

## TABLES AND WORKSHEETS

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COMMERCIAL WASTE COMPOSITION BY SUB SECTOR

SUB-SECTOR NUMBER	1	2	3	4	5	6	7	8	9	10
WASTE COMPONENTS	SINGLE OFFICE BUILDINGS	MULTI-TENANT OFFICES	WHOLESALE	GENERAL RETAIL	RESTAURANTS	FAST FOOD	APPAREL MANUFACTURE	PRINTING/PUBLISHING	FOOD STORES	HOTELS
<b>PAPER</b>										
Corrugated Kraft	11.8	6.7	29.0	45.9	20.0	15.9	11.3		36.1	12.2
Newsprint	10.8	11.1	1.7	9.9	1.9	1.9	0.6	13.5	10.0	7.5
Office/Computer	18.6	27.0	1.3	0.8	0.2	<0.1	0.3	65.0	<0.1	2.8
Magazine/glossy	2.1	2.6	0.4	0.6	0.5	0.7	0.1		0.7	4.2
Mixed	43.2	33.9	14.8	10.8	8.7	24.5	11.0	12.7	9.8	24.9
SUBTOTAL	86.4	82.3	47.3	68.0	31.3	43.0	23.3	91.2	56.6	51.6
<b>PLASTICS</b>										
Films and Bags	3.1	2.8	4.8	4.7	4.8	5.4	6.4		2.8	3.3
Rigid Containers	0.3	0.4	0.7	0.5	0.9	1.0	0.1		1.0	0.9
Misc. Plastics	2.2	2.7	2.0	3.2	1.2	1.9	1.3	2.1	1.7	2.9
SUBTOTAL	5.6	6.0	7.5	8.4	6.9	8.3	7.8	2.1	5.6	7.2
<b>YARD WASTE</b>										
Misc. Yard Waste	<0.1	0.3	<0.1	<0.1	0.1	0.1	<0.1	2.3	<0.1	0.1
SUBTOTAL	<0.1	0.3	<0.1	<0.1	0.1	0.1	<0.1	2.3	<0.1	0.1
<b>ORGANICS</b>										
Textiles	0.4	0.9	1.9	1.0	0.8	0.4	48.8		0.7	3.8
Food Wastes	1.2	2.1	9.7	1.0	40.8	37.7	0.5		17.5	20.8
Misc. Organics	2.1	2.4	25.8	4.2	9.9	4.9	14.8	2.1	14.2	4.4
SUBTOTAL	3.7	5.4	37.4	6.1	51.6	43.0	64.2	2.1	32.4	28.9
<b>GLASS</b>										
Misc. Glass	2.0	2.4	1.1	5.2	7.1	2.0	0.5	1.1	1.5	8.5
SUBTOTAL	2.0	2.4	1.1	5.2	7.1	2.0	0.5	1.1	1.5	8.5
<b>METALS</b>										
Misc. Non-Ferrous	0.8	1.1	0.6	0.6	0.6	0.8	0.6	1.1	0.7	0.9
Other Ferrous Metals	0.9	1.8	5.5	1.4	2.1	2.6	2.4		2.6	1.4
SUBTOTAL	1.7	2.9	6.1	2.0	2.7	3.4	3.0	1.1	3.3	2.4
<b>HAZARDOUS WASTE</b>										
Misc. HW	0.2	0.3	<0.1	<0.1	<0.1	<0.1	0.2		<0.1	0.2
SUBTOTAL	0.2	0.3	<0.1	<0.1	<0.1	<0.1	0.2		<0.1	0.2
<b>OTHER WASTES</b>										
Misc. Other Wastes	0.5	0.6	0.6	10.3	0.3	0.2	1.0	0.2	0.9	1.2
SUBTOTAL	0.5	0.6	0.6	10.3	0.3	0.2	1.0	0.2	0.9	1.2
TOTAL	100	100	100	100	100	100	100	100	100	100

NOTE: Printing and Publishing data was collected directly from the private carrier and was not sorted.

TABLE 3

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**TABLE 4A**

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**KEY FOR TABLES 4 - 7**

<b>Institutional Category Number</b>	<b>Description</b>
1	Public Elementary Schools
2	Junior High Schools
3	Private Schools (K - 8TH Grade)
4	Private Schools (6TH - 12TH Grade)
5	Psychiatric Hospitals
6	Skilled Nursing Facilities
7	Municipal Hospitals
8	Teaching Hospitals
9	Non-Profit Hospitals
10	Government Office Buildings
11	Correctional Facilities
12	Colleges/Universities
13	Public High Schools
14	Transportation Hubs

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**TABLE 4**

**INSTITUTIONAL WASTE COMPOSITION BY CATEGORY**

**SUMMER**

WASTE COMPONENT	INSTITUTIONAL CATEGORY NUMBER													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Corrugated/Kraft	10.16	9.53	6.02	6.06	12.82	9.07	24.21	11.00	26.59	4.66	7.88	8.78	11.99	6.55
Newsprint	3.32	1.87	1.50	6.62	2.07	0.83	1.33	5.96	2.64	8.90	6.49	5.23	4.38	30.35
Office/Computer	2.60	4.77	1.03	6.70	8.83	1.96	10.21	14.51	10.57	51.17	5.74	22.56	3.75	7.01
Magazines & Glossy	0.96	0.44	6.28	3.06	0.50	0.38	2.70	0.60	0.57	1.77	0.69	5.40	0.83	1.48
Book/Phone Book	0.74	0.41	18.19	2.25	0.04	0.12	0.03	0.96		2.57	0.69	7.99	2.24	0.92
Non-Corrugated OCC	3.56	4.65	2.03	1.29	6.34	3.70	5.08	6.33	3.39	3.19	2.12	3.53	10.18	2.24
Mixed	6.26	4.86	6.86	6.55	5.16	5.81	12.08	12.69	11.19	12.22	11.53	12.38	24.29	18.42
<b>TOTAL PAPER FRACTION</b>	<b>27.59</b>	<b>26.33</b>	<b>41.71</b>	<b>32.56</b>	<b>35.56</b>	<b>21.85</b>	<b>55.64</b>	<b>52.07</b>	<b>54.93</b>	<b>84.50</b>	<b>35.13</b>	<b>65.85</b>	<b>57.66</b>	<b>64.97</b>
Clear HDPE containers	0.27	0.34	0.14	0.31	0.30	0.38	0.20	0.45	0.30	0.06	0.23	0.30	0.17	0.27
Colored HDPE containers	0.34	0.22	0.11	0.21	0.57	0.35	0.62	1.58	0.06	0.06	0.45	0.24	0.09	0.34
LDPE	0.05	0.05		0.01	0.13	0.23	0.03	0.12	0.19	0.06	0.11	0.08	0.02	0.06
Films and Bags	3.58	3.24	2.75	10.34	4.59	5.06	3.45	5.13	3.97	1.70	8.38	3.60	5.03	3.22
Green PET containers	0.11	0.01	0.06		0.13		0.24	0.32	0.01	0.04	0.26	0.43	0.03	0.12
Clear PET containers	0.23	0.43	0.12	0.09	0.21	0.03	0.18	0.17	0.04	0.13	0.12	0.27	0.10	0.25
PVC	0.06	0.06	0.01	0.04	0.01		0.06		0.22	0.06	0.10	0.01	0.03	0.09
Polypropylene	0.12	0.02	0.01	0.07	0.08	0.14	0.23	0.25	0.73	0.20	0.23	0.02	0.05	0.07
Polystyrene (estimated)	2.67	1.10	1.25	1.08	7.23	5.58	2.54	4.69	5.74	1.05	1.36	1.67	1.83	0.83
Misc. Plastic	1.83	5.58	0.83	0.25	0.20	0.10	2.00	0.40	4.46	1.05	1.63	0.25	0.87	0.52
<b>TOTAL PLASTIC FRACTION</b>	<b>9.26</b>	<b>11.04</b>	<b>4.84</b>	<b>12.40</b>	<b>13.45</b>	<b>11.86</b>	<b>9.82</b>	<b>13.11</b>	<b>15.72</b>	<b>4.46</b>	<b>12.86</b>	<b>6.86</b>	<b>8.23</b>	<b>5.77</b>
Grass/Leaves	6.74		2.66	13.28	4.58	0.05	0.23			0.11	13.79	0.37	1.21	0.49
Brush/Prunings/Stumps	1.09	1.23	0.33	8.55	0.74	0.58					1.66	0.35	1.18	
<b>TOTAL YARD WASTE FRACTION</b>	<b>7.83</b>	<b>1.23</b>	<b>2.99</b>	<b>21.84</b>	<b>5.32</b>	<b>0.63</b>	<b>0.23</b>			<b>0.11</b>	<b>15.46</b>	<b>0.72</b>	<b>2.39</b>	<b>0.49</b>
Lumber	5.79	1.80	0.27	6.68	0.94	0.16	0.41	1.43	0.66	0.05	1.61	0.88	1.32	0.60
Textiles	2.67	1.50	0.69	1.69	3.76	3.06	2.79	5.64	1.29	0.80	3.92	1.52	0.75	3.54
Rubber	0.03		0.13	0.23	0.15	0.19	0.35	0.45			1.04	0.24	0.03	0.43
Fines	2.07	1.29	0.65	1.55	1.66	0.96	1.33	0.60	0.65	2.26	0.72	1.34	2.31	
Diapers	1.59	0.32	0.14	0.06	1.31	33.29	4.30	2.43	11.86	0.05	0.05	0.09		0.27
Foodwaste	16.85	21.48	37.65	3.24	18.01	14.07	11.56	12.73	8.25	2.26	9.79	15.12	8.68	2.17
Misc. Organic	5.21	8.88	1.25	4.28	7.33	6.73	3.75	1.66		0.80	4.52	2.02	5.00	2.64
<b>TOTAL ORGANIC FRACTION</b>	<b>34.21</b>	<b>35.27</b>	<b>40.77</b>	<b>17.74</b>	<b>33.02</b>	<b>59.18</b>	<b>24.11</b>	<b>25.67</b>	<b>22.65</b>	<b>4.41</b>	<b>23.18</b>	<b>20.58</b>	<b>17.11</b>	<b>11.96</b>
Clear Glass containers	1.75	1.31	0.39	1.50	1.77	0.69	6.30	0.56	1.39	2.14	1.21	1.37	1.48	3.71
Green Glass containers	0.26	0.29	0.03	0.31	0.05	0.09	0.10	0.51		0.32	0.26	0.41	0.16	1.09
Brown Glass containers	0.26	0.61	0.05	0.33	0.15	0.06	0.23	0.03		0.06	0.12	0.23	0.06	0.73
Misc. Glass	0.43	0.04				0.03			0.04				1.31	2.02
<b>TOTAL GLASS FRACTION</b>	<b>2.71</b>	<b>2.26</b>	<b>0.47</b>	<b>2.14</b>	<b>1.96</b>	<b>0.88</b>	<b>6.63</b>	<b>1.10</b>	<b>1.43</b>	<b>2.54</b>	<b>1.60</b>	<b>2.01</b>	<b>3.03</b>	<b>7.55</b>
Alum. Food containers/foil	0.45	0.66	0.32	0.51	1.01	0.40	0.56	0.96	0.24	0.80	0.32	0.17	0.65	0.51
Alum. Beverage Cans	0.31	0.25	0.16	0.41	0.40	0.20	0.48	0.59	0.42	0.89	0.44	0.61	0.89	1.11
Misc. Aluminum	0.14	0.03	0.07	0.06	0.06	0.17	0.09	0.40		0.17	0.20	0.08	0.14	0.11
<b>TOTAL ALUMINUM FRACTION</b>	<b>0.89</b>	<b>0.94</b>	<b>0.55</b>	<b>0.96</b>	<b>1.47</b>	<b>0.77</b>	<b>1.15</b>	<b>1.94</b>	<b>0.66</b>	<b>1.65</b>	<b>0.96</b>	<b>0.86</b>	<b>1.68</b>	<b>1.72</b>
Ferrous Metal Food conts.	1.60	1.72	2.06	1.03	4.46	2.96	1.19	2.39	3.18	0.35	1.28	0.43	1.87	0.67
Other Ferrous Metal	1.93	1.64	0.97	1.61	0.41	0.21	0.36	0.06	0.27	0.28	2.54	1.29	5.28	2.64
<b>TOTAL FERROUS METAL FRACTION</b>	<b>3.53</b>	<b>3.36</b>	<b>3.03</b>	<b>2.64</b>	<b>4.87</b>	<b>3.17</b>	<b>1.55</b>	<b>2.47</b>	<b>3.45</b>	<b>0.63</b>	<b>3.82</b>	<b>1.73</b>	<b>7.16</b>	<b>3.31</b>
Bimetal cans							0.05						0.04	
<b>TOTAL METAL FRACTION</b>	<b>4.42</b>	<b>4.30</b>	<b>3.58</b>	<b>3.62</b>	<b>6.34</b>	<b>3.94</b>	<b>2.74</b>	<b>4.41</b>	<b>4.11</b>	<b>2.28</b>	<b>4.78</b>	<b>2.58</b>	<b>8.88</b>	<b>5.03</b>
Non-bulk Ceramics	0.02	0.03	0.05	0.28						0.02	0.20		0.11	0.08
Misc. Non-organic	3.24	13.64	0.78	6.54	1.96	0.59	0.05	0.03		0.01	4.39		1.24	3.22
<b>TOTAL INORGANIC FRACTION</b>	<b>3.26</b>	<b>13.67</b>	<b>0.83</b>	<b>6.83</b>	<b>1.96</b>	<b>0.59</b>	<b>0.05</b>	<b>0.03</b>		<b>0.03</b>	<b>4.58</b>		<b>1.35</b>	<b>3.30</b>
Pesticides										0.12				
Non-pesticide Poisons	0.01				0.04	0.01				0.01			0.02	
Paint/Solvent/Fuel	0.56	0.40	0.02		0.09		0.01			0.12	0.06	0.26	0.01	0.03
Dry Cell Batteries	0.01		0.01		0.01	0.09	0.01				0.03	0.01		0.01
Car Batteries														
Medical Waste	0.04				0.29	0.37	0.49	3.05	0.76					
Misc. HHW	0.32		0.02		0.07			0.14					0.03	0.42
<b>TOTAL HHW FRACTION</b>	<b>0.94</b>	<b>0.40</b>	<b>0.05</b>		<b>0.50</b>	<b>0.47</b>	<b>0.51</b>	<b>3.19</b>	<b>1.01</b>	<b>0.11</b>	<b>0.27</b>	<b>0.01</b>	<b>0.10</b>	<b>0.49</b>
<b>TOTAL BULK ITEMS</b>	<b>9.81</b>	<b>5.52</b>	<b>4.79</b>	<b>2.90</b>	<b>1.86</b>	<b>0.57</b>	<b>0.27</b>	<b>0.41</b>	<b>0.12</b>	<b>1.53</b>	<b>2.11</b>	<b>1.40</b>	<b>1.24</b>	<b>0.43</b>

**TABLE 5**

**INSTITUTIONAL WASTE COMPOSITION BY CATEGORY**

**FALL**

WASTE COMPONENT	INSTITUTIONAL CATEGORY NUMBER													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Corrugated/Kraft	12.41	11.10	12.66	13.92	10.73	9.66	19.85	10.55	19.81	5.03	7.61	15.89	15.39	9.33
Newsprint	3.20	4.36	4.36	4.31	3.68	3.27	4.16	5.41	3.94	8.57	4.24	9.57	5.91	36.40
Office/Computer	3.92	5.51	1.62	2.61	3.70	3.65	6.26	9.49	3.70	36.36	0.94	10.77	5.28	2.13
Magazines & Glossy	1.17	1.57	1.40	0.42	2.12	0.90	1.64	1.72	1.32	2.84	0.35	1.47	0.96	1.64
Book/Phone Book	2.00	2.89	2.73	1.22	1.25	0.71	0.62	3.21	0.85	5.40	0.46	0.93	4.46	0.13
Non-Corrugated OCC	3.40	12.61	2.11	1.94	5.08	1.73	3.41	5.30	2.59	3.99	2.13	1.15	3.35	1.77
Mixed	19.32	11.86	27.32	24.59	10.31	9.55	15.16	15.10	19.64	23.95	12.20	25.82	19.75	15.75
<b>TOTAL PAPER FRACTION</b>	<b>45.42</b>	<b>49.91</b>	<b>52.20</b>	<b>48.99</b>	<b>36.88</b>	<b>29.47</b>	<b>51.09</b>	<b>50.77</b>	<b>51.85</b>	<b>86.14</b>	<b>27.92</b>	<b>65.59</b>	<b>55.09</b>	<b>67.16</b>
Clear HDPE containers	0.12	0.08	0.18	0.06	0.14	0.23	0.19	0.06	0.33	0.11	0.12	0.23	0.14	0.11
Colored HDPE containers	0.09	0.06	0.25	0.08	0.54	0.15	0.26	0.19	0.11	0.07	0.08	0.14	0.05	0.06
LDPE	0.01	0.07	0.03	0.01	0.19	0.26	0.44	0.29	0.09	0.01	0.03	0.02	0.01	0.02
Films and Bags	4.37	2.49	4.11	3.56	6.42	5.66	4.45	5.12	4.82	2.79	4.14	4.53	4.00	3.57
Green PET containers	0.02	0.01	0.04	0.01	0.17	0.04	0.73	0.02	0.03	0.24	0.01	0.30	0.03	0.05
Clear PET containers	0.03	0.06	0.18	0.10	0.18	0.02	0.05	0.04	0.02	0.10	0.07	0.23	0.07	0.10
PVC	0.02	0.02	0.13	0.13	0.04	0.32	0.12	0.28	0.11	0.03	0.03	0.05	0.08	0.13
Polypropylene	0.10	0.01			0.44	0.22	0.26	0.27	0.06	0.02	0.06	0.02	0.01	0.04
Polystyrene (est. for Summer)	2.97	0.76	1.28	0.38	1.53	1.25	0.76	0.29	2.54	0.55	0.76	1.89	3.35	0.69
Misc. Plastic	2.76	0.75	0.79	0.86	4.92	3.71	2.85	4.62	4.72	1.64	0.24	0.69	1.30	0.62
<b>TOTAL PLASTIC FRACTION</b>	<b>10.48</b>	<b>4.33</b>	<b>6.99</b>	<b>5.19</b>	<b>14.56</b>	<b>11.88</b>	<b>10.11</b>	<b>11.19</b>	<b>12.85</b>	<b>5.55</b>	<b>5.54</b>	<b>8.09</b>	<b>9.03</b>	<b>5.38</b>
Grass/Leaves	5.39	2.46	8.61	29.43	0.96	4.57	1.16	5.62	0.26	0.06	0.79	5.15	1.46	1.30
Brush/Prunings/Stumps			0.95	0.06		0.11					0.07			0.01
<b>TOTAL YARD WASTE FRACTION</b>	<b>5.39</b>	<b>2.46</b>	<b>9.56</b>	<b>29.49</b>	<b>0.96</b>	<b>4.68</b>	<b>1.16</b>	<b>5.62</b>	<b>0.26</b>	<b>0.06</b>	<b>0.79</b>	<b>5.22</b>	<b>1.46</b>	<b>1.31</b>
Lumber	0.93	1.07	0.18	0.01	0.19	0.28	1.57	0.17	0.24		0.33	2.05	3.30	3.10
Textiles	0.64	0.51	1.75	1.11	3.69	1.40	3.29	3.89	1.56	0.48	2.71	0.84	1.23	4.52
Rubber	0.33		0.07			0.11	0.03	0.08	0.30					0.20
Fines	1.12	1.75	0.47	0.42	1.62	1.66	1.44	0.80	1.27	0.60	0.70	0.62	0.71	1.53
Diapers	0.42	1.49			1.72	19.48	5.56	2.48	3.89		0.13	0.18		0.06
Foodwaste	17.79	19.61	21.18	8.07	13.27	19.37	14.18	12.57	17.90	1.32	55.73	7.26	8.06	0.74
Misc. Organic	3.43	7.38	2.62	0.68	5.22	6.42	5.09	7.48	5.34	0.04	2.41	1.33	2.37	2.03
<b>TOTAL ORGANIC FRACTION</b>	<b>24.85</b>	<b>31.80</b>	<b>26.27</b>	<b>10.29</b>	<b>25.71</b>	<b>48.72</b>	<b>31.16</b>	<b>27.47</b>	<b>30.50</b>	<b>2.43</b>	<b>62.01</b>	<b>12.28</b>	<b>16.26</b>	<b>12.17</b>
Clear Glass containers	0.63	0.80	0.63	0.63	3.98	0.54	1.84	1.20	0.82	1.83	0.35	2.54	1.53	2.38
Green Glass containers	0.23	0.06	0.04	0.06	0.76	0.04	0.08	0.14	0.14	0.64	0.19	0.33	0.17	0.76
Brown Glass containers	0.05	0.03	0.14	0.04	0.70		0.15	0.03	0.07	0.14	0.02	0.20	0.15	0.43
Misc. Glass	0.03		0.09	0.15	5.34	0.03	0.18		0.02	0.02		0.90		0.33
<b>TOTAL GLASS FRACTION</b>	<b>0.94</b>	<b>0.89</b>	<b>0.90</b>	<b>0.87</b>	<b>10.77</b>	<b>0.61</b>	<b>2.24</b>	<b>1.37</b>	<b>1.05</b>	<b>2.63</b>	<b>0.56</b>	<b>3.96</b>	<b>1.85</b>	<b>3.90</b>
Alum. Food containers/foil	0.36	0.26	0.95	0.33	0.31	0.18	0.15	0.24	0.29	0.61	0.29	0.54	0.47	0.13
Alum. Beverage Cans	0.33	0.17	0.57	1.48	0.48	0.22	0.36	0.49	0.23	0.86	0.25	1.41	0.55	0.57
Misc. Aluminum	0.19		0.06	0.06		0.05	0.02	0.05		0.04			0.01	
<b>TOTAL ALUMINUM FRACTION</b>	<b>0.87</b>	<b>0.43</b>	<b>1.60</b>	<b>1.89</b>	<b>0.79</b>	<b>0.45</b>	<b>0.55</b>	<b>0.78</b>	<b>0.52</b>	<b>1.51</b>	<b>0.54</b>	<b>1.95</b>	<b>1.03</b>	<b>0.70</b>
Ferrous Metal Food conts.	3.27	1.89	1.25	0.73	5.27	2.53	1.67	1.15	2.03	0.44	2.09	0.53	1.31	0.42
Other Ferrous Metal	0.79	1.02	0.93	1.66	2.63	0.95	0.55	0.42	0.45	0.73	0.38	0.53	11.46	6.80
<b>TOTAL FERROUS METAL FRACTION</b>	<b>4.06</b>	<b>2.91</b>	<b>2.18</b>	<b>2.39</b>	<b>7.90</b>	<b>3.47</b>	<b>2.21</b>	<b>1.57</b>	<b>2.48</b>	<b>1.17</b>	<b>2.47</b>	<b>1.07</b>	<b>12.79</b>	<b>7.22</b>
Bimetal cans												0.02		
<b>TOTAL METAL FRACTION</b>	<b>4.93</b>	<b>3.34</b>	<b>3.78</b>	<b>4.26</b>	<b>8.68</b>	<b>3.92</b>	<b>2.76</b>	<b>2.35</b>	<b>3.00</b>	<b>2.67</b>	<b>3.01</b>	<b>3.04</b>	<b>13.82</b>	<b>7.92</b>
Non-bulk Ceramics	0.68		0.04		0.02		0.02	0.03	0.12		0.01	0.05	0.33	0.05
Misc. Non-organic	6.27	6.39	0.18		1.71	0.35	0.24			0.11	0.01	0.80	0.96	1.65
<b>TOTAL INORGANIC FRACTION</b>	<b>6.95</b>	<b>6.39</b>	<b>0.22</b>		<b>1.73</b>	<b>0.35</b>	<b>0.26</b>	<b>0.03</b>	<b>0.12</b>	<b>0.11</b>	<b>0.02</b>	<b>0.85</b>	<b>1.29</b>	<b>1.69</b>
Pesticides														
Non-pesticide Poisons													0.07	
Paint/Solvent/Fuel			0.05							0.04				
Dry Cell Batteries	0.01		0.03		0.12	0.01		0.06		0.01	0.01	0.01		0.01
Car Batteries														
Medical Waste	0.01					0.18	0.37	0.99	0.29					
Misc. HHW	0.06			0.14			0.15		0.12	0.07	0.10		0.09	0.17
<b>TOTAL HHW FRACTION</b>	<b>0.06</b>		<b>0.06</b>	<b>0.14</b>	<b>0.12</b>	<b>0.19</b>	<b>0.52</b>	<b>1.07</b>	<b>0.41</b>	<b>0.12</b>	<b>0.11</b>	<b>0.01</b>	<b>0.16</b>	<b>0.18</b>
<b>TOTAL BULK ITEMS</b>	<b>1.18</b>	<b>0.86</b>		<b>0.74</b>	<b>0.54</b>	<b>0.19</b>	<b>0.69</b>	<b>0.13</b>		<b>0.28</b>	<b>0.04</b>	<b>0.93</b>	<b>1.02</b>	<b>0.30</b>

**TABLE 6**

**INSTITUTIONAL WASTE COMPOSITION BY CATEGORY**

**WINTER**

WASTE COMPONENT	INSTITUTIONAL CATEGORY NUMBER													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Corrugated/Kraft	7.52	8.39	11.46	10.63	12.95	6.06	19.52	10.50	21.87	7.88	9.88	15.51	10.73	9.22
Newsprint	1.79	3.17	1.74	4.24	3.64	1.33	2.45	4.52	2.95	10.51	3.65	9.22	3.10	29.44
Office/Computer	2.07	4.45	3.28	2.47	6.43	1.18	5.75	7.24	5.35	19.50	3.07	14.51	4.86	2.62
Magazines & Glossy	0.96	2.29	2.84	0.92	0.99	0.44	1.87	1.53	0.80	1.10	0.52	2.16	1.31	0.92
Book/Phone Book	0.55	2.73	1.63	0.95	0.81	0.06	0.24	0.34	0.35	2.12	0.28	4.38	1.72	3.76
Non-Corrugated OCC	10.55	10.69	2.91	5.41	2.17	1.38	3.48	3.51	2.89	1.51	2.15	1.20	17.77	1.85
Mixed	15.94	23.08	35.16	26.25	15.02	13.28	19.69	19.21	16.66	32.44	15.23	25.75	21.32	19.36
<b>TOTAL PAPER FRACTION</b>	<b>39.39</b>	<b>54.78</b>	<b>59.03</b>	<b>50.87</b>	<b>42.02</b>	<b>23.73</b>	<b>53.01</b>	<b>46.85</b>	<b>50.87</b>	<b>75.07</b>	<b>34.78</b>	<b>72.71</b>	<b>60.81</b>	<b>67.16</b>
Clear HDPE containers	0.21	0.40	0.54	0.33	0.22	0.23	0.18	0.50	0.26	0.18	0.29	0.27	0.27	0.24
Colored HDPE containers	0.13	0.04	0.12	0.21	0.18	0.20	0.38	0.17	0.09	0.10	0.20	0.12	0.03	0.16
LDPE		0.04	0.01	0.01	0.05	0.01	0.25	0.04	0.09	0.02	0.06	0.14		0.04
Films and Bags	4.38	6.07	4.83	5.60	7.91	9.64	4.62	7.90	4.80	3.84	6.43	4.00	6.18	3.34
Green PET containers	0.05	0.02	0.07	0.06	0.02	0.07	0.34	0.07	0.01	0.01	0.06	0.09	0.05	0.02
Clear PET containers	0.05	0.06	0.14	0.12	0.24	0.02	0.10	0.23	0.04	0.15	0.18	0.18	0.08	0.09
PVC	0.01	0.02	0.03	0.09	0.05	0.03	0.06	0.13	0.11	0.05	0.11	0.05	0.02	0.03
Polypropylene	0.01	0.06	0.02		0.06	0.03	0.19	0.10	0.29	0.03	0.13	0.02	0.13	0.05
Polystyrene (est. for Summer)	2.10	1.32	1.85	1.83	10.67	9.73	2.54	6.79	5.75	1.33	1.84	1.38	1.14	0.92
Misc. Plastic	0.21	0.94	1.23	0.66	0.63	0.51	2.27	2.50	3.33	0.95	0.61	1.07	0.77	0.85
<b>TOTAL PLASTIC FRACTION</b>	<b>7.14</b>	<b>8.99</b>	<b>8.84</b>	<b>8.91</b>	<b>20.05</b>	<b>20.46</b>	<b>10.93</b>	<b>18.42</b>	<b>14.78</b>	<b>6.65</b>	<b>9.90</b>	<b>7.31</b>	<b>8.67</b>	<b>5.74</b>
Grass/Leaves			1.11	0.26	0.39	0.14	0.48	0.13	0.09			0.03	0.02	
Brush/Prunings/Stumps	0.02		0.07		0.14				0.01	0.06		0.05		
<b>TOTAL YARD WASTE FRACTION</b>	<b>0.02</b>		<b>1.18</b>	<b>0.26</b>	<b>0.53</b>	<b>0.14</b>	<b>0.48</b>	<b>0.13</b>	<b>0.10</b>	<b>0.06</b>		<b>0.08</b>	<b>0.02</b>	
Lumber	0.35	0.77	1.36	0.15	1.32	0.23	0.78	0.85	0.40	0.29	0.19	0.35	0.16	1.45
Textiles	0.49	4.18	1.09	1.71	5.07	1.33	2.99	3.97	1.71	2.15	3.33	1.15	0.25	5.02
Rubber		0.09	0.06		0.05		0.41	0.15	0.40		0.23		0.04	0.62
Fines	1.91	2.63	2.40	1.77	1.70	1.30	1.10	1.68	0.96	1.52	1.28	1.18	1.80	2.88
Diapers	0.69	0.05	0.09		1.84	21.04	5.91	2.19	6.76	0.02	0.02	0.44	0.01	0.06
Foodwaste	10.14	8.60	8.52	3.93	9.22	18.89	12.34	9.02	14.96	4.34	37.69	8.33	7.96	1.99
Misc. Organic	7.06	6.84	6.09	6.78	8.55	5.44	3.56	6.49	3.41	1.89	4.45	1.48	8.26	2.74
<b>TOTAL ORGANIC FRACTION</b>	<b>20.64</b>	<b>23.15</b>	<b>19.61</b>	<b>14.34</b>	<b>27.73</b>	<b>48.23</b>	<b>27.06</b>	<b>24.34</b>	<b>28.62</b>	<b>10.22</b>	<b>47.19</b>	<b>12.91</b>	<b>18.49</b>	<b>14.75</b>
Clear Glass containers	0.77	0.76	1.60	1.20	1.76	0.57	3.64	2.02	0.96	2.24	0.83	2.92	1.75	1.92
Green Glass containers	0.05	0.34	0.17	0.02	0.52	0.01	0.09	0.17	0.08	0.26	0.10	0.37	0.19	0.40
Brown Glass containers	0.04	0.15			0.26	0.02	0.25	0.25	0.03	0.12	0.04	0.18		0.31
Misc. Glass		0.09	0.02	0.02	0.24	0.07	0.06	0.13	0.03	0.05	0.06	0.09	0.31	0.01
<b>TOTAL GLASS FRACTION</b>	<b>0.86</b>	<b>1.34</b>	<b>1.79</b>	<b>1.24</b>	<b>2.77</b>	<b>0.67</b>	<b>4.04</b>	<b>2.57</b>	<b>1.13</b>	<b>2.67</b>	<b>1.05</b>	<b>3.56</b>	<b>2.24</b>	<b>2.64</b>
Alum. Food containers/foil	0.57	0.69	1.67	1.03	1.06	0.62	0.43	0.77	0.30	0.85	0.23	0.23	0.85	0.21
Alum. Beverage Cans	0.24	0.81	1.34	1.67	0.52	0.22	0.43	0.78	0.31	0.84	0.35	1.30	1.35	0.83
Misc. Aluminum	0.06	0.11	0.20	0.03	0.05		0.04	0.01	0.01	0.02	0.01			0.01
<b>TOTAL ALUMINUM FRACTION</b>	<b>0.87</b>	<b>1.61</b>	<b>3.21</b>	<b>2.73</b>	<b>1.65</b>	<b>0.83</b>	<b>0.91</b>	<b>1.56</b>	<b>0.62</b>	<b>1.70</b>	<b>0.58</b>	<b>1.53</b>	<b>2.20</b>	<b>1.05</b>
Ferrous Metal Food conts.	2.15	1.40	1.85	0.79	3.17	3.80	1.33	2.35	2.55	0.99	3.90	0.41	2.34	1.08
Other Ferrous Metal	0.24	0.94	2.53	0.46	0.76	0.56	0.58	0.76	0.39	1.45	0.96	1.02	1.46	5.34
<b>TOTAL FERROUS METAL FRACTION</b>	<b>2.38</b>	<b>2.34</b>	<b>4.18</b>	<b>1.25</b>	<b>3.93</b>	<b>4.45</b>	<b>1.92</b>	<b>3.11</b>	<b>2.94</b>	<b>2.44</b>	<b>4.86</b>	<b>1.43</b>	<b>3.80</b>	<b>6.42</b>
Bimetal cans		0.07	0.06	0.02	0.01		0.02	0.02		0.02		0.02	0.12	0.03
<b>TOTAL METAL FRACTION</b>	<b>3.25</b>	<b>4.02</b>	<b>7.45</b>	<b>4.00</b>	<b>5.59</b>	<b>5.28</b>	<b>2.84</b>	<b>4.69</b>	<b>3.57</b>	<b>4.16</b>	<b>5.44</b>	<b>2.96</b>	<b>6.12</b>	<b>7.50</b>
Non-bulk Ceramics	0.05	0.10	0.02	0.03	0.03	0.10	0.01	0.01	0.05	0.18	0.01	0.05		0.16
Misc. Non-organic	27.09	5.27	1.47	19.34	0.64	0.06	0.21	0.86		0.55	0.17	0.09	2.27	0.73
<b>TOTAL INORGANIC FRACTION</b>	<b>27.14</b>	<b>5.37</b>	<b>1.49</b>	<b>19.37</b>	<b>0.67</b>	<b>0.18</b>	<b>0.22</b>	<b>0.87</b>	<b>0.05</b>	<b>0.73</b>	<b>0.18</b>	<b>0.14</b>	<b>2.27</b>	<b>0.88</b>
Pesticides							0.01		0.04					
Non-pesticide Poisons			0.01	0.01						0.03				0.04
Paint/Solvent/Fuel			0.09	0.05	0.02	0.01	0.01	0.01	0.05		0.37	0.04		0.35
Dry Cell Batteries	0.03		0.01				0.01	0.04		0.04	0.02		0.01	0.61
Car Batteries														
Medical Waste					0.29	0.58	0.79	0.77	0.70					
Misc. HHW		0.15	0.02		0.10		0.11		0.04		0.02			0.18
<b>TOTAL HHW FRACTION</b>	<b>0.03</b>	<b>0.15</b>	<b>0.13</b>	<b>0.06</b>	<b>0.41</b>	<b>0.59</b>	<b>0.92</b>	<b>0.82</b>	<b>0.83</b>	<b>0.07</b>	<b>0.41</b>	<b>0.04</b>	<b>0.01</b>	<b>1.18</b>
<b>TOTAL BULK ITEMS</b>	<b>1.55</b>	<b>2.20</b>	<b>0.46</b>	<b>0.94</b>	<b>0.24</b>	<b>0.74</b>	<b>0.48</b>	<b>1.29</b>	<b>0.06</b>	<b>0.36</b>	<b>1.09</b>	<b>0.28</b>	<b>1.38</b>	<b>0.16</b>

TABLE 7

## INSTITUTIONAL WASTE COMPOSITION BY CATEGORY

## SPRING

WASTE COMPONENT	INSTITUTIONAL CATEGORY NUMBER													
	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Corrugated/Kraft	10.06	7.74	7.54	5.45	14.42	8.78	14.51	10.87	19.21	5.24	6.70	10.21	9.87	7.35
Newsprint	2.29	2.63	2.09	3.12	3.49	1.37	1.87	5.96	2.29	11.46	2.79	7.46	4.15	34.97
Office/Computer	0.33	0.85	1.51	1.46	1.73	0.91	0.80	4.72	1.77	13.70	1.69	8.57	1.13	0.72
Magazines & Glossy	0.31	0.48	1.34	0.63	0.33	0.16	1.28	1.60	0.50	1.82	0.39	2.81	0.19	1.00
Book/Phone Book	0.21	3.34	1.08	4.13	0.50	0.06	0.07	0.29	0.21	2.35	0.40	6.11	0.54	0.26
Non-Corrugated OCC	4.09	4.29	1.44	1.56	0.54	0.77	1.96	2.62	2.71	1.26	1.23	1.22	9.38	1.36
Mixed	30.59	28.40	24.66	25.59	17.72	13.41	31.83	28.05	19.15	42.19	14.48	28.03	31.79	18.69
<b>TOTAL PAPER FRACTION</b>	<b>47.88</b>	<b>47.73</b>	<b>39.66</b>	<b>41.93</b>	<b>38.73</b>	<b>25.45</b>	<b>52.32</b>	<b>54.12</b>	<b>45.83</b>	<b>78.02</b>	<b>27.66</b>	<b>64.42</b>	<b>57.05</b>	<b>64.34</b>
Clear HDPE containers	0.19	0.26	0.27	0.22	0.04	0.29	0.16	0.27	0.14	0.14	0.14	0.41	0.11	0.25
Colored HDPE containers	0.16	0.10	0.22	0.17	0.10	0.13	0.27	0.22	0.11	0.14	0.26	0.16	0.19	0.25
LDPE	0.12	0.09		0.01		0.02		0.03			0.05		0.05	0.01
Films and Bags	4.74	5.86	3.29	4.75	6.47	5.93	5.95	8.80	5.62	4.55	6.20	4.09	4.91	2.72
Green PET containers	0.03	0.01	0.02		0.04	0.02	0.05	0.02		0.04	0.02	0.05	0.01	0.01
Clear PET containers	0.14	0.12	0.06	0.32	0.24	0.01	0.07	0.14	0.06	0.19	0.15	0.35	0.15	0.21
PVC		0.01	0.02			0.01	0.01	0.02	0.01	0.02	0.01			
Polypropylene	0.01		0.10	0.08		0.02	0.07	0.07	0.07	0.02	0.05	0.11	0.02	0.06
Polystyrene (est. for Summer)	3.72	1.32	0.77	1.02	9.78	5.76	4.31	6.91	8.95	1.30	1.52	1.79	1.00	0.89
Misc. Plastic	0.24	2.09	0.65	0.54	0.21	0.44	1.98	1.02	0.81	0.49	0.39	0.69	0.55	0.99
<b>TOTAL PLASTIC FRACTION</b>	<b>9.35</b>	<b>9.85</b>	<b>5.40</b>	<b>7.12</b>	<b>16.88</b>	<b>12.63</b>	<b>12.85</b>	<b>15.49</b>	<b>15.77</b>	<b>6.88</b>	<b>8.78</b>	<b>7.64</b>	<b>6.96</b>	<b>5.39</b>
Grass/Leaves	1.53	5.67	26.34	6.21	0.19	1.02	0.04	3.34	0.01	2.18		1.06	2.14	0.95
Brush/Prunings/Stumps	0.03	0.39	0.22			0.03		0.06	0.03	0.06		0.05	3.52	
<b>TOTAL YARD WASTE FRACTION</b>	<b>1.56</b>	<b>6.06</b>	<b>26.55</b>	<b>6.21</b>	<b>0.19</b>	<b>1.05</b>	<b>0.04</b>	<b>3.40</b>	<b>0.04</b>	<b>2.24</b>		<b>1.11</b>	<b>5.66</b>	<b>0.95</b>
Lumber	0.54	0.77	2.30	1.75	1.10	0.28	0.35	1.01	0.31	0.05	0.77	1.08	0.51	0.83
Textiles	1.79	1.10	1.52	4.04	5.35	1.04	2.88	2.52	2.27	0.61	2.58	1.12	0.78	3.51
Rubber	0.25	0.19	0.03	0.05	0.19	0.30	0.85	0.63	0.90		0.03		0.08	0.06
Fines	1.32	1.06	1.16	4.25	1.02	0.94	0.91	0.81	1.07	0.38	0.76	1.28	1.51	1.90
Diapers	1.05		0.06		2.95	26.80	7.87	1.49	4.54	0.06	0.04	0.06		0.06
Foodwaste	23.06	10.94	5.95	3.29	14.19	21.05	11.28	9.46	18.73	3.90	49.80	11.26	9.35	3.10
Misc. Organic	3.94	3.74	4.35	5.35	6.27	3.08	1.82	2.79	4.89	0.88	2.20	2.07	4.36	3.42
<b>TOTAL ORGANIC FRACTION</b>	<b>31.97</b>	<b>17.80</b>	<b>15.38</b>	<b>18.73</b>	<b>31.08</b>	<b>53.49</b>	<b>25.94</b>	<b>18.73</b>	<b>32.70</b>	<b>5.88</b>	<b>56.06</b>	<b>16.88</b>	<b>16.57</b>	<b>12.99</b>
Clear Glass containers	1.39	0.96	0.72	1.09	1.84	0.47	2.80	1.80	0.74	2.51	0.63	4.01	1.15	2.45
Green Glass containers	0.48	0.10	0.05	0.26	0.27	0.05	0.09	0.33	0.11	0.23	0.13	0.56	0.14	1.04
Brown Glass containers	0.30	0.09	0.02	0.06	0.15	0.04	0.36	0.34	0.02	0.26	0.08	0.51	0.10	0.46
Misc. Glass	0.19	0.03	0.01	1.40	0.07	0.05			0.03	0.05	0.35		3.61	0.84
<b>TOTAL GLASS FRACTION</b>	<b>2.36</b>	<b>1.18</b>	<b>0.80</b>	<b>2.81</b>	<b>2.33</b>	<b>0.61</b>	<b>3.24</b>	<b>2.46</b>	<b>0.90</b>	<b>3.05</b>	<b>1.19</b>	<b>5.07</b>	<b>5.00</b>	<b>4.78</b>
Alum. Food containers/foil	0.45	0.91	0.63	0.90	0.76	0.66	0.57	0.93	0.36	0.45	0.24	0.46	0.63	0.32
Alum. Beverage Cans	0.27	0.86	0.61	1.00	0.37	0.17	0.44	0.72	0.29	0.69	0.14	1.37	0.77	0.58
Misc. Aluminum		0.07	0.01	0.17		0.14	0.02		0.04			0.04	0.41	0.02
<b>TOTAL ALUMINUM FRACTION</b>	<b>0.72</b>	<b>1.85</b>	<b>1.24</b>	<b>2.07</b>	<b>1.13</b>	<b>0.97</b>	<b>1.03</b>	<b>1.64</b>	<b>0.89</b>	<b>1.13</b>	<b>0.38</b>	<b>1.87</b>	<b>1.82</b>	<b>0.92</b>
Ferrous Metal Food conts.	2.57	1.22	0.94	1.46	2.82	2.65	1.14	1.38	2.45	0.46	2.94	0.41	1.97	0.40
Other Ferrous Metal	1.68	5.07	1.76	5.64	0.09	0.74	0.85	0.36	0.45	0.91	0.53	0.92	2.93	6.47
<b>TOTAL FERROUS METAL FRACTION</b>	<b>4.25</b>	<b>6.29</b>	<b>2.70</b>	<b>7.10</b>	<b>2.90</b>	<b>3.38</b>	<b>1.99</b>	<b>1.74</b>	<b>2.90</b>	<b>1.37</b>	<b>3.48</b>	<b>1.33</b>	<b>4.90</b>	<b>6.87</b>
Bimetal cans	0.01	0.09	0.06	0.01			0.01	0.01	0.01	0.01		0.03	0.01	0.02
<b>TOTAL METAL FRACTION</b>	<b>4.97</b>	<b>8.23</b>	<b>4.02</b>	<b>9.17</b>	<b>4.03</b>	<b>4.35</b>	<b>3.03</b>	<b>3.39</b>	<b>3.60</b>	<b>2.51</b>	<b>3.85</b>	<b>3.23</b>	<b>6.73</b>	<b>7.80</b>
Non-bulk Ceramics						0.03			0.02			0.07		
Misc. Non-organic	1.30	4.90	5.83	5.96	4.28	1.08	0.35	1.54		0.58	1.19	0.66	0.46	2.53
<b>TOTAL INORGANIC FRACTION</b>	<b>1.30</b>	<b>4.90</b>	<b>5.83</b>	<b>5.96</b>	<b>4.28</b>	<b>1.11</b>	<b>0.35</b>	<b>1.54</b>	<b>0.02</b>	<b>0.58</b>	<b>1.19</b>	<b>0.73</b>	<b>0.48</b>	<b>2.53</b>
Pesticides							0.02						0.01	
Non-pesticide Poisons								0.01						
Paint/Solvent/Fuel		0.29	0.04	0.02		0.04	0.01	0.01	0.02				0.08	0.01
Dry Cell Batteries			0.03	0.07			0.02		0.01	0.03	0.01	0.01	0.03	0.09
Car Batteries														
Medical Waste					1.07	0.64	1.52	0.24	1.05		0.07	0.03	0.01	
Misc. HHW	0.02	1.05	0.07	0.15	0.51	0.14	0.17			0.10	0.01	0.32	0.01	0.91
<b>TOTAL HHW FRACTION</b>	<b>0.02</b>	<b>1.34</b>	<b>0.14</b>	<b>0.24</b>	<b>1.58</b>	<b>0.82</b>	<b>1.74</b>	<b>0.26</b>	<b>1.08</b>	<b>0.13</b>	<b>0.09</b>	<b>0.36</b>	<b>0.14</b>	<b>1.01</b>
<b>TOTAL BULK ITEMS</b>	<b>0.57</b>	<b>2.86</b>	<b>2.20</b>	<b>7.79</b>	<b>0.88</b>	<b>0.50</b>	<b>0.46</b>	<b>0.61</b>	<b>0.08</b>	<b>0.72</b>	<b>1.18</b>	<b>0.55</b>	<b>1.35</b>	<b>0.20</b>

MATERIAL CONVERSION CHART				
MATERIAL	WEIGHT (lbs./cu. yd.)	MATERIAL	WEIGHT (lbs./cu. yd.)	NOTES
	range		range	
PAPER		MIXED MSW		
Corrugated		Uncompacted roll-off		
Loose	100	No recycling		80
Compacted	200-750	OCC Removed	100	
Of fire		WOOD		
Loose	300-400	Pallets	290	1 Pallet = 40 lbs.
Newsprint		Sawdust	500	
Loose	360-500	Bark	600	
Compacted	650-800	Loose Dimensional Lumber	240	
Mixed		ASH		
Loose	150	Course Bottom Ash	3160	
METAL CANS		Fine Bottom Ash		1650
Ferrous		Fly Ash	1780	
Whole	150	FOOD WASTE		
Flattened	350-400	Kitchen Waste	800-900	55 gal. = 400 lbs.
Baled	850	Solid and Liquid Fats	1490	
Densified	1600	TEXTILES/FABRICS		
Aluminum		Loose	240	
Whole	50-70	Baled	480	
Flattened	140-220	55 GALLON DRUMS		
Baled	350-450	Steel	40-60 each	
Densified	1080	Plastic	20-30 each	
Bi-Metal (whole)		TIRES		
GLASS		Passenger	20 each	
Containers		Truck	60-100 each	
Whole	500-650	SLUDGES		
Semi-Crushed (manual)	1000-1080	Wet (25-55% Solids)	1600-2000	
Crushed (mechanically broken)	1800-2700	Dry (55-85% Solids)	850-1600	
Plate	500-1000	LITHO/FILM		
PLASTICS		Loose	280-690	
PET		Baled	2200-2490	
Whole	30	RUBBER		
Flattened	80	Granulated	2500	
Baled	400	CONSTRUCTION/DEMOLITION		
Granulated	500-600	DEBRIS		
HDPE		Mixed, loose	540	
Whole (milk)	20-30	CONCRETE/BRICK/BLOCK		
Flattened (milk)	70	Crushed	4000	
Whole (colored)	50	STONE/CLAY/SAND		
Flattened (colored)	90		2500	
Baled	400	USED MOTOR OIL		
Granulated	500-600		1410	1 gal. = 7 lbs.
Other (mixed)		BATTERIES		
Whole	50		1780-1940	33 - 36 lbs. ea.
Baled	400-700	INK		
YARD WASTE			1720	1 gal. = 8.5 lbs.
Grass		LUBRICANTS		
Loose	400-740		1410	1 gal. = 7 lbs.
Compacted	1050-1110			
Leaves				
Loose	250-400			
Compacted	450-670			
Brush				
Loose	200			

NOTES: 1. Sources to be provided upon request.  
2. Conversions to tons = Pounds/2000



**WEIGHT/VOLUME  
CONVERSION TABLES**

MATERIAL	VOLUME	WEIGHT IN LBS.	WEIGHT IN TONS	
NEWSPRINT	loose	12 inch stack	35	0.0175
		60 gallon	170	0.085
	compacted	90 gallon	300	0.15
		1 cubic yard	360 to 800	0.18 to 0.4
		1 cubic yard	720 to 1,000	0.36 to 0.5
CORRUGATED	loose	1 cubic yard	300	0.15
	baled	1 cubic yard	1,000 to 1,200	0.5 to 0.6
GLASS	uncrushed	1 grocery bag	16	0.008
		60 gallon	100	0.05
		90 gallon	275	0.1375
	semicrushed	1 cubic yard	600 to 1,000	0.3 to 0.5
		1 cubic yard	1,000 to 1,800	0.5 to 0.9
	crushed	1 cubic yard	800 to 2,700	0.4 to 1.35
ALUMINUM	unflattened	1 grocery bag	1.5	0.00075
		60 gallon	20	0.01
		90 gallon	30	0.015
		1 cubic yard	50 to 74	0.025 to 0.037
	flattened	1 cubic yard	250	0.125
	FERROUS	unflattened	1 cubic yard	150
flattened		1 cubic yard	850	0.425
PLASTIC	unflattened	60 gallon	10	0.005
		90 gallon	15	0.0075
	1 cubic yard	24 to 40	0.012 to 0.02	
YARD WASTE	uncompacted	1 cubic yard	250 to 450	0.125 to 0.225
	compacted	1 cubic yard	320 to 500	0.16 to 0.25
	wood chips	1 cubic yard	500	0.25
	grass	1 cubic yard	400 to 1,500	0.2 to 0.75
FOOD WASTE	55 gallon	412	0.206	

# WORKSHEET 1

<b>WASTE REDUCTION ASSESSMENT WORKSHEET</b>						
	Waste Composition		Current Recycling Activity		Waste Reduction Preliminary Planning	
	Present in Waste	Quantity wt., vol., %	Material Recycled	Quantity wt., vol., %	Material Targeted For:	
					Recycling	Waste Prevention
PAPER:						
White Ledger	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Colored Ledger	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Computer	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Newspaper	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Cardboard	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Magazine	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Telephone Books	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Other Paper: (i.e. fax, paper towels)	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
PLASTIC	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
GLASS:	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Containers	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Other Glass	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
ALUMINUM	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
OTHER METAL:	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Steel	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Copper	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
WOOD	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
GREEN WASTE	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
FOOD WASTE	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
TIRES	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
USED OIL	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
HAZARDOUS WASTE:	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Paint	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Batteries	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
Solvents	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
CLOTHING/TEXTILES	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
FURNITURE	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
OTHER:	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>

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**WORKSHEET 2**

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**SOLID WASTE COMPOSITION AND MANAGEMENT**

MATERIAL	AMOUNT DISPOSED	AMOUNT RECYCLED	RECYCLER Name & Location	DISPOSAL Facility Name
Paper:				
Cardboard				
Office				
Newsprint				
Other				
Metals:				
Ferrous				
Aluminum				
Other Non-ferrous				
Metal Dust				
Glass:				
Containers				
Plate				
Other				
Plastic				
Rubber				
Textiles/Fabric				
Wood:				
Pallets				
Sawdust				
Bark				
Other				
Stone/Clay/Sand				
Yard Waste				
Concrete				
Ash				
Oils				
Sludges				
Batteries				
Drums				
Dust Collector Fines				
Ink				
Litho/Film				
Lubricants				
Plaster				
Refractories				
Silica/Alumina				
Slag				
Mixed Waste				
Other (specify)				
TOTALS				

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## WORKSHEET 3

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### WASTE AUDIT GENERAL INFORMATION

NAME OF BUSINESS \_\_\_\_\_ DATE \_\_\_\_\_  
MAILING ADDRESS \_\_\_\_\_ ZIP \_\_\_\_\_  
KEY CONTACT PERSON/TITLE \_\_\_\_\_ PHONE \_\_\_\_\_  
SOURCE OF REFERRAL \_\_\_\_\_  
PROPERTY MANAGEMENT COMPANY \_\_\_\_\_

### DESCRIPTION OF BUILDING

NUMBER OF EMPLOYEES \_\_\_\_\_ NUMBER OF FLOORS \_\_\_\_\_  
NUMBER OF COMPUTER PRINTERS \_\_\_\_\_ NO. OF PHOTOCOPIERS \_\_\_\_\_  
ARE ELEVATORS AVAILABLE?  YES  NO  
DOES THE BUILDING HAVE A LOADING DOCK FOR FREIGHT DELIVERIES?  YES  NO  
SPECIAL NEEDS THAT MAY AFFECT RECYCLING: (SHREDDING FOR CONFIDENTIALITY, SPACE LIMITATIONS)

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### CURRENT WASTE MANAGEMENT SERVICES

NAME OF JANITORIAL SERVICE \_\_\_\_\_  
JANITORIAL SERVICE PARTICIPATION IN RECYCLING PROGRAM?  YES  NO  
WASTE COLLECTION SERVICE \_\_\_\_\_ PHONE \_\_\_\_\_  
QUANTITY AND EQUIPMENT USED FOR WASTE COLLECTION AND DISPOSAL

TYPE/NO. OF CONTAINERS	% FULL	FREQUENCY OF PICKUP		
DUMPSTERS _____	_____	<input type="checkbox"/> DAILY	<input type="checkbox"/> WEEKLY	<input type="checkbox"/> _____
CANS _____	_____	<input type="checkbox"/> DAILY	<input type="checkbox"/> WEEKLY	<input type="checkbox"/> _____
COMPACTOR _____	_____	<input type="checkbox"/> DAILY	<input type="checkbox"/> WEEKLY	<input type="checkbox"/> _____
SHREDDER _____	_____	<input type="checkbox"/> DAILY	<input type="checkbox"/> WEEKLY	<input type="checkbox"/> _____

### CURRENT RECYCLING ACTIVITY

CURRENTLY RECYCLING?  YES  NO MATERIALS \_\_\_\_\_  
VENDOR(S) \_\_\_\_\_  
HAS PROGRAM BEEN SUCCESSFUL?  YES  NO WHY? \_\_\_\_\_

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**WORKSHEET 3 (cont'd)**

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**WASTE CURRENTLY GENERATED**

<u>PAPER</u>	<u>% OF TOTAL WASTE</u>
White Ledger Paper	_____
Colored Ledger Paper	_____
Computer Paper	_____
Newspaper	_____
Corrugated Cardboard	_____
Multi-Copy Forms (pressure sensitive)	_____
Mixed Waste Paper	_____
Magazines	_____

<u>METAL</u>	
Aluminum Cans	_____
Aluminum/Other	_____
Brass	_____
Copper	_____
Iron	_____
Lead	_____
Steel	_____
Tin Cans	_____
Other	_____

<u>OTHER MATERIALS</u>	<u>TYPE</u>	
Glass	_____	_____
Plastic	_____	_____
Textiles	_____	_____
Wood Waste	_____	_____
Motor Oil	_____	_____
Compostable Waste	_____	_____
Other	_____	_____

THE VOLUMES ABOVE ARE ESTIMATES PER

DAY

WEEK

MONTH

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**WORKSHEET 4**

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**SOLID WASTE QUANTIFICATION AND COMPOSITION ANALYSIS**  
**SORT DATA SHEET**

**SITE INFORMATION:**

LOCATION

TIME

**SAMPLE INFORMATION:**

**SORT DATA:**

WASTE COMPONENTS	NET WEIGHTS	COMMENTS
1 PAPER		
Newspaper		
Magazines		
Corrugated Cardboard		
Kraft Paper		
Coated Containers		
Paperboard		
Books		
Office Paper		
Other Paper		
2 PLASTICS		
PET (#1)		
HDPE (#2)		
LHDPE (#2)		
PVC (#3)		
LDPE (#4)		
LLDPE (#4)		
Polypropylene (#5)		
Polystyrene (#6)		
Other Containers (#7)		
Misc. Plastic		
3 ORGANICS		
Food Waste		
Textiles/Leather		
Rubber		
Diapers		
Fines		
Other Organics		
4 FERROUS METALS		
Food Containers/Bimetal		
Aerosols		
White/Enamelled		
Auto Parts		
Other Ferrous		
5 NON-FERROUS METAL		
Aluminum Cans		
Aluminum Foil		
Other Aluminum		
Other Non-Ferrous		

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**WORKSHEET 4 (cont'd)**

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**SOLID WASTE QUANTIFICATION AND COMPOSITION ANALYSIS**  
**SORT DATA SHEET**

**SAMPLE INFORMATION:**

**SORT DATA:**

WASTE COMPONENTS	NET WEIGHTS	COMMENTS
6 GLASS		
Clear Containers		
Green Containers		
Brown Containers		
Plate Glass		
Other Glass		
7 WOOD		
Pallets		
Lumber		
Stumps/Heavy Sections		
Other Wood		
8 INERT		
Asphalt		
Concrete/Brick/Rock		
Dirt		
Other Inert		
9 YARD WASTE		
Leaves		
Grass		
Other Yard Waste		
10 HAZARDOUS		
Lead Acid Batteries		
Dry Cell Batteries		
Other Hazardous		

**COMMENTS/OBSERVATIONS:**

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**WORKSHEET 5**

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**RECYCLING ACTION PLAN**

Use the following worksheets to begin planning your recycling program. If your company has more than one facility, the recycling program design may vary from site to site. Prepare individual plans for each facility.

**A. COMPANY PROFILE**

Company Name:
Recycling Coordinator:
Address/Telephone:
Type of Business
Number of Employees:
Number of Facilities:

**B. Facility/Site Description**

Address:	
Recycling Coordinator's Contact Person:	
Number of Employees:	
Type of Building:	<input type="checkbox"/> single-tenant <input type="checkbox"/> multi-tenant <input type="checkbox"/> high-rise <input type="checkbox"/> horizontal property
Number of Floors _____	Square Footage _____
<u>Departments</u>	<u>Location</u>
1.	1.
2.	2.
3.	3.
4.	4.
Number of Elevators:    _____ passenger    _____ freight	
Loading Dock Location and Access Route:	



**C. TARGET MATERIALS (check all that apply)**

- |                                       |                                      |                                     |  |
|---------------------------------------|--------------------------------------|-------------------------------------|--|
| <input type="checkbox"/> office paper | <input type="checkbox"/> phone books | <input type="checkbox"/> wood       | <input type="checkbox"/> clothing            |
| <input type="checkbox"/> newspaper    | <input type="checkbox"/> plastic     | <input type="checkbox"/> yard waste | <input type="checkbox"/> furniture/equipment |
| <input type="checkbox"/> cardboard    | <input type="checkbox"/> glass       | <input type="checkbox"/> food waste | <input type="checkbox"/> other_____          |
| <input type="checkbox"/> magazine     | <input type="checkbox"/> aluminum    | <input type="checkbox"/> tires      | <input type="checkbox"/> other_____          |
| <input type="checkbox"/> other paper  | <input type="checkbox"/> other metal | <input type="checkbox"/> used oil   |  |

**D. PLANNED FLOW OF RECYCLABLE MATERIALS (check all that apply)**

- Employees deposit recyclable materials in Area Collection Containers.
- Employees deposit recyclables directly in Central Collection/Storage Area.
- \_\_\_\_\_ (type of in-house staff) transports recyclables from Area Collection Containers to Central Storage Area.
- \_\_\_\_\_ (name of contracted collector) picks up recyclables from Central Storage and transports to an Oahu recycling center for processing.

**E. LOCATION OF CONTAINERS FOR RECYCLABLE COLLECTION**

Area Collection Location(s):

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_
11. \_\_\_\_\_
12. \_\_\_\_\_
13. \_\_\_\_\_
14. \_\_\_\_\_
15. \_\_\_\_\_
16. \_\_\_\_\_
17. \_\_\_\_\_
18. \_\_\_\_\_
19. \_\_\_\_\_
20. \_\_\_\_\_

Central Collection/Storage Location(s):

1. \_\_\_\_\_
2. \_\_\_\_\_

**F. CONTAINERS NEEDED**

For Employee Collection

Type of Container	Quantity	Cost

For Area Collection

Type of Container	Quantity	Cost

For Central Collection and Storage

Type of Container	Quantity	Cost



Contracted Recycling Collector: \_\_\_\_\_

Contact Person: \_\_\_\_\_ Telephone #: \_\_\_\_\_

Type of Company:

- refuse hauler  
 small independent collector

- recycling processor  
 not-for-profit organization

Terms of Contract

Fee/Revenue Base:

- Revenue return for recyclables based on amounts set in a long-term contract.
- Revenue return for recyclables based on sliding market values.
- No pay/no charge
- The net result of a per-container collection charge, with a revenue return for the recyclables based on sliding market values.

Container Size: \_\_\_\_\_

Number of Containers: \_\_\_\_\_

Are storage containers provided as part of the contract?

- yes  no

Are in-house collection containers provided as part of the contract?

- yes  no

Does contractor provide program organization and promotion assistance?

- yes  no

Expiration Date of Contract: \_\_\_\_\_

**H. EDUCATION AND PROMOTION**

Educational materials and media to be used to encourage staff participation:

- |   |   |
|---|---|
| <input type="checkbox"/> kick-off/introduction memo       | <input type="checkbox"/> brochures                    |
| <input type="checkbox"/> posters                          | <input type="checkbox"/> mini presentations/workshops |
| <input type="checkbox"/> company newsletters              | <input type="checkbox"/> staff meetings               |
| <input type="checkbox"/> new employee orientation packets | <input type="checkbox"/> video                        |
| <input type="checkbox"/> bulletin board progress reports  | <input type="checkbox"/> other _____                  |
|   | _____   |
|   | _____   |
|   | _____   |

Educational materials and media to be used to develop customer/public awareness:

Printed messages on:

- company letterhead
- shopping bags
- product packaging
- menus
- other \_\_\_\_\_

Advertising and publicity in/at:

- newspaper
- radio
- magazines/trade journals
- television
- trade shows
- conferences/seminars
- other \_\_\_\_\_

**I. SUMMARY OF RESPONSIBILITIES**

Employees
In-House Maintenance Staff
Recycling Collector
Recycling Coordinator

**J. COST-BENEFIT WORKSHEET**

Once you have completed this cost-benefit worksheet, you will have estimated costs and savings associated with your new recycling program compared to your current waste removal expenditures. Remember to amortize major equipment over its expected life.

Current Waste Removal Cost:

	<u>Monthly</u>	<u>Annual</u>
Hauling contractors	\$ _____	\$ _____
Tipping fees	\$ _____	\$ _____
Equipment (e.g., containers, compactor, etc.)	\$ _____	\$ _____
Janitorial services (prorated)	\$ _____	\$ _____
Less revenue from any current recycling measures in use	\$ ( _____ )	\$ ( _____ )
(A) Equals total current removal cost	\$ _____	\$ _____

Anticipated Disposal Cost After Implementing Recycling Program:

	<u>Monthly</u>	<u>Annual</u>
Waste removal expense (possibly reduced by recycling)	\$ _____	\$ _____
Recyclable material removal expense, if any	\$ _____	\$ _____
Coordinator's wages/salary (prorated)	\$ _____	\$ _____
Replacement & maintenance of recycling containers	\$ _____	\$ _____
Janitorial services (prorated)	\$ _____	\$ _____
(B) Equals total anticipated disposal cost	\$ _____	\$ _____

Initial Cost to Begin New Recycling Program:

	<u>Monthly</u>	<u>Annual</u>
Equipment/supplies (e.g., compactor, containers)	\$ _____	\$ _____
Installation	\$ _____	\$ _____
Publicity/education	\$ _____	\$ _____
(C) Equals total initial cost to begin recycling program	\$ _____	\$ _____

Revenue From Recyclable Material Sale:

	<u>\$ Per Ton</u>	<u>Quantity Per Month</u>	<u>Monthly</u>	<u>Annual</u>
Aluminum	\$ _____	_____	\$ _____	\$ _____
Copper	\$ _____	_____	\$ _____	\$ _____
Steel	\$ _____	_____	\$ _____	\$ _____
Glass	\$ _____	_____	\$ _____	\$ _____
Newspaper	\$ _____	_____	\$ _____	\$ _____
Corrugated Cardboard	\$ _____	_____	\$ _____	\$ _____
Office/Computer Paper	\$ _____	_____	\$ _____	\$ _____
Plastic	\$ _____	_____	\$ _____	\$ _____
Other _____	\$ _____	_____	\$ _____	\$ _____
(D) Total revenue from recyclable materials			\$ _____	\$ _____

Net Anticipated Disposal Cost After Recycling Program Has Begun:

	<u>Monthly</u>	<u>Annual</u>
B (Anticipated waste removal cost)	\$ _____	\$ _____
+ C (Initial cost to begin new recycling program)	\$ _____	\$ _____
= Total estimated cost of new recycling program	\$ _____	\$ _____
- D (Revenue from recyclable materials)	\$ (_____)	\$ (_____)
= (E) Net anticipated disposal cost	\$ _____	\$ _____

Compare with Current Waste Removal System:

	<u>Monthly</u>	<u>Annual</u>
A (Current waste removal cost)	\$ _____	\$ _____
- E (Net anticipated disposal cost)	\$ (_____)	\$ (_____)
= NET SAVINGS	\$ _____	\$ _____