfer Station in Sullivan County.

The main issue with the school is to examine the cost effectiveness of continuing to self-haul the recyclables. The School District would like to put together a request for proposal (RFP) to solicit bids for garbage and recycling services. The Sullivan County Division of Public Works has closed its sanitary landfill and oversees a privately-operated export transfer station hub in Monticello, New York. Closure of the landfill and privatizing collection services at its central transfer station may provide an opportunity for the School District to examine additional options.

The paper recycling program at the Mackenzie Elementary School is in place; however, participation could be improved. Additionally, the school does not currently collect beverage containers. Interest was expressed in participating greater outreach for the school's recycling efforts and expanding the program to include beverage container recycling.

#### **Goals, Strategies, Tasks**

Goal One: Determine the most cost-effective means of moving solid waste and recyclables from the School District:

Strategy: Using the results from the school waste assessment and waste audit, pull together information to compile a Request for Proposals to potentially privatize recycling collection services for the School District.

#### Tasks:

1. Complete waste assessment for background information to include in Request for Proposals.
2. NERC staff will examine the waste assessment and waste audit results and compile a report for the School District to look at pros and cons of continuing to self-haul wastes vs. privatizing collection.
3. NERC staff will compile preliminary information and research for RFP.
4. School Advisory Committee will develop and issue an RFP to include both garbage collection and recycling.

Goal Two: Review and implement measures for waste reduction of paper and kitchen preparation wastes and disposables (food and service ware/napkins/packaging).

Strategy: Distribute paper use reduction tips to all staff, to include a greater use of electronic media and double-sided printing and copying.

Tasks:

1. The District Superintendent set a goal of 30% paper use reduction to be tracked through the District's paper purchases. The Superintendent would also review ways that the cafeteria could potentially reduce waste in both its food production and disposables.
2. NERC staff will research paper use reduction strategies successfully implemented in other schools and provide the District Superintendent with a paper use reduction campaign information sheet, sample training memo, and sample signage for posting near copiers and printers. NERC staff will also provide information on successful school cafeteria waste reduction measures.
3. The School Superintendent will distribute the paper use reduction tips and provide incentives for staff participation in reaching the goal.

Timeline: August – September 2011.

Measures of Success:

1. Tracking of paper purchasing in order to measure paper use.
2. Paper use reduction goal achieved.

**George Ross Mackenzie Elementary School  
Waste Reduction, Reuse, and Recycling Work Plan**

Goal One: Increase participation in the school's paper recycling program.

Strategy: Develop and maintain an outreach and ongoing educational program for paper recycling program in the school that involves all students and staff and that is sustainable in the long-term.

Tasks:

1. NERC staff to send presentation tips, as well as signage and education samples.
2. School Recycling Advisory Committee members will develop a presentation for the recycling program.
3. Committee members will make the presentation to students.
4. Committee members will post "acceptable and not acceptable" signage on all classroom and office paper recycling bins.
5. Committee members will make posters and display throughout the school. Conduct outreach and events to foster an awareness of the importance of recycling at the school.
6. Committee members will ensure that all classrooms have paper collection bins.
7. Committee members will display and announce recycling and environmental benefits data.
8. NERC staff is available for additional educational and promotion as needed.

Timeline: February - April 2010

Measures of Success:

1. Increased paper tonnages, as measured by reports from hauler and recorded on end-of-school waste assessment
2. Walk through waste assessment of paper in school garbage.
3. Ongoing promotional and outreach effort.
4. Recycling bins purchased and placed in all classrooms.

Goal Two: Expand recycling at the school by adding beverage container recycling.

Strategy: Purchase beverage container recycling bins for the school and conduct a school-wide education and promotional campaign about the beverage container recycling project.

Tasks:

1. Committee members will discuss the expansion of the school's beverage container recycling.
2. Addition of collection container in the cafeteria and in hallways.
3. Committee members will develop outreach and promotional materials for the recycling project.
4. Committee members will record tonnages recycled and evaluation and recommendations for program continuation.

Timeline: March - May 2011.

Measures of Success:

1. Placement of beverage container recycling bins and development of collection plan.
2. Amount of materials collected through the recycling project, as measured by actual weights of materials or recorded volumes of materials.
3. Troubleshooting comments and concerns expressed about collection—documented reporting of any problems, issues, solutions, and recommendations for continuing the collection next school year.