

# SNOHOMISH COUNTY ELEMENTARY SCHOOL WASTE REDUCTION AND RECYCLING PROGRAM

*School-wide Assembly, Classroom Workshops, and Technical Assistance and Action Projects*  
**Evaluation Report 2013 – Executive Summary**



*Submitted to Waste Management on December 10, 2013*  
*Prepared by Triangle Associates, Inc.*

## Program Background and Overview

In 2013, Waste Management continued working with Triangle Associates, Inc. to offer a waste reduction and recycling program for elementary schools within the Waste Management service areas of Snohomish County. The intent of the program is to educate students and their families on why and how to reduce waste, increase recycling and composting, as well as support schools interested in setting up or improving their recycling infrastructure. The program consists of three key components: An all-school assembly show (targeted at grades K-6); individual classroom workshops (grades 2-6); and technical and project assistance to an entire school (all students/staff). All components of the program are evaluated for both effectiveness and to gain teacher feedback. Key messages, scripts and materials for program components were developed with consultation and oversight by Waste Management and Snohomish County.



While the three core components of the program were established in the 2012 pilot, each was enhanced and expanded upon for 2013. Based on recommendations, the Triangle team added the following to the 2013 program components:

- **Assembly:** Created an assembly discussion guide that provides key vocabulary and facts, discussion questions, online resources, and age-appropriate activities for teachers to use with their classes both before and following the assembly. Revised assembly script to further encourage students to take new information home to families.
- **Workshops:** Created a 4R Booklet for students with activities, coloring pages, and ideas for how to reduce waste and recycle. Also, revised the “Home Survey” take-home assignment to connect more with families and understand recycling questions and concerns from the community.
- **Technical Assistance and Action Projects:** Developed a Green Team support program component, to support individual classrooms and student groups with projects that serve to educate their school community on recycling and waste reduction. Created a leave-behind document that provides simple guidelines and resources for structuring a school’s recycling program. The document walks staff through steps needed to ensure a successful school-wide recycling program, and includes sample PA announcements, classroom curriculum connections, and related online recycling resources.

The following table provides an overview of the program components and numbers served in the Waste Reduction and Recycling Program in 2013.

2013 Program Activities					
Program Component	Activity	# of Schools	# of Districts	# of Programs	# of Students /Teachers
Assembly	School-wide assembly teaches the four Rs, and the importance of keeping waste out of the landfill.	27	13	36	9,118
Classroom Workshops	Classroom workshops expand on concepts introduced in the assembly.	40	14	205 <sup>1</sup>	5,678
Technical Assistance	Technical assistance helps schools implement or improve waste reduction and recycling programs.	18	7 public, 1 private	27 visits	9,021 <sup>2</sup>
Green Teams	Green Teams support student groups with projects to increase school-wide recycling.	6			
Total Contacts <sup>3</sup>					23,817

1. This number reflects workshops scheduled to date. Additional workshops are still being scheduled

2. This total is based on the number of students and teachers at each school

3. This number reflects the total number of student and teacher contacts, understanding that students may have participated in multiple program components.



## Assembly Program

The live assembly show resonates with both students and staff, and ignites school-wide interest in recycling and waste reduction by taking everyone on a fun and interactive adventure to learn:

- The importance of recycling and reducing waste.
- What can and can't be recycled.
- Simple everyday actions to cut down on garbage.



In the second year of the program, the assembly continued to receive rave reviews and high evaluation marks. Students and teachers alike clearly leave the assembly with a better understanding of what happens to their garbage, the importance of reducing waste, and how to properly recycle. They walk away able to identify specific actions to take. Students receive a pre and post questionnaire, to measure assembly message effectiveness. Analysis of those results will be provided in the complete draft of the evaluation report. Teachers are asked to complete an evaluation form and share any feedback. The following teacher comments exemplify the assembly's value:

- *Maybe the best assembly ever!!! Funny! Smart! Great performances by the two superstars! Costumes- sets - Justin Bieber sightings! ☺ Wonderful info - wonderfully presented!*
- *Wow! Actors were excellent keeping a whole schools attention for 45 minutes. A clever, fun way to teach this important info.*
- *Clear messages delivered repeatedly in many comical ways creates ultimate learning opportunities! Including volunteers adds to engagement and buy-in. This is a top-notch teaching performance!*
- *A wonderful program. As I watched the students it was obvious how much they were taking in.*
- *Excellent, every student was engaged and are now more aware of the four R's.*
- *Oh, wow! What a fun, motivational, and inspirational presentation! I wish we had started this 10 years ago! Thank you SO MUCH!*



## Classroom Workshops

Classroom workshops provide students with a deeper understanding of the importance of reducing waste and how this connects to a sustainable environment. The Waste Management workshops use hands-on activities combined with small and large group games to make learning fun and reinforce key program messages. Three different waste reduction and recycling workshops target different grade levels with appropriate curriculum tie-ins:

- Recycling 101 (grades 2-5)
- Habitat Connections (grades 2-3)
- Landfill Laboratory (grades 4-6)

Workshops were developed to align with Grade Level Expectations (GLEs) and presenters challenge students to use critical thinking skills and explore the impacts of their choices, thus encouraging behavior change. After each workshop, the teacher receives a list of student activity ideas and each student receives a take-home survey. Teachers also fill out a post-workshop evaluation form. Teachers continue to find the workshops highly engaging, educational and important in enhancing their students' understanding of waste reduction and recycling. Representative comments from the post-workshop evaluation form include:

- *The kids really had a great time and we all learned a lot. What more could you ask for? We are very appreciative and grateful to everyone there who made it happen for our school.*
- *I thought the enthusiasm, pacing, classroom management and "props" were fantastic!*
- *Very hands on and eye opening for students.*
- *The presenter was very engaging and dramatic and both the students and I were engaged! I would love to have her come back to my class every year!! She was so enthusiastic and had great visuals!*

## Technical Assistance

Building on the assembly or classroom workshops, a technical assistance representative works with a school's core team to set up a comprehensive recycling program for the school. The school's core team usually consists of the custodian, principal, one or more teachers and/or a small student group. The technical assistance team may also work with schools that have not yet had assemblies and workshops but that have expressed interest in enhancing their recycling programs.

Triangle's technical assistance team conducts waste audits and provides bins and signs to help increase recycling throughout the entire school. Recycling representatives also help schools with data tracking, including establishing a "pre" and "post" recycling rate, with the initial rate calculated prior to any assistance and the subsequent rate(s) calculated a few months after the recycling program was enhanced, (e.g. after bins were provided and education efforts were implemented). Each school for which a "post" rate was calculated experienced an increase in recycling. These rate and increases will be provided in the complete evaluation report. The technical assistance team also assisted schools with monitoring their overall recycling changes and altering collection if needed.

Staff and students alike have expressed appreciation for Waste Management's free technical assistance program. Everyone is excited to receive new bins for their school and help with figuring out how to place them, how to educate the entire school body, how to collect waste in an efficient manner, and who to call if there are questions or other recycling needs. Comments from two different principals are representative of the feedback that the technical assistance team has received:

- *I am amazed by how helpful Waste Management has been to our needs.*
- *We truly appreciate all the hard work you're doing to help us with our recycle program. What an exciting and worthwhile project for our students to experience. Thank you.*



## Action Projects

In addition to helping create strong infrastructure for recycling practices, the Triangle technical assistance team also works with interested teachers to lead student-based Action Projects to help recycling become second nature for students and to encourage student groups to educate the rest of the school on proper recycling practices.

In 2013, a new "Action Project Support" portion of the technical assistance program component provided recycling education experts to help student groups work on projects for their school or community. Projects range from waste sorts to recycling events to creating PA announcements and waste-free lunch campaigns.

Student teams were given Green Team aprons, which were used by the new lunchroom monitors to help educate fellow students as they discard their lunchtime waste. Teams were also given water bottle prizes.

## Evaluation

In 2013, Triangle continued to implement multiple measures to evaluate the effectiveness of the program in meeting Snohomish County's goal of educating elementary school students on reducing, reusing, and recycling their waste:

- **Assembly:** Student pre and post-tests and teacher evaluation form
- **Workshops:** Teacher evaluation form
- **Technical Assistance and Action Projects:** Informal capture of qualitative comments in 2013 and drafting of an evaluation form for 2014.

The data from these evaluation instruments will be analyzed and presented once the full evaluation has been completed. At that time, Triangle will also provide recommendations for the 2014 program.