Appendix E: Tracking

Program monitoring and evaluation are crucial elements of any waste reduction program. It is important to establish a consistent set of metrics and procedures for collecting waste reduction data because it will help you gauge the effectiveness of your activities by estimating:

- Quantity and composition of waste generated
- Avoided waste removal costs
- Avoided purchasing costs
- Waste prevention and recycling revenues
- Greenhouse gas emission reductions

Compare your results to baseline data or results from a previous year to evaluate your program. Keep in mind that cost savings, revenues, and greenhouse gas emissions are not the only indicators of your program's success. Be sure to consider the intangible benefits of waste reduction, such as improved image and staff/student morale, when ascertaining the success of your program.

You will find tools that have been created for both schools and school districts to facilitate tracking on the following pages. Review the information and select the tracking form that best applies to your school.

From: WasteWise "Monitoring and Evaluating"

1. **Monitor and Evaluate**
   Monitoring and evaluating your waste reduction program provides you with an overall report card of your school's waste reduction program performance. Tracking information gathered during the evaluation will tell you what is working in your waste reduction program and how the program could be improved and expanded.

2. **Calculate Results and Determine Cost Savings**
   Record the results of the annual assessment on a tracking sheet *(on page xx)*. The tracking sheets will walk you through the process of calculating the amount of material diverted from the waste stream, providing you with waste reduction results. Using the tracking sheets, compare the baseline figures to the annual data to convert waste reduction results into a cost savings analysis of your waste reduction program.

   * Note – For the most accurate results, you will need to obtain the weight of the amount of waste hauled annually.

3. **Determine Environmental Benefits**
   Waste reduction benefits the environment by reducing the amount of materials put into the waste stream. Waste reduction can also be translated into quantifiable environmental benefits. Using the values and calculations on your school's tracking sheet, compare your waste reduction numbers to the facts in Appendix M: Factoids. For example, if your school recycled three tons of paper this year, you prevented 51 mature trees from being used for paper. You can also refer to the EPA's WAste Reduction Model (WARM) Calculator at <www.epa.gov/globalwarming/actions/waste/w-online.htm> to convert waste reduction values into greenhouse gas emission reductions and energy savings.

WASTE TRACKING SHEET
SCHOOL DISTRICT

ANNUAL WASTE & RECYCLING DATA							
	A	**B**	**C**	**D**	**E**	**F**	**G**
SCHOOL	**Weight of Waste Disposed**	**Weight of Waste Disposed Last Year**	**Change in Waste Disposed** ***(A – B)***	**Weight of Material Recycled**	**Weight of Material Recycled Last Year**	**Change in Amount Recycled** ***(D – E)***	**Recycling Rate** ***(D ÷ A)***
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	%
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	%
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	%
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	%
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	%
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	%
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	%
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	%
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	%
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	%
TOTAL	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	
AVERAGE	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.	%

WASTE TRACKING SHEET - COSTS
SCHOOL DISTRICT

ANNUAL WASTE & RECYCLING COSTS

SCHOOL	**A**	**B**	**C**	**D**	**E**
	Waste Disposal Cost Before Recycling Program	**Last Year's Waste Disposal Cost**	**Total Annual Waste Disposal Cost**	**Last Year's Recycling Cost**	**Total Annual Recycling Cost**
	$	$	$	$	$
	$	$	$	$	$
	$	$	$	$	$
	$	$	$	$	$
	$	$	$	$	$
	$	$	$	$	$
	$	$	$	$	$
	$	$	$	$	$
	$	$	$	$	$
TOTAL	$	$	$	$	$
AVERAGE	$	$	$	$	$

AVOIDED DISPOSAL COSTS

SCHOOL	**F**	**G**	**H**	**I**	**J**
	Annual Weight of Waste Disposed	**Cost of Waste Disposal per Pound** ***(C÷F)***	**Annual Weight of Materials Recycled**	**Savings From Diverted Waste** ***(G x H)***	**Total Avoided Waste Disposal Costs** ***(I – E)***
	lbs.	$	lbs.	$	$
	lbs.	$	lbs.	$	$
	lbs.	$	lbs.	$	$
	lbs.	$	lbs.	$	$
	lbs.	$	lbs.	$	$
	lbs.	$	lbs.	$	$
	lbs.	$	lbs.	$	$
	lbs.	$	lbs.	$	$
	lbs.	$	lbs.	$	$
TOTAL	lbs.	$	lbs.	$	$
AVERAGE	lbs.	$	lbs.	$	$

WASTE TRACKING SHEET
SCHOOLS

School: _____ Date:_____

WASTE DATA		
A	Weight of Waste Disposed Annually	*lbs.*
B	Weight of Waste Disposed Annually Before Recycling Program	*lbs.*
	Change in Waste Disposed Annually (A – B)	**+ / - *lbs.***

RECYCLING DATA			
Material	**C**	**D**	**E**
	Weight of Material Recycled Annually	**Weight of Material Recycled Last Year**	**Change in Amount Recycled Annually *(C –D)***
	lbs.	*lbs.*	+ / - *lbs.*
	lbs.	*lbs.*	+ / - *lbs.*
	lbs.	*lbs.*	+ / - *lbs.*
	lbs.	*lbs.*	+ / - *lbs.*
	lbs.	*lbs.*	+ / - *lbs.*
	lbs.	*lbs.*	+ / - *lbs.*
	lbs.	*lbs.*	+ / - *lbs.*
	lbs.	*lbs.*	+ / - *lbs.*
	lbs.	*lbs.*	+ / - *lbs.*
	lbs.	*Lbs.*	+ / - *lbs.*
	lbs.	*lbs.*	+ / - *lbs.*
TOTAL	*lbs.*	*lbs.*	+ / - *lbs.*

SUMMARY		
F	Weight of Waste Disposed Annually	*lbs.*
G	Weight of Materials Recycled Annually	*lbs.*
	Total Weight of Waste (F + G)	***lbs.***

WASTE AND RECYCLING DISPOSAL COSTS
SCHOOLS

	WASTE DISPOSAL COSTS	
	Annual Cost Before Recycling Program	$
	Last Year's Cost	$
A	Annual Cost of Disposal (to Contractor) *if applicable*	$
B	Tipping Fee *if applicable*	$
C	Dumpster Rental *if applicable*	$
D	Internal Labor Cost (i.e. Custodial) *if applicable*	$
E	Other *if applicable*	$
	TOTAL *(A through E)*	**$**

	RECYCLING COSTS	
	Last Year's Cost	$
A	Annual Cost of Disposal (to Contractor) *if applicable*	$
B	Tipping Fee *if applicable*	$
C	Rental Costs *if applicable*	$
D	Internal Labor Cost (i.e. Custodial) *if applicable*	$
E	Other *if applicable*	$
	TOTAL *(A through E)*	**$**

	AVOIDED DISPOSAL COSTS		
A	Annual Cost of Waste Disposal	$	
B	Annual Weight of Waste Disposed		lbs.
C	Disposal Cost per Pound *(A ÷ B)*	$	/lb.
D	Annual Weight of Materials Recycled		lbs.
E	Waste Disposal Cost Savings *(C × D)*	$	
F	Annual Cost of Recycling Disposal	$	
	TOTAL Avoided Disposal Costs *(E − F)*	**$**	