



ENVIRONMENTAL MANAGEMENT DIVISION

MEMORANDUM

TO: Bruce Walden, Chief Administrative Officer
FROM: Bill Gray, Public Works Director
Rod Fletcher, Environmental Manager
DATE: November 7, 2001
RE: Commercial Recycling, Report #2

Action Requested

No action is requested.

Discussion

Staff presented a report to the Committee of the Whole meeting on October 8 concerning the extent of current commercial recycling activities. Committee members wished to continue discussion and requested additional information. Below is a list of requested information and status of the requests.

<u>Item</u>	<u>Status</u>
1. Waste characteristics of residential and commercial waste sector	Attached
2. Commercial waste characterization detail (chart and spreadsheet)	Attached
3. Summary of other commercial recycling programs	Attached
4. Listing of commodities for potential collection	Attached
5. Review of city purchasing of recycled content products	Developing
6. Commercial recycling questionnaire	Developing
7. Commercial business listing	Developing

Staff will be available to discuss the attached information noted above and the meeting.

City of Urbana
2001 Waste Generation/Characterization
Residential and Commercial Sectors

July 2001

Waste components	% of total	TOTAL TONS	Residential percent	Residential Total Tons	Res 1-6plex Tons	Res 7+units Tons	Res U of I Tons	Commercial Percent	Commercial Total Tons
Durable Goods									
major appliances	1.60%	421	10%	42	21	12	9	90%	379
small appliances	0.40%	105	95%	100	50	28	22	5%	5
furniture	3.70%	973	80%	778	389	218	171	20%	195
carpet	1.20%	315	80%	252	126	71	56	20%	63
tires	1.90%	499	5%	25	12	7	5	95%	475
batteries, lead acid	0.80%	210	5%	11	5	3	2	95%	200
misc. durables	6.20%	1630	80%	1304	652	365	287	20%	326
subtotal		4154		2512	1256	703	553		1642
Containers, packaging									
Glass									
beer, soft drink bottles	2.10%	552	80%	442	221	124	97	20%	110
wine, liquor bottles	0.70%	184	80%	147	74	41	32	20%	37
food, other bottles and jars	1.80%	473	85%	402	201	113	88	15%	71
subtotal		1209		991	496	278	218		218
Steel (tin)									
beer, soft drink cans	0.00%	0	80%	0	0	0	0	20%	0
food, other cans	1.30%	342	85%	290	145	81	64	15%	51
other packaging	0.10%	26	5%	1	1	0	0	95%	25
subtotal		368		292	146	82	64		76
Aluminum									
beer, soft drink cans	0.80%	210	80%	168	84	47	37	20%	42
other cans	0.00%	0	50%	0	0	0	0	50%	0
foil, closures	0.20%	53	90%	47	24	13	10	10%	5
subtotal		263		216	108	60	47		47
Paper, paperboard pack.									
corrugated boxes	14.40%	3786	10%	379	189	106	83	90%	3407
newspaper	6.10%	1604	85%	1363	682	382	300	15%	241
books	0.50%	131	80%	105	53	29	23	20%	26
magazines	1.10%	289	65%	188	94	53	41	35%	101
office papers	3.30%	868	25%	217	108	61	48	75%	651
directories	0.20%	53	60%	32	16	9	7	40%	21
3rd class mail	2.30%	605	65%	393	197	110	86	35%	212
other commercial printing	3.20%	841	65%	547	273	153	120	35%	294
tissue paper, towels	1.50%	394	60%	237	118	66	52	40%	158
paper plates, cups	0.40%	105	20%	21	11	6	5	80%	84
milk cartons	0.20%	53	50%	26	13	7	6	50%	26
folding cartons	2.50%	657	60%	394	197	110	87	40%	263
other paperboard packaging	0.10%	26	50%	13	7	4	3	50%	13
bags, sacks	0.80%	210	90%	189	95	53	42	10%	21
other paper packaging	0.60%	158	70%	110	55	31	24	30%	47
subtotal		9780		4214	2107	1180	927		5565
Plastics									
soft drink	0.30%	79	80%	63	32	18	14	20%	16
milk bottles	0.30%	79	95%	75	37	21	16	5%	4
plastic plates cups	0.50%	131	20%	26	13	7	6	80%	105
trash bags	0.40%	105	95%	100	50	28	22	5%	5
other containers	0.70%	184	80%	147	74	41	32	20%	37
bags, sacks	0.70%	184	90%	166	83	46	36	10%	18
wraps	1.00%	263	80%	210	105	59	46	20%	53
other packaging	1.30%	342	80%	273	137	77	60	20%	68
subtotal		1367		1061	530	297	233		306
Other wastes									
diapers, disposable	1.50%	394	90%	355	177	99	78	10%	39
other nonpackaging paper	1.90%	499	50%	250	125	70	55	50%	250
clothing, footwear	2.80%	736	60%	442	221	124	97	40%	294
towels, sheets, etc.	0.40%	105	90%	95	47	26	21	10%	11
misc. nondurables	1.80%	473	50%	237	118	66	52	50%	237
foodwaste	10.10%	2655	50%	1328	664	372	292	50%	1328
yard trimmings	10.30%	2708	90%	2437	1218	682	536	10%	271
misc. inorganic wastes	1.90%	499	50%	250	125	70	55	50%	250
wood	4.00%	1052	0%	0	0	0	0	100%	1052
other misc. packaging	0.10%	26	70%	18	9	5	4	30%	8
subtotal		9149		5410	2705	1515	1190		3738
TOTAL	100.00%	26289	56%	14696	7348	4115	3233	44%	11593

Data based on population of 39,574 (city est. 2000 census). Pounds per capita per day (PCD) = 3.64.

Waste percentage allocations derived from USEPA 1998 data. Residential sector allocated by pop. 1-6plex = 50%, 7 or more = 28%, U of I = 22%.

Commercial Waste Sector
 Listing of Specific Commodities for Potential Collection

November 2001

Specific commodity	Tons per year
corrugated boxes	3407
office papers	651
other commercial printing	294
paper folding cartons	263
other nonpackaging paper	250
newspaper	241
3rd class mail	212
tissue paper, towels	158
beer, soft drink bottles	110
plastic plates cups	105
magazines	101
paper plates, cups	84
food, other bottles and jars	71
other steel packaging	68
plastic wraps	53
food, other cans (alum)	51
other paper packaging	47
beer, soft drink cans (alum)	42
wine, liquor bottles	37
other plastic containers	37
paper milk cartons	26
books	26
other plastic packaging	25
directories	21
paper bags, sacks	21
plastic bags, sacks	18
plastic soft drink bottles	16
other paperboard packaging	13
other misc. packaging	8
foil, closures	5
plastic milk bottles	4

This listing reflects typical commodities collected in traditional recycling programs. It does not include materials such as: appliances, wood or food wastes, etc. However, due to the variability of wastes generated by different business, other materials could be considered.



ENVIRONMENTAL MANAGEMENT DIVISION

MEMORANDUM

TO: Rod Fletcher, Environmental Manager
FROM: Tom Vlahovich, Environmental Aide
DATE: November 9, 2001
RE: Commercial Recycling in Other Communities

As requested, I have researched commercial/business recycling activities of five communities/counties in Illinois. Also I have included information of programs in Florida, Massachusetts, and Texas. Information has been taken from public websites, phone conversations, and the Illinois Recycling Association. These communities are: City of Chicago, Kane County, Peoria County, Village of Hoffman Estates, Village of Schaumburg, Miami-Dade County Florida, Cambridge Massachusetts, and The City of Austin Texas. Overall observations are presented first, followed by a brief summary of each community/county. Attached are copies of information and ordinances.

Observations

- All are mandatory programs, with collection made under individual private contracts (with minor options).
- All but one requires some form of reporting to municipality (annual/quarterly).
- Two ordinances require licensed haulers offer recycling services to all customers.
- Three allow for self-hauling, but also require reports of amounts collected.
- Inspections typically can be made to ensure compliance.
- Half the programs require a minimum of 2 of the largest recyclable materials found in the waste stream to be collected.
- One program requires all recyclable materials, for which markets exist, to be collected.
- One program requires all recyclable materials that represent 5% or more of waste stream to be collected.

City of Chicago

Program Type: mandatory

Service Provider: via individual private sector contracts

The City of Chicago adopted the *Workplace and Residential Recycling Ordinance* in 1994. ***This ordinance requires building owners and property managers to implement an effective recycling program.*** The Department of Environment regularly inspects properties for compliance. The ordinance consists of three elements: Source Separation/Source Reduction, Education Program, and a Written Recycling Plan.

Three recyclable materials must be source-separated or, source-separate two recyclable materials and use two source reduction techniques. The Written Recycling Plan must be kept on site and made available to City staff. The plan must contain at a minimum five elements: description of materials and measures in place; identification of collection methods; summary of education program; semi-annual hauler quality reports with any notices of contamination problems; and contract or bill from hauler.

Kane County

Program Type: mandatory

Service Provider: via individual private sector contracts, municipal provided contractor, self-haul

Mandatory Recycling for Businesses and Apartments was adopted in June of 1995, but did not take effect until January of 1997. ***The ordinance requires all commercial establishments in Kane County to recycle the two largest recyclable materials in their garbage.*** Haulers may not collect waste from any business that is not recycling. Establishments that violate any provision of the ordinance are subject to a fine of \$25 to \$100 per day of violation.

Peoria County

Program Type: mandatory

Service Provider: via individual private sector contracts

Peoria County designed the *Commercial Recycling Ordinance (CRO)* in 1993, ***which states businesses recycle two of their most quantified recyclables from their waste stream.*** Peoria County defines businesses and commercial establishments as: “Any building or any part of a building wherein commerce or business is conducted, both profit and non-profit, including but not limited to stores, markets, offices, restaurants, shopping centers, theaters, schools, churches, government offices, and manufacturing facilities”.

Reporting is required as part of the CRO. Two types of exemptions were written into the CRO, full exemption and one item exemption. Businesses must meet several criteria for exemption status.

Village of Hoffman Estates

Program Type: mandatory (businesses/licensed haulers)

Service Provider: via individual private sector contracts

Hoffman Estates has a two-pronged approach to recycling in the commercial sector. *The first phase is the requirement of licensed refuse haulers to offer recycling services to all their commercial customers. The second phase is the requirement for commercial businesses, which dispose of two cubic yards or more a week, to establish and institute a recycling program. The program must separate from the general refuse, at least the two largest recyclable materials. Reporting is required on the part of the licensed hauler and individual commercial establishments.* The ordinance allows for exemption from the two materials requirement. All businesses with licenses for vending machines of aluminum container products that are consumed on the premises must include aluminum cans as a recyclable material in the program.

Village of Schaumburg

Program Type: mandatory (businesses/licensed haulers)

Service Provider: via individual private sector contracts

The village requires, by ordinance all holders of a business license for commercial and industrial establishments to institute a program to collect required commercial recyclable materials. The definition of commercial recyclable materials is located in the attachment. Upon renewal of the business license, a form outlining collection methods must be completed. *All village licensed refuse haulers must offer recycling services to multifamily, commercial, and industrial customers.* All refuse haulers are *required to submit an annual report* to the village, multifamily, commercial and industrial customers containing data about total weight or volume of both refuse and recyclables (broken down by recyclable material type) collected at individual sites.

Miami-Dade County, Florida

Program Type: mandatory

Service Provider: via individual private sector contracts

As of July 1992, the county requires by ordinance, property owners to provide a recycling program for its employees/tenants, using the services of a licensed waste/recycling hauler. The program must recycle three materials of ten designated by the Solid Waste Management Department. The ordinance allows for modifications of the program, but must be reviewed and approved by the SWMD. The department has the ability to inspect commercial establishments for compliance. Those that do not comply may be subject to fines ranging from \$300 to \$950, depending on the size (square feet) of the commercial establishment.

City of Cambridge, Massachusetts

Program Type: mandatory

Service Provider: via individual private sector contracts, city provided contractor, self-haul

The city requires all businesses, including nonprofit establishments to recycle materials designated that represent 5% or more by weight of their total waste stream. A waste audit must be performed in order to determine those items that must be separated from their refuse. A recycling plan must then be developed and filed with the city. Penalties may be levied for non-compliance.

City of Austin, Texas

Program Type: mandatory

Service Provider: via individual private sector contracts, self-haul

The city requires all businesses with 100 or more employees to establish and maintain an on-site recycling program with collection of a minimum of two materials designated by the city. The business may enter into a service agreement with a service provider, with a minimum of twice a month collection. As of April 1999, all business owners affected by the ordinance must file a Recycling Plan with the city. The business is also required to continually educate its employees on recycling related issues. ***The ordinance requires reporting on the part of the business or the service provider on the behalf of the business.*** Service providers are required to file quarterly reports of volumes of materials collected. Data must include scale tickets, receipts, or invoices showing amount and type of each recyclable material. As an option, businesses may self-haul recyclable materials to processors, and are required to report those items in the same method. The city has written compliance and enforcement standards into the ordinance.

Links to “Commercial Sector Recycling”

1. City of Chicago, Illinois:
www.cityofchicago.org/Environment/SolidWaste/PrivateSector.html
2. Kane County, Illinois: www.co.kane.il.us/Environment/recycle1.htm#mandatory
3. Peoria County, Illinois: www.co.peoria.il.us/recycling/CRObrochure.htm
4. Village of Hoffman Estates, Illinois: www.hoffmanestates.com use the municipal codes link: http://fws.municode.com/CGI-BIN/om_isapi.dll?infobase=13575.nfo&softpage=newtestMainFrame2
5. Village of Schaumburg, Illinois: www.ordlink.com/codes/schaumbu/
6. Miami-Dade County, Florida: www.metro-dade.com/dswm/business.htm
7. City of Cambridge, Massachusetts:
http://bpc.iserver.net/codes/cbridge/ DATA/Title_8/24/070.html
And: www.ci.cambridge.ma.us/~TheWorks/recycle.html
8. City of Austin, Texas: www.ci.austin.tx.us/sws/cmfr_rules.htm