



UNIVERSITY *of* NEW HAMPSHIRE

Solid Waste and Environmental Management Planning (SWEMP)

The UNH Solid Waste and Environmental Management Planning (SWEMP) Team has evaluated the various solid waste streams at the Durham campus. The SWEMP Team has chosen to develop an Environmental Management Plan (EMP) for four waste streams. The chosen waste streams include:

1. Radioactive Waste
2. Infectious Waste
3. Chemical Waste
4. Agricultural Waste

The goal of the EMP is to have a 10% reduction in each of these waste streams by the year 2008. The criteria for choosing these four waste streams are shown in [Table 1](#). (A graph depicting the data in [Table 1](#) is shown in [Figure 1](#).) The current and projected volume for each of these waste streams is shown in [Table 3](#).

In addition, the SWEMP Team has decided to develop a written program for waste reduction and recycling for the remaining solid waste streams:

1. Universal Waste
2. Storm Water Waste
3. Electronic Waste
4. Construction Waste
5. Abandoned Property Waste
6. Plastic Waste
7. Paper Waste
8. Food Waste
9. Yard Waste

For more information about Solid Waste and Environmental Planning at UNH, please contact the Office of Environmental Health and Safety at 862-4041 or visit the SWEMP website at:

<http://www.unh.edu/ehs/SWEMP/>

Table 1. Significance Ranking Criteria.

	Current Financial Cost	Potential for Fine/Penalty if Mismanaged	Potential for Harm to the Environmental	Potential for Harm to Public Image	Recycling/Reduction Program in Place	Regulated	Toxicity/Infectivity to Humans	Volume	Feasibility	Potential for Money Saving	TOTALS
Yard Waste	2	1	1	1	1	1	1	2	3	1	14
Food Waste	2	1	2	2	1	1	1	3	3	1	17
Paper	3	1	2	1	1	1	1	4	2	1	17
Plastic	3	1	2	1	1	1	2	3	2	1	17
Abandoned Property Waste	2	1	2	1	3	1	1	3	4	1	19
Construction Waste	3	1	3	2	3	3	2	4	2	2	25
Electronic Waste	4	2	2	2	1	5	1	4	3	2	26
Storm Water Waste	2	4	3	2	1	5	2	3	2	3	27
Universal Waste	3	3	4	1	1	5	1	5	3	4	30
Agricultural Waste	4	2	4	3	3	1	4	5	3	3	32
Chemical Waste	4	5	3	4	1	5	4	2	2	4	34
Infectious Waste	3	2	3	5	3	5	4	3	3	5	36
Radioactive Waste	3	5	5	5	1	5	4	2	3	5	38

KEY/RATING SCALE

Current Financial Cost

- 1 = None
- 2 = Slight
- 3 = Moderate
- 4 = High
- 5 = Extreme

Potential for Fine/Penalty if Mismanaged

- 1 = None
- 2 = Slight
- 3 = Moderate
- 4 = High
- 5 = Extreme

Potential for Harm to Environment

- 1 = None
- 2 = Slight
- 3 = Moderate
- 4 = High
- 5 = Extreme

Potential for Harm to Public Image

- 1 = None
- 2 = Slight
- 3 = Moderate
- 4 = High
- 5 = Extreme

Recycling/Reduction Program in Place

- 1 = Yes (Program in place)
- 3 = Program in development
- 5 = No (No program in place)

Regulated

- 5 = Yes
- 3 = Somewhat regulated
- 1 = No

Toxicity/Infectivity to Humans

- 1 = None
- 2 = Slight
- 3 = Moderate
- 4 = High
- 5 = Extreme

Volume

- 1 = None
- 2 = Slight
- 3 = Moderate
- 4 = High
- 5 = Extreme

Feasibility

- 1 = Not feasible
- 2 = Might be feasible
- 3 = Somewhat feasible
- 4 = Most likely feasible
- 5 = Feasible

Potential for Saving Money

- 1 = None
- 2 = Slight
- 3 = Moderate
- 4 = High
- 5 = Extreme

**Table 2. Ranking by Percent of Total.
(Solid Waste Stream Matrix)**

SOLID WASTE STREAM	PERCENT
Yard Waste	4.22
Food Waste	5.12
Paper	5.12
Plastic	5.12
Abandoned Property Waste	5.72
Construction Waste	7.53
Electronic Waste	7.83
Storm Water Waste	8.13
Universal Waste	9.04
Agricultural Waste	9.64
Chemical Waste	10.24
Infectious Waste	10.84
Radioactive Waste	11.45
TOTAL	100 %

Table 3. Current and Projected Volumes.

Type of Waste	Rank	Average Volume per Fiscal Year 2002-2003	Current Volume Fiscal Year 2004	Projected Volume Fiscal Year 2008
Radioactive Waste	1	247.5 gallons LSVW ^① 18.4 ft ³ gallons DAW ^①	220 gallons LSVW ^② 51.5 ft ³ DAW ^②	198 gallons LSVW 347 gallons DAW
Infectious Waste	2	3,827 ft ³	4,104 ft ³ ^③	3908 ft ³
Chemical Waste	3	28,951 lbs	31,509 lbs	27,641 lbs
Agricultural Waste	4	No data available. ^④	No data available. ^④	N/A
Universal Waste	5	Fluorescent lamps: 27,915 feet Other lamps: 3012 each Batteries: 1,790 lbs Ballasts: 1,000 lbs	Fluorescent lamps: 44,132 feet Other lamps: 6,259 each Batteries: 7,985 lbs Ballasts: 0 lbs	N/A
Storm Water Waste	6	No data available. ^④	~ 600 tons sand ~ 805 tons salt	N/A
Electronic Waste	7	66,399 lbs	50, 689 lbs	N/A
Construction Waste	8	No data available. ^④	No data available. ^④	N/A
Abandoned Property Waste	9	No data available. ^④	No data available. ^④	N/A
Plastic Waste	10	No data available. ^④	No data available. ^④	N/A
Paper Waste	11	No data available. ^④	No data available. ^④	N/A
Food Waste	12	No data available. ^④	~180,000 lbs ^⑤	N/A
Yard Waste	13	No data available. ^④	No data available. ^④	N/A

① Radioactive waste is collected in 55 gallon drums. An average of 4.5 drums of Liquid Scintillation Vial Waste (LSVW) and an average of 2.5 drums of Dry Active Waste (DAW) was collected and disposed as long-lived isotope waste in 2002-2003.

② Radioactive waste is collected in 55 gallon drums. Four drums of Liquid Scintillation Vial Waste (LSVW) and 7 drums of Dry Active Waste (DAW) were collected and disposed as long-lived isotope waste in 2004.

③ Infectious waste is collected in infectious waste containers (boxes) that can hold 55 lbs or 4.5 ft³. 912 boxes were collected and disposed in 2004.

④ Solid waste usage and disposal has not been measured.

⑤ Approximately 15,000 pounds of food waste is collected from the UNH dining halls each month.

**Figure 1. Assessment of the UNH Solid Waste Streams - Significance Ranking
(Aspects & Impacts)**

