STATE OF CALIFORNIA CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD

Base Year Modification Request Certification

Part 2: Generation Study - Includes Extrapolation of Residential or Non-Residential Diversion Data

To request a substitution for a previously approved base year used in calculating the diversion rate for your jurisdiction, please complete and sign this form and return it to your Office of Local Assistance (OLA) representative at the address below, along with any additional information requested by OLA staff. When all documentation has been received, your OLA representative will work with you to prepare for your appearance before the Board. If you have any questions about this process, please call (916) 341-6199 to reach your OLA representative.

Mail completed documents to:

California Integrated Waste Management Board
Office of Local Assistance (MS - 25)
1001 I Street
PO Box 4025 (mailing address)
Sacramento, CA 95812-4025

General Instructions:

Please select the **ONE** choice below that best explains your request to the Board.

1. Use a recent generation-based study to calculate our current reporting year generation amount, but not officially change our existing Board-approved base year.
2. Use a recent generation-based study to officially change our existing Board-approved base year to a new base year.

The shaded cells on these sheets are protected . If you have problems using these sheets, please contact your Office of Local Assistance representative by calling (916) 341-6199

Section I: Jurisdiction Information and Certification

All respondents must complete this section.

I certify under penalty of perjury that the information in this document is true and correct to the best of my knowledge, and that I am authorized to make this certification on behalf of:

Jurisdiction Name	County	
City of South Pasadena	**Los Angeles County**	
Authorized Signature	Title	
Type/Print Name of Person Signing	Date	Phone ( ) Include Area Code
Person Completing This Sheet (please print or type)	Title	
Affiliation:		
Mailing Address	City	State	ZIP Code
E-Mail Address			

Section II: Information for New Generation-Based Study

Attach additional sheets if necessary—reference each response to the appropriate cell number (e.g.,

Note: New base years must be representative of a jurisdiction's disposal and diversion.

1. Current Board-approved existing base year:	2. Proposed new generation-based study year:
1990	**2000**

3. Explain how the proposed generation study year is representative of average annual jurisdiction disposal and diversion:

During the new base year, 2000, no unusal disposal or diversion activities occurred in the City.

4. Enter diversion rate information below.

Diversion rate calculated using existing base year	**a. 31 %**	**Diversion rate calculated using new generation-based study**	**b. 33 %**
For existing base year pounds/person/day based on generation	**8**	**For new generation based study pounds/person/day based on generation**	**9**
Residential generation 78 % Non-Residential generation 22 %		**Residential generation 30 % Non-Residential generation 70 %**	
Population existing generation-based study	**23936**	**Population new generation-based study**	**26000**

5. If there is an increase from 4a to 4b, please explain how the new diversion rate is consistent with your current diversion implementation efforts. If the proposed new generation tonnage results in an increase in your pounds/person/day, please explain how this is consistent with your current diversion implementation efforts and provide examples (e.g., change in jurisdiction's demographics).

The original base year waste generation study (1990) omitted significant tonnages associated with both disposal and diversion activities. With the new base year waste generation study prepared for 2000, the City has attempted to correct the omissions from the original study. Since the original base year, the City, its franchised waste hauler, residents and businesses have implemented a curbside green waste program; implemented a commercial waste MRFing program; grasscycling, backyard and on-site composting/mulching programs; City tree contractor diversion programs; commercial on-site green and wood waste diversion programs; new commercial source reduction and recycling activities; white good collection (dumpster day); and, public education/outreach programs. Additionally, landfill salvage and alternative daily cover activities also divert waste

6. If the difference between the proposed diversion rates in 4a and 4b is greater than 5 percentage points, please explain the specific reasons for the difference. (For example: new/improved curbside diversion programs.)

In addition to the explanation provided in item #5 above, since the original base year, the City, its franchised waste hauler, residents and businesses have implemented a curbside green waste program; implemented a commercial waste MRFing program; grasscycling, backyard and on-site composting/mulching programs; City tree contractor diversion programs; commercial on-site green and wood waste diversion programs; new commercial source reduction and recycling activities; white good collection (dumpster day); and, public education/outreach programs. Additionally, landfill salvage and alternative daily cover activities also divert waste from disposal. These programs are in addition to programs that existed prior to 1990 such as the residential curbside recycling program.

7. Disposal Tonnage (enter values):	8252	19180	27432
	Residential	Non-Residential	Total

Please select the **ONE** choice below that best explains your **disposal** data and complete the required tables.

☑ a. All tons claimed are from the Board's Disposal Reporting System (No explanation required. Go to Section 8.)

☐ b. All tons claimed are from a 100 percent audit of hauler and self-haul tonnage. (Please complete Reporting Year Tonnage Modification Request and Certification sheet found at www.ciwmb.ca.gov/LGCentral/Forms/rytnmdrq.doc)

☐ c. Some Disposal Reporting System data were corrected. (Please complete Reporting Year Tonnage Modification Request and Certification sheet found at www.ciwmb.ca.gov/LG Central/Forms/rytnmdrq.doc)

8. In the table below, list the summarized diversion activities and diversion data records that support your claim and are available for Board audit. (**Note**: *the Board expects the jurisdictions to be able to provide all backup documentation, if requested.*) Include type of record and location—for example, weight tickets from transfer stations. This section should capture all diversion tonnage (sheet will perform all addition calculations). If any diversion is from restricted wastes (i.e., agricultural wastes, inert solids [e.g. concrete, asphalt, dirt, etc.], white goods, and scrap metal), please identify those programs/waste types and fill out section 11. **Note**: *Restricted waste material should not be extrapolated in non-residential waste audits*. Please mark as attachment 8 all copies of survey sheets.

* Please provide detailed non-residential waste audit information in Section 9.

Note: The Board has indicated that it will be scrutinizing total source reduction amounts greater than 5% of total generation. Please be prepared to provide additional details subsantiating your claim.

Diversion Activity Please use the Board's program types. The program type glossary is online at: www.ciwmb.ca.gov/LGCentral/PARIS/Codes/Reduce.htm	Actual Tons (A)	Estimated or Extrapolated Tons (B)	Total Tons (A+B)	Relative Percent to Total Generation (A+B)/Total Generation	Specific Material Type(s) (List programs with multiple materials together)	Specific Conversion Factor Used (if any) and Source	Type of Record and Location of Record
Residential Source Reduction Activities							
Backyard Composting							
Grasscycling							
Other Residential Source Reduction (list each program separately)							
Enter program name							
Enter program name							
Enter program name							
Enter program name							
Enter program name							
Subtotal, Res. Source Reduction	0	0	0				
Residential Recycling Activities							
Curbside Recycling	727	N/A	727.29	1.8%	Aluminum cans, tins cans, glass containers, plastic containers (#1 & #2), and newspapers	Actual tons	Athens Services' annual summary prepared for the City for 2000, City/Consultant's files
Buyback Centers	298	N/A	298.28	0.7%	Aluminum cans, glass bottles, and plastic containers	Actual tons	California Department of Conservation Database, California Department of Conservation, Sacramento, California
Drop-off Centers	0	N/A					
Other Residential Recycling (list each program separately)							
Enter program name		N/A					
Enter program name		N/A					
Enter program name		N/A					
Enter program name		N/A					
Enter program name		N/A					

Subtotal, Residential Recycling	**1026**		**1025.57**	**2.5%**			
Residential Composting Activities							
Green Waste Drop-off		N/A					
Curbside Green Waste	2693	N/A	2693.09	6.6%	Yard Waste	Actual tons	Athens Services' annual summary prepared for the City for 2000, City/Consultant's files
Christmas Tree Program	74	N/A	74	0.2%	Yard Waste	100 lbs./tree	2000-2001 Christmas Tree Recycling Program summary letter dated February 28, 2001, County Sanitation Districts of Los Angeles, City/Consultant's files
Other Residential Composting (list each program separately)							
Enter program name		N/A					
Enter program name		N/A					
Enter program name		N/A					
Enter program name		N/A					
Enter program name		N/A					
Subtotal, Residential Composting	**2767**		**2767.09**	**6.8%**			
Subtotal, Residential Diversion	**3793**	**0**	**3792.66**	**9.3%**			
Non-Residential Source Reduction Activities							
Non-Residential Waste Audits*	213	0	213	0.5%	**See Section 9**	**See Section 9**	**See Section 9**
Other Non-Residential Source Reduction (list each program separately)							
Grasscycling	64	N/A	64	0.2%	Yard Waste	8 tons/acre/year	Parks Department estimate of 8 acres of athletic fields and other grass areas that are grasscycled.
Enter program name		N/A					
Enter program name		N/A					
Enter program name		N/A					
Enter program name		N/A					
Subtotal, Non-Residential Source Reduction	**277**	**0**	**277**	**0.7%**			
Non-Residential Recycling Activities							
Non-Residential Waste Audits*	1935	0	1934.98	4.7%	**See Section 9**	**See Section 9**	**See Section 9**
Other Non-Residential Recycling (list each program separately)							
MRF	2754	N/A	2753.69	6.7%	Office Paper, Mixed Paper, Newspaper, Corrugated Cardboard, Glass Containers, Ferrous Metals, Aluminum Cans, Plastics, Yard Waste and Concrete	Actual tons	Athens Services' annual summary prepared for the City for 2000, City/Consultant's files
		N/A					
Enter program name		N/A					
Enter program name		N/A					
Enter program name		N/A					
Subtotal Non-Residential Recycling	**4689**	**0**	**4688.67**	**11.5%**			
Non-Residential Composting Activities							
Non-Residential Waste Audits*	1589	0	1589.2	3.9%	**See Section 9**	**See Section 9**	**See Section 9**

Other Non-Residential Composting (list each program separately)							
City tree trimming	378	N/A	378	0.9%	Yard Waste	Actual tons	City tree maintenance contractor, West Coast Arborists reports to the City, City/Consultant's files
Backyard & On-Site Composting/Mulching	120	N/A	120	0.3%	Yard Waste	Wood Chips, Shredded - 500 lbs./cu.yd. , Conducting a Diversion Study--A Guide for California Jurisdictions, April 2001, Appendix J Conversion Factor Sources	Parks Department estimate of number of cu.yds. Of material that is mulched and used on City trails.
Exempt Green Material	94	N/A	94	0.2%	Processed green waste	Actual tons	Orange County Quarterly Landfill report, City Hall
Enter program name		N/A					
Enter program name		N/A					
Subtotal Non-Residential Composting	**2181**	**0**	**2181.2**	**5.3%**			
Subtotal, Non-Residential Diversion	**7147**	**0**	**7146.87**	**17.5%**			
Residential/Non-Residential Diversion Activities							
ADC	923	N/A	922.82	2.3%	Yard Waste	Actual tons	Los Angeles County Quarterly Disposal Reports (less Residential Curbside Yard Waste and Christmas Tree program amounts) and Orange County Quarterly Green Waste Exempt reports, City/Consultant's records
Sludge		N/A					
Scrap Metal		N/A					
Construction and Demolition		N/A					
Landfill salvage	1518	N/A	1517.78	3.7%	Inert Materials	Actual tons	Los Angeles County Quarterly Disposal Reports, City/Consultant's records
Subtotal Residential/Non-Residential Diversion	**2441**		**3032.6**	**7.4%**			
Total Res/Non-Res Source Reduction Tons	**277**	**0**	**277**	**0.7%**			
Total Diversion Tons	**13380**	**0**	**13380.13**	**33%**			
Total Disposal Tons from Sec.7	**27432**		**27432.32**	**67.2%**			
Total Generation (Div+Dis)	**40812**	**0**	**40812.45**				

Diversion Rate	**33%**

9. Specific Non-Residential Sector Waste Audits--Top 10 Non-Residential Generators

Please complete this table for the top 10 non-residential generators that were surveyed. List each non-residential generator separately from the largest to smallest, based on total diversion tons. The audit reference number should correspond to the number given your survey sheet.
(Table will perform all calculations).

Include an attachment, marked "Attachment 9", which includes a summary of all the generators surveyed and all extrapolation calculations used to estimate the diversion rate:

- Include copies of survey sheet(s) used.
- Include for each generator (use type of generator in lieu of specific generator name e.g., grocery store) each specific diversion activity and material type (e.g. cardboard recycling) and the associated tonnage for each diversion activity/material type, and applicable conversion factors/source.
- If using the number of employees for your extrapolation method, include this information for each generator surveyed.
- Please order the non-residential generators, largest to smallest, based on total diversion tons.

generators.

being used for the extrapolation calculation. For each non-residential generator, the disposal must be broken out by cubic yard, and roll-off or compactor weights. If disposal was estimated for either disposal-based or employment-based extrapolation methods, please include conversion factor(s) for disposal and the source for conversion factor(s). Please provide an explanation as to how the conversion factor(s) is (are) appropriate for your jurisdiction e.g., "Study was conducted to determine average weights using hauler weight tickets."

Type of Non-Residential Generator	Audit Reference Number	Specific Diversion Activities Including Material Type (e.g. paper recycling, grasscycling). (List activities on one line)	Number of Employees	Source Reduction Tons	Recycling Tons	Composting Tons	Total Diversion Tons	Percent of Total Generation (Total Diversion Tons/Total Generation in Section 8)	Survey Method Phone (P) Mail (M) On-site (O) Other ___
Stables	1	Composts horse manure and wood shavings	unknown	0	0	1140	1140		O
Grocery Store	13	Recycles OCC, plastic, toner cartridges, grease and fat scraps, wood, paper, and metal; food (donation); and, composts produce	unknown	14	416	216	645.98		O
Grocery Store	14	Recycles OCC, plastic, toner cartridges, grease and fat scraps, wood, metal and paper; food (donation); and, composts produce	unknown	11	293	152	456.42		O
Grocery Store	96	Recycles OCC, paper and toner cartridges and reuses OCC	50	1	360		360.58		O
Grocery Store	108	Recycles OCC, toner cartridges and grease and scraps, and food (donation)	150	7	304	0	311		O
Grocery Store	15	Recycles OCC, plastic, toner cartridges, grease and fat scraps; food (donation); and, composts produce	unknown	10	123	77	209.44		O
Retail Store	3	Recycles OCC	unknown		117		117		O
Retail Store/Distribution	109	Reuses food (donation)	15	65			65		O
Retail Store	71	Recycles cardboard, paper, and metal	45	47			47.23		O
Fast Food Restaurant	60	Recycles cardboard, grease	unknown		34		34.05		O

10. On a separate sheet of paper, "marked Attachment 10," provide the following information for each diversion program listed in Section 8 that was extrapolated from representative sampling.
Note: *Do not include non-respondents in extrapolation because there is no data from the non-respondents. Extrapolate from survey respondents.*

A. Describe sampling method, including:

- Type of sampling method (for either stratified or cluster sampling, provide detailed information on how strata and clusters were collected)
- Total number of samples included in the survey
- Number of non-respondents and respondents
- Total population
- Source for identifying population (e.g., city business licenses, commercial database, resident's addresses, etc)
- Relation of sample size to total population
- Survey data collection tool(s) and approaches
- Confidence level and margin of error for the sampled population
- Unusual outliers and exceptional anomalies describe in detail.

Note: *Outliers (specific generators which fall significantly above or below others) should be removed from base amount prior to extrapolation)*

B. Describe the methods used to prevent double-counting between the surveys and the reported tonnages from haulers, recyclers, materials recycling facilities and composters.

C. Describe extrapolation method, including:

- Basis of extrapolation
- Why this extrapolation method is appropriate
- Sources of information used for extrapolation, such as disposal or employment
- Include all calculations

11. For each restricted waste type (i.e., agricultural waste, inert solids [e.g., concrete, asphalt, dirt etc.] scrap metals, and white goods [PRC section 41781.2]) and associated program, please provide the following information:

a. If the diversion program started on or after January 1, 1990, complete the following table.
Note: *program name refers to one specific diversion program for that waste type (e.g., "diversion conducted by city public waste department.)*

Restricted Waste Type	Specific Program Name	Year Started	Tonnage
Scrap Metal	Franchsied Waste Hauler - MRF	1997	405
Inert Solids	Franchsied Waste Hauler - MRF	1997	83
Inert Solids	Recycled at Permitted Landfills	<1995	1518
Scrap Metal	Recycled by permitted haulers		136
Pull Down for Waste Types			
Pull Down for Waste Types			

b. If the diversion program started before January 1, 1990 - and if documentation on the program and waste type has not been approved by the Board - on a separate sheet marked "Attachment 11b,"give the program and waste type, and provide documentation that indicates:

- How the diversion was the result of a local action taken by the jurisdiction, which specifically resulted in the diversion (PRC sec. 41781.2 [c] [1]).

- That the amount of that waste type diverted from the jurisdiction in 1990 was less than or equal to the amount of that waste type disposed at a permitted disposal facility by the jurisdiction in any year before 1990. **Note**: *this criterion is applicable to the entire jurisdiction, not to individual programs (PRC sec. 41781.2 [c] [2]). Please include documentation.*
- The jurisdiction is implementing, and will continue to implement, the diversion programs in its Source Reduction and Recycling Element.

Note: *If documentation for a waste type and program has already been approved by the Board, you do not have to provide an attachment 11b for that waste type and program.*
Instead, please provide date of Board approval of previous submitted information.) _____ (Date)
If documentation is not available, go to 11d.

c. If the diversion program started before January 1, 1990, and the documentation requested in 11b is available (but not yet approved by the Board), complete the table below for each program claimed:

Restricted Waste Type	Specific Program Name	New Base Year or Reporting Year Diversion Tonnage
Pull Down for Waste Types		
Pull Down for Waste Types		
Pull Down for Waste Types		
Pull Down for Waste Types		
Pull Down for Waste Types		
Pull Down for Waste Types		

d. If the diversion program started before January 1, 1990, and the documentation requested in 11b is not available, please complete the table below for each program claimed. ***Note***: *Only the difference between the new base year/reporting year and 1990 can be counted in the diversion rate calculation.*

Restricted Waste Type	Specific Program Name	New Base Year or Reporting Year Tonnage	1990 Diversion Tonnage	Difference
Pull Down for Waste Types				
Pull Down for Waste Types				
Pull Down for Waste Types				
Pull Down for Waste Types				
Pull Down for Waste Types				
Pull Down for Waste Types				

S.#		Refuse Disposal (weekly)				OCC Recycling	OCC Reuse	Pallet (A; Reuse	Pallet (A; Recycl.	ONP/Mags. Recycling	Office Paper Recycling	Office/Packing Paper Reuse	Paper Use Reduction	Toner (K Cart. Rec	Hanger Reuse(D	Plastic(LL Reduction	Plastic Reuse	Plastic Recycling	Beverage Container Rec.	Food Reuse	Grease/Fat Recycling	Grass-cycling(B	Composting	Wood/Sawdust Recycling	Scrap Metal Recycling	Inerts Reuse	Office Equip. Reuse	Fabric(JJ) Reuse
		# Bins	Bin Size (cu.yds.	Freqcy. (x/week'	Total (cu.yds.	(TPY)	(TPY)	(TPY)	(TPY)	(TPY)	(TPY)	(TPY)	(TPY)	(TPY)	(TPY)	(TPY)	(TPY)	(TPY)	(TPY)	(TPY)	(TPY)	(TPY)	(TPY)	(TPY)	(TPY)	(TPY)	(TPY)	(TPY)
2	Plant Nursery/Retail	1	3	2	6		2.56 ,F																			9.24 0.00 ,NN			
82	Bank	1	0.08	1	0.08						2.49 ,M	0.03 ,N		0.00															
97	Office Building	1	3	2	6		3.55 ,F,G						0.31 ,N	0.37													0.084 0.0(,GG,HH		
26	Gas Station	1	3	2	6																								
94	Sports Field	1	3	1	3																								
73	Office Building	1	3	2	6		0.05 ,F					0.25 ,N		0.03															
47	Plumber/Office	1	3	2	6														0.06 0.00 ,C						128.13 ,U				
62	Print Shop	1	3	3	9		1.26 ,G	1.92			10.51 ,M		9.00 ,N																
113	Coffee Shop	1	3	3	9								0.03 ,S							0.96 ,R									
109	Retail Store/Distribution	1	3	2	6															209.43 85.0 ,R									
66	Bank	1	0.16	1	0.16						0.33 ,N																		
64	Retail Store	1	0.16	1	0.16	2.86 ,G	0.23 ,F					0.01 ,N																	
65	Bank	1	0.16	1	0.16	0.29 ,G					1.10 ,M																		
107	Bank	1	0.3	1	0.3								0.07 ,N																
12	Retail Store	1	4.5	1	4.5							0.00 ,F							0.12 0.00 ,C										
11	Cleaners	1	1.5	1	1.5										0.63														
10	Retail Store	1	1.5	1	1.5			2.08											0.02 0.00 ,C										
110	Theater	1	7.5	1	7.5	0.48 ,G,H	0.03 ,G																						
29	Church/School	1	3	2	6								0.01 ,N	0.01					0.12 0.00 ,C										
20	Office Building	1	1.5	1	1.5							0.01 ,N																	
101	Restaurant	1	3	6	18	3.65 ,H													17.55 0.00 ,MM		16.04 ,O								
61	Fast Food	1	1.8	1	1.8																								
92	Service	1	1.5	1	1.5																								
80	Studio/Shop	1	0.375	1	0.375		0.17 ,F					0.03 ,N	0.03 ,N				1.93 ,V,E		0.5007 0.00 ,C										0.08
93	Service	1	1.5	1	1.5																								
96	Grocery Store	1	1.5	3	4.5	833.00-360.00 ,I	0.57 ,G				3.42 0.00 ,N			0.01															
55	Gas Station	1	3	2	6																								
43	Restaurant	1	4.8	1	4.8	0.64 ,G,H															0.77 ,O								
42	Coffee Shop	1	0.6	1	0.6		0.57 ,G												.2677 0.00 ,C				1.29 ,Q						
45	Restaurant	1	3	2	6														.277 0.00 ,C										
114	Retail Store	1	0.5	1	0.5	1.72 ,G	0.16 ,G,H										0.04 ,E												
115	Retail Store	1	0.7	1	0.7																								
117	Service	1	0.7	1	0.7																								
116	Retail Store	1	0.4	1	0.4		0.05 ,H	0.48																					
16	Shopping Center	1	3	2	6										0.63														
90	Doctor's Offices	1	0.16	1	0.16						0.18 ,N		0.02 ,N	0.00															
98	Retail Lot	1	3	1	3															0.05 ,EW		0.46							
89	Doctor's Offices	1	3	1	3																								
74	Bank	1	3	2	6	1.09 ,G,H					16.23 ,EE,FF	1.80 ,N	0.41 ,N														1.13 0.5(,GG,HH		
84	Office Building	1	3	1	3						0.56 ,M	0.01 ,N		0.03															
25	Doctors' Offices	1	3	1	3							0.01 ,N		0.00															
24	Shopping Center	1	3	1	3												0.01 ,T		0.06 0.00 ,C										
46	Photography Studio	1	3	1	3		0.13 ,F										0.01 ,E		0.06 0.00 ,C										
50	Cabinet Builders	1	1.5	1	1.5																			30.41 ,X,Y					
111	Office	1	3	1	3						1.56 ,N			0.01															
18	Office Building	1	3	1	3		0.06 ,F					0.55 ,N																	
78	Office/Shop	1	3	1	3		0.40 ,G			0.91 ,L							0.42 ,E	0.04 ,C							2.72 ,U				
30	Office	1	3	1	3								0.01 ,N	0.01															
4	Plant Nursery/Retail	1	3	1	3		0.86 ,F										0.39 ,J		0.06 0.00 ,C							9.24 0.00 ,NN			
53	Gas Station	1	3	1	3																								
31	Office	1	3	1	3						0.15 ,N		0.03 ,N																
59	Auto Shop	1	3	1	3																				0.09 ,U				
52	Office	1	3	1	3	0.02 ,G					0.60 ,N																		
7	Retail/Wholesale/Distribut	1	1.5	1	1.5		0.72 ,F		12.00								0.36 ,E												
87	Restaurant/Caterer	1	1.5	1	1.5																								
75	Office	1	1.5	1	1.5	0.29 ,G						0.30 ,N		0.15					0.009 0.00 ,II								0.02 0.0(,GG,HH		
28	Vetinary Hospital	1	1.5	1	1.5																								
88	Retail Store	1	1.5	1	1.5																								
48	Office	1	0.16	1	0.16																								
39	Upholstry Shop	1	1.5	1	1.5																								
19	Print Shop	1	1.5	1	1.5		0.29 ,G						0.45 ,N																
95	Office	1	1.5	1	1.5	0.08 ,G	0.04 ,G							0.01			0.00 ,E												
57	Cleaners	1	1.5	1	1.5										0.63		0.00 ,T												
58	Office Building	1	1.5	1	1.5					0.46 ,L	0.18 ,N	0.02 ,N																	
76	Doctor's Offices	1	0.16	1	0.16								0.00 ,N	0.00															
85	Cleaners	1	0.16	1	0.16										0.16														
86	Retail Store	1	0.16	1	0.16																								
83	Office	2	0.16	1	0.32		0.07 ,G					0.03 ,N																	
67	Doctor's Offices	6	0.16	1	0.96							0.01 ,88																	
36	Doctor's Offices	1	0.16	1	0.16																								
34	Towing Company	1	0.47	1	0.47																								
32	Auto Shop	1	0.16	1	0.16																								
44	Office	1	0.16	1	0.16							0.09 ,N							0.06 0.00 ,C										
40	Auto Service	1	0.63	1	0.63	0.57 ,G													0.06 0.00 ,C										
79	Retail Store	1	0.06	1	0.06					0.48 ,L																			
81	Retail Store	1	0.16	1	0.16																								
77	Office	2	0.16	1	0.32									0.05					0.0388 0.00 ,C										
38	Office	1	0.16	1	0.16									0.02			0.01 ,E,V												
37	Office	1	0.16	1	0.16									0.02			0.03 ,E,V												
56	Office	1	0.16	1	0.16																								
41	Office	1	0.32	1	0.32																								
35	Doctor's Offices	1	0.16	1	0.16									0.00															
3	Retail Store	2	3	5	30	124.8-117.0 ,I																							
51	Restaurant	2	3	4	24	28.80 ,G																							

60	Fast Food Restaurant	2	3	4	24	23.40 ,Z																10.65								
14	Grocery Store	2	3	4	24	~~389.30~~ 235.1 ,I		~~172.8~~ 0.00			~~0.036~~ 0.06				0.04				~~4.16~~ 8.7 ,EW		10.95 ,EW	~~16.23~~ 29.57 ,O,P		~~29.2~~ 152.2 ,EW	0.00 18.1	~~0.00~~ 1.7					
72	School	2	3	3	18								0.36 ,N	0.00					~~0.08~~ 0.0(,C												
116	Retail Store	1	0.7	1	0.7	1.72 ,G																								
27	Fast Food Restaurant	1	3	6	18	2.00 ,G																5.33								
9	Fast Food Restaurant	1	3	1	3																									
5	Office Building	1	3	2	6						5.21 ,AW				0.03					~~0.05~~ 0.0(,C										
17	Church/School	1	3	5	15															~~0.05~~ 0.0(,C										
15	Grocery Store	1	3	5	15	~~215.89~~ 105.8 ,I		~~161.2~~ 0.00							0.03				~~3.84~~ 3.1(,EW		9.58 ,EW	~~14.30~~ 14.22 ,O,P		~~25.55~~ 78.7 ,EW							
33	Auto Shop	1	3	5	15	12.09 ,G,H														~~.105~~ 0.0(,C								0.37 ,U		
23	Coffee Shop	1	3	1	3								0.10 ,S								13.86 ,R									
21	Office	2	3	2	12															~~.06~~ 0.00 ,C										
1	Church	2	3	2	12															~~.0635~~ 0.(,C										
105	Restaurant	1	3	2	6	5.94 ,G																7.75 ,O								
99	School	5	3	5	75		0.86 ,G						8.50 ,N	0.54																
6	Office Building	1	3	3	9		0.02 ,F			0.46 ,L		0.06 ,N	0.03 ,N							~~.024~~ 0.0(,C										
22	Shops/Offices	1	3	3	9																0.94 ,R			1.28 ,Q						
8	Offices/Labs	4	3	5	60	1.40 ,G,H					0.65 ,M				0.11					~~.06~~ 0.00 ,C										
13	Grocery Store	3	3	5	45	~~185.7~~ 333.9 ,I		~~216.0~~ 0.00			~~0.00~~ 0.09				0.05				~~6.2~~ 12.4 ,EW		13.69 ,EW	~~20.28~~ 41.88 ,O,P		~~36.5~~ 216.1 ,EW	~~0.00~~ 25.7	~~0.00~~ 2.4					
53	Shopping Center	2	3	6	36	16.10 ,G								0.44					0.29 ,AA											
54	Cleaners	1	1.5	1	1.5									0.63																
100	Restaurant	2	3	3	18																									
104	Retail Store	2	3	6	36	9.90 ,G									0.02															
112	Shopping Center	4	3	6	72	8.19 ,G,H	0.69 ,G					0.10 ,N	0.06 ,N	0.06	0.18		0.16 ,E			~~1.69~~ 0.0(,C,MM	5.42 ,R	0.88 ,O							0.10 ,EW	
103	Cleaners	1	1.5	1	1.5														0.01 ,AA											
69	Office	4	0.16	1	0.64		0.02 ,G				0.30 ,N				0.02															
106	Service	1	0.16	1	0.16															~~.06~~ 0.00 ,C										
81	Retail Store	1	0.16	1	0.16		0.03 ,G										0.04 ,V													
102	Fast Food Restaurant	1	3	4	12	7.92 ,G																1.94 ,O								
68	Office Building/Shop	1	1.5	1	1.5						1.56 ,N	0.15 ,N		0.06																
49	Office	1	3	2	6		0.07 ,G						0.03 ,N	0.02			0.07 ,E													
119	Office	1	3	2	6								0.30 ,N	0.30																
120	Restaurant	1	1.5	2	3	1.14 ,G														~~1.85~~ 0.0(,MM										
121	Retail Store	1	1.5	1	1.5	0.33 ,G	0.33 ,G							0.00			0.14 ,E													
122	Office	1	1.5	1	1.5								0.32 ,N	0.04															.071 0.0(,GG,HH	
123	Restaurant	1	3	1	3																									
124	Church	1	3	1	3	0.03 ,F	0.08 ,F					0.06 ,N	0.01 ,N	0.01																
125	School	1	3	1	3								0.29 ,N	0.01															2.00 ,EW	
126	Retail Store	1	1.5	1	1.5	0.52 ,H		1.20						0.01																
127	Bank	1	1.5	2	3	0.07 ,F					1.50 ,M		0.05 ,N							~~.072~~ 0.0(,C										
128	Retail Store	1	1.5	1	1.5	0.72 ,G	0.50 ,F						0.06 ,N	0.25			0.01 ,E			~~.1795~~ 0.(,C									0.45 0.0(,HH	
129	Office	1	3	1	3		0.72 ,G				1.00 ,EW		6.60 ,N	0.08			0.01 ,E												.14 .07 ,GG,HH	
130	Storage Facility	2	3	3	18																									
131	Restaurant	1	3	2	6	0.40 ,G																3.87 ,O								
132	Retail Store	1	3	3	9		4.03 ,G,H																							
133	Office	1	3	1	3								0.04 ,N	0.01						~~.0112~~ 0.(,C									.13 .09 ,GG,HH	
134	Retail Store	1	2	1	2	2.57 ,G											0.15 ,E													~~.035~~ 0.0(,HH	
135	Retail Store	1	1	1	1		0.10 ,G						0.00 ,N																	
136	Church	1	1	2	2								0.03 ,N																	
71	Retail Store			51.70 TPY		~~91.1~~ 46.8 ,I		~~15.6~~ 0.00			~~0.00~~ 0.31																	~~0.00~~ 0.11		
70	Golf Course			50.87 TPY																~~.06~~ 0.00 ,C				1.63 ,W						
108	Grocery Store			879.86 TPY		~~82.4~~ 252.0 ,EW		~~156.0~~ 0.00							0.05						~~947.7~~ 7.02 ,R	~~9.883~~ 52.30 ,O,P								
02	Church	12.00	1.00	1.00	12.00		~~5.58~~ 1.85 ,F			2.22 ,KK			3.38 ,N	0.13		~~4.11~~ 0.22	0.06 ,T			~~947.7~~ 0.00 ,R		2.36								
01	Stables	0	0	0	0																			~~4095.26~~ 1140.00 ,CC,DD						
						1,588.34	21.32	5.68	12.00	4.50	45.40	3.82	30.73	2.51	3.32	0.22	3.86	24.55	0.48	130.47	185.00	10.82	1,589.20	74.21	135.52	2.89	0.00	0.08

Total Recycling 1,934.95
Total Source Reduction 213.00
Total Composting 1,589.20

Conversion Factors and Sources

	Item	Conversion Factor	Source
A	Pallets	40 lbs./pallet	CIWMB, *Conducting a Diversion Study – A . . Guide for California Jurisdictions*, April 2001.
B	Grasscycling	8T/acre/year	Hartin, Janet, and J. Michael Henry, *Reusing Turfgrass Clippings to Improve Turfgrass Health and Performance*, University of California Cooperative Extension, ND.
C	Aluminum cans, uncrushed	65 lbs./cu.yd. 5.61 lbs./33 gals.	CIWMB, *Conducting a Diversion Study – A Guide for California Jurisdictions*, April 2001.
D	Hanger, adult	0.14 lbs. each	CIWMB, *Conducting a Diversion Study – A Guide for California Jurisdictions*, April 2001.
E	Styrofoam Kernels	6.27 lbs./cu.yd.	CIWMB, *Conducting a Diversion Study – A Guide for California Jurisdictions*, April 2001.
F	Old Corrugated Cardboard (OCC) Small-Sized Boxes	1.1 lbs./box	CIWMB, *Conducting a Diversion Study – A Guide for California Jurisdictions*, April 2001.
G	Old Corrugated Cardboard (OCC) Medium-Sized Boxes	2.2 lbs./box	CIWMB, *Conducting a Diversion Study – A Guide for California Jurisdictions*, April 2001.
H	Old Corrugated Cardboard (OCC) Large-Sized Boxes	4.0 lbs./box	CIWMB, *Conducting a Diversion Study – A Guide for California Jurisdictions*, April 2001.
I	Baled OCC	900 lbs./cu.yd.	Measuring Recycling, A Guide for State and Local Governments, U.S. EPA, September 1997.
J	Plastic Trays	0.3 lbs. each	Estimated weight
K	Toner Cartridges	2.5 lbs./cartridge	CIWMB, *Conducting a Diversion Study – A Guide for California Jurisdictions*, April 2001.
L	Newspaper	35 lbs./12" stack	CIWMB, *Conducting a Diversion Study – A Guide for California Jurisdictions*, April 2001.
M	Office Paper (white, color, CPO, junk mail)	0.77 lbs./gallon	CIWMB, *Conducting a Diversion Study – A Guide for California Jurisdictions*, April 2001.
N	White Ledger #20 Paper	1 ream=5.0 lbs.	CIWMB, *Conducting a Diversion Study – A Guide for California Jurisdictions*, April 2001.
O	Fats, Solid/Liquid (cooking oil)	7.45 lbs./gallon	CIWMB, *Conducting a Diversion Study – A Guide for California Jurisdictions*, April 2001.
P	Fat	57 lbs./cu.ft.	CIWMB, *Conducting a Diversion Study – A Guide for California Jurisdictions*, April 2001.
Q	Produce Waste, mixed loose	1,443 lbs./cu.yd.	CIWMB, *Conducting a Diversion Study – A Guide for California Jurisdictions*, April 2001.
R	Bread, bulk	18 lbs./cu.ft.	CIWMB, *Conducting a Diversion Study – A Guide for California Jurisdictions*, April 2001.
S	Paper Cup	0.014 lbs. each	CIWMB, *Conversion Factors*, March 1999.
T	Plastic, Grocery Bag	0.77 lbs./100 bags	CIWMB, *Conducting a Diversion Study – A Guide for California Jurisdictions*, April 2001.
U	Metal Scrap	226.5 lbs./55 gals.	CIWMB, *Conducting a Diversion Study – A Guide for California Jurisdictions*, April 2001.
V	Plastic, Bubble wrap	3 lbs./33 gals.	CIWMB, *Conducting a Diversion Study – A Guide for California Jurisdictions*, April 2001.

W	Grass and Leaves	325 lbs./3 cu.yds.	CIWMB, *Conducting a Diversion Study – A Guide for California Jurisdictions*, April 2001.
X	Wood Scrap, loose	329.5 lbs./cu.yd.	CIWMB, *Conducting a Diversion Study – A Guide for California Jurisdictions*, April 2001.
Y	Sawdust, loose	375 lbs./cu.yd.	CIWMB, *Conducting a Diversion Study – A Guide for California Jurisdictions*, April 2001.
Z	OCC, uncompacted	100 lbs./cu.yd.	CIWMB, *Conducting a Diversion Study – A Guide for California Jurisdictions*, April 2001.
AA	Film Plastic/Mixed, loose	22.55 lbs./cu.yd.	CIWMB, *Conducting a Diversion Study – A Guide for California Jurisdictions*, April 2001.
BB	Magazines, 8.5" x 11"	3 lbs./10 units	CIWMB, *Conducting a Diversion Study – A Guide for California Jurisdictions*, April 2001.
CC	Manure, Horse	1,252 lbs./cu.yd.	CIWMB, *Conducting a Diversion Study – A Guide for California Jurisdictions*, April 2001.
DD	Wood, Shavings	405 lbs./cu.yd.	CIWMB, *Conducting a Diversion Study – A Guide for California Jurisdictions*, April 2001.
EE	White Ledger w/o CPO, loose	363.51 lbs./cu.yd.	CIWMB, *Conducting a Diversion Study – A Guide for California Jurisdictions*, April 2001.
FF	Shredded Paper	8 lbs./33 gals.	CIWMB, *Conducting a Diversion Study – A Guide for California Jurisdictions*, April 2001.
GG	Personal Computer	26 lbs. each	CIWMB, *Conducting a Diversion Study – A Guide for California Jurisdictions*, April 2001.
HH	Computer Monitor	30 lbs. each	CIWMB, *Conducting a Diversion Study – A Guide for California Jurisdictions*, April 2001.
II	Aluminum Cans, uncrushed	1.5 lbs./full grocery bag	CIWMB, *Conducting a Diversion Study – A Guide for California Jurisdictions*, April 2001.
JJ	Used Clothing, mixed, loose	225 lbs./cu.yd.	CIWMB, *Conducting a Diversion Study – A Guide for California Jurisdictions*, April 2001.
KK	Newspapers, loose	400 lbs./cu.yd.	CIWMB, *Conducting a Diversion Study – A Guide for California Jurisdictions*, April 2001.
LL	Single-use Food Service	0.0372 lbs. each	*Business Users' Guide for Measuring Source Reduction*, November 1996.
MM	Glass Containers	~450 lbs./cu.yd.	CalRecovery, Inc., *Conversion Factors for Individual Material Types*, December 1991.
NN	Soil/sandy loam, loose	2,392 lbs./cu.yd.	CIWMB, *Conducting a Diversion Study – A Guide for California Jurisdictions*, April 2001.
AW	Actual Weight	N/A	Provided by business.
EW	Estimated Weight	N/A	Provided by business.

Attachment 9b -- Top 10 Diverter Calculation Detail

1 – Stables

Horse manure and wood shavings, Composting 1,252 lbs/cy Horse manure; 405 lbs/cy Wood shavings. Staff calculation using average weight per cubic yard received by another manure processor = 500 pounds/cubic yard: 80 cy/week * 52 weeks/year * 500 lb/cy * 1 ton/2000 lb = 1,040 tons + 40 cy * 10 times/yr * 500 lb/cy * 1 ton/2000 lb = 100 tons for a total of 1,140 tons

13 - Grocery Store

OCC, Recycling: Diversion information obtained through corporate office.
Toner cartridge, Recycling 3 cartridges/mo. = 3 x 12 x 2.5 lbs./2000 lbs. = 0.045 TPY
Plastic, Recycling: Diversion information obtained through corporate office.
Food, Reuse: 75 lbs./day = 75 x 365 days / 2000 lbs. = 13.69 TPY
Grease/Fat, Recycling: Diversion information obtained through corporate office.
Wood Recycling: Diversion information obtained through corporate office.
Metal Recycling (after 1990): Diversion information obtained through corporate office.
Paper Recycling: Diversion information obtained through corporate office.
Produce waste Composting: information obtained through corporate office.

14 - Grocery Store

OCC, Recycling: Diversion information obtained through corporate office.
Toner cartridge, Recycling 3 cartridges/mo. = 2 x 12 x 2.5 lbs./2000 lbs. = 0.045 TPY x 80% = 0.036 TPY
Plastic, Recycling: Diversion information obtained through corporate office.
Food, Reuse: 75 lbs./day = 75 x 365 days / 2000 lbs. = 13.69 TPY x 80% = 10.952 TPY
Wood Recycling: Diversion information obtained through corporate office.
Metal Recycling (after 1990): Diversion information obtained through corporate office.
Paper Recycling: Diversion information obtained through corporate office.
Grease/Fat, Recycling: Diversion information obtained through corporate office.
Produce waste, Composting: Diversion information obtained through corporate office.

96 - Grocery Store

OCC Recycling: 4 bales/day * 360 days/year * 500 pounds/bale = 720,000 lbs; 360 tons
OCC Reuse: 10 med. boxes/week = 10 x 52 wks. x 2.2 lbs./2000 lbs. = 0.572 TPY
Toner cartridge, Recycling 1 cartridge/2 mos. = 1 x 6 x 2.5 lbs./2000 lbs. = 0.0075 TPY

108- Grocery Store

OCC, Recycling: 2 bales/day * 360 bales/year * 700 pounds/bale = 252 TPY
Toner cartridge, Recycling 3 cartridges/mo. = 2 x 12 x 2.5 lbs./2000 lbs. = 0.045 TPY
Food, Reuse: 1 shopping cart/week = 1 x 52 weeks x 15 cu.ft. x 18 lbs./cu.ft. / 2000 lbs. = 7.02 TPY
Meat Scrap Recycling: Four 55-gallon drums serviced once week; [4 containers * 55 gallons * 52 weeks/year * 7.45 pounds/gallon]/2000 = 42.61 TPY
Grease/Fat, Recycling: 100 gal./2 wks. = 100 x 104 x 7.45 lbs. / 2000 lbs. = 38.74 TPY

15 - Grocery Store
OCC, Recycling: Diversion information obtained through corporate office.
Toner cartridge, Recycling 3 cartridges/mo. = 2 x 12 x 2.5 lbs./2000 lbs. = 0.045 TPY x 70% = 0.0315 TPY
Plastic, Recycling: Diversion information obtained through corporate office.
Food, Reuse: 18 lbs/ cf Bread, bulk. Food donation for consumption. 80 percent of estimate for #13
Grease/Fat, Recycling Grease: 55 gal./mo. = 55 x 12 x 7.45 lbs. / 2000 lbs. = 2.46 TPY x 70% = 1.722 TPY; Meat scrap diversion information obtained through corporate office. Added to grease recycling reported.
Produce waste, Composting: Diversion information obtained through corporate office.

3 - Retail Stores
OCC, Recycling: Confirmed bale weight through average weight for bale with these dimensions (unable to find manufacturer specifications). [5 bales/week * 52 weeks/year * 900 pounds/bale]/2000 = 117 TPY

109 - Retail Store/ Distribution
Food, Reuse: Contact did not indicate that bread was bagged. Individual unit weighs ~ 1 pound. [2,500 units(average)/week * 52 weeks]/2000 = 65 TPY

71 - Retail Store
OCC, Recycling: Bale weight confirmed through manufacturer specifications; 2 bales/week * 52 weeks/year * 900 pounds/bale = 46.8 TPY
Paper Recycling [12 pounds/stack * 52 weeks/year]/2000 = 0.312
Metal Recycling: [1 55-gallon container * 226.5 pounds/container (USEPA)]/2000 = 0.113

60 – Fast Food Restaurant
OCC Recycling: 100 lbs/cy (USEPA)
Grease Recycling: 7.45 lbs/gallon (USEPA)