

# **Oregon Solid Waste Composition**

**2002**

## **Marion County Supplement**

Draft Feb 20, 2004

The Oregon Waste Composition Study for 2002 is a state-wide study of the composition of municipal solid waste generated in Oregon and disposed at landfills, transfer stations, and incinerators in Oregon or transported out-of-state for disposal. The study was conducted by obtaining samples of waste at the point of disposal, sorting the waste into different material categories, weighing each component, and then combining these results with disposal quantity information to determine the total amount of different materials being disposed in Oregon.

To supplement the statewide emphasis of the study, Marion County, Metro, and the City of Eugene all participated in and contributed to the study in order to obtain more detailed information about the wastes within each of their respective jurisdictions. Marion County participated by paying to have 120 additional disposal site samples collected and sorted from within the county. The original goal was to combine these samples with those already being gathered as part of the statewide study to obtain at least 150 samples from Marion County, concentrating on waste received at the Marion County Waste to Energy Facility, but also including waste received at the Browns Island Landfill.

The targeted 150 Marion County samples were all collected and sorted. In addition, another 8 samples of residue from a Marion County mixed waste processing facility were also sampled. Two additional self-haul samples from Marion County were also collected at the Coffin Butte Landfill as part of the overall Oregon study, but are not included in analysis here.

This report is a supplement to the overall 2002 Oregon Waste Composition Study report. Aspects such as study methodology and statewide results will be covered briefly here, and will be presented in more detail in the overall 2002 study report. This supplement will concentrate on the results from the 158 Marion County samples (including processing facility samples), as well as present quantity information for the Marion County wastes.

All field work for the 2002 Oregon Waste Composition Study was conducted by Sky Valley Associates ("the contractor") under contract to the Oregon Department of Environmental Quality (DEQ). DEQ performed most of the logistical arrangements for coordinating with disposal sites and for sample selection, and was also responsible for all data analysis. Jeff Bickford of Marion

County was Project Officer for the Marion County portion of the study. Marion County (particularly Leroy Frey) also provided extensive information on disposal at Marion County facilities including copies of the entire Marion County disposal transaction database for 2001 and 2002. Covanta provided support with sampling at the Marion County Waste to Energy Facility. Refuse collection companies serving Marion County also provided data on truck routes for sampling purposes. Peter Spendelow of DEQ did much of the logistical arrangements and all the data analysis and write-up. Olivia Jonason formerly of DEQ also provided logistical support.

## **Methodology:**

The general methodology for the Oregon Waste Composition Study involves the following steps:

1. Select loads being directly disposed at landfills, transfer stations, and solid waste incinerators. The selection protocol is designed to accurately represent all of the municipal solid waste being disposed from Oregon, or in this case, from Marion County. The definition for solid waste that is included in this study is the same as is used in Oregon's material recovery survey and calculation of Oregon and watershed material recovery rates.
2. Sort the selected load into 80+ categories of materials, and then weigh each material category.
3. Use the sorted sample weight data to determine the composition of different substreams of wastes, such as residential and commercial route truck garbage, loose drop box garbage, and self-haul garbage.
4. Combine the different substream compositions to produce the overall composition for Oregon or for the specific jurisdiction.

A more detailed description of methodology as it relates to this Marion County supplement is included in Appendix Marion-A: Methodology Details.

The intent of the Marion County study was to determine the composition of waste going directly to the Marion County Waste to Energy Facility, with reduced emphasis on waste going to the Browns Island Demolition Landfill. Sampling for the Marion study was conducted only at the Marion County Waste to Energy Facility (energy facility) and at Browns Island, plus a few processing facility residue samples collected directly at Marion Recycling. Two separate analyses were conducted on these data:

- Analysis of waste going directly to the Energy Facility, and
- Analysis of all waste generated in Marion County and then disposed, excluding self-haul wastes taken to landfills outside of Marion County.

For the second analysis, the assumption was made that the waste collected from refuse collection companies (haulers) and then taken to the Coffin Butte Landfill has the same composition as wastes taken from those same companies to the Energy Facility. This assumption seems fairly reasonable since for the most part Marion County haulers simply divert loads to Coffin Butte Landfill when the Marion County Waste to Energy Facility is either closed down for

maintenance, or has too much garbage stockpiled to be able to accept more. However, some differences in composition could result from two factors:

- When haulers are sending some of their loads to Coffin Butte and others to the Energy Facility, they might direct those routes that are closer to Coffin Butte to go there instead of to the energy facility, resulting in some geographic differences in what waste goes where.
- Haulers also might be more likely to send loads with materials not acceptable at the Energy Facility to Coffin Butte.

In all other parts of Oregon, self-haul waste samples are collected directly from the vehicles dumping at the landfill or transfer station. For Marion County though, the situation was complicated since some of the waste from the transfer stations is taken first to Marion Recycling where recoverable materials are removed, and then the residue is shipped either to the Energy Facility or Coffin Butte. Thus, the waste directly arriving at the transfer stations is not completely representative of the waste going to the Energy Facility, since portions of the waste chosen to include significant amounts of recoverable items are diverted through Marion Recycling instead of going directly to the Energy Facility. Since the Marion County transfer stations only accept self-haul waste, we decided to sample their waste as it arrived at the Energy Facility, and also sampled processing residue samples from Marion Recycling that were destined for disposal.

Although we sampled Marion County self haul waste coming from the transfer stations and disposed at Browns Island Landfill, we did not target taking samples of Marion County waste being delivered to facilities outside of Marion County. The amount of this self-haul waste is fairly substantial, with Coffin Butte reporting 9801 tons, Riverbend reporting 2330 tons, Lakeside Reclamation reporting 1001 tons, and Hillsboro Landfill reporting 118 tons. Because delivery of these loads to the out-of-county landfills is fairly erratic, it was not practical to gather a sufficient number of samples to properly represent disposal of this waste. Thus, we decided to exclude self haul waste taken to out-of-county facilities from the Marion waste composition results. Two Marion County self haul samples were actually obtained randomly as part of the overall statewide study, but these two samples were not applied to the Marion County results.

Sampling was conducted each quarter of 2002 during the months of March, June, September, and December. Table Marion1 shows the number of samples collected each quarter for each different waste source.

**Table Marion1: Marion County Disposal Site Samples by Source**

Load type	Jan - March	April- June	July - Sept.	Oct. - Dec.	Total
Route Trucks:					
Residential Routes	9	7	7	5	28
Commercial Routes	2	3	5	6	16
Mixed Routes	5	7	4	6	22
Compacting Drop Boxes	3	4	4	5	16
Loose Drop Boxes	3	5	5	8	21
Self Haul	8	10	12	8	38
Special Purpose Landfill (B.I.)	2	2	3	2	9
Mixed Waste Processing Residuals	2	2	2	2	8
Total Marion County	34	40	42	52	158

## Quantifying Marion County Waste

Data on the quantity of different types of waste disposed from Marion County came from 3 main sources:

1. Disposal transaction data for Marion County disposal facilities supplied by Marion County,
2. Quarterly disposal reports to DEQ by all Oregon landfills and transfer stations, and
3. Interviews with drivers of trucks from which garbage was sampled.

Based on this information, estimates were calculated for the total tonnage by quarter for each of the substreams used in composition sampling, as shown in table Marion2. Separate compilation was made of Marion County waste going to the Energy Facility, shown in table Marion3.

For waste going to the Energy Facility, it was possible to directly match the transaction data from the Marion County disposal database with the definitions used in the composition study for route trucks, compacting drop boxes, loose drop boxes, self haul, and processing facility residue. For Coffin Butte, good matches between categories could also be made, except that Coffin Butte records all drop box loads together and does not separate loose drop boxes from compacting drop boxes. No direct data were available from disposal sites to determine the amount of route truck waste that comes from residential routes, commercial routes, and mixed routes. For the purpose of this study, estimates of each of these were constructed using a combination of actual samples collected in both the current study and the study conducted in 1998, plus hauler-provided data on their Marion County routes.

**Table Marion2: Marion County Tons Disposed 2002 by source.**

Load type	Jan - March	April- June	July - Sept.	Oct. - Dec.	Total
<b>Route Trucks:</b>	<b>27,052</b>	<b>28,773</b>	<b>30,091</b>	<b>29,568</b>	<b>115,484</b>
Residential Routes	12,612	12,647	13,480	12,453	51,192
Commercial Routes	4,276	4,869	5,686	5,827	20,659
Mixed Routes	10,164	11,257	10,925	11,288	43,633
<b>Compacting Drop Boxes</b>	<b>3,768</b>	<b>3,609</b>	<b>4,155</b>	<b>4,155</b>	<b>15,687</b>
<b>Loose Drop Boxes</b>	<b>3,372</b>	<b>3,781</b>	<b>3,812</b>	<b>4,033</b>	<b>14,998</b>
<b>Self Haul (Marion County TS)</b>	<b>4,930</b>	<b>5,323</b>	<b>4,886</b>	<b>5,101</b>	<b>20,240</b>
<b>Special Purpose Landfill (Browns ls.)</b>	<b>1,406</b>	<b>2,461</b>	<b>2,770</b>	<b>1,508</b>	<b>8,145</b>
<b>Mixed Waste Processing Residuals</b>	<b>5,675</b>	<b>7,276</b>	<b>9,581</b>	<b>6,860</b>	<b>29,392</b>
<b>Subtotal: Sampled Waste</b>	<b>46,203</b>	<b>51,224</b>	<b>55,295</b>	<b>51,225</b>	<b>203,946</b>
<i>Tires (single material disposed)</i>	155	299	357	281	1,094
<i>Medical (single material disposed)</i>	85	83	84	85	337
<i>Gypsum</i>	796	1,063	1,079	910	3,847
<i>Self-Haul out-of-county</i>	2,577	3,822	4,086	2,764	13,249
<b>Total (including non-sampled waste)*</b>	<b>49,816</b>	<b>56,492</b>	<b>60,900</b>	<b>55,265</b>	<b>222,473</b>

\*This total includes 24,774 tons of specific wastes that were excluded from Marion County's disposed tonnage under the Oregon Material Recovery Survey and instead counted as recovered tons under Oregon Revised Statute 459A.010(4)(f)(B).

**Table Marion3: Marion County Waste to Energy Facility Tons Disposed 2002 by source.**

**Does not include wastes generated out of Marion County**

Load type	Jan - March	April- June	July - Sept.	Oct. - Dec.	Total
<b>Route Trucks:</b>	<b>25,216</b>	<b>26,846</b>	<b>26,395</b>	<b>27,371</b>	<b>105,827</b>
Residential Routes	11,756	11,800	11,824	11,527	46,908
Commercial Routes	3,985	4,543	4,988	5,394	18,911
Mixed Routes	9,474	10,503	9,583	10,449	40,009
<b>Compacting Drop Boxes</b>	<b>2,931</b>	<b>2,839</b>	<b>3,102</b>	<b>3,289</b>	<b>12,162</b>
<b>Loose Drop Boxes</b>	<b>2,623</b>	<b>2,974</b>	<b>2,846</b>	<b>3,193</b>	<b>11,636</b>
<b>Self Haul *</b>	<b>4,922</b>	<b>5,323</b>	<b>4,886</b>	<b>5,110</b>	<b>20,242</b>
<b>Mixed Waste Processing Residuals</b>	<b>2,335</b>	<b>2,780</b>	<b>2,257</b>	<b>2,566</b>	<b>9,938</b>
<b>Subtotal: Sampled Waste:</b>	<b>38,028</b>	<b>40,762</b>	<b>39,487</b>	<b>41,529</b>	<b>159,805</b>
<b>Medical (not sampled)</b>	<b>85</b>	<b>83</b>	<b>84</b>	<b>85</b>	<b>337</b>
<b>Total</b>	<b>38,113</b>	<b>40,845</b>	<b>39,571</b>	<b>41,614</b>	<b>160,142</b>

\* "self-haul" includes road cleanup waste and a very tiny amount of dead animals

## Composition results

The composition results for Marion County are presented in a series of tables at the end of this report, including the following:

Marion4: Overall Composition for All Marion County (excluding self-haul to out-of-county facilities) and comparison to Statewide Composition - field data only  
Marion5: Marion County Overall Composition 2002: Field Data and Contamination Correction  
Marion6: Composition for the Marion Waste to Energy Plant 2002: Field Data and Contamination Correction  
Marion7: Tons Disposed By Material: Marion County Overall and Waste to Energy Plant 2002:  
Marion8: Comparisons of Marion County Composition 1998 vs. 2002  
Marion9: Composition By Vehicle Source  
Marion10: Confidence Intervals: Composition by Vehicle Source  
Marion11: Beverage Containers Disposed (\*\*\*\*\*not yet completed)

In comparing Marion County to statewide composition results (Table Marion4), bear in mind that the Marion County results do not include a significant tonnage of material that is self-hauled to out-of-county landfills. As such, the amount of material commonly present in self-haul garbage, including materials such as wood and yard debris and other "dry" wastes, should be lower in the Marion results since some of this self-haul waste was not included in the study. The same is true for comparing 1998 and 2002 Marion County results, as the 1998 results included more samples from the Marion County transfer stations as a proxy for the out-of-county self-haul waste.

However, even taking this into account, the amount of wood and yard debris disposed from Marion County is substantially below the statewide average. Wood made up only 5.57% of the Marion County garbage as opposed to 8.72% of the statewide garbage and 10.41% in the 1998 Marion County study. These differences are statistically significant, although again, the exclusion of some Marion County self-haul waste could have partly led to this difference. Increased recovery of wood by Marion Recycling, including sorting out of wood taken to the Salem-Keiser transfer station, may also have been a factor. Even stronger though is the reduction in yard debris disposed. The Marion County 2002 study showed only 2.82% of the disposed waste being yard debris. This is less than the 1998 Marion County yard debris percentage (4.74%), although the difference is just barely statistically significant. It is substantially less than the 2002 Oregon statewide figure for yard debris though, which was 6.58%.

Not surprisingly, another material for which at least the sampled waste had substantially less material in Marion County was gypsum wallboard from new construction. "New" gypsum made up only 0.42% of the Marion wastestream, almost all of which went to the Browns Island Landfill. Statewide, "new" gypsum made up 2.45% of the wastestream.

Multiplying the percentage of the Marion County new gypsum in sampled waste by the total tons of Marion County waste shows that on the order of 1,000 tons of gypsum was disposed in mixed waste. However, a substantial amount of gypsum waste is either delivered directly to Browns Island from construction/manufacturing facilities, or is sorted out at Marion Recycling and taken to Browns Island to avoid the problems that gypsum would cause at the energy facility. 3,847 tons of gypsum waste were disposed of in this manner as a single material in 2002. If these

3,847 tons were included in the sampled waste, their percentage of new gypsum in Marion County's waste stream would be much closer to the statewide percentage.

Plastics made up 14.17% of the Marion County waste, as compared to 10.95% statewide. This difference was statistically significant. Much of the difference came from film plastics, which were 7.33% of Marion County waste but only 4.87% of the statewide waste. Film plastic was 5.26% of Marion's waste in 1998, a difference which is only marginally statistically significant. Particularly high levels of film plastic were found in compacting drop box loads in Marion County, and also in the residue coming from Marion Recycling (see tables Marion9 and Marion10). Food waste and tin cans were also slightly higher in Marion County than statewide. Both of these are materials that are relatively rare in self-hauled waste and common in route truck waste, so the exclusion of out-of-county self haul waste could be much of the reason why these two were slightly higher, since there was not as much self-haul waste to dilute the percentage. No other significant differences were found between Marion County and statewide results.

There were a few other statistically-significant differences noted between results for 1998 and 2002 for Marion County (Table Marion8). Both cardboard and low-grade paper (junk mail) were lower in 2002 than in 1998. Non-recyclable paper was higher in 2002. Aluminum cans were also slightly higher. One unexplained difference was furniture, which was higher in 2002 than in 1998 (3.2% vs 0.6%). Perhaps improved recycling programs helped lead to reductions in cardboard and junk mail being disposed. Although the Oregon Bottle Bill is still pretty effective, there has been a small decline in returns in recent years, which might have contributed to the slight increase in aluminum cans. It could also be that as efforts to recover more material increase, the proportion of non-recyclable material in the waste stream might also increase since it is not being diluted out by as much recyclable material. However, it must be kept in mind that "statistical significance" just means that there is less than a 1 in 20 chance that an observed difference is due just to random sampling differences rather than a real difference. Since the waste composition study involves many comparisons of waste percentages between different geographic areas or between different study dates, it is likely at least a few of the "statistically significant" differences are really chance sampling results rather than any real underlying differences. That seems likely to be the case regarding the difference in furniture. Furniture is something that is disposed sporadically with many samples containing no furniture and a few containing large amounts of furniture weight. As such, the confidence intervals associated with the estimate of furniture in the waste stream are very broad (imprecise). There is no reason to expect that furniture disposal would increase more than 6-fold since 1998, so it seems likely that just by chance, a higher portion of the samples collected in 2002 contained furniture than was found in 1998.

Overall though, the trends in Marion County waste look pretty positive. There were substantial reductions in some of the recoverable materials such as wood, yard debris, cardboard, and junk mail, and a slight perhaps corresponding increase in the percentage of non-recyclable paper. Food waste and film plastic are some of the materials that might be amenable to greater recovery efforts.

# Table Marion4: Overall Marion County Composition and comparison to statewide results

2002 Field Data Only (page 1 of 2)

Material	Marion County Percent	(90% Conf. Int.) Marion	Marion Present/ Samples	Overall Oregon Percent	(90% Conf. Int.) All Oregon
<b>TOTAL PAPER</b>	<b>21.95%</b>	<b>(20.61 - 23.29%)</b>	<b>149/ 158</b>	<b>20.62%</b>	<b>(19.78 - 21.56%)</b>
<b>Paper Packaging</b>	<b>10.15%</b>	<b>(9.31 - 10.94%)</b>	<b>149/ 158</b>	<b>9.09%</b>	<b>(8.60 - 9.62%)</b>
Cardboard/Brown Bags	3.33%	(2.99 - 3.68%)	147/ 158	3.23%	(2.93 - 3.55%)
Low Grade Packaging	2.73%	(2.45 - 2.99%)	139/ 158	2.10%	(1.89 - 2.33%)
Bleached Polycoats	0.45%	(0.36 - 0.55%)	112/ 158	0.43%	(0.35 - 0.52%)
Nonrecvc. Packaging Paper	1.79%	(1.35 - 2.30%)	132/ 158	1.42%	(1.27 - 1.59%)
Mixed Paper / Materials	1.84%	(1.53 - 2.16%)	137/ 158	1.91%	(1.70 - 2.13%)
<b>Other Paper</b>	<b>11.80%</b>	<b>(10.82 - 12.86%)</b>	<b>141/ 158</b>	<b>11.53%</b>	<b>(10.95 - 12.13%)</b>
Newspaper	2.47%	(2.14 - 2.85%)	130/ 158	2.17%	(2.00 - 2.36%)
Magazines	0.92%	(0.75 - 1.10%)	110/ 158	1.27%	(1.11 - 1.45%)
Hi Grade Paper	1.51%	(1.17 - 1.98%)	133/ 158	1.75%	(1.57 - 1.94%)
Hardcover Books	0.11%	(0.05 - 0.19%)	18/ 158	0.11%	(0.07 - 0.16%)
Low Grade Paper	2.19%	(1.95 - 2.45%)	134/ 158	2.35%	(2.09 - 2.63%)
Other Nonrecyclable Paper	4.59%	(4.12 - 5.06%)	136/ 158	3.88%	(3.65 - 4.13%)
Low-grade Recyc. Paper comb.	5.49%	(5.05 - 5.88%)	142/ 158	4.99%	(4.63 - 5.35%)
Nonrecyclable Paper combined	8.23%	(7.45 - 8.98%)	144/ 158	7.21%	(6.81 - 7.62%)
<b>TOTAL PLASTICS</b>	<b>14.17%</b>	<b>(12.38 - 16.50%)</b>	<b>150/ 158</b>	<b>10.95%</b>	<b>(10.39 - 11.58%)</b>
<b>Plastic Packaging</b>	<b>7.62%</b>	<b>(6.83 - 8.53%)</b>	<b>150/ 158</b>	<b>5.65%</b>	<b>(5.39 - 5.95%)</b>
Rigid Plastic Containers	1.88%	(1.73 - 2.03%)	137/ 158	1.67%	(1.58 - 1.78%)
<b>Other Plastic Packaging</b>	<b>5.74%</b>	<b>(4.97 - 6.66%)</b>	<b>149/ 158</b>	<b>3.98%</b>	<b>(3.76 - 4.22%)</b>
Other Rigid Packaging	0.98%	(0.89 - 1.06%)	131/ 158	0.82%	(0.73 - 0.93%)
Plastic Film Pkg Est. 2002	4.76%	(4.02 - 5.69%)	147/ 158	3.16%	(2.97 - 3.37%)
<b>Plastic Products</b>	<b>6.55%</b>	<b>(5.41 - 8.01%)</b>	<b>149/ 158</b>	<b>5.29%</b>	<b>(4.86 - 5.77%)</b>
Rigid Plastic Products	1.89%	(1.51 - 2.32%)	138/ 158	2.16%	(1.83 - 2.49%)
Plastic Film Prod. Est. 2002	2.57%	(2.17 - 3.07%)	147/ 158	1.71%	(1.60 - 1.82%)
Mixed Plastic / Materials	2.09%	(1.32 - 3.13%)	126/ 158	1.42%	(1.17 - 1.73%)
<i>(Film plastic combined)</i>	<i>7.33%</i>	<i>(6.20 - 8.76%)</i>	<i>147/ 158</i>	<i>4.87%</i>	<i>(4.57 - 5.19%)</i>
Plastic Film Recyclable	1.86%	(1.17 - 2.61%)	121/ 158	1.02%	(0.83 - 1.25%)
Plastic Film Nonrecyclable	5.47%	(4.80 - 6.25%)	141/ 158	3.85%	(3.65 - 4.08%)
<b>OTHER ORGANICS</b>	<b>41.05%</b>	<b>(38.08 - 44.14%)</b>	<b>151/ 158</b>	<b>45.13%</b>	<b>(43.50 - 46.72%)</b>
<b>Yard Debris</b>	<b>2.82%</b>	<b>(1.97 - 3.80%)</b>	<b>99/ 158</b>	<b>6.58%</b>	<b>(5.37 - 7.82%)</b>
Leaves / Grass	2.67%	(1.82 - 3.64%)	84/ 158	5.46%	(4.37 - 6.63%)
Small Prunings under 2"	0.10%	(0.05 - 0.15%)	38/ 158	0.83%	(0.51 - 1.19%)
Large Prunings over 2"	0.05%	(0.02 - 0.09%)	6/ 158	0.24%	(0.12 - 0.39%)
Stumps	0.00%	(0.00 - 0.00%)	0/ 158	0.05%	(0.00 - 0.15%)
<b>Wood</b>	<b>5.57%</b>	<b>(4.40 - 6.90%)</b>	<b>135/ 158</b>	<b>8.72%</b>	<b>(7.75 - 9.73%)</b>
<b>Clean lumber &amp; hog fuel</b>	<b>2.74%</b>	<b>(1.92 - 3.88%)</b>	<b>102/ 158</b>	<b>3.45%</b>	<b>(2.87 - 4.04%)</b>
Untreated Lumber	1.46%	(1.21 - 1.73%)	94/ 158	2.03%	(1.62 - 2.46%)
Clean HogFuel Lumber	1.28%	(0.60 - 2.40%)	60/ 158	1.42%	(1.01 - 1.87%)
<b>Painted &amp; Treated lumber</b>	<b>0.67%</b>	<b>(0.51 - 0.85%)</b>	<b>70/ 158</b>	<b>1.53%</b>	<b>(1.10 - 2.04%)</b>
Painted Lumber	0.64%	(0.48 - 0.81%)	69/ 158	1.14%	(0.79 - 1.55%)
Chemically-treated Lumber	0.03%	(0.01 - 0.07%)	6/ 158	0.39%	(0.14 - 0.71%)
Wood Pallets / Crates	0.30%	(0.10 - 0.61%)	15/ 158	1.19%	(0.86 - 1.51%)
Wood Furniture	0.34%	(0.16 - 0.56%)	17/ 158	0.45%	(0.30 - 0.63%)
Other Wood Products	0.10%	(0.06 - 0.14%)	78/ 158	0.11%	(0.09 - 0.13%)
Mixed Wood / Materials	1.41%	(0.85 - 2.10%)	67/ 158	1.98%	(1.57 - 2.46%)
Food	17.66%	(16.07 - 19.21%)	137/ 158	15.60%	(14.72 - 16.53%)
Tires	0.26%	(0.01 - 0.61%)	4/ 158	0.12%	(0.06 - 0.19%)
Rubber Products	0.51%	(0.34 - 0.72%)	105/ 158	0.64%	(0.48 - 0.84%)
Disposable Diapers	2.56%	(2.11 - 2.99%)	87/ 158	2.08%	(1.76 - 2.43%)
Carpet	1.93%	(0.86 - 3.11%)	38/ 158	1.97%	(1.48 - 2.58%)
<b>Textiles + mixed</b>	<b>3.34%</b>	<b>(2.72 - 4.06%)</b>	<b>131/ 158</b>	<b>3.03%</b>	<b>(2.68 - 3.44%)</b>
Textiles	1.83%	(1.29 - 2.49%)	121/ 158	1.73%	(1.48 - 2.02%)
Mixed Textile / Material	1.51%	(1.24 - 1.81%)	117/ 158	1.30%	(1.10 - 1.52%)
Roofing / Tarpaper	2.15%	(1.16 - 3.15%)	41/ 158	3.81%	(2.84 - 4.80%)
Furniture	3.18%	(1.51 - 4.82%)	23/ 158	1.27%	(0.91 - 1.64%)
Other Organics	1.07%	(0.85 - 1.30%)	114/ 158	1.30%	(1.07 - 1.59%)

**Continued Table Marion4: Marion County and All Oregon**  
**2002 Field Data Only** (page 2 of 2)

Material	Marion County Percent	(90% Conf. Int.) Marion	Marion Present/ Samples	Overall Oregon Percent	(90% Conf. Int.) All Oregon
<b>GLASS</b>	<b>2.15%</b>	<b>(1.77 - 2.60%)</b>	<b>118/ 158</b>	<b>2.32%</b>	<b>(2.04 - 2.66%)</b>
Deposit Beverage Glass	0.34%	(0.20 - 0.52%)	55/ 158	0.37%	(0.30 - 0.44%)
<b>Other Container Glass</b>	<b>1.05%</b>	<b>(0.90 - 1.21%)</b>	<b>105/ 158</b>	<b>1.18%</b>	<b>(1.09 - 1.29%)</b>
Other Clear Bottles	0.37%	(0.30 - 0.44%)	72/ 158	0.44%	(0.38 - 0.49%)
Other Colored Bottles	0.20%	(0.14 - 0.27%)	37/ 158	0.28%	(0.23 - 0.33%)
Clear Container Glass	0.44%	(0.35 - 0.54%)	72/ 158	0.43%	(0.37 - 0.48%)
Colored Container Glass	0.04%	(0.02 - 0.06%)	17/ 158	0.04%	(0.03 - 0.06%)
<b>Window+Nonrecvc. Glass</b>	<b>0.76%</b>	<b>(0.48 - 1.14%)</b>	<b>87/ 158</b>	<b>0.76%</b>	<b>(0.51 - 1.09%)</b>
Flat Window Glass	0.14%	(0.06 - 0.26%)	21/ 158	0.27%	(0.08 - 0.60%)
Other Nonrecvc. Glass	0.58%	(0.33 - 0.95%)	79/ 158	0.47%	(0.36 - 0.59%)
<b>Fluorescent Lights &amp; Tubes</b>	<b>0.04%</b>	<b>(0.01 - 0.09%)</b>	<b>10/ 158</b>	<b>0.02%</b>	<b>(0.01 - 0.03%)</b>
Fluorescent Tubes	0.03%	(0.00 - 0.08%)	6/ 158	0.01%	(0.00 - 0.02%)
Compact Fluorescent Lights	0.01%	(0.00 - 0.02%)	5/ 158	0.01%	(0.00 - 0.01%)
<b>METALS</b>	<b>8.34%</b>	<b>(6.71 - 10.11%)</b>	<b>145/ 158</b>	<b>7.45%</b>	<b>(6.75 - 8.13%)</b>
Alum. Beverage Cans	0.14%	(0.12 - 0.17%)	115/ 158	0.13%	(0.12 - 0.15%)
<b>Foil &amp; Other Aluminum</b>	<b>0.22%</b>	<b>(0.19 - 0.25%)</b>	<b>114/ 158</b>	<b>0.24%</b>	<b>(0.20 - 0.29%)</b>
Alum. Foil / Food Trays	0.18%	(0.15 - 0.20%)	109/ 158	0.17%	(0.15 - 0.19%)
Other Aluminum	0.04%	(0.02 - 0.07%)	21/ 158	0.07%	(0.03 - 0.12%)
<b>Tinned Cans</b>	<b>1.22%</b>	<b>(1.06 - 1.38%)</b>	<b>131/ 158</b>	<b>0.88%</b>	<b>(0.81 - 0.96%)</b>
Tin Food Cans	0.98%	(0.88 - 1.08%)	127/ 158	0.79%	(0.72 - 0.86%)
Other Tin Cans	0.24%	(0.12 - 0.38%)	42/ 158	0.09%	(0.07 - 0.12%)
<b>Other Metal</b>	<b>6.76%</b>	<b>(5.12 - 8.52%)</b>	<b>132/ 158</b>	<b>6.19%</b>	<b>(5.50 - 6.85%)</b>
Other Nonferrous Metal	0.04%	(0.02 - 0.06%)	25/ 158	0.06%	(0.04 - 0.08%)
Other Ferrous Metal	1.50%	(1.08 - 1.97%)	109/ 158	1.74%	(1.45 - 2.05%)
White Goods	0.00%	(0.00 - 0.00%)	0/ 158	0.05%	(0.00 - 0.11%)
<b>Computer,Brown,Sm. Applianc</b>	<b>2.45%</b>	<b>(1.29 - 3.83%)</b>	<b>51/ 158</b>	<b>1.91%</b>	<b>(1.51 - 2.34%)</b>
<b>Computers &amp; Monitors</b>	<b>0.38%</b>	<b>(0.13 - 0.68%)</b>	<b>8/ 158</b>	<b>0.56%</b>	<b>(0.34 - 0.82%)</b>
Computers	0.38%	(0.13 - 0.68%)	8/ 158	0.32%	(0.18 - 0.49%)
CRT Monitors	0.00%	(0.00 - 0.00%)	0/ 158	0.24%	(0.11 - 0.39%)
<b>TVs, CRTs, &amp; Brown Goods</b>	<b>1.47%</b>	<b>(0.48 - 2.61%)</b>	<b>19/ 158</b>	<b>0.71%</b>	<b>(0.47 - 0.96%)</b>
TVs & other CRTs	1.38%	(0.40 - 2.52%)	7/ 158	0.43%	(0.22 - 0.64%)
Other Brown Goods	0.09%	(0.03 - 0.15%)	13/ 158	0.28%	(0.18 - 0.40%)
Small Appliances-non elec	0.60%	(0.30 - 0.95%)	30/ 158	0.64%	(0.48 - 0.83%)
Empty Aerosol Cans	0.17%	(0.13 - 0.21%)	78/ 158	0.11%	(0.10 - 0.13%)
Used Oil Filters	0.16%	(0.06 - 0.29%)	13/ 158	0.04%	(0.03 - 0.06%)
Mixed Metal / Material	2.61%	(1.97 - 3.28%)	110/ 158	2.32%	(1.94 - 2.72%)
<b>OTHER INORGANICS</b>	<b>10.93%</b>	<b>(9.25 - 12.88%)</b>	<b>121/ 158</b>	<b>12.78%</b>	<b>(11.40 - 14.19%)</b>
Rock / Concrete / Brick	1.61%	(0.88 - 2.51%)	34/ 158	2.57%	(1.89 - 3.27%)
Soil / Sand / Dirt	2.27%	(1.41 - 3.16%)	32/ 158	1.05%	(0.74 - 1.37%)
Pet Litter / Animal Feces	2.09%	(1.39 - 3.07%)	45/ 158	1.67%	(1.38 - 1.97%)
<b>Gypsum wallboard</b>	<b>2.59%</b>	<b>(1.58 - 3.71%)</b>	<b>50/ 158</b>	<b>4.65%</b>	<b>(3.64 - 5.69%)</b>
Gypsum Wallboard OLD	2.17%	(1.28 - 3.18%)	43/ 158	2.19%	(1.52 - 2.92%)
Gypsum Wallboard NEW	0.42%	(0.01 - 0.97%)	9/ 158	2.45%	(1.68 - 3.33%)
Fiberglass Insulation	0.17%	(0.04 - 0.34%)	27/ 158	0.60%	(0.17 - 1.08%)
Other Inorganics	2.19%	(1.37 - 2.96%)	91/ 158	2.25%	(1.80 - 2.80%)
<b>"MEDICAL WASTES"</b>	<b>0.04%</b>	<b>(0.01 - 0.07%)</b>	<b>14/ 158</b>	<b>0.09%</b>	<b>(0.04 - 0.15%)</b>
<b>OTHER HAZARDOUS MATLs</b>	<b>1.37%</b>	<b>(0.74 - 2.08%)</b>	<b>94/ 158</b>	<b>0.67%</b>	<b>(0.50 - 0.84%)</b>
Latex Paint	0.13%	(0.05 - 0.23%)	11/ 158	0.09%	(0.05 - 0.14%)
Oil Paints / Thinners	0.34%	(0.02 - 0.91%)	18/ 158	0.06%	(0.02 - 0.11%)
Pesticides / Herbicides	0.15%	(0.00 - 0.45%)	6/ 158	0.02%	(0.00 - 0.04%)
Motor Oil	0.06%	(0.02 - 0.12%)	10/ 158	0.02%	(0.01 - 0.03%)
Fuels (gas/kerod/diesel)	0.00%	(0.00 - 0.01%)	2/ 158	0.00%	(0.00 - 0.00%)
Adhesives / Sealants	0.05%	(0.03 - 0.08%)	20/ 158	0.05%	(0.02 - 0.12%)
Caustic Cleaners	0.01%	(0.00 - 0.01%)	5/ 158	0.02%	(0.01 - 0.03%)
Lead-Acid Batteries	0.07%	(0.00 - 0.20%)	1/ 158	0.07%	(0.00 - 0.15%)
Drv-cell Batteries	0.08%	(0.06 - 0.11%)	70/ 158	0.08%	(0.07 - 0.10%)
Asbestos	0.00%	(0.00 - 0.00%)	0/ 158	0.00%	(0.00 - 0.00%)
Other Hazardous Chemicals	0.31%	(0.03 - 0.68%)	13/ 158	0.22%	(0.10 - 0.36%)
<b>TOTAL PACKAGING</b>	<b>21.17%</b>	<b>(19.85 - 22.49%)</b>	<b>152/ 158</b>	<b>18.79%</b>	<b>(18.06 - 19.60%)</b>
<b>TOTAL PRODUCTS</b>	<b>51.30%</b>	<b>(48.74 - 53.58%)</b>	<b>155/ 158</b>	<b>52.44%</b>	<b>(50.93 - 53.97%)</b>
<b>TOTAL NON-MANUFACTURED</b>	<b>27.53%</b>	<b>(25.50 - 29.70%)</b>	<b>144/ 158</b>	<b>28.77%</b>	<b>(27.17 - 30.29%)</b>
<b>Total Organic</b>	<b>78.27%</b>	<b>(75.93 - 80.40%)</b>	<b>154/ 158</b>	<b>77.24%</b>	<b>(75.73 - 78.64%)</b>
<b>Total non-organic</b>	<b>21.73%</b>	<b>(19.60 - 24.07%)</b>	<b>150/ 158</b>	<b>22.76%</b>	<b>(21.36 - 24.27%)</b>
<b>compostable</b>	<b>51.54%</b>	<b>(49.55 - 53.36%)</b>	<b>149/ 158</b>	<b>52.94%</b>	<b>(51.39 - 54.43%)</b>
<b>compost-target</b>	<b>28.25%</b>	<b>(26.58 - 29.84%)</b>	<b>146/ 158</b>	<b>31.04%</b>	<b>(29.64 - 32.45%)</b>

# Table Marion5: Marion County Waste Composition 2002: Field Data and Contamination Correction

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Material	Field Data Percent	Field Data (90% Conf. Int.)	Percent (Detailed sample correction)	90% Confidence Interval (Detailed sample correction)	Detailed Sample Correction Factor	90% Confidence Interval: Detailed Sample Correction Factor
<b>TOTAL PAPER</b>	<b>21.95%</b>	<b>(20.61 - 23.29%)</b>	<b>17.09%</b>	<b>(15.89 - 18.36%)</b>	<b>-22.14%</b>	<b>(-25.16 to -18.50%)</b>
<b>Paper Packaging</b>	<b>10.15%</b>	<b>(9.31 - 10.94%)</b>	<b>7.86%</b>	<b>(7.16 - 8.56%)</b>	<b>-22.53%</b>	<b>(-25.89 to -18.72%)</b>
Cardboard/Brown Bags	3.33%	(2.99 - 3.68%)	2.78%	(2.42 - 3.14%)	-16.70%	(-23.23 to -10.01%)
Low Grade Packaging	2.73%	(2.45 - 2.99%)	2.31%	(2.06 - 2.57%)	-15.33%	(-19.18 to -11.55%)
Bleached Polycoats	0.45%	(0.36 - 0.55%)	0.38%	(0.31 - 0.47%)	-15.33%	(-19.18 to -11.55%)
Nonrecyc. Packaging Paper	1.79%	(1.35 - 2.30%)	1.18%	(0.88 - 1.52%)	-34.20%	(-37.40 to -30.37%)
Mixed Paper / Materials	1.84%	(1.53 - 2.16%)	1.21%	(1.00 - 1.44%)	-34.20%	(-37.40 to -30.37%)
<b>Other Paper</b>	<b>11.80%</b>	<b>(10.82 - 12.86%)</b>	<b>9.22%</b>	<b>(8.39 - 10.27%)</b>	<b>-21.81%</b>	<b>(-25.57 to -17.41%)</b>
Newspaper	2.47%	(2.14 - 2.85%)	1.85%	(1.45 - 2.38%)	-25.17%	(-38.65 to -10.81%)
Magazines	0.92%	(0.75 - 1.10%)	0.91%	(0.74 - 1.09%)	-0.95%	(-4.98 to 2.33%)
Hi Grade Paper	1.51%	(1.17 - 1.98%)	1.47%	(1.14 - 1.92%)	-2.46%	(-6.32 to 1.02%)
Hardcover Books	0.11%	(0.05 - 0.19%)	0.11%	(0.05 - 0.19%)	0.26%	(-0.96 to 0.43%)
Low Grade Paper	2.19%	(1.95 - 2.45%)	1.86%	(1.63 - 2.10%)	-15.33%	(-19.18 to -11.55%)
Other Nonrecyclable Paper	4.59%	(4.12 - 5.06%)	3.02%	(2.68 - 3.39%)	-34.20%	(-37.40 to -30.37%)
Low-grade Recyc. Paper comb.	5.49%	(5.05 - 5.88%)	4.67%	(4.28 - 5.05%)	-15.00%	(-18.89 to -11.33%)
Nonrecyclable Paper combined	8.23%	(7.45 - 8.98%)	5.41%	(4.84 - 6.01%)	-34.20%	(-37.40 to -30.37%)
<b>TOTAL PLASTICS</b>	<b>14.17%</b>	<b>(12.38 - 16.50%)</b>	<b>11.32%</b>	<b>(9.67 - 13.27%)</b>	<b>-20.12%</b>	<b>(-22.85 to -17.70%)</b>
<b>Plastic Packaging</b>	<b>7.62%</b>	<b>(6.83 - 8.53%)</b>	<b>5.64%</b>	<b>(5.01 - 6.33%)</b>	<b>-25.93%</b>	<b>(-28.11 to -23.70%)</b>
Rigid Plastic Containers	1.88%	(1.73 - 2.03%)	1.46%	(1.35 - 1.59%)	-22.10%	(-23.76 to -20.40%)
<b>Other Plastic Packaging</b>	<b>5.74%</b>	<b>(4.97 - 6.66%)</b>	<b>4.18%</b>	<b>(3.56 - 4.88%)</b>	<b>-27.18%</b>	<b>(-30.15 to -24.21%)</b>
Other Rigid Packaging	0.98%	(0.89 - 1.06%)	0.95%	(0.87 - 1.03%)	-2.43%	(-5.92 to 0.09%)
Plastic Film Pkg Est. 2002	4.76%	(4.02 - 5.69%)	3.23%	(2.62 - 3.92%)	-32.26%	(-35.89 to -28.70%)
<b>Plastic Products</b>	<b>6.55%</b>	<b>(5.41 - 8.01%)</b>	<b>5.68%</b>	<b>(4.58 - 7.02%)</b>	<b>-13.38%</b>	<b>(-16.92 to -10.67%)</b>
Rigid Plastic Products	1.89%	(1.51 - 2.32%)	1.85%	(1.47 - 2.25%)	-2.43%	(-5.92 to 0.09%)
Plastic Film Prod. Est. 2002	2.57%	(2.17 - 3.07%)	1.74%	(1.41 - 2.12%)	-32.26%	(-35.89 to -28.70%)
Mixed Plastic / Materials	2.09%	(1.32 - 3.13%)	2.09%	(1.31 - 3.10%)	-0.06%	(-5.55 to 2.77%)
<i>(Film plastic combined)</i>	<i>7.33%</i>	<i>(6.20 - 8.76%)</i>	<i>4.97%</i>	<i>(4.03 - 6.03%)</i>	<i>-32.26%</i>	<i>(-35.89 to -28.70%)</i>
Plastic Film Recyclable	1.86%	(1.17 - 2.61%)	1.82%	(1.14 - 2.55%)	-2.36%	(-7.43 to 2.09%)
Plastic Film Nonrecyclable	5.47%	(4.80 - 6.25%)	3.15%	(2.74 - 3.63%)	-42.43%	(-45.88 to -38.80%)
<b>OTHER ORGANICS</b>	<b>41.05%</b>	<b>(38.08 - 44.14%)</b>	<b>41.96%</b>	<b>(38.91 - 45.01%)</b>	<b>2.20%</b>	<b>(1.36 to 2.75%)</b>
<b>Yard Debris</b>	<b>2.82%</b>	<b>(1.97 - 3.80%)</b>	<b>2.85%</b>	<b>(2.00 - 3.84%)</b>	<b>1.27%</b>	<b>(0.96 to 1.81%)</b>
Leaves / Grass	2.67%	(1.82 - 3.64%)	2.70%	(1.85 - 3.68%)	1.34%	(1.01 to 1.89%)
Small Prunings under 2"	0.10%	(0.05 - 0.15%)	0.10%	(0.05 - 0.15%)	0.09%	(0.00 to 0.23%)
Large Prunings over 2"	0.05%	(0.02 - 0.09%)	0.05%	(0.02 - 0.09%)	0.00%	(0.00 to 0.00%)
Stumps	0.00%	(0.00 - 0.00%)	0.00%	(0.00 - 0.00%)	0.00%	(0.00 to 0.00%)
<b>Wood</b>	<b>5.57%</b>	<b>(4.40 - 6.90%)</b>	<b>5.48%</b>	<b>(4.30 - 6.79%)</b>	<b>-1.60%</b>	<b>(-3.16 to -0.63%)</b>
<b>Clean lumber &amp; hog fuel</b>	<b>2.74%</b>	<b>(1.92 - 3.88%)</b>	<b>2.66%</b>	<b>(1.84 - 3.79%)</b>	<b>-3.24%</b>	<b>(-7.41 to -0.96%)</b>
Untreated Lumber	1.46%	(1.21 - 1.73%)	1.38%	(1.13 - 1.66%)	-5.87%	(-10.45 to -1.71%)
Clean HogFuel Lumber	1.28%	(0.60 - 2.40%)	1.28%	(0.60 - 2.38%)	-0.25%	(-5.10 to 0.89%)
<b>Painted &amp; Treated lumber</b>	<b>0.67%</b>	<b>(0.51 - 0.85%)</b>	<b>0.70%</b>	<b>(0.52 - 0.90%)</b>	<b>3.66%</b>	<b>(-2.48 to 12.53%)</b>
Painted Lumber	0.64%	(0.48 - 0.81%)	0.66%	(0.49 - 0.86%)	3.36%	(-3.05 to 12.41%)
Chemically-treated Lumber	0.03%	(0.01 - 0.07%)	0.03%	(0.01 - 0.08%)	9.95%	(-0.09 to 28.90%)
Wood Pallets / Crates	0.30%	(0.10 - 0.61%)	0.31%	(0.10 - 0.61%)	0.21%	(0.02 to 0.47%)
Wood Furniture	0.34%	(0.16 - 0.56%)	0.31%	(0.14 - 0.51%)	-8.57%	(-8.57 to -8.57%)
Other Wood Products	0.10%	(0.06 - 0.14%)	0.10%	(0.07 - 0.15%)	4.23%	(-3.79 to 10.03%)
Mixed Wood / Materials	1.41%	(0.85 - 2.10%)	1.41%	(0.86 - 2.10%)	-0.05%	(-0.59 to 1.01%)
Food	17.66%	(16.07 - 19.21%)	18.69%	(16.99 - 20.33%)	5.83%	(4.77 to 6.94%)
Tires	0.26%	(0.01 - 0.61%)	0.26%	(0.01 - 0.61%)	0.00%	(0.00 to 0.00%)
Rubber Products	0.51%	(0.34 - 0.72%)	0.51%	(0.34 - 0.70%)	-0.53%	(-8.26 to 1.59%)
Disposable Diapers	2.56%	(2.11 - 2.99%)	2.57%	(2.12 - 3.01%)	0.38%	(0.08 to 0.80%)
Carpet	1.93%	(0.86 - 3.11%)	1.88%	(0.83 - 3.00%)	-2.46%	(-10.81 to -0.48%)
<b>Textiles + mixed</b>	<b>3.34%</b>	<b>(2.72 - 4.06%)</b>	<b>3.21%</b>	<b>(2.57 - 3.87%)</b>	<b>-3.88%</b>	<b>(-9.14 to -1.55%)</b>
Textiles	1.83%	(1.29 - 2.49%)	1.71%	(1.19 - 2.30%)	-6.59%	(-14.80 to -3.05%)
Mixed Textile / Material	1.51%	(1.24 - 1.81%)	1.50%	(1.22 - 1.80%)	-0.61%	(-3.46 to 0.64%)
Roofing / Tarpaper	2.15%	(1.16 - 3.15%)	2.15%	(1.16 - 3.15%)	0.13%	(-1.73 to 0.35%)
Furniture	3.18%	(1.51 - 4.82%)	3.18%	(1.51 - 4.82%)	0.00%	(0.00 to 0.00%)
Other Organics	1.07%	(0.85 - 1.30%)	1.17%	(0.93 - 1.43%)	8.93%	(6.29 to 13.08%)

**Continued TableMarion5: Field Data and Contamination Correction- All Marion**

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Material	Field Data	Field Data (90% Conf. Int.)	Corrected	Corrected: (90% Conf. Int.)	Correction Factor	Correction Factor (90% Conf. Int.)
<b>GLASS</b>	<b>2.15%</b>	<b>(1.77 - 2.60%)</b>	<b>2.15%</b>	<b>(1.77 - 2.60%)</b>	<b>-0.06%</b>	<b>(-1.85 to 1.66%)</b>
Deposit Beverage Glass	0.34%	(0.20 - 0.52%)	0.34%	(0.20 - 0.51%)	-0.55%	(-1.72 to 0.52%)
<b>Other Container Glass</b>	<b>1.05%</b>	<b>(0.90 - 1.21%)</b>	<b>1.03%</b>	<b>(0.88 - 1.18%)</b>	<b>-1.60%</b>	<b>(-5.55 to 1.83%)</b>
Other Clear Bottles	0.37%	(0.30 - 0.44%)	0.37%	(0.30 - 0.43%)	-0.70%	(-3.04 to 1.81%)
Other Colored Bottles	0.20%	(0.14 - 0.27%)	0.20%	(0.14 - 0.26%)	-2.14%	(-3.90 to -0.75%)
Clear Container Glass	0.44%	(0.35 - 0.54%)	0.43%	(0.34 - 0.54%)	-2.23%	(-11.06 to 5.81%)
Colored Container Glass	0.04%	(0.02 - 0.06%)	0.04%	(0.02 - 0.06%)	0.00%	(0.00 to 0.00%)
<b>Window+Nonrecvc. Glass</b>	<b>0.76%</b>	<b>(0.48 - 1.14%)</b>	<b>0.78%</b>	<b>(0.49 - 1.17%)</b>	<b>2.27%</b>	<b>(-1.88 to 7.28%)</b>
Flat Window Glass	0.14%	(0.06 - 0.26%)	0.14%	(0.06 - 0.26%)	0.47%	(-6.57 to 11.64%)
Other Nonrecvc. Glass	0.58%	(0.33 - 0.95%)	0.60%	(0.34 - 0.98%)	2.86%	(-2.72 to 8.56%)
<b>Fluorescent Lights &amp; Tubes</b>	<b>0.04%</b>	<b>(0.01 - 0.09%)</b>	<b>0.04%</b>	<b>(0.01 - 0.09%)</b>	<b>0.03%</b>	<b>(0.00 to 0.21%)</b>
Fluorescent Tubes	0.03%	(0.00 - 0.08%)	0.03%	(0.00 - 0.08%)	0.00%	(0.00 to 0.00%)
Compact Fluorescent Lights	0.01%	(0.00 - 0.02%)	0.01%	(0.00 - 0.02%)	0.11%	(0.00 to 0.33%)
<b>METALS</b>	<b>8.34%</b>	<b>(6.71 - 10.11%)</b>	<b>8.13%</b>	<b>(6.49 - 9.93%)</b>	<b>-2.49%</b>	<b>(-3.26 to -1.75%)</b>
Alum. Beverage Cans	0.14%	(0.12 - 0.17%)	0.13%	(0.11 - 0.15%)	-10.62%	(-12.56 to -8.89%)
<b>Foil &amp; Other Aluminum</b>	<b>0.22%</b>	<b>(0.19 - 0.25%)</b>	<b>0.15%</b>	<b>(0.12 - 0.18%)</b>	<b>-33.44%</b>	<b>(-38.89 to -28.12%)</b>
Alum. Foil / Food Trays	0.18%	(0.15 - 0.20%)	0.10%	(0.09 - 0.12%)	-42.31%	(-46.29 to -38.14%)
Other Aluminum	0.04%	(0.02 - 0.07%)	0.05%	(0.02 - 0.07%)	1.35%	(0.26 to 3.05%)
<b>Tinned Cans</b>	<b>1.22%</b>	<b>(1.06 - 1.38%)</b>	<b>1.10%</b>	<b>(0.97 - 1.25%)</b>	<b>-9.37%</b>	<b>(-11.74 to -6.38%)</b>
Tin Food Cans	0.98%	(0.88 - 1.08%)	0.90%	(0.81 - 1.00%)	-8.30%	(-10.96 to -5.50%)
Other Tin Cans	0.24%	(0.12 - 0.38%)	0.20%	(0.11 - 0.33%)	-13.81%	(-18.94 to -4.49%)
<b>Other Metal</b>	<b>6.76%</b>	<b>(5.12 - 8.52%)</b>	<b>6.76%</b>	<b>(5.11 - 8.52%)</b>	<b>-0.08%</b>	<b>(-0.52 to 0.26%)</b>
Other Nonferrous Metal	0.04%	(0.02 - 0.06%)	0.04%	(0.02 - 0.07%)	6.79%	(0.17 to 21.75%)
Other Ferrous Metal	1.50%	(1.08 - 1.97%)	1.51%	(1.10 - 1.99%)	0.89%	(0.35 to 1.62%)
White Goods	0.00%	(0.00 - 0.00%)	0.00%	(0.00 - 0.00%)	0.00%	(0.00 to 0.00%)
<b>Computer,Brown,Sm. Applianc</b>	<b>2.45%</b>	<b>(1.29 - 3.83%)</b>	<b>2.44%</b>	<b>(1.29 - 3.83%)</b>	<b>-0.01%</b>	<b>(-0.04 to 0.00%)</b>
<b>Computers &amp; Monitors</b>	<b>0.38%</b>	<b>(0.13 - 0.68%)</b>	<b>0.38%</b>	<b>(0.13 - 0.68%)</b>	<b>0.00%</b>	<b>(0.00 to 0.00%)</b>
Computers	0.38%	(0.13 - 0.68%)	0.38%	(0.13 - 0.68%)	0.00%	(0.00 to 0.00%)
CRT Monitors	0.00%	(0.00 - 0.00%)	0.00%	(0.00 - 0.00%)	0.00%	(0.00 to 0.00%)
<b>TVs, CRTs. &amp; Brown Goods</b>	<b>1.47%</b>	<b>(0.48 - 2.61%)</b>	<b>1.47%</b>	<b>(0.48 - 2.61%)</b>	<b>0.00%</b>	<b>(-0.01 to 0.00%)</b>
TVs & other CRTs	1.38%	(0.40 - 2.52%)	1.38%	(0.40 - 2.52%)	0.00%	(0.00 to 0.00%)
Other Brown Goods	0.09%	(0.03 - 0.15%)	0.09%	(0.03 - 0.15%)	-0.04%	(-0.16 to 0.00%)
Small Appliances-non elec	0.60%	(0.30 - 0.95%)	0.60%	(0.30 - 0.95%)	-0.05%	(-0.13 to 0.00%)
Empty Aerosol Cans	0.17%	(0.13 - 0.21%)	0.16%	(0.13 - 0.20%)	-2.35%	(-4.88 to -0.90%)
Used Oil Filters	0.16%	(0.06 - 0.29%)	0.16%	(0.06 - 0.29%)	0.00%	(0.00 to 0.00%)
Mixed Metal / Material	2.61%	(1.97 - 3.28%)	2.59%	(1.97 - 3.26%)	-0.65%	(-1.73 to 0.12%)
<b>OTHER INORGANICS</b>	<b>10.93%</b>	<b>(9.25 - 12.88%)</b>	<b>11.11%</b>	<b>(9.37 - 13.00%)</b>	<b>1.69%</b>	<b>(-0.55 to 2.90%)</b>
Rock / Concrete / Brick	1.61%	(0.88 - 2.51%)	1.62%	(0.88 - 2.52%)	0.54%	(0.16 to 1.49%)
Soil / Sand / Dirt	2.27%	(1.41 - 3.16%)	2.34%	(1.45 - 3.25%)	2.87%	(1.86 to 4.58%)
Pet Litter / Animal Feces	2.09%	(1.39 - 3.07%)	2.12%	(1.40 - 3.10%)	1.29%	(0.68 to 2.21%)
<b>Gypsum wallboard</b>	<b>2.59%</b>	<b>(1.58 - 3.71%)</b>	<b>2.58%</b>	<b>(1.51 - 3.64%)</b>	<b>-0.39%</b>	<b>(-8.94 to 0.55%)</b>
Gypsum Wallboard OLD	2.17%	(1.28 - 3.18%)	2.16%	(1.23 - 3.15%)	-0.72%	(-10.24 to 0.20%)
Gypsum Wallboard NEW	0.42%	(0.01 - 0.97%)	0.42%	(0.01 - 0.98%)	1.35%	(0.00 to 3.97%)
Fiberglass Insulation	0.17%	(0.04 - 0.34%)	0.17%	(0.03 - 0.30%)	-2.23%	(-50.71 to 2.91%)
Other Inorganics	2.19%	(1.37 - 2.96%)	2.29%	(1.42 - 3.12%)	4.45%	(-1.57 to 10.51%)
<b>"MEDICAL WASTES"</b>	<b>0.04%</b>	<b>(0.01 - 0.07%)</b>	<b>0.04%</b>	<b>(0.01 - 0.07%)</b>	<b>1.44%</b>	<b>(0.00 to 4.46%)</b>
<b>OTHER HAZARDOUS MATLs</b>	<b>1.37%</b>	<b>(0.74 - 2.08%)</b>	<b>1.42%</b>	<b>(0.79 - 2.15%)</b>	<b>4.04%</b>	<b>(1.61 to 8.67%)</b>
Latex Paint	0.13%	(0.05 - 0.23%)	0.16%	(0.06 - 0.29%)	22.26%	(2.81 to 50.37%)
Oil Paints / Thinners	0.34%	(0.02 - 0.91%)	0.34%	(0.02 - 0.92%)	1.10%	(0.07 to 2.60%)
Pesticides / Herbicides	0.15%	(0.00 - 0.45%)	0.15%	(0.00 - 0.45%)	0.20%	(0.00 to 0.57%)
Motor Oil	0.06%	(0.02 - 0.12%)	0.07%	(0.02 - 0.14%)	13.52%	(7.62 to 20.15%)
Fuels (gas/kerodiesel)	0.00%	(0.00 - 0.01%)	0.00%	(0.00 - 0.01%)	0.00%	(0.00 to 0.00%)
Adhesives / Sealants	0.05%	(0.03 - 0.08%)	0.05%	(0.03 - 0.09%)	4.36%	(0.95 to 11.32%)
Caustic Cleaners	0.01%	(0.00 - 0.01%)	0.01%	(0.00 - 0.02%)	16.59%	(8.43 to 27.23%)
Lead-Acid Batteries	0.07%	(0.00 - 0.20%)	0.07%	(0.00 - 0.20%)	0.00%	(0.00 to 0.00%)
Dry-cell Batteries	0.08%	(0.06 - 0.11%)	0.08%	(0.06 - 0.11%)	0.50%	(-0.02 to 1.39%)
Asbestos	0.00%	(0.00 - 0.00%)	0.00%	(0.00 - 0.00%)	0.00%	(0.00 to 0.00%)
Other Hazardous Chemicals	0.31%	(0.03 - 0.68%)	0.32%	(0.03 - 0.70%)	2.98%	(0.16 to 7.54%)
<b>TOTAL PACKAGING</b>	<b>21.17%</b>	<b>(19.85 - 22.49%)</b>	<b>16.68%</b>	<b>(15.62 - 17.79%)</b>	<b>-21.20%</b>	<b>(-23.32 to -18.96%)</b>
<b>TOTAL PRODUCTS</b>	<b>51.30%</b>	<b>(48.74 - 53.58%)</b>	<b>47.75%</b>	<b>(44.93 - 50.17%)</b>	<b>-6.92%</b>	<b>(-8.75 to -5.62%)</b>
<b>TOTAL NON-MANUFACTURED</b>	<b>27.53%</b>	<b>(25.50 - 29.70%)</b>	<b>28.79%</b>	<b>(26.73 - 31.07%)</b>	<b>4.59%</b>	<b>(3.97 to 5.39%)</b>
<b>Total Organic</b>	<b>78.27%</b>	<b>(75.93 - 80.40%)</b>	<b>71.51%</b>	<b>(69.05 - 73.85%)</b>	<b>-8.63%</b>	<b>(-10.07 to -7.27%)</b>
<b>Total non-organic</b>	<b>21.73%</b>	<b>(19.60 - 24.07%)</b>	<b>21.71%</b>	<b>(19.47 - 24.04%)</b>	<b>-0.11%</b>	<b>(-1.21 to 0.59%)</b>
<b>compostable</b>	<b>51.54%</b>	<b>(49.55 - 53.36%)</b>	<b>47.76%</b>	<b>(45.74 - 49.77%)</b>	<b>-7.33%</b>	<b>(-8.80 to -5.69%)</b>
<b>compost-target</b>	<b>28.25%</b>	<b>(26.58 - 29.84%)</b>	<b>27.72%</b>	<b>(26.04 - 29.37%)</b>	<b>-1.85%</b>	<b>(-2.84 to -0.79%)</b>
<b>Water &amp; Residue (Detailed)</b>	<b>0.00%</b>	<b>(0.00 - 0.00%)</b>	<b>6.78%</b>	<b>(5.75 - 7.96%)</b>	<b>0.00%</b>	<b>(0.00 to 0.00%)</b>

## Table Marion6: Marion County Burner 2002: Field Data and Contamination Correction

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Material	Field Data Percent	Field Data (90% Conf. Int.)	Percent (Detailed sample correction)	90% Confidence Interval (Detailed sample correction)	Detailed Sample Correction Factor	90% Confidence Interval: Detailed Sample Correction Factor
<b>TOTAL PAPER</b>	<b>24.22%</b>	<b>(22.73 - 25.73%)</b>	<b>18.83%</b>	<b>(17.47 - 20.38%)</b>	<b>-22.25%</b>	<b>(-25.39 to -18.72%)</b>
<b>Paper Packaging</b>	<b>10.89%</b>	<b>(10.04 - 11.70%)</b>	<b>8.42%</b>	<b>(7.71 - 9.14%)</b>	<b>-22.64%</b>	<b>(-26.08 to -18.59%)</b>
Cardboard/Brown Bags	3.61%	(3.24 - 4.02%)	3.01%	(2.64 - 3.42%)	-16.71%	(-23.24 to -9.93%)
Low Grade Packaging	2.85%	(2.59 - 3.08%)	2.41%	(2.17 - 2.63%)	-15.35%	(-19.20 to -11.54%)
Bleached Polycoats	0.51%	(0.41 - 0.62%)	0.43%	(0.35 - 0.52%)	-15.35%	(-19.20 to -11.54%)
Nonrecyc. Packaging Paper	1.97%	(1.51 - 2.49%)	1.29%	(0.97 - 1.65%)	-34.35%	(-37.57 to -30.57%)
Mixed Paper / Materials	1.95%	(1.64 - 2.30%)	1.28%	(1.08 - 1.52%)	-34.35%	(-37.57 to -30.57%)
<b>Other Paper</b>	<b>13.34%</b>	<b>(12.21 - 14.57%)</b>	<b>10.41%</b>	<b>(9.44 - 11.56%)</b>	<b>-21.93%</b>	<b>(-25.80 to -17.49%)</b>
Newspaper	2.83%	(2.44 - 3.28%)	2.11%	(1.64 - 2.70%)	-25.23%	(-38.65 to -10.83%)
Magazines	1.05%	(0.86 - 1.25%)	1.04%	(0.85 - 1.24%)	-1.16%	(-5.14 to 2.06%)
Hi Grade Paper	1.67%	(1.27 - 2.23%)	1.62%	(1.22 - 2.19%)	-2.71%	(-6.55 to 0.58%)
Hardcover Books	0.14%	(0.07 - 0.22%)	0.14%	(0.07 - 0.22%)	0.26%	(-0.96 to 0.43%)
Low Grade Paper	2.49%	(2.20 - 2.79%)	2.11%	(1.85 - 2.38%)	-15.35%	(-19.20 to -11.54%)
Other Nonrecyclable Paper	5.16%	(4.65 - 5.67%)	3.39%	(3.02 - 3.78%)	-34.35%	(-37.57 to -30.57%)
Low-grade Recyc. Paper comb.	5.98%	(5.51 - 6.39%)	5.09%	(4.65 - 5.50%)	-14.99%	(-18.75 to -11.30%)
Nonrecyclable Paper combined	9.08%	(8.25 - 9.88%)	5.96%	(5.35 - 6.60%)	-34.35%	(-37.57 to -30.57%)
<b>TOTAL PLASTICS</b>	<b>13.86%</b>	<b>(12.87 - 15.02%)</b>	<b>10.97%</b>	<b>(10.06 - 12.02%)</b>	<b>-20.82%</b>	<b>(-23.25 to -18.38%)</b>
<b>Plastic Packaging</b>	<b>7.70%</b>	<b>(7.16 - 8.30%)</b>	<b>5.67%</b>	<b>(5.24 - 6.17%)</b>	<b>-26.32%</b>	<b>(-28.36 to -24.03%)</b>
Rigid Plastic Containers	2.10%	(1.94 - 2.26%)	1.63%	(1.51 - 1.76%)	-22.15%	(-23.77 to -20.43%)
<b>Other Plastic Packaging</b>	<b>5.61%</b>	<b>(5.10 - 6.14%)</b>	<b>4.04%</b>	<b>(3.61 - 4.53%)</b>	<b>-27.88%</b>	<b>(-30.78 to -24.72%)</b>
Other Rigid Packaging	1.07%	(0.98 - 1.16%)	1.05%	(0.95 - 1.14%)	-2.26%	(-5.73 to 0.23%)
Plastic Film Pkg Est. 2002	4.54%	(4.06 - 5.05%)	3.00%	(2.59 - 3.47%)	-33.92%	(-37.36 to -30.10%)
<b>Plastic Products</b>	<b>6.16%</b>	<b>(5.50 - 6.93%)</b>	<b>5.30%</b>	<b>(4.66 - 6.07%)</b>	<b>-13.94%</b>	<b>(-17.07 to -11.21%)</b>
Rigid Plastic Products	1.91%	(1.58 - 2.26%)	1.87%	(1.54 - 2.20%)	-2.26%	(-5.73 to 0.23%)
Plastic Film Prod. Est. 2002	2.45%	(2.19 - 2.73%)	1.62%	(1.40 - 1.88%)	-33.92%	(-37.36 to -30.10%)
Mixed Plastic / Materials	1.80%	(1.37 - 2.33%)	1.81%	(1.38 - 2.36%)	0.85%	(-4.58 to 3.67%)
<i>(Film plastic combined)</i>	<i>6.98%</i>	<i>(6.26 - 7.78%)</i>	<i>4.62%</i>	<i>(3.98 - 5.35%)</i>	<i>-33.92%</i>	<i>(-37.36 to -30.10%)</i>
Plastic Film Recyclable	1.42%	(0.95 - 1.99%)	1.41%	(0.94 - 1.96%)	-0.55%	(-6.06 to 4.87%)
Plastic Film Nonrecyclable	5.57%	(5.11 - 6.04%)	3.20%	(2.90 - 3.55%)	-42.43%	(-45.82 to -38.81%)
<b>OTHER ORGANICS</b>	<b>41.73%</b>	<b>(39.54 - 43.93%)</b>	<b>42.69%</b>	<b>(40.45 - 44.83%)</b>	<b>2.31%</b>	<b>(1.52 to 2.83%)</b>
<b>Yard Debris</b>	<b>3.17%</b>	<b>(2.20 - 4.23%)</b>	<b>3.21%</b>	<b>(2.23 - 4.28%)</b>	<b>1.19%</b>	<b>(0.89 to 1.64%)</b>
Leaves / Grass	3.00%	(2.04 - 4.06%)	3.04%	(2.07 - 4.11%)	1.25%	(0.94 to 1.74%)
Small Prunings under 2"	0.11%	(0.06 - 0.17%)	0.11%	(0.06 - 0.17%)	0.09%	(0.00 to 0.23%)
Large Prunings over 2"	0.06%	(0.02 - 0.11%)	0.06%	(0.02 - 0.11%)	0.00%	(0.00 to 0.00%)
Stumps	0.00%	(0.00 - 0.00%)	0.00%	(0.00 - 0.00%)	0.00%	(0.00 to 0.00%)
<b>Wood</b>	<b>5.82%</b>	<b>(4.52 - 7.33%)</b>	<b>5.72%</b>	<b>(4.42 - 7.21%)</b>	<b>-1.63%</b>	<b>(-3.22 to -0.78%)</b>
<b>Clean lumber &amp; hog fuel</b>	<b>2.71%</b>	<b>(1.79 - 4.05%)</b>	<b>2.62%</b>	<b>(1.71 - 3.94%)</b>	<b>-3.16%</b>	<b>(-7.29 to -0.95%)</b>
Untreated Lumber	1.39%	(1.13 - 1.65%)	1.31%	(1.07 - 1.57%)	-5.86%	(-10.64 to -1.70%)
Clean HogFuel Lumber	1.32%	(0.54 - 2.63%)	1.32%	(0.53 - 2.60%)	-0.30%	(-5.14 to 0.79%)
<b>Painted &amp; Treated lumber</b>	<b>0.68%</b>	<b>(0.51 - 0.86%)</b>	<b>0.71%</b>	<b>(0.52 - 0.91%)</b>	<b>3.38%</b>	<b>(-2.54 to 11.37%)</b>
Painted Lumber	0.65%	(0.48 - 0.83%)	0.67%	(0.48 - 0.88%)	3.11%	(-3.11 to 11.69%)
Chemically-treated Lumber	0.03%	(0.01 - 0.07%)	0.04%	(0.01 - 0.08%)	8.93%	(-0.09 to 26.27%)
Wood Pallets / Crates	0.33%	(0.12 - 0.64%)	0.33%	(0.12 - 0.64%)	0.21%	(0.02 to 0.46%)
Wood Furniture	0.41%	(0.19 - 0.68%)	0.38%	(0.17 - 0.62%)	-8.57%	(-8.57 to -8.57%)
Other Wood Products	0.11%	(0.07 - 0.16%)	0.11%	(0.07 - 0.17%)	3.87%	(-4.15 to 9.33%)
Mixed Wood / Materials	1.58%	(0.94 - 2.38%)	1.58%	(0.94 - 2.38%)	-0.11%	(-0.69 to 0.37%)
Food	20.02%	(18.22 - 21.79%)	21.10%	(19.17 - 22.97%)	5.38%	(4.36 to 6.40%)
Tires	0.29%	(0.02 - 0.71%)	0.29%	(0.02 - 0.71%)	0.00%	(0.00 to 0.00%)
Rubber Products	0.56%	(0.36 - 0.79%)	0.55%	(0.35 - 0.79%)	-0.63%	(-8.35 to 1.48%)
Disposable Diapers	2.94%	(2.42 - 3.43%)	2.95%	(2.43 - 3.45%)	0.36%	(0.08 to 0.76%)
Carpet	1.41%	(0.83 - 2.00%)	1.38%	(0.79 - 1.94%)	-2.46%	(-10.70 to -0.48%)
<b>Textiles + mixed</b>	<b>3.36%</b>	<b>(2.74 - 4.06%)</b>	<b>3.23%</b>	<b>(2.60 - 3.85%)</b>	<b>-4.01%</b>	<b>(-9.33 to -1.55%)</b>
Textiles	1.95%	(1.41 - 2.60%)	1.82%	(1.30 - 2.42%)	-6.60%	(-14.66 to -3.06%)
Mixed Textile / Material	1.41%	(1.16 - 1.68%)	1.40%	(1.15 - 1.67%)	-0.43%	(-3.25 to 0.84%)
Roofing / Tarpaper	0.48%	(0.26 - 0.73%)	0.48%	(0.26 - 0.73%)	0.61%	(-1.32 to 1.62%)
Furniture	2.43%	(1.49 - 3.40%)	2.43%	(1.49 - 3.40%)	0.00%	(0.00 to 0.00%)
Other Organics	1.24%	(0.98 - 1.52%)	1.34%	(1.06 - 1.65%)	8.29%	(5.83 to 12.10%)

**Continued TableMarion6: Field Data and Contamination Correction- Marion Burner**

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Material	Field Data	Field Data (90% Conf. Int.)	Corrected	Corrected: (90% Conf. Int.)	Correction Factor	Correction Factor (90% Conf. Int.)
<b>GLASS</b>	<b>2.40%</b>	<b>(1.98 - 2.87%)</b>	<b>2.39%</b>	<b>(1.97 - 2.88%)</b>	<b>-0.16%</b>	<b>(-2.03 to 1.34%)</b>
Deposit Beverage Glass	0.40%	(0.23 - 0.60%)	0.39%	(0.23 - 0.60%)	-0.58%	(-1.73 to 0.45%)
<b>Other Container Glass</b>	<b>1.21%</b>	<b>(1.04 - 1.39%)</b>	<b>1.19%</b>	<b>(1.01 - 1.37%)</b>	<b>-1.74%</b>	<b>(-5.81 to 1.72%)</b>
Other Clear Bottles	0.42%	(0.34 - 0.49%)	0.42%	(0.34 - 0.49%)	-0.72%	(-3.05 to 1.80%)
Other Colored Bottles	0.23%	(0.16 - 0.31%)	0.23%	(0.16 - 0.30%)	-2.20%	(-3.99 to -0.84%)
Clear Container Glass	0.51%	(0.40 - 0.63%)	0.50%	(0.39 - 0.62%)	-2.51%	(-11.19 to 5.39%)
Colored Container Glass	0.04%	(0.02 - 0.07%)	0.04%	(0.02 - 0.07%)	0.00%	(0.00 to 0.00%)
<b>Window+Nonrecvc. Glass</b>	<b>0.79%</b>	<b>(0.51 - 1.18%)</b>	<b>0.81%</b>	<b>(0.51 - 1.20%)</b>	<b>2.44%</b>	<b>(-2.01 to 7.25%)</b>
Flat Window Glass	0.13%	(0.04 - 0.26%)	0.13%	(0.04 - 0.26%)	0.30%	(-6.94 to 8.01%)
Other Nonrecvc. Glass	0.62%	(0.37 - 0.99%)	0.64%	(0.38 - 1.02%)	3.06%	(-2.75 to 9.13%)
<b>Fluorescent Lights &amp; Tubes</b>	<b>0.04%</b>	<b>(0.01 - 0.11%)</b>	<b>0.04%</b>	<b>(0.01 - 0.11%)</b>	<b>0.03%</b>	<b>(0.00 to 0.22%)</b>
Fluorescent Tubes	0.03%	(0.00 - 0.10%)	0.03%	(0.00 - 0.10%)	0.00%	(0.00 to 0.00%)
Compact Fluorescent Lights	0.01%	(0.00 - 0.03%)	0.01%	(0.00 - 0.03%)	0.11%	(0.00 to 0.33%)
<b>METALS</b>	<b>8.58%</b>	<b>(7.23 - 9.99%)</b>	<b>8.35%</b>	<b>(7.01 - 9.79%)</b>	<b>-2.73%</b>	<b>(-3.47 to -1.99%)</b>
Alum. Beverage Cans	0.16%	(0.13 - 0.18%)	0.14%	(0.12 - 0.17%)	-10.67%	(-12.59 to -8.90%)
<b>Foil &amp; Other Aluminum</b>	<b>0.25%</b>	<b>(0.21 - 0.29%)</b>	<b>0.17%</b>	<b>(0.13 - 0.20%)</b>	<b>-33.46%</b>	<b>(-38.81 to -27.93%)</b>
Alum. Foil / Food Trays	0.20%	(0.17 - 0.22%)	0.11%	(0.10 - 0.13%)	-42.49%	(-46.47 to -38.39%)
Other Aluminum	0.05%	(0.02 - 0.08%)	0.05%	(0.02 - 0.08%)	1.22%	(0.24 to 2.78%)
<b>Tinned Cans</b>	<b>1.36%</b>	<b>(1.20 - 1.53%)</b>	<b>1.24%</b>	<b>(1.09 - 1.40%)</b>	<b>-9.38%</b>	<b>(-11.61 to -6.56%)</b>
Tin Food Cans	1.12%	(1.01 - 1.24%)	1.03%	(0.92 - 1.15%)	-8.46%	(-11.05 to -5.82%)
Other Tin Cans	0.24%	(0.13 - 0.38%)	0.21%	(0.11 - 0.34%)	-13.68%	(-18.94 to -4.40%)
<b>Other Metal</b>	<b>6.81%</b>	<b>(5.49 - 8.27%)</b>	<b>6.80%</b>	<b>(5.48 - 8.25%)</b>	<b>-0.09%</b>	<b>(-0.54 to 0.23%)</b>
Other Nonferrous Metal	0.04%	(0.02 - 0.07%)	0.05%	(0.02 - 0.07%)	6.29%	(0.08 to 19.37%)
Other Ferrous Metal	1.50%	(1.10 - 1.94%)	1.51%	(1.11 - 1.96%)	0.94%	(0.40 to 1.63%)
White Goods	0.00%	(0.00 - 0.00%)	0.00%	(0.00 - 0.00%)	0.00%	(0.00 to 0.00%)
<b>Computer,Brown,Sm. Applianc</b>	<b>2.33%</b>	<b>(1.34 - 3.49%)</b>	<b>2.33%</b>	<b>(1.34 - 3.49%)</b>	<b>-0.02%</b>	<b>(-0.05 to 0.00%)</b>
<b>Computers &amp; Monitors</b>	<b>0.44%</b>	<b>(0.15 - 0.78%)</b>	<b>0.44%</b>	<b>(0.15 - 0.78%)</b>	<b>0.00%</b>	<b>(0.00 to 0.00%)</b>
Computers	0.44%	(0.15 - 0.78%)	0.44%	(0.15 - 0.78%)	0.00%	(0.00 to 0.00%)
CRT Monitors	0.00%	(0.00 - 0.00%)	0.00%	(0.00 - 0.00%)	0.00%	(0.00 to 0.00%)
<b>TVs, CRTs, &amp; Brown Goods</b>	<b>1.24%</b>	<b>(0.48 - 2.18%)</b>	<b>1.24%</b>	<b>(0.48 - 2.18%)</b>	<b>0.00%</b>	<b>(-0.02 to 0.00%)</b>
TVs & other CRTs	1.13%	(0.40 - 2.05%)	1.13%	(0.40 - 2.05%)	0.00%	(0.00 to 0.00%)
Other Brown Goods	0.11%	(0.04 - 0.18%)	0.11%	(0.04 - 0.18%)	-0.04%	(-0.16 to 0.00%)
Small Appliances-non elec	0.65%	(0.31 - 1.04%)	0.65%	(0.31 - 1.04%)	-0.05%	(-0.13 to 0.00%)
Empty Aerosol Cans	0.19%	(0.15 - 0.24%)	0.19%	(0.15 - 0.23%)	-2.35%	(-4.84 to -0.90%)
Used Oil Filters	0.16%	(0.06 - 0.32%)	0.16%	(0.06 - 0.32%)	0.00%	(0.00 to 0.00%)
Mixed Metal / Material	2.75%	(2.14 - 3.42%)	2.73%	(2.12 - 3.40%)	-0.66%	(-1.73 to 0.11%)
<b>OTHER INORGANICS</b>	<b>7.71%</b>	<b>(6.44 - 9.28%)</b>	<b>7.92%</b>	<b>(6.55 - 9.47%)</b>	<b>2.70%</b>	<b>(-0.41 to 4.64%)</b>
Rock / Concrete / Brick	0.92%	(0.58 - 1.30%)	0.93%	(0.59 - 1.32%)	1.01%	(0.28 to 2.71%)
Soil / Sand / Dirt	1.20%	(0.58 - 2.00%)	1.27%	(0.61 - 2.14%)	5.49%	(3.49 to 8.80%)
Pet Litter / Animal Feces	2.45%	(1.63 - 3.59%)	2.48%	(1.66 - 3.63%)	1.19%	(0.62 to 2.04%)
<b>Gypsum wallboard</b>	<b>1.22%</b>	<b>(0.88 - 1.59%)</b>	<b>1.22%</b>	<b>(0.86 - 1.58%)</b>	<b>0.04%</b>	<b>(-9.00 to 1.69%)</b>
Gypsum Wallboard OLD	1.10%	(0.83 - 1.40%)	1.10%	(0.78 - 1.39%)	-0.52%	(-10.10 to 0.52%)
Gypsum Wallboard NEW	0.12%	(0.00 - 0.32%)	0.12%	(0.01 - 0.34%)	5.26%	(0.00 to 16.09%)
Fiberglass Insulation	0.21%	(0.04 - 0.41%)	0.20%	(0.04 - 0.37%)	-2.44%	(-50.73 to -0.63%)
Other Inorganics	1.71%	(1.22 - 2.17%)	1.82%	(1.29 - 2.34%)	6.33%	(-0.87 to 14.00%)
<b>"MEDICAL WASTES"</b>	<b>0.04%</b>	<b>(0.01 - 0.07%)</b>	<b>0.04%</b>	<b>(0.02 - 0.08%)</b>	<b>1.33%</b>	<b>(0.00 to 4.09%)</b>
<b>OTHER HAZARDOUS MATLs</b>	<b>1.46%</b>	<b>(0.82 - 2.18%)</b>	<b>1.51%</b>	<b>(0.86 - 2.24%)</b>	<b>3.84%</b>	<b>(1.66 to 7.49%)</b>
Latex Paint	0.16%	(0.06 - 0.27%)	0.18%	(0.07 - 0.32%)	17.50%	(2.45 to 38.58%)
Oil Paints / Thinners	0.34%	(0.03 - 0.90%)	0.34%	(0.03 - 0.91%)	1.18%	(0.10 to 2.77%)
Pesticides / Herbicides	0.15%	(0.00 - 0.44%)	0.15%	(0.00 - 0.44%)	0.22%	(0.00 to 0.65%)
Motor Oil	0.07%	(0.02 - 0.14%)	0.08%	(0.02 - 0.16%)	13.02%	(7.30 to 19.26%)
Fuels (gas/kerodiesel)	0.01%	(0.00 - 0.01%)	0.01%	(0.00 - 0.01%)	0.00%	(0.00 to 0.00%)
Adhesives / Sealants	0.06%	(0.03 - 0.10%)	0.06%	(0.03 - 0.10%)	4.19%	(0.91 to 10.99%)
Caustic Cleaners	0.01%	(0.00 - 0.02%)	0.01%	(0.00 - 0.02%)	16.08%	(8.10 to 25.42%)
Lead-Acid Batteries	0.08%	(0.00 - 0.23%)	0.08%	(0.00 - 0.23%)	0.00%	(0.00 to 0.00%)
Dry-cell Batteries	0.09%	(0.07 - 0.12%)	0.09%	(0.07 - 0.13%)	0.49%	(-0.02 to 1.38%)
Asbestos	0.00%	(0.00 - 0.00%)	0.00%	(0.00 - 0.00%)	0.00%	(0.00 to 0.00%)
Other Hazardous Chemicals	0.33%	(0.03 - 0.69%)	0.34%	(0.03 - 0.71%)	3.16%	(0.13 to 8.32%)
<b>TOTAL PACKAGING</b>	<b>22.43%</b>	<b>(21.15 - 23.53%)</b>	<b>17.68%</b>	<b>(16.60 - 18.66%)</b>	<b>-21.17%</b>	<b>(-23.28 to -18.73%)</b>
<b>TOTAL PRODUCTS</b>	<b>48.56%</b>	<b>(46.37 - 50.70%)</b>	<b>44.70%</b>	<b>(42.23 - 46.88%)</b>	<b>-7.95%</b>	<b>(-9.81 to -6.57%)</b>
<b>TOTAL NON-MANUFACTURED</b>	<b>29.01%</b>	<b>(27.01 - 31.01%)</b>	<b>30.33%</b>	<b>(28.24 - 32.47%)</b>	<b>4.56%</b>	<b>(3.89 to 5.32%)</b>
<b>Total Organic</b>	<b>80.97%</b>	<b>(78.99 - 82.70%)</b>	<b>73.71%</b>	<b>(71.61 - 75.64%)</b>	<b>-8.96%</b>	<b>(-10.31 to -7.66%)</b>
<b>Total non-organic</b>	<b>19.03%</b>	<b>(17.30 - 21.01%)</b>	<b>19.00%</b>	<b>(17.19 - 21.04%)</b>	<b>-0.15%</b>	<b>(-1.40 to 0.74%)</b>
<b>compostable</b>	<b>57.50%</b>	<b>(55.28 - 59.50%)</b>	<b>53.25%</b>	<b>(51.03 - 55.45%)</b>	<b>-7.40%</b>	<b>(-8.90 to -5.79%)</b>
<b>compost-target</b>	<b>31.73%</b>	<b>(29.85 - 33.53%)</b>	<b>31.06%</b>	<b>(29.16 - 32.90%)</b>	<b>-2.12%</b>	<b>(-3.13 to -1.08%)</b>
<b>Water &amp; Residue (Detailed)</b>	<b>0.00%</b>	<b>(0.00 - 0.00%)</b>	<b>7.29%</b>	<b>(6.21 - 8.47%)</b>		

# Table Marion7: Tons Disposed - All Marion County and Marion Burner - Sampled Waste Only

(page 1 of 2)

Material	All Marion: Tons (Corrected)	All Marion: 90% Confidence Interval (Detailed sample correction)	All Marion: 2002 Present / # samples	Burner Only: Tons (Corrected)	Burner Only: 90% Confidence Interval (Detailed sample correction)	Burner: 2002 Present / # samples
<b>TOTAL PAPER</b>	<b>34,851</b>	<b>(32,416 - 37,452)</b>	<b>149/ 158</b>	<b>30,097</b>	<b>(27,921 - 32,569)</b>	<b>147/ 149</b>
<b>Paper Packaging</b>	<b>16,039</b>	<b>(14,596 - 17,466)</b>	<b>149/ 158</b>	<b>13,458</b>	<b>(12,326 - 14,605)</b>	<b>147/ 149</b>
Cardboard/Brown Bags	5,662	(4,936 - 6,397)	147/ 158	4,805	(4,223 - 5,467)	145/ 149
Low Grade Packaging	4,720	(4,193 - 5,243)	139/ 158	3,855	(3,474 - 4,204)	139/ 149
Bleached Polycots	783	(629 - 952)	112/ 158	686	(553 - 835)	112/ 149
Nonrecvc. Packaging Paper	2,405	(1,800 - 3,098)	132/ 158	2,062	(1,556 - 2,639)	132/ 149
Mixed Paper / Materials	2,469	(2,041 - 2,938)	137/ 158	2,049	(1,718 - 2,430)	136/ 149
<b>Other Paper</b>	<b>18,812</b>	<b>(17,110 - 20,951)</b>	<b>141/ 158</b>	<b>16,639</b>	<b>(15,091 - 18,480)</b>	<b>141/ 149</b>
Newspaper	3,764	(2,951 - 4,858)	130/ 158	3,376	(2,626 - 4,312)	130/ 149
Magazines	1,864	(1,513 - 2,213)	110/ 158	1,666	(1,361 - 1,989)	110/ 149
Hi Grade Paper	3,001	(2,315 - 3,920)	133/ 158	2,594	(1,953 - 3,494)	133/ 149
Hardcover Books	233	(111 - 378)	18/ 158	218	(105 - 352)	18/ 149
Low Grade Paper	3,784	(3,322 - 4,280)	134/ 158	3,371	(2,952 - 3,806)	134/ 149
Other Nonrecyclable Paper	6,165	(5,461 - 6,906)	136/ 158	5,415	(4,819 - 6,045)	136/ 149
Low-grade Recyc. Paper comb.	9,520	(8,733 - 10,300)	142/ 158	8,129	(7,428 - 8,794)	142/ 149
Nonrecyclable Paper combined	11,038	(9,879 - 12,255)	144/ 158	9,527	(8,544 - 10,549)	143/ 149
<b>TOTAL PLASTICS</b>	<b>23,089</b>	<b>(19,731 - 27,067)</b>	<b>150/ 158</b>	<b>17,538</b>	<b>(16,084 - 19,204)</b>	<b>149/ 149</b>
<b>Plastic Packaging</b>	<b>11,510</b>	<b>(10,212 - 12,918)</b>	<b>150/ 158</b>	<b>9,069</b>	<b>(8,374 - 9,861)</b>	<b>149/ 149</b>
Rigid Plastic Containers	2,985	(2,759 - 3,236)	137/ 158	2,609	(2,413 - 2,819)	137/ 149
<b>Other Plastic Packaging</b>	<b>8,525</b>	<b>(7,252 - 9,947)</b>	<b>149/ 158</b>	<b>6,460</b>	<b>(5,776 - 7,231)</b>	<b>148/ 149</b>
Other Rigid Packaging	1,947	(1,765 - 2,110)	131/ 158	1,670	(1,525 - 1,815)	131/ 149
Plastic Film Pkg Est. 2002	6,578	(5,342 - 7,991)	147/ 158	4,790	(4,135 - 5,550)	146/ 149
<b>Plastic Products</b>	<b>11,579</b>	<b>(9,335 - 14,323)</b>	<b>149/ 158</b>	<b>8,469</b>	<b>(7,443 - 9,702)</b>	<b>148/ 149</b>
Rigid Plastic Products	3,766	(3,008 - 4,592)	138/ 158	2,984	(2,468 - 3,523)	137/ 149
Plastic Film Prod. Est. 2002	3,552	(2,884 - 4,315)	147/ 158	2,586	(2,233 - 2,997)	146/ 149
Mixed Plastic / Materials	4,261	(2,665 - 6,328)	126/ 158	2,899	(2,199 - 3,767)	126/ 149
<i>(Film plastic combined)</i>	<i>10,130</i>	<i>(8,226 - 12,306)</i>	<i>147/ 158</i>	<i>7,376</i>	<i>(6,368 - 8,546)</i>	<i>146/ 149</i>
Plastic Film Recyclable	3,706	(2,319 - 5,206)	121/ 158	2,256	(1,506 - 3,133)	120/ 149
Plastic Film Nonrecyclable	6,424	(5,598 - 7,411)	141/ 158	5,120	(4,641 - 5,666)	141/ 149
<b>OTHER ORGANICS</b>	<b>85,567</b>	<b>(79,357 - 91,806)</b>	<b>151/ 158</b>	<b>68,224</b>	<b>(64,642 - 71,645)</b>	<b>147/ 149</b>
<b>Yard Debris</b>	<b>5,816</b>	<b>(4,070 - 7,832)</b>	<b>99/ 158</b>	<b>5,131</b>	<b>(3,566 - 6,841)</b>	<b>99/ 149</b>
Leaves / Grass	5,516	(3,772 - 7,502)	84/ 158	4,860	(3,309 - 6,574)	84/ 149
Small Prunings under 2"	200	(105 - 316)	38/ 158	176	(93 - 269)	38/ 149
Large Prunings over 2"	99	(37 - 175)	6/ 158	95	(37 - 168)	6/ 149
Stumps	0	(0 - 0)	0/ 158	0	(0 - 0)	0/ 149
<b>Wood</b>	<b>11,181</b>	<b>(8,764 - 13,844)</b>	<b>135/ 158</b>	<b>9,146</b>	<b>(7,058 - 11,528)</b>	<b>134/ 149</b>
<b>Clean lumber &amp; hog fuel</b>	<b>5,415</b>	<b>(3,746 - 7,739)</b>	<b>102/ 158</b>	<b>4,194</b>	<b>(2,726 - 6,295)</b>	<b>101/ 149</b>
Untreated Lumber	2,805	(2,297 - 3,376)	94/ 158	2,091	(1,703 - 2,510)	93/ 149
Clean HogFuel Lumber	2,610	(1,222 - 4,846)	60/ 158	2,103	(855 - 4,149)	60/ 149
<b>Painted &amp; Treated lumber</b>	<b>1,421</b>	<b>(1,056 - 1,833)</b>	<b>70/ 158</b>	<b>1,127</b>	<b>(833 - 1,456)</b>	<b>70/ 149</b>
Painted Lumber	1,352	(1,001 - 1,755)	69/ 158	1,070	(770 - 1,402)	69/ 149
Chemically-treated Lumber	69	(12 - 157)	6/ 158	57	(11 - 121)	6/ 149
Wood Pallets / Crates	622	(212 - 1,250)	15/ 158	521	(194 - 1,021)	15/ 149
Wood Furniture	631	(294 - 1,036)	17/ 158	604	(278 - 991)	17/ 149
Other Wood Products	208	(135 - 297)	78/ 158	181	(116 - 264)	78/ 149
Mixed Wood / Materials	2,884	(1,747 - 4,281)	67/ 158	2,519	(1,500 - 3,805)	67/ 149
Food	38,118	(34,648 - 41,459)	137/ 158	33,720	(30,634 - 36,702)	137/ 149
Tires	524	(27 - 1,241)	4/ 158	471	(25 - 1,138)	4/ 149
Rubber Products	1,039	(686 - 1,429)	105/ 158	884	(560 - 1,257)	105/ 149
Disposable Diapers	5,246	(4,322 - 6,139)	87/ 158	4,715	(3,891 - 5,510)	87/ 149
Carpet	3,842	(1,690 - 6,118)	38/ 158	2,201	(1,261 - 3,099)	38/ 149
<b>Textiles + mixed</b>	<b>6,552</b>	<b>(5,243 - 7,890)</b>	<b>131/ 158</b>	<b>5,156</b>	<b>(4,156 - 6,145)</b>	<b>131/ 149</b>
Textiles	3,485	(2,426 - 4,698)	121/ 158	2,914	(2,071 - 3,866)	121/ 149
Mixed Textile / Material	3,067	(2,495 - 3,677)	117/ 158	2,241	(1,845 - 2,671)	117/ 149
Roofing / Tarpaper	4,387	(2,370 - 6,421)	41/ 158	774	(417 - 1,160)	38/ 149
Furniture	6,481	(3,075 - 9,833)	23/ 158	3,877	(2,388 - 5,433)	23/ 149
Other Organics	2,384	(1,890 - 2,923)	114/ 158	2,149	(1,699 - 2,644)	114/ 149

**Continued TableMarion7: Tons Disposed - All Marion and Marion Burner**  
(sampled waste only - page 2 of 2)

Material	MarionTons (Corrected)	All Marion: 90% Confidence Interval	Present / # samples	Burner Tons (Corrected)	Burner Only: 90% Confidence Interval	Present / # samples
<b>GLASS</b>	<b>4,391</b>	<b>(3,614 - 5,296)</b>	<b>118/ 158</b>	<b>3,825</b>	<b>(3,153 - 4,603)</b>	<b>118/ 149</b>
Deposit Beverage Glass	698	(417 - 1,049)	55/ 158	628	(372 - 957)	55/ 149
<b>Other Container Glass</b>	<b>2,108</b>	<b>(1,803 - 2,414)</b>	<b>105/ 158</b>	<b>1,896</b>	<b>(1,616 - 2,190)</b>	<b>105/ 149</b>
Other Clear Bottles	746	(613 - 885)	72/ 158	664	(543 - 787)	72/ 149
Other Colored Bottles	405	(281 - 531)	37/ 158	364	(250 - 480)	37/ 149
Clear Container Glass	881	(686 - 1,096)	72/ 158	799	(620 - 998)	72/ 149
Colored Container Glass	76	(41 - 118)	17/ 158	69	(38 - 109)	17/ 149
<b>Window+Nonrecvc. Glass</b>	<b>1,585</b>	<b>(1,001 - 2,385)</b>	<b>87/ 158</b>	<b>1,301</b>	<b>(821 - 1,923)</b>	<b>87/ 149</b>
Flat Window Glass	290	(123 - 538)	21/ 158	206	(66 - 422)	21/ 149
Other Nonrecvc. Glass	1,216	(685 - 1,998)	79/ 158	1,024	(605 - 1,629)	79/ 149
<b>Fluorescent Lights &amp; Tubes</b>	<b>78</b>	<b>(11 - 182)</b>	<b>10/ 158</b>	<b>71</b>	<b>(9 - 169)</b>	<b>10/ 149</b>
Fluorescent Tubes	58	(1 - 168)	6/ 158	53	(1 - 156)	6/ 149
Compact Fluorescent Lights	21	(2 - 48)	5/ 158	18	(2 - 40)	5/ 149
<b>METALS</b>	<b>16,588</b>	<b>(13,231 - 20,254)</b>	<b>145/ 158</b>	<b>13,339</b>	<b>(11,199 - 15,653)</b>	<b>143/ 149</b>
Alum. Beverage Cans	258	(214 - 305)	115/ 158	223	(186 - 266)	114/ 149
<b>Foil &amp; Other Aluminum</b>	<b>299</b>	<b>(242 - 364)</b>	<b>114/ 158</b>	<b>264</b>	<b>(213 - 323)</b>	<b>114/ 149</b>
Alum. Foil / Food Trays	206	(174 - 239)	109/ 158	181	(152 - 211)	109/ 149
Other Aluminum	92	(42 - 150)	21/ 158	83	(37 - 136)	21/ 149
<b>Tinned Cans</b>	<b>2,250</b>	<b>(1,970 - 2,555)</b>	<b>131/ 158</b>	<b>1,976</b>	<b>(1,744 - 2,240)</b>	<b>131/ 149</b>
Tin Food Cans	1,835	(1,647 - 2,037)	127/ 158	1,645	(1,471 - 1,832)	127/ 149
Other Tin Cans	415	(217 - 669)	42/ 158	332	(171 - 536)	42/ 149
<b>Other Metal</b>	<b>13,781</b>	<b>(10,430 - 17,379)</b>	<b>132/ 158</b>	<b>10,874</b>	<b>(8,759 - 13,180)</b>	<b>131/ 149</b>
Other Nonferrous Metal	86	(47 - 138)	25/ 158	75	(40 - 120)	25/ 149
Other Ferrous Metal	3,086	(2,233 - 4,054)	109/ 158	2,416	(1,777 - 3,130)	108/ 149
White Goods	0	(0 - 0)	0/ 158	0	(0 - 0)	0/ 149
<b>Computer,Brown,Sm. Applianc</b>	<b>4,986</b>	<b>(2,633 - 7,812)</b>	<b>51/ 158</b>	<b>3,720</b>	<b>(2,144 - 5,581)</b>	<b>51/ 149</b>
<b>Computers &amp; Monitors</b>	<b>780</b>	<b>(265 - 1,380)</b>	<b>8/ 158</b>	<b>711</b>	<b>(240 - 1,253)</b>	<b>8/ 149</b>
Computers	780	(265 - 1,380)	8/ 158	711	(240 - 1,253)	8/ 149
CRT Monitors	0	(0 - 0)	0/ 158	0	(0 - 0)	0/ 149
<b>TVs, CRTs, &amp; Brown Goods</b>	<b>2,989</b>	<b>(974 - 5,327)</b>	<b>19/ 158</b>	<b>1,976</b>	<b>(770 - 3,483)</b>	<b>19/ 149</b>
TVs & other CRTs	2,812	(823 - 5,132)	7/ 158	1,808	(646 - 3,282)	7/ 149
Other Brown Goods	177	(64 - 308)	13/ 158	168	(61 - 291)	13/ 149
Small Appliances-non elec	1,216	(603 - 1,930)	30/ 158	1,034	(496 - 1,661)	30/ 149
Empty Aerosol Cans	334	(265 - 416)	78/ 158	301	(236 - 375)	78/ 149
Used Oil Filters	318	(113 - 591)	13/ 158	264	(92 - 512)	13/ 149
Mixed Metal / Material	5,288	(4,012 - 6,647)	110/ 158	4,362	(3,386 - 5,432)	110/ 149
<b>OTHER INORGANICS</b>	<b>22,660</b>	<b>(19,106 - 26,510)</b>	<b>121/ 158</b>	<b>12,653</b>	<b>(10,466 - 15,139)</b>	<b>115/ 149</b>
Rock / Concrete / Brick	3,308	(1,799 - 5,133)	34/ 158	1,480	(942 - 2,104)	32/ 149
Soil / Sand / Dirt	4,772	(2,948 - 6,624)	32/ 158	2,028	(980 - 3,413)	29/ 149
Pet Litter / Animal Feces	4,324	(2,865 - 6,319)	45/ 158	3,963	(2,649 - 5,801)	45/ 149
<b>Gypsum wallboard</b>	<b>5,258</b>	<b>(3,077 - 7,423)</b>	<b>50/ 158</b>	<b>1,953</b>	<b>(1,373 - 2,523)</b>	<b>48/ 149</b>
Gypsum Wallboard OLD	4,398	(2,518 - 6,419)	43/ 158	1,755	(1,249 - 2,216)	42/ 149
Gypsum Wallboard NEW	860	(17 - 2,000)	9/ 158	198	(9 - 540)	8/ 149
Fiberglass Insulation	338	(65 - 614)	27/ 158	321	(57 - 592)	27/ 149
Other Inorganics	4,661	(2,893 - 6,366)	91/ 158	2,908	(2,061 - 3,738)	91/ 149
<b>"MEDICAL WASTES"</b>	<b>78</b>	<b>(29 - 136)</b>	<b>14/ 158</b>	<b>69</b>	<b>(24 - 120)</b>	<b>14/ 149</b>
<b>OTHER HAZARDOUS MATLs</b>	<b>2,900</b>	<b>(1,606 - 4,386)</b>	<b>94/ 158</b>	<b>2,419</b>	<b>(1,374 - 3,584)</b>	<b>94/ 149</b>
Latex Paint	330	(123 - 588)	11/ 158	294	(106 - 517)	11/ 149
Oil Paints / Thinners	697	(43 - 1,875)	18/ 158	551	(42 - 1,450)	18/ 149
Pesticides / Herbicides	315	(7 - 918)	6/ 158	244	(7 - 705)	6/ 149
Motor Oil	146	(43 - 285)	10/ 158	132	(38 - 259)	10/ 149
Fuels (gas/kero/diesel)	10	(0 - 25)	2/ 158	9	(0 - 22)	2/ 149
Adhesives / Sealants	111	(58 - 178)	20/ 158	97	(48 - 160)	20/ 149
Caustic Cleaners	18	(3 - 36)	5/ 158	16	(3 - 32)	5/ 149
Lead-Acid Batteries	137	(0 - 410)	1/ 158	123	(0 - 370)	1/ 149
Drv-cell Batteries	166	(118 - 221)	70/ 158	150	(106 - 200)	70/ 149
Asbestos	0	(0 - 0)	0/ 158	0	(0 - 0)	0/ 149
Other Hazardous Chemicals	653	(59 - 1,437)	13/ 158	538	(54 - 1,131)	13/ 149
<b>TOTAL PACKAGING</b>	<b>34,026</b>	<b>(31,867 - 36,285)</b>	<b>152/ 158</b>	<b>28,254</b>	<b>(26,530 - 29,813)</b>	<b>149/ 149</b>
<b>TOTAL PRODUCTS</b>	<b>97,378</b>	<b>(91,638 - 102,313)</b>	<b>155/ 158</b>	<b>71,438</b>	<b>(67,487 - 74,919)</b>	<b>149/ 149</b>
<b>TOTAL NON-MANUFACTURED</b>	<b>58,720</b>	<b>(54,515 - 63,372)</b>	<b>144/ 158</b>	<b>48,471</b>	<b>(45,134 - 51,886)</b>	<b>140/ 149</b>
<b>Total Organic</b>	<b>145,847</b>	<b>(140,818 - 150,608)</b>	<b>154/ 158</b>	<b>117,793</b>	<b>(114,430 - 120,869)</b>	<b>149/ 149</b>
<b>Total non-organic</b>	<b>44,277</b>	<b>(39,708 - 49,032)</b>	<b>150/ 158</b>	<b>30,370</b>	<b>(27,476 - 33,616)</b>	<b>143/ 149</b>
<b>compostable</b>	<b>97,407</b>	<b>(93,276 - 101,496)</b>	<b>149/ 158</b>	<b>85,093</b>	<b>(81,554 - 88,617)</b>	<b>147/ 149</b>
<b>compost-target</b>	<b>56,541</b>	<b>(53,115 - 59,893)</b>	<b>146/ 158</b>	<b>49,631</b>	<b>(46,601 - 52,583)</b>	<b>145/ 149</b>
<b>Water &amp; Residue (Detailed)</b>	<b>13,822</b>	<b>(11,723 - 16,228)</b>		<b>11,642</b>	<b>(9,932 - 13,534)</b>	

**Table Marion8: Comparing Marion 2002 and 1998 Composition:  
Field Data and Contamination Correction**

(page 1 of 4)

Material	2002 Field Data Percent	2002 Field Data (90% Conf. Int.)	1998 Field Data Percent	1998 Field Data (90% Conf. Int.)	2002 Corrected Percent	2002 Corrected (90% Conf. Int.)	1998 Corrected Percent
<b>TOTAL PAPER</b>	<b>21.95%</b>	<b>(20.61 - 23.29%)</b>	<b>21.45%</b>	<b>(19.82 - 23.22%)</b>	<b>17.09%</b>	<b>(15.89 - 18.36%)</b>	<b>17.45%</b>
<b>Paper Packaging</b>	<b>10.15%</b>	<b>(9.31 - 10.94%)</b>	<b>9.99%</b>	<b>(8.89 - 11.23%)</b>	<b>7.86%</b>	<b>(7.16 - 8.56%)</b>	<b>8.48%</b>
Cardboard/Brown Bags	3.33%	(2.99 - 3.68%)	4.58%	(3.75 - 5.57%)	2.78%	(2.42 - 3.14%)	3.85%
Low Grade Packaging	2.73%	(2.45 - 2.99%)	2.52%	(2.27 - 2.79%)	2.31%	(2.06 - 2.57%)	2.03%
Bleached Polycots	0.45%	(0.36 - 0.55%)	0.45%	(0.36 - 0.55%)	0.38%	(0.31 - 0.47%)	0.35%
Nonrecyc. Packaging Paper	1.79%	(1.35 - 2.30%)	1.11%	(0.76 - 1.53%)	1.18%	(0.88 - 1.52%)	0.92%
Mixed Paper / Materials	1.84%	(1.53 - 2.16%)	1.34%	(1.04 - 1.69%)	1.21%	(1.00 - 1.44%)	1.34%
<b>Other Paper</b>	<b>11.80%</b>	<b>(10.82 - 12.86%)</b>	<b>11.47%</b>	<b>(10.49 - 12.56%)</b>	<b>9.22%</b>	<b>(8.39 - 10.27%)</b>	<b>8.97%</b>
Newspaper	2.47%	(2.14 - 2.85%)	2.48%	(2.13 - 2.83%)	1.85%	(1.45 - 2.38%)	2.11%
Magazines	0.92%	(0.75 - 1.10%)	0.87%	(0.66 - 1.12%)	0.91%	(0.74 - 1.09%)	0.81%
Hi Grade Paper	1.51%	(1.17 - 1.98%)	1.17%	(0.83 - 1.58%)	1.47%	(1.14 - 1.92%)	1.12%
Hardcover Books	0.11%	(0.05 - 0.19%)	0.10%	(0.04 - 0.18%)	0.11%	(0.05 - 0.19%)	0.10%
Low Grade Paper	2.19%	(1.95 - 2.45%)	3.63%	(3.13 - 4.16%)	1.86%	(1.63 - 2.10%)	2.93%
Other Nonrecyclable Paper	4.59%	(4.12 - 5.06%)	3.21%	(2.83 - 3.59%)	3.02%	(2.68 - 3.39%)	1.91%
Low-grade Recyc. Paper comb.	5.49%	(5.05 - 5.88%)	6.70%	(6.11 - 7.29%)	4.67%	(4.28 - 5.05%)	5.41%
Nonrecyclable Paper combined	8.23%	(7.45 - 8.98%)	5.66%	(4.96 - 6.44%)	5.41%	(4.84 - 6.01%)	4.16%
<b>TOTAL PLASTICS</b>	<b>14.17%</b>	<b>(12.38 - 16.50%)</b>	<b>12.97%</b>	<b>(11.31 - 14.72%)</b>	<b>11.32%</b>	<b>(9.67 - 13.27%)</b>	<b>11.01%</b>
<b>Plastic Packaging</b>	<b>7.62%</b>	<b>(6.83 - 8.53%)</b>	<b>6.34%</b>	<b>(5.39 - 7.43%)</b>	<b>5.64%</b>	<b>(5.01 - 6.33%)</b>	<b>5.12%</b>
Rigid Plastic Containers	1.88%	(1.73 - 2.03%)	1.58%	(1.29 - 1.90%)	1.46%	(1.35 - 1.59%)	1.29%
<b>Other Plastic Packaging</b>	<b>5.74%</b>	<b>(4.97 - 6.66%)</b>	<b>4.76%</b>	<b>(3.85 - 5.81%)</b>	<b>4.18%</b>	<b>(3.56 - 4.88%)</b>	<b>3.82%</b>
Other Rigid Packaging	0.98%	(0.89 - 1.06%)	1.24%	(0.89 - 1.71%)	0.95%	(0.87 - 1.03%)	1.15%
Plastic Film Pkg Est. 2002	4.76%	(4.02 - 5.69%)	3.52%	(2.71 - 4.54%)	3.23%	(2.62 - 3.92%)	2.67%
<b>Plastic Products</b>	<b>6.55%</b>	<b>(5.41 - 8.01%)</b>	<b>6.63%</b>	<b>(5.21 - 8.16%)</b>	<b>5.68%</b>	<b>(4.58 - 7.02%)</b>	<b>5.89%</b>
Rigid Plastic Products	1.89%	(1.51 - 2.32%)	1.73%	(1.29 - 2.33%)	1.85%	(1.47 - 2.25%)	1.22%
Plastic Film Prod. Est. 2002	2.57%	(2.17 - 3.07%)	3.12%	(2.06 - 4.17%)	1.74%	(1.41 - 2.12%)	3.04%
Mixed Plastic / Materials	2.09%	(1.32 - 3.13%)	1.78%	(1.14 - 2.54%)	2.09%	(1.31 - 3.10%)	1.63%
<i>(Film plastic combined)</i>	7.33%	(6.20 - 8.76%)	5.26%	(4.31 - 6.42%)	4.97%	(4.03 - 6.03%)	3.89%
Plastic Film Recyclable	1.86%	(1.17 - 2.61%)			1.82%	(1.14 - 2.55%)	
Plastic Film Nonrecyclable	5.47%	(4.80 - 6.25%)			3.15%	(2.74 - 3.63%)	

**Continued Table Marion8: Comparing Marion 2002 and 1998 Composition:  
Field Data and Contamination Correction**

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Material	2002 Field Data Percent	2002 Field Data (90% Conf. Int.)	1998 Field Data Percent	1998 Field Data (90% Conf. Int.)	2002 Corrected Percent	2002 Corrected (90% Conf. Int.)	1998 Corrected Percent
<b>OTHER ORGANICS</b>	<b>41.05%</b>	<b>(38.08 - 44.14%)</b>	<b>46.45%</b>	<b>(43.08 - 49.86%)</b>	<b>41.96%</b>	<b>(38.91 - 45.01%)</b>	<b>46.26%</b>
<b>Yard Debris</b>	<b>2.82%</b>	<b>(1.97 - 3.80%)</b>	<b>4.74%</b>	<b>(3.43 - 6.14%)</b>	<b>2.85%</b>	<b>(2.00 - 3.84%)</b>	<b>4.77%</b>
Leaves / Grass	2.67%	(1.82 - 3.64%)	3.90%	(2.77 - 5.10%)	2.70%	(1.85 - 3.68%)	3.93%
Small Prunings under 2"	0.10%	(0.05 - 0.15%)	0.57%	(0.30 - 0.89%)	0.10%	(0.05 - 0.15%)	0.58%
Large Prunings over 2"	0.05%	(0.02 - 0.09%)	0.04%	(0.00 - 0.07%)	0.05%	(0.02 - 0.09%)	0.04%
Stumps	0.00%	(0.00 - 0.00%)	0.23%	(0.00 - 0.46%)	0.00%	(0.00 - 0.00%)	0.23%
<b>Wood</b>	<b>5.57%</b>	<b>(4.40 - 6.90%)</b>	<b>10.41%</b>	<b>(8.26 - 12.82%)</b>	<b>5.48%</b>	<b>(4.30 - 6.79%)</b>	<b>10.28%</b>
<b>Clean lumber &amp; hog fuel</b>	<b>2.74%</b>	<b>(1.92 - 3.88%)</b>	<b>4.70%</b>	<b>(3.34 - 6.16%)</b>	<b>2.66%</b>	<b>(1.84 - 3.79%)</b>	<b>4.59%</b>
Untreated Lumber	1.46%	(1.21 - 1.73%)			1.38%	(1.13 - 1.66%)	
Clean HogFuel Lumber	1.28%	(0.60 - 2.40%)			1.28%	(0.60 - 2.38%)	
<b>Painted &amp; Treated lumber</b>	<b>0.67%</b>	<b>(0.51 - 0.85%)</b>	<b>2.02%</b>	<b>(1.44 - 2.62%)</b>	<b>0.70%</b>	<b>(0.52 - 0.90%)</b>	<b>2.01%</b>
Painted Lumber	0.64%	(0.48 - 0.81%)			0.66%	(0.49 - 0.86%)	
Chemically-treated Lumber	0.03%	(0.01 - 0.07%)			0.03%	(0.01 - 0.08%)	
Wood Pallets / Crates	0.30%	(0.10 - 0.61%)	1.05%	(0.38 - 1.96%)	0.31%	(0.10 - 0.61%)	1.04%
Wood Furniture	0.34%	(0.16 - 0.56%)	1.41%	(0.50 - 2.66%)	0.31%	(0.14 - 0.51%)	1.40%
Other Wood Products	0.10%	(0.06 - 0.14%)	0.28%	(0.15 - 0.43%)	0.10%	(0.07 - 0.15%)	0.28%
Mixed Wood / Materials	1.41%	(0.85 - 2.10%)	0.96%	(0.53 - 1.45%)	1.41%	(0.86 - 2.10%)	0.96%
Food	17.66%	(16.07 - 19.21%)	15.34%	(13.70 - 16.96%)	18.69%	(16.99 - 20.33%)	15.61%
Tires	0.26%	(0.01 - 0.61%)	0.06%	(0.00 - 0.18%)	0.26%	(0.01 - 0.61%)	0.06%
Rubber Products	0.51%	(0.34 - 0.72%)	0.24%	(0.18 - 0.32%)	0.51%	(0.34 - 0.70%)	0.24%
Disposable Diapers	2.56%	(2.11 - 2.99%)	2.29%	(1.73 - 2.95%)	2.57%	(2.12 - 3.01%)	2.29%
Carpet	1.93%	(0.86 - 3.11%)	4.51%	(2.77 - 6.31%)	1.88%	(0.83 - 3.00%)	4.38%
<b>Textiles + mixed</b>	<b>3.34%</b>	<b>(2.72 - 4.06%)</b>	<b>2.68%</b>	<b>(1.82 - 3.84%)</b>	<b>3.21%</b>	<b>(2.57 - 3.87%)</b>	<b>2.50%</b>
Textiles	1.83%	(1.29 - 2.49%)	1.20%	(1.00 - 1.40%)	1.71%	(1.19 - 2.30%)	1.02%
Mixed Textile / Material	1.51%	(1.24 - 1.81%)	1.48%	(0.71 - 2.69%)	1.50%	(1.22 - 1.80%)	1.48%
Roofing / Tarpaper	2.15%	(1.16 - 3.15%)	3.97%	(1.99 - 5.99%)	2.15%	(1.16 - 3.15%)	3.94%
Furniture	3.18%	(1.51 - 4.82%)	0.56%	(0.18 - 1.08%)	3.18%	(1.51 - 4.82%)	0.56%
Other Organics	1.07%	(0.85 - 1.30%)	1.64%		1.17%	(0.93 - 1.43%)	1.64%

**Continued Table Marion8: Comparing Marion 2002 and 1998 Composition:**

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Material	2002 Field Data Percent	2002 Field Data (90% Conf. Int.)	1998 Field Data Percent	1998 Field Data (90% Conf. Int.)	2002 Corrected Percent	2002 Corrected (90% Conf. Int.)	1998 Corrected Percent
<b>GLASS</b>	<b>2.15%</b>	<b>(1.77 - 2.60%)</b>	<b>2.53%</b>	<b>(2.02 - 3.06%)</b>	<b>2.15%</b>	<b>(1.77 - 2.60%)</b>	<b>2.59%</b>
Deposit Beverage Glass	0.34%	(0.20 - 0.52%)	0.38%	(0.18 - 0.65%)	0.34%	(0.20 - 0.51%)	0.38%
<b>Other Container Glass</b>	<b>1.05%</b>	<b>(0.90 - 1.21%)</b>	<b>1.44%</b>	<b>(1.13 - 1.76%)</b>	<b>1.03%</b>	<b>(0.88 - 1.18%)</b>	<b>1.50%</b>
Other Clear Bottles	0.37%	(0.30 - 0.44%)	0.48%	(0.38 - 0.59%)	0.37%	(0.30 - 0.43%)	0.48%
Other Colored Bottles	0.20%	(0.14 - 0.27%)	0.31%	(0.18 - 0.46%)	0.20%	(0.14 - 0.26%)	0.30%
Clear Container Glass	0.44%	(0.35 - 0.54%)	0.62%	(0.44 - 0.83%)	0.43%	(0.34 - 0.54%)	0.68%
Colored Container Glass	0.04%	(0.02 - 0.06%)	0.03%	(0.02 - 0.05%)	0.04%	(0.02 - 0.06%)	0.03%
<b>Window+Nonrecyc. Glass</b>	<b>0.76%</b>	<b>(0.48 - 1.14%)</b>	<b>0.71%</b>	<b>(0.39 - 1.02%)</b>	<b>0.78%</b>	<b>(0.49 - 1.17%)</b>	<b>0.71%</b>
Flat Window Glass	0.14%	(0.06 - 0.26%)	0.41%	(0.11 - 0.68%)	0.14%	(0.06 - 0.26%)	0.41%
Other Nonrecyc. Glass	0.58%	(0.33 - 0.95%)	0.31%	(0.20 - 0.42%)	0.60%	(0.34 - 0.98%)	0.31%
<b>Fluorescent Lights &amp; Tubes</b>	<b>0.04%</b>	<b>(0.01 - 0.09%)</b>			<b>0.04%</b>	<b>(0.01 - 0.09%)</b>	
Fluorescent Tubes	0.03%	(0.00 - 0.08%)			0.03%	(0.00 - 0.08%)	
Compact Fluorescent Lights	0.01%	(0.00 - 0.02%)			0.01%	(0.00 - 0.02%)	
<b>METALS</b>	<b>8.34%</b>	<b>(6.71 - 10.11%)</b>	<b>6.27%</b>	<b>(5.32 - 7.26%)</b>	<b>8.13%</b>	<b>(6.49 - 9.93%)</b>	<b>6.11%</b>
Alum. Beverage Cans	0.14%	(0.12 - 0.17%)	0.10%	(0.08 - 0.11%)	0.13%	(0.11 - 0.15%)	0.08%
<b>Foil &amp; Other Aluminum</b>	<b>0.22%</b>	<b>(0.19 - 0.25%)</b>	<b>0.28%</b>	<b>(0.22 - 0.36%)</b>	<b>0.15%</b>	<b>(0.12 - 0.18%)</b>	<b>0.24%</b>
Alum. Foil / Food Trays	0.18%	(0.15 - 0.20%)	0.14%	(0.11 - 0.18%)	0.10%	(0.09 - 0.12%)	0.09%
Other Aluminum	0.04%	(0.02 - 0.07%)	0.14%	(0.09 - 0.22%)	0.05%	(0.02 - 0.07%)	0.14%
<b>Tinned Cans</b>	<b>1.22%</b>	<b>(1.06 - 1.38%)</b>	<b>1.20%</b>	<b>(1.03 - 1.40%)</b>	<b>1.10%</b>	<b>(0.97 - 1.25%)</b>	<b>1.11%</b>
Tin Food Cans	0.98%	(0.88 - 1.08%)	1.03%	(0.87 - 1.21%)	0.90%	(0.81 - 1.00%)	0.93%
Other Tin Cans	0.24%	(0.12 - 0.38%)	0.17%	(0.09 - 0.27%)	0.20%	(0.11 - 0.33%)	0.17%
<b>Other Metal</b>	<b>6.76%</b>	<b>(5.12 - 8.52%)</b>	<b>4.70%</b>	<b>(3.76 - 5.66%)</b>	<b>6.76%</b>	<b>(5.11 - 8.52%)</b>	<b>4.69%</b>
Other Nonferrous Metal	0.04%	(0.02 - 0.06%)	0.05%	(0.02 - 0.11%)	0.04%	(0.02 - 0.07%)	0.05%
Other Ferrous Metal	1.50%	(1.08 - 1.97%)	2.01%	(1.56 - 2.47%)	1.51%	(1.10 - 1.99%)	2.00%
White Goods	0.00%	(0.00 - 0.00%)	0.00%	(0.00 - 0.00%)	0.00%	(0.00 - 0.00%)	0.00%
<b>Computer,Brown,Sm. Applianc</b>	<b>2.45%</b>	<b>(1.29 - 3.83%)</b>	<b>1.09%</b>		<b>2.44%</b>	<b>(1.29 - 3.83%)</b>	<b>1.09%</b>
<b>Computers &amp; Monitors</b>	<b>0.38%</b>	<b>(0.13 - 0.68%)</b>	<b>0.11%</b>	<b>(0.01 - 0.25%)</b>	<b>0.38%</b>	<b>(0.13 - 0.68%)</b>	<b>0.11%</b>
Computers	0.38%	(0.13 - 0.68%)			0.38%	(0.13 - 0.68%)	
CRT Monitors	0.00%	(0.00 - 0.00%)			0.00%	(0.00 - 0.00%)	
<b>TVs, CRTs, &amp; Brown Goods</b>	<b>1.47%</b>	<b>(0.48 - 2.61%)</b>	<b>0.60%</b>	<b>(0.11 - 1.12%)</b>	<b>1.47%</b>	<b>(0.48 - 2.61%)</b>	<b>0.60%</b>
TVs & other CRTs	1.38%	(0.40 - 2.52%)			1.38%	(0.40 - 2.52%)	
Other Brown Goods	0.09%	(0.03 - 0.15%)			0.09%	(0.03 - 0.15%)	
Small Appliances-non elec	0.60%	(0.30 - 0.95%)	0.38%	(0.19 - 0.59%)	0.60%	(0.30 - 0.95%)	0.38%
Empty Aerosol Cans	0.17%	(0.13 - 0.21%)	0.15%	(0.12 - 0.19%)	0.16%	(0.13 - 0.20%)	0.15%
Used Oil Filters	0.16%	(0.06 - 0.29%)	0.06%	(0.03 - 0.09%)	0.16%	(0.06 - 0.29%)	0.06%
Mixed Metal / Material	2.61%	(1.97 - 3.28%)	1.39%	(1.00 - 1.85%)	2.59%	(1.97 - 3.26%)	1.39%

**Continued Table Marion8: Comparing Marion 2002 and 1998 Composition:  
Field Data and Contamination Correction**

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Material	2002 Field Data Percent	2002 Field Data (90% Conf. Int.)	1998 Field Data Percent	1998 Field Data (90% Conf. Int.)	2002 Corrected Percent	2002 Corrected (90% Conf. Int.)	1998 Corrected Percent
<b>OTHER INORGANICS</b>	<b>10.93%</b>	<b>(9.25 - 12.88%)</b>	<b>9.44%</b>	<b>(6.73 - 11.98%)</b>	<b>11.11%</b>	<b>(9.37 - 13.00%)</b>	<b>9.52%</b>
Rock / Concrete / Brick	1.61%	(0.88 - 2.51%)	1.00%	(0.38 - 1.75%)	1.62%	(0.88 - 2.52%)	1.01%
Soil / Sand / Dirt	2.27%	(1.41 - 3.16%)	1.38%	(0.96 - 1.84%)	2.34%	(1.45 - 3.25%)	1.39%
Pet Litter / Animal Feces	2.09%	(1.39 - 3.07%)	1.02%	(0.74 - 1.29%)	2.12%	(1.40 - 3.10%)	1.02%
<b>Gypsum wallboard</b>	<b>2.59%</b>	<b>(1.58 - 3.71%)</b>	<b>4.62%</b>	<b>(2.02 - 7.14%)</b>	<b>2.58%</b>	<b>(1.51 - 3.64%)</b>	<b>4.66%</b>
Gypsum Wallboard OLD	2.17%	(1.28 - 3.18%)	3.75%	(1.24 - 6.24%)	2.16%	(1.23 - 3.15%)	
Gypsum Wallboard NEW	0.42%	(0.01 - 0.97%)	0.87%	(0.21 - 1.57%)	0.42%	(0.01 - 0.98%)	
Fiberglass Insulation	0.17%	(0.04 - 0.34%)	0.28%	(0.08 - 0.53%)	0.17%	(0.03 - 0.30%)	0.28%
Other Inorganics	2.19%	(1.37 - 2.96%)	1.14%	(0.69 - 1.66%)	2.29%	(1.42 - 3.12%)	1.15%
<b>"MEDICAL WASTES"</b>	<b>0.04%</b>	<b>(0.01 - 0.07%)</b>	<b>0.08%</b>	<b>(0.02 - 0.16%)</b>	<b>0.04%</b>	<b>(0.01 - 0.07%)</b>	<b>0.08%</b>
<b>OTHER HAZARDOUS MATLs</b>	<b>1.37%</b>	<b>(0.74 - 2.08%)</b>	<b>0.80%</b>	<b>(0.54 - 1.08%)</b>	<b>1.42%</b>	<b>(0.79 - 2.15%)</b>	<b>0.80%</b>
Latex Paint	0.13%	(0.05 - 0.23%)	0.12%	(0.06 - 0.19%)	0.16%	(0.06 - 0.29%)	0.12%
Oil Paints / Thinners	0.34%	(0.02 - 0.91%)	0.07%	(0.02 - 0.13%)	0.34%	(0.02 - 0.92%)	0.07%
Pesticides / Herbicides	0.15%	(0.00 - 0.45%)	0.03%	(0.00 - 0.06%)	0.15%	(0.00 - 0.45%)	0.03%
Motor Oil	0.06%	(0.02 - 0.12%)	0.04%	(0.01 - 0.07%)	0.07%	(0.02 - 0.14%)	0.04%
Fuels (gas/kero/diesel)	0.00%	(0.00 - 0.01%)	0.01%	(0.00 - 0.02%)	0.00%	(0.00 - 0.01%)	0.01%
Adhesives / Sealants	0.05%	(0.03 - 0.08%)	0.10%	(0.03 - 0.18%)	0.05%	(0.03 - 0.09%)	0.10%
Caustic Cleaners	0.01%	(0.00 - 0.01%)	0.03%	(0.00 - 0.06%)	0.01%	(0.00 - 0.02%)	0.03%
Lead-Acid Batteries	0.07%	(0.00 - 0.20%)	0.00%	(0.00 - 0.00%)	0.07%	(0.00 - 0.20%)	0.00%
Dry-cell Batteries	0.08%	(0.06 - 0.11%)	0.07%	(0.03 - 0.10%)	0.08%	(0.06 - 0.11%)	0.07%
Asbestos	0.00%	(0.00 - 0.00%)	0.00%	(0.00 - 0.00%)	0.00%	(0.00 - 0.00%)	0.00%
Other Hazardous Chemicals	0.31%	(0.03 - 0.68%)	0.28%	(0.08 - 0.50%)	0.32%	(0.03 - 0.70%)	0.28%
<b>TOTAL PACKAGING</b>	<b>21.17%</b>	<b>(19.85 - 22.49%)</b>	<b>20.78%</b>	<b>(19.00 - 22.71%)</b>	<b>16.68%</b>	<b>(15.62 - 17.79%)</b>	
<b>TOTAL PRODUCTS</b>	<b>51.30%</b>	<b>(48.74 - 53.58%)</b>	<b>53.01%</b>	<b>(50.20 - 55.73%)</b>	<b>47.75%</b>	<b>(44.93 - 50.17%)</b>	
<b>TOTAL NON-MANUFACTURED</b>	<b>27.53%</b>	<b>(25.50 - 29.70%)</b>	<b>26.21%</b>	<b>(24.04 - 28.27%)</b>	<b>28.79%</b>	<b>(26.73 - 31.07%)</b>	
<b>Total Organic</b>	<b>78.27%</b>	<b>(75.93 - 80.40%)</b>	<b>81.60%</b>	<b>(78.89 - 84.40%)</b>	<b>71.51%</b>	<b>(69.05 - 73.85%)</b>	
<b>Total non-organic</b>	<b>21.73%</b>	<b>(19.60 - 24.07%)</b>	<b>18.40%</b>	<b>(15.60 - 21.11%)</b>	<b>21.71%</b>	<b>(19.47 - 24.04%)</b>	
<b>compostable</b>	<b>51.54%</b>	<b>(49.55 - 53.36%)</b>	<b>53.58%</b>	<b>(51.14 - 56.19%)</b>	<b>47.76%</b>	<b>(45.74 - 49.77%)</b>	
<b>compost-target</b>	<b>28.25%</b>	<b>(26.58 - 29.84%)</b>	<b>32.02%</b>	<b>(29.66 - 34.61%)</b>	<b>27.72%</b>	<b>(26.04 - 29.37%)</b>	
<b>Water &amp; Residue (Detailed)</b>					<b>6.78%</b>	<b>(5.75 - 7.96%)</b>	<b>6.18%</b>

## Table Marion9: Marion County Waste Composition by Vehicle Source

2002 Field Data Only

(page 1 of 4)

Material	Residential Route Trucks	Commercial Route Trucks	Mixed Route Trucks	Compacting Drop Boxes	Loose Drop boxes	Regular Self Haul	Waste Processing Facilities	Browns Island Self Haul	Total
<b>Number of Samples</b>	<b>28</b>	<b>16</b>	<b>22</b>	<b>16</b>	<b>21</b>	<b>38</b>	<b>8</b>	<b>9</b>	<b>158</b>
<b>TOTAL PAPER</b>	<b>27.66%</b>	<b>23.97%</b>	<b>28.31%</b>	<b>31.40%</b>	<b>20.66%</b>	<b>12.65%</b>	<b>9.17%</b>	<b>0.19%</b>	<b>21.95%</b>
<b>Paper Packaging</b>	<b>11.19%</b>	<b>9.89%</b>	<b>11.42%</b>	<b>16.97%</b>	<b>12.66%</b>	<b>6.98%</b>	<b>6.67%</b>	<b>0.19%</b>	<b>10.15%</b>
Cardboard/Brown Bags	3.20%	3.43%	3.94%	5.03%	3.83%	3.69%	2.07%	0.17%	3.33%
Low Grade Packaging	3.82%	1.98%	3.01%	3.46%	1.45%	1.28%	2.99%	0.00%	2.73%
Bleached Polycoats	0.58%	0.40%	0.74%	0.76%	0.29%	0.14%	0.12%	0.00%	0.45%
Nonrecyc. Packaging Paper	1.07%	3.19%	2.03%	4.49%	4.60%	0.59%	0.17%	0.00%	1.79%
Mixed Paper / Materials	2.53%	0.89%	1.71%	3.22%	2.49%	1.27%	1.32%	0.02%	1.84%
<b>Other Paper</b>	<b>16.47%</b>	<b>14.08%</b>	<b>16.89%</b>	<b>14.43%</b>	<b>8.00%</b>	<b>5.68%</b>	<b>2.51%</b>	<b>0.00%</b>	<b>11.80%</b>
Newspaper	3.11%	2.51%	4.69%	1.85%	0.50%	1.74%	0.53%	0.00%	2.47%
Magazines	1.89%	0.58%	0.84%	1.01%	0.20%	0.92%	0.19%	0.00%	0.92%
Hi Grade Paper	1.60%	1.73%	2.57%	1.96%	0.90%	0.66%	0.71%	0.00%	1.51%
Hardcover Books	0.25%	0.00%	0.18%	0.00%	0.00%	0.12%	0.00%	0.00%	0.11%
Low Grade Paper	3.91%	1.86%	2.68%	2.30%	1.15%	1.23%	0.45%	0.00%	2.19%
Other Nonrecyclable Paper	5.72%	7.40%	5.93%	7.31%	5.26%	1.01%	0.64%	0.00%	4.59%
Low-grade Recyc. Paper comb.	8.56%	4.24%	6.61%	6.52%	2.89%	2.77%	3.55%	0.00%	5.49%
Nonrecyclable Paper combined	9.31%	11.48%	9.66%	15.03%	12.35%	2.87%	2.13%	0.02%	8.23%
<b>TOTAL PLASTICS</b>	<b>13.28%</b>	<b>12.36%</b>	<b>12.08%</b>	<b>23.42%</b>	<b>14.50%</b>	<b>11.07%</b>	<b>20.95%</b>	<b>0.46%</b>	<b>14.17%</b>
<b>Plastic Packaging</b>	<b>8.57%</b>	<b>7.79%</b>	<b>6.93%</b>	<b>14.15%</b>	<b>5.56%</b>	<b>4.07%</b>	<b>8.91%</b>	<b>0.24%</b>	<b>7.62%</b>
Rigid Plastic Containers	2.92%	1.89%	2.23%	2.91%	0.96%	1.01%	0.57%	0.00%	1.88%
<b>Other Plastic Packaging</b>	<b>5.65%</b>	<b>5.90%</b>	<b>4.70%</b>	<b>11.24%</b>	<b>4.60%</b>	<b>3.06%</b>	<b>8.34%</b>	<b>0.24%</b>	<b>5.74%</b>
Other Rigid Packaging	1.29%	1.13%	1.08%	1.48%	0.30%	0.88%	0.59%	0.00%	0.98%
Plastic Film Pkg Est. 2002	4.36%	4.77%	3.61%	9.76%	4.30%	2.18%	7.76%	0.24%	4.76%
<b>Plastic Products</b>	<b>4.70%</b>	<b>4.57%</b>	<b>5.15%</b>	<b>9.27%</b>	<b>8.95%</b>	<b>7.01%</b>	<b>12.04%</b>	<b>0.22%</b>	<b>6.55%</b>
Rigid Plastic Products	1.19%	1.12%	1.79%	1.95%	3.47%	3.36%	2.46%	0.09%	1.89%
Plastic Film Prod. Est. 2002	2.35%	2.58%	1.95%	5.27%	2.32%	1.18%	4.19%	0.13%	2.57%
Mixed Plastic / Materials	1.15%	0.88%	1.40%	2.05%	3.16%	2.47%	5.38%	0.00%	2.09%
<i>(Film plastic combined)</i>	<i>6.71%</i>	<i>7.35%</i>	<i>5.57%</i>	<i>15.03%</i>	<i>6.62%</i>	<i>3.36%</i>	<i>11.94%</i>	<i>0.36%</i>	<i>7.33%</i>
Plastic Film Recyclable	0.39%	0.82%	0.65%	7.44%	0.88%	0.87%	5.58%	0.36%	1.86%
Plastic Film Nonrecyclable	6.32%	6.53%	4.92%	7.59%	5.74%	2.49%	6.37%	0.00%	5.47%

**Continued Table Marion9: Marion County Waste Composition by Vehicle Source  
2002 Field Data Only**

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Material	Residential Route Trucks	Commercial Route Trucks	Mixed Route Trucks	Compacting Drop Boxes	Loose Drop boxes	Regular Self Haul	Waste Processing Facilities	Browns Island Self Haul	Total
<b>OTHER ORGANICS</b>	<b>42.82%</b>	<b>44.26%</b>	<b>41.04%</b>	<b>36.02%</b>	<b>40.00%</b>	<b>46.27%</b>	<b>36.25%</b>	<b>37.85%</b>	<b>41.05%</b>
<b>Yard Debris</b>	<b>3.70%</b>	<b>1.22%</b>	<b>5.01%</b>	<b>0.12%</b>	<b>4.68%</b>	<b>2.65%</b>	<b>0.51%</b>	<b>0.00%</b>	<b>2.82%</b>
Leaves / Grass	3.60%	1.17%	4.89%	0.12%	4.33%	2.08%	0.48%	0.00%	2.67%
Small Prunings under 2"	0.07%	0.06%	0.07%	0.00%	0.35%	0.29%	0.04%	0.00%	0.10%
Large Prunings over 2"	0.03%	0.00%	0.06%	0.00%	0.00%	0.27%	0.00%	0.00%	0.05%
Stumps	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
<b>Wood</b>	<b>1.28%</b>	<b>5.44%</b>	<b>6.36%</b>	<b>2.95%</b>	<b>3.41%</b>	<b>17.82%</b>	<b>7.40%</b>	<b>0.67%</b>	<b>5.57%</b>
<b>Clean lumber &amp; hog fuel</b>	<b>0.65%</b>	<b>0.38%</b>	<b>3.94%</b>	<b>0.15%</b>	<b>0.53%</b>	<b>8.53%</b>	<b>5.37%</b>	<b>0.67%</b>	<b>2.74%</b>
Untreated Lumber	0.59%	0.34%	1.05%	0.14%	0.51%	5.15%	3.25%	0.67%	1.46%
Clean HogFuel Lumber	0.07%	0.04%	2.88%	0.02%	0.02%	3.39%	2.12%	0.00%	1.28%
<b>Painted &amp; Treated lumber</b>	<b>0.10%</b>	<b>0.71%</b>	<b>0.25%</b>	<b>0.92%</b>	<b>0.37%</b>	<b>2.66%</b>	<b>1.10%</b>	<b>0.00%</b>	<b>0.67%</b>
Painted Lumber	0.09%	0.71%	0.25%	0.92%	0.09%	2.60%	1.10%	0.00%	0.64%
Chemically-treated Lumber	0.02%	0.00%	0.00%	0.00%	0.28%	0.06%	0.00%	0.00%	0.03%
Wood Pallets / Crates	0.10%	0.36%	0.01%	0.51%	2.08%	0.49%	0.00%	0.00%	0.30%
Wood Furniture	0.09%	0.69%	0.04%	0.06%	0.26%	2.14%	0.00%	0.00%	0.34%
Other Wood Products	0.12%	0.03%	0.19%	0.12%	0.03%	0.07%	0.04%	0.00%	0.10%
Mixed Wood / Materials	0.20%	3.26%	1.93%	1.19%	0.13%	3.93%	0.89%	0.00%	1.41%
Food	25.20%	31.58%	19.47%	23.78%	18.61%	5.95%	1.27%	0.00%	17.66%
Tires	0.05%	0.00%	0.85%	0.00%	0.68%	0.11%	0.00%	0.00%	0.26%
Rubber Products	0.55%	0.09%	0.49%	0.75%	0.71%	1.01%	0.33%	0.00%	0.51%
Disposable Diapers	5.69%	1.43%	2.70%	3.20%	0.69%	0.99%	0.12%	0.00%	2.56%
Carpet	0.79%	0.27%	0.70%	0.85%	0.00%	3.55%	7.90%	0.00%	1.93%
<b>Textiles + mixed</b>	<b>3.72%</b>	<b>2.12%</b>	<b>2.33%</b>	<b>3.55%</b>	<b>6.63%</b>	<b>3.44%</b>	<b>4.13%</b>	<b>0.00%</b>	<b>3.34%</b>
Textiles	2.08%	1.18%	1.38%	1.81%	5.82%	1.84%	0.98%	0.00%	1.83%
Mixed Textile / Material	1.63%	0.94%	0.94%	1.74%	0.81%	1.60%	3.15%	0.00%	1.51%
Roofing / Tarpaper	0.00%	0.25%	0.00%	0.00%	0.00%	2.10%	2.97%	37.17%	2.15%
Furniture	0.21%	0.98%	1.47%	0.00%	4.21%	7.46%	11.53%	0.00%	3.18%
Other Organics	1.63%	0.88%	1.65%	0.82%	0.38%	1.19%	0.10%	0.00%	1.07%

## Continued Table Marion9: Marion County Waste Composition by Vehicle Source

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Material	Residential Route Trucks	Commercial Route Trucks	Mixed Route Trucks	Compacting Drop Boxes	Loose Drop boxes	Regular Self Haul	Waste Processing Facilities	Browns Island Self Haul	Total
<b>GLASS</b>	<b>3.47%</b>	<b>1.91%</b>	<b>2.26%</b>	<b>1.86%</b>	<b>3.44%</b>	<b>1.18%</b>	<b>0.64%</b>	<b>0.00%</b>	<b>2.15%</b>
Deposit Beverage Glass	0.71%	0.39%	0.34%	0.23%	0.27%	0.12%	0.03%	0.00%	0.34%
<b>Other Container Glass</b>	<b>1.98%</b>	<b>1.12%</b>	<b>1.11%</b>	<b>1.08%</b>	<b>0.44%</b>	<b>0.70%</b>	<b>0.11%</b>	<b>0.00%</b>	<b>1.05%</b>
Other Clear Bottles	0.57%	0.49%	0.47%	0.30%	0.25%	0.20%	0.09%	0.00%	0.37%
Other Colored Bottles	0.48%	0.13%	0.09%	0.34%	0.13%	0.14%	0.00%	0.00%	0.20%
Clear Container Glass	0.84%	0.51%	0.49%	0.43%	0.06%	0.34%	0.02%	0.00%	0.44%
Colored Container Glass	0.09%	0.00%	0.05%	0.01%	0.00%	0.03%	0.00%	0.00%	0.04%
<b>Window+Nonrecyc. Glass</b>	<b>0.78%</b>	<b>0.39%</b>	<b>0.81%</b>	<b>0.56%</b>	<b>2.73%</b>	<b>0.35%</b>	<b>0.50%</b>	<b>0.00%</b>	<b>0.76%</b>
Flat Window Glass	0.30%	0.00%	0.02%	0.06%	0.00%	0.05%	0.36%	0.00%	0.14%
Other Nonrecyc. Glass	0.46%	0.39%	0.66%	0.43%	2.73%	0.30%	0.14%	0.00%	0.58%
<b>Fluorescent Lights &amp; Tubes</b>	<b>0.02%</b>	<b>0.00%</b>	<b>0.13%</b>	<b>0.07%</b>	<b>0.00%</b>	<b>0.00%</b>	<b>0.00%</b>	<b>0.00%</b>	<b>0.04%</b>
Fluorescent Tubes	0.00%	0.00%	0.13%	0.01%	0.00%	0.00%	0.00%	0.00%	0.03%
Compact Fluorescent Lights	0.02%	0.00%	0.00%	0.06%	0.00%	0.00%	0.00%	0.00%	0.01%
<b>METALS</b>	<b>5.67%</b>	<b>11.99%</b>	<b>7.45%</b>	<b>4.94%</b>	<b>11.99%</b>	<b>14.38%</b>	<b>9.49%</b>	<b>1.33%</b>	<b>8.34%</b>
Alum. Beverage Cans	0.22%	0.13%	0.17%	0.15%	0.13%	0.06%	0.06%	0.00%	0.14%
<b>Foil &amp; Other Aluminum</b>	<b>0.30%</b>	<b>0.14%</b>	<b>0.31%</b>	<b>0.26%</b>	<b>0.18%</b>	<b>0.22%</b>	<b>0.06%</b>	<b>0.00%</b>	<b>0.22%</b>
Alum. Foil / Food Trays	0.29%	0.14%	0.21%	0.26%	0.14%	0.09%	0.04%	0.00%	0.18%
Other Aluminum	0.01%	0.01%	0.10%	0.00%	0.04%	0.13%	0.02%	0.00%	0.04%
<b>Tinned Cans</b>	<b>2.08%</b>	<b>0.95%</b>	<b>1.35%</b>	<b>1.74%</b>	<b>0.48%</b>	<b>0.90%</b>	<b>0.37%</b>	<b>0.00%</b>	<b>1.22%</b>
Tin Food Cans	1.96%	0.90%	1.15%	0.77%	0.48%	0.42%	0.12%	0.00%	0.98%
Other Tin Cans	0.12%	0.05%	0.20%	0.98%	0.00%	0.49%	0.25%	0.00%	0.24%
<b>Other Metal</b>	<b>3.07%</b>	<b>10.77%</b>	<b>5.62%</b>	<b>2.79%</b>	<b>11.20%</b>	<b>13.19%</b>	<b>9.00%</b>	<b>1.32%</b>	<b>6.76%</b>
Other Nonferrous Metal	0.06%	0.01%	0.06%	0.07%	0.02%	0.03%	0.02%	0.00%	0.04%
Other Ferrous Metal	0.52%	1.33%	0.98%	0.48%	4.14%	3.81%	1.75%	1.32%	1.50%
White Goods	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
<b>Computer,Brown,Sm. Applianc</b>	<b>0.66%</b>	<b>6.24%</b>	<b>2.22%</b>	<b>1.52%</b>	<b>2.24%</b>	<b>2.55%</b>	<b>4.43%</b>	<b>0.00%</b>	<b>2.45%</b>
<b>Computers &amp; Monitors</b>	<b>0.33%</b>	<b>2.42%</b>	<b>0.12%</b>	<b>0.00%</b>	<b>0.00%</b>	<b>0.29%</b>	<b>0.00%</b>	<b>0.00%</b>	<b>0.38%</b>
Computers	0.33%	2.42%	0.12%	0.00%	0.00%	0.29%	0.00%	0.00%	0.38%
CRT Monitors	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
<b>TVs, CRTs, &amp; Brown Goods</b>	<b>0.03%</b>	<b>3.26%</b>	<b>0.78%</b>	<b>1.43%</b>	<b>2.20%</b>	<b>1.25%</b>	<b>3.92%</b>	<b>0.00%</b>	<b>1.47%</b>
TVs & other CRTs	0.00%	3.26%	0.63%	1.40%	2.20%	0.81%	3.92%	0.00%	1.38%
Other Brown Goods	0.03%	0.00%	0.16%	0.02%	0.00%	0.45%	0.00%	0.00%	0.09%
Small Appliances-non elec	0.30%	0.55%	1.32%	0.09%	0.04%	1.01%	0.50%	0.00%	0.60%
Empty Aerosol Cans	0.30%	0.07%	0.24%	0.19%	0.04%	0.13%	0.02%	0.00%	0.17%
Used Oil Filters	0.06%	0.14%	0.44%	0.00%	0.00%	0.04%	0.19%	0.00%	0.16%
Mixed Metal / Material	1.53%	3.13%	2.12%	0.53%	4.77%	6.66%	2.79%	0.00%	2.61%

**Continued Table Marion9: Comparing Marion 2002 and 1998 Composition:  
Field Data and Contamination Correction**

(page 4 of 4)

Material	Residential Route Trucks	Commercial Route Trucks	Mixed Route Trucks	Compacting Drop Boxes	Loose Drop boxes	Regular Self Haul	Waste Processing Facilities	Browns Island Self Haul	Total
<b>OTHER INORGANICS</b>	<b>6.68%</b>	<b>3.37%</b>	<b>8.00%</b>	<b>1.67%</b>	<b>0.70%</b>	<b>12.75%</b>	<b>23.24%</b>	<b>60.18%</b>	<b>10.93%</b>
Rock / Concrete / Brick	0.72%	0.51%	0.43%	0.01%	0.02%	2.11%	3.79%	13.31%	1.61%
Soil / Sand / Dirt	0.42%	0.23%	2.20%	0.10%	0.00%	2.41%	2.73%	25.92%	2.27%
Pet Litter / Animal Feces	4.25%	1.00%	3.97%	0.04%	0.01%	0.72%	0.00%	0.00%	2.09%
<b>Gypsum wallboard</b>	<b>0.14%</b>	<b>0.64%</b>	<b>0.16%</b>	<b>0.71%</b>	<b>0.00%</b>	<b>3.85%</b>	<b>8.18%</b>	<b>20.95%</b>	<b>2.59%</b>
Gypsum Wallboard OLD	0.14%	0.63%	0.16%	0.71%	0.00%	2.94%	8.18%	12.84%	2.17%
Gypsum Wallboard NEW	0.00%	0.01%	0.00%	0.00%	0.00%	0.91%	0.00%	8.11%	0.42%
Fiberglass Insulation	0.00%	0.59%	0.00%	0.00%	0.00%	1.03%	0.05%	0.00%	0.17%
Other Inorganics	1.14%	0.40%	1.24%	0.81%	0.67%	2.62%	8.49%	0.00%	2.19%
<b>"MEDICAL WASTES"</b>	<b>0.01%</b>	<b>0.12%</b>	<b>0.08%</b>	<b>0.06%</b>	<b>0.03%</b>	<b>0.00%</b>	<b>0.00%</b>	<b>0.00%</b>	<b>0.04%</b>
<b>OTHER HAZARDOUS MATLs</b>	<b>0.41%</b>	<b>2.01%</b>	<b>0.79%</b>	<b>0.62%</b>	<b>8.68%</b>	<b>1.70%</b>	<b>0.25%</b>	<b>0.00%</b>	<b>1.37%</b>
Latex Paint	0.01%	0.01%	0.02%	0.48%	0.00%	0.87%	0.00%	0.00%	0.13%
Oil Paints / Thinners	0.02%	0.00%	0.11%	0.02%	3.97%	0.17%	0.00%	0.00%	0.34%
Pesticides / Herbicides	0.00%	0.01%	0.00%	0.00%	2.01%	0.06%	0.00%	0.00%	0.15%
Motor Oil	0.04%	0.32%	0.02%	0.09%	0.00%	0.11%	0.00%	0.00%	0.06%
Fuels (gas/kero/diesel)	0.01%	0.02%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Adhesives / Sealants	0.08%	0.01%	0.01%	0.01%	0.00%	0.21%	0.05%	0.00%	0.05%
Caustic Cleaners	0.01%	0.00%	0.01%	0.01%	0.00%	0.01%	0.00%	0.00%	0.01%
Lead-Acid Batteries	0.00%	0.66%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.07%
Dry-cell Batteries	0.16%	0.05%	0.13%	0.01%	0.01%	0.04%	0.01%	0.00%	0.08%
Asbestos	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Other Hazardous Chemicals	0.01%	0.79%	0.05%	0.00%	2.69%	0.19%	0.00%	0.00%	0.31%
<b>TOTAL PACKAGING</b>	<b>25.45%</b>	<b>20.84%</b>	<b>21.78%</b>	<b>35.28%</b>	<b>21.79%</b>	<b>13.55%</b>	<b>16.21%</b>	<b>0.43%</b>	<b>21.17%</b>
<b>TOTAL PRODUCTS</b>	<b>38.63%</b>	<b>43.73%</b>	<b>45.50%</b>	<b>39.86%</b>	<b>54.51%</b>	<b>71.43%</b>	<b>75.39%</b>	<b>60.34%</b>	<b>51.30%</b>
<b>TOTAL NON-MANUFACTURED</b>	<b>35.92%</b>	<b>35.43%</b>	<b>32.72%</b>	<b>24.86%</b>	<b>23.70%</b>	<b>15.02%</b>	<b>8.40%</b>	<b>39.23%</b>	<b>27.53%</b>
<b>Total Organic</b>	<b>83.94%</b>	<b>81.87%</b>	<b>81.72%</b>	<b>91.51%</b>	<b>83.86%</b>	<b>71.61%</b>	66.42%	38.50%	78.27%
<b>Total non-organic</b>	<b>16.06%</b>	<b>18.13%</b>	<b>18.28%</b>	<b>8.49%</b>	<b>16.14%</b>	<b>28.39%</b>	33.58%	61.50%	21.73%
<b>compostable</b>	<b>68.98%</b>	<b>61.52%</b>	<b>65.10%</b>	<b>60.08%</b>	<b>47.90%</b>	<b>35.31%</b>	16.55%	0.87%	51.54%
<b>compost-target</b>	<b>37.03%</b>	<b>42.48%</b>	<b>33.16%</b>	<b>32.73%</b>	<b>31.78%</b>	<b>18.57%</b>	5.77%	0.67%	28.25%

## Table Marion10: Confidence Intervals - Waste Composition by Vehicle Source

2002 Field Data Only (90% confidence interval)

(page 1 of 4)

Material	Residential Route Trucks	Commercial Route Trucks	Mixed Route Trucks	Compacting Drop Boxes	Loose Drop boxes	Regular Self Haul	Waste Processing Facilities	Browns Island Self Haul
<b>Number of Samples</b>	28	16	22	16	21	38	8	9
<b>TOTAL PAPER</b>	<b>(25.62 - 29.63%)</b>	<b>(18.27 - 29.45%)</b>	<b>(24.47 - 32.55%)</b>	<b>(25.33 - 37.25%)</b>	<b>(14.78 - 26.35%)</b>	<b>(7.38 - 11.67%)</b>	<b>(6.46 - 11.75%)</b>	<b>(0.00 - 0.46%)</b>
<b>Paper Packaging</b>	<b>(10.02 - 12.31%)</b>	<b>(7.57 - 12.26%)</b>	<b>(9.89 - 13.06%)</b>	<b>(12.21 - 21.91%)</b>	<b>(8.54 - 17.72%)</b>	<b>(3.61 - 6.21%)</b>	<b>(3.97 - 9.11%)</b>	<b>(0.00 - 0.46%)</b>
Cardboard/Brown Bags	(2.46 - 4.07%)	(2.33 - 4.59%)	(3.21 - 4.66%)	(3.43 - 6.74%)	(2.69 - 5.17%)	(1.66 - 3.52%)	(1.60 - 2.51%)	(0.00 - 0.38%)
Low Grade Packaging	(3.38 - 4.24%)	(1.38 - 2.56%)	(2.44 - 3.56%)	(2.40 - 4.60%)	(0.81 - 2.19%)	(0.65 - 1.26%)	(1.52 - 4.45%)	(0.00 - 0.00%)
Bleached Polycots	(0.48 - 0.68%)	(0.25 - 0.55%)	(0.42 - 1.14%)	(0.37 - 1.33%)	(0.09 - 0.58%)	(0.05 - 0.11%)	(0.03 - 0.20%)	(0.00 - 0.00%)
Nonrecyc. Packaging Paper	(0.92 - 1.24%)	(2.19 - 4.31%)	(1.17 - 3.21%)	(2.19 - 7.00%)	(0.89 - 10.53%)	(0.12 - 0.28%)	(0.10 - 0.25%)	(0.00 - 0.00%)
Mixed Paper / Materials	(2.00 - 3.16%)	(0.68 - 1.11%)	(1.47 - 1.98%)	(0.94 - 6.99%)	(0.73 - 4.81%)	(0.68 - 1.76%)	(0.67 - 2.02%)	(0.00 - 0.06%)
<b>Other Paper</b>	<b>(15.08 - 18.02%)</b>	<b>(10.46 - 17.58%)</b>	<b>(13.77 - 20.65%)</b>	<b>(10.57 - 18.69%)</b>	<b>(4.17 - 12.02%)</b>	<b>(3.41 - 6.01%)</b>	<b>(1.99 - 3.03%)</b>	<b>(0.00 - 0.00%)</b>
Newspaper	(2.58 - 3.78%)	(1.60 - 3.55%)	(3.37 - 6.11%)	(1.09 - 2.69%)	(0.19 - 0.81%)	(0.62 - 1.39%)	(0.37 - 0.68%)	(0.00 - 0.00%)
Magazines	(1.40 - 2.47%)	(0.24 - 1.00%)	(0.60 - 1.13%)	(0.38 - 1.72%)	(0.09 - 0.32%)	(0.37 - 1.37%)	(0.06 - 0.34%)	(0.00 - 0.00%)
Hi Grade Paper	(1.29 - 1.94%)	(0.84 - 2.94%)	(1.25 - 4.65%)	(1.10 - 2.97%)	(0.30 - 1.63%)	(0.41 - 1.03%)	(0.53 - 0.93%)	(0.00 - 0.00%)
Hardcover Books	(0.10 - 0.45%)	(0.00 - 0.00%)	(0.01 - 0.45%)	(0.00 - 0.00%)	(0.00 - 0.00%)	(0.03 - 0.17%)	(0.00 - 0.00%)	(0.00 - 0.00%)
Low Grade Paper	(3.37 - 4.50%)	(1.08 - 2.66%)	(1.90 - 3.46%)	(1.52 - 3.08%)	(0.47 - 1.90%)	(0.71 - 1.40%)	(0.19 - 0.76%)	(0.00 - 0.00%)
Other Nonrecyclable Paper	(5.26 - 6.15%)	(5.42 - 9.43%)	(4.72 - 7.29%)	(4.65 - 10.30%)	(2.50 - 8.31%)	(0.58 - 1.48%)	(0.41 - 0.89%)	(0.00 - 0.00%)
Low-grade Recyc. Paper comb.	(7.82 - 9.36%)	(2.88 - 5.56%)	(5.29 - 7.74%)	(5.08 - 7.88%)	(1.68 - 4.19%)	(1.63 - 2.66%)	(2.16 - 4.88%)	(0.00 - 0.00%)
Nonrecyclable Paper combined	(8.69 - 9.98%)	(8.83 - 14.43%)	(7.68 - 11.85%)	(10.55 - 19.60%)	(7.09 - 18.07%)	(1.56 - 3.31%)	(1.23 - 3.11%)	(0.00 - 0.06%)
<b>TOTAL PLASTICS</b>	<b>(12.22 - 14.39%)</b>	<b>(10.47 - 14.30%)</b>	<b>(10.82 - 13.28%)</b>	<b>(17.40 - 30.88%)</b>	<b>(9.66 - 19.96%)</b>	<b>(5.41 - 8.47%)</b>	<b>(7.64 - 35.53%)</b>	<b>(0.00 - 1.37%)</b>
<b>Plastic Packaging</b>	<b>(7.90 - 9.35%)</b>	<b>(6.57 - 9.10%)</b>	<b>(6.06 - 7.77%)</b>	<b>(9.78 - 19.23%)</b>	<b>(3.97 - 7.31%)</b>	<b>(1.62 - 2.61%)</b>	<b>(4.41 - 14.15%)</b>	<b>(0.00 - 0.71%)</b>
Rigid Plastic Containers	(2.65 - 3.25%)	(1.44 - 2.33%)	(1.79 - 2.64%)	(2.18 - 3.64%)	(0.57 - 1.40%)	(0.53 - 0.95%)	(0.33 - 0.84%)	(0.00 - 0.00%)
<b>Other Plastic Packaging</b>	<b>(5.15 - 6.20%)</b>	<b>(4.80 - 7.03%)</b>	<b>(4.04 - 5.33%)</b>	<b>(7.02 - 16.56%)</b>	<b>(3.13 - 6.24%)</b>	<b>(1.04 - 1.76%)</b>	<b>(3.97 - 13.57%)</b>	<b>(0.00 - 0.71%)</b>
Other Rigid Packaging	(1.16 - 1.43%)	(0.79 - 1.51%)	(0.89 - 1.28%)	(1.04 - 1.97%)	(0.15 - 0.45%)	(0.22 - 0.38%)	(0.35 - 0.88%)	(0.00 - 0.00%)
Plastic Film Pkg Est. 2002	(3.91 - 4.84%)	(3.90 - 5.63%)	(3.07 - 4.13%)	(5.52 - 15.07%)	(2.85 - 5.96%)	(0.79 - 1.41%)	(3.48 - 12.97%)	(0.00 - 0.71%)
<b>Plastic Products</b>	<b>(4.12 - 5.36%)</b>	<b>(3.78 - 5.33%)</b>	<b>(4.42 - 5.95%)</b>	<b>(6.53 - 12.43%)</b>	<b>(3.97 - 14.35%)</b>	<b>(3.53 - 6.26%)</b>	<b>(3.58 - 21.71%)</b>	<b>(0.00 - 0.65%)</b>
Rigid Plastic Products	(0.91 - 1.53%)	(0.79 - 1.43%)	(1.20 - 2.49%)	(1.09 - 3.00%)	(1.21 - 6.27%)	(1.54 - 2.97%)	(0.83 - 4.26%)	(0.00 - 0.27%)
Plastic Film Prod. Est. 2002	(2.11 - 2.61%)	(2.11 - 3.04%)	(1.66 - 2.23%)	(2.98 - 8.14%)	(1.54 - 3.22%)	(0.43 - 0.76%)	(1.88 - 7.00%)	(0.00 - 0.38%)
Mixed Plastic / Materials	(0.89 - 1.47%)	(0.47 - 1.36%)	(0.91 - 2.09%)	(0.38 - 3.81%)	(0.25 - 6.93%)	(1.03 - 3.19%)	(0.70 - 13.12%)	(0.00 - 0.00%)
<i>(Film plastic combined)</i>	<i>(6.03 - 7.45%)</i>	<i>(6.00 - 8.68%)</i>	<i>(4.72 - 6.36%)</i>	<i>(8.50 - 23.21%)</i>	<i>(4.40 - 9.18%)</i>	<i>(1.22 - 2.18%)</i>	<i>(5.36 - 19.97%)</i>	<i>(0.00 - 1.09%)</i>
Plastic Film Recyclable	(0.27 - 0.53%)	(0.29 - 1.48%)	(0.38 - 0.96%)	(2.14 - 14.10%)	(0.49 - 1.29%)	(0.23 - 0.69%)	(2.05 - 9.50%)	(0.00 - 1.09%)
Plastic Film Nonrecyclable	(5.69 - 7.01%)	(5.23 - 7.80%)	(4.22 - 5.58%)	(5.72 - 9.76%)	(3.57 - 8.36%)	(0.85 - 1.66%)	(2.69 - 11.26%)	(0.00 - 0.00%)

**Continued Table Marion10: Confidence Intervals - Waste Composition by Vehicle Source**  
**2002 Field Data Only (90% confidence intervals)**

(page 2 of 4)

Material	Residential Route Trucks	Commercial Route Trucks	Mixed Route Trucks	Compacting Drop Boxes	Loose Drop boxes	Regular Self Haul	Waste Processing Facilities	Browns Island Self Haul
<b>OTHER ORGANICS</b>	<b>(40.08 - 45.75%)</b>	<b>(37.12 - 51.14%)</b>	<b>(35.51 - 46.11%)</b>	<b>(29.37 - 42.98%)</b>	<b>(29.42 - 50.01%)</b>	<b>(42.01 - 52.63%)</b>	<b>(20.74 - 51.97%)</b>	<b>(12.87 - 62.79%)</b>
<b>Yard Debris</b>	<b>(2.08 - 5.81%)</b>	<b>(0.11 - 2.55%)</b>	<b>(2.17 - 8.67%)</b>	<b>(0.05 - 0.18%)</b>	<b>(0.42 - 9.78%)</b>	<b>(4.30 - 10.98%)</b>	<b>(0.05 - 1.10%)</b>	<b>(0.00 - 0.00%)</b>
Leaves / Grass	(1.98 - 5.68%)	(0.05 - 2.51%)	(2.02 - 8.51%)	(0.05 - 0.18%)	(0.42 - 8.91%)	(3.69 - 10.26%)	(0.02 - 1.09%)	(0.00 - 0.00%)
Small Prunings under 2"	(0.01 - 0.16%)	(0.00 - 0.12%)	(0.00 - 0.16%)	(0.00 - 0.00%)	(0.00 - 1.06%)	(0.18 - 0.57%)	(0.00 - 0.07%)	(0.00 - 0.00%)
Large Prunings over 2"	(0.00 - 0.10%)	(0.00 - 0.00%)	(0.00 - 0.18%)	(0.00 - 0.00%)	(0.00 - 0.00%)	(0.03 - 0.32%)	(0.00 - 0.00%)	(0.00 - 0.00%)
Stumps	(0.00 - 0.00%)	(0.00 - 0.00%)	(0.00 - 0.00%)	(0.00 - 0.00%)	(0.00 - 0.00%)	(0.00 - 0.71%)	(0.00 - 0.00%)	(0.00 - 0.00%)
<b>Wood</b>	<b>(0.76 - 1.86%)</b>	<b>(1.57 - 10.35%)</b>	<b>(2.26 - 11.71%)</b>	<b>(1.20 - 5.13%)</b>	<b>(0.83 - 7.65%)</b>	<b>(11.76 - 17.94%)</b>	<b>(5.07 - 9.92%)</b>	<b>(0.00 - 1.35%)</b>
<b>Clean lumber &amp; hog fuel</b>	<b>(0.21 - 1.19%)</b>	<b>(0.16 - 0.59%)</b>	<b>(0.83 - 9.44%)</b>	<b>(0.02 - 0.36%)</b>	<b>(0.14 - 0.98%)</b>	<b>(4.57 - 8.71%)</b>	<b>(3.95 - 6.81%)</b>	<b>(0.00 - 1.35%)</b>
Untreated Lumber	(0.14 - 1.13%)	(0.13 - 0.54%)	(0.60 - 1.53%)	(0.01 - 0.34%)	(0.14 - 0.96%)	(2.26 - 4.52%)	(2.17 - 4.38%)	(0.00 - 1.35%)
Clean HogFuel Lumber	(0.02 - 0.12%)	(0.01 - 0.09%)	(0.13 - 8.18%)	(0.00 - 0.05%)	(0.00 - 0.06%)	(1.53 - 5.23%)	(1.51 - 2.68%)	(0.00 - 0.00%)
<b>Painted &amp; Treated lumber</b>	<b>(0.06 - 0.16%)</b>	<b>(0.06 - 1.45%)</b>	<b>(0.06 - 0.48%)</b>	<b>(0.08 - 2.08%)</b>	<b>(0.02 - 0.88%)</b>	<b>(1.93 - 5.72%)</b>	<b>(0.54 - 1.71%)</b>	<b>(0.00 - 0.00%)</b>
Painted Lumber	(0.04 - 0.14%)	(0.06 - 1.45%)	(0.06 - 0.48%)	(0.08 - 2.08%)	(0.00 - 0.24%)	(1.05 - 3.80%)	(0.54 - 1.71%)	(0.00 - 0.00%)
Chemically-treated Lumber	(0.00 - 0.05%)	(0.00 - 0.00%)	(0.00 - 0.00%)	(0.00 - 0.00%)	(0.00 - 0.83%)	(0.30 - 2.94%)	(0.00 - 0.00%)	(0.00 - 0.00%)
Wood Pallets / Crates	(0.02 - 0.22%)	(0.00 - 1.09%)	(0.00 - 0.02%)	(0.09 - 1.00%)	(0.00 - 6.23%)	(0.12 - 0.90%)	(0.00 - 0.00%)	(0.00 - 0.00%)
Wood Furniture	(0.00 - 0.28%)	(0.00 - 2.08%)	(0.00 - 0.13%)	(0.00 - 0.17%)	(0.00 - 0.58%)	(0.56 - 1.88%)	(0.00 - 0.00%)	(0.00 - 0.00%)
Other Wood Products	(0.08 - 0.17%)	(0.00 - 0.06%)	(0.05 - 0.38%)	(0.06 - 0.19%)	(0.00 - 0.07%)	(0.04 - 0.17%)	(0.00 - 0.07%)	(0.00 - 0.00%)
Mixed Wood / Materials	(0.09 - 0.33%)	(0.19 - 8.64%)	(0.40 - 3.89%)	(0.35 - 2.23%)	(0.00 - 0.37%)	(1.49 - 4.20%)	(0.28 - 1.60%)	(0.00 - 0.00%)
Food	(22.65 - 27.57%)	(23.91 - 39.54%)	(14.86 - 24.13%)	(16.59 - 30.66%)	(12.55 - 25.29%)	(3.34 - 7.03%)	(0.76 - 1.78%)	(0.00 - 0.00%)
Tires	(0.00 - 0.16%)	(0.00 - 0.00%)	(0.00 - 2.56%)	(0.00 - 0.00%)	(0.00 - 2.04%)	(0.02 - 0.41%)	(0.00 - 0.00%)	(0.00 - 0.00%)
Rubber Products	(0.14 - 1.11%)	(0.01 - 0.21%)	(0.27 - 0.74%)	(0.08 - 1.86%)	(0.20 - 1.34%)	(0.27 - 0.87%)	(0.17 - 0.47%)	(0.00 - 0.00%)
Disposable Diapers	(4.49 - 6.92%)	(0.53 - 2.42%)	(1.68 - 3.74%)	(1.00 - 5.78%)	(0.05 - 1.57%)	(0.09 - 0.34%)	(0.03 - 0.22%)	(0.00 - 0.00%)
Carpet	(0.17 - 1.55%)	(0.00 - 0.61%)	(0.12 - 1.51%)	(0.04 - 1.98%)	(0.00 - 0.00%)	(1.57 - 4.19%)	(1.33 - 16.46%)	(0.00 - 0.00%)
<b>Textiles + mixed</b>	<b>(2.90 - 4.60%)</b>	<b>(0.91 - 3.40%)</b>	<b>(1.71 - 2.91%)</b>	<b>(1.51 - 6.05%)</b>	<b>(0.78 - 15.85%)</b>	<b>(1.81 - 3.53%)</b>	<b>(2.90 - 5.44%)</b>	<b>(0.00 - 0.00%)</b>
Textiles	(1.56 - 2.71%)	(0.57 - 1.84%)	(0.93 - 1.85%)	(0.54 - 3.47%)	(0.31 - 15.30%)	(0.96 - 2.44%)	(0.46 - 1.56%)	(0.00 - 0.00%)
Mixed Textile / Material	(1.10 - 2.30%)	(0.24 - 1.80%)	(0.60 - 1.29%)	(0.61 - 3.35%)	(0.21 - 1.55%)	(0.71 - 1.26%)	(2.03 - 4.40%)	(0.00 - 0.00%)
Roofing / Tarpaper	(0.00 - 0.00%)	(0.00 - 0.75%)	(0.00 - 0.01%)	(0.00 - 0.00%)	(0.00 - 0.00%)	(6.59 - 15.01%)	(0.42 - 5.57%)	(12.81 - 61.54%)
Furniture	(0.00 - 0.48%)	(0.00 - 2.38%)	(0.16 - 2.94%)	(0.00 - 0.00%)	(0.00 - 10.34%)	(1.17 - 3.35%)	(0.00 - 21.04%)	(0.00 - 0.00%)
Other Organics	(1.34 - 1.95%)	(0.44 - 1.38%)	(0.81 - 2.69%)	(0.44 - 1.25%)	(0.10 - 0.79%)	(0.57 - 2.26%)	(0.02 - 0.18%)	(0.00 - 0.00%)

## Continued Table Marion10: Confidence Intervals - Waste Composition by Vehicle Source

2002 Field data only - 90% confidence intervals - page 3 of 4

Material	Residential Route Trucks	Commercial Route Trucks	Mixed Route Trucks	Compacting Drop Boxes	Loose Drop boxes	Regular Self Haul	Waste Processing Facilities	Browns Island Self Haul
<b>GLASS</b>	<b>(2.68 - 4.29%)</b>	<b>(1.08 - 2.74%)</b>	<b>(1.63 - 2.90%)</b>	<b>(1.20 - 2.60%)</b>	<b>(0.62 - 8.39%)</b>	<b>(1.11 - 3.73%)</b>	<b>(0.36 - 0.92%)</b>	<b>(0.00 - 0.00%)</b>
Deposit Beverage Glass	(0.23 - 1.40%)	(0.15 - 0.68%)	(0.17 - 0.54%)	(0.08 - 0.40%)	(0.02 - 0.58%)	(0.05 - 0.15%)	(0.00 - 0.05%)	(0.00 - 0.00%)
<b>Other Container Glass</b>	<b>(1.60 - 2.41%)</b>	<b>(0.70 - 1.57%)</b>	<b>(0.76 - 1.49%)</b>	<b>(0.61 - 1.59%)</b>	<b>(0.16 - 0.77%)</b>	<b>(0.29 - 0.62%)</b>	<b>(0.01 - 0.22%)</b>	<b>(0.00 - 0.00%)</b>
Other Clear Bottles	(0.43 - 0.73%)	(0.29 - 0.70%)	(0.29 - 0.69%)	(0.15 - 0.46%)	(0.04 - 0.58%)	(0.07 - 0.18%)	(0.00 - 0.18%)	(0.00 - 0.00%)
Other Colored Bottles	(0.27 - 0.71%)	(0.02 - 0.27%)	(0.04 - 0.15%)	(0.12 - 0.58%)	(0.03 - 0.23%)	(0.02 - 0.07%)	(0.00 - 0.00%)	(0.00 - 0.00%)
Clear Container Glass	(0.57 - 1.13%)	(0.14 - 0.99%)	(0.31 - 0.68%)	(0.20 - 0.71%)	(0.02 - 0.11%)	(0.14 - 0.38%)	(0.01 - 0.04%)	(0.00 - 0.00%)
Colored Container Glass	(0.04 - 0.15%)	(0.00 - 0.00%)	(0.01 - 0.11%)	(0.00 - 0.03%)	(0.00 - 0.00%)	(0.01 - 0.05%)	(0.00 - 0.00%)	(0.00 - 0.00%)
<b>Window+Nonrecyc. Glass</b>	<b>(0.42 - 1.23%)</b>	<b>(0.03 - 1.01%)</b>	<b>(0.45 - 1.21%)</b>	<b>(0.27 - 0.92%)</b>	<b>(0.06 - 7.85%)</b>	<b>(0.61 - 3.20%)</b>	<b>(0.23 - 0.78%)</b>	<b>(0.00 - 0.00%)</b>
Flat Window Glass	(0.02 - 0.77%)	(0.00 - 0.00%)	(0.00 - 0.07%)	(0.00 - 0.18%)	(0.00 - 0.01%)	(0.08 - 2.53%)	(0.17 - 0.55%)	(0.00 - 0.00%)
Other Nonrecyc. Glass	(0.30 - 0.61%)	(0.03 - 1.01%)	(0.34 - 1.05%)	(0.15 - 0.77%)	(0.06 - 7.84%)	(0.37 - 1.02%)	(0.01 - 0.28%)	(0.00 - 0.00%)
<b>Fluorescent Lights &amp; Tubes</b>	<b>(0.00 - 0.06%)</b>	<b>(0.00 - 0.00%)</b>	<b>(0.00 - 0.38%)</b>	<b>(0.01 - 0.18%)</b>	<b>(0.00 - 0.00%)</b>	<b>(0.00 - 0.01%)</b>	<b>(0.00 - 0.00%)</b>	<b>(0.00 - 0.00%)</b>
Fluorescent Tubes	(0.00 - 0.00%)	(0.00 - 0.00%)	(0.00 - 0.38%)	(0.00 - 0.02%)	(0.00 - 0.00%)	(0.00 - 0.01%)	(0.00 - 0.00%)	(0.00 - 0.00%)
Compact Fluorescent Lights	(0.00 - 0.06%)	(0.00 - 0.00%)	(0.00 - 0.00%)	(0.00 - 0.17%)	(0.00 - 0.00%)	(0.00 - 0.00%)	(0.00 - 0.00%)	(0.00 - 0.00%)
<b>METALS</b>	<b>(4.81 - 6.61%)</b>	<b>(6.07 - 19.81%)</b>	<b>(4.79 - 10.76%)</b>	<b>(2.70 - 7.69%)</b>	<b>(6.10 - 19.09%)</b>	<b>(5.40 - 8.72%)</b>	<b>(2.36 - 17.77%)</b>	<b>(0.00 - 3.97%)</b>
Alum. Beverage Cans	(0.16 - 0.29%)	(0.06 - 0.22%)	(0.12 - 0.23%)	(0.09 - 0.23%)	(0.03 - 0.27%)	(0.02 - 0.06%)	(0.03 - 0.08%)	(0.00 - 0.00%)
<b>Foil &amp; Other Aluminum</b>	<b>(0.25 - 0.35%)</b>	<b>(0.07 - 0.22%)</b>	<b>(0.19 - 0.43%)</b>	<b>(0.13 - 0.39%)</b>	<b>(0.07 - 0.32%)</b>	<b>(0.07 - 0.48%)</b>	<b>(0.03 - 0.09%)</b>	<b>(0.00 - 0.00%)</b>
Alum. Foil / Food Trays	(0.24 - 0.34%)	(0.07 - 0.21%)	(0.14 - 0.28%)	(0.13 - 0.39%)	(0.05 - 0.25%)	(0.03 - 0.07%)	(0.01 - 0.07%)	(0.00 - 0.00%)
Other Aluminum	(0.00 - 0.03%)	(0.00 - 0.02%)	(0.01 - 0.22%)	(0.00 - 0.00%)	(0.00 - 0.08%)	(0.03 - 0.43%)	(0.00 - 0.03%)	(0.00 - 0.00%)
<b>Tinned Cans</b>	<b>(1.79 - 2.37%)</b>	<b>(0.62 - 1.36%)</b>	<b>(1.12 - 1.56%)</b>	<b>(0.60 - 3.47%)</b>	<b>(0.22 - 0.76%)</b>	<b>(0.26 - 0.48%)</b>	<b>(0.17 - 0.58%)</b>	<b>(0.00 - 0.00%)</b>
Tin Food Cans	(1.69 - 2.24%)	(0.59 - 1.30%)	(0.95 - 1.37%)	(0.44 - 1.08%)	(0.22 - 0.76%)	(0.19 - 0.41%)	(0.04 - 0.20%)	(0.00 - 0.00%)
Other Tin Cans	(0.06 - 0.19%)	(0.02 - 0.09%)	(0.06 - 0.36%)	(0.01 - 2.87%)	(0.00 - 0.00%)	(0.04 - 0.10%)	(0.09 - 0.45%)	(0.00 - 0.00%)
<b>Other Metal</b>	<b>(2.29 - 3.95%)</b>	<b>(4.63 - 18.69%)</b>	<b>(2.91 - 8.94%)</b>	<b>(0.87 - 5.40%)</b>	<b>(5.38 - 18.33%)</b>	<b>(4.81 - 7.98%)</b>	<b>(1.86 - 17.19%)</b>	<b>(0.00 - 3.97%)</b>
Other Nonferrous Metal	(0.02 - 0.10%)	(0.00 - 0.02%)	(0.00 - 0.16%)	(0.02 - 0.14%)	(0.00 - 0.04%)	(0.03 - 0.15%)	(0.00 - 0.04%)	(0.00 - 0.00%)
Other Ferrous Metal	(0.33 - 0.76%)	(0.45 - 2.41%)	(0.23 - 1.98%)	(0.13 - 1.03%)	(0.88 - 8.89%)	(1.02 - 1.86%)	(0.57 - 3.15%)	(0.00 - 3.97%)
White Goods	(0.00 - 0.00%)	(0.00 - 0.00%)	(0.00 - 0.00%)	(0.00 - 0.00%)	(0.00 - 0.00%)	(0.00 - 0.53%)	(0.00 - 0.00%)	(0.00 - 0.00%)
<b>Computer,Brown,Sm. Applianc</b>	<b>(0.26 - 1.23%)</b>	<b>(1.32 - 12.76%)</b>	<b>(0.26 - 5.03%)</b>	<b>(0.06 - 4.27%)</b>	<b>(0.00 - 6.62%)</b>	<b>(0.92 - 2.51%)</b>	<b>(0.00 - 8.85%)</b>	<b>(0.00 - 0.00%)</b>
<b>Computers &amp; Monitors</b>	<b>(0.00 - 0.96%)</b>	<b>(0.00 - 4.84%)</b>	<b>(0.00 - 0.34%)</b>	<b>(0.00 - 0.00%)</b>	<b>(0.00 - 0.00%)</b>	<b>(0.14 - 0.86%)</b>	<b>(0.00 - 0.00%)</b>	<b>(0.00 - 0.00%)</b>
Computers	(0.00 - 0.96%)	(0.00 - 4.84%)	(0.00 - 0.34%)	(0.00 - 0.00%)	(0.00 - 0.00%)	(0.05 - 0.31%)	(0.00 - 0.00%)	(0.00 - 0.00%)
CRT Monitors	(0.00 - 0.00%)	(0.00 - 0.00%)	(0.00 - 0.00%)	(0.00 - 0.00%)	(0.00 - 0.00%)	(0.05 - 0.59%)	(0.00 - 0.00%)	(0.00 - 0.00%)
<b>TVs, CRTs, &amp; Brown Goods</b>	<b>(0.00 - 0.07%)</b>	<b>(0.00 - 9.79%)</b>	<b>(0.00 - 2.29%)</b>	<b>(0.00 - 4.21%)</b>	<b>(0.00 - 6.59%)</b>	<b>(0.11 - 0.75%)</b>	<b>(0.00 - 7.85%)</b>	<b>(0.00 - 0.00%)</b>
TVs & other CRTs	(0.00 - 0.00%)	(0.00 - 9.79%)	(0.00 - 1.88%)	(0.00 - 4.21%)	(0.00 - 6.59%)	(0.02 - 0.60%)	(0.00 - 7.84%)	(0.00 - 0.00%)
Other Brown Goods	(0.00 - 0.07%)	(0.00 - 0.00%)	(0.00 - 0.41%)	(0.00 - 0.06%)	(0.00 - 0.01%)	(0.05 - 0.25%)	(0.00 - 0.01%)	(0.00 - 0.00%)
Small Appliances-non elec	(0.13 - 0.51%)	(0.00 - 1.47%)	(0.11 - 2.77%)	(0.01 - 0.20%)	(0.00 - 0.12%)	(0.36 - 1.49%)	(0.00 - 1.00%)	(0.00 - 0.00%)
Empty Aerosol Cans	(0.23 - 0.39%)	(0.03 - 0.11%)	(0.12 - 0.40%)	(0.08 - 0.30%)	(0.00 - 0.08%)	(0.03 - 0.06%)	(0.00 - 0.04%)	(0.00 - 0.00%)
Used Oil Filters	(0.02 - 0.13%)	(0.00 - 0.32%)	(0.05 - 1.06%)	(0.00 - 0.00%)	(0.00 - 0.00%)	(0.00 - 0.04%)	(0.00 - 0.39%)	(0.00 - 0.00%)
Mixed Metal / Material	(1.06 - 2.07%)	(0.65 - 6.00%)	(0.90 - 3.76%)	(0.07 - 1.18%)	(1.43 - 8.68%)	(1.84 - 4.23%)	(0.72 - 5.10%)	(0.00 - 0.00%)

**Continued Table Marion10: Confidence Intervals - Waste Composition by Vehicle Source**  
**2002 Field Data Only (90% confidence intervals)**

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Material	Residential Route Trucks	Commercial Route Trucks	Mixed Route Trucks	Compacting Drop Boxes	Loose Drop boxes	Regular Self Haul	Waste Processing Facilities	Browns Island Self Haul
<b>OTHER INORGANICS</b>	<b>(4.99 - 8.52%)</b>	<b>(1.45 - 5.78%)</b>	<b>(3.95 - 12.93%)</b>	<b>(0.39 - 2.92%)</b>	<b>(0.19 - 1.45%)</b>	<b>(21.02 - 31.90%)</b>	<b>(16.93 - 30.39%)</b>	<b>(34.49 - 85.86%)</b>
Rock / Concrete / Brick	(0.13 - 1.64%)	(0.00 - 1.21%)	(0.13 - 0.78%)	(0.00 - 0.02%)	(0.00 - 0.05%)	(3.07 - 8.68%)	(2.13 - 5.40%)	(0.00 - 38.53%)
Soil / Sand / Dirt	(0.05 - 0.98%)	(0.00 - 0.64%)	(0.36 - 4.73%)	(0.00 - 0.23%)	(0.00 - 0.00%)	(0.91 - 3.49%)	(0.00 - 5.47%)	(16.05 - 35.78%)
Pet Litter / Animal Feces	(3.06 - 5.54%)	(0.04 - 2.09%)	(1.17 - 8.19%)	(0.00 - 0.12%)	(0.00 - 0.02%)	(0.61 - 2.42%)	(0.00 - 0.00%)	(0.00 - 0.00%)
<b>Gypsum wallboard</b>	<b>(0.02 - 0.27%)</b>	<b>(0.00 - 1.80%)</b>	<b>(0.00 - 0.48%)</b>	<b>(0.00 - 2.14%)</b>	<b>(0.00 - 0.00%)</b>	<b>(8.21 - 16.86%)</b>	<b>(4.62 - 11.51%)</b>	<b>(0.00 - 41.91%)</b>
Gypsum Wallboard OLD	(0.02 - 0.26%)	(0.00 - 1.79%)	(0.00 - 0.48%)	(0.00 - 2.14%)	(0.00 - 0.00%)	(2.79 - 8.86%)	(4.62 - 11.51%)	(0.00 - 25.69%)
Gypsum Wallboard NEW	(0.00 - 0.01%)	(0.00 - 0.01%)	(0.00 - 0.00%)	(0.00 - 0.00%)	(0.00 - 0.00%)	(3.68 - 10.34%)	(0.00 - 0.00%)	(0.00 - 16.22%)
Fiberglass Insulation	(0.00 - 0.00%)	(0.00 - 1.78%)	(0.00 - 0.00%)	(0.00 - 0.00%)	(0.00 - 0.00%)	(0.09 - 4.07%)	(0.01 - 0.10%)	(0.00 - 0.00%)
Other Inorganics	(0.68 - 1.63%)	(0.07 - 0.99%)	(0.56 - 2.05%)	(0.15 - 1.87%)	(0.16 - 1.43%)	(1.42 - 4.53%)	(3.29 - 13.74%)	(0.00 - 0.00%)
<b>"MEDICAL WASTES"</b>	<b>(0.00 - 0.02%)</b>	<b>(0.00 - 0.35%)</b>	<b>(0.01 - 0.17%)</b>	<b>(0.00 - 0.14%)</b>	<b>(0.00 - 0.08%)</b>	<b>(0.00 - 0.08%)</b>	<b>(0.00 - 0.00%)</b>	<b>(0.00 - 0.00%)</b>
<b>OTHER HAZARDOUS MATLs</b>	<b>(0.28 - 0.55%)</b>	<b>(0.55 - 3.60%)</b>	<b>(0.34 - 1.38%)</b>	<b>(0.03 - 1.46%)</b>	<b>(0.05 - 18.01%)</b>	<b>(0.23 - 0.59%)</b>	<b>(0.01 - 0.55%)</b>	<b>(0.00 - 0.00%)</b>
Latex Paint	(0.00 - 0.03%)	(0.00 - 0.02%)	(0.00 - 0.06%)	(0.00 - 1.44%)	(0.00 - 0.00%)	(0.03 - 0.09%)	(0.00 - 0.00%)	(0.00 - 0.00%)
Oil Paints / Thinners	(0.00 - 0.04%)	(0.00 - 0.00%)	(0.00 - 0.32%)	(0.00 - 0.05%)	(0.00 - 11.90%)	(0.01 - 0.05%)	(0.00 - 0.00%)	(0.00 - 0.00%)
Pesticides / Herbicides	(0.00 - 0.00%)	(0.00 - 0.02%)	(0.00 - 0.00%)	(0.00 - 0.00%)	(0.00 - 6.02%)	(0.00 - 0.02%)	(0.00 - 0.00%)	(0.00 - 0.00%)
Motor Oil	(0.00 - 0.08%)	(0.00 - 0.97%)	(0.00 - 0.05%)	(0.00 - 0.26%)	(0.00 - 0.00%)	(0.00 - 0.01%)	(0.00 - 0.00%)	(0.00 - 0.00%)
Fuels (gas/kero/diesel)	(0.00 - 0.03%)	(0.00 - 0.07%)	(0.00 - 0.00%)	(0.00 - 0.00%)	(0.00 - 0.00%)	(0.00 - 0.00%)	(0.00 - 0.00%)	(0.00 - 0.00%)
Adhesives / Sealants	(0.01 - 0.18%)	(0.00 - 0.03%)	(0.00 - 0.03%)	(0.00 - 0.03%)	(0.00 - 0.00%)	(0.01 - 0.03%)	(0.00 - 0.11%)	(0.00 - 0.00%)
Caustic Cleaners	(0.00 - 0.04%)	(0.00 - 0.00%)	(0.00 - 0.03%)	(0.00 - 0.04%)	(0.00 - 0.00%)	(0.01 - 0.06%)	(0.00 - 0.00%)	(0.00 - 0.00%)
Lead-Acid Batteries	(0.00 - 0.00%)	(0.00 - 1.98%)	(0.00 - 0.00%)	(0.00 - 0.00%)	(0.00 - 0.00%)	(0.00 - 0.25%)	(0.00 - 0.00%)	(0.00 - 0.00%)
Dry-cell Batteries	(0.09 - 0.25%)	(0.01 - 0.11%)	(0.07 - 0.20%)	(0.00 - 0.01%)	(0.01 - 0.02%)	(0.04 - 0.12%)	(0.00 - 0.02%)	(0.00 - 0.00%)
Asbestos	(0.00 - 0.00%)	(0.00 - 0.00%)	(0.00 - 0.00%)	(0.00 - 0.00%)	(0.00 - 0.00%)	(0.00 - 0.00%)	(0.00 - 0.00%)	(0.00 - 0.00%)
Other Hazardous Chemicals	(0.00 - 0.03%)	(0.00 - 2.36%)	(0.00 - 0.15%)	(0.00 - 0.01%)	(0.00 - 8.01%)	(0.02 - 0.16%)	(0.00 - 0.00%)	(0.00 - 0.00%)
<b>TOTAL PACKAGING</b>	<b>(23.89 - 27.01%)</b>	<b>(16.90 - 24.69%)</b>	<b>(19.07 - 24.28%)</b>	<b>(28.55 - 41.40%)</b>	<b>(16.31 - 27.53%)</b>	<b>(6.78 - 10.28%)</b>	<b>(10.44 - 22.21%)</b>	<b>(0.03 - 0.80%)</b>
<b>TOTAL PRODUCTS</b>	<b>(36.89 - 40.24%)</b>	<b>(34.85 - 52.94%)</b>	<b>(40.71 - 50.18%)</b>	<b>(31.14 - 48.84%)</b>	<b>(43.96 - 65.24%)</b>	<b>(63.54 - 73.48%)</b>	<b>(66.30 - 83.75%)</b>	<b>(38.50 - 81.97%)</b>
<b>TOTAL NON-MANUFACTURED</b>	<b>(33.53 - 38.55%)</b>	<b>(28.00 - 43.48%)</b>	<b>(28.25 - 37.61%)</b>	<b>(17.74 - 31.62%)</b>	<b>(15.70 - 32.26%)</b>	<b>(18.37 - 27.58%)</b>	<b>(4.60 - 12.38%)</b>	<b>(17.44 - 61.47%)</b>
<b>Total Organic</b>	<b>(81.29 - 86.35%)</b>	<b>(72.33 - 89.13%)</b>	<b>(76.63 - 86.25%)</b>	<b>(88.37 - 94.17%)</b>	<b>(75.41 - 91.17%)</b>	<b>(58.76 - 69.26%)</b>	<b>(57.24 - 75.52%)</b>	<b>(13.75 - 63.24%)</b>
<b>Total non-organic</b>	<b>(13.65 - 18.71%)</b>	<b>(10.87 - 27.67%)</b>	<b>(13.75 - 23.37%)</b>	<b>(5.83 - 11.63%)</b>	<b>(8.83 - 24.59%)</b>	<b>(30.74 - 41.24%)</b>	<b>(24.48 - 42.76%)</b>	<b>(36.76 - 86.25%)</b>
<b>compostable</b>	<b>(67.05 - 70.61%)</b>	<b>(51.34 - 70.26%)</b>	<b>(60.44 - 69.69%)</b>	<b>(51.77 - 67.39%)</b>	<b>(36.37 - 58.88%)</b>	<b>(28.54 - 37.67%)</b>	<b>(12.85 - 20.18%)</b>	<b>(0.00 - 1.80%)</b>
<b>compost-target</b>	<b>(34.72 - 39.44%)</b>	<b>(33.97 - 50.74%)</b>	<b>(28.79 - 37.62%)</b>	<b>(26.53 - 38.75%)</b>	<b>(21.71 - 41.97%)</b>	<b>(15.90 - 23.64%)</b>	<b>(4.40 - 7.28%)</b>	<b>(0.00 - 1.35%)</b>

**Table Marion11 Beverage Container Disposal**  
**(all substreams combined)**

Container	Count per ton	90% Conf. Int.	Present / Samples	Total Containers Disposed	90% Conf. Interval
All Beverage Containers					
All Deposit Containers					
All No-deposit Containers					
All Beer Containers					
All Deposit Beer Containers					
All No-deposit Beer Containers					
All Soft Drink Containers (all deposit)					
All Milk Bottles					
All Juice/Sports					
All Water Bottles					
All Liquor Bottles					
All Wine					
All Wine Coolers (none from Marion Co.)					
All Other Beverage Containers					
All Plastic Bottles					
Plastic Beer (none from Marion Co.)					
Plastic Soft Drink (all deposit)					
Plastic Milk Jug					
Plastic Juice/Sports					
Plastic Water					
Plastic Liquor					
Plastic Other Beverage					
Plastic: All Deposit Bottles					
Plastic: All No-deposit					
All Glass Bottles					
Glass Beer (all deposit)					
Glass Soft Drink (all deposit)					
Glass Milk (none from Marion Co.)					
Glass Juice/Sports					
Glass Water (none from Marion Co.)					
Glass Liquor					
Glass Wine					
Glass Other Beverage					
Glass: All deposit bottles					
Glass: All No-deposit bottles					
All Aluminum Cans					
Aluminum Beer - all					
Aluminum Beer Can - Deposit					
Aluminum Beer Can - No-deposit					
Aluminum Soft Drink (all deposit)					
Aluminum Juice/Sports Can					
Aluminum Other Beverage Can					
Aluminum: All Deposit Cans					
Aluminum: All No-deposit Beverage Cans					
Steel (Tin) All No-deposit Beverage Cans					
Steel (Tin) Juice/Sports Can					
Steel (Tin) Other Beverage Can					
Filter Count					
All Fluorescent Lights and Tubes					
Fluorescent Tubes					
Compact fluorescent lights	0.1	(0.0 - 0.3)	2/161	20,000	(0 - 40,000)

Aseptic / paperboard beverage containers and open cups were not counted

# **Appendix Marion-A: Methodology Details**

## **Marion County Supplement 2002 Oregon Solid Waste Composition Study**

Draft date: February 21, 2004

This appendix gives a description of methodology and information specific to the Marion County supplement of the 2002 Oregon Waste Composition Study. More general information is found in Appendices B-E of the main report for the 2002 Oregon study

### **Methodology:**

Sampling for the Marion County study was conducted at the Marion County Waste to Energy Facility (energy facility) and the Browns Island Landfill - a limited-purpose landfill. Waste from the Salem-Keiser Transfer Station and the North Marion Transfer Station were sampled as they arrived at the energy facility in transfer trailers, rather than directly as delivered at the transfer station. This was done because some of the waste from the transfer station is taken first to Marion Recycling, where certain recoverable or non-burnable materials are removed, before the waste is shipped to the energy facility for disposal. Thus, sampling directly at the transfer station would not give a representative sample of the waste that actually went to the energy facility for disposal. Residue from Marion Recycling was also usually collected as it arrived at the energy facility, although special arrangements had to be made to obtain samples during a time that Marion Recycling was shipping its residue to Coffin Butte.

There were a number of Marion County waste streams that were not sampled as part of the study. These include 3 "single-material" waste streams for which the composition and quantity disposed are already known: medical waste delivered to the energy facility, whole loads of gypsum wallboard delivered to Browns Island, and tires taken to a number of out-of-county sites for disposal. Also, we did not sample self-haul waste sent to out-of-county facilities such as the Coffin Butte, Riverbend, Lakeside, and Hillsboro Landfills. Although some 13,249 tons of Marion County self-haul waste was taken directly to these landfills, the waste arrive sporadically and unpredictably making it impractical to schedule sample collection. Thus, self-haul waste delivered to out-of-county landfills was excluded from the scope of this study, although it was included in the scope of the overall Oregon waste composition study for 2002. By chance, two of the self-haul samples collected at these non-Marion landfills as part of the overall study turned out to be from Marion County generators, but the results from these two samples were excluded from this Marion County supplemental report.

Table Marion1 in the main Marion County supplement gives the number of samples collected for each different source of waste, by season. Samples were collected each quarter of 2002 during the months of March, June, September, and December.

### **Choosing samples:**

Within each waste source, samples were selected in a manner to be representative of all the waste within that source. Samples were collected during all seasons, on all days of the week, at

all times of the day. For each of these, the number of samples collected was chosen to be proportional to the amount of waste being disposed based on season, weekday, and time.

For route trucks, the trucks were selected for sampling based on recent disposal records received from Marion County. Generally, garbage routes are collected in a similar manner from week to week. For example, if sampling were planned for Wednesday, Thursday, and Friday, the Department of Environmental Quality (DEQ) would put together a list of all of the route trucks that dumped at the energy facility on a recent Wednesday, Thursday, and Friday, listing the tons dumped, truck number, and time of day. Route trucks were randomly selected from this list in a manner such that any pound of waste would be equally-likely to be selected.

Specific drop box and transfer trailers bringing self-haul wastes from the transfer stations or wastes from Marion Recycling were not pre-selected for sampling, since there is no way to know which vehicles will be bringing in waste on any given day. For drop boxes, the contractor would randomly pick a time and then would select the first Marion County drop box that came in after that time. The same method was used to select transfer trailers and loads coming from Marion Recycling. For Browns Island loads, the delivery of loads is infrequent, and only a couple of loads were selected each quarter, so these loads were simply chosen randomly as they arrived at the landfill, without making an effort to collect samples in different size classes. Loads recorded by Browns Island staff as being the gypsum rate code were excluded from sampling.

## **Sorting Samples and Compiling Results**

All selected loads were sorted into 83 material categories of waste, and then the amount of waste in each material category was recorded and provided to DEQ by the contractor. A description of each category is included at the end of this appendix.

The method for analyzing results was the same as used in the 2000 and 2002 Oregon Waste Composition Study as a whole:

1. compile estimates of the composition of waste from each separate source or substream,
2. estimate the total amount of waste being disposed for each substream, and
3. combine the individual substream composition estimates into a total Marion County composition estimate by using the substream tonnages to produce a weighted average of all of the substreams.

This methodology requires that good estimates can be obtained for the total weight of garbage being disposed in each substream.

## **Quantifying Marion County Waste**

Marion County's disposal transaction database directly records information on all vehicles disposing of waste that directly shows the county of origin and also shows whether the vehicle is a garbage hauler route truck, compacting drop box, loose drop box, self-haul waste, or residue from a waste processing facility (Marion Recycling). Thus, unlike other parts of Oregon where the tonnage for each waste substream had to be estimated, the Marion County database allowed a direct full compilation of waste by substream, making quantifying the substreams very easy and

accurate. The only substreams that had to have quantities estimated were the three classes of route trucks - residential, commercial, and mixed route trucks. Two sources of information were used to estimate the amount of waste delivered for each type of route truck:

- 1) Driver interviews for the 66 route trucks selected for sampling as part of this study, and
- 2) Estimates of substream tonnage for the 1998 study, which was based on a combination of driver interviews for the sampled trucks in that study, and survey information from a survey of all of the Marion County haulers on the classification of each of their routes.

Each of these two sources of information were used to estimate the percentage of route truck garbage that is from residential routes, commercial routes, and mixed routes. These two sets of percentages (from 1998 and 2002) were then averaged, and these averages were multiplied by the total route truck tonnage for 2002 in order to estimate the tonnage that comprised each of the three route truck categories.

For Marion County hauler wastes delivered to the Coffin Butte Landfill, the tonnage could be separated into route trucks, drop boxes, and residue from processing facilities, but Coffin Butte does not make any distinction in their database between compacting and loose drop boxes. For route trucks, the same percentages were used for residential, commercial, and mixed routes as was used for waste delivered to the energy facility. The drop box waste going to Coffin Butte was also assumed to be in the same ratio as the drop box waste going to the energy facility.

The overall compilation or estimate for each substream is shown in Tables Marion2 and Marion3 of the Marion County waste composition supplement.

#### **Contamination Analysis**

Waste delivered to disposal sites is often highly cross-contaminated with other wastes or with water from rain or other external sources. For example, the material that is sorted and weighed as cardboard in the study may in fact contain significant weight from food or other materials smeared on the cardboard, rain that has soaked into the cardboard, or even other materials that are hidden inside flattened cardboard boxes. DEQ took random samples of field-sorted wastes back to a facility where the samples could be carefully re-sorted, cleaned, and dried, to determine how much "clean - dry" material is being disposed as opposed to the "dirty - wet" measurements made as part of the field study. The methodology for contamination analysis is outlined in Appendix C of the Oregon 2002 Waste Composition Study. The samples collected for this analysis are referred to as "detailed samples" or "contamination analysis" samples.

Marion County did not purchase any detailed samples, so just a couple of detailed samples were collected as part of the overall 2002 study. Results from contamination analysis samples from all of Oregon were applied to Marion County field waste composition results to give the "contamination-corrected" results shown in tables Marion5 through Marion8 of the Marion County Waste Composition Supplement. If anything though, these contamination corrections may slightly underestimate the true level of contamination for absorbent materials such as paper or light materials such as film plastic in Marion County for two reasons:

- 1) Although most of the contamination analysis samples were collected in the Metro and Willamette Valley area, some were collected from dry Eastern Oregon sites, where there was little moisture absorbed into the paper, reducing the contamination levels for the statewide results.

2) Self-haul samples show much less contamination than do route truck or compacting drop box samples. Because the Marion County study excluded 13,249 tons of self-haul waste taken to out-of-county facilities, the percentage of route truck and compacting drop box waste in the Marion County study was higher than the percentage of these substreams sampled in Oregon as a whole. Thus, the Marion County have a slightly higher percentage of very contaminated substreams than did the Oregon study as a whole.

## **Material Categories for the 2002 Waste Composition Study**

### **Field Sorting Categories.**

The individual material categories as sorted and weighed in the field are underlined, are preceded by numbers below, and are followed by descriptions. Groups of categories as used throughout this report are shown in bold, and are followed by numbers in parentheses that indicate the individual material categories included in the group category.

#### **PAPER**

##### **Paper Packaging (1-5)**

1. Corrugated cardboard and kraft paper (OCC) - Kraft linerboard and containerboard cartons and shipping boxes with corrugated paper medium (unwaxed). This category also includes Kraft (brown) paper bags. Excludes waxed and plastic-coated cardboard, solid boxboard, multi-walled bags that are not pure unbleached kraft.
2. Low-grade packaging paper. Other low-grade recyclable papers used in packaging, includes chipboard and other solid boxboard (not poly-coated), bags (without poly liners and not pure unbleached kraft), clothing forms, egg cartons (molded pulp), boxes with small plastic windows.
3. Bleached boxboard. Milk, juice cartons & white freezer/ refrigerator boxes. Poly-coated bleached paperboard used for milk, ice cream, juice (including aseptic packaging), frozen TV dinners, and many other frozen food boxes. Boxes are printed or unprinted white fiber, but currently have limited markets due to polyethylene coating. Does not include uncoated paperboard (either bleached or unbleached), as uncoated boxboard is included in "other recyclable packaging" below. Does not include cups or non-food poly-coated packages.
4. Non-recyclable packaging paper. Paper for which no significant recycling opportunities currently exist in Oregon, including waxed cardboard, poly-lined chipboard, foil-lined papers, Christmas wrapping paper, and paper cups, plates, and other paper containers used for takeout food.
5. Mixed paper/other materials. Includes juice cans, oil cans, paper with thick foil laminates or large thick plastic windows.

##### **Other Paper (6-11)** (includes printing, writing, and other non-packaging paper)

6. Newspaper (ONP) - Printed ground-wood newsprint (minimally bleached fiber); referred to as #1 news. This category also includes glossy paper typically used in newspaper insert advertisements, if believed to be distributed with newspapers.
7. Magazines, including similar glossy publications such as some catalogs, but excluding newspaper glossy inserts
8. Hi-Grade office/printing/writing paper (uncoated high-grades) - Printing, writing and computer papers, including mainly thermo-chemical pulps. Both virgin pulp substitutes and high-grade de-ink fibers are included. This category is composed of high-grade paper, which includes white ledger, colored ledger, computer printouts, computer tab cards, bond, copy machine, and carbonless paper. Excludes glossy coated paper such as magazines and pure groundwood publications such as catalogs, and glue-bound publications.

9. Hard-covered books. Books with hard covers.
10. Other low-grade recyclable printing paper. Phone books, junk mail (including stray sheets of ledger-grade paper commonly included in junk mail), used envelopes other material with sticky labels, construction paper, blueprint and thermal copy & fax paper, bright-dyed paper (fiesta or neon colors), paperback books, uncoated (non-glossy) groundwood catalogues (glue bindings).
11. Other non-recyclable paper. Printing or other non-packaging paper not included above that is not easily recyclable in the United States. Includes paper towels and tissue, carbon paper, photographs, and paper normally soiled through use (paper plates and cups for home use)

#### **PLASTICS (12-17)**

12. "Recyclable" polyethylene film plastic. Plastic grocery bags, retail bags, newspaper bags, dry cleaner bags, pallet-wrap, shrink wrap, clear and black polyethylene plastic sheeting, hay sleeves and silage bags, fertilizer, peat, and feed bags from nurseries/agricultural operations, furniture and mattress wrap, bubble wrap, woven lumber wrap, roofing material wrap, insulation wrap, commercial bags and liners, commercial parts packaging, and building wrap. Excludes any plastic film that is not polyethylene or other polyolefin, any plastic film that is laminated to other materials (tape/labels are OK), any bag used as a garbage bag (can liners and tied-off garbage bags), bags that are contaminated with food and other sticky/contaminating materials on the inside, food and household product packaging such as frozen vegetable bags, diaper packaging, bread bags, ziplock and similar household use bags, saran wrap, and plastic sheeting used for ground cloths or paint masking, if contaminated with paint.
13. Other film plastic. All other plastic bags and flexible plastic film including garbage bags, plastic strapping, shower curtains, and other flexible plastic items. Any plastic bag used as a garbage bag goes here.
14. Rigid plastic containers. Plastic packages of finite shape with a capacity of from eight ounces to five gallons. Includes rigid "cookie tray" and similar inserts that are inside of other plastic packaging, if the "cookie tray" holds greater than 8 oz. Does not include lids, unless the lid is attached or is itself a rigid plastic container. Includes plastic cups used commercially to package food, but not plastic cups sold as a product for home or office use (usually unmarked - included in "rigid plastic products").
15. Other rigid plastic packaging. Includes expanded polystyrene packaging and food trays (holding less than 8 oz), urethane foam packaging, containers larger than 5 gallons, plastic bottle and container lids and lids from glass, metal, or paper containers. Amended in 2000 to include "small rigid plastic containers" - plastic containers such as yogurt cups that are less than 8 ounces in size.
16. Rigid plastic products. Dishware and utensils, including expanded polystyrene cups and plates when originally sold for home use (non-packaging), plastic household items, rigid vinyl products, all-plastic furniture, and toys. Includes thermoset plastic products and "fiberglass" (mainly plastic) boat parts, corrugated roofing, and similar products. Also includes polyurethane foam products, including urethane foam carpet padding
17. Mixed plastics/materials. Items whose predominant material is plastic, but is combined with other material, such as kitchen ware, toys, plastic pens, and car parts, with metal and wood components, vinyl and similar floor tiles and coverings that have canvass, paper, or other types of backing material or significant non-plastic components, etc.

**OTHER ORGANIC WASTES.** “Organic” used in the “carbon-containing” (or burnable) sense.

**Yard Debris. (18-21)** Natural vegetative material including the following:

18. Leaves and grass. Naturally occurring vegetative material and other fine organic waste from park, lawn and garden maintenance. Typically leaves, grass clippings, and herbaceous weeds. Excludes woody material greater than 1/4-inch diameter. Material can be home-composted without chipping.
19. Small prunings less than 2" diameter. Naturally occurring woody material from trees, plants, and shrubs. Could be chipped with a small chipper for home composting.
20. Large prunings more than 2" in diameter. This category is composed of trees and large branches greater than 2" diameter and small stumps/roots less than 1' in diameter and less than 100 pounds. This material cannot easily be home-composted due to its size, weight and composition.
21. Stumps. Stumps too large to be ground by most commercial composters due to size, without use of special stump-splitting devices. (greater than 1' diameter or 100 pounds)

**Wood. (22-29)** Manufactured wooden lumber and other items (excluding sawdust) including the following:

22. Untreated lumber. Unfinished or unpainted dimensional lumber or wood, including plywood used for construction or resulting from building demolition. Excludes cedar shakes, shingles.
23. Clean “hogged fuel” wood. Includes particleboard, unpainted oriented strandboard, medium density fiberboard, any plywood with a fiber/resin overlay (such as is common for concrete forms) cedar shakes and shingles and other cedar lumber, compressed sawdust waferboard, masonite (high-density fiberboard).
24. Painted lumber. Includes any lumber that is painted or primed, excluding furniture and mixed wood/materials (split from chemically-treated lumber in 2000)
25. Chemically treated lumber. Pressure-treated or creosoted lumber or wood.
26. Wood pallets and crates and similar packaging lumber. Dimension lumber material used in pallets and crates. Also includes wood/wire crates with thin slats, if not mixed with plastic and other materials.
27. Wood furniture. Includes desks, chairs, bureaus, and other furniture items made from wood.
28. Other wood products. Includes pencils, coat hangers, and other objects made of wood that are not used for packaging or construction or as furniture.
29. Mixed wood/materials. Mostly wood items combined with plastic, metal, or other materials. Excludes items that are better included in another category.
30. Food waste. Food trimmings, coffee grounds, bones, spoiled or otherwise discarded food.
31. Tires. Whole or partial rubber tires casings, including bicycle tires.
32. Other rubber, including toys, inner tubes, rubber mats, rubber carpet padding
33. Disposable diapers. Disposable diapers, including fecal materials contained within. Cloth diapers are to be sorted under textiles.
34. Carpet and rugs. Includes fiber rug pads but does not include polyurethane foam carpet pad (rigid plastic product) or rubber padding (other rubber).
35. Other textiles. Fabric materials including natural and man-made textile materials such as cottons, wools, silks, woven nylon, rayon, polyesters, and other materials. This category includes clothing, rags, curtains, and other fabric materials.
36. Mixed textiles/materials. Include textiles that have significant amounts of non-textile components, plus shoes, belts, and similar clothing articles that may have insignificant amount of textile material.
37. Asphalt shingles and tar roofing paper.

Note - beginning April 1, 2002, this category is split into two groups:

- Recyclable, including tarpaper, 3-tab roofing, roll roofing, Dutch shingles, and laminated composition shingles.
  - Nonrecyclable, including all other asphalt-containing roofing such as built-up.
38. Furniture and furnishings (mixed materials). This includes reusable and non-reusable household items that are large such as chairs, tables, and mattresses. Excludes furniture made from single materials (all metal, all plastic, all wood)
39. Other organics. Carbon-containing wastes not otherwise categorized, including organic fines and other non-sortable combustibles, sawdust, cigarette butts, hair, wax, linoleum, dryer lint, vacuum bags, charcoal. Amended in 2000 to include “other disposable hygiene products” and “dead animals”

### **GLASS (40-48)**

40. Deposit beverage glass (beer, soft drink, mineral water)

#### **Other Container Glass (41-44)**

41. Clear non-deposit beverage glass. All clear non-deposit beverage glass, including broken glass identified as non-deposit beverage glass. Included are wine bottles, wine cooler bottles, liquor bottles, juice bottles, and other non-deposit glass beverage containers.
42. Colored non-deposit beverage glass. Same as 41, except includes green, brown, and other colored glass.
43. Other clear container glass. Includes clear (unpigmented glass jars, ketchup/mustard bottles, baby food jars, pickle jars and mayonnaise jars, medicine and other non-beverage bottles, and other clear container glass that is not a beverage bottle.
44. Other colored container glass. Same as 43, but for green, brown, and other colored glass.

#### **Window and Nonrecyclable Glass (45-48)**

45. Flat window glass (not including mirrors)
46. Fluorescent light tubes (excluding compact fluorescents)
47. Compact fluorescent lights.
48. Other non-recyclable glass. This category includes products such as nonfluorescent light bulbs, glass plates and cups, auto and cooking ware glass and mirrors. This glass is not accepted by glass beverage container manufacturers for recycling, although some can be recycled into other uses. Excludes ceramics. Fiberglass insulation is a separate category in the “other inorganics” group instead of here in the glass group.

### **METALS (and appliances)**

49. Aluminum beverage cans. Used aluminum beverage cans (separate count of refundable vs no-deposit).
50. Other aluminum containers and foil. Aluminum pet food cans, foil-formed trays/containers, and foil.
51. Other aluminum. All other aluminum materials including furniture, house siding, cookware, and scrap.

#### **Tinned cans (52-53)**

52. Tinned food cans. Predominantly steel cans (some with tin or enamel coatings) used to hold food items. Includes soup cans, vegetable cans, food tins etc.
53. Other "tinned" cans. Same as above, except originally made to hold non-food items such as paint thinner. Aerosol cans are listed separately below.

#### **Other metal (54-61)**

54. Other non-ferrous metals. Metals that are not materials derived from iron, including copper, brass, bronze, lead, pewter, zinc, "stainless steel", and other metals to which a magnet will not adhere. Metals that are significantly contaminated are not included.
55. Other ferrous metals. Ferrous and alloyed ferrous scrap materials derived from iron, including household, industrial and commercial products not containing significant contaminants. This category includes scrap iron and steel to which a magnet adheres.

Includes all-steel furniture such as bed frames. Does not include appliances, food cans, or other ferrous metal items listed elsewhere.

56. White goods. This category is composed of discarded stoves, washer, dryers, refrigerators and other large household appliances.

### **Computers, Brown Goods, Other Small Appliances (57-61)**

57. Computers, printers, and their component parts, excluding cathode ray tube (CRT) monitors. Non-CRT monitors go here too.
58. Computer monitors - Cathode ray tube type only. Flat screen monitors, liquid crystal, laptops, etc. go under Computers.
59. Televisions (CRT-type) and other cathode ray tube electronic equipment. Excludes projection TVs or other types of TVs that do not have cathode ray tubes, which are included in the following category instead.
60. Other "brown goods" (or "Other electronics"). Small appliances with significant electronic components, such as radios, microwaves, and stereos. TVs and other CRT-containing electronics go in the previous category.
61. Non-electronic small appliances, including fans, hair blowers, can openers, kitchen blenders. Note - these may contain small electronic components such as digital readouts and controls, and often will have electric motors, but do not have significant amounts of circuit-board electronics.
62. Empty or non-hazardous aerosol cans. Note - aerosol cans still containing hazardous materials such as paint are included in the "hazardous materials" categories.
63. Mixed metals/materials. Other composite metal products and metals combined with other materials, such as small gas engines, electrical motors, umbrellas, insulated wires.

### **OTHER INORGANICS**

64. Rocks/concrete/bricks. Generally particle sizes of 1 cm and greater.
65. Soil, dirt, sod.
66. Pet litter, animal feces.
67. New gypsum wallboard. Unpainted scrap and excess gypsum wallboard from new construction or remodeling.
68. Old gypsum wallboard. Old painted or other demolition gypsum wallboard.
69. Fiberglass insulation.
70. Other inorganics, including plaster, ash, ceramics, china, and porcelain.

### **MEDICAL**

71. "MEDICAL WASTE". Includes syringes, tubing, gauze, blood-containing, and similar materials. Bags and containers with medical waste are not sorted further. Thus, other non-medical waste is weighed as medical waste if it is in a bag or container with other apparent medical waste.

### **HAZARDOUS MATERIALS**

72. Latex paint.
73. Oil-based paints and oil thinner.
74. Pesticides/herbicides.
75. Used oil filters.
76. Motor oil
77. Fuels (diesel, gasoline, kerosene).
78. Adhesives/sealants.
79. Caustic cleaners.
80. Lead-acid batteries.
81. Dry-cell batteries.
82. Asbestos.
83. Other hazardous chemicals.

#### **Changes in Material Categories From The 2000 Study**

The 2000 and 2002 Oregon waste composition studies used the same categories for sorting wastes at disposal sites, with the following exceptions:

- 1) In 2002, computer monitors with cathode ray tubes are separated from other computer equipment.
- 2) In 2002, TVs with cathode ray tubes and other CRT-containing electronic equipment are separated from the other non-computer electronics.
- 3) In 2002, fluorescent light tubes are separated from the other nonrecyclable glass, and counted too.
- 4) In 2002, compact fluorescents are separated out and counted too.

#### **Changes in Material Categories From The 1998 Study**

The 1998 and 2000 Oregon waste composition studies used the same categories for sorting wastes at disposal sites, with the following exceptions:

- 1) The "small plastic containers" category used in the 1998 study was combined into #15 above - "other rigid plastic packaging"
- 2) The 1998 study had categories called "other disposable hygiene products" (mainly tampons) and "dead animals" as well as "other organics". These were all combined into #39 "Other organics" above.
- 3) "Treated lumber" from the 1998 study was split into two categories (but see the note under untreated lumber below):
  - #24 Painted lumber
  - #25 Chemically treated lumber.
- 4) Untreated lumber from the 1998 study was split into two categories:
  - #22 Untreated lumber (excluding the below), and
  - #23 Clean "hogged fuel" wood.

Note - a few of the coated/laminated products that are included in #23 Clean "hogged fuel" wood were categorized in the "treated lumber" category in 1998.

- 5) The two "film plastic" categories were completely different in 1998 and 2000. In 1998, the two categories were "film plastic packaging" and "film plastic products". In 2000 and continuing into 2002, the two categories were "Recyclable polyethylene plastic" and "Other film plastic".

All changes in categories between 1998 and 2000 were continued in the 2002 study.